

ANEXO G - Tabela S3 – Medidas estatísticas extraídas dos artigos avaliados e equivalente r de Pearson.

Fonte	Efeito	AUC	D	F	R²	T	χ²	N	p	r de Pearson
Ackley et al., 2015	negative	0.84	-	-	-	-	-	-	-	0.575
Ackley et al., 2015	negative	0.928	-	-	-	-	-	-	-	0.719
Ackley et al., 2015	positive	0.995	-	-	-	-	-	-	-	0.877
Ackley et al., 2015	negative	-	-	-	-	-	-	-	<0.01	0.910
Aguado & Braña, 2014	negative	-	1.4244	-	0.216	-	-	-	-	0.465
Alvarez et al., 2017	neutral	-	-	-	0.065	-	-	-	0.812	0.255
Alvarez et al., 2017	neutral	-	-	-	0.079	-	-	-	0.133	0.281
Alvarez et al., 2017	negative	-	-	-	0.114	-	-	-	0.033	0.338
Alvarez et al., 2017	negative	0.81	-	-	-	-	-	-	-	0.527
Alvarez et al., 2017	negative	0.922	-	-	-	-	-	-	-	0.708
Alvarez et al., 2017	negative	0.922	-	-	-	-	-	-	-	0.708
Amiel and Shine, 2012	positive	0.758	-	-	-	-	-	-	-	0.443
Amiel et al., 2016	positive	0.983	3.1042	-	-	-	-	-	-	0.832
Andrango et al., 2016	negative	-	-	-	-	-	19.93	50	<0.01	0.631
Andrews and Schwarkopf, 2012	neutral	0.997	-	-	-	-	-	-	-	0.889
Aragón et al., 2010	negative	0.818	1.5981	-	-	-	-	-	-	0.540
Aragón et al., 2010	positive	0.943	2.3994	-	-	-	-	-	-	0.745
Artacho et al., 2017	negative	-	0.6837	-	-	-2.43	-	17	0.045	-0.532
Artacho et al., 2017	positive	-	0.7242	-	-	-	-	-	0.006	-0.675
Aubret & Shine, 2010	neutral	0.731	1.3207	-	-	-	-	-	-	0.399
Barrows and fisher, 2014	neutral	-	0	-	-	-4.93	-	145	<0.001	-0.381
Barrows and fisher, 2014	neutral	-	-	6.2	-	-	-	146	0.022	0.202
Barrows, 2011	neutral	-	-	-	-	-	-	-	-	0.394
Basson et al., 2016	positive	-	1.8928	-	-	-	-	-	-	0.570
Basson et al., 2016	negative	-	2.0128	-	0.34	-	-	-	-	0.583
Belasen et al., 2016	negative	-	0.301	14.14	-	-	-	93	0.003	0.363
Belasen et al., 2016	negative	-	0.3146	16.38	-	-	-	93	0.002	0.387
Bell et al., 2010	negative	0.994	0.0471	-	-	-	-	-	-	0.871
Bell et al., 2013	neutral	-	0.083	3.98	-	-	-	20	0.008	0.407
Bell et al., 2013	negative	-	0.1149	4.537	-	-	-	50	0.014	0.288
Bell et al., 2013	negative	-	-	5.76	-	-	-	50	0.02	0.321

Besson and Cree, 2010	neutral	-	1.1983	-	0.094	-	-	-	0.019	0.306
Bestion et al., 2015	negative	-	-	-	-	2.36	-	18	<0.05	0.508
Bestion et al., 2015	negative	-	-	50.59	-	-	-	21	<0.01	0.841
Bestion et al., 2015	neutral	-	-	-	-	-1.81	-	184	0.11	-0.133
Bestion et al., 2015	positive	-	-	-	-	-	-	-	<0.001	-0.770
Bestion et al., 2015	neutral	-	-	-	-	-	-	-	0.01	-0.547
Bestion et al., 2015	negative	-	-	-	-	-	-	-	>0.1	0.070
Bestion et al., 2015	negative	-	-	-	-	-	-	-	>0.1	0.290
Bestion et al., 2015	negative	0.79	-	-	-	-	-	-	-	0.495
Bestion et al., 2015	positive	0.978	-	-	-	-	-	-	-	0.818
Bezeng et al., 2017	positive	0.994	-	-	-	-	-	-	-	0.871
Bohm et al., 2016	negative	-	-	-	-	-	-	-	<0.0001	-0.855
Böhm et al., 2016	negative	0.82	-	-	-	-	-	-	-	0.543
Bombi et al., 2011	negative	-	-	-	-	-	-	-	>0.1	0.340
Bombi et al., 2011	negative	-	-	-	0.152	-	-	-	-	0.390
Bonino et al., 2014	positive	0.939	-	-	-	-	-	-	-	0.738
Bonino et al., 2014	negative	0.964	-	-	-	-	-	-	-	0.786
Bonino et al., 2014	negative	0.964	-	-	-	-	-	-	-	0.786
Bonino et al., 2014	negative	0.964	-	-	-	-	-	-	-	0.786
Bonino et al., 2014	negative	0.965	-	-	-	-	-	-	-	0.788
Bonino et al., 2014	positive	0.97	-	-	-	-	-	-	-	0.799
Bonino et al., 2014	negative	0.976	-	-	-	-	-	-	-	0.813
Bonino et al., 2014	negative	-	-	-	-	-	-	-	<0.0001	0.815
Bonino et al., 2014	positive	0.978	-	-	-	-	-	-	-	0.818
Bonino et al., 2014	positive	0.98	-	-	-	-	-	-	-	0.824
Bonino et al., 2014	negative	0.99	-	-	-	-	-	-	-	0.855
Bonino et al., 2014	positive	0.991	-	-	-	-	-	-	-	0.858
Bonino et al., 2014	negative	0.994	-	-	-	-	-	-	-	0.871
Bonino et al., 2014	positive	0.996	-	-	-	-	-	-	-	0.882
Bonino et al., 2015	negative	-	-	6.27	-	-	-	7	<0.05	0.687
Bonino et al., 2015	neutral	-	-	12.62	-	-	-	20	<0.001	0.622
Bonino et al., 2015	positive	-	-	9628	0.59	-	-	23	<0.0001	0.768
Bonino et al., 2015	positive	-	-	72.03	-	-	-	138	<0.001	0.586
Bonino et al., 2015	positive	-	-	213.829	-	-	-	381	<0.001	0.600
Bonino et al., 2015	neutral	-	-	61.364	-	-	-	454	<0.001	0.345

Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	neutral	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	neutral	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	neutral	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	neutral	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	neutral	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	neutral	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cabrelli et al., 2014	negative	0.98	-	-	-	-	-	-	-	0.824
Cadby et al., 2010	negative	-	-	1.25	-	-	-	10	0.3	0.333
Cadby et al., 2010	negative	-	-	-	-	-7.15	-	21	<0.001	-0.854
Cadby et al., 2010	neutral	-	-	0.02	-	-	-	36	0.98	0.024
Cadby et al., 2010	neutral	-	-	0.1	-	-	-	36	0.74	0.053
Cadby et al., 2010	neutral	-	-	-	-	-6.2	-	93	0.0001	-0.545
Cadby et al., 2010	negative	-	-	0.05	-	-	-	100	0.83	0.022
Cadby et al., 2010	negative	-	-	1.38	-	-	-	151	0.253	0.095
Cadby et al., 2010	neutral	-	-	0.37	-	-	-	215	0.7	0.041
Cadby et al., 2010	neutral	-	-	26.18	-	-	-	224	<0.0001	0.323
Cadby et al., 2010	negative	-	-	6.209	-	-	-	251	<0.001	0.155
Cadby et al., 2010	positive	-	-	1.734	-	-	-	528	P<0.1	0.057
Cadby et al., 2010	positive	-	-	930.206	-	-	-	741	<0.001	0.746
Caldwell et al., 2015	negative	-	0.6324	3892.06	-	-	-	154	<0.001	0.981
Caldwell et al., 2015	negative	0.776	1.4694	-	-	-	-	-	-	0.473
Capula et al., 2014	neutral	-	-	0.37	0.16	-	-	16	0.604	0.400

Capula et al., 2014	neutral	-	-	0.41	-	-	-	24	0.53	0.130
Capula et al., 2014	neutral	-	-	-	-	2.23	-	184	0.03	0.163
Capula et al., 2014	negative	-	-	-	0.01	-	-	-	0.51	0.100
Capula et al., 2014	negative	0.945	-	-	-	-	-	-	-	0.749
Capula et al., 2015	positive	0.976	-	-	-	-	-	-	-	0.813
Carlo et al , 2017	negative	-	0.5549	-	-	-1.27	-	21	0.22	-0.280
Carlo et al , 2017	negative	-	0.7288	-	-	-1.16	-	35	0.254	-0.198
Carlo et al , 2017	negative	-	0.7799	-	-	-0.62	-	35	0	-0.107
Carlo et al , 2017	negative	-	0.8013	-	-	-8.45	-	207	<0.001	-0.508
Carlo et al , 2017	neutral	-	0.8394	125.517	-	-	-	454	<0.001	0.465
Carlo et al , 2017	negative	-	1.0183	-	-	-	10.72	460	0.0001	0.153
Carlo et al , 2017	negative	-	2.1623	-	0.391	-	-	-	<0.001	0.625
Carlo et al , 2017	neutral	0.996	4.3436	-	-	-	-	-	-	0.882
Carlo et al , 2017	negative	-	12.9116	-	0.971	64.099	-	-	<0.001	0.985
Ceia-Hasse et al., 2014	negative	0.79	-	-	-	-	-	-	-	0.495
Ceia-Hasse et al., 2014	negative	0.818	-	-	-	-	-	-	-	0.540
Chamaillé-Jammes et al., 2006	neutral	-	0.0788	4.4	-	-	-	24	0.047	0.394
Chamaillé-Jammes et al., 2006	negative	-	0.0973	6.128	-	-	-	24	0.002	0.451
Chamaillé-Jammes et al., 2006	positive	-	0.1146	4.89	-	-	-	59	0.011	0.277
Chamaillé-Jammes et al., 2006	positive	-	0.1339	6.94	-	-	-	148	0.008	0.212
Chamaillé-Jammes et al., 2006	negative	-	0.1548	6.87	-	-	-	154	0.004	0.207
Chamaillé-Jammes et al., 2006	negative	-	0.1707	7.04	-	-	-	154	0.001	0.209
Chamaillé-Jammes et al., 2006	negative	-	0.1746	5.686	-	-	-	251	<0.004	0.149
Chamaillé-Jammes et al., 2006	positive	-	0.1914	7.81	-	-	-	1608	0.002	0.070
Chamaillé-Jammes et al., 2006	neutral	-	1.3714	-	-	-	-	-	0.04	0.441
Chamaillé-Jammes et al., 2006	negative	0.787	1.4983	-	-	-	-	-	-	0.490
Chamaillé-Jammes et al., 2006	negative	0.831	1.8179	-	-	-	-	-	-	0.561
Chamaillé-Jammes et al., 2006	negative	0.934	2.2408	-	-	-	-	-	-	0.729
Clarke & Zani, 2012	positive	-	0.5758	205.73	-	-	-	249	<0.001	0.673
Cunningham et al., 2017	neutral	-	-	4.8	-	-	-	24	0.04	0.408
Cunningham et al., 2017	neutral	-	-	13	-	-	-	24	<0.001	0.593
Cunningham et al., 2017	negative	-	-	4.084	-	-	-	50	0.028	0.275
Cunningham et al., 2017	negative	-	0.0956	2.18	-	-	-	151	0.071	0.119
Cunningham et al., 2017	negative	-	0.2821	4.343	-	-	-	299	0.038	0.120
Cunningham et al., 2017	neutral	-	0.966	-	0.005	-	-	-	0.316	0.071

Davis et al., 2015	negative	0.994	-	-	-	-	-	-	-	0.871
Dayananda and Webb, 2017	neutral	-	0.0305	3.59	-	-	-	10	0.01	0.514
Dayananda and Webb, 2017	negative	-	0.2402	-	-	-	4.556	52	<0.05	0.296
Dayananda and Webb, 2017	negative	-	0.2659	12.35	-	-	-	93	0.004	0.342
Dayananda and Webb, 2017	negative	-	0.3155	16.45	-	-	-	154	<0.001	0.311
Dayananda and Webb, 2017	neutral	-	0.6779	9.27	-	-	-	274	<0.0001	0.181
Dayananda and Webb, 2017	negative	-	0.8006	-	-	-	-	-	0.032	-0.710
Dayananda and Webb, 2017	negative	-	0.8286	-	-	-	-	-	>0.1	-0.200
Dayananda and Webb, 2017	negative	-	1.1678	-	-	-	-	-	0.287	-0.147
Dayananda and Webb, 2017	negative	0.742	1.3361	-	-	-	-	-	-	0.417
Dayananda et al., 2017	negative	-	-	-	0.213	-	-	-	-	0.462
Dayananda et al., 2017	negative	0.981	-	-	-	-	-	-	-	0.826
DeGregorio et al., 2015	positive	-	0.3309	17.43	-	-	-	12	0.03	0.770
DeGregorio et al., 2015	positive	-	0.3936	26.86	0.51	-	-	148	<0.0001	0.710
Doody et al , 2006	negative	-	-	-	0.269	-	-	-	-	0.519
Doody et al , 2007	positive	-	-	-	-	-	0.002	4266	0.967	0.001
Doody et al , 2008	negative	0.936	-	-	-	-	-	-	-	0.733
Dubey & Shine, 2011	negative	-	0.1054	19.19	-	-	-	43	<0.0001	0.555
Dubey & Shine, 2011	negative	-	0.1054	5.18	-	-	-	154	0.007	0.180
Dubey & Shine, 2011	negative	-	0.3543	5.27	-	-	-	97,494	0.03	0.007
Dubey et al., 2013	positive	0.985	-	-	-	-	-	-	-	0.838
Dubey et al., 2013	negative	0.986	-	-	-	-	-	-	-	0.841
Dubey et al., 2013	positive	0.988	-	-	-	-	-	-	-	0.847
Dubey et al., 2013	negative	-	-	-	0.72	-	-	-	-	0.849
Dubey et al., 2013	neutral	0.989	-	-	-	-	-	-	-	0.851
Dubey et al., 2013	negative	0.989	-	-	-	-	-	-	-	0.851
Dubey et al., 2013	negative	0.989	-	-	-	-	-	-	-	0.851
DuBois et al., 2017	negative	-	0.3098	14.93	-	-	-	93	0.008	0.372
Dupuoé et al., 2017	negative	-	-	-	-	-	0.96	18	0.326	0.231
Dupuoé et al., 2017	negative	-	-	0.007	-	-	-	106	0.827	0.008
Dupuoé et al., 2017	neutral	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	negative	-	-	-	-	1.73	-	14	0.1	0.447
El-Gabbas et al., 2016	positive	-	-	-	-	-	6.74	18	0.009	0.612
El-Gabbas et al., 2016	negative	-	-	-	-	-	8.8	24	0.003	0.606
El-Gabbas et al., 2016	negative	-	-	-	-	-	16.59	36	<0.0001	0.679

El-Gabbas et al., 2016	negative	0.956	-	-	-	-	-	-	-	0.770
El-Gabbas et al., 2016	negative	0.964	-	-	-	-	-	-	-	0.786
El-Gabbas et al., 2016	neutral	0.964	-	-	-	-	-	-	-	0.786
El-Gabbas et al., 2016	negative	0.969	-	-	-	-	-	-	-	0.797
El-Gabbas et al., 2016	negative	0.97	-	-	-	-	-	-	-	0.799
El-Gabbas et al., 2016	negative	0.97	-	-	-	-	-	-	-	0.799
El-Gabbas et al., 2016	negative	0.97	-	-	-	-	-	-	-	0.799
El-Gabbas et al., 2016	negative	0.97	-	-	-	-	-	-	-	0.799
El-Gabbas et al., 2016	positive	0.978	-	-	-	-	-	-	-	0.818
El-Gabbas et al., 2016	neutral	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	neutral	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	neutral	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	neutral	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	negative	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	positive	0.98	-	-	-	-	-	-	-	0.824
El-Gabbas et al., 2016	positive	0.982	-	-	-	-	-	-	-	0.829
El-Gabbas et al., 2016	positive	0.982	-	-	-	-	-	-	-	0.829
El-Gabbas et al., 2016	positive	0.983	-	-	-	-	-	-	-	0.832
El-Gabbas et al., 2016	positive	0.984	-	-	-	-	-	-	-	0.835
El-Gabbas et al., 2016	negative	0.984	-	-	-	-	-	-	-	0.835
El-Gabbas et al., 2016	positive	0.99	-	-	-	-	-	-	-	0.855
El-Gabbas et al., 2016	negative	0.99	-	-	-	-	-	-	-	0.855
Foufopoulos et al., 2011	negative	0.964	-	-	-	-	-	-	-	0.786
Freedman et al., 2009	negative	-	-	-	-	-	1.91	433	<0.01	0.066
Freedman et al., 2009	neutral	0.737	-	-	-	-	-	-	-	0.409
Freedman et al., 2009	neutral	-	-	-	0.193	-	-	-	0.001	0.440
George et al., 2015	negative	-	-	-	-	-2.151	-	64	0.057	-0.264
Gilbert & Lattanzio, 2016	neutral	-	-	1.13	-	-	-	36	0.3	0.174
Gilbert & Lattanzio, 2016	negative	-	-	0.76	-	-	-	43	0.39	0.132
Gilbert&Miles, 2017	negative	-	-	0.007	-	-	-	106	0.936	0.008
Goller et al., 2014	negative	0.942	-	-	-	-	-	-	-	0.743
Guizado-Rodriguez et al., 2012	neutral	0.99	-	-	-	-	-	-	-	0.855
Gunderson & Leal, 2015	negative	-	0.1764	7.09	-	-	-	20	<0.001	0.512
Gunderson & Leal, 2015	negative	-	0.241	9.746	0.239	3.122	-	102	0.004	0.489
Gunderson and Stilmann, 2015	negative	-	-	-	-	-	1.85	18	0.174	0.321
Gunderson and Stilmann, 2015	neutral	-	-	-	-	3.79	-	454	0.0008	0.176

Gunderson and Stilmann, 2015	negative	-	-	-	-	-	-	-	>0.1	0.310
Gunderson and Stilmann, 2015	positive	0.71	-	-	-	-	-	-	-	0.364
Gunderson and Stilmann, 2015	positive	0.748	-	-	-	-	-	-	-	0.427
Gunderson and Stilmann, 2015	positive	0.781	-	-	-	-	-	-	-	0.481
Hagger et al., 2012	negative	-	-	-	0.09	-	-	-	0.01	0.300
Hare & Cree, 2010	positive	-	0.5716	179.15	-	-	-	381	<0.001	0.566
Hare & Cree, 2010	positive	-	0.6025	788.34	-	-	-	3379	<0.0001	0.435
Huang & Pike, 2006	neutral	-	-	-	-	-	10.555	59	0.005	0.423
Huang & Pike, 2006	negative	-	-	13.68	-	-	-	66	<0.001	0.414
Huang & Pike, 2006	negative	-	-	3876	-	-	-	93	<0.001	0.988
Huang & Pike, 2006	negative	-	-	7.918	-	-	-	106	0.008	0.264
Huang & Pike, 2006	negative	-	-	-	-	-	14.22	119	0.07	0.346
Huang & Pike, 2006	negative	-	-	224.9	0.85	-	-	120	<0.0001	0.922
Huang & Pike, 2006	neutral	-	-	8.13	-	-	-	165	<0.01	0.217
Huang & Pike, 2006	neutral	-	-	29.37	-	-	-	224	<0.0001	0.340
Huang & Pike, 2006	negative	-	-	-	-	-	1.73	433	<0.01	0.063
Huang & Pike, 2006	neutral	-	-	61.364	-	-	-	454	0.003.	0.345
Huang & Pike, 2006	positive	-	-	13.19	-	-	-	1608	0.007.	0.090
Huang et al , 2014	negative	-	-	-	-	-0.29	-	35	0.772.	-0.050
Huang et al , 2014	neutral	-	-	-	-	1.95	-	125	0.062	0.173
Kearney et al , 2009	negative	-	-	-	0.915	-	-	-	<0.0001	0.957
Kearney et al , 2009	negative	-	-	-	0.924	-	-	-	<0.0001	0.961
Kearney et al , 2009	negative	-	-	-	0.939	43.273	-	-	<0.001	0.969
Kearney et al , 2009	negative	-	-	-	0.956	91.366	-	-	<0.001	0.978
Kirchhoff et al , 2017	neutral	-	-	2.15	-	-	-	20	0.094	0.312
Kirchhoff et al , 2017	negative	-	-	0.02	-	-	-	50	0.9	0.020
Kirchhoff et al , 2017	positive	-	-	1.072	-	-	-	453	p>0.1	0.049
Kirchhoff et al , 2017	positive	0.994	-	-	-	-	-	-	-	0.871
Kubisch et al., 2012	positive	-	-	-	-	-	12.00	12	<0.001	1.000
Kubisch et al., 2012	negative	-	-	0.01	-	-	-	43	0.91	0.015
Kubisch et al., 2012	negative	-	-	-	0.314	-	-	-	-	0.560
Kubisch et al., 2012	positive	0.833	-	-	-	-	-	-	-	0.564
Kubisch et al., 2012	positive	0.943	-	-	-	-	-	-	-	0.745
Kubisch et al., 2012	negative	0.964	-	-	-	-	-	-	-	0.786
Kubisch et al., 2015	negative	-	-	1.8	-	-	-	5	0.184	0.514

Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	negative	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	negative	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	negative	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	negative	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	negative	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2013	positive	0.994	-	-	-	-	-	-	-	0.871
Li et al., 2017	negative	-	-	-	-	-1.39	-	35	0.185	-0.235
Li et al., 2017	neutral	-	-	-	-	-4.85	-	184	0.002	-0.338
Li et al., 2017	neutral	-	-	-	-	3.20591	-	302	0.0015	0.182
Li et al., 2017	negative	-	-	-	-	2.7	-	2,332	0.011	0.056
Li et al., 2017	positive	-	-	-	-	-	6.392	4266	0.011	0.039
Li et al., 2017	negative	-	-	-	0.111	-	-	-	0.0003	0.333
Li et al., 2017	negative	0.704	-	-	-	-	-	-	-	0.354
Ljungstrom et al., 2015	negative	-	-	25.69	-	-	-	20	<0.001	0.750
Llwelyn et al., 2016	negative	-	-	0.62	-	-	-	43	0.44	0.119
Llwelyn et al., 2016	negative	-	-	-	0.18	-	-	-	<0.0001	0.424
Llwelyn et al., 2017	neutral	-	-	3.14	-	-	-	41	0.04	0.267
Llwelyn et al., 2017	negative	-	-	1.07	-	-	-	43	0.31	0.156
Llwelyn et al., 2017	negative	-	-	4.94	-	-	-	43	0.03	0.321
Llwelyn et al., 2017	neutral	-	-	2.41	-	-	-	186	0.122	0.113
Llwelyn et al., 2017	positive	-	-	1.491	-	-	-	249	p>0.1	0.077
Llwelyn et al., 2017	positive	-	-	17.39	-	-	-	7605	<0.0001	0.048
Logan et al., 2013	negative	-	0.2201	-	-	-1.79	-	14	0.09	-0.459
Logan et al., 2013	negative	-	0.2948	-	-	-3.723	-	64	0.001	-0.427
Logan et al., 2013	neutral	-	-	-	-	-	5.11	165	0.02	0.176
Logan et al., 2013	negative	-	-	20.74	-	-	-	207	<0.001	0.302
Logan et al., 2013	negative	-	-	-	-	-	-	-	0.065	-0.382
Logan et al., 2014	positive	-	-	21.01	-	-	-	12	0.008	0.798
Logan et al., 2014	neutral	-	0.4439	21.29	-	-	-	20	<0.001	0.718
Logan et al., 2014	neutral	-	-	25.1	-	-	-	41	<0.0001	0.616

Logan et al., 2014	neutral	-	0.7353	39.77	-	-	-	186	<0.0001	0.420
Logan et al., 2014	negative	-	0.7353	43.3	-	-	-	5280	<0.0001	0.075
Logan et al., 2015	neutral	-	0.7353	14	-	-	-	24	0.001	0.607
Logan et al., 2015	negative	-	1.0516	8.5	-	-	-	5280	0.0037	0.033
Lourdais et al., 2004	positive	-	0.4331	37.77	-	-	-	138	<0.01	0.464
Lourdais et al., 2004	negative	0.846	-	-	-	-	-	-	-	0.585
Lu et al., 2013	negative	-	0.5081	-	-	0.21	-	35	0.837	0.037
Lu et al., 2013	positive	-	0.9105	67.22	-	-	-	3379	<0.0001	0.140
Lu et al., 2013	positive	-	5.4442	-	0.8	-	-	-	-	0.894
Luz-Marques et al., 2011	neutral	-	-	45	-	-	-	24	<0.001	0.808
Luz-Marques et al., 2011	negative	-	-	-	-	-0.018	-	35	0.985	-0.003
Luz-Marques et al., 2011	negative	-	-	-	-	-	1.51	54	0.22	0.167
Luz-Marques et al., 2011	negative	-	-	-	-	-	0.1	519	0.757	0.014
Marquis et al., 2008	negative	-	-	-	-	-	31.65	50	<0.01	0.796
Martin & Lopez, 2013	negative	-	-	-	-	2.64	-	17	0.022	0.563
Massot et al., 2008	negative	-	-	-	-	-	516.07	519	<0.0001	0.997
Massot et al., 2008	negative	-	-	3.456	-	-	-	1147	0.037	0.055
Massot et al., 2008	positive	-	0.6928	-	-	-	-	-	0.008	-0.660
Massot et al., 2017	negative	-	1.2	-	-	-	11.89	14	0.003	0.922
Massot et al., 2017	negative	-	2.9933	-	-	-4.87	-	35	<0.001	-0.647
Massot et al., 2017	negative	-	6.1644	-	-	-	143.4	1500	<0.001	0.309
Massot et al., 2017	negative	0.98	-	-	-	-	-	-	-	0.824
Medina et al., 2012	negative	-	-	0.51	-	-	-	10	0.5	0.220
Medina et al., 2016	neutral	-	-	59.725	-	-	-	48	<0.001	0.745
Medina et al., 2016	neutral	0.854	2.05	-	-	-	-	-	-	0.598
Meiri et al., 2013	negative	-	-	18.75	-	-	-	43	<0.0001	0.551
Meiri et al., 2013	neutral	-	-	4.796	-	-	-	396	0.034	0.109
Minoli and Javier-Avila, 2017	negative	-	-	-	-	4.55	-	43	<0.001	0.579
Minoli and Javier-Avila, 2017	positive	0.845	-	-	-	-	-	-	-	0.583
Minoli and Javier-Avila, 2017	positive	0.98	-	-	-	-	-	-	-	0.824
Minoli and Javier-Avila, 2017	negative	-	-	-	0.68	-	-	-	-	0.825
Monasterio et al., 2013	neutral	-	0.3668	23	-	-	-	24	<0.001	0.700
Monasterio et al., 2013	negative	-	0.4224	35.72	-	-	-	34	<0.001	0.716
Monasterio et al., 2013	negative	-	0.4276	35	-	-	-	69	p<0.001	0.580
Monasterio et al., 2013	negative	-	0.6537	-	-	-	-	-	0.0046	-0.830

Segall et al , 2013	negative	0.855	2.0635	-	-	-	-	-	-	0.599
Segall et al , 2013	negative	0.93	2.2293	-	-	-	-	-	-	0.722
Segall et al , 2013	negative	0.938	2.2667	-	-	-	-	-	-	0.736
Segall et al , 2013	neutral	0.964	2.5938	-	-	-	-	-	-	0.786
Segall et al , 2013	negative	0.964	2.6046	-	-	-	-	-	-	0.786
Sillero & Carretero, 2012	negative	0.97	-	-	-	-	-	-	-	0.799
Sinervo et al , 2010	negative	-	-	-	-	-1.24	-	35	0.234	-0.211
Sinervo et al , 2010	negative	-	-	-	-	-	4.14	50	<0.01	0.288
Sinervo et al , 2010	negative	0.793	-	-	-	-	-	-	-	0.500
Sinervo et al , 2010	positive	0.859	-	-	-	-	-	-	-	0.606
Sow et al., 2014	negative	-	-	-	-	1.85	-	13	0.098	0.487
Sow et al., 2014	neutral	-	-	-	-	-	8.52	13	0.01	0.810
Sow et al., 2014	negative	-	-	-	-	-1.45	-	17	0.243	-0.351
Sow et al., 2014	neutral	-	-	-	-	-	10.173	46	0.038	0.470
Sow et al., 2014	negative	0.99	-	-	0.41	-	-	475	-	0.855
Sow et al., 2014	negative	-	-	-	-	1.34	-	861	0.18	0.046
Sow et al., 2014	negative	-	-	-	-	-	-	-	>0.1	-0.170
Sow et al., 2014	neutral	-	-	-	-	-	-	-	0.66	0.110
Sow et al., 2014	negative	-	-	-	-	-	-	-	>0.1	0.190
Sow et al., 2014	negative	-	-	-	0.04	-	-	-	0.06	0.200
Sow et al., 2014	neutral	0.625	-	-	-	-	-	-	-	0.220
Sow et al., 2014	negative	0.75	-	-	-	-	-	-	-	0.430
Sow et al., 2014	neutral	0.768	-	-	-	-	-	-	-	0.460
Sow et al., 2014	negative	0.779	-	-	-	-	-	-	-	0.478
Sow et al., 2014	negative	0.793	-	-	-	-	-	-	-	0.500
Sow et al., 2014	positive	0.826	-	-	-	-	-	-	-	0.553
Sow et al., 2014	negative	0.858	-	-	-	-	-	-	-	0.604
Sow et al., 2014	positive	-	-	-	0.5	-	-	-	-	0.707
Srinivasulu and srinivasulu, 2016	positive	0.985	-	-	-	-	-	-	-	0.838
Stahlschmidt et al , 2017	negative	-	0.2614	-	-	-0.12	-	14	0.9	-0.035
Stahlschmidt et al , 2017	negative	-	0.8563	-	-	-	4.53	18	0.033	0.502
Stahlschmidt et al , 2017	neutral	-	0.8944	-	-	-	5.33	165	0.02	0.180
Stahlschmidt et al , 2017	neutral	-	1.0165	-	-	0.17	-	184	0.87	0.013
Stahlschmidt et al , 2017	neutral	-	1.0567	10.77	-	-	-	186	0.0012	0.234
Stahlschmidt et al , 2017	negative	-	1.472	-	0.02	-	-	-	0.17	0.141

Stahlschmidt et al , 2017	negative	0.779	1.5275	-	-	-	-	-	-	0.478
Stahlschmidt et al , 2017	positive	0.838	1.9579	-	-	-	-	-	-	0.572
Stahlschmidt et al , 2017	negative	0.968	2.7386	-	-	-	-	-	-	0.795
Stapley et al., 2015	negative	-	-	-	-	0.02	-	35	0.985	0.004
Telemeco et al., 2009	negative	-	0.04	28.45	-	-	-	70	<0.001	0.538
Telemeco et al., 2009	negative	-	0.1953	7.89	-	-	-	98	0.007	0.273
Telemeco et al., 2009	negative	-	-	8.13	0.16	-	-	1273	0.005	0.400
Telemeco et al., 2009	negative	-	-	-	-	-	-	-	0.069	-0.620
Telemeco et al., 2017	neutral	-	-	-	-	3.61	-	31	0.002	0.557
Telemeco et al., 2017	negative	-	-	-	-	-5.26	-	35	<0.001	-0.675
Telemeco et al., 2017	negative	-	0.6788	489.05	-	-	-	66	0.0001	0.939
Telemeco et al., 2017	neutral	-	-	3.7	-	-	-	146	0.06	0.157
Telemeco et al., 2017	neutral	-	-	61.364	-	-	-	454	<0.001	0.345
Telemeco et al., 2017	negative	-	-	-	-	-	55.15	519	0.00233	0.326
Telemeco et al., 2017	negative	0.935	-	-	-	-	-	-	-	0.731
Telemeco et al., 2017	neutral	0.964	-	-	-	-	-	-	-	0.786
Theisinger and Dausmann, 2017	negative	-	0.8457	-	-	-	-	-	>0.1	-0.060
Theisinger and Dausmann, 2017	negative	0.932	2.2309	-	-	-	-	-	-	0.726
Ujvari et al., 2011	positive	0.87	-	-	-	-	-	-	-	0.623
Valenzuela-Ceballos et al , 2014	negative	-	-	-	-	7.75	-	21	<0.001	0.872
Valenzuela-Ceballos et al , 2014	positive	0.994	-	-	-	-	-	-	-	0.871
Valenzuela-Ceballos et al , 2014	positive	0.994	-	-	-	-	-	-	-	0.871
Vicenzi et al., 2017	negative	-	-	0.6	-	-	-	5	0.678	0.327
Vicenzi et al., 2017	negative	-	0.6331	-	-	-	0.43	52	0.51	0.091
Vicenzi et al., 2017	negative	-	0.9717	-	-	-	-	-	-	-0.996
Vicenzi et al., 2017	negative	0.998	-	-	-	-	-	-	-	0.898
Walker et al , 2015	neutral	-	0.4183	34.74	-	-	-	186	0.0002	0.397
Wang et al., 2016	negative	-	0.0163	18.71	-	-	-	13	<0.0001	0.768
Wang et al., 2016	negative	-	0.0163	-	-	-0.47	-	35	0.647	-0.082
Wang et al., 2016	negative	-	-	23.411	-	-	-	59	<0.001	0.533
Wang et al., 2016	negative	-	0.1912	7.16	-	-	-	93	0.002	0.267
Wang et al., 2016	negative	-	0.2392	108.71	-	-	-	93	<0.001	0.734
Wang et al., 2016	negative	-	0.2403	2.738	-	-	-	100	0.001	0.163
Wang et al., 2016	neutral	-	-	2.5	-	-	-	146	0.002	0.130
Wang et al., 2016	neutral	-	-	1086.86	-	-	-	170	<0.0001	0.930

Wang et al., 2016	negative	-	0.4719	48.86	-	-	-	207	<0.001	0.437
Wang et al., 2017	negative	-	0.5466	7.729	-	-	-	24	0.009	0.494
Wang et al., 2017	negative	-	-	9.066	-	-	-	59	0.006	0.365
Wang et al., 2017	negative	-	0.8411	9.38	-	-	-	70	0.003.	0.344
Wang et al., 2017	negative	0.873	2.1641	-	-	-	-	-	-	0.628
Wapstra et al., 2009	neutral	-	-	8.526	-	-	-	59	0.007	0.355
Wapstra et al., 2009	positive	0.975	-	-	-	-	-	-	-	0.811
Weatherhead et al., 2012	negative	-	0.0241	33.92	-	-	-	20	<0.001	0.793
Weatherhead et al., 2012	negative	-	0.156	6.89	-	-	-	43	0.01	0.372
Weatherhead et al., 2012	negative	-	0.2665	12.396	-	-	-	59	<0.001	0.417
Weatherhead et al., 2012	neutral	-	0.417	2.9	-	-	-	186	0.0897	0.124
Weatherhead et al., 2012	negative	-	1.0463	-	0.03	5.3	-	861	<0.0001	0.173
Weatherhead et al., 2012	negative	0.775	1.4449	-	-	-	-	-	-	0.471
Whitfield al, 2006	negative	-	0.0078	4.02	-	-	-	20	0.008	0.409
Whitfield al, 2006	negative	-	0.0243	7.38	-	-	-	43	<0.0001	0.383
Whitfield al, 2006	negative	-	0.0669	3.07	-	-	-	70	0.006	0.205
Whitfield al, 2006	negative	-	0.1509	6.6	-	-	-	98	0.003	0.251
Whitfield al, 2006	negative	-	0.1905	2.327	-	-	-	299	0.128	0.088
Whitfield al, 2006	negative	-	0.2472	9.87	0.67	-	-	682	0.024	0.819
Wright et al , 2016	negative	-	0.5336	95.26	-	-	-	153	<0.001	0.619
Yousefkhani et al., 2017	negative	-	-	-	-	-	2.9	50	0.03.	0.241
Yousefkhani et al., 2017	negative	-	-	-	-	-	1.76	54	0.18	0.181
Yousefkhani et al., 2017	negative	-	-	-	0.04	-	-	121	0.02	0.200
Yousefkhani et al., 2017	positive	-	-	-	-	-	19.1	566	<0.0001	0.184
Yousefkhani et al., 2017	neutral	-	-	-	0.033	-	-	-	0.251	0.182
Yousefkhani et al., 2017	negative	-	-	-	0.04	-	-	-	0.034.	0.200
Yuan et al., 2016	neutral	-	-	0.71	-	-	-	215	0.49	0.057
Yuan et al., 2016	positive	-	-	1.799	-	-	-	247	P<0.1	0.085
Yuan et al., 2016	neutral	-	-	-	0.019	-	-	-	0.284	0.138

Tabela S4 – Valores reais das horas de restrição críticas ($H_{r \text{ crítica}}$) por espécie.

Espécie	$H_{r \text{ crítica}}$
<i>Trachylepis atlantica</i>	6,80
Scincídeos do Novo Mundo	
<i>Brasiliscincus agilis</i>	6,88
<i>Brasiliscincus heathi</i>	5,50
<i>Copeoglossum nigropunctatum</i>	6,22
<i>Mabuya mabouya</i>	6,38
<i>Notomabuya frenata</i>	8,25
<i>Psychosaura macrorhyncha</i>	4,22
Congêneros Africanos	
<i>Trachylepis brevicolis</i>	8,44
<i>Trachylepis maculilabris</i>	4,53
<i>Trachylepis occidentalis</i>	6,35
<i>Trachylepis perrotetii</i>	8,34
<i>Trachylepis planifrons</i>	8,11
<i>Trachylepis quinquetaeniata</i>	9,09
<i>Trachylepis spilogaster</i>	6,67
<i>Trachylepis striata</i>	6,50
<i>Trachylepis varia</i>	8,48
<i>Trachylepis variegata</i>	7,62

Tabela S5 - Dados brutos extraídos do WorldClim para a Pan-Amazônia e suas Unidades de Conservação.

Código	Modelo	Tmax 01	Tmax 02	Tmax 03	Tmax 04	Tmax 05	Tmax 06	Tmax		Tmax 10	Tmax 11	Tmax 12	Tmin 01	Tmin 02	
								07	08						
1	HE	365.5	361.0	351.4	346.4	343.9	346.2	343.4	364.4	373.3	376.2	362.4	360.2	252.4	266.4
2	HE	362.9	361.6	351.2	346.8	342.4	343.4	344.5	358.7	367.5	374.8	362.6	360.7	299.2	264.2
3	HE	229.1	224.1	223.9	236.3	235.9	236.3	238.1	247.9	244.6	259.6	256.0	237.1	196.8	89.7
4	HE	363.7	361.1	351.1	345.9	346.5	350.4	346.0	363.9	374.7	384.6	367.9	360.4	266.5	265.4
5	HE	334.3	331.6	328.6	329.0	333.8	336.1	335.4	346.3	349.5	350.1	340.0	336.7	166.1	226.9
6	HE	359.3	354.0	353.5	354.0	353.4	356.2	359.4	381.4	386.2	376.6	362.9	361.3	169.5	256.0
7	HE	366.6	364.4	353.9	348.1	345.5	345.8	345.7	361.8	371.5	377.2	364.5	362.4	274.6	266.2
8	HE	267.9	270.4	265.6	265.7	264.7	259.6	254.0	259.4	266.3	277.4	279.7	273.4	106.1	153.9
9	HE	352.8	349.9	352.5	351.8	342.8	340.7	339.8	378.5	392.8	387.7	375.5	358.8	298.9	257.0
10	HE	347.8	343.4	342.0	338.5	324.7	312.7	320.0	351.8	370.3	367.4	366.3	352.8	371.8	254.2
11	HE	332.3	336.8	343.0	344.9	348.2	359.0	370.0	382.6	379.9	371.4	362.2	347.1	354.2	261.0
12	HE	339.7	338.1	340.7	344.2	348.0	353.8	364.3	381.9	379.1	373.0	367.2	354.1	211.9	266.4
13	HE	379.2	386.6	382.8	363.8	350.1	355.4	362.8	373.2	389.3	404.2	380.9	372.4	84.3	285.6
14	HE	282.7	283.0	282.3	275.0	265.7	260.3	264.0	290.0	306.3	300.3	299.7	296.0	262.7	195.3
15	HE	328.8	325.8	331.2	336.6	340.8	343.5	349.5	359.3	357.5	355.8	354.0	341.9	193.0	263.7
16	HE	317.0	315.9	313.0	310.9	300.8	294.1	297.2	324.3	334.9	332.0	334.8	323.7	258.6	216.1
17	HE	285.2	286.2	285.2	282.8	273.4	274.0	279.2	299.4	301.6	297.6	304.4	295.8	253.4	189.4
18	HE	329.0	335.0	339.0	341.0	340.0	354.0	373.0	389.0	381.0	369.0	358.0	343.0	270.0	268.0
19	HE	340.7	340.9	345.5	350.1	360.3	377.1	393.9	412.1	419.0	415.3	387.9	355.7	222.3	248.0
20	HE	349.3	351.9	348.6	344.7	342.1	353.2	360.9	380.4	386.9	384.0	365.9	354.7	273.9	261.5
21	HE	334.0	337.0	346.0	351.0	355.0	365.0	376.0	387.0	384.0	374.0	364.0	347.0	373.0	259.0
22	HE	341.4	342.2	347.6	354.6	368.4	388.2	403.0	413.4	415.2	409.6	387.4	359.4	196.2	252.2
23	HE	358.5	360.6	363.5	362.4	366.3	378.3	392.8	415.4	425.7	417.7	399.9	373.5	267.1	263.7
24	HE	350.3	354.3	351.0	346.3	344.0	357.0	365.3	385.0	390.7	386.3	367.0	357.0	275.0	267.7
25	HE	362.2	371.6	367.3	352.3	348.3	356.3	365.3	375.4	388.5	399.5	373.9	364.6	214.6	282.9
26	HE	360.2	371.2	370.1	355.0	350.7	357.8	368.5	378.4	391.6	401.4	375.1	365.9	191.2	285.4
27	HE	363.3	375.3	372.4	355.4	348.7	355.6	365.7	375.4	389.6	401.7	375.8	365.3	182.1	285.1
28	HE	366.2	377.3	381.0	366.3	358.3	362.7	375.4	394.4	420.2	436.0	402.3	376.1	159.3	290.8
29	HE	360.0	371.0	371.0	356.0	353.0	359.0	370.0	381.0	394.0	402.0	375.0	366.0	187.0	287.0
30	HE	372.6	375.3	374.3	361.7	350.9	357.9	372.4	401.4	424.3	423.9	408.0	383.0	93.4	274.0
31	HE	363.0	377.1	376.6	358.3	349.0	354.6	364.9	375.3	391.8	406.1	379.1	365.0	167.7	286.1
32	HE	333.0	335.0	343.0	349.3	353.0	362.7	373.0	384.0	382.3	372.7	362.3	346.3	350.3	259.0
33	HE	327.9	333.6	338.1	339.0	338.7	351.0	369.1	384.6	379.2	369.0	357.7	342.6	249.2	267.0
34	HE	349.5	337.0	352.5	348.5	347.0	363.5	376.0	394.0	403.5	397.0	369.0	356.0	290.0	263.5

35	HE	337.1	337.8	342.8	350.3	362.8	381.9	397.7	409.0	410.8	405.4	383.4	354.5	203.4	248.4
36	HE	346.8	352.1	357.9	358.8	364.9	379.0	393.4	419.4	420.3	415.0	386.2	357.3	256.5	260.0
37	HE	360.0	371.9	370.8	356.7	352.7	359.6	370.2	380.7	393.0	402.6	375.9	366.8	188.7	286.8
38	HE	328.7	327.7	322.0	318.0	307.0	299.7	303.7	331.3	344.3	340.0	342.7	333.3	255.3	232.7
39	HE	339.5	340.2	346.2	350.9	358.8	372.9	389.5	413.7	425.5	416.2	384.8	353.3	265.6	239.1
40	HE	380.1	387.9	382.3	361.9	349.0	354.8	361.5	371.8	386.7	401.1	377.7	370.3	87.9	284.0
41	HE	361.5	362.5	359.0	352.0	330.0	325.0	331.0	367.0	394.0	395.0	390.0	375.0	194.5	263.5
42	HE	351.0	348.5	337.0	330.5	303.5	283.5	293.0	326.5	349.5	350.0	358.0	357.5	319.0	251.5
43	HE	357.3	353.8	355.9	355.3	358.5	366.0	368.4	400.3	417.0	409.1	385.6	365.9	252.3	266.9
44	HE	358.0	354.0	355.7	355.0	357.0	363.0	364.0	399.3	414.3	406.7	386.3	365.7	255.0	266.7
45	HE	361.5	362.5	359.0	352.0	330.0	325.0	331.0	367.0	394.0	395.0	390.0	375.0	194.5	263.5
46	HE	352.3	349.0	350.9	351.4	341.9	342.3	336.3	379.8	393.0	388.7	376.2	357.9	289.6	256.9
47	HE	343.4	339.3	337.8	334.4	321.6	310.4	317.4	348.0	365.4	362.7	361.6	348.2	336.5	248.8
48	HE	343.3	341.2	340.8	337.5	328.5	324.1	324.9	356.1	374.5	367.0	361.4	349.0	374.1	247.1
49	HE	388.3	406.3	389.7	361.3	349.3	340.0	343.3	351.3	362.0	372.0	369.0	373.0	36.3	282.7
50	HE	264.0	263.6	261.8	260.9	252.9	251.8	254.8	275.5	281.6	279.2	282.1	273.3	251.5	169.9
51	HE	330.8	328.9	319.1	311.6	292.1	274.6	282.2	310.5	327.9	329.1	337.3	338.2	268.2	224.7
52	HE	352.9	354.3	348.4	343.9	322.7	313.6	320.9	353.3	377.4	373.8	373.2	363.0	380.4	262.3
53	HE	310.9	310.4	309.5	305.0	293.1	287.9	291.7	320.6	338.7	332.7	327.6	320.4	307.7	218.9
54	HE	349.7	343.8	340.7	338.3	338.2	341.3	345.0	369.6	376.1	374.8	356.0	347.8	283.8	258.8
55	HE	350.3	355.7	346.0	337.1	336.4	339.0	339.0	356.4	363.4	369.9	353.6	346.0	227.1	260.0
56	HE	332.0	334.0	341.0	348.0	353.0	362.0	370.0	382.0	380.0	371.0	362.0	346.0	320.0	260.0
57	HE	332.0	334.0	341.0	348.0	352.0	362.0	371.0	381.0	379.0	371.0	361.0	346.0	335.0	259.0
58	HE	358.0	371.0	371.0	355.0	347.0	355.0	365.0	374.0	389.0	401.0	375.0	362.0	159.0	283.0
59	HE	347.0	345.0	341.0	341.0	332.0	338.0	345.0	378.0	390.0	384.0	369.0	350.0	258.0	263.0
60	HE	352.4	351.0	351.7	348.2	340.4	336.5	342.7	357.6	388.1	409.2	389.7	369.1	39.3	257.9
61	HE	336.4	343.7	343.5	344.4	338.5	331.4	335.8	347.5	358.8	363.4	351.7	340.1	78.8	260.6
62	HE	333.3	339.5	340.0	342.0	336.3	328.0	333.0	343.8	356.0	360.0	348.5	338.5	73.5	250.3
63	HE	318.0	321.3	325.0	330.0	329.8	328.5	336.0	341.8	341.0	341.0	336.5	328.0	244.3	244.0
64	HE	367.0	378.8	371.7	350.8	339.5	334.8	337.0	347.4	357.6	365.6	359.3	355.7	99.6	251.9
65	HE	321.0	326.0	327.0	330.0	323.0	330.0	344.0	359.0	366.0	366.0	351.0	331.0	172.0	256.0
66	HE	326.0	329.0	332.0	334.0	334.0	333.0	346.0	362.0	371.0	366.0	352.0	332.0	83.0	252.0
67	HE	270.9	270.4	266.8	273.7	276.0	274.9	272.8	280.0	283.7	286.3	283.9	284.9	116.1	174.9
68	HE	233.8	228.1	226.7	239.6	243.2	247.9	249.7	257.0	250.9	251.8	253.1	242.0	191.1	106.8
69	HE	320.1	313.4	314.1	326.5	328.2	331.3	330.4	343.2	343.0	335.4	332.5	321.1	394.7	203.1
70	HE	333.5	332.0	328.0	323.5	311.0	303.0	308.5	339.0	354.0	349.0	349.0	337.5	287.5	238.5
71	HE	357.9	353.5	355.8	352.9	339.3	338.3	345.1	358.6	385.9	410.6	392.1	374.9	86.4	260.6

72	HE	404.7	427.0	415.3	381.0	358.0	344.3	348.0	356.0	367.7	379.0	379.0	385.3	15.3	294.3
73	HE	404.5	427.0	415.0	381.0	358.0	344.0	348.0	356.0	367.5	379.0	379.0	385.0	15.5	294.0
74	HE	340.5	342.0	337.0	332.5	330.0	329.5	325.0	341.5	347.0	348.5	346.5	343.0	259.5	244.5
75	HE	339.7	336.3	336.8	339.6	338.7	341.3	341.4	371.7	378.0	375.4	358.7	342.6	245.3	245.2
76	HE	350.7	355.8	345.4	336.7	331.7	334.0	336.0	350.8	358.6	364.1	351.0	345.3	263.1	259.1
77	HE	344.7	343.2	346.2	346.5	349.9	359.9	373.8	398.9	405.5	394.9	382.0	361.8	208.0	255.0
78	HE	336.3	336.3	340.0	340.3	346.3	358.0	376.3	410.3	403.0	389.0	362.3	346.7	315.7	236.3
79	HE	325.7	328.9	341.4	359.2	363.7	378.3	400.6	434.0	427.6	412.3	380.9	347.5	408.0	228.5
80	HE	303.0	308.7	301.0	305.0	302.7	298.0	294.7	302.3	309.7	319.3	322.3	314.7	198.0	196.7
81	HE	275.7	278.7	273.3	276.3	274.7	268.7	263.0	270.0	277.3	289.0	291.0	284.0	163.0	165.0
82	HE	348.6	343.8	344.3	345.4	340.0	360.6	352.6	404.3	410.7	400.9	377.7	356.5	249.3	242.2
83	HE	331.7	332.4	335.2	333.3	329.8	343.3	362.4	385.4	396.5	385.3	367.5	348.2	124.3	249.2
84	HE	372.4	385.4	370.5	351.4	342.9	342.1	343.8	357.6	368.1	379.4	365.4	358.5	184.4	279.2
85	HE	340.8	342.3	350.4	358.7	363.9	372.7	389.6	411.2	424.6	404.2	376.2	362.1	316.4	238.0
86	HE	381.8	377.6	378.0	368.2	350.9	352.8	358.5	371.1	388.3	405.6	391.3	382.7	42.2	271.8
87	HE	357.7	356.7	357.6	353.1	339.8	343.2	354.2	371.7	403.3	424.0	400.0	375.9	100.1	261.0
88	HE	345.9	349.7	336.3	349.2	347.9	353.8	369.1	399.2	406.4	401.3	372.4	353.0	346.5	260.6
89	HE	370.1	380.1	381.0	366.8	353.3	356.9	367.9	386.0	415.6	435.3	407.9	380.6	126.8	282.1
90	HE	391.5	392.9	377.8	356.5	345.2	336.1	335.0	345.2	355.5	366.3	364.7	366.0	76.9	282.9
91	HE	341.9	344.5	353.2	355.6	360.4	373.7	390.2	415.8	423.2	416.3	387.0	354.1	248.9	251.2
92	HE	349.5	356.5	361.7	357.6	360.6	370.8	381.2	401.9	409.8	412.6	383.8	359.8	242.9	269.7
93	HE	325.0	325.9	331.4	327.8	326.1	338.4	358.4	373.1	369.3	365.1	355.4	335.5	193.7	254.5
94	HE	372.8	385.3	375.1	351.0	339.9	341.6	345.5	356.3	368.4	380.9	362.8	357.8	80.8	269.9
95	HE	380.6	381.7	381.4	367.9	352.3	354.4	361.1	373.0	391.0	406.8	387.5	380.0	58.4	281.2
96	HE	349.2	355.6	353.3	347.6	349.9	357.4	364.6	387.2	391.6	393.5	369.7	351.3	331.5	260.7
97	HE	347.3	339.7	346.6	347.0	346.3	360.2	373.0	399.0	407.9	399.4	370.5	355.2	310.5	258.9
98	HE	329.3	329.3	334.1	340.0	350.2	367.4	384.5	401.6	408.9	404.3	376.0	344.7	215.8	234.4
99	HE	354.2	357.6	359.6	356.1	356.2	369.2	386.4	406.5	406.1	393.5	380.3	364.5	154.7	258.1
100	HE	348.6	354.5	358.5	358.0	364.6	378.4	391.5	417.7	418.6	414.2	385.3	357.7	258.7	263.1
101	HE	351.8	358.1	366.8	364.2	366.0	376.9	389.6	409.2	418.3	418.5	390.4	363.3	218.7	270.3
102	HE	346.4	350.4	359.7	357.3	358.6	370.0	384.5	405.6	418.5	418.6	389.5	356.7	224.1	260.8
103	HE	346.2	354.6	344.9	348.5	352.0	358.5	370.6	399.9	403.7	401.6	373.0	352.7	329.5	260.4
104	HE	351.4	351.9	353.5	348.2	348.9	358.4	365.2	385.7	396.5	395.5	371.7	356.6	243.9	260.1
105	HE	335.8	335.8	340.8	344.7	353.2	369.8	386.6	406.4	415.7	412.0	381.8	351.1	226.1	239.0
106	HE	350.5	356.1	364.1	362.6	365.6	377.3	390.1	411.3	418.5	417.5	389.4	361.9	236.8	267.6
107	HE	346.3	351.9	340.3	349.1	349.6	355.7	369.2	397.9	404.5	401.4	372.7	353.1	324.1	261.3
108	HE	341.4	345.2	353.2	359.9	366.6	381.7	400.0	429.2	426.6	416.2	387.0	355.0	285.1	248.7

109	HE	344.6	347.7	337.3	347.7	347.0	355.2	370.6	402.2	406.6	399.6	371.6	352.9	363.5	257.0
110	HE	346.4	352.6	350.8	349.9	358.4	368.5	379.4	407.3	408.7	406.3	374.3	352.1	317.1	258.3
111	HE	346.6	344.7	342.2	342.8	341.3	346.6	349.5	374.6	380.3	378.4	362.2	348.7	253.5	247.5
112	HE	351.8	353.9	348.9	345.9	345.8	350.9	353.8	373.3	381.8	383.7	365.9	355.2	254.7	246.4
113	HE	356.0	361.0	360.7	351.0	341.5	348.9	363.7	388.7	409.6	407.6	388.8	367.5	81.7	258.7
114	HE	352.9	361.1	366.2	359.3	360.0	368.2	377.0	394.8	405.8	412.8	384.4	363.2	230.8	276.9
115	HE	351.5	353.9	349.9	345.8	346.7	352.5	357.1	376.3	385.3	386.8	367.2	355.4	243.6	250.5
116	HE	372.0	370.5	372.2	364.2	345.7	342.6	347.2	358.2	374.2	393.4	385.1	372.6	35.4	254.0
117	HE	348.0	346.6	345.8	347.6	346.3	351.8	354.9	376.5	381.5	379.9	361.8	349.9	262.6	251.9
118	HE	348.3	346.1	343.4	343.5	341.4	346.5	350.4	375.1	381.2	379.6	363.5	350.6	256.7	247.5
119	HE	365.2	375.2	377.1	363.0	352.1	356.0	367.8	386.2	413.7	431.5	402.3	375.3	137.3	280.6
120	HE	354.8	359.6	365.0	355.5	351.5	360.7	374.9	398.7	420.6	427.5	400.1	364.8	183.3	263.3
121	HE	338.2	338.2	342.7	346.3	354.8	370.8	388.0	408.1	417.0	413.9	385.5	353.4	228.1	243.4
122	HE	355.2	363.2	355.2	345.6	345.4	347.5	350.8	367.0	376.7	385.8	363.2	350.0	297.6	270.8
123	HE	347.5	354.4	353.9	353.9	362.6	374.8	387.2	417.5	416.6	410.0	377.7	353.9	332.3	259.7
124	HE	350.9	358.8	354.1	347.0	349.3	355.3	359.9	381.5	386.2	390.0	367.1	350.3	318.1	263.2
125	HE	344.3	351.1	349.2	350.3	358.3	368.4	383.1	415.1	411.9	404.6	372.9	352.0	348.5	255.1
126	HE	365.9	378.3	380.7	365.0	352.3	355.3	365.9	381.9	408.6	428.5	399.0	373.9	132.9	285.1
127	HE	343.0	347.0	338.0	346.0	346.0	356.0	372.0	406.0	406.0	398.0	371.0	352.0	331.0	253.0
128	HE	341.0	346.0	339.0	344.0	347.0	357.0	373.0	407.0	405.0	396.0	369.0	351.0	306.0	250.0
129	HE	345.3	353.4	341.8	348.2	351.2	357.1	370.8	401.6	404.9	401.1	372.8	352.4	332.8	259.7
130	HE	348.2	340.6	350.0	348.3	347.8	361.0	373.1	394.3	402.0	397.0	369.8	354.7	309.1	262.8
131	HE	342.0	347.0	337.0	345.0	347.0	355.0	371.0	405.0	405.0	398.0	370.0	352.0	334.0	252.0
132	HE	342.4	346.2	337.8	345.2	345.4	354.8	371.8	405.4	405.2	397.0	370.0	351.4	327.6	251.4
133	HE	343.0	347.0	338.0	346.0	346.0	355.0	372.0	405.0	406.0	398.0	371.0	352.0	334.0	253.0
134	HE	349.0	336.3	352.0	347.0	346.7	362.7	374.7	394.0	404.3	397.0	369.7	356.0	286.0	262.7
135	HE	343.0	345.0	338.0	346.0	346.0	356.0	372.0	406.0	406.0	397.0	371.0	352.0	327.0	252.0
136	HE	326.3	326.2	333.0	328.7	327.1	337.3	356.8	372.0	370.9	367.8	357.6	336.8	209.2	252.6
137	HE	341.5	343.1	351.2	355.9	362.0	375.9	393.7	421.0	427.6	417.4	388.6	355.2	266.2	246.3
138	HE	343.4	350.4	345.5	347.9	354.1	362.8	377.9	410.3	407.8	400.9	371.1	351.3	358.8	254.4
139	HE	353.8	364.6	371.2	363.1	361.2	367.8	377.0	392.9	405.7	414.5	385.8	364.7	207.1	281.2
140	HE	341.6	344.4	345.6	341.1	336.2	348.2	365.3	386.9	398.2	389.8	373.5	355.4	110.3	254.8
141	HE	360.3	374.3	373.3	356.9	350.0	355.6	366.6	376.4	391.6	404.3	378.3	364.7	159.7	286.0
142	HE	344.0	350.6	350.0	350.6	359.6	370.9	385.0	416.3	413.8	406.2	373.5	351.4	340.1	254.9
143	HE	349.4	357.2	352.7	346.0	348.8	356.7	362.2	383.2	387.9	392.4	367.3	349.9	318.5	261.9
144	HE	369.9	377.0	377.4	364.5	348.1	351.1	362.0	380.2	413.7	436.3	410.4	382.3	112.8	275.9
145	HE	334.5	340.2	342.1	339.2	331.4	328.6	347.0	371.2	389.8	382.2	362.0	338.7	106.2	250.9

146	HE	362.2	367.9	369.1	369.7	361.2	346.5	354.2	367.4	387.2	400.5	389.9	370.2	21.5	247.7
147	HE	348.3	358.6	365.9	368.0	355.0	334.8	338.3	349.4	367.7	378.6	367.8	356.9	15.5	242.8
148	HE	352.4	360.6	366.4	368.4	356.6	337.4	342.6	354.4	374.0	386.0	376.4	362.6	18.8	245.4
149	HE	388.6	415.0	415.4	386.7	356.3	339.3	338.7	345.2	353.8	365.4	368.6	372.8	8.1	275.1
150	HE	333.2	339.0	342.1	340.6	327.3	308.9	316.1	326.3	341.2	357.7	352.7	339.6	23.3	217.9
151	HE	354.9	367.8	371.4	375.3	359.4	341.5	340.5	351.8	366.0	375.5	366.6	358.5	10.6	244.4
152	HE	355.3	370.1	376.1	369.1	348.3	332.6	334.3	341.9	351.1	359.5	354.5	348.0	35.9	243.1
153	HE	348.4	353.1	354.1	355.0	347.3	336.6	343.0	354.6	371.6	379.9	368.4	352.4	32.7	247.8
154	HE	356.7	368.7	372.5	374.6	359.1	337.2	339.6	349.2	361.6	371.3	364.5	357.3	13.1	248.0
155	HE	375.0	398.0	392.4	360.8	338.3	326.2	328.0	335.4	346.2	356.7	356.7	359.7	20.6	263.9
156	HE	321.0	327.0	328.0	330.0	324.0	330.0	343.0	359.0	366.0	367.0	351.0	330.0	170.0	257.0
157	HE	394.0	418.0	411.0	377.0	354.0	342.0	344.0	353.0	363.0	374.0	374.0	378.0	21.0	286.0
158	HE	342.0	338.0	330.3	315.5	291.3	270.5	281.8	315.0	336.3	337.5	347.5	350.3	197.3	232.5
159	HE	348.5	362.8	365.4	354.1	335.1	320.5	324.2	332.0	342.1	351.4	346.4	340.3	44.5	236.2
160	HE	350.4	356.0	355.6	353.4	348.2	344.4	352.0	362.2	377.4	381.2	369.8	353.6	61.0	259.6
161	HE	337.2	340.8	340.6	339.8	335.4	333.2	344.0	360.0	375.6	375.4	361.0	341.6	79.0	253.2
162	HE	333.2	335.5	335.0	335.3	332.2	331.7	343.3	360.0	375.8	373.5	357.8	337.3	74.7	250.7
163	HE	343.3	350.8	349.5	344.5	333.8	328.3	344.3	366.5	391.1	391.5	371.1	345.1	89.1	251.5
164	HE	341.6	338.9	340.5	347.2	346.4	348.3	348.3	375.4	376.0	375.6	358.9	344.7	258.2	244.1
165	HE	352.1	361.3	369.5	363.5	363.2	372.2	383.6	401.3	414.0	418.6	388.6	363.8	219.8	274.7
166	HE	318.0	316.9	308.9	299.8	285.3	269.3	275.1	300.5	314.9	315.8	323.6	325.7	220.7	208.3
167	HE	364.7	375.2	371.1	355.1	349.9	357.4	367.3	376.9	390.1	401.6	376.1	366.5	211.4	285.6
168	HE	333.3	331.6	331.4	328.5	320.6	314.5	314.6	343.6	360.8	353.5	351.7	339.0	516.3	235.1
169	HE	332.4	335.1	339.2	334.5	324.7	327.8	349.4	375.9	388.6	379.1	362.8	340.0	122.8	247.8
170	HE	344.7	351.8	345.3	347.7	353.7	361.7	375.6	406.6	406.0	401.3	372.0	351.6	362.2	256.0
171	HE	325.5	331.3	333.6	330.9	315.9	297.6	304.8	314.4	327.3	344.8	341.6	329.5	25.5	207.0
172	HE	304.3	301.5	296.0	293.0	283.0	275.1	276.5	301.3	315.6	320.5	321.8	315.4	352.1	186.9
173	HE	242.4	242.3	241.3	241.0	238.6	235.4	232.9	239.2	246.8	252.0	247.0	242.1	123.6	135.1
174	HE	341.6	337.8	336.8	337.5	341.5	345.3	347.7	359.2	359.8	356.7	348.9	343.5	250.6	218.8
175	HE	331.0	333.2	338.9	332.9	324.8	329.8	352.4	378.6	386.8	377.3	361.7	338.7	132.8	247.3
176	HE	325.4	322.4	330.6	327.0	326.1	331.9	346.9	359.8	365.8	368.0	358.6	337.0	233.6	248.9
177	HE	345.9	349.7	358.5	359.0	363.1	375.9	390.8	414.4	421.2	417.2	388.7	357.6	257.2	258.7
178	HE	366.3	361.3	351.9	343.7	341.9	337.3	328.5	352.5	364.4	356.6	357.6	349.8	127.4	265.5
179	HE	306.1	311.4	303.5	306.6	304.0	298.7	294.5	303.5	310.7	320.2	322.3	316.1	196.8	199.6
180	HE	367.4	375.5	365.3	348.5	343.7	352.7	360.1	369.3	382.5	395.6	371.0	361.3	206.5	279.6
181	HE	346.4	352.9	353.6	354.6	363.5	376.0	389.7	420.1	418.4	410.2	377.5	353.9	336.9	257.6
182	HE	330.7	331.5	329.7	330.0	323.3	315.5	322.9	335.2	355.4	371.1	360.6	342.0	120.1	231.1

183	HE	237.7	238.2	234.7	234.7	231.6	222.3	216.1	223.1	234.7	246.7	246.5	238.7	88.4	127.9
184	HE	308.3	307.1	306.6	303.2	294.1	290.1	292.3	320.3	336.6	330.2	326.8	316.9	335.8	213.6
185	HE	329.6	327.8	329.9	339.1	334.3	334.1	334.0	358.3	354.3	358.3	347.4	333.8	340.9	222.5
186	HE	349.8	345.7	353.4	348.3	348.4	360.8	370.4	391.7	401.8	398.4	371.8	355.6	286.0	261.6
187	HE	328.2	328.9	334.2	328.9	324.4	336.1	358.7	380.1	381.1	372.9	359.8	338.4	151.9	249.3
188	HE	297.4	298.7	299.8	297.7	286.7	275.3	281.8	294.8	315.8	335.4	327.2	309.5	37.8	186.3
189	HE	350.5	356.7	351.4	344.2	347.8	356.4	360.3	378.9	385.9	393.6	366.9	350.9	311.1	263.4
190	HE	290.2	290.3	285.9	283.0	281.8	279.1	277.6	285.5	291.9	291.0	283.7	283.8	122.1	188.4
191	HE	354.4	354.8	346.8	342.0	336.8	337.8	340.0	354.3	360.7	366.9	356.0	350.5	273.4	261.0
192	HE	362.7	362.5	353.5	352.4	339.9	334.8	340.3	352.8	357.7	361.1	356.6	359.5	313.8	265.6
193	HE	243.3	242.8	242.2	241.1	240.1	238.3	235.0	240.6	246.2	246.7	237.9	237.3	114.7	145.2
194	HE	295.9	298.4	293.9	286.2	283.2	281.6	279.8	291.6	294.5	292.3	283.1	284.6	80.3	200.5
195	HE	238.5	238.0	234.0	234.0	232.0	226.5	219.0	226.5	234.5	239.0	233.5	232.0	106.5	138.0
196	HE	362.1	357.1	347.9	340.6	340.3	334.3	325.1	347.3	356.7	355.0	352.8	348.6	117.7	261.9
197	HE	355.2	356.5	347.4	343.3	334.1	333.4	336.8	349.9	356.0	360.1	352.6	351.3	306.1	260.7
198	HE	292.8	292.0	288.8	286.2	283.9	282.7	282.3	289.9	295.4	294.5	287.4	286.8	154.8	189.5
199	HE	377.6	374.6	364.2	354.8	345.9	332.7	333.4	349.2	354.7	359.8	357.4	360.0	81.5	273.1
200	HE	371.6	374.1	365.8	345.6	340.5	333.0	330.7	343.0	347.3	350.0	346.1	348.2	34.6	259.6
201	HE	199.5	205.0	201.2	192.3	187.2	181.3	177.8	182.8	188.5	193.1	190.6	191.5	54.7	106.1
202	HE	369.1	370.2	365.3	349.7	344.3	339.7	338.9	353.9	356.7	355.4	350.7	351.6	69.8	254.2
203	HE	360.4	361.6	353.0	347.3	334.6	332.0	334.7	347.9	354.5	358.0	354.4	354.5	315.8	264.9
204	HE	347.2	341.3	341.5	342.3	334.2	347.9	348.3	391.4	405.1	395.6	376.3	355.4	261.6	236.0
205	HE	284.7	280.0	280.1	294.4	296.7	298.5	297.9	313.9	307.1	313.2	308.9	291.8	261.8	149.7
206	HE	341.6	335.8	338.8	338.9	337.4	355.4	360.7	402.0	404.9	393.7	367.3	349.3	278.2	239.0
207	HE	356.0	371.1	366.1	342.1	327.3	324.0	326.8	336.2	347.0	357.3	346.7	342.5	82.3	247.9
208	HE	368.8	381.4	366.9	346.8	338.8	339.0	342.2	354.0	364.8	376.6	360.7	354.1	152.2	271.5
209	HE	247.7	246.0	245.0	248.8	248.6	247.1	241.4	246.8	253.6	262.0	262.0	256.4	127.3	143.9
210	HE	272.0	268.3	268.0	270.7	275.0	281.1	286.2	288.3	286.2	282.6	280.5	278.9	108.3	146.8
211	HE	341.3	346.5	352.4	357.9	365.8	381.3	398.7	428.3	423.6	413.0	382.6	352.8	320.8	250.1
212	HE	240.8	241.1	237.5	237.3	237.9	231.7	226.6	233.5	241.9	250.2	250.1	244.3	107.7	132.1
213	HE	354.1	348.4	349.6	351.8	347.6	365.4	359.2	405.8	419.2	410.5	382.0	361.0	241.7	254.4
214	HE	379.5	380.9	379.1	362.6	346.3	349.4	355.3	367.0	382.3	396.8	377.6	372.3	53.1	273.1
215	HE	351.4	345.2	343.5	342.8	344.1	346.9	350.6	374.1	379.6	375.1	357.6	350.9	262.3	254.6
216	HE	339.8	340.9	346.9	349.1	355.3	369.8	386.8	410.5	423.2	416.8	384.0	351.8	239.8	242.4
217	HE	364.4	377.5	364.7	343.2	334.8	333.1	335.6	347.2	357.9	368.9	355.6	350.1	127.8	258.2
218	HE	282.0	281.7	279.9	278.2	277.3	273.5	270.6	280.4	287.8	291.9	287.3	282.6	211.2	170.3
219	HE	324.5	324.0	321.0	330.5	331.5	332.5	334.0	340.0	338.5	337.0	336.5	331.5	257.5	198.5

220	HE	187.1	180.7	191.3	189.7	192.3	192.4	192.5	212.6	211.0	224.3	217.1	202.4	215.5	58.3
221	HE	382.4	380.0	380.3	368.9	352.2	354.1	360.2	372.4	390.4	406.4	390.1	382.6	48.6	277.1
222	HE	270.9	270.7	271.6	273.5	270.7	270.9	271.8	286.9	282.2	286.8	293.1	280.4	188.1	155.1
223	HE	350.7	347.3	343.8	339.9	323.6	314.1	320.2	352.7	372.3	367.2	367.9	358.7	549.7	254.0
224	HE	221.6	216.7	219.1	220.6	224.6	229.9	222.8	225.9	230.2	234.5	233.6	228.2	109.7	115.4
225	HE	295.1	292.3	288.5	299.4	301.2	303.0	303.4	313.2	311.4	307.8	306.4	297.4	256.5	170.0
226	HE	388.0	402.1	393.8	368.5	353.8	346.1	348.7	357.1	367.4	375.9	375.3	374.9	42.4	275.4
227	HE	352.3	351.8	343.0	338.2	335.0	333.2	328.8	349.1	356.4	356.8	350.5	347.8	199.7	251.3
228	HE	345.8	343.8	342.7	344.3	343.6	348.8	350.5	375.9	380.5	379.0	361.5	347.9	256.0	248.8
229	HE	345.8	340.8	342.0	342.3	337.0	353.1	351.3	397.9	406.8	396.0	374.6	354.4	255.9	237.8
230	HE	337.1	341.3	352.7	367.2	372.6	388.1	410.0	440.7	435.5	418.0	384.0	357.3	384.1	241.0
231	HE	346.9	340.4	344.6	345.1	344.1	359.3	365.5	397.7	411.8	402.8	371.1	353.7	253.4	252.7
232	HE	341.8	349.2	344.8	346.8	353.4	362.9	377.8	410.2	407.1	400.0	370.5	350.1	357.8	252.6
233	HE	343.8	350.0	350.4	352.3	361.3	372.7	388.7	421.0	416.7	406.6	373.9	352.1	339.0	253.9
234	HE	355.0	357.7	354.4	346.7	351.0	359.0	363.0	378.4	389.4	399.8	372.9	359.1	335.0	269.2
235	HE	371.7	373.7	373.7	361.0	350.3	357.7	372.7	401.0	423.3	422.0	406.7	381.3	85.0	271.3
236	HE	366.1	375.9	369.3	352.4	346.4	355.3	363.3	372.7	386.8	399.2	374.5	365.1	172.0	282.8
237	HE	361.4	372.5	370.3	354.8	349.5	356.7	367.5	377.2	390.2	400.8	375.3	365.5	207.3	285.0
238	HE	375.0	386.6	380.7	355.2	340.1	341.5	346.1	356.7	370.1	383.4	365.5	360.9	49.9	268.1
239	HE	331.9	332.5	337.7	344.8	357.6	376.5	392.6	403.6	406.0	400.2	378.2	349.5	203.3	243.1
240	HE	354.3	349.2	348.2	351.1	345.3	367.8	350.9	407.0	417.1	410.0	384.0	361.4	245.3	250.9
241	HE	344.8	351.4	351.6	352.9	361.9	373.8	387.8	419.0	416.7	408.3	375.4	352.3	340.4	255.8
242	HE	359.0	369.0	369.0	356.0	351.0	358.0	369.0	380.0	393.0	402.0	376.0	365.0	184.0	285.0
243	HE	343.2	349.3	343.6	346.7	352.1	361.3	377.2	410.2	407.0	399.3	370.6	350.9	348.8	253.3
244	HE	332.5	334.8	342.5	349.0	352.8	362.5	372.5	383.0	381.0	372.0	361.8	346.3	339.5	259.0
245	HE	347.2	348.6	351.8	368.1	375.6	387.3	402.4	427.0	432.6	420.6	397.4	366.5	370.3	249.3
246	HE	354.7	356.3	352.1	349.7	337.1	342.4	333.8	375.8	400.7	396.1	385.5	364.0	272.7	259.3
247	HE	347.5	344.4	343.7	341.2	326.3	316.4	317.4	357.1	378.7	375.8	371.0	354.5	322.1	256.9
248	HE	324.5	327.3	331.0	328.5	327.5	343.3	365.0	378.0	370.3	363.5	353.5	335.0	176.5	257.8
249	HE	353.3	350.4	348.1	350.1	341.9	363.6	343.8	401.5	414.4	407.6	385.8	361.6	249.2	249.7
250	HE	342.0	345.3	353.5	361.0	367.5	379.8	401.0	421.0	438.3	403.5	374.0	364.0	292.5	239.0
251	HE	330.5	329.0	329.0	325.0	316.0	309.5	312.5	344.5	363.0	356.5	349.0	337.5	335.5	236.0
252	HE	336.0	336.0	340.0	348.0	360.0	379.0	395.0	408.0	414.0	409.0	382.0	351.0	197.0	241.0
253	HE	315.5	315.3	311.2	309.7	300.4	293.9	295.8	320.7	327.9	327.4	332.7	322.3	223.2	211.2
254	HE	324.9	328.7	333.5	331.0	325.2	327.2	342.7	361.7	372.0	369.0	354.0	332.1	182.7	250.0
255	HE	228.5	230.0	225.5	223.5	222.5	219.5	215.0	224.0	227.5	229.0	221.0	223.5	109.5	149.0
256	HE	378.0	385.0	374.0	354.0	347.0	338.0	337.0	348.0	351.0	353.0	350.0	354.0	30.0	263.0

257	HE	387.5	393.5	381.0	357.0	351.0	340.5	338.5	348.0	354.0	359.5	356.0	359.5	26.0	273.5
258	HE	211.8	210.4	206.6	204.4	202.6	196.6	189.8	199.2	205.4	209.6	203.8	204.8	116.8	116.6
259	HE	265.7	266.3	263.0	261.3	260.0	257.3	254.0	261.3	267.7	267.0	258.7	259.3	106.3	165.3
260	HE	354.9	368.0	372.5	365.9	343.2	327.1	330.7	339.2	350.0	361.1	356.7	347.8	49.7	241.5
261	HE	329.3	332.3	334.3	335.3	333.3	334.0	347.0	364.0	376.8	371.3	355.5	335.5	86.3	252.3
262	HE	359.0	367.2	355.2	341.7	338.2	343.3	347.0	359.5	369.3	379.3	360.1	351.2	276.5	266.7
263	HE	323.8	327.0	332.3	330.0	323.8	328.0	343.0	361.0	368.8	368.0	354.5	332.8	217.8	251.3
264	HE	328.4	325.3	330.9	336.4	340.6	343.2	349.0	358.6	357.0	355.5	353.7	341.4	189.5	263.6
265	HE	367.3	375.3	362.8	346.6	342.0	350.4	356.5	366.1	377.6	389.5	366.6	357.3	246.3	276.9
266	HE	345.9	352.6	351.3	352.0	360.3	371.0	385.1	416.7	414.1	406.8	374.7	353.3	344.5	256.8
267	HE	349.6	356.6	356.5	356.5	365.3	377.9	390.2	420.4	419.5	412.4	380.3	356.1	331.4	262.4
268	HE	356.0	364.7	368.6	358.3	356.5	363.2	371.0	385.5	398.2	409.3	382.2	365.0	202.7	282.6
269	HE	349.7	353.1	345.7	342.6	345.3	347.1	346.2	364.7	371.0	374.7	358.9	348.5	268.0	255.7
270	HE	354.9	358.5	356.1	350.6	356.8	364.8	370.4	389.1	397.7	405.8	377.4	360.0	292.0	269.3
271	HE	356.7	360.4	357.9	349.3	353.0	360.8	365.9	380.8	392.7	402.7	375.6	361.9	290.2	274.2
272	HE	322.5	325.0	328.0	326.5	327.0	345.4	366.3	379.4	372.6	362.6	351.5	334.8	179.0	253.8
273	HE	361.3	370.6	367.2	352.7	349.1	356.9	366.9	376.8	389.5	399.9	374.1	364.5	260.5	283.4
274	HE	360.2	370.5	369.2	355.0	350.3	358.3	369.2	378.8	392.0	401.3	375.0	365.8	209.7	285.3
275	HE	359.9	373.5	376.1	361.3	353.7	358.3	367.9	380.2	398.3	413.1	385.0	366.3	162.7	286.7
276	HE	354.6	358.4	354.2	345.8	348.9	356.9	361.7	376.6	387.5	397.9	370.7	357.4	325.0	269.3
277	HE	333.1	339.7	343.8	344.6	347.7	362.9	381.1	395.0	387.7	373.9	362.8	348.0	242.9	262.2
278	HE	358.4	366.5	354.6	341.4	337.8	342.7	346.2	359.0	368.7	378.5	359.6	350.7	272.6	266.1
279	HE	353.5	359.5	353.2	344.0	344.7	354.2	358.0	373.2	383.6	393.6	366.8	352.1	298.7	268.4
280	HE	352.8	356.0	351.8	345.0	349.5	357.7	361.1	377.7	387.0	397.0	369.9	355.7	330.6	265.3
281	HE	356.5	360.0	357.7	349.7	353.8	361.5	367.3	382.4	393.9	403.5	376.3	361.9	290.2	273.5
282	HE	347.2	353.9	348.5	342.5	347.7	347.7	347.7	368.3	376.1	378.5	359.9	346.9	271.8	261.7
283	HE	277.0	276.6	273.9	278.5	279.6	278.7	270.2	277.0	283.7	292.3	292.4	286.9	161.4	167.6
284	HE	383.6	382.2	381.8	368.7	351.8	354.5	360.1	372.4	389.2	404.2	386.6	380.6	49.8	277.3
285	HE	349.7	356.3	346.4	337.5	336.9	339.0	339.5	356.7	364.9	371.0	354.2	345.9	228.9	260.6
286	HE	331.0	329.0	334.0	335.5	342.5	354.5	370.5	401.5	401.0	385.5	356.5	342.5	338.5	228.5
287	HE	366.7	380.9	381.4	362.2	349.8	354.0	363.9	375.5	395.3	411.8	384.0	367.3	158.6	287.8
288	HE	353.8	353.3	345.0	341.0	320.3	311.3	316.3	350.0	371.8	366.5	368.0	362.5	587.5	261.5
289	HE	351.3	359.1	352.2	344.3	345.1	355.1	358.3	375.1	382.8	391.4	364.7	348.6	317.2	266.0
290	HE	342.2	348.3	344.2	346.7	352.9	362.0	378.6	411.6	407.4	399.1	369.7	350.2	347.4	251.9
291	HE	329.8	332.6	334.6	333.5	334.2	350.9	369.6	385.2	383.7	371.2	358.9	343.6	144.6	253.6
292	HE	342.5	342.4	346.7	349.6	358.3	373.9	390.8	411.7	420.5	417.3	390.2	357.4	231.4	248.8
293	HE	326.9	324.3	330.5	330.8	331.9	338.5	347.3	358.7	365.6	368.8	360.7	341.9	305.1	257.8

294	HE	351.0	357.3	359.4	354.6	358.8	368.7	377.8	398.9	406.7	410.7	381.9	359.6	258.3	270.5
295	HE	341.3	342.9	349.6	351.1	356.0	370.0	387.1	412.8	424.5	417.3	387.4	353.1	234.5	246.4
296	HE	375.3	374.0	376.1	370.4	351.4	345.9	349.7	360.7	376.9	396.2	390.4	377.2	31.7	256.1
297	HE	356.1	350.8	351.9	354.0	350.8	366.0	363.0	403.7	421.3	413.4	383.3	361.9	246.6	259.2
298	HE	350.0	341.8	352.4	348.0	347.2	362.0	372.3	393.8	406.5	400.8	371.7	356.8	258.4	261.0
299	HE	256.8	257.1	254.9	254.8	252.7	246.1	242.4	250.2	259.6	266.3	263.9	257.8	151.3	147.4
300	HE	351.4	346.2	348.4	349.7	348.1	362.7	365.7	400.2	417.0	409.0	375.9	357.7	240.7	257.3
301	HE	385.1	390.5	368.6	349.1	337.1	335.2	335.6	348.3	361.7	371.8	368.8	367.5	145.5	272.0
302	HE	320.0	323.0	328.0	326.0	319.0	325.0	339.0	356.0	364.0	363.0	349.5	328.0	197.5	249.5
303	HE	354.8	352.9	350.1	349.9	338.8	353.4	340.2	391.2	410.4	406.2	388.5	364.8	243.2	251.4
304	HE	369.0	363.1	353.4	344.3	343.0	336.5	328.8	355.3	366.1	358.7	358.3	351.4	119.4	266.5
305	HE	331.5	330.9	332.3	334.9	325.6	319.7	318.6	345.0	352.0	351.3	347.9	337.0	577.4	233.6
306	HE	305.8	300.7	302.0	315.8	316.6	317.0	315.2	332.4	325.5	330.9	326.3	310.2	288.9	174.9
307	HE	280.7	280.0	276.8	282.7	284.9	285.3	277.9	286.2	290.2	294.8	295.4	292.4	126.5	175.9
308	HE	325.5	320.2	319.8	330.0	332.7	336.3	336.6	354.9	355.8	347.6	339.3	329.9	275.7	209.2
309	HE	370.7	365.0	355.7	345.8	345.1	337.6	328.6	355.8	368.3	356.6	360.2	350.5	110.0	271.1
310	HE	328.7	325.2	327.5	342.2	340.6	341.2	339.6	357.8	346.7	354.9	347.0	332.1	283.0	203.8
311	HE	343.8	341.6	342.4	347.4	346.4	350.1	350.8	377.5	380.6	379.9	361.2	346.8	247.6	249.0
312	HE	320.0	323.6	317.2	323.8	318.3	313.8	310.4	321.0	325.9	334.0	336.5	331.3	229.3	216.0
313	HE	325.9	323.6	323.9	332.4	331.9	334.6	333.3	346.4	347.1	339.6	336.7	328.6	373.2	214.0
314	HE	347.5	343.0	344.1	342.5	329.8	321.8	322.0	361.9	380.7	377.7	370.7	352.7	314.0	256.3
315	HE	338.0	335.9	335.4	331.6	317.7	309.8	316.9	346.6	364.4	360.0	355.2	343.5	313.0	243.0
316	HE	356.2	353.1	344.5	340.1	337.5	335.3	328.2	346.7	356.2	355.8	352.2	348.4	176.1	254.7
317	HE	224.6	224.6	221.6	222.0	218.8	211.9	207.1	213.1	222.9	233.0	231.2	225.1	115.3	114.8
318	HE	312.3	312.3	311.1	309.1	305.6	306.4	306.7	314.6	319.9	321.9	315.2	311.8	175.1	210.1
319	HE	251.0	251.3	250.7	249.0	248.0	248.3	247.3	253.0	257.0	254.0	244.0	244.7	105.3	151.7
320	HE	366.4	364.6	353.9	347.2	346.6	351.3	346.5	365.6	377.3	386.5	371.3	364.8	270.6	268.3
321	HE	349.4	346.8	345.9	344.5	339.5	342.6	344.1	378.7	394.4	386.3	374.8	354.9	262.4	259.3
322	HE	184.1	178.7	189.4	188.3	190.6	191.3	191.1	211.4	207.7	220.9	213.3	198.7	210.1	55.9
323	HE	372.7	366.0	358.3	355.4	354.4	358.9	356.1	376.9	385.0	391.9	372.4	364.7	249.5	269.7
324	HE	371.1	366.2	358.5	356.9	354.8	358.8	357.2	377.8	384.7	387.0	371.5	366.1	226.4	270.2
325	HE	362.2	359.3	348.5	344.2	340.9	340.3	337.4	359.5	367.3	367.4	356.9	356.0	204.5	262.2
326	HE	347.1	345.6	344.8	342.7	336.6	331.9	330.5	360.5	377.8	369.4	366.4	351.0	417.4	247.9
327	HE	347.0	343.0	334.0	331.0	328.0	324.0	321.0	336.0	339.0	344.0	338.0	339.0	180.0	249.0
328	HE	347.1	343.5	344.3	346.6	347.6	349.9	353.1	375.9	379.2	375.7	358.6	348.3	235.8	251.8
329	HE	345.9	342.9	343.5	344.4	345.4	348.1	352.4	373.6	378.3	376.2	358.1	347.1	242.2	251.5
330	HE	340.3	345.3	336.3	343.3	345.3	353.3	371.0	405.0	403.3	395.3	367.7	348.7	322.0	249.7

331	HE	340.4	342.9	338.3	342.1	344.9	355.9	373.9	408.5	403.0	393.0	367.5	349.4	254.5	245.5
332	HE	352.4	354.3	350.2	346.3	345.9	352.6	357.4	376.9	386.0	386.9	367.8	356.9	240.6	250.3
333	HE	354.8	359.2	364.6	363.6	363.0	374.4	389.4	409.0	411.1	397.8	382.7	364.5	237.5	256.0
334	HE	356.0	364.7	352.2	338.7	334.6	338.6	341.3	354.8	364.3	374.2	356.7	348.4	245.1	263.3
335	HE	354.3	362.2	352.7	343.1	342.2	344.0	346.5	362.3	372.2	381.8	360.8	348.7	314.6	267.0
336	HE	355.4	349.7	350.7	353.4	349.1	365.8	361.1	405.0	420.5	412.5	382.6	361.7	243.3	257.0
337	HE	351.3	358.4	354.6	349.0	350.2	356.1	362.2	384.4	388.7	391.4	369.9	351.9	335.4	261.3
338	HE	341.2	345.3	338.5	343.3	345.8	355.5	372.8	407.5	404.2	394.7	368.2	350.3	293.8	248.7
339	HE	358.0	364.7	355.9	344.5	343.2	351.2	355.7	369.2	379.2	388.0	364.4	351.3	296.0	271.2
340	HE	349.2	348.6	344.8	344.6	342.3	347.9	350.4	372.8	379.3	378.7	363.1	351.4	275.2	244.5
341	HE	344.8	342.9	340.6	340.6	337.0	342.7	347.8	376.3	384.7	380.6	364.3	348.2	250.3	254.6
342	HE	330.3	322.3	314.3	332.3	340.0	348.0	351.0	356.8	357.5	360.0	358.8	347.3	390.5	253.8
343	HE	348.7	348.7	351.7	357.0	366.7	384.0	402.7	420.7	421.7	410.7	392.7	367.7	232.0	259.0
344	HE	357.5	353.5	351.5	355.5	347.5	368.5	349.0	409.5	421.5	413.5	389.5	364.5	247.0	255.0
345	HE	327.0	325.0	330.0	335.0	338.0	340.0	344.0	352.0	351.0	351.0	350.0	339.0	119.0	263.0
346	HE	347.2	347.0	351.0	356.3	366.3	383.8	401.3	418.7	419.8	409.3	391.3	366.3	247.3	257.8
347	HE	341.8	345.8	339.8	344.0	346.8	356.8	374.3	408.5	404.8	395.0	368.8	350.8	284.8	249.0
348	HE	343.0	347.0	341.0	345.0	348.0	358.0	376.0	410.0	406.0	396.0	370.0	352.0	290.0	250.0
349	HE	344.0	350.9	347.7	348.5	356.2	366.0	380.5	412.5	409.5	402.8	371.9	351.8	356.6	254.7
350	HE	342.4	348.1	345.9	347.5	354.3	364.5	381.1	414.6	409.4	400.1	370.4	351.1	342.4	251.3
351	HE	341.7	347.3	351.4	351.2	354.0	368.3	385.6	400.7	395.7	382.3	370.7	355.1	216.1	257.6
352	HE	362.7	366.5	370.0	367.8	366.5	377.5	391.4	414.1	423.1	411.1	394.2	373.3	220.1	262.2
353	HE	341.0	345.0	337.0	344.0	345.0	354.0	370.0	405.0	404.0	395.0	368.0	350.0	323.0	250.0
354	HE	343.0	345.0	340.0	344.0	346.0	357.0	374.0	410.0	405.0	395.0	369.0	352.0	267.0	249.0
355	HE	351.0	348.8	354.6	348.8	349.1	359.9	368.2	388.9	399.4	397.7	372.4	356.2	259.6	261.5
356	HE	349.3	341.2	349.5	348.1	347.5	361.9	372.9	399.5	411.1	402.4	372.8	357.0	280.6	259.6
357	HE	342.0	344.0	339.0	343.0	344.0	355.0	373.0	408.0	404.0	394.0	368.0	350.0	273.0	248.0
358	HE	351.7	356.0	351.4	344.9	349.9	358.0	361.8	380.0	387.4	396.3	369.4	354.0	316.2	263.8
359	HE	348.2	348.3	347.5	349.7	349.9	359.4	371.5	396.1	403.1	399.7	372.2	354.4	331.8	263.0
360	HE	328.0	325.2	323.6	336.0	341.8	349.4	352.3	359.5	360.5	359.7	355.6	344.0	426.7	257.5
361	HE	334.5	341.2	348.0	349.0	352.4	365.0	378.9	391.7	387.1	376.0	365.6	349.5	328.7	258.1
362	HE	329.7	322.3	315.1	332.7	339.8	347.9	350.7	356.7	357.5	359.8	358.3	346.7	404.4	254.2
363	HE	341.0	346.0	339.0	343.5	347.3	356.8	374.5	408.5	404.8	395.8	368.8	349.5	307.5	249.3
364	HE	325.0	307.0	321.0	332.0	340.0	346.0	350.0	354.0	357.0	360.0	358.0	341.0	324.0	254.0
365	HE	324.0	309.0	325.0	333.0	340.0	345.0	350.0	355.0	357.0	359.0	357.0	339.0	274.0	256.0
366	HE	324.0	311.5	325.5	333.0	339.5	345.0	349.5	355.5	357.5	358.5	356.0	338.5	255.0	257.0
367	HE	326.7	327.6	331.4	337.6	342.2	348.6	348.5	356.9	359.2	357.3	352.3	341.3	427.6	262.9

368	HE	326.0	311.0	318.0	331.0	340.0	347.0	350.0	354.0	357.0	360.0	359.0	344.0	352.0	252.0
369	HE	329.0	325.0	320.3	335.3	341.3	349.3	352.3	359.0	359.3	359.7	357.0	345.3	424.7	256.7
370	HE	328.0	326.5	327.0	337.5	343.5	350.5	353.0	362.0	362.0	360.0	355.5	343.5	422.0	259.5
371	HE	340.7	345.3	338.7	343.0	346.3	356.3	374.3	408.7	404.3	394.0	368.3	350.3	296.7	247.7
372	HE	346.6	354.1	348.6	341.7	347.5	345.9	345.8	366.6	375.3	377.8	358.3	345.5	266.0	264.8
373	HE	351.1	354.8	353.9	348.2	350.1	355.7	361.8	382.5	390.5	391.5	369.8	354.0	282.6	260.3
374	HE	342.0	346.5	338.5	344.5	347.5	356.5	373.5	408.0	405.5	397.0	369.5	350.5	311.0	250.5
375	HE	350.7	346.9	346.3	347.4	341.0	361.3	350.2	403.0	412.2	403.7	381.2	359.0	250.6	244.9
376	HE	341.5	345.5	339.5	343.5	346.5	356.5	374.5	408.5	404.5	394.5	368.5	350.5	279.5	248.5
377	HE	365.9	368.6	368.8	359.0	350.9	360.2	376.6	404.5	419.0	413.0	397.6	375.5	106.5	266.0
378	HE	333.1	337.9	340.6	341.1	344.4	361.3	380.2	393.6	386.3	372.7	361.5	347.4	169.1	261.2
379	HE	354.3	348.2	348.9	351.5	346.8	365.8	357.0	406.9	418.5	409.5	382.5	361.0	242.8	253.0
380	HE	356.0	350.6	350.5	353.5	347.7	367.1	355.6	408.0	420.8	412.3	385.6	363.1	244.6	254.6
381	HE	352.3	351.4	346.6	345.6	345.3	351.5	354.9	372.2	377.2	377.9	361.0	351.7	243.0	257.2
382	HE	344.6	347.2	354.2	352.1	354.3	367.3	383.3	407.7	422.6	419.8	388.8	354.2	195.3	254.6
383	HE	349.2	356.4	347.2	338.2	339.0	340.1	340.8	358.3	367.2	373.3	355.0	345.5	236.8	262.1
384	HE	352.7	347.4	350.2	350.9	349.7	363.5	368.1	400.0	418.2	410.4	376.9	358.7	239.7	259.7
385	HE	353.8	348.1	350.0	351.7	348.9	364.8	364.3	403.3	418.9	410.5	379.5	360.1	240.8	256.9
386	HE	344.5	350.8	339.1	347.1	349.7	356.2	372.5	405.5	406.2	399.2	371.7	352.2	333.0	255.8
387	HE	371.0	380.5	368.2	349.8	343.4	351.7	358.5	367.6	380.2	394.2	370.3	361.4	169.2	280.5
388	HE	341.8	343.4	348.5	346.9	350.2	365.3	382.8	407.6	421.3	417.6	388.0	353.0	222.2	248.4
389	HE	347.2	343.8	342.9	341.7	342.7	345.1	350.4	371.4	377.0	375.0	357.2	347.1	259.3	255.1
390	HE	344.9	348.1	356.8	355.4	357.5	369.7	385.0	407.9	420.9	418.8	388.5	354.9	219.7	257.2
391	HE	342.0	347.0	340.0	345.0	347.0	357.0	375.0	409.0	405.0	395.0	370.0	351.0	286.0	250.0
392	HE	328.0	326.0	326.0	337.0	343.0	350.0	352.0	360.0	360.0	359.0	355.0	344.0	423.0	259.0
393	HE	342.8	347.0	340.8	345.0	347.8	357.8	375.5	409.5	405.8	395.8	370.0	351.8	289.0	250.0
394	HE	341.5	346.5	338.5	344.5	347.5	355.5	373.5	407.0	405.5	396.0	369.5	351.5	308.0	250.5
395	HE	360.3	366.6	371.2	359.0	352.4	359.5	372.6	395.4	419.5	430.1	403.4	369.8	192.2	268.7
396	HE	337.4	343.5	351.1	352.2	355.3	367.6	381.1	394.4	391.0	378.9	367.7	351.3	312.1	256.8
397	HE	363.2	364.9	366.1	358.6	354.0	365.0	381.9	406.8	413.6	404.2	389.9	372.4	113.6	263.1
398	HE	196.4	194.8	196.5	198.2	195.1	188.6	179.8	185.9	194.7	205.4	199.7	195.7	103.0	107.7
399	HE	236.0	238.0	233.0	231.0	230.0	227.0	225.0	233.0	237.0	238.0	229.0	231.0	126.0	154.0
400	HE	244.6	243.5	242.1	242.1	239.8	235.3	230.4	235.9	243.4	247.9	242.9	240.4	129.0	144.4
401	HE	326.5	329.3	332.5	334.5	333.8	333.8	346.3	362.3	371.5	366.8	352.5	332.5	82.3	252.3
402	HE	345.5	352.1	352.1	348.8	340.5	335.8	348.0	365.5	385.9	388.5	371.2	348.4	82.5	256.2
403	HE	350.0	357.0	356.3	352.0	342.5	336.8	351.3	371.0	395.0	396.0	377.5	352.8	83.0	259.0
404	HE	354.2	357.2	355.2	349.5	337.7	336.5	349.5	367.0	397.8	411.7	388.7	362.5	72.4	258.4

405	HE	341.2	344.8	344.4	342.8	336.2	333.2	348.3	368.5	387.8	385.4	367.0	343.8	84.0	253.8
406	HE	360.2	368.1	367.8	361.2	352.3	345.8	354.1	366.7	387.3	397.3	383.4	363.3	57.4	260.4
407	HE	324.5	329.8	333.3	331.1	324.2	322.6	339.3	362.3	376.3	370.3	352.3	330.1	138.2	245.9
408	HE	322.5	326.1	330.7	328.7	322.6	327.0	341.7	359.4	367.4	366.8	352.8	330.9	208.1	250.8
409	HE	328.4	333.3	339.8	334.3	325.0	324.0	343.9	369.1	382.0	375.3	358.0	333.9	193.3	247.1
410	HE	347.8	349.9	347.8	349.2	350.2	359.2	370.7	395.9	402.4	399.6	372.4	353.8	328.4	262.3
411	HE	344.2	349.5	350.0	347.2	341.0	337.3	348.3	362.2	379.3	382.7	368.0	347.8	69.0	256.0
412	HE	340.6	343.1	340.4	342.2	345.5	357.0	376.0	410.9	403.8	392.8	367.5	349.7	262.6	244.4
413	HE	350.3	348.0	346.5	346.3	337.5	345.0	358.3	378.0	412.5	430.3	400.4	373.1	60.8	254.6
414	HE	331.6	335.1	335.9	335.4	332.2	332.5	346.8	364.2	378.3	373.6	357.8	337.3	90.4	252.7
415	HE	358.9	352.9	349.4	348.4	333.9	341.9	339.9	385.0	409.0	406.6	392.2	369.6	213.1	244.3
416	HE	353.0	348.8	354.1	351.3	351.3	363.8	372.3	396.8	414.4	407.8	376.2	360.6	242.4	264.1
417	HE	354.3	353.3	345.0	341.4	320.6	312.6	316.0	350.1	371.2	366.4	368.9	364.5	637.1	261.2
418	HE	332.5	334.0	341.0	348.5	352.5	362.0	372.0	383.0	381.0	372.0	362.0	346.5	348.5	259.0
419	HE	356.5	355.1	351.8	349.2	334.6	340.7	336.3	379.4	403.0	401.0	388.9	367.8	226.0	253.8
420	HE	354.5	349.5	343.5	339.0	323.0	318.0	320.0	351.5	369.5	365.5	368.5	362.5	623.0	251.5
421	HE	352.3	349.1	350.6	349.8	342.8	343.7	339.9	379.9	395.1	388.8	376.1	358.2	281.1	257.6
422	HE	294.0	299.0	293.5	298.5	296.5	291.0	286.5	294.5	301.5	312.0	315.5	306.5	250.5	185.0
423	HE	354.0	353.0	345.0	342.0	320.3	312.7	316.0	350.0	372.0	367.0	369.0	363.0	607.7	261.7
424	HE	295.7	294.6	293.9	291.6	288.4	288.7	289.9	296.7	300.9	302.6	295.0	292.6	176.7	190.4
425	HE	353.5	353.5	351.5	347.5	335.5	329.0	333.5	366.5	392.0	386.5	379.5	363.5	316.5	261.5
426	HE	215.6	210.0	210.3	221.9	222.3	223.7	224.4	234.8	232.2	245.7	241.9	223.8	193.0	79.2
427	HE	174.0	169.0	169.0	180.0	184.0	185.0	189.0	196.0	194.0	207.0	204.0	184.0	177.0	44.0
428	HE	273.7	272.5	269.3	275.3	277.6	277.6	271.4	279.1	283.1	287.7	287.3	285.0	116.6	169.4
429	HE	300.7	298.0	299.8	314.8	313.0	315.2	315.2	333.9	323.0	333.6	323.2	306.2	254.4	170.2
430	HE	252.2	249.0	245.4	256.8	259.2	261.2	262.2	268.6	262.8	263.6	264.4	255.0	174.0	126.0
431	HE	237.7	232.7	233.7	235.3	240.4	248.1	236.5	240.5	244.4	248.8	247.8	243.3	100.2	125.6
432	HE	354.9	355.4	353.8	350.6	344.8	339.2	347.2	360.4	384.0	399.8	385.7	367.5	70.1	256.2
433	HE	353.1	353.0	351.0	345.4	329.9	319.9	329.2	359.4	385.7	380.1	376.7	363.0	371.4	262.2
434	HE	325.8	331.6	334.0	331.3	316.4	298.0	305.2	314.8	327.7	345.2	341.9	329.8	25.4	207.5
435	HE	351.4	352.8	350.8	346.4	335.6	336.8	350.3	368.5	399.9	413.3	388.7	362.4	73.3	258.5
436	HE	281.1	281.0	276.6	283.5	285.4	284.4	280.4	287.9	292.0	295.9	294.9	294.9	121.5	183.2
437	HE	348.2	352.7	344.8	348.2	342.4	338.7	336.0	349.1	353.5	357.0	356.6	354.4	222.5	249.9
438	HE	361.7	354.3	350.5	348.6	349.7	353.5	355.4	377.6	384.2	381.5	364.3	359.1	269.0	257.7
439	HE	358.6	358.0	349.0	345.8	339.1	338.5	341.3	354.3	361.1	367.5	357.7	356.5	330.2	262.2
1	MP	340.8	343.7	343.1	338.7	337.7	339.6	340.4	355.8	369.2	375.8	357.7	344.4	249.9	250.2
2	MP	343.1	350.9	347.0	342.6	338.5	336.0	344.3	358.7	367.7	375.5	360.3	347.0	249.9	249.7

3	MP	222.6	220.9	225.9	238.9	240.4	236.1	236.0	245.7	240.0	256.5	247.3	226.4	84.8	85.9
4	MP	346.4	349.7	346.1	340.9	340.2	343.9	343.5	357.1	368.0	379.8	363.7	351.4	249.8	252.1
5	MP	322.3	323.8	325.9	324.8	334.4	334.6	335.5	340.5	348.4	355.5	336.6	329.1	220.1	221.3
6	MP	354.7	352.2	359.1	355.6	360.9	358.2	361.7	374.6	383.8	384.3	365.6	358.7	254.2	254.4
7	MP	344.9	351.0	346.8	342.6	340.5	337.9	343.7	358.7	367.5	378.2	364.2	347.6	251.2	250.6
8	MP	262.9	265.4	263.0	260.4	263.4	260.6	255.1	260.1	271.9	279.1	271.3	266.1	149.9	149.9
9	MP	343.4	347.0	352.4	350.5	347.0	345.8	350.8	360.4	366.2	373.4	366.1	349.8	246.4	248.8
10	MP	361.1	359.6	362.1	357.7	352.8	345.6	342.9	372.9	390.5	398.7	387.9	366.6	263.2	264.0
11	MP	354.5	349.9	348.2	345.6	335.8	319.5	324.8	348.2	369.9	382.1	379.7	359.5	258.0	259.7
12	MP	337.1	336.0	338.9	346.8	350.5	351.3	351.3	350.3	351.7	353.8	352.9	349.3	256.5	255.0
13	MP	337.7	336.7	340.3	345.6	344.6	343.4	344.4	348.1	350.8	356.8	358.0	348.8	258.8	258.7
14	MP	376.6	379.2	388.3	383.5	363.5	362.0	371.6	375.9	382.3	394.4	390.7	377.4	278.6	283.1
15	MP	315.6	315.9	314.5	316.6	307.6	297.0	300.5	319.5	330.5	338.9	339.9	321.7	217.7	217.1
16	MP	283.7	285.0	286.3	281.0	273.7	265.3	267.0	285.0	301.3	306.3	303.7	295.0	196.3	197.3
17	MP	328.3	324.9	330.3	338.1	338.2	334.5	335.4	338.7	341.5	346.9	348.2	338.5	259.4	257.8
18	MP	282.8	285.2	287.2	288.2	278.4	275.0	280.0	291.6	294.8	298.2	304.2	292.8	186.8	188.4
19	MP	330.0	328.0	330.0	338.0	341.0	344.0	349.0	352.0	353.0	353.0	350.0	344.0	259.0	257.0
20	MP	339.6	346.7	354.3	354.2	356.4	361.3	366.9	364.6	354.5	356.2	363.5	354.7	245.2	250.7
21	MP	344.6	349.9	351.6	344.7	348.1	352.9	363.9	375.4	382.6	386.1	372.7	353.7	254.8	257.5
22	MP	342.0	343.0	348.0	359.0	361.0	359.0	358.0	351.0	349.0	352.0	353.0	350.0	256.0	256.0
23	MP	344.2	349.2	357.6	360.0	365.4	369.4	376.0	376.6	362.4	356.8	361.8	358.4	252.6	256.2
24	MP	357.2	364.1	371.6	377.8	374.2	376.0	378.7	373.0	365.1	363.1	369.8	368.9	262.3	268.4
25	MP	346.3	352.3	354.0	346.3	350.3	357.0	368.3	379.0	385.7	388.3	374.0	357.0	260.7	263.7
26	MP	363.5	374.0	386.1	374.5	359.4	364.8	375.9	374.1	378.1	392.4	381.4	365.9	280.6	288.8
27	MP	361.4	373.4	386.8	375.9	361.9	366.7	378.9	375.8	377.1	389.4	381.1	366.1	282.9	292.1
28	MP	365.1	375.2	387.6	377.5	359.3	363.9	375.6	374.7	377.8	391.7	383.1	367.8	281.7	290.4
29	MP	360.4	368.9	379.4	380.1	364.5	366.7	376.4	374.3	372.6	383.5	383.8	369.9	285.4	293.0
30	MP	362.0	374.0	388.0	377.0	364.0	368.0	381.0	377.0	378.0	390.0	381.0	366.0	285.0	294.0
31	MP	355.7	354.8	358.8	363.5	356.4	355.8	357.9	358.0	357.7	362.5	371.5	363.7	271.7	269.5
32	MP	364.6	373.7	387.1	379.6	357.4	361.1	373.2	373.2	375.5	389.4	384.7	368.6	280.5	289.2
33	MP	341.0	340.7	345.0	357.3	359.3	356.7	356.0	349.3	348.0	351.3	353.0	350.0	255.7	255.0
34	MP	327.0	325.4	326.8	334.2	338.2	340.9	346.2	349.0	352.2	352.8	348.4	342.3	258.6	256.9
35	MP	350.0	336.0	357.5	352.5	351.0	363.5	378.0	377.5	382.5	385.5	370.5	357.0	255.5	258.5
36	MP	340.1	344.8	353.5	356.8	360.6	364.9	371.4	371.3	358.3	352.4	357.4	353.5	248.6	253.2
37	MP	343.9	353.6	364.0	364.3	364.7	371.9	378.1	382.1	372.6	383.8	383.2	357.5	253.5	260.1
38	MP	361.9	374.4	387.4	377.2	363.7	368.6	381.0	377.0	377.9	390.1	381.9	366.8	284.0	293.8
39	MP	326.7	327.7	324.0	324.0	313.0	301.7	305.7	325.3	338.3	345.0	345.7	330.3	233.7	233.7

40	MP	333.7	342.1	350.8	348.9	352.1	356.7	361.5	363.3	357.9	367.2	375.2	351.7	231.2	237.2
41	MP	376.8	379.6	388.4	382.2	363.1	361.5	371.0	374.6	381.2	394.3	388.9	376.2	277.9	282.5
42	MP	361.5	363.5	361.0	353.0	335.0	325.0	330.0	361.0	392.0	400.0	390.0	372.0	264.0	268.5
43	MP	358.0	359.5	348.5	340.5	314.5	292.0	301.0	329.5	359.5	374.5	374.5	364.0	259.5	259.5
44	MP	350.3	351.6	356.8	352.3	362.5	362.1	369.1	389.1	402.5	404.1	387.5	359.9	258.0	261.8
45	MP	352.0	353.7	357.7	353.0	361.0	360.0	364.0	389.0	401.0	401.7	387.3	359.7	260.3	262.7
46	MP	361.5	363.5	361.0	353.0	335.0	325.0	330.0	361.0	392.0	400.0	390.0	372.0	264.0	268.5
47	MP	360.7	358.4	360.1	356.8	351.3	346.8	339.2	374.9	392.1	400.2	388.8	366.0	262.8	264.6
48	MP	347.9	344.2	342.8	341.3	331.8	316.4	321.7	344.3	363.6	375.7	373.2	352.3	252.2	253.3
49	MP	346.4	346.7	347.8	342.5	337.5	327.5	326.2	347.8	367.8	372.3	367.3	350.1	252.2	250.9
50	MP	384.7	395.7	397.7	377.0	357.3	335.0	337.3	347.7	374.0	386.0	378.3	369.3	271.0	277.7
51	MP	262.5	263.9	265.5	266.8	259.4	254.5	257.7	270.5	276.2	282.4	282.8	271.0	167.9	169.5
52	MP	337.9	338.9	329.8	321.3	302.7	282.8	290.3	313.8	337.7	352.6	354.0	345.1	234.5	232.2
53	MP	360.2	360.9	354.7	348.9	332.2	318.5	323.3	351.0	382.6	390.9	386.0	370.4	266.2	269.9
54	MP	314.7	315.7	315.7	311.4	303.3	293.6	295.1	315.0	333.8	341.7	335.6	322.9	222.3	222.5
55	MP	338.5	338.6	341.7	333.3	336.3	338.3	343.0	359.6	368.1	373.8	356.3	342.3	251.1	251.8
56	MP	336.9	343.7	346.0	337.7	335.4	336.6	347.0	358.4	365.3	371.1	356.0	336.3	250.0	251.9
57	MP	340.0	339.0	343.0	356.0	359.0	355.0	354.0	349.0	348.0	351.0	353.0	349.0	256.0	256.0
58	MP	340.0	339.0	343.0	356.0	358.0	355.0	355.0	348.0	347.0	351.0	352.0	349.0	255.0	255.0
59	MP	360.0	371.0	385.0	376.0	357.0	363.0	374.0	372.0	373.0	387.0	381.0	364.0	280.0	289.0
60	MP	345.0	346.0	347.0	342.0	338.0	337.0	347.0	371.0	384.0	384.0	373.0	351.0	256.0	262.0
61	MP	333.5	333.0	331.0	329.5	320.0	308.0	311.5	333.0	348.0	358.0	356.0	337.5	239.0	240.5
62	MP	343.5	343.1	351.6	355.7	358.1	350.6	353.8	360.7	370.7	376.8	374.3	356.4	244.4	244.6
63	MP	319.2	323.0	324.8	329.5	329.8	330.3	336.4	343.6	343.6	343.3	338.8	327.9	251.8	252.6
64	MP	371.1	375.5	389.5	374.8	351.0	332.1	337.1	349.3	364.7	382.9	378.1	360.9	247.6	250.0
65	MP	316.0	319.0	321.0	327.0	326.0	334.0	339.0	345.0	349.0	351.0	344.0	327.0	257.0	255.0
66	MP	317.0	318.0	323.0	328.0	333.0	336.0	342.0	347.0	350.0	350.0	342.0	325.0	250.0	248.0
67	MP	262.3	264.3	265.3	269.7	276.8	274.2	272.7	276.3	283.0	287.4	276.4	278.5	168.4	171.4
68	MP	220.8	217.0	220.6	237.6	248.2	248.9	249.8	255.0	250.4	251.0	242.3	228.1	104.7	105.7
69	MP	310.9	306.1	312.7	327.7	335.3	331.8	330.0	338.3	341.9	338.8	325.4	309.7	205.9	202.4
70	MP	350.7	348.3	356.3	363.1	355.9	345.9	354.3	361.8	369.2	379.0	379.7	362.3	249.9	249.9
71	MP	397.7	407.0	412.3	395.0	376.0	344.3	343.0	353.0	376.7	389.0	388.0	385.3	279.0	285.3
72	MP	397.5	407.0	412.0	395.0	376.0	344.0	343.0	353.0	376.5	389.0	388.0	385.0	279.0	285.0
73	MP	333.0	337.0	338.5	331.5	328.0	323.5	327.0	340.0	358.5	361.0	347.5	334.0	237.5	239.5
74	MP	340.7	340.3	346.8	342.6	344.8	342.3	343.4	364.7	373.8	381.0	369.0	347.1	244.8	244.5
75	MP	336.2	344.2	346.0	336.6	330.1	330.2	342.8	354.6	361.2	365.4	353.3	334.0	248.3	249.7
76	MP	341.8	344.5	352.0	356.5	352.4	353.7	358.1	359.1	357.0	358.6	362.1	356.5	250.8	252.3

77	MP	335.3	337.3	342.3	341.7	347.0	352.0	364.3	375.3	372.0	378.7	366.3	345.7	224.0	232.3
78	MP	319.7	325.7	338.0	356.1	358.7	363.9	374.6	389.6	374.4	384.8	378.2	345.7	218.4	223.2
79	MP	297.3	304.0	299.0	300.0	301.7	299.0	295.7	301.7	314.0	322.0	314.3	306.0	192.0	191.7
80	MP	270.7	274.7	271.3	270.3	272.7	268.7	264.0	270.0	282.3	291.0	283.0	277.0	160.7	160.0
81	MP	341.0	340.7	342.4	342.6	344.5	356.3	347.9	383.3	386.6	391.8	378.2	353.8	230.5	238.3
82	MP	330.8	328.3	332.8	339.0	339.2	340.2	348.9	350.1	351.4	354.7	354.3	344.9	238.8	238.0
83	MP	368.4	384.6	392.7	367.1	343.8	337.5	345.7	363.6	378.0	387.7	373.4	356.3	267.0	272.3
84	MP	335.6	336.3	344.4	356.7	358.5	356.7	365.4	372.1	379.9	384.8	376.7	361.1	228.1	230.1
85	MP	377.5	372.9	382.0	382.2	369.0	358.7	364.6	371.5	379.1	386.7	392.2	380.7	266.6	266.9
86	MP	345.5	343.6	349.1	358.2	353.7	350.7	361.2	364.8	368.3	378.1	376.5	361.0	249.2	248.6
87	MP	346.2	348.9	341.3	353.1	351.9	353.8	369.2	377.9	382.4	389.6	374.4	353.9	250.9	255.8
88	MP	360.5	364.2	372.2	377.0	362.2	362.0	372.3	372.0	371.1	382.9	385.0	370.9	278.7	282.6
89	MP	375.5	380.5	377.5	355.9	342.0	326.8	327.6	341.9	359.5	371.2	367.4	353.5	268.9	269.0
90	MP	340.7	349.2	361.7	361.7	358.4	363.5	369.1	371.1	364.5	375.4	381.7	354.0	245.9	252.3
91	MP	349.6	359.7	370.8	368.2	364.9	371.4	377.1	375.9	370.2	382.8	382.1	360.7	263.8	271.4
92	MP	318.5	314.8	320.6	322.5	327.3	329.6	336.4	341.3	346.1	349.3	345.8	332.9	243.7	243.2
93	MP	367.8	374.4	386.1	373.1	350.9	341.7	352.4	360.1	369.0	383.9	376.5	362.4	261.8	266.4
94	MP	376.7	375.7	384.8	384.3	366.5	359.8	369.2	375.0	382.0	391.6	393.2	380.3	274.0	276.2
95	MP	347.1	353.5	360.7	355.0	354.4	359.1	369.2	379.3	382.2	388.0	375.5	355.2	256.0	258.0
96	MP	344.1	336.2	347.3	348.2	349.3	359.2	372.8	378.3	383.9	388.7	372.0	353.8	246.9	252.8
97	MP	327.7	334.3	341.5	341.5	345.2	350.5	356.1	354.0	343.9	346.1	353.2	343.8	230.8	236.2
98	MP	350.6	350.3	352.5	359.9	360.2	361.1	363.0	360.7	358.9	360.4	363.0	359.6	256.3	255.5
99	MP	344.9	354.6	364.3	363.0	364.7	372.6	378.8	382.6	373.1	384.2	382.8	358.2	256.0	262.5
100	MP	353.0	363.0	374.8	375.0	369.1	373.9	379.5	377.2	371.8	383.7	386.8	363.6	265.9	273.7
101	MP	346.7	354.5	367.0	368.8	361.2	364.9	370.1	367.8	363.8	375.0	382.0	357.0	257.0	263.7
102	MP	345.2	353.1	352.0	354.5	354.4	357.8	370.7	381.8	383.3	390.1	377.0	355.7	250.9	256.7
103	MP	344.2	345.1	352.5	347.3	351.5	356.3	368.3	377.0	384.0	390.7	376.3	356.1	250.3	251.6
104	MP	332.9	340.4	348.1	346.8	348.7	354.6	359.2	355.9	346.9	352.3	359.3	350.2	234.4	240.2
105	MP	350.9	360.8	372.2	372.2	367.9	373.3	378.9	377.9	371.9	383.8	386.3	361.9	263.0	270.4
106	MP	347.6	351.6	346.9	354.9	353.6	355.6	370.3	379.7	383.3	389.6	375.2	355.1	253.5	257.8
107	MP	337.2	346.1	357.3	361.9	363.7	370.3	377.7	385.9	374.4	385.2	383.6	354.5	241.6	247.4
108	MP	344.8	346.5	341.0	350.5	350.8	354.2	368.9	378.8	381.7	388.6	373.6	353.8	246.2	252.4
109	MP	336.7	344.8	352.5	348.5	355.4	363.4	371.6	378.7	374.7	385.7	376.4	354.6	247.2	253.4
110	MP	342.8	345.1	349.0	343.7	346.3	346.5	350.7	368.3	376.3	381.7	369.0	349.4	244.4	244.8
111	MP	340.7	345.7	347.9	343.5	345.2	348.9	356.8	368.7	376.4	386.0	376.0	350.1	237.5	237.9
112	MP	341.9	342.2	346.1	352.7	346.0	346.2	352.6	352.5	352.0	356.8	361.3	352.6	255.2	253.0
113	MP	354.4	365.2	376.9	372.8	366.1	372.0	377.9	374.8	371.2	384.4	383.3	363.5	271.3	279.4

114	MP	340.5	345.5	348.8	343.8	346.0	349.6	359.9	370.9	378.1	387.7	376.8	349.8	240.7	241.7
115	MP	367.2	363.6	374.4	373.8	364.6	349.7	351.9	358.9	367.7	376.3	382.4	369.6	247.6	247.3
116	MP	343.9	347.2	351.9	346.7	349.2	351.3	354.8	368.5	375.4	381.5	366.8	349.5	248.7	248.8
117	MP	343.6	345.9	349.6	344.2	346.4	346.4	351.4	369.4	377.2	382.9	370.0	350.6	244.5	245.1
118	MP	357.7	363.2	372.1	375.5	359.9	360.9	370.9	369.7	368.2	379.4	381.5	367.2	278.1	283.1
119	MP	348.3	353.6	364.0	367.2	357.0	359.0	362.7	359.5	356.9	366.3	374.9	356.3	259.6	264.0
120	MP	336.5	343.7	351.3	350.7	351.5	356.8	361.6	358.5	349.3	353.6	360.7	352.4	239.4	245.4
121	MP	345.6	354.5	360.5	347.4	344.0	346.5	357.9	366.2	377.4	388.9	371.5	349.5	261.6	265.2
122	MP	338.8	347.0	355.0	352.1	359.5	368.5	376.5	384.0	376.8	387.2	378.0	355.7	248.2	254.7
123	MP	346.8	355.4	361.5	354.1	353.6	356.5	365.9	376.0	380.6	387.9	375.2	353.3	258.7	260.5
124	MP	337.9	345.3	351.2	349.4	356.0	362.2	372.5	381.7	378.0	386.9	375.1	354.0	242.1	249.8
125	MP	360.4	366.4	376.5	379.4	359.8	360.1	371.3	371.4	370.9	384.1	385.3	370.1	279.5	285.8
126	MP	343.0	345.0	341.0	348.0	349.0	354.0	369.0	379.0	379.0	387.0	373.0	353.0	241.0	248.0
127	MP	341.0	345.0	343.0	347.0	349.0	354.0	369.0	380.0	378.0	385.0	372.0	352.0	237.0	246.0
128	MP	345.3	352.5	348.2	353.7	354.3	356.3	370.0	381.0	382.4	389.7	376.3	354.8	249.7	255.6
129	MP	349.7	340.3	356.0	353.0	351.8	361.0	375.1	378.6	382.2	386.0	371.3	356.1	255.5	258.5
130	MP	342.0	346.0	341.0	348.0	350.0	353.0	368.0	379.0	379.0	387.0	373.0	353.0	241.0	248.0
131	MP	342.4	344.4	341.0	347.4	348.6	352.8	368.8	378.6	378.2	386.0	372.2	352.4	239.2	246.6
132	MP	343.0	346.0	341.0	349.0	350.0	353.0	369.0	379.0	379.0	387.0	373.0	353.0	242.0	249.0
133	MP	348.0	334.3	355.0	350.0	350.7	361.7	376.7	378.0	382.3	385.0	370.7	356.0	253.3	256.7
134	MP	343.0	344.0	341.0	348.0	349.0	354.0	369.0	379.0	379.0	386.0	373.0	353.0	239.0	247.0
135	MP	319.7	315.2	322.4	323.1	328.2	330.5	337.6	342.9	347.9	351.6	348.0	333.5	243.5	243.1
136	MP	338.4	347.0	358.8	358.0	357.5	362.8	368.6	372.7	365.6	376.2	382.4	353.9	240.0	246.0
137	MP	339.9	346.7	349.2	349.7	353.8	358.7	370.6	380.6	378.2	386.0	374.2	353.3	241.6	249.4
138	MP	356.4	368.1	380.7	377.5	366.1	371.3	378.1	373.0	370.4	383.4	383.0	364.7	275.4	284.4
139	MP	336.2	334.8	338.3	344.9	342.1	342.8	349.7	350.4	351.3	354.7	356.4	348.4	247.1	244.9
140	MP	362.3	373.1	386.6	378.3	359.3	362.7	375.6	374.3	375.4	388.8	383.6	366.9	281.6	291.1
141	MP	336.0	343.9	351.2	348.8	356.2	363.6	373.0	381.7	376.7	386.2	374.6	353.2	242.3	249.2
142	MP	344.3	353.9	360.7	353.4	351.6	357.6	366.3	375.8	380.3	388.0	375.9	353.7	256.7	260.5
143	MP	355.0	355.4	361.7	369.5	358.7	356.6	367.3	369.1	370.1	381.8	382.9	368.0	265.9	266.9
144	MP	315.4	316.6	322.4	327.0	330.1	334.9	342.8	345.9	349.5	350.6	342.7	325.4	241.7	242.4
145	MP	336.3	343.1	352.9	357.4	358.9	356.1	362.2	367.6	368.8	370.5	365.1	344.1	236.9	235.9
146	MP	331.4	342.7	358.7	362.6	359.8	347.4	346.3	350.0	354.1	359.4	355.2	340.4	236.5	231.8
147	MP	333.0	343.2	357.6	362.0	359.6	350.0	351.6	355.8	359.6	363.4	359.4	342.6	238.0	234.4
148	MP	385.9	398.6	411.9	399.4	380.5	348.0	337.5	344.2	363.7	379.2	381.6	378.5	262.6	266.8
149	MP	315.1	322.0	335.3	336.2	334.1	323.0	325.8	329.7	334.3	341.0	338.3	320.3	206.9	205.1
150	MP	339.3	351.8	364.8	370.3	366.4	353.5	347.4	352.4	356.6	362.9	360.6	346.3	234.3	233.4

151	MP	347.3	355.4	372.6	372.5	366.7	341.8	334.0	340.1	351.2	365.0	363.3	347.4	231.0	230.2
152	MP	327.1	331.3	338.6	343.5	344.0	342.5	348.9	353.8	354.0	354.9	350.0	333.0	237.5	237.0
153	MP	339.5	350.1	364.7	369.0	366.5	349.9	346.8	350.9	355.3	362.8	360.7	345.7	238.7	234.8
154	MP	375.7	385.1	393.4	377.5	358.7	326.5	324.1	334.1	357.7	373.2	371.1	365.1	251.4	257.3
155	MP	370.1	374.5	388.7	374.3	350.9	331.4	336.3	348.2	363.5	381.8	377.2	360.2	246.7	249.0
156	MP	316.0	320.0	322.0	327.0	326.0	334.0	339.0	344.0	348.0	352.0	343.0	326.0	257.0	256.0
157	MP	394.0	404.0	410.0	393.0	373.0	341.0	340.0	352.0	375.0	390.0	388.0	383.0	272.0	279.0
158	MP	349.0	348.0	341.3	326.5	302.3	278.5	290.8	320.0	348.3	363.5	363.5	355.3	243.8	240.5
159	MP	340.7	347.0	362.8	359.3	350.7	327.4	326.1	332.8	344.0	358.5	356.0	339.4	223.2	223.1
160	MP	331.2	334.0	336.2	339.0	344.0	351.0	356.6	359.0	361.4	357.0	352.0	340.0	250.4	251.4
161	MP	322.8	324.6	326.6	329.8	332.4	337.4	344.4	350.2	356.0	354.0	346.0	330.6	248.2	247.0
162	MP	320.7	320.8	322.3	326.5	329.2	334.5	341.5	346.7	355.0	353.3	344.3	327.7	247.7	244.5
163	MP	318.3	318.8	322.0	326.5	330.8	338.8	347.3	350.5	354.6	353.0	344.6	327.6	239.1	238.5
164	MP	341.8	342.5	350.3	349.6	351.8	348.8	349.3	367.4	372.2	382.4	368.0	346.7	243.6	243.9
165	MP	353.7	364.9	377.0	376.7	367.7	372.4	377.8	373.3	369.5	381.2	383.1	363.7	269.8	278.1
166	MP	325.2	326.8	319.5	309.6	295.8	277.5	283.4	304.0	324.4	339.0	340.8	332.8	220.1	215.7
167	MP	366.2	376.7	388.6	377.5	361.0	366.0	377.4	376.0	379.7	393.9	383.7	368.4	282.9	291.5
168	MP	333.3	333.8	336.6	332.4	328.5	317.5	315.6	335.8	352.9	356.1	353.8	336.5	237.8	236.8
169	MP	318.4	316.1	324.3	327.5	329.5	332.1	340.1	342.9	345.3	348.9	346.5	330.3	234.9	236.9
170	MP	340.6	347.9	349.7	350.2	353.6	358.3	370.2	380.1	378.6	386.5	375.2	354.2	244.4	251.4
171	MP	308.5	314.6	327.5	327.3	324.5	311.7	314.2	318.4	323.6	332.0	330.0	312.1	193.9	193.2
172	MP	307.1	307.0	302.2	299.4	290.5	279.3	281.2	299.6	316.7	333.5	332.7	319.6	192.3	191.2
173	MP	240.4	241.7	244.1	241.6	238.2	231.7	236.6	242.1	255.6	256.4	244.0	235.1	130.5	132.5
174	MP	332.3	332.4	336.1	336.8	346.3	346.1	348.8	355.9	361.5	363.8	346.1	335.9	217.6	215.1
175	MP	318.0	314.8	324.0	325.6	328.2	330.8	339.2	342.6	345.3	349.1	346.6	330.2	234.4	236.3
176	MP	319.3	314.6	323.1	321.8	327.5	330.5	337.0	344.0	350.6	355.4	350.5	332.6	247.0	245.9
177	MP	345.5	354.5	366.6	367.3	363.2	368.2	373.9	374.6	368.0	379.5	384.3	357.8	254.1	260.9
178	MP	346.9	347.5	346.4	339.0	337.0	328.3	327.2	346.7	368.8	365.6	358.5	337.5	257.5	255.0
179	MP	299.7	306.7	301.6	301.6	302.9	299.6	295.7	303.6	316.1	323.7	314.7	307.6	195.1	194.7
180	MP	366.0	375.7	385.6	370.0	351.7	357.7	368.8	370.1	379.7	396.0	382.1	365.5	274.5	280.9
181	MP	338.3	346.5	354.5	352.8	360.1	368.6	376.7	384.6	377.4	387.2	377.6	355.1	246.2	252.6
182	MP	311.3	313.4	319.9	324.7	328.9	333.0	336.4	339.4	341.6	341.0	336.7	319.1	218.3	219.5
183	MP	233.9	235.9	235.7	233.4	230.8	220.2	219.1	226.0	242.5	249.0	241.2	231.2	124.0	125.9
184	MP	310.0	310.9	312.3	308.3	302.7	294.3	294.6	313.8	330.5	336.0	331.6	316.8	216.3	216.2
185	MP	326.9	327.3	334.7	342.5	342.3	336.9	336.6	355.6	355.1	369.4	356.5	330.0	220.2	221.5
186	MP	347.4	342.6	356.0	351.3	352.6	360.3	373.4	378.9	384.6	389.2	374.0	356.8	253.2	255.7
187	MP	321.0	317.2	324.9	326.7	329.6	332.0	340.5	344.1	347.2	350.8	348.4	334.4	236.3	237.1

188	MP	282.3	285.5	295.5	295.9	294.8	292.2	294.1	298.5	304.7	308.9	306.0	288.6	173.5	174.8
189	MP	343.6	354.1	361.5	352.2	348.9	356.9	364.1	370.4	376.3	387.7	376.7	355.1	258.6	263.3
190	MP	288.6	289.9	291.9	286.0	281.9	274.0	279.6	286.9	304.9	304.5	286.6	278.8	183.4	185.2
191	MP	340.3	347.0	347.0	341.1	334.7	333.1	346.2	359.4	364.8	367.6	356.3	341.8	249.6	250.0
192	MP	344.9	352.7	350.0	350.3	338.2	327.3	339.5	351.4	360.4	361.2	348.7	342.5	254.7	251.2
193	MP	242.2	242.9	248.2	244.1	241.8	233.9	237.0	242.8	257.4	255.7	239.2	231.1	138.9	142.2
194	MP	297.7	300.2	299.8	288.4	288.7	279.2	281.5	293.6	312.1	311.7	289.2	280.3	198.6	198.4
195	MP	237.5	238.0	240.0	237.0	233.0	221.5	221.0	228.5	247.5	252.0	235.5	227.0	130.0	135.0
196	MP	348.2	346.9	346.2	338.2	335.8	325.7	323.8	342.3	363.4	366.7	355.4	340.1	254.5	252.6
197	MP	338.8	346.7	345.5	342.3	333.0	327.8	340.5	353.4	360.0	361.5	350.0	337.9	249.6	248.7
198	MP	290.6	291.7	294.3	289.1	284.1	277.7	284.3	291.2	307.9	306.7	289.8	281.2	184.7	186.6
199	MP	361.1	362.6	358.3	348.5	342.4	324.2	329.2	345.8	358.7	368.0	359.7	346.9	264.1	258.7
200	MP	367.8	368.3	369.6	349.0	346.7	329.6	330.8	345.0	362.3	369.2	355.5	346.5	257.6	255.7
201	MP	204.0	207.2	209.4	197.3	196.8	180.0	178.8	185.7	203.8	209.1	196.1	191.0	101.9	104.1
202	MP	367.7	367.8	369.8	351.6	349.0	336.6	339.9	355.2	373.0	375.6	359.1	348.8	252.1	250.9
203	MP	344.7	351.9	350.5	345.1	333.5	326.0	333.5	346.9	358.7	362.9	351.6	339.2	252.8	250.7
204	MP	342.0	339.3	339.2	338.7	335.3	338.9	338.7	367.9	379.9	386.2	373.0	349.8	229.5	232.4
205	MP	274.8	271.7	277.6	293.9	301.6	299.7	299.3	309.3	303.9	314.1	300.6	277.5	149.6	148.6
206	MP	332.5	330.4	335.4	335.9	340.8	352.4	356.6	377.7	379.5	385.8	369.9	345.9	222.9	232.9
207	MP	351.5	355.0	370.2	360.3	341.2	323.0	329.6	338.2	349.1	367.4	363.2	347.1	240.2	241.4
208	MP	366.7	380.5	390.9	368.6	342.4	335.3	345.8	359.7	371.8	384.5	371.7	356.2	260.5	266.3
209	MP	244.7	244.7	244.4	241.7	246.1	245.4	238.1	243.0	252.6	258.9	252.0	250.6	141.1	140.4
210	MP	265.1	263.3	265.0	269.6	279.1	281.2	285.3	286.0	289.7	288.7	275.2	272.9	148.4	146.4
211	MP	336.0	345.0	355.0	358.7	362.7	370.6	378.1	386.9	374.7	384.9	380.4	353.1	241.7	247.7
212	MP	235.7	236.9	236.4	234.5	237.3	231.7	229.6	236.1	249.2	253.0	243.5	235.9	127.4	129.3
213	MP	346.0	345.6	348.9	349.0	352.2	362.4	357.2	388.9	398.2	402.7	381.7	355.6	241.3	249.2
214	MP	373.0	371.8	381.3	378.3	362.5	355.2	363.7	368.2	376.0	385.9	386.5	374.3	268.3	270.2
215	MP	344.5	342.8	348.0	340.6	345.6	345.9	349.6	364.9	373.7	378.2	360.8	348.4	250.0	250.1
216	MP	335.4	343.8	353.6	351.1	350.5	355.7	360.2	359.5	354.0	362.7	371.5	351.7	235.0	241.3
217	MP	364.7	376.0	388.1	367.1	339.7	329.3	338.9	353.2	365.7	380.4	369.5	352.6	248.7	253.6
218	MP	278.3	280.1	282.8	278.5	276.8	269.9	274.2	282.1	298.5	299.3	285.1	275.3	165.6	167.6
219	MP	315.5	317.5	317.5	329.5	339.5	336.5	337.0	340.5	342.0	340.5	329.0	322.5	199.0	196.5
220	MP	188.6	184.2	195.3	195.8	198.8	191.5	192.2	205.7	206.4	228.1	221.3	205.3	62.2	59.2
221	MP	377.9	374.8	383.8	383.7	368.6	359.9	367.7	373.8	381.4	389.4	393.4	381.1	271.1	272.3
222	MP	267.5	267.7	272.3	279.0	272.8	268.6	272.2	279.3	276.4	284.9	290.9	276.6	153.6	153.1
223	MP	359.7	356.6	352.2	347.3	335.6	321.5	325.2	350.0	373.9	383.8	383.0	368.5	257.6	260.1
224	MP	219.6	215.7	218.1	213.0	221.6	225.9	216.5	219.9	225.8	229.5	223.6	222.2	113.8	113.2

225	MP	285.9	285.2	285.8	299.8	308.8	304.4	304.1	310.1	311.7	310.8	298.9	286.7	170.0	168.0
226	MP	394.5	400.1	408.0	391.0	368.0	343.4	345.5	356.6	380.3	396.9	392.5	379.6	267.8	274.3
227	MP	336.1	340.7	339.2	334.0	331.6	326.5	328.9	343.6	363.0	366.6	349.4	334.8	243.3	242.3
228	MP	343.2	345.5	350.6	345.3	347.8	348.3	351.3	368.3	375.4	381.9	368.1	349.2	246.3	246.5
229	MP	340.0	338.3	339.1	339.3	339.2	346.4	344.1	374.7	381.1	386.2	374.1	351.5	228.8	234.0
230	MP	331.1	337.1	349.2	364.6	367.6	373.1	384.9	397.7	387.1	394.3	383.5	357.2	230.0	235.2
231	MP	337.1	335.1	341.7	342.1	346.6	356.6	364.0	377.8	388.7	394.7	373.1	348.3	236.5	245.1
232	MP	337.8	345.1	348.5	347.8	352.4	358.3	369.8	379.6	376.7	384.8	373.1	352.1	239.6	247.6
233	MP	337.8	344.8	351.8	351.0	357.8	364.7	374.3	383.4	378.7	387.5	375.3	353.3	240.7	247.9
234	MP	349.3	358.5	368.1	357.9	354.0	360.8	367.0	368.5	373.7	389.2	380.0	361.9	266.1	270.0
235	MP	355.0	353.7	358.0	363.0	355.3	355.7	358.0	357.7	357.3	362.0	371.0	362.3	270.7	267.0
236	MP	367.6	376.4	387.6	376.2	358.2	363.3	373.3	373.7	379.6	394.9	383.1	367.7	280.0	287.8
237	MP	363.0	374.3	387.1	376.1	360.7	365.7	377.5	375.8	377.6	390.6	381.7	366.8	282.4	291.5
238	MP	365.2	366.9	378.6	371.6	355.5	343.9	353.0	358.0	366.5	380.9	377.3	364.0	261.0	263.8
239	MP	334.9	339.5	348.4	351.4	355.5	359.5	366.3	366.0	353.5	347.2	352.2	348.5	243.2	247.9
240	MP	346.9	347.2	348.4	349.9	350.3	364.3	348.5	390.8	397.1	401.0	383.0	357.4	240.0	247.1
241	MP	336.5	344.5	352.4	350.4	358.1	366.2	374.8	383.3	376.8	386.3	375.7	353.6	243.7	250.3
242	MP	361.0	372.0	386.0	376.0	362.0	367.0	380.0	376.0	376.0	388.0	381.0	365.0	283.0	292.0
243	MP	340.9	346.8	348.1	349.5	353.0	357.3	370.6	380.7	378.1	385.7	373.6	353.1	240.8	248.3
244	MP	340.5	340.3	344.8	356.8	359.0	356.3	355.8	349.0	347.5	351.3	352.5	349.8	255.5	255.0
245	MP	339.2	340.6	344.8	363.1	367.6	369.1	375.4	389.0	380.0	389.2	389.9	362.5	235.4	240.3
246	MP	336.5	336.5	337.0	331.5	326.0	315.5	315.5	337.5	358.5	365.5	358.5	342.0	241.5	241.0
247	MP	359.0	361.3	359.0	352.7	343.9	341.5	333.1	370.7	397.3	399.7	388.7	367.2	259.4	263.7
248	MP	356.6	352.8	350.8	347.2	336.8	322.5	321.0	353.9	380.4	391.1	385.3	363.7	260.8	264.8
249	MP	322.0	320.0	324.0	327.5	331.3	333.3	340.3	343.5	348.3	350.3	347.0	336.3	244.5	244.3
250	MP	312.7	313.3	312.1	315.5	304.9	295.4	298.8	315.7	323.7	330.9	334.8	318.4	211.2	210.4
251	MP	349.1	350.1	349.6	349.3	347.1	359.5	340.8	387.0	394.7	398.6	382.8	358.9	241.3	247.3
252	MP	335.0	338.3	346.5	358.0	361.5	363.8	376.0	380.0	395.0	386.5	376.0	363.3	227.0	230.0
253	MP	335.0	341.0	347.0	349.0	355.0	360.0	365.0	364.0	353.0	353.0	360.0	350.0	239.0	244.0
254	MP	212.8	212.4	212.6	206.4	205.6	192.6	191.8	200.2	221.0	226.0	207.8	199.8	111.8	113.2
255	MP	264.7	266.3	269.0	264.3	260.7	252.3	256.0	263.0	280.7	281.0	261.7	254.3	159.7	162.3
256	MP	314.6	314.9	321.1	323.2	325.1	330.0	335.6	340.8	345.0	348.0	342.1	324.5	246.6	246.0
257	MP	231.0	233.0	231.5	224.5	227.5	217.5	217.5	226.0	245.0	247.0	225.5	217.5	147.0	147.0
258	MP	377.0	380.0	381.0	361.0	356.0	336.0	338.0	351.0	365.0	372.0	360.0	356.0	260.0	260.0
259	MP	382.5	385.5	386.0	363.0	359.0	337.5	338.5	351.0	368.5	377.5	366.5	360.5	270.5	269.5
260	MP	342.9	347.9	362.9	363.0	357.7	336.9	334.3	340.4	349.8	362.0	361.5	343.7	224.3	224.2
261	MP	318.5	319.5	323.5	327.8	332.0	336.5	343.8	348.0	353.5	352.0	343.3	327.5	249.5	247.0

262	MP	349.1	359.9	366.6	347.8	336.4	339.8	353.1	360.7	372.6	385.1	371.1	347.8	255.4	259.6
263	MP	315.8	315.5	322.3	323.5	324.8	330.0	335.5	341.5	346.8	350.5	344.5	326.8	249.8	248.3
264	MP	328.0	324.4	330.0	338.0	338.1	334.3	335.3	338.6	341.4	346.6	348.0	338.2	259.5	257.8
265	MP	361.6	372.4	381.0	361.4	343.5	349.3	363.2	366.6	378.6	393.4	379.4	360.6	267.6	272.7
266	MP	338.9	346.2	352.9	351.0	357.3	364.3	374.0	383.1	379.0	388.0	376.3	355.3	244.2	251.3
267	MP	341.2	349.8	357.6	354.9	362.4	371.9	379.2	386.8	378.3	388.2	380.1	357.6	251.3	257.7
268	MP	358.0	369.2	382.6	375.2	363.9	369.0	376.5	372.6	371.5	386.6	383.6	364.8	277.7	286.5
269	MP	340.6	345.1	347.8	343.9	343.6	344.3	349.6	364.6	371.1	379.2	366.1	346.9	245.5	245.9
270	MP	346.3	354.8	364.4	356.4	357.4	364.8	371.1	373.7	375.1	389.9	382.9	362.4	263.0	267.5
271	MP	352.7	363.1	373.1	362.8	358.3	364.3	371.4	370.8	374.2	389.7	380.7	362.9	270.0	275.3
272	MP	326.6	324.3	327.6	332.5	333.9	335.8	342.6	344.7	347.6	348.6	347.1	339.3	241.8	240.0
273	MP	362.3	373.3	386.0	374.1	360.5	365.5	377.1	374.6	377.9	391.7	381.1	365.6	281.1	289.6
274	MP	361.7	373.5	386.2	375.5	362.3	367.3	379.2	376.0	377.7	390.0	381.0	365.8	283.0	292.3
275	MP	360.7	371.3	385.0	381.1	360.3	363.5	374.8	371.9	371.8	385.4	384.3	367.7	281.9	291.3
276	MP	349.5	359.8	368.8	357.9	352.1	359.3	366.2	367.6	373.9	389.0	378.3	360.7	266.1	270.6
277	MP	338.4	338.0	339.4	346.8	349.8	351.8	356.0	355.6	357.3	356.0	354.3	350.5	255.4	253.4
278	MP	348.0	358.7	365.2	347.0	336.0	339.2	352.4	360.2	372.0	384.0	369.9	346.7	254.8	259.0
279	MP	347.9	359.5	367.2	355.0	346.8	355.7	363.3	366.9	375.3	389.2	377.1	355.4	264.1	269.2
280	MP	345.8	354.8	363.7	354.1	350.7	358.0	364.1	367.5	373.9	388.4	378.2	359.9	262.0	265.7
281	MP	351.7	361.8	371.8	362.0	358.4	364.8	371.4	371.2	374.4	389.7	381.2	363.2	269.0	274.1
282	MP	340.7	346.3	351.8	345.9	349.6	346.6	351.2	365.9	374.8	382.3	367.4	350.1	250.4	252.7
283	MP	274.0	275.2	274.1	272.5	277.6	277.1	267.0	273.8	283.0	290.1	283.4	281.9	164.8	163.6
284	MP	378.2	375.8	384.9	383.8	368.1	360.5	368.1	373.7	381.4	389.6	392.5	380.7	272.2	273.3
285	MP	336.3	343.7	347.2	338.1	335.9	336.6	347.5	358.6	366.5	372.7	357.0	336.3	249.9	252.6
286	MP	331.0	330.0	334.0	334.5	340.5	344.5	354.5	365.5	369.0	376.5	361.5	342.5	218.5	223.5
287	MP	366.5	373.5	385.9	382.5	357.0	358.6	370.9	373.3	375.9	389.9	387.9	371.6	279.5	287.4
288	MP	361.8	362.3	353.0	348.5	331.0	319.3	321.3	349.0	377.0	386.5	384.0	372.3	265.8	268.5
289	MP	344.1	356.3	362.4	351.7	345.8	355.4	362.4	368.4	376.1	387.9	376.2	351.9	260.5	265.9
290	MP	339.5	345.4	348.1	348.1	352.9	357.8	370.1	380.1	376.8	385.0	372.7	352.2	238.4	247.0
291	MP	333.2	331.6	334.0	340.0	340.2	341.5	347.3	348.1	350.0	350.3	350.6	344.7	245.3	242.6
292	MP	341.0	348.1	355.9	355.7	355.8	361.1	365.7	362.3	353.2	356.8	364.2	356.3	245.2	250.8
293	MP	320.8	314.8	318.4	320.5	327.3	331.8	335.1	342.1	348.0	353.3	349.3	336.3	254.4	252.2
294	MP	348.7	358.3	368.8	364.1	363.0	370.4	376.4	376.2	371.6	384.8	381.9	360.5	263.7	270.6
295	MP	337.5	345.0	355.8	355.5	352.8	357.3	362.2	363.2	357.6	366.4	375.1	351.5	239.6	245.9
296	MP	369.7	367.0	377.8	377.0	369.2	354.8	355.3	362.6	371.5	379.3	385.5	372.2	247.2	247.6
297	MP	348.3	348.3	352.6	351.0	354.8	363.0	361.8	388.5	402.3	406.1	383.2	356.3	246.6	254.3
298	MP	345.4	337.3	352.8	348.7	351.1	361.0	373.9	378.1	385.8	390.2	373.2	355.8	250.3	254.3

299	MP	253.2	255.1	256.9	253.8	251.9	243.5	245.4	253.0	268.2	270.2	259.3	250.3	143.8	145.0
300	MP	342.2	341.3	346.5	346.7	351.1	360.0	364.1	382.7	395.7	401.1	377.9	351.9	240.5	250.3
301	MP	369.8	379.1	382.5	358.4	335.8	328.4	328.9	343.3	368.9	376.8	369.3	352.3	255.1	260.2
302	MP	312.0	313.0	318.0	321.0	320.0	328.0	332.0	338.0	342.0	346.0	339.5	322.0	248.5	246.5
303	MP	352.7	353.6	352.3	349.2	343.5	348.5	336.8	379.1	393.6	398.0	383.5	361.3	245.6	250.2
304	MP	345.3	346.3	344.6	337.4	337.0	326.7	326.6	348.7	368.0	365.1	358.1	336.1	258.3	253.8
305	MP	329.5	330.7	336.9	339.9	334.7	324.6	324.0	345.1	351.7	360.6	355.5	333.8	231.0	232.7
306	MP	295.1	291.6	298.8	315.0	321.8	318.7	317.1	328.2	322.2	331.0	317.6	296.0	174.5	173.6
307	MP	274.7	276.0	276.8	278.8	285.0	284.8	276.9	283.1	289.2	293.8	286.4	286.4	172.3	172.9
308	MP	319.9	316.2	323.0	332.4	341.0	338.0	338.0	348.1	353.5	354.2	337.7	323.2	210.9	208.8
309	MP	349.4	349.8	348.8	340.0	339.5	328.3	325.9	349.7	371.1	364.7	361.1	337.0	262.3	259.1
310	MP	320.4	318.5	326.6	342.2	345.6	341.7	339.9	353.3	343.7	357.1	339.9	318.0	203.4	203.1
311	MP	343.7	345.9	353.0	348.5	350.4	349.1	350.8	367.9	374.2	382.4	367.6	348.8	247.6	248.0
312	MP	313.6	319.4	316.0	317.8	316.3	313.8	309.9	318.8	328.4	335.9	328.5	323.4	211.2	210.0
313	MP	317.6	316.6	322.1	333.9	339.9	336.4	334.1	342.6	346.8	343.3	329.6	318.1	213.9	212.1
314	MP	355.7	351.5	351.1	348.5	340.3	327.9	325.3	357.6	381.4	392.4	385.0	361.4	261.0	264.0
315	MP	342.4	340.8	339.9	337.7	328.5	315.8	319.5	340.6	359.7	371.3	365.6	347.2	247.1	247.6
316	MP	341.6	343.1	342.2	337.1	333.6	327.6	327.9	342.3	363.7	366.6	353.4	337.6	247.6	246.6
317	MP	221.4	222.7	223.6	221.8	217.8	208.8	210.6	215.8	231.6	236.9	227.0	218.1	110.8	112.1
318	MP	310.1	311.6	314.9	310.2	305.6	302.4	309.7	317.0	330.3	329.2	314.8	305.4	206.1	207.7
319	MP	250.0	251.3	256.7	252.3	250.0	244.3	249.3	255.3	269.0	263.3	245.0	238.0	145.0	148.7
320	MP	346.3	351.2	347.9	340.7	340.7	344.3	343.5	357.7	370.3	382.9	367.5	352.9	251.1	253.3
321	MP	350.6	350.1	352.8	346.7	345.4	342.1	344.6	370.1	387.1	387.6	379.1	356.0	258.9	260.9
322	MP	186.3	182.1	194.4	195.0	197.6	190.3	191.3	204.9	203.7	225.3	218.3	201.1	59.3	56.3
323	MP	353.8	353.5	353.8	349.2	348.3	353.0	352.1	366.9	376.4	387.8	367.6	353.4	255.4	256.9
324	MP	350.9	352.4	355.1	351.7	350.6	354.9	353.6	368.3	379.1	387.3	367.2	353.1	255.4	257.6
325	MP	338.3	341.8	340.4	336.5	335.4	333.7	335.7	351.4	367.4	370.4	351.9	339.6	248.7	247.7
326	MP	349.3	349.3	351.9	347.1	344.9	335.3	332.0	353.0	371.7	374.3	372.5	352.0	252.1	250.4
327	MP	344.0	342.0	340.0	334.0	328.0	318.0	323.0	336.0	352.0	358.0	341.0	335.0	247.0	245.0
328	MP	344.9	344.1	351.2	346.0	351.2	349.9	352.3	366.7	373.9	380.1	364.6	350.0	251.4	250.7
329	MP	341.6	342.4	348.6	342.8	347.7	347.3	351.3	364.6	372.2	378.8	362.4	346.6	249.9	249.1
330	MP	340.3	344.3	340.3	346.3	348.3	351.3	367.3	378.0	377.0	384.3	370.7	350.3	238.0	245.7
331	MP	340.4	341.9	341.3	343.9	346.9	352.9	367.9	379.3	376.0	383.0	370.5	351.4	231.8	241.0
332	MP	342.7	347.6	350.1	344.3	346.9	350.6	360.4	371.5	378.9	387.5	376.5	351.7	242.2	242.7
333	MP	353.2	355.9	360.3	369.9	370.3	369.5	369.2	363.8	360.0	361.1	364.1	362.2	255.2	255.6
334	MP	345.0	356.1	362.5	344.0	332.8	334.6	346.7	356.3	368.0	378.7	364.5	342.6	250.8	255.0
335	MP	343.1	352.0	357.8	344.0	340.5	342.2	353.6	362.3	374.3	386.1	369.4	345.0	256.2	260.1

336	MP	347.5	347.3	350.8	350.4	353.5	362.8	359.5	389.0	400.5	404.5	382.3	356.7	244.1	252.1
337	MP	349.2	356.0	361.5	355.5	355.7	358.1	367.4	378.0	381.3	387.9	376.3	355.7	258.0	257.7
338	MP	341.2	344.3	341.5	345.3	347.8	353.2	368.5	379.5	377.2	384.7	371.2	352.3	236.2	244.0
339	MP	349.7	360.5	367.5	350.1	341.4	350.2	362.6	367.2	379.2	391.1	378.1	353.7	265.1	268.6
340	MP	343.3	346.8	349.5	344.3	346.1	347.1	352.0	367.7	375.8	382.4	370.7	351.2	240.5	240.7
341	MP	342.7	343.8	347.2	342.1	343.2	342.6	349.5	369.8	379.6	382.6	370.2	349.5	250.3	253.0
342	MP	335.3	327.0	317.8	340.8	343.8	342.3	340.0	339.0	342.5	351.8	355.5	350.0	251.0	250.8
343	MP	351.7	356.7	363.7	368.0	368.7	375.0	381.7	380.7	369.7	364.0	366.3	365.7	257.7	262.3
344	MP	352.5	353.5	353.5	354.5	353.5	366.5	347.0	395.5	402.5	405.5	386.5	361.5	246.5	253.0
345	MP	325.0	323.0	328.0	335.0	335.0	332.0	333.0	336.0	339.0	344.0	344.0	335.0	260.0	258.0
346	MP	350.2	355.2	363.7	367.5	368.3	374.2	380.3	379.3	367.3	361.5	364.5	364.3	257.5	261.8
347	MP	341.8	344.3	342.8	346.0	348.8	353.8	368.8	380.5	377.8	385.0	371.8	352.8	235.5	244.5
348	MP	343.0	346.0	344.3	347.0	350.0	355.0	370.0	381.0	378.7	386.0	373.0	354.0	237.3	246.0
349	MP	338.7	345.7	350.6	349.3	354.9	361.0	371.7	381.0	377.8	386.6	374.9	353.8	242.3	249.7
350	MP	339.5	345.2	349.4	348.6	353.7	359.4	371.2	381.2	377.4	385.5	373.0	352.6	238.0	246.2
351	MP	345.3	345.0	347.0	354.9	356.9	358.3	361.3	358.7	358.4	358.5	358.7	355.7	253.6	252.1
352	MP	358.4	364.0	369.4	378.5	376.4	376.0	376.1	370.3	365.6	364.2	369.3	367.9	261.3	264.6
353	MP	341.0	344.0	341.0	347.0	348.0	352.0	367.0	378.0	377.0	384.0	371.0	351.0	238.0	246.0
354	MP	343.0	344.0	343.0	346.0	349.0	355.0	369.0	382.0	378.0	385.0	372.0	354.0	235.0	244.0
355	MP	346.8	343.8	355.3	350.2	352.8	359.0	371.7	378.4	384.5	389.9	374.6	358.6	252.6	253.8
356	MP	343.3	336.4	348.2	347.5	350.2	360.9	372.7	379.2	387.2	392.7	373.9	353.9	245.7	252.5
357	MP	342.0	343.0	342.0	345.0	347.0	353.0	368.0	380.0	377.0	384.0	371.0	352.0	233.0	243.0
358	MP	344.3	353.2	361.4	352.4	350.5	358.0	364.4	369.5	375.2	388.2	378.4	358.4	259.6	263.5
359	MP	350.2	348.4	354.4	355.6	353.9	359.4	373.5	380.9	383.7	388.9	374.5	356.8	256.7	259.5
360	MP	334.0	328.9	326.1	343.0	345.5	344.6	341.6	341.1	344.3	349.8	351.1	347.0	255.1	254.0
361	MP	340.5	340.5	343.9	351.7	354.9	355.7	357.0	354.2	354.3	355.7	355.1	352.4	253.3	252.0
362	MP	334.8	326.7	318.5	340.6	343.3	342.2	339.9	339.0	342.6	351.4	355.0	349.5	251.5	250.8
363	MP	341.0	345.0	344.0	346.5	349.3	353.8	368.5	379.5	376.8	384.8	371.8	351.5	236.8	245.3
364	MP	329.0	310.0	326.0	341.0	342.0	339.0	340.0	339.0	346.0	354.0	355.0	343.0	251.0	251.0
365	MP	327.0	312.0	328.0	340.0	342.0	338.0	338.0	339.0	345.0	352.0	354.0	340.0	253.0	252.0
366	MP	327.0	314.5	328.5	340.5	340.5	337.5	338.0	338.5	344.0	351.0	352.0	339.5	254.5	253.0
367	MP	331.3	329.2	331.5	341.5	344.7	344.5	339.4	342.1	345.9	348.3	347.4	343.9	261.3	259.3
368	MP	331.0	315.0	322.0	340.0	343.0	341.0	339.0	338.0	345.0	354.0	356.0	346.0	251.0	250.0
369	MP	335.0	329.0	323.3	342.3	345.3	344.0	341.3	341.0	344.0	350.3	353.0	348.3	253.7	253.0
370	MP	334.5	330.5	329.0	344.5	347.0	345.5	342.5	342.0	345.0	349.5	351.0	346.5	256.5	256.0
371	MP	340.7	344.3	342.7	346.0	348.3	353.3	368.3	379.3	376.3	383.7	371.3	352.0	235.0	243.7
372	MP	341.1	347.1	353.6	346.4	351.0	346.1	350.0	364.5	374.8	381.1	365.4	347.9	254.2	257.2

373	MP	346.0	349.0	355.6	350.1	353.3	355.4	365.8	375.6	381.7	388.9	375.7	356.4	251.9	251.8
374	MP	342.0	345.0	343.0	347.5	350.0	353.5	369.0	380.0	378.5	386.0	372.5	352.5	238.5	246.0
375	MP	344.5	344.3	345.2	344.9	345.5	356.9	345.8	384.3	388.8	394.4	380.3	356.2	234.6	241.7
376	MP	341.5	343.5	342.5	345.5	348.5	353.5	368.5	380.5	377.5	384.5	371.5	352.5	234.5	243.5
377	MP	351.0	350.8	354.8	360.8	355.6	356.0	358.1	357.5	355.8	358.3	365.4	359.1	263.5	262.2
378	MP	339.2	338.5	339.9	346.7	348.6	350.4	355.3	355.2	357.0	355.9	354.7	350.5	253.9	251.7
379	MP	348.9	349.0	351.1	351.6	353.0	364.2	353.6	392.2	400.2	404.3	384.3	358.5	243.4	250.6
380	MP	346.0	345.3	348.1	348.7	351.7	362.8	354.7	389.8	397.3	402.1	382.1	356.1	240.2	247.8
381	MP	338.8	343.3	344.1	340.6	342.0	348.1	353.3	364.7	372.1	378.7	364.3	344.8	247.6	248.4
382	MP	342.7	349.2	361.2	362.8	354.9	358.6	363.1	361.5	357.1	365.8	375.7	353.4	249.5	255.7
383	MP	337.5	344.9	349.4	340.1	339.2	338.8	348.5	359.3	368.7	375.6	359.3	338.4	251.5	254.1
384	MP	343.3	342.7	348.1	347.9	352.7	360.9	367.2	382.7	397.2	402.6	378.9	352.9	243.0	252.5
385	MP	344.7	344.3	348.7	348.7	352.4	361.8	362.7	386.1	397.8	402.8	380.3	354.4	241.9	250.9
386	MP	344.6	349.9	344.2	351.4	352.7	355.1	369.6	380.5	380.8	388.2	374.7	354.4	244.4	251.5
387	MP	368.9	378.0	387.1	372.0	351.2	354.8	366.2	369.2	378.8	395.1	381.3	365.6	272.8	279.4
388	MP	337.4	344.5	354.6	354.3	348.8	353.6	358.0	355.5	350.2	357.4	366.9	350.7	241.8	248.0
389	MP	339.7	340.9	345.5	338.6	343.4	343.9	348.5	362.3	370.7	376.2	360.1	344.4	251.1	250.5
390	MP	344.6	352.0	364.6	366.1	358.7	362.5	367.5	366.1	361.8	372.2	380.6	355.0	252.7	259.3
391	MP	342.0	346.0	343.0	347.0	349.0	354.0	369.0	380.0	378.0	385.0	373.0	353.0	236.0	246.0
392	MP	334.0	330.0	328.0	344.0	347.0	345.0	342.0	341.0	344.0	349.0	351.0	347.0	256.0	255.0
393	MP	342.8	346.0	343.8	347.0	349.8	354.8	369.5	380.5	378.8	385.8	373.0	353.8	237.3	246.0
394	MP	341.5	345.5	342.5	347.5	349.5	353.5	369.5	380.0	378.5	385.5	372.5	352.5	238.0	246.5
395	MP	351.8	357.5	367.1	369.8	358.7	360.3	364.4	361.1	359.3	369.8	377.6	359.8	264.8	269.0
396	MP	343.2	343.9	347.9	356.4	359.4	359.3	359.9	355.6	355.0	356.1	356.2	353.9	253.1	251.9
397	MP	352.2	351.1	354.6	361.1	358.1	358.7	360.7	359.7	357.7	360.0	365.3	360.7	261.2	260.2
398	MP	195.2	194.8	200.6	200.4	196.0	184.4	182.3	188.4	204.9	212.3	199.9	188.8	103.1	105.7
399	MP	238.0	241.0	239.0	232.0	235.0	225.0	227.0	235.0	254.0	256.0	233.0	225.0	152.0	152.0
400	MP	242.6	243.6	248.1	244.2	239.8	231.2	232.0	238.6	255.1	257.6	244.1	234.3	138.9	141.4
401	MP	316.8	318.3	323.0	328.0	332.8	336.3	342.8	346.8	350.0	350.3	342.0	325.5	249.8	248.3
402	MP	324.5	325.6	327.6	332.3	336.5	343.5	350.7	354.8	359.8	357.2	348.8	333.6	247.2	246.2
403	MP	326.0	326.0	329.3	334.0	338.5	346.8	354.0	357.8	362.0	359.8	351.8	335.8	248.0	247.0
404	MP	329.2	329.1	334.5	340.3	347.0	355.7	364.9	367.4	370.2	368.4	360.2	342.4	242.7	243.3
405	MP	322.3	322.0	324.1	329.0	332.2	338.5	346.5	351.2	357.2	356.8	347.5	330.5	247.6	244.8
406	MP	333.9	336.4	340.1	342.7	349.3	358.7	364.2	367.5	368.9	365.0	359.1	344.1	247.5	247.6
407	MP	310.0	311.2	317.6	321.6	324.2	327.9	333.9	337.8	340.5	343.1	336.5	319.8	239.2	239.8
408	MP	314.7	315.3	321.0	322.4	323.5	329.4	334.5	340.5	345.4	349.1	343.1	325.3	249.6	248.0
409	MP	312.5	311.2	319.9	320.8	323.1	327.1	333.2	337.8	341.3	345.1	340.9	322.7	238.9	239.4

410	MP	349.4	349.5	355.1	355.5	354.2	359.2	372.9	381.2	384.2	389.0	375.0	356.6	255.6	258.8
411	MP	326.2	327.5	331.0	333.7	337.8	344.7	351.2	355.5	359.3	356.7	349.2	334.8	248.7	248.0
412	MP	340.6	342.2	343.4	343.8	347.6	354.0	369.0	380.3	375.2	382.8	370.5	351.5	230.2	240.2
413	MP	342.3	339.8	343.3	353.1	355.4	358.9	369.8	372.6	376.1	382.6	375.8	361.6	241.2	241.6
414	MP	319.5	320.4	323.3	326.8	330.4	335.4	343.3	347.8	353.7	353.1	344.2	328.0	248.4	246.4
415	MP	351.3	349.5	347.4	345.3	336.0	335.0	333.9	368.2	388.3	394.3	380.8	357.5	239.5	242.2
416	MP	344.6	342.8	352.0	349.2	354.3	361.8	373.3	380.7	394.0	399.6	379.2	355.6	250.8	256.1
417	MP	362.0	362.3	353.0	348.4	331.6	319.6	321.3	349.1	375.8	385.8	384.8	373.6	264.0	268.5
418	MP	340.5	340.0	343.0	356.5	358.5	356.0	355.0	349.0	348.0	351.0	353.0	350.5	255.0	255.0
419	MP	355.0	355.6	353.7	348.6	339.1	336.6	333.0	369.6	391.9	397.3	384.5	363.5	250.4	254.4
420	MP	357.5	355.5	349.5	345.0	331.0	320.0	323.0	346.5	367.5	376.5	378.5	367.5	252.5	254.5
421	MP	358.5	357.9	360.3	354.8	351.3	346.9	342.9	373.9	391.3	396.1	385.4	363.3	262.7	263.5
422	MP	290.0	296.0	291.5	292.5	294.5	291.0	286.5	293.5	304.5	312.0	306.5	299.5	182.0	181.0
423	MP	362.0	362.0	353.0	349.0	332.0	319.7	321.0	349.0	377.0	386.7	385.0	372.7	264.7	268.7
424	MP	293.1	294.0	297.9	293.6	288.4	284.1	291.9	299.1	312.3	311.0	296.0	285.6	186.1	188.0
425	MP	361.5	360.5	358.5	351.5	344.5	332.0	335.5	363.5	394.0	398.5	390.5	371.5	264.5	268.5
426	MP	208.9	207.0	212.4	225.0	227.0	223.8	223.1	233.2	228.1	243.7	234.1	213.1	73.8	75.4
427	MP	169.0	167.0	171.0	183.0	187.0	184.0	183.0	192.0	188.0	200.0	194.0	176.0	36.0	39.0
428	MP	267.2	268.5	269.3	271.7	278.3	277.4	270.5	275.8	282.4	286.7	278.3	279.0	166.1	166.4
429	MP	295.1	294.8	302.2	316.9	319.3	316.3	316.0	331.2	322.5	340.8	323.9	296.0	169.2	169.2
430	MP	241.2	239.0	239.4	255.2	264.6	263.2	263.2	267.0	264.8	263.6	255.8	243.4	123.4	123.6
431	MP	235.0	232.6	233.6	229.3	238.4	244.1	229.9	234.4	239.7	243.4	238.0	237.3	124.7	123.6
432	MP	336.2	338.0	345.1	349.0	356.0	358.2	362.1	365.4	369.6	370.1	365.4	347.5	242.9	243.6
433	MP	362.3	361.5	358.7	350.5	339.9	324.7	331.9	357.4	389.9	395.8	389.9	372.4	265.8	269.9
434	MP	308.8	314.9	327.9	327.7	325.0	312.1	314.7	318.8	324.0	332.3	330.4	312.4	194.5	193.7
435	MP	330.2	329.8	335.3	341.8	348.3	355.8	365.7	368.3	370.8	369.3	361.4	344.3	243.2	243.9
436	MP	273.1	276.0	275.6	279.5	285.9	284.1	279.4	284.9	291.7	296.3	286.9	288.3	177.1	179.3
437	MP	338.9	346.3	342.9	342.6	340.3	337.8	336.0	346.5	357.2	361.4	349.6	344.7	243.3	243.2
438	MP	349.4	348.3	351.9	345.6	349.2	351.1	354.4	368.8	378.4	383.8	364.1	350.9	249.2	249.0
439	MP	341.1	349.9	347.7	344.3	336.6	332.2	344.7	359.3	367.9	368.3	353.0	343.1	249.9	249.5
1	MR	341.8	340.1	335.0	339.3	343.4	344.2	353.8	363.6	355.2	348.6	346.3	348.5	245.9	246.6
2	MR	341.3	344.4	335.9	342.5	346.7	345.1	359.4	365.0	352.1	346.6	345.8	350.5	245.5	245.7
3	MR	200.4	191.7	194.6	207.9	210.9	198.7	193.6	213.4	209.8	222.4	213.6	204.4	81.8	79.9
4	MR	333.4	333.8	326.5	335.8	346.6	350.5	364.0	373.6	357.1	351.2	344.7	343.4	244.0	246.3
5	MR	335.0	330.4	330.1	330.3	336.2	336.9	339.8	341.0	339.4	341.0	342.1	341.0	217.1	217.3
6	MR	365.6	358.2	362.5	363.8	368.9	377.7	390.0	404.4	394.8	377.9	366.1	368.5	251.3	249.8
7	MR	345.6	348.4	340.0	345.5	351.5	349.7	362.6	369.6	356.7	349.5	349.3	353.2	247.1	246.6

8	MR	263.9	263.4	258.6	258.7	256.4	251.4	246.1	245.6	254.3	265.1	272.7	270.4	146.1	146.9
9	MR	344.2	341.6	342.7	347.6	351.6	356.8	366.6	378.0	379.6	374.1	361.4	353.0	241.6	241.6
10	MR	384.3	366.6	371.3	375.3	369.2	362.2	359.0	388.7	406.5	395.4	380.3	375.4	259.3	256.4
11	MR	386.2	366.4	367.1	368.7	357.1	337.9	342.4	368.6	396.8	393.6	385.2	379.5	259.1	258.7
12	MR	336.1	333.9	344.5	350.4	351.4	357.0	373.7	382.5	386.4	382.3	374.6	361.7	254.6	255.5
13	MR	347.6	343.0	343.1	344.0	346.9	349.6	355.7	366.5	373.9	379.5	376.9	359.5	259.3	259.2
14	MR	355.5	356.9	347.7	348.3	346.1	356.8	374.4	375.0	380.8	377.7	361.7	356.4	257.5	260.8
15	MR	354.8	339.5	338.4	338.9	324.4	305.6	308.7	335.1	357.7	357.8	355.0	350.8	220.8	219.1
16	MR	309.7	297.0	299.3	293.0	281.7	266.3	269.0	294.0	318.3	315.3	308.7	312.0	197.3	196.3
17	MR	334.3	329.0	332.5	335.4	337.2	337.9	343.5	350.6	355.8	360.3	360.3	346.1	260.0	259.1
18	MR	312.8	301.8	302.8	301.2	287.8	276.0	282.0	302.6	316.2	314.6	315.0	314.2	188.8	189.4
19	MR	317.0	313.0	319.0	330.0	336.0	344.0	366.0	375.0	374.0	369.0	360.0	347.0	258.0	258.0
20	MR	343.3	346.8	356.4	363.3	372.7	381.2	391.4	402.9	406.5	406.8	384.9	359.0	235.2	234.7
21	MR	362.0	353.3	354.1	362.6	372.1	385.8	396.1	409.5	402.8	382.9	373.3	369.3	253.8	251.5
22	MR	349.0	348.0	357.0	361.0	360.0	364.0	379.0	386.0	389.0	386.0	380.0	368.0	253.0	255.0
23	MR	330.6	332.6	341.6	351.0	362.0	364.6	371.6	379.2	378.4	373.8	365.6	347.8	242.6	242.2
24	MR	350.6	354.0	363.0	367.3	371.9	377.5	389.4	400.8	408.7	406.4	395.1	370.3	249.2	251.0
25	MR	365.3	356.7	358.0	365.7	375.3	391.0	401.3	414.3	407.0	385.3	375.0	372.3	259.7	257.7
26	MR	341.6	343.8	340.1	346.0	353.8	370.1	396.2	399.9	393.5	378.2	356.4	352.6	261.0	261.8
27	MR	339.4	342.4	338.7	344.8	353.9	369.5	399.4	407.0	402.4	384.4	357.1	352.8	262.4	264.0
28	MR	341.8	344.4	338.7	344.8	350.4	364.8	393.8	399.4	396.5	382.1	356.8	352.0	260.6	262.2
29	MR	337.5	334.3	335.6	342.4	353.8	372.2	410.9	429.4	433.1	424.4	380.5	360.2	261.6	260.7
30	MR	340.0	343.0	340.0	346.0	357.0	372.0	402.0	411.0	405.0	386.0	357.0	353.0	265.0	266.0
31	MR	309.1	295.6	296.6	309.3	325.5	342.2	365.1	372.5	370.1	369.3	359.8	335.7	250.8	244.8
32	MR	339.1	342.0	335.2	340.9	346.1	359.3	390.6	399.8	401.6	388.2	357.7	350.5	258.5	260.7
33	MR	349.0	346.7	355.0	360.3	358.0	361.7	377.7	384.0	387.3	385.3	379.3	368.0	253.7	255.0
34	MR	317.9	312.4	318.1	328.2	334.6	341.9	362.7	372.4	373.6	368.9	359.8	347.3	259.0	258.9
35	MR	352.5	330.5	351.5	364.0	375.0	398.5	411.5	419.0	407.0	376.5	362.0	360.0	252.0	250.5
36	MR	327.6	329.5	338.2	347.7	357.5	360.7	368.2	376.3	376.3	372.1	363.5	344.2	238.6	238.4
37	MR	343.3	338.8	340.6	354.8	372.0	388.1	396.7	417.0	416.2	412.0	382.5	364.4	246.0	244.9
38	MR	339.9	343.4	339.7	346.2	356.0	371.9	401.6	409.8	404.7	386.1	357.9	353.8	264.0	265.8
39	MR	363.7	349.7	346.0	344.0	328.0	306.7	310.7	338.3	364.3	363.0	360.7	358.3	236.7	235.7
40	MR	333.9	331.6	337.3	349.9	362.7	375.1	380.8	391.3	394.3	401.6	378.7	352.5	225.6	224.8
41	MR	356.4	357.6	348.9	349.6	346.4	356.6	371.2	369.3	373.2	371.6	360.3	356.8	256.8	259.7
42	MR	380.5	368.5	364.0	371.0	350.0	346.0	350.0	375.0	407.0	397.0	382.0	385.0	270.0	266.5
43	MR	389.5	378.0	364.0	363.0	333.5	315.5	324.5	350.0	379.0	382.0	385.0	389.5	262.0	258.5
44	MR	387.0	369.9	376.4	389.8	404.1	408.6	411.9	434.6	439.1	410.6	395.3	387.5	261.0	257.9

45	MR	387.3	370.0	375.0	387.3	400.3	404.3	405.3	431.3	434.3	407.0	393.7	385.3	262.3	257.7
46	MR	380.5	368.5	364.0	371.0	350.0	346.0	350.0	375.0	407.0	397.0	382.0	385.0	270.0	266.5
47	MR	387.8	368.5	372.8	379.1	373.8	369.9	361.6	395.9	413.0	401.1	384.9	378.9	259.9	257.0
48	MR	382.9	363.6	364.1	365.1	352.5	332.0	336.7	363.3	391.0	389.5	381.9	376.2	254.2	253.0
49	MR	359.4	346.1	347.7	346.2	339.2	327.9	325.7	350.5	371.9	362.0	354.2	350.6	248.8	245.5
50	MR	377.7	390.7	384.3	366.3	356.3	348.3	354.7	354.7	363.0	366.0	366.3	366.3	258.0	261.7
51	MR	289.4	276.8	277.9	277.5	266.9	255.0	258.8	280.2	294.5	294.9	290.6	289.0	169.2	169.6
52	MR	375.1	363.4	351.0	347.6	324.9	308.6	316.5	338.0	361.6	366.4	371.9	376.2	236.8	231.8
53	MR	380.1	367.8	362.0	367.6	354.2	348.9	352.2	374.6	403.5	391.6	380.2	381.2	267.9	266.6
54	MR	340.7	326.4	327.9	325.3	312.4	297.0	298.7	324.5	350.1	346.4	336.4	337.7	221.5	219.8
55	MR	349.8	343.2	342.6	347.3	358.9	367.1	376.8	386.2	374.4	363.3	352.9	350.9	247.3	245.9
56	MR	330.4	331.7	332.0	330.1	330.0	330.1	334.9	338.3	335.4	335.6	335.0	338.6	244.0	243.0
57	MR	348.0	346.0	354.0	360.0	358.0	361.0	375.0	384.0	387.0	384.0	379.0	368.0	254.0	256.0
58	MR	348.0	346.0	354.0	360.0	357.0	361.0	376.0	383.0	386.0	384.0	378.0	368.0	253.0	255.0
59	MR	336.0	340.0	334.0	341.0	347.0	363.0	393.0	402.0	401.0	385.0	355.0	349.0	259.0	260.0
60	MR	356.0	342.0	342.0	352.0	353.0	360.0	369.0	393.0	396.0	375.0	366.0	355.0	251.0	253.0
61	MR	373.5	356.0	355.0	353.5	337.0	316.0	319.5	348.0	375.0	375.0	370.0	367.5	242.0	241.5
62	MR	324.5	328.9	328.8	315.2	319.0	319.3	329.8	341.4	364.7	362.8	340.5	327.1	250.4	256.7
63	MR	340.5	344.5	346.5	348.5	340.0	340.5	359.5	376.5	383.5	377.0	368.5	355.0	246.5	244.8
64	MR	348.7	353.2	354.6	354.3	348.8	352.7	373.4	397.5	404.3	397.1	384.8	365.0	252.6	251.1
65	MR	353.1	358.6	355.8	345.7	339.3	338.9	342.9	340.8	347.0	349.5	352.0	350.4	236.0	236.4
66	MR	319.0	325.0	328.0	330.0	323.0	335.0	347.0	360.0	363.0	365.0	357.0	337.0	258.0	257.0
67	MR	323.0	327.0	334.0	334.0	333.0	338.0	350.0	363.0	365.0	365.0	357.0	337.0	253.0	252.0
68	MR	270.0	267.1	265.8	271.4	271.5	268.5	268.4	265.1	268.4	273.3	282.2	286.1	163.4	167.4
69	MR	219.6	212.4	215.3	229.9	235.6	239.6	245.3	258.9	245.0	239.3	236.2	229.1	100.7	99.8
70	MR	313.7	304.7	310.0	322.8	326.8	330.1	335.2	351.4	340.9	327.7	322.0	313.8	201.5	197.3
71	MR	329.8	333.1	328.2	319.8	321.2	329.0	349.9	364.2	388.4	388.3	352.5	332.8	238.2	244.8
72	MR	392.7	403.0	399.3	380.0	357.0	348.3	356.0	358.0	370.7	377.0	377.0	378.3	265.0	270.3
73	MR	392.5	403.0	399.0	380.0	357.0	348.0	356.0	358.0	370.5	377.0	377.0	378.0	265.0	270.0
74	MR	330.0	329.0	327.5	324.5	324.0	324.0	323.5	327.0	331.5	338.0	342.0	338.0	231.5	232.5
75	MR	340.6	327.8	331.4	340.0	347.2	349.8	350.9	373.2	375.4	366.6	356.9	343.9	240.0	236.1
76	MR	327.5	328.7	328.5	327.2	324.1	323.2	328.2	330.9	331.1	330.2	332.5	335.2	243.3	241.9
77	MR	349.8	349.4	354.7	354.5	358.2	363.6	374.9	388.5	400.9	402.7	394.8	370.1	247.7	247.7
78	MR	359.3	351.3	362.3	382.7	400.3	406.3	410.7	434.3	433.3	411.3	379.0	373.7	224.7	227.3
79	MR	338.9	332.2	344.1	372.0	390.3	397.5	403.3	428.3	426.6	427.6	391.1	370.4	219.5	220.0
80	MR	300.0	302.0	295.0	299.0	295.7	290.0	287.7	287.7	297.0	306.3	315.3	312.0	189.0	187.7
81	MR	272.7	272.7	267.3	270.3	267.7	260.7	257.0	256.0	265.3	276.0	284.0	282.0	157.7	157.0

82	MR	400.1	381.8	383.7	402.8	402.2	406.2	392.9	432.8	436.7	422.4	405.8	404.1	244.3	242.4
83	MR	298.7	290.0	287.3	293.6	306.2	318.0	349.8	357.7	354.0	352.8	337.2	323.9	233.0	232.9
84	MR	347.5	349.9	349.6	347.3	342.1	341.9	345.7	345.7	347.8	347.7	351.3	348.9	257.7	259.3
85	MR	369.6	365.9	387.5	410.6	424.4	416.8	421.8	436.2	454.6	438.9	395.1	389.3	233.7	232.4
86	MR	365.9	364.9	356.0	347.1	342.3	352.1	359.6	361.8	375.7	376.5	365.8	362.4	255.9	260.4
87	MR	326.8	329.5	327.1	321.4	324.1	337.4	371.3	387.3	402.6	402.1	364.1	341.1	235.8	239.8
88	MR	343.9	337.6	329.5	360.2	373.0	383.5	394.0	412.5	405.8	383.6	366.8	356.3	247.4	247.6
89	MR	330.4	327.3	327.2	332.8	342.9	360.7	402.8	418.6	423.7	418.2	377.0	353.2	253.1	252.0
90	MR	370.5	373.3	364.9	352.3	344.6	337.0	337.3	339.4	340.7	343.2	352.0	349.8	262.3	262.8
91	MR	336.8	330.4	334.2	347.4	360.3	375.3	385.6	401.7	402.8	406.6	381.9	356.3	236.3	234.5
92	MR	343.0	341.4	342.1	352.6	368.2	387.6	403.8	424.6	425.0	414.0	378.8	362.5	251.7	250.8
93	MR	308.2	299.5	303.4	309.4	318.3	324.8	345.4	357.0	356.8	357.5	349.7	335.4	245.2	245.1
94	MR	339.7	340.3	338.6	339.4	335.0	340.7	344.9	339.0	342.9	345.9	345.6	343.7	246.8	248.3
95	MR	356.7	357.7	348.6	344.6	343.0	352.8	367.8	371.5	384.4	382.9	363.8	356.6	255.7	260.3
96	MR	340.1	339.5	343.7	351.6	363.3	385.8	403.8	415.6	390.1	366.0	353.7	349.4	248.0	246.7
97	MR	359.0	340.4	352.2	371.2	383.3	399.2	408.3	422.3	417.2	388.4	372.5	365.8	247.6	248.1
98	MR	333.6	337.2	347.0	354.8	365.1	373.9	384.1	395.5	398.9	399.3	374.9	350.0	221.7	221.4
99	MR	321.1	314.8	323.0	334.0	343.2	354.7	373.6	377.7	376.3	373.5	368.7	348.0	244.4	244.4
100	MR	343.5	339.7	340.6	354.0	372.4	389.8	397.6	418.5	417.7	411.3	381.1	364.2	248.7	247.7
101	MR	349.8	346.4	348.8	358.9	371.6	390.7	409.6	430.0	432.4	425.4	389.2	368.6	251.9	250.7
102	MR	341.6	335.6	339.4	350.0	361.1	378.8	397.3	415.5	419.6	417.5	386.0	359.3	242.4	239.9
103	MR	336.6	335.1	330.9	352.2	368.7	383.3	393.0	413.4	401.0	380.3	362.4	353.0	244.6	245.4
104	MR	357.2	348.7	354.1	363.0	375.5	391.7	405.3	415.1	400.2	375.2	366.5	363.2	250.5	248.0
105	MR	337.8	340.2	349.4	357.0	366.2	376.7	386.5	397.3	401.0	404.6	379.7	354.7	224.8	224.2
106	MR	347.7	343.9	345.8	356.8	370.6	389.2	405.3	425.3	427.0	421.1	387.5	366.9	250.3	248.9
107	MR	341.0	336.6	330.3	356.7	370.6	383.8	395.3	413.3	402.7	380.0	363.4	354.1	247.8	247.3
108	MR	340.7	334.7	339.5	358.4	375.5	387.5	392.8	412.8	410.8	411.8	384.6	364.6	237.2	236.5
109	MR	344.1	336.5	330.8	359.6	373.2	383.7	392.6	411.7	406.3	385.1	368.7	357.3	243.6	244.8
110	MR	341.1	340.8	344.7	361.9	383.3	399.6	401.6	424.0	427.2	409.0	372.1	361.8	244.6	244.8
111	MR	348.8	337.7	338.8	350.1	361.3	369.5	374.8	391.5	388.0	377.5	369.2	356.1	240.4	236.8
112	MR	350.4	345.4	343.0	353.1	365.0	374.8	383.4	391.9	379.4	366.8	363.4	359.4	237.8	234.6
113	MR	294.6	284.2	284.9	296.9	314.0	332.5	364.6	371.6	367.7	364.3	346.4	322.4	235.6	231.6
114	MR	342.9	342.6	342.8	351.9	366.6	385.5	406.0	425.7	425.0	410.8	375.4	361.2	256.3	255.6
115	MR	350.6	345.7	344.2	353.5	366.0	377.8	388.0	396.3	382.4	367.0	362.9	359.5	241.6	238.6
116	MR	368.7	367.6	360.2	344.9	336.5	344.3	352.2	353.1	367.4	370.4	362.9	361.3	247.8	251.7
117	MR	346.4	339.0	341.1	352.5	364.8	374.1	382.0	394.1	385.9	376.0	366.5	354.5	244.1	241.1
118	MR	351.4	340.0	341.1	352.2	362.9	370.9	377.0	393.7	389.9	378.6	370.3	358.5	240.9	237.5

119	MR	328.4	324.4	325.2	332.3	343.6	361.7	403.0	419.4	423.0	416.5	375.4	352.1	252.6	250.8
120	MR	329.6	321.5	325.2	335.2	346.1	363.7	386.1	401.4	404.9	403.6	377.1	349.1	240.1	236.3
121	MR	339.1	341.6	350.7	357.5	366.2	375.8	386.1	397.6	401.4	404.3	381.4	355.7	229.0	228.5
122	MR	340.4	343.1	345.5	344.9	348.8	360.9	382.5	377.5	362.1	357.6	350.5	350.4	252.8	255.4
123	MR	347.3	347.5	352.5	370.4	391.5	406.6	408.0	430.8	434.2	416.7	377.7	366.7	246.6	246.7
124	MR	339.7	341.4	344.1	349.0	358.8	381.5	403.4	409.6	381.7	361.5	350.7	347.6	249.7	249.2
125	MR	348.9	349.0	355.6	376.1	396.0	407.1	409.8	432.2	432.6	411.3	374.5	366.0	239.4	241.2
126	MR	332.1	331.2	329.2	334.8	343.5	359.6	400.0	415.9	422.3	414.6	372.3	352.4	254.3	254.7
127	MR	341.0	334.0	329.0	356.0	371.0	381.0	388.0	408.0	404.0	386.0	369.0	357.0	238.0	241.0
128	MR	335.0	330.0	327.0	351.0	368.0	379.0	385.0	406.0	401.0	383.0	367.0	353.0	234.0	238.0
129	MR	336.5	334.6	327.8	352.9	368.9	381.5	390.9	411.5	401.4	381.4	363.7	352.9	243.7	244.9
130	MR	348.6	331.7	346.7	361.0	373.1	394.3	408.0	418.7	403.8	375.4	360.8	357.3	250.4	249.8
131	MR	338.0	332.0	326.0	353.0	369.0	379.0	386.0	407.0	402.0	384.0	367.0	355.0	238.0	240.0
132	MR	340.2	332.8	329.0	355.2	370.4	380.0	387.6	407.4	403.0	384.8	368.2	356.0	236.6	239.4
133	MR	340.0	333.0	329.0	356.0	370.0	380.0	388.0	408.0	403.0	385.0	368.0	356.0	239.0	241.0
134	MR	355.0	332.3	354.0	366.0	377.7	399.7	412.7	421.0	409.3	378.0	364.7	362.0	251.3	249.7
135	MR	343.0	334.0	332.0	358.0	372.0	382.0	389.0	409.0	405.0	386.0	371.0	358.0	238.0	240.0
136	MR	311.0	302.7	308.8	312.3	320.0	327.2	346.8	358.0	358.4	360.1	353.0	336.6	245.0	244.8
137	MR	334.9	329.1	333.7	348.4	361.7	375.5	382.4	396.6	397.1	403.4	380.8	355.0	233.1	231.8
138	MR	339.6	337.9	339.9	361.7	380.9	392.2	396.7	418.8	415.5	396.2	368.5	358.2	237.4	239.9
139	MR	343.5	344.0	344.1	352.4	364.9	383.4	409.4	428.5	428.5	414.0	376.0	361.0	257.8	257.5
140	MR	292.1	281.5	280.8	292.5	309.1	324.6	355.5	360.5	355.1	351.9	338.1	319.9	234.8	232.5
141	MR	338.3	341.3	335.6	341.6	348.8	362.3	394.5	404.3	403.8	388.3	357.6	350.8	260.6	262.1
142	MR	350.3	350.9	358.5	378.5	398.8	410.6	412.5	435.1	437.4	416.6	376.0	367.5	240.3	241.8
143	MR	337.1	338.3	340.8	347.6	360.5	383.8	401.7	411.1	386.5	366.1	352.4	348.4	248.2	247.9
144	MR	329.2	329.0	327.6	328.1	334.3	350.3	390.2	406.0	416.0	413.0	372.3	347.9	244.6	245.9
145	MR	321.0	327.2	334.1	329.3	326.4	332.9	347.9	364.5	369.1	371.4	363.3	340.7	244.0	245.7
146	MR	359.1	361.1	362.0	361.9	343.6	346.0	365.7	372.1	385.7	380.9	377.0	363.4	248.3	245.7
147	MR	347.0	354.0	359.4	359.4	331.4	327.8	341.8	341.0	355.1	356.0	354.6	350.4	250.8	245.8
148	MR	350.8	355.8	359.4	359.8	333.0	331.4	347.4	347.4	361.6	360.8	360.4	354.6	253.0	247.6
149	MR	380.0	394.6	397.8	379.9	345.2	337.4	342.6	345.4	357.8	368.7	370.2	369.8	252.2	257.9
150	MR	331.7	335.5	335.7	327.2	306.8	307.5	324.9	326.8	341.6	342.7	336.7	329.7	220.9	218.8
151	MR	351.5	360.8	362.8	364.6	333.4	333.1	343.9	345.4	357.3	359.9	358.5	353.5	248.9	247.4
152	MR	347.8	357.1	358.9	351.9	326.4	325.7	337.5	338.4	348.0	356.2	352.9	345.2	236.9	237.3
153	MR	348.5	349.5	351.1	352.0	336.3	337.7	356.6	364.4	375.2	370.5	365.7	352.6	246.0	244.0
154	MR	352.2	359.9	361.8	360.3	332.3	329.6	344.2	344.4	356.2	359.0	357.2	352.9	253.6	249.3
155	MR	370.6	381.9	379.7	360.1	338.9	331.5	337.8	338.9	350.1	358.2	359.0	359.6	238.7	243.6

156	MR	319.0	325.0	329.0	330.0	323.0	335.0	346.0	360.0	363.0	366.0	356.0	336.0	258.0	258.0
157	MR	390.0	401.0	398.0	377.0	356.0	349.0	355.0	357.0	368.0	375.0	377.0	378.0	258.0	264.0
158	MR	379.0	367.0	357.3	348.5	320.3	299.5	311.8	339.0	364.3	369.5	374.5	380.3	245.8	240.5
159	MR	342.7	349.7	347.4	336.4	319.3	319.1	330.7	330.2	340.6	345.6	342.5	338.2	227.1	226.8
160	MR	342.0	348.2	349.4	340.4	340.8	346.4	360.2	371.8	378.2	375.2	369.2	354.2	256.8	258.2
161	MR	330.2	335.6	337.6	331.8	329.4	335.2	348.0	360.6	367.0	368.0	360.6	343.6	253.6	253.0
162	MR	327.7	331.0	333.3	329.7	328.2	334.0	346.3	359.0	366.8	368.2	359.3	340.7	252.7	250.5
163	MR	326.3	333.8	335.5	323.5	322.3	329.8	346.3	362.5	370.6	373.5	365.1	344.6	242.6	243.5
164	MR	336.0	326.8	331.9	343.2	349.9	351.8	354.6	375.3	369.2	361.9	350.7	339.6	239.1	236.1
165	MR	347.6	346.8	349.1	357.8	369.4	389.5	413.8	434.3	437.0	426.2	385.0	366.5	253.0	252.1
166	MR	364.3	353.0	342.2	336.9	319.4	304.1	310.6	329.2	349.8	354.8	360.9	365.7	222.2	215.6
167	MR	343.4	346.0	341.2	347.4	353.8	369.1	396.4	400.5	395.6	380.8	357.9	354.0	262.5	263.8
168	MR	343.2	330.7	333.0	331.3	325.4	312.2	309.0	334.1	353.7	345.3	341.0	336.0	236.1	233.0
169	MR	313.3	312.4	317.5	314.2	316.2	322.8	343.1	358.2	359.7	363.5	356.5	336.9	235.7	238.4
170	MR	337.3	335.3	335.1	356.6	375.9	388.4	393.4	415.0	410.2	391.7	366.5	356.3	239.8	241.4
171	MR	324.4	328.2	326.7	314.8	296.0	297.6	314.8	317.0	331.6	334.3	326.6	319.9	207.9	207.1
172	MR	350.0	336.2	327.8	327.5	316.7	307.8	310.0	328.3	348.7	354.7	354.7	352.6	195.2	192.4
173	MR	237.4	234.4	235.7	237.4	235.1	234.4	232.4	230.9	236.7	246.2	248.2	242.7	125.4	126.6
174	MR	346.8	342.1	343.8	343.1	347.3	351.2	357.6	365.4	359.6	355.6	353.9	349.7	214.9	212.0
175	MR	309.6	305.4	310.7	309.2	314.0	321.1	342.2	356.0	355.6	358.9	351.5	333.4	235.1	237.1
176	MR	319.9	314.7	323.9	322.2	324.4	332.2	346.5	357.5	361.4	366.2	360.1	339.9	248.0	248.0
177	MR	342.7	336.9	339.7	351.9	365.2	381.8	395.0	413.4	414.9	414.5	385.7	362.1	243.1	241.1
178	MR	349.7	345.5	341.1	336.8	339.5	334.4	330.5	337.8	344.7	339.4	349.6	342.1	251.5	249.4
179	MR	302.1	304.4	296.8	300.3	296.9	290.9	287.6	288.7	297.5	307.2	315.4	313.5	192.1	190.7
180	MR	346.8	348.2	344.6	348.0	349.6	365.2	388.2	384.6	376.0	367.3	355.1	352.5	256.4	257.3
181	MR	349.5	349.5	355.7	374.5	395.3	408.6	410.3	433.0	435.7	418.4	378.6	368.0	244.7	244.9
182	MR	314.3	317.5	319.0	311.3	311.8	318.2	331.5	344.8	358.6	349.2	335.7	319.7	227.2	230.1
183	MR	230.9	227.6	224.7	225.8	221.4	213.2	208.3	209.3	222.1	236.3	242.1	236.7	119.8	120.9
184	MR	329.7	316.3	318.2	316.4	307.5	295.1	295.1	319.7	341.0	334.8	327.2	325.4	214.9	213.0
185	MR	314.7	305.8	311.4	323.2	323.1	313.6	309.9	334.6	329.8	332.0	322.0	313.5	218.4	216.8
186	MR	355.0	341.8	354.6	365.5	377.4	397.4	411.6	422.2	407.2	377.3	364.5	360.6	250.8	249.1
187	MR	304.3	295.5	297.3	300.5	310.2	317.9	342.5	353.2	350.6	352.2	343.1	329.5	236.5	237.1
188	MR	290.7	293.3	294.4	281.7	273.5	278.2	291.8	301.7	319.4	315.8	302.7	290.9	185.2	187.3
189	MR	334.6	334.9	336.7	343.9	359.9	383.0	397.4	405.0	385.5	367.9	352.9	349.0	249.6	248.4
190	MR	275.7	273.6	271.6	270.3	273.7	274.4	274.3	269.0	271.2	275.7	275.1	273.5	176.9	178.7
191	MR	340.1	341.1	335.4	339.1	338.3	333.1	340.4	344.4	340.0	340.5	340.7	344.8	244.6	244.0
192	MR	347.8	350.1	344.1	350.5	342.8	333.2	345.1	346.8	340.1	336.0	344.6	351.2	251.2	248.2

193	MR	231.0	228.7	231.0	232.3	235.4	237.1	234.0	228.4	228.7	233.9	233.6	229.7	132.9	136.2
194	MR	278.0	276.2	271.5	269.7	274.8	276.2	274.9	274.0	271.1	272.0	271.4	271.4	190.8	191.1
195	MR	223.5	221.0	219.0	221.0	224.0	221.5	215.0	210.5	213.5	223.0	224.5	221.0	124.0	128.0
196	MR	345.9	340.9	336.0	331.7	335.4	330.1	325.3	331.0	336.0	338.4	345.0	340.3	248.5	247.2
197	MR	336.0	337.2	334.1	336.7	331.6	325.6	334.1	336.6	333.8	332.0	337.1	341.5	245.5	243.9
198	MR	279.5	277.3	276.6	275.7	277.6	279.5	280.1	275.8	276.6	281.2	281.0	278.2	178.1	179.6
199	MR	359.8	358.7	351.6	348.6	344.6	332.4	336.8	339.0	334.0	334.1	346.1	350.1	257.8	254.0
200	MR	356.2	354.2	349.1	336.7	337.4	332.5	332.0	333.9	332.8	336.9	340.8	339.5	249.1	247.8
201	MR	189.8	189.1	184.9	183.5	186.5	183.1	179.7	175.3	175.8	182.5	186.8	185.7	96.3	97.5
202	MR	352.2	349.2	346.1	336.5	337.5	336.0	336.9	339.2	336.8	338.5	342.3	340.8	243.3	243.3
203	MR	342.0	343.5	340.5	341.5	332.5	326.7	334.2	336.7	335.2	331.5	340.6	343.0	249.0	246.8
204	MR	378.3	361.6	362.3	381.1	369.1	369.9	365.8	398.2	414.3	403.1	383.4	384.0	242.9	236.3
205	MR	255.5	247.6	252.0	270.0	277.0	271.8	270.0	289.7	277.2	278.4	272.2	260.7	144.5	141.1
206	MR	377.4	358.9	365.2	384.3	392.8	400.1	398.2	427.0	427.0	407.8	390.8	383.4	232.3	234.4
207	MR	330.8	334.1	331.6	325.8	321.2	324.4	327.9	322.7	329.0	333.2	333.6	331.9	228.2	228.3
208	MR	340.5	342.1	342.2	341.8	336.8	338.8	343.6	340.5	341.6	342.5	345.5	343.9	249.6	250.8
209	MR	245.5	242.6	241.7	243.8	242.3	239.7	234.8	232.7	241.8	249.0	255.7	253.7	136.9	136.4
210	MR	275.7	271.0	272.3	272.7	272.5	276.8	282.9	281.2	279.7	279.0	283.9	283.3	143.3	142.4
211	MR	341.2	336.7	341.4	360.9	379.8	391.8	395.5	416.9	414.8	411.0	381.1	364.0	238.5	238.1
212	MR	234.2	231.0	227.4	228.0	227.1	221.6	217.7	218.8	229.0	238.2	243.2	240.5	123.5	125.4
213	MR	403.5	381.5	385.9	405.2	410.2	416.7	408.2	444.0	451.1	431.2	410.0	403.1	250.9	249.7
214	MR	357.2	357.8	349.4	345.0	340.8	350.2	357.6	356.1	365.8	367.1	359.1	356.3	251.1	254.5
215	MR	355.1	347.9	349.1	353.0	363.7	372.9	384.0	395.2	384.3	370.6	359.0	357.4	246.7	244.7
216	MR	330.4	327.2	332.8	343.8	354.4	367.4	374.1	383.3	385.7	393.9	374.7	347.8	226.5	225.3
217	MR	337.8	339.4	339.7	338.4	333.9	335.0	338.0	334.3	337.2	339.2	342.6	339.7	237.3	238.2
218	MR	275.3	272.2	272.5	272.6	271.5	269.2	268.1	268.8	276.2	284.5	286.1	281.7	160.0	161.6
219	MR	328.5	326.0	326.0	333.5	334.5	337.0	343.5	354.0	343.0	338.0	336.5	335.0	195.0	192.5
220	MR	221.7	203.8	212.8	213.8	217.3	209.7	210.8	226.3	232.5	244.4	233.5	225.0	65.2	61.4
221	MR	362.0	362.0	353.0	346.6	343.4	352.7	363.2	365.6	379.4	379.1	365.6	360.0	256.3	260.9
222	MR	298.6	286.0	288.2	291.4	283.2	272.3	276.1	291.2	298.5	302.3	303.1	297.7	157.6	156.1
223	MR	385.2	368.4	365.9	367.4	357.8	346.0	349.4	373.7	399.6	391.8	384.4	382.1	258.7	258.8
224	MR	218.6	213.7	216.1	215.3	216.8	220.9	214.8	211.5	217.2	220.5	226.6	224.2	107.1	108.4
225	MR	292.9	287.4	287.7	298.3	301.8	303.7	310.5	324.3	312.6	304.5	300.5	294.9	165.8	164.0
226	MR	385.0	393.9	389.2	372.1	359.3	354.4	360.0	359.4	368.3	372.8	376.0	375.4	254.8	259.5
227	MR	337.7	336.1	332.2	330.5	330.2	327.1	327.5	332.8	338.1	341.4	342.7	340.9	238.4	236.9
228	MR	345.5	335.4	337.5	348.8	360.6	368.6	373.6	389.8	385.5	376.5	367.1	353.1	241.7	238.0
229	MR	390.5	373.9	375.6	394.8	389.3	389.3	381.9	417.1	425.9	413.0	395.4	396.6	243.1	238.8

230	MR	349.4	346.0	360.2	388.5	406.3	410.7	415.9	440.3	442.1	433.3	391.7	376.4	232.1	233.0
231	MR	378.9	359.6	368.1	386.4	397.2	406.9	409.7	431.0	435.7	409.4	388.3	380.5	243.4	245.0
232	MR	340.5	339.2	342.3	364.0	383.3	394.8	398.6	420.8	418.1	398.5	368.8	358.9	235.6	238.6
233	MR	357.8	358.7	369.2	390.4	409.7	418.7	421.1	443.3	445.3	422.5	379.7	372.5	238.7	240.9
234	MR	336.0	333.4	335.4	344.0	363.3	383.9	395.7	404.4	393.9	377.5	358.6	354.9	255.5	252.0
235	MR	307.0	293.3	294.7	307.7	324.0	341.3	364.0	370.3	367.7	367.3	358.7	334.0	250.0	242.3
236	MR	345.1	347.4	341.6	347.3	350.9	365.7	391.2	391.9	386.8	375.1	356.8	352.4	259.1	260.5
237	MR	340.4	343.3	339.0	345.1	353.0	368.6	397.6	404.2	399.4	382.6	356.9	352.8	262.2	263.1
238	MR	344.7	345.5	341.0	338.8	333.9	341.3	345.5	340.3	347.5	351.1	348.4	346.3	245.1	247.0
239	MR	322.5	324.5	333.4	342.5	352.6	355.6	363.5	371.4	371.8	367.3	358.5	339.5	233.2	233.1
240	MR	410.4	387.9	389.9	410.1	410.9	419.0	400.1	445.7	451.1	435.0	415.1	410.4	251.9	248.9
241	MR	350.5	350.9	358.2	377.6	398.3	410.8	412.2	434.9	437.8	418.5	377.6	368.0	241.9	243.0
242	MR	339.0	341.0	338.0	345.0	355.0	370.0	401.0	410.0	405.0	386.0	357.0	352.0	263.0	264.0
243	MR	337.6	334.9	335.5	358.0	376.9	388.0	392.8	414.8	410.5	392.1	367.4	356.3	236.0	238.3
244	MR	348.3	346.3	355.0	360.3	357.8	361.5	377.3	383.8	386.8	384.8	378.8	368.0	253.5	254.8
245	MR	370.8	362.6	369.1	393.1	417.0	420.7	423.1	446.8	454.0	454.4	416.9	401.7	238.4	240.3
246	MR	354.5	340.0	342.0	340.5	331.5	318.5	318.5	344.0	367.5	360.0	349.0	347.0	238.0	235.0
247	MR	389.4	373.3	370.7	382.9	380.1	384.0	372.3	403.7	428.4	409.1	390.6	388.5	264.6	260.5
248	MR	384.5	364.5	366.1	371.8	363.8	351.0	348.3	379.5	407.1	397.2	384.4	378.8	260.2	259.7
249	MR	303.8	294.8	296.5	306.0	317.0	324.3	347.5	356.0	353.8	352.0	345.0	332.0	245.5	245.3
250	MR	349.5	335.8	333.8	334.3	319.9	301.5	304.9	329.9	349.4	350.0	349.8	345.8	215.2	213.4
251	MR	405.7	386.1	385.0	404.5	400.8	408.6	386.2	433.0	441.9	427.1	408.5	406.7	253.5	249.6
252	MR	375.0	374.0	394.8	420.5	434.8	431.5	439.3	453.3	477.3	444.5	397.8	396.0	233.0	233.0
253	MR	338.0	343.0	352.0	361.0	373.0	380.0	389.0	400.0	402.0	400.0	378.0	354.0	231.0	230.0
254	MR	193.2	188.4	185.0	185.8	191.6	188.6	182.8	177.6	178.4	187.6	190.8	190.2	104.8	107.2
255	MR	250.0	248.3	247.3	247.3	251.7	252.3	250.0	244.0	246.0	250.3	249.7	248.3	152.7	156.3
256	MR	317.4	319.8	327.4	325.2	322.0	330.8	343.2	357.3	360.0	362.8	356.0	335.2	248.1	248.2
257	MR	208.5	205.0	200.5	203.5	211.5	212.5	208.0	203.0	201.0	205.0	206.5	207.5	139.0	140.5
258	MR	369.0	370.0	362.0	351.0	350.0	343.0	343.0	346.0	344.0	348.0	352.0	351.0	252.0	252.0
259	MR	375.0	376.0	368.0	353.5	352.5	344.5	344.0	345.0	346.5	352.5	355.5	354.5	262.5	261.5
260	MR	351.5	356.9	352.9	340.7	322.9	325.3	338.1	338.7	351.3	356.3	350.1	344.9	233.7	234.5
261	MR	324.5	329.0	334.0	332.8	331.3	338.0	350.5	363.5	368.0	368.0	359.3	340.0	252.5	251.8
262	MR	337.9	340.1	342.0	339.7	337.0	346.0	361.0	356.6	348.9	346.0	345.1	347.1	246.8	247.7
263	MR	317.8	319.0	326.8	325.0	320.8	331.0	343.5	356.0	359.3	363.0	356.0	335.3	250.8	250.3
264	MR	333.9	328.5	332.2	335.3	337.0	337.7	343.3	350.4	355.5	359.9	359.9	345.8	260.1	259.1
265	MR	347.5	349.0	348.6	348.4	346.6	361.0	382.7	376.0	364.8	358.5	352.7	353.6	254.0	254.8
266	MR	351.1	351.4	358.5	378.7	398.6	410.4	412.5	435.0	436.5	415.1	376.6	368.3	242.0	243.4

267	MR	348.3	348.1	352.2	369.5	390.8	406.5	407.8	430.8	433.4	417.5	379.6	367.9	249.6	249.4
268	MR	339.7	340.2	339.3	346.7	359.9	376.9	401.5	418.0	413.7	397.8	366.5	355.6	259.9	259.6
269	MR	337.1	337.7	332.8	339.9	348.5	347.6	351.8	356.9	346.2	343.5	343.2	343.2	240.5	239.8
270	MR	338.2	335.5	337.0	348.9	369.5	388.6	396.5	413.0	409.0	392.5	365.9	359.1	255.0	252.2
271	MR	337.3	335.6	336.7	345.2	363.7	383.4	397.9	408.3	400.1	382.9	360.5	355.9	257.9	255.0
272	MR	293.1	282.2	282.4	294.5	309.4	320.1	346.4	350.4	344.1	340.9	334.0	322.1	238.7	237.5
273	MR	340.3	343.1	340.0	345.7	355.0	371.7	398.5	403.0	396.3	379.6	356.6	353.0	261.7	262.4
274	MR	339.7	342.5	339.0	346.2	355.3	371.3	400.7	407.7	402.3	383.7	357.0	352.8	263.0	264.3
275	MR	336.2	337.9	333.9	341.0	349.7	364.4	398.5	412.9	415.5	401.7	364.6	352.6	259.8	261.3
276	MR	335.5	334.1	335.7	343.5	361.1	382.7	396.2	402.6	390.0	373.6	356.3	353.1	254.7	252.1
277	MR	318.2	313.9	321.8	332.7	340.9	350.9	373.2	377.6	376.8	370.0	362.5	348.0	251.2	251.8
278	MR	337.0	339.2	341.1	338.8	336.1	344.4	358.7	354.8	347.6	344.9	344.2	346.2	246.4	247.3
279	MR	334.9	336.2	337.7	342.9	356.6	380.7	397.5	399.0	382.2	366.9	352.9	348.9	252.7	251.9
280	MR	335.0	332.3	334.6	343.4	362.2	383.7	394.4	402.7	389.1	373.0	356.1	353.0	252.1	249.6
281	MR	337.5	335.6	336.6	345.8	364.7	384.3	397.6	409.5	402.1	385.1	361.8	356.8	257.6	254.6
282	MR	333.4	335.6	333.2	337.1	348.6	351.6	359.7	364.8	351.3	344.7	342.7	341.2	244.9	245.8
283	MR	275.4	273.2	271.1	274.5	273.0	271.1	263.2	262.2	271.4	279.3	287.4	284.9	160.5	159.6
284	MR	363.1	363.4	354.3	348.6	344.7	354.4	362.9	363.6	375.7	375.9	364.9	361.4	256.5	260.4
285	MR	329.7	331.9	332.4	330.5	330.9	331.1	337.0	339.7	337.0	336.5	335.9	338.8	243.5	243.6
286	MR	363.0	349.0	363.0	382.5	401.5	410.5	416.5	439.5	445.0	422.5	380.5	378.5	220.5	220.5
287	MR	338.9	341.6	333.9	338.4	342.6	354.8	387.4	398.6	405.0	393.9	359.9	350.1	256.8	259.7
288	MR	389.5	376.5	367.0	370.8	356.0	349.5	351.3	376.0	403.0	394.5	387.8	390.0	266.8	266.5
289	MR	335.2	337.8	338.8	344.0	356.6	382.3	399.8	402.2	381.0	365.1	351.2	347.2	250.8	251.0
290	MR	340.5	338.2	341.2	363.1	382.3	392.9	397.2	419.1	416.0	396.9	369.1	358.7	234.7	237.9
291	MR	288.7	277.8	278.7	293.1	310.3	324.5	350.3	351.7	344.2	339.4	334.2	318.4	237.3	235.5
292	MR	342.5	344.8	353.6	360.3	368.7	377.6	388.1	399.9	403.7	406.3	384.8	358.5	234.2	233.6
293	MR	324.1	317.8	324.3	327.6	331.6	336.5	349.2	363.7	370.1	373.5	365.9	348.6	257.3	256.7
294	MR	340.0	339.1	339.4	350.4	368.1	387.4	400.2	420.7	421.0	407.6	373.8	360.1	253.6	252.3
295	MR	329.8	324.2	329.2	341.6	353.1	366.3	374.1	385.8	387.7	394.6	376.1	348.1	230.2	228.8
296	MR	375.0	374.3	367.6	350.0	340.4	347.7	356.0	358.6	374.0	376.9	368.3	366.4	251.9	255.9
297	MR	401.2	379.8	385.3	403.0	410.3	416.0	412.1	442.5	451.8	429.5	407.3	399.0	254.1	253.5
298	MR	362.6	344.1	360.0	372.4	384.6	403.2	415.0	425.6	416.8	384.8	370.6	366.1	251.1	250.1
299	MR	250.2	247.1	245.9	247.1	244.0	238.7	236.0	237.4	247.5	257.8	260.9	256.4	139.3	140.0
300	MR	389.5	369.8	376.7	395.0	404.3	412.1	412.6	436.7	444.3	420.0	397.0	389.5	248.3	250.0
301	MR	362.1	368.4	363.3	351.9	342.2	340.0	342.0	347.1	352.1	349.8	355.3	350.2	246.6	250.1
302	MR	314.0	317.0	324.0	323.0	317.0	329.0	340.0	354.0	356.0	359.0	352.5	332.0	249.5	248.5
303	MR	394.6	377.6	374.5	391.9	381.9	385.9	370.4	410.7	428.5	414.9	396.4	396.7	256.9	252.1

304	MR	352.5	348.2	344.0	339.5	343.0	335.5	333.4	343.3	347.2	340.0	350.2	344.5	252.8	249.0
305	MR	325.9	316.2	320.8	324.9	318.5	303.3	299.5	326.4	334.2	333.7	328.1	322.8	230.2	229.7
306	MR	277.5	269.6	275.0	292.4	297.9	292.2	290.0	310.7	297.6	297.8	291.1	280.8	169.6	166.2
307	MR	279.7	276.1	274.8	278.7	277.9	277.0	271.9	269.8	275.2	281.4	291.4	291.4	167.3	168.3
308	MR	325.1	317.4	321.8	332.3	338.8	345.7	354.1	369.9	358.4	343.8	334.3	328.4	207.2	204.2
309	MR	354.3	350.2	345.9	340.3	344.7	336.7	332.5	343.0	348.8	338.2	352.2	343.3	256.7	254.1
310	MR	298.0	290.9	297.1	315.7	319.0	310.5	305.9	328.8	312.9	317.0	307.4	298.4	198.2	195.5
311	MR	341.6	332.5	336.6	347.7	357.5	363.5	369.0	386.6	380.9	371.8	360.7	347.9	242.6	239.0
312	MR	317.2	318.1	312.1	318.6	312.3	306.8	304.4	305.6	312.0	321.0	331.0	329.3	207.8	206.0
313	MR	324.1	319.0	323.9	332.2	333.6	336.6	341.7	357.8	348.0	336.0	330.7	326.2	209.9	208.0
314	MR	385.9	364.8	367.8	373.6	366.2	353.7	350.2	382.2	407.7	399.2	385.4	378.4	260.2	259.1
315	MR	377.9	360.1	361.1	360.7	345.7	326.0	329.5	356.1	384.7	384.2	374.3	371.6	248.0	246.3
316	MR	341.2	337.8	333.9	332.2	333.0	330.8	328.2	331.3	337.6	341.0	345.3	341.1	241.8	240.6
317	MR	218.5	215.0	213.6	215.7	211.6	206.3	202.8	201.9	211.9	225.3	229.4	224.4	105.8	107.1
318	MR	306.2	303.7	305.2	305.3	303.4	306.7	307.3	306.0	308.3	315.4	316.1	311.1	200.2	201.2
319	MR	237.0	235.3	237.7	238.7	242.0	246.0	245.3	239.7	238.3	239.7	237.7	235.3	139.0	142.7
320	MR	334.8	336.7	329.3	335.7	344.7	348.3	362.5	373.2	359.3	352.5	348.3	347.0	246.1	248.3
321	MR	359.2	345.2	347.2	352.3	354.6	358.4	359.4	383.2	392.7	370.9	361.9	352.5	252.4	250.9
322	MR	217.3	199.7	209.9	211.4	214.1	205.6	206.9	223.4	228.3	239.6	227.6	219.4	62.3	58.9
323	MR	353.1	347.8	343.5	351.8	361.3	367.4	376.5	386.5	372.1	366.9	356.6	354.3	250.9	251.8
324	MR	354.8	350.0	346.3	352.6	357.0	361.0	369.4	379.8	371.0	365.8	360.1	358.7	251.8	253.0
325	MR	343.7	341.8	336.8	338.2	339.1	336.3	340.9	349.4	348.2	345.3	345.4	347.4	245.1	244.0
326	MR	355.9	343.3	345.2	344.9	341.6	331.5	326.7	350.7	370.2	359.0	354.9	346.9	248.8	244.6
327	MR	332.0	327.0	320.0	319.0	320.0	318.0	318.0	319.0	318.0	328.0	330.0	329.0	240.0	239.0
328	MR	349.6	342.8	347.0	355.0	366.0	375.8	388.0	400.9	388.9	373.5	361.2	354.5	247.3	243.7
329	MR	346.5	340.1	343.7	352.4	364.9	373.2	385.3	395.4	384.2	371.6	360.2	352.4	245.4	242.1
330	MR	334.7	329.7	325.3	350.7	366.7	376.7	384.3	405.3	400.0	381.7	365.0	351.7	235.0	237.7
331	MR	337.9	330.4	330.0	352.6	369.4	378.9	385.1	406.0	401.5	384.8	369.0	355.6	230.8	234.3
332	MR	357.7	350.7	350.2	359.7	371.3	382.7	392.4	402.9	392.5	376.0	370.3	366.7	242.9	239.4
333	MR	346.1	345.9	357.4	363.9	364.5	371.3	388.1	396.8	401.3	397.4	389.1	369.6	246.2	247.1
334	MR	331.6	334.0	335.8	333.0	329.5	335.0	345.1	343.1	339.2	338.0	339.3	341.1	243.2	244.1
335	MR	337.2	339.9	342.4	340.8	342.5	351.0	368.1	364.2	353.2	351.1	346.6	347.3	248.2	251.0
336	MR	403.1	381.2	385.9	404.8	410.6	416.7	410.5	443.7	452.0	430.8	408.9	401.9	252.8	252.0
337	MR	341.8	342.9	345.9	352.0	361.5	383.2	403.8	412.6	384.4	361.4	352.1	348.7	250.0	247.3
338	MR	336.8	330.0	328.2	352.3	368.5	378.8	384.8	405.5	401.2	384.7	367.2	354.3	233.2	236.7
339	MR	343.2	345.3	347.1	346.5	352.0	373.9	401.1	392.5	374.0	363.9	354.5	353.3	255.5	255.3
340	MR	350.9	341.7	341.6	353.0	364.1	372.3	378.3	392.5	387.2	377.0	370.3	359.4	237.8	234.1

341	MR	351.8	338.7	340.4	350.2	357.4	365.1	371.9	392.1	391.8	375.8	366.9	355.4	246.0	244.6
342	MR	345.5	335.3	328.3	344.0	343.8	347.8	358.0	366.3	371.5	375.5	374.8	366.0	251.0	252.0
343	MR	342.7	346.3	352.7	358.7	367.7	373.0	382.7	392.3	398.3	393.7	383.7	362.7	248.7	248.7
344	MR	415.5	392.5	393.5	413.5	413.5	421.5	400.0	449.5	456.5	439.5	419.5	414.5	257.5	253.0
345	MR	329.0	326.0	329.0	332.0	333.0	334.0	338.0	344.0	348.0	353.0	353.0	341.0	261.0	260.0
346	MR	341.3	344.3	352.3	357.7	366.3	372.0	381.3	390.2	395.5	391.0	380.8	360.7	247.8	247.8
347	MR	337.3	330.3	329.3	353.0	369.3	379.3	385.8	406.5	401.8	385.5	368.3	355.3	233.0	237.0
348	MR	338.0	331.0	330.0	354.0	370.0	380.0	386.7	407.7	403.0	386.0	369.0	356.0	234.3	238.0
349	MR	344.5	343.6	348.1	369.0	388.9	400.4	403.6	425.7	424.5	404.2	371.5	362.4	238.3	240.7
350	MR	346.9	344.9	351.0	372.4	391.4	401.0	404.9	427.0	425.2	404.6	373.1	363.9	234.7	237.7
351	MR	323.8	319.5	329.3	339.9	347.0	357.4	378.7	382.0	381.7	375.8	369.0	351.9	246.4	246.9
352	MR	351.5	353.5	363.5	368.6	369.9	376.0	390.3	401.6	408.9	404.9	395.9	373.3	250.4	252.1
353	MR	336.0	330.0	326.0	352.0	367.0	378.0	384.0	406.0	400.0	382.0	366.0	353.0	235.0	238.0
354	MR	341.0	332.0	332.0	355.0	371.0	381.0	387.0	409.0	403.0	386.0	370.0	358.0	234.0	237.0
355	MR	355.7	344.7	355.0	364.3	375.8	395.1	410.2	419.7	402.7	374.0	363.6	360.3	251.2	248.7
356	MR	368.0	348.7	361.6	378.6	390.7	405.5	413.2	428.2	425.8	395.9	378.6	372.3	248.8	249.8
357	MR	340.0	331.0	331.0	354.0	369.0	379.0	386.0	407.0	402.0	385.0	369.0	356.0	232.0	236.0
358	MR	335.1	333.1	334.8	343.9	362.6	384.0	394.8	404.9	388.8	372.1	355.7	352.0	250.8	248.1
359	MR	345.0	335.6	340.2	359.0	371.7	389.8	403.1	417.8	403.0	377.0	361.9	355.7	250.3	249.1
360	MR	343.5	337.7	338.1	348.3	346.5	350.1	361.1	371.0	375.2	375.7	372.6	364.2	255.1	255.5
361	MR	336.6	335.2	347.8	354.1	355.4	362.3	381.5	388.2	391.9	386.2	377.3	363.4	250.3	251.1
362	MR	345.0	335.4	329.2	344.4	343.5	347.9	358.0	366.5	371.6	375.3	374.5	365.6	251.5	252.4
363	MR	334.0	329.0	328.0	351.5	368.3	378.8	384.5	406.5	401.8	384.8	366.8	352.5	232.8	237.3
364	MR	338.0	318.0	333.0	342.0	341.0	344.0	355.0	361.0	369.0	373.0	371.0	356.0	251.0	253.0
365	MR	336.0	318.0	335.0	340.0	340.0	342.0	352.0	359.0	366.0	369.0	368.0	352.0	253.0	254.0
366	MR	335.0	320.5	334.0	339.0	339.0	341.5	350.5	357.0	363.5	367.5	366.5	350.5	254.5	255.0
367	MR	339.0	336.8	344.5	349.8	347.8	350.4	359.2	371.5	376.8	374.2	368.9	360.5	261.7	261.9
368	MR	341.0	322.0	330.0	342.0	342.0	346.0	355.0	362.0	370.0	374.0	373.0	360.0	251.0	251.0
369	MR	345.0	337.3	335.3	347.3	345.7	350.0	360.3	370.0	374.0	375.7	373.3	365.3	253.7	254.7
370	MR	344.0	339.0	341.5	350.0	348.0	351.5	362.0	372.5	376.5	376.0	372.5	364.0	256.5	257.5
371	MR	334.7	329.3	327.7	351.3	368.3	378.3	384.3	406.0	401.3	384.0	366.7	353.7	232.0	235.7
372	MR	332.4	335.3	334.6	336.4	347.0	347.7	355.7	361.1	350.0	344.1	341.1	340.4	246.6	248.8
373	MR	346.8	343.6	346.3	353.3	364.9	381.8	397.8	405.4	384.0	362.5	356.3	352.9	248.9	246.4
374	MR	335.5	329.0	326.5	351.5	368.5	378.5	385.5	406.5	401.5	384.5	366.5	353.5	235.0	238.0
375	MR	402.7	384.4	384.9	404.3	401.2	405.5	389.8	431.4	437.5	423.9	406.7	406.1	248.5	245.6
376	MR	337.5	330.5	329.5	352.5	369.5	379.5	385.5	406.5	401.5	385.5	368.5	355.5	232.5	236.5
377	MR	304.1	291.9	294.7	308.5	324.1	340.2	358.8	363.1	358.6	358.0	354.5	330.6	244.8	240.9

378	MR	307.2	300.1	305.1	318.0	330.4	342.4	365.9	367.9	364.0	357.7	352.1	337.0	248.3	247.8
379	MR	410.1	387.2	390.3	410.0	412.5	419.3	405.9	447.3	454.2	436.0	415.7	409.4	253.6	251.0
380	MR	406.0	383.1	387.1	407.1	411.1	417.6	406.2	445.1	451.3	432.6	412.3	405.9	250.7	249.0
381	MR	344.6	341.7	339.1	350.0	361.6	367.5	375.5	379.2	365.2	357.5	352.8	349.8	244.5	243.4
382	MR	330.9	323.5	327.8	338.9	349.0	363.9	376.1	389.0	391.8	396.7	377.8	348.7	235.6	233.5
383	MR	330.9	333.3	334.5	332.7	334.4	334.7	341.8	344.1	340.2	339.4	337.6	340.2	244.6	245.1
384	MR	388.4	369.2	376.4	394.3	404.1	412.3	414.5	436.0	444.5	418.9	395.7	387.9	250.2	251.8
385	MR	396.6	376.0	381.7	400.4	407.8	414.8	411.8	440.4	448.3	426.0	403.5	396.2	250.5	251.0
386	MR	336.2	332.5	325.9	352.9	369.2	379.4	387.1	408.0	402.1	383.6	366.0	353.5	240.1	241.9
387	MR	349.3	350.8	346.8	349.1	346.6	358.7	379.0	374.9	368.1	362.6	354.2	352.8	254.7	256.1
388	MR	325.7	320.4	326.1	336.1	344.9	357.5	366.2	375.7	378.1	385.9	371.7	343.0	229.5	228.2
389	MR	347.0	341.4	343.1	350.5	363.2	370.4	382.2	390.4	378.5	366.8	356.8	351.3	247.3	244.5
390	MR	337.6	330.8	334.9	346.0	356.9	373.4	388.5	404.9	408.3	409.7	383.3	355.4	239.1	236.8
391	MR	337.0	331.0	329.0	354.0	369.0	379.0	386.0	407.0	402.0	385.0	369.0	355.0	233.0	238.0
392	MR	344.0	338.0	340.0	350.0	348.0	351.0	361.0	371.0	375.0	375.0	372.0	364.0	256.0	257.0
393	MR	337.8	331.0	329.8	354.0	369.8	379.8	386.5	407.5	402.8	385.8	369.0	355.8	234.3	238.0
394	MR	336.0	330.5	327.5	352.5	369.0	378.5	385.5	406.0	401.5	384.0	367.5	354.0	235.0	238.5
395	MR	330.6	323.0	326.1	335.2	346.6	365.1	393.1	409.4	412.9	409.6	378.6	351.5	243.3	239.5
396	MR	340.4	339.5	352.5	358.3	358.9	365.4	383.8	390.6	394.5	388.8	380.0	365.9	249.0	250.1
397	MR	309.6	298.9	303.8	316.8	330.4	344.7	362.4	366.0	361.8	361.4	359.1	336.5	245.0	243.0
398	MR	188.9	185.7	189.7	193.6	193.8	190.4	181.3	177.8	181.7	197.1	199.6	192.8	97.3	98.7
399	MR	215.0	213.0	208.0	211.0	219.0	220.0	217.0	212.0	209.0	214.0	214.0	215.0	144.0	145.0
400	MR	233.8	231.0	233.1	234.3	235.7	235.0	229.4	225.1	227.6	237.4	239.3	234.3	132.9	135.4
401	MR	322.8	327.3	334.0	334.0	332.8	338.3	350.3	362.8	365.0	365.3	357.3	337.5	252.8	252.3
402	MR	333.5	339.9	341.0	331.6	330.5	336.8	350.6	364.5	372.5	373.8	366.2	348.4	252.2	252.2
403	MR	335.0	341.0	342.3	332.0	331.5	338.8	353.3	368.0	376.8	378.0	371.8	351.8	252.0	252.0
404	MR	335.7	344.9	345.3	325.5	326.9	336.0	356.3	373.1	385.5	387.4	374.3	354.0	246.0	249.0
405	MR	329.8	333.9	336.5	330.8	328.8	335.2	349.5	363.9	371.3	373.5	365.6	345.2	252.5	250.5
406	MR	342.9	350.5	352.0	337.6	339.2	345.8	360.2	374.6	383.4	381.2	373.5	357.1	253.6	255.2
407	MR	314.2	319.2	327.5	324.3	320.8	327.9	340.9	357.8	360.4	362.9	355.8	333.8	241.2	242.8
408	MR	316.8	318.8	325.9	324.3	320.0	330.4	342.2	355.8	358.3	362.0	355.0	334.1	250.6	250.0
409	MR	313.5	314.3	323.5	320.1	318.5	326.4	340.7	356.6	358.2	361.8	356.0	333.9	240.6	241.5
410	MR	343.3	335.8	339.4	357.0	370.4	388.8	402.0	417.4	401.9	376.3	361.2	354.6	249.0	248.1
411	MR	335.2	341.3	343.0	333.7	333.3	339.2	352.5	365.0	371.5	372.0	365.2	348.3	254.7	255.0
412	MR	339.9	332.4	334.6	356.0	372.7	382.1	387.8	409.4	404.7	388.4	370.4	357.9	228.8	233.5
413	MR	336.8	343.0	340.4	328.7	328.4	342.4	376.0	394.6	409.4	411.0	376.6	355.4	235.6	240.6
414	MR	326.1	330.1	334.5	331.3	329.0	336.3	349.9	362.6	368.2	368.7	360.6	341.2	252.1	251.4

415	MR	376.5	361.3	356.3	373.3	350.6	350.0	346.1	380.1	406.8	397.5	379.1	380.3	251.5	245.2
416	MR	375.8	359.7	369.8	383.1	396.3	408.6	417.3	431.3	431.4	400.9	383.5	377.4	254.8	254.3
417	MR	392.5	379.2	369.7	371.9	356.4	350.2	351.5	376.5	403.0	396.5	391.9	393.9	265.5	266.9
418	MR	348.5	346.0	353.0	359.5	357.5	361.0	376.0	384.0	387.0	385.0	379.0	368.5	254.0	255.0
419	MR	383.3	368.1	364.2	378.0	363.8	364.5	357.7	390.5	416.4	403.3	385.1	386.1	259.4	254.6
420	MR	394.5	378.5	371.5	370.0	356.0	347.0	350.0	374.5	397.5	394.5	393.5	393.5	255.5	256.5
421	MR	372.6	357.1	360.7	364.8	362.5	362.4	357.4	385.8	398.9	381.6	367.7	361.8	256.4	253.5
422	MR	292.0	294.0	288.5	293.5	289.5	284.0	280.5	280.5	289.5	299.0	309.5	304.5	179.0	177.0
423	MR	390.3	376.7	367.7	371.3	356.0	350.7	352.0	376.0	403.0	395.3	389.7	391.0	266.7	266.7
424	MR	287.7	285.0	287.0	287.1	286.4	289.7	290.9	288.1	288.4	294.6	295.0	289.6	180.1	181.0
425	MR	385.5	368.5	368.5	376.5	377.5	373.0	374.5	395.5	423.0	402.5	385.5	383.5	266.5	263.5
426	MR	188.0	178.2	181.7	194.4	198.2	187.0	181.3	201.2	197.7	209.1	200.2	191.6	70.8	69.6
427	MR	149.0	140.0	142.0	153.0	160.0	149.0	145.0	164.0	162.0	172.0	164.0	156.0	33.0	33.0
428	MR	272.2	269.4	267.3	271.9	271.1	269.3	265.4	262.8	267.8	273.9	284.0	284.3	160.7	162.2
429	MR	274.3	266.1	271.6	289.7	292.7	282.9	277.5	300.9	288.2	296.7	285.3	274.1	165.9	163.6
430	MR	244.6	238.0	238.8	251.2	255.0	257.2	263.6	276.0	262.8	257.6	255.8	249.4	118.4	118.6
431	MR	235.0	229.7	231.7	230.3	231.9	238.5	228.3	225.3	230.4	234.8	242.0	240.3	117.5	118.6
432	MR	323.7	328.7	330.8	319.2	325.3	327.8	337.8	349.0	364.9	357.6	343.1	329.5	252.5	257.3
433	MR	377.7	362.8	362.8	368.5	367.0	361.8	366.4	385.0	413.6	394.1	378.0	376.3	266.6	265.8
434	MR	324.7	328.5	327.1	315.3	296.4	297.9	315.2	317.3	331.9	334.5	326.9	320.2	208.5	207.6
435	MR	335.2	344.5	344.5	325.5	326.6	336.6	359.4	376.8	389.2	390.4	374.0	353.6	244.9	248.4
436	MR	279.1	277.0	275.1	280.4	280.1	277.1	274.8	272.3	276.7	282.9	292.2	294.9	172.1	175.3
437	MR	343.6	344.8	338.2	342.5	336.2	330.7	329.8	332.5	338.2	343.3	350.4	351.8	240.2	238.8
438	MR	361.8	354.5	354.0	355.9	365.2	372.9	381.5	391.6	382.4	373.0	363.0	362.2	246.5	245.0
439	MR	341.7	344.2	336.7	343.1	342.4	337.1	349.1	352.7	344.1	341.7	342.9	348.9	245.9	245.0
1	Presente	310.9	311.3	308.6	305.5	303.0	300.2	297.4	310.5	315.3	313.8	312.9	314.7	214.9	216.0
2	Presente	308.1	311.9	308.0	306.9	303.4	298.9	299.1	306.5	310.4	312.1	312.4	314.7	213.9	214.7
3	Presente	186.1	182.1	182.9	192.4	192.4	188.1	187.0	197.7	195.6	211.5	207.0	191.6	48.8	49.9
4	Presente	310.4	312.3	308.1	305.9	306.0	304.4	300.0	310.2	315.7	319.6	316.9	315.4	213.0	216.3
5	Presente	293.2	289.8	289.3	288.1	292.8	290.7	290.4	294.5	297.6	299.7	298.3	299.1	184.1	185.3
6	Presente	320.1	314.2	315.5	314.0	313.2	312.2	316.4	328.4	332.8	326.7	320.9	323.2	217.2	216.8
7	Presente	310.5	313.9	309.9	308.1	306.4	301.1	299.8	309.0	312.8	312.9	313.6	315.6	215.2	215.6
8	Presente	302.9	302.9	303.8	304.5	302.6	302.0	305.5	315.6	318.3	316.7	312.5	307.9	207.4	208.2
9	Presente	316.5	312.8	316.2	314.8	306.4	301.8	300.1	325.8	335.1	334.2	327.8	317.3	221.6	220.4
10	Presente	310.2	304.5	305.0	302.5	289.7	276.1	280.8	301.8	317.9	322.4	323.3	310.4	218.1	219.2
11	Presente	301.8	301.0	303.9	307.3	311.1	312.7	315.7	320.9	325.1	325.2	320.2	314.7	225.4	226.2
12	Presente	309.6	306.2	306.3	308.4	310.0	310.5	315.2	322.4	325.3	328.3	327.1	319.4	227.9	229.0

13	Presente	321.7	319.9	317.2	314.9	310.3	312.1	317.2	321.6	326.4	326.4	324.3	323.9	222.6	224.5
14	Presente	277.3	275.9	275.0	273.6	262.6	253.7	255.4	274.5	284.3	287.5	291.4	279.7	180.8	180.1
15	Presente	243.7	243.0	244.3	237.0	227.7	219.3	221.0	240.0	255.3	255.3	255.7	253.0	159.3	159.3
16	Presente	301.4	296.8	299.8	303.7	305.6	304.4	308.8	314.9	317.4	320.1	319.7	310.6	229.9	230.0
17	Presente	244.2	245.2	246.2	243.0	232.2	229.0	233.0	246.6	251.6	252.0	259.4	251.8	149.8	151.4
18	Presente	295.0	295.0	297.0	302.0	304.0	308.0	316.0	323.0	327.0	325.0	317.0	310.0	230.0	231.0
19	Presente	298.6	298.6	302.2	308.0	313.4	318.2	323.9	325.6	319.5	314.5	307.6	306.7	205.2	205.7
20	Presente	307.6	309.9	308.6	304.7	301.1	306.9	316.9	324.1	323.6	318.0	311.9	311.7	217.8	218.5
21	Presente	306.0	305.0	308.0	313.0	317.0	318.0	321.0	321.0	322.0	323.0	320.0	315.0	223.0	224.0
22	Presente	303.4	304.4	308.6	314.6	322.4	327.4	334.0	336.6	327.2	317.8	309.4	312.4	212.6	213.2
23	Presente	311.6	312.2	314.7	319.3	323.6	327.1	330.8	331.9	330.9	326.8	321.9	321.4	219.2	221.1
24	Presente	309.3	312.3	311.0	306.3	303.0	311.0	321.3	328.0	326.7	320.0	313.0	314.0	223.7	224.7
25	Presente	307.1	307.7	307.2	307.7	308.0	311.0	320.0	324.8	325.9	320.9	314.3	314.4	227.3	227.4
26	Presente	305.4	306.4	306.9	307.8	308.9	311.9	322.5	326.9	327.7	321.4	314.1	314.9	229.4	230.0
27	Presente	307.8	308.2	307.5	307.9	307.6	310.5	319.7	324.2	326.2	322.0	315.3	315.3	226.6	227.5
28	Presente	307.0	306.9	307.9	308.1	310.4	313.4	322.4	331.0	336.7	335.7	323.3	320.0	232.3	234.8
29	Presente	306.0	307.0	308.0	309.0	311.0	313.0	324.0	329.0	329.0	322.0	314.0	315.0	232.0	232.0
30	Presente	305.7	301.5	301.1	301.2	301.9	303.9	309.0	319.0	325.7	326.2	323.2	317.3	225.8	223.2
31	Presente	306.7	306.8	306.3	306.6	306.5	309.2	317.9	322.5	325.8	323.0	316.3	315.3	224.7	226.2
32	Presente	306.0	303.7	306.0	312.3	316.0	316.7	319.7	320.0	322.0	323.3	320.0	315.0	223.7	224.0
33	Presente	293.9	293.3	295.3	299.8	302.8	305.9	313.7	321.0	326.2	324.8	316.4	309.3	230.1	230.9
34	Presente	306.5	289.5	307.0	307.0	304.0	315.5	328.0	328.5	325.5	316.5	309.0	311.0	218.0	218.5
35	Presente	299.1	299.8	303.8	310.3	316.8	322.2	328.7	331.3	322.3	313.4	305.4	307.5	208.6	209.4
36	Presente	299.7	299.9	302.2	309.4	315.8	322.3	330.2	341.1	331.4	323.4	316.4	308.1	212.6	212.8
37	Presente	305.9	307.4	307.7	309.2	310.7	313.6	324.2	328.7	328.9	322.6	314.9	315.8	231.0	231.8
38	Presente	288.7	287.7	284.0	280.0	268.0	257.7	259.7	280.3	293.3	295.0	298.7	289.3	196.7	196.7
39	Presente	295.4	295.1	298.4	304.8	309.3	313.3	320.1	325.9	321.6	316.2	310.9	303.9	193.5	194.0
40	Presente	322.5	321.1	317.8	315.1	310.1	311.7	316.3	320.7	325.2	325.6	323.7	323.2	221.5	223.2
41	Presente	320.5	320.5	319.0	313.0	293.0	287.0	292.0	313.0	333.0	334.0	332.0	325.0	221.0	223.5
42	Presente	311.0	309.5	301.5	295.5	271.0	253.0	260.0	281.5	303.5	311.5	315.5	312.0	215.5	215.5
43	Presente	314.3	311.8	315.8	314.3	316.5	318.0	323.3	338.1	343.5	334.1	324.6	317.9	222.0	222.9
44	Presente	315.0	312.7	315.7	314.0	315.0	316.0	319.0	338.0	342.0	332.7	325.3	317.7	223.3	222.7
45	Presente	320.5	320.5	319.0	313.0	293.0	287.0	292.0	313.0	333.0	334.0	332.0	325.0	221.0	223.5
46	Presente	316.3	312.0	314.8	314.5	305.5	304.1	297.5	327.9	335.8	334.7	328.3	316.7	220.7	220.1
47	Presente	305.5	300.3	300.7	298.3	286.3	273.3	277.7	298.3	313.1	317.7	318.5	305.3	213.2	213.8
48	Presente	305.3	303.2	303.4	299.5	291.5	282.3	281.4	302.3	317.4	314.9	314.3	306.0	213.3	211.0
49	Presente	332.7	342.7	336.3	321.0	312.3	302.0	304.3	307.7	316.0	319.0	322.0	324.3	220.0	222.7

50	Presente	229.9	232.4	228.0	227.4	226.4	218.6	212.1	216.6	222.3	233.1	239.7	237.4	114.9	115.9
51	Presente	223.6	223.1	223.8	221.7	212.8	208.4	210.8	225.5	232.4	235.1	237.9	230.1	130.9	132.5
52	Presente	291.2	289.9	283.7	276.4	258.9	243.7	249.0	266.2	283.3	291.7	296.2	293.5	191.3	189.3
53	Presente	316.2	315.6	311.6	307.7	288.9	279.5	284.1	304.0	325.5	326.8	327.5	320.9	222.4	225.1
54	Presente	273.1	271.8	272.2	267.5	256.6	247.9	249.7	269.4	284.9	286.1	283.3	277.9	183.7	183.2
55	Presente	304.8	301.8	300.7	297.3	296.9	295.3	300.0	314.6	317.1	312.8	307.9	306.5	214.3	213.8
56	Presente	299.9	300.7	301.0	299.1	297.4	295.0	295.0	306.4	310.3	309.3	307.0	305.0	212.0	212.0
57	Presente	305.0	303.0	305.0	312.0	316.0	316.0	318.0	320.0	322.0	323.0	320.0	315.0	224.0	225.0
58	Presente	305.0	303.0	305.0	312.0	315.0	316.0	319.0	319.0	321.0	323.0	319.0	315.0	223.0	224.0
59	Presente	303.0	304.0	304.0	305.0	305.0	309.0	318.0	322.0	324.0	320.0	313.0	312.0	225.0	226.0
60	Presente	306.0	303.0	301.0	301.0	291.0	292.0	302.0	321.0	326.0	318.0	314.0	306.0	216.0	220.0
61	Presente	294.5	292.0	290.0	286.5	275.0	264.0	266.5	288.0	301.0	304.0	305.0	294.5	202.0	202.5
62	Presente	306.3	306.7	310.4	309.0	304.9	297.1	297.7	305.7	320.1	327.0	320.6	314.3	213.3	214.3
63	Presente	289.3	293.3	297.0	303.0	300.0	292.5	295.5	305.0	310.5	311.0	303.5	297.0	216.5	217.0
64	Presente	291.2	295.0	297.2	302.5	299.8	294.3	297.2	307.9	313.0	313.9	306.3	297.9	225.7	227.1
65	Presente	316.6	320.2	320.1	310.5	303.1	297.1	297.7	304.3	312.7	314.4	316.5	314.1	198.2	197.7
66	Presente	286.0	290.0	292.0	297.0	292.0	300.0	306.0	317.0	323.0	323.0	313.0	296.0	228.0	227.0
67	Presente	289.0	290.0	296.0	301.0	302.0	303.0	309.0	319.0	324.0	322.0	313.0	296.0	223.0	221.0
68	Presente	230.8	229.4	227.5	233.2	235.7	230.9	228.8	231.9	234.5	238.4	243.6	248.0	131.4	135.4
69	Presente	191.0	185.0	183.6	195.6	199.2	200.9	200.4	206.0	204.2	206.9	208.3	199.2	67.7	68.8
70	Presente	279.2	271.2	272.2	283.7	285.4	284.5	281.8	290.2	293.2	289.8	288.9	278.9	167.9	165.6
71	Presente	305.2	303.0	304.1	302.7	298.3	296.3	300.7	307.9	318.9	323.8	317.8	313.9	207.7	209.8
72	Presente	350.7	358.0	354.3	337.0	321.0	308.3	311.0	315.0	324.7	330.0	335.0	339.3	227.0	231.3
73	Presente	350.5	358.0	354.0	337.0	321.0	308.0	311.0	315.0	324.5	330.0	335.0	339.0	227.0	231.0
74	Presente	301.0	300.6	301.4	306.0	312.8	318.0	324.6	333.3	327.6	321.6	315.0	310.3	220.7	220.1
75	Presente	330.4	325.9	324.8	320.1	312.0	311.7	313.5	319.1	325.1	326.3	329.8	331.0	218.6	221.3
76	Presente	304.7	300.6	300.9	307.2	307.2	311.2	322.9	332.5	327.9	320.6	314.0	310.6	216.6	217.0
77	Presente	299.2	297.9	298.7	299.8	297.8	299.3	307.2	315.9	327.0	332.2	320.8	312.9	207.0	208.8
78	Presente	289.0	286.0	291.0	292.5	296.5	300.5	310.5	323.5	318.0	310.5	297.5	294.5	182.5	185.5
79	Presente	290.3	290.2	292.1	293.7	295.6	299.2	307.9	315.4	321.3	320.2	312.7	304.1	211.9	212.8
80	Presente	298.7	299.9	300.2	298.7	293.7	291.1	292.0	301.8	307.5	306.5	305.2	303.3	211.3	210.6
81	Presente	299.2	300.6	301.1	299.5	298.1	295.0	295.5	306.7	311.2	309.8	307.3	304.9	211.9	212.6
82	Presente	326.9	325.7	327.1	321.4	311.5	307.3	306.7	313.1	321.5	323.0	326.7	325.9	207.7	210.9
83	Presente	328.6	325.2	323.6	319.4	312.4	312.6	315.1	320.4	326.3	327.0	328.9	329.5	220.2	222.6
84	Presente	300.7	296.3	297.8	299.6	297.8	296.3	298.4	315.7	316.6	315.0	310.3	302.6	205.0	203.1
85	Presente	294.3	292.3	295.0	297.3	301.0	306.0	318.3	332.3	320.0	312.0	303.3	299.7	188.0	193.3
86	Presente	299.8	302.3	310.4	315.7	315.5	315.7	326.6	336.1	339.6	326.8	313.7	313.1	194.7	197.4

87	Presente	299.5	299.4	295.8	302.8	306.9	310.8	323.1	336.0	324.7	318.0	310.7	306.2	202.4	206.0
88	Presente	303.0	302.0	290.3	307.2	304.9	305.8	319.3	329.8	326.4	321.3	312.4	307.9	213.6	215.6
89	Presente	307.0	295.8	308.3	307.0	305.1	314.0	324.9	328.1	328.2	320.2	310.7	310.1	215.2	217.0
90	Presente	294.7	292.9	296.5	302.1	306.0	310.3	317.6	324.4	321.2	316.8	312.0	303.0	198.6	198.6
91	Presente	296.2	294.4	298.5	305.2	309.7	314.6	322.5	331.1	326.1	321.2	315.9	305.0	203.9	203.5
92	Presente	300.2	300.0	301.7	306.4	312.7	318.0	324.7	333.0	328.3	322.8	315.8	310.0	219.2	219.0
93	Presente	286.6	283.5	289.5	290.1	293.5	297.0	305.6	314.3	320.8	322.3	314.6	301.2	216.0	217.2
94	Presente	315.3	316.1	314.3	308.8	303.1	301.0	302.8	308.6	315.2	316.2	316.5	314.4	210.7	211.1
95	Presente	324.7	321.5	319.9	316.7	311.3	311.8	316.1	321.0	327.0	328.0	327.5	327.8	221.6	224.0
96	Presente	304.9	305.0	306.0	306.5	307.9	310.2	318.5	330.1	325.5	319.1	315.2	310.5	217.0	215.7
97	Presente	304.8	293.9	302.2	306.0	303.3	312.2	323.8	329.3	327.1	319.4	309.5	308.3	211.4	214.9
98	Presente	287.3	287.3	291.1	297.6	302.9	307.9	314.0	315.6	309.2	303.6	296.4	296.0	191.7	192.4
99	Presente	305.2	304.3	305.6	307.8	310.9	314.4	320.0	325.5	328.6	328.2	322.9	317.1	217.8	218.9
100	Presente	300.9	301.2	302.3	308.9	316.1	323.0	330.5	341.4	331.0	322.6	315.8	308.4	215.5	215.6
101	Presente	303.5	302.3	305.5	310.2	315.2	320.2	327.2	334.5	332.3	328.2	321.5	313.6	219.9	219.7
102	Presente	297.9	294.7	298.8	303.4	307.6	311.9	319.0	325.8	325.9	323.7	318.3	307.3	210.8	209.7
103	Presente	302.3	304.2	296.7	306.1	308.2	309.8	321.4	334.6	328.3	322.1	315.0	309.7	212.7	214.4
104	Presente	308.3	306.0	309.9	307.3	306.9	310.6	319.3	325.6	325.9	319.7	313.5	312.1	216.0	215.4
105	Presente	292.2	291.8	295.5	301.2	305.8	311.0	316.6	317.8	312.8	309.0	301.4	301.4	194.8	195.2
106	Presente	302.5	301.5	304.3	309.7	315.2	320.6	327.7	335.8	331.8	326.8	320.3	311.9	218.1	217.9
107	Presente	303.3	303.0	293.3	307.1	306.6	307.6	320.3	331.4	327.3	321.6	313.7	309.1	215.1	216.3
108	Presente	296.3	296.8	301.8	312.7	317.4	323.5	333.1	346.4	333.8	324.8	317.0	306.7	203.1	203.8
109	Presente	302.4	300.8	291.6	305.7	304.0	306.5	319.8	330.8	325.7	320.2	311.6	307.1	209.4	212.8
110	Presente	299.6	299.4	298.0	304.2	311.4	316.4	325.1	336.7	326.4	318.7	311.5	307.4	211.4	211.8
111	Presente	305.1	302.6	302.2	302.8	300.3	300.5	304.8	317.8	318.3	316.3	312.0	307.4	205.4	203.8
112	Presente	307.7	308.9	307.3	305.9	303.8	303.9	308.8	316.7	318.4	316.3	312.7	311.8	203.9	202.3
113	Presente	292.7	291.6	291.8	292.6	293.5	297.0	305.0	314.3	320.6	321.0	313.5	305.7	210.4	210.4
114	Presente	302.1	301.8	303.5	307.2	312.8	317.2	323.5	330.8	328.7	324.3	317.3	312.9	224.2	224.1
115	Presente	307.5	308.5	307.8	305.8	304.7	305.5	311.3	318.9	320.1	316.9	312.6	311.8	207.6	206.4
116	Presente	323.6	321.3	321.9	316.1	306.6	303.4	303.8	309.4	317.0	318.6	322.7	322.5	205.1	208.1
117	Presente	306.5	305.0	305.8	306.9	305.3	305.6	310.4	320.4	319.8	317.9	312.8	309.1	209.7	208.1
118	Presente	306.3	304.0	303.4	303.5	300.4	300.4	305.4	318.4	319.2	316.9	312.5	308.6	205.9	204.5
119	Presente	304.1	303.9	304.1	304.7	306.1	309.3	318.1	326.6	332.9	333.0	322.0	316.8	224.1	226.2
120	Presente	297.7	294.1	296.8	299.3	301.4	304.8	310.7	317.7	321.7	322.0	317.1	307.9	211.0	209.4
121	Presente	294.7	294.2	297.7	303.1	307.8	312.8	318.3	319.6	315.0	311.3	304.0	303.5	199.0	199.5
122	Presente	305.1	307.0	307.9	306.6	306.4	302.8	306.0	316.4	319.4	318.3	313.5	309.6	221.8	223.6
123	Presente	301.6	302.3	301.4	307.9	315.5	321.8	330.5	343.0	330.7	321.2	313.3	308.7	212.9	213.7

124	Presente	305.7	307.4	307.1	307.0	308.3	308.5	314.9	326.7	323.6	318.7	315.1	310.3	219.7	218.2
125	Presente	300.7	300.9	298.9	305.4	311.3	315.8	326.5	339.1	327.9	320.2	312.1	308.0	206.9	209.1
126	Presente	305.4	305.5	305.4	306.2	307.0	309.8	318.3	325.9	332.6	333.0	322.2	318.0	224.5	227.2
127	Presente	301.0	300.0	292.0	304.0	303.0	307.0	320.0	332.0	324.0	319.0	311.0	306.0	204.0	209.0
128	Presente	299.0	299.0	293.0	302.0	303.0	307.0	320.0	333.0	323.0	317.0	310.0	305.0	200.0	206.0
129	Presente	302.0	303.8	293.8	305.9	307.3	308.3	320.7	333.7	327.4	321.7	314.3	308.8	211.7	213.9
130	Presente	305.2	292.6	304.0	306.3	304.8	313.0	325.1	329.5	325.2	317.0	310.3	310.1	217.3	217.8
131	Presente	300.0	300.0	291.0	303.0	303.0	306.0	319.0	332.0	324.0	319.0	311.0	306.0	204.0	208.0
132	Presente	300.4	299.2	292.0	303.2	302.4	305.8	319.8	331.6	323.2	318.0	310.2	305.4	202.4	207.4
133	Presente	301.0	300.0	292.0	304.0	303.0	306.0	320.0	332.0	324.0	319.0	311.0	306.0	205.0	209.0
134	Presente	306.0	289.3	307.0	306.0	303.7	314.7	326.7	328.0	325.3	316.0	308.7	310.0	216.3	217.7
135	Presente	301.0	299.0	293.0	304.0	303.0	307.0	320.0	332.0	324.0	318.0	311.0	306.0	203.0	208.0
136	Presente	288.1	284.2	291.7	291.0	294.3	298.2	307.0	316.0	322.6	324.6	317.1	302.0	215.5	216.6
137	Presente	296.8	295.6	300.0	307.6	312.0	316.6	324.7	333.9	327.4	321.5	316.2	305.5	200.3	200.4
138	Presente	302.1	302.3	304.3	307.5	312.1	315.9	322.4	328.7	329.1	325.8	318.0	313.8	225.8	226.5
139	Presente	300.2	300.6	296.2	304.0	308.3	311.7	323.4	336.3	325.9	319.0	311.8	307.3	205.4	208.4
140	Presente	290.5	289.6	291.2	292.3	293.4	296.8	305.6	314.3	321.1	321.8	313.4	304.3	209.1	209.9
141	Presente	305.3	306.1	305.6	306.6	307.3	309.6	319.6	324.3	326.6	322.5	315.6	314.7	226.6	228.1
142	Presente	299.7	300.0	299.1	305.5	312.2	317.5	327.4	340.1	328.5	319.9	311.3	307.2	207.3	208.9
143	Presente	303.2	304.8	304.5	305.1	307.3	309.5	316.2	327.9	324.1	318.7	314.0	309.2	217.7	216.9
144	Presente	304.2	303.5	303.3	304.4	303.9	306.5	315.1	323.6	332.5	335.8	324.7	317.7	216.4	218.4
145	Presente	283.7	284.9	291.3	295.2	293.5	294.9	301.3	311.5	319.6	320.2	310.8	292.7	213.0	213.7
146	Presente	301.4	307.8	315.3	320.8	318.2	309.6	311.3	320.3	326.7	328.2	320.6	306.8	207.5	205.9
147	Presente	294.1	305.4	317.4	321.3	313.4	299.8	297.3	303.0	310.1	311.8	306.0	299.8	205.5	200.8
148	Presente	296.4	306.2	317.4	321.8	315.0	302.4	301.6	308.4	315.6	317.2	311.4	302.6	208.0	203.4
149	Presente	339.7	351.4	355.6	339.9	318.3	304.3	301.7	306.2	313.8	322.4	328.6	331.5	213.4	218.1
150	Presente	275.9	283.1	290.9	291.3	284.3	273.2	274.9	281.2	288.5	291.7	286.6	278.2	175.6	173.6
151	Presente	300.3	312.8	320.8	325.6	315.8	305.5	299.9	306.4	311.6	312.9	309.0	303.5	202.5	201.4
152	Presente	302.1	310.7	317.7	315.1	304.7	295.4	294.6	298.6	304.2	308.2	306.8	300.2	192.0	192.0
153	Presente	294.5	298.6	304.9	310.5	307.5	299.8	301.1	309.5	315.5	316.8	309.4	298.0	208.4	207.8
154	Presente	299.4	310.3	318.8	322.2	314.1	300.9	299.3	304.8	310.0	311.7	307.8	302.2	206.9	202.6
155	Presente	326.3	333.7	331.9	316.3	301.5	289.9	290.6	294.8	303.9	310.3	314.9	317.9	200.3	204.3
156	Presente	286.0	290.0	293.0	297.0	292.0	300.0	305.0	316.0	322.0	323.0	312.0	295.0	228.0	228.0
157	Presente	345.0	352.0	349.0	332.0	317.0	306.0	307.0	312.0	321.0	327.0	332.0	336.0	220.0	225.0
158	Presente	301.0	298.0	294.3	281.5	259.3	240.5	249.8	272.0	292.3	300.5	304.5	302.3	198.8	196.5
159	Presente	294.2	300.8	305.0	300.7	292.2	283.1	284.1	288.8	295.6	299.2	297.9	292.7	183.4	182.9
160	Presente	304.2	306.2	309.2	312.0	310.6	309.2	313.0	319.2	326.0	326.2	320.8	310.0	225.8	226.8

161	Presente	296.2	297.6	300.6	303.8	301.4	301.2	307.0	316.8	325.6	326.0	317.6	302.6	223.2	222.0
162	Presente	293.7	293.8	296.3	300.5	299.2	300.0	306.3	316.0	326.3	326.2	316.3	299.7	222.7	219.5
163	Presente	286.8	287.3	291.0	294.5	292.3	292.3	298.8	309.0	319.1	321.0	311.6	294.6	211.6	211.0
164	Presente	303.4	299.5	302.0	307.4	305.8	303.5	305.3	320.4	317.2	318.8	312.6	304.7	204.6	203.4
165	Presente	301.8	301.8	304.7	308.3	312.7	317.4	323.7	330.0	330.3	327.2	319.0	313.8	221.3	221.6
166	Presente	278.7	277.9	273.5	264.6	251.9	238.1	241.9	256.4	270.5	278.8	283.3	281.3	177.1	173.2
167	Presente	309.3	309.9	309.1	309.5	309.4	312.4	321.4	326.0	327.5	322.8	316.3	316.5	228.6	229.1
168	Presente	294.2	292.2	292.9	289.3	282.2	271.5	270.2	290.5	304.5	301.6	303.9	295.0	200.4	198.6
169	Presente	282.5	280.5	288.2	289.7	288.9	289.7	296.6	306.5	315.1	318.6	311.7	294.3	205.0	207.1
170	Presente	300.7	301.2	295.8	304.1	308.3	311.1	322.6	335.2	325.8	319.5	312.6	308.1	207.8	210.0
171	Presente	267.9	274.6	281.0	279.6	272.0	261.4	263.7	269.8	276.9	280.8	276.4	268.6	162.0	161.2
172	Presente	264.6	262.3	259.8	256.1	246.2	238.3	238.6	253.3	266.7	278.2	279.0	271.1	152.4	151.2
173	Presente	205.4	203.7	203.3	203.0	201.2	195.2	192.9	197.4	204.3	209.0	209.0	207.1	95.4	97.2
174	Presente	302.3	298.3	298.5	297.3	299.8	299.7	301.4	308.2	311.4	310.3	308.6	305.7	181.2	179.1
175	Presente	282.4	279.5	288.1	288.1	288.8	290.9	298.6	308.7	316.6	319.6	312.3	294.8	204.8	206.8
176	Presente	291.2	286.9	295.9	293.7	295.6	300.8	309.1	318.9	326.0	329.2	322.1	303.5	219.0	219.0
177	Presente	299.1	297.3	301.0	307.1	312.1	317.3	324.9	333.4	328.9	324.1	318.3	308.0	210.6	210.1
178	Presente	316.5	313.4	309.7	303.4	301.9	293.1	285.3	301.0	312.7	305.7	314.6	308.4	*	218.0
179	Presente	267.5	272.7	265.5	267.6	265.0	256.7	251.6	258.7	265.0	275.0	282.3	279.6	160.1	159.7
180	Presente	310.7	311.1	308.8	307.5	305.5	308.6	315.0	319.9	322.7	320.2	315.0	313.3	223.0	223.0
181	Presente	301.1	301.8	301.8	308.6	315.9	322.2	331.2	343.9	331.7	321.9	313.1	308.4	210.9	211.9
182	Presente	277.3	279.0	282.9	287.7	285.3	281.5	281.5	288.1	296.1	297.8	291.6	282.0	190.3	191.1
183	Presente	200.1	199.3	196.7	196.7	193.6	181.3	175.1	180.5	191.1	202.8	208.5	203.7	89.0	90.9
184	Presente	269.8	268.2	268.9	265.0	256.5	248.6	249.2	268.5	282.2	281.5	281.1	273.8	178.2	177.3
185	Presente	290.6	287.7	290.7	299.1	295.1	289.9	289.7	306.8	300.6	307.9	301.8	290.8	184.6	185.0
186	Presente	306.8	298.5	308.1	307.3	306.3	313.1	323.6	328.8	327.2	319.5	312.3	310.9	216.6	216.9
187	Presente	284.6	281.5	288.7	288.5	290.4	293.4	302.3	311.9	319.4	322.0	313.8	298.6	206.9	208.7
188	Presente	245.6	248.9	254.5	254.5	247.7	241.2	240.8	247.9	258.5	262.5	256.9	248.8	144.1	144.9
189	Presente	301.6	302.4	301.7	303.1	306.1	309.0	314.1	324.2	321.6	317.2	312.2	308.4	218.6	217.3
190	Presente	251.2	250.3	247.9	245.0	243.9	239.0	237.6	241.9	248.7	248.9	245.7	247.8	145.9	148.2
191	Presente	303.4	304.9	304.0	303.0	297.8	293.8	296.0	304.3	307.6	308.9	309.1	307.5	212.7	213.0
192	Presente	308.8	312.3	309.5	313.3	301.8	291.8	296.3	302.8	305.0	303.6	308.8	312.5	218.2	215.2
193	Presente	205.3	203.9	205.2	204.1	203.8	199.4	196.0	199.7	204.4	204.7	200.9	201.4	102.9	106.2
194	Presente	254.7	256.0	254.8	248.2	246.1	242.2	240.1	248.1	251.8	250.3	245.2	247.4	155.9	157.1
195	Presente	199.5	198.0	196.0	196.0	195.0	186.5	179.0	183.5	191.5	197.0	195.5	196.0	93.0	98.0
196	Presente	314.8	310.8	306.5	300.7	300.3	290.7	282.5	297.0	307.0	306.9	311.6	308.7	216.4	215.6
197	Presente	302.5	304.9	303.7	304.4	296.0	290.5	292.9	300.8	305.0	304.4	306.3	307.0	213.3	211.8

198	Presente	253.8	252.6	250.9	248.2	246.5	242.7	242.3	247.1	252.4	252.3	249.5	250.8	147.7	149.6
199	Presente	322.0	322.8	319.6	314.8	307.1	290.6	290.7	299.5	303.0	303.3	310.1	313.1	222.5	219.1
200	Presente	324.1	324.6	323.4	307.0	302.9	293.2	291.0	299.0	304.4	306.5	306.7	308.2	213.0	212.3
201	Presente	158.9	161.2	161.3	154.3	151.1	143.3	139.8	141.6	147.5	152.3	153.8	156.0	60.0	61.7
202	Presente	324.7	324.3	324.5	311.0	306.3	299.7	298.9	309.2	313.3	312.6	312.2	313.1	208.3	208.8
203	Presente	306.0	309.2	308.1	308.0	296.6	290.0	291.7	299.0	304.6	302.7	306.9	307.5	215.3	213.0
204	Presente	301.7	298.4	300.1	300.9	290.8	297.1	296.9	320.7	322.4	317.2	309.7	300.7	191.5	193.5
205	Presente	242.9	236.8	237.6	251.9	255.0	253.4	252.4	263.1	257.6	266.2	262.8	247.2	112.6	111.6
206	Presente	297.8	293.1	296.9	297.9	294.7	306.4	310.1	329.5	322.7	315.8	305.7	300.1	189.0	196.9
207	Presente	300.4	302.8	303.3	296.1	289.7	285.5	286.2	291.6	299.1	301.2	302.3	299.4	189.8	189.2
208	Presente	312.6	315.0	313.5	307.7	302.4	298.5	299.6	307.1	314.6	315.6	315.0	311.8	215.0	215.4
209	Presente	209.7	208.9	207.9	209.9	210.5	205.9	199.3	203.5	208.8	217.0	222.0	219.9	104.9	105.4
210	Presente	235.0	230.3	230.0	231.7	234.0	235.6	238.3	239.1	241.3	240.4	242.3	242.9	110.5	110.4
211	Presente	296.1	297.3	300.9	311.3	317.0	324.0	333.5	347.5	333.2	322.8	314.4	305.5	204.2	205.1
212	Presente	202.8	202.4	199.6	199.3	199.7	190.9	185.5	190.9	197.9	206.2	211.2	208.4	92.5	94.9
213	Presente	310.4	307.0	309.3	311.0	305.3	317.4	312.3	339.2	339.7	332.5	318.4	311.6	205.8	211.4
214	Presente	322.9	320.3	318.6	314.2	307.5	307.5	310.3	315.3	320.9	322.0	323.4	323.2	214.6	216.8
215	Presente	309.6	305.2	304.9	302.7	303.1	301.7	306.4	319.9	322.7	318.2	312.7	311.8	212.8	211.7
216	Presente	294.7	293.6	296.9	302.0	306.0	310.7	317.3	321.6	318.3	314.3	308.7	302.8	195.3	195.3
217	Presente	309.6	311.9	311.2	304.0	298.8	293.7	294.6	301.7	309.4	310.7	311.3	307.9	201.4	201.3
218	Presente	244.3	242.7	241.9	240.2	239.2	232.3	230.2	237.1	244.7	248.9	249.3	247.6	130.0	131.6
219	Presente	284.5	283.0	280.0	288.5	289.5	287.5	287.0	291.5	293.0	293.5	295.5	292.5	161.0	160.5
220	Presente	146.6	140.7	153.3	151.3	152.3	147.5	146.7	158.7	158.4	176.9	171.1	157.4	24.2	21.3
221	Presente	328.5	324.6	323.3	319.2	312.4	312.1	315.2	320.4	326.6	327.5	329.6	330.1	220.6	223.3
222	Presente	228.9	228.7	231.9	233.3	226.4	223.6	224.8	233.3	232.4	239.5	247.1	235.4	117.6	117.1
223	Presente	312.9	308.8	307.5	303.8	289.1	277.9	281.4	302.6	320.4	323.1	325.1	316.3	216.7	218.7
224	Presente	183.6	179.7	182.1	181.6	186.6	188.9	180.8	183.3	185.2	189.5	193.6	191.2	76.1	77.4
225	Presente	254.8	250.3	246.5	256.4	258.8	256.4	255.1	261.1	263.2	263.5	264.4	256.9	132.0	132.0
226	Presente	340.4	345.4	341.7	328.8	317.8	309.1	310.3	315.1	324.1	327.9	332.9	333.1	216.8	220.5
227	Presente	306.7	307.0	302.3	298.1	294.9	288.6	285.6	298.6	306.2	307.4	308.8	308.4	206.8	206.0
228	Presente	305.0	302.3	302.9	304.2	302.6	302.6	306.3	319.1	318.6	317.1	312.2	307.2	206.7	205.0
229	Presente	302.1	298.9	301.0	301.3	294.0	303.4	300.9	327.2	323.9	317.2	310.2	303.0	192.2	196.1
230	Presente	295.1	297.1	306.7	322.6	323.6	329.1	342.0	358.7	345.1	332.3	319.6	311.3	196.0	198.0
231	Presente	303.0	297.2	302.6	304.1	301.1	310.6	316.9	328.6	331.4	324.7	309.1	304.7	202.5	209.1
232	Presente	298.8	299.2	295.5	302.8	307.4	311.3	322.8	335.6	324.7	317.8	310.5	306.1	203.6	206.6
233	Presente	300.8	301.0	300.9	307.3	313.3	318.7	329.3	342.2	330.5	321.6	312.3	308.1	205.7	207.9
234	Presente	303.0	300.6	301.4	303.8	308.8	311.1	315.9	323.5	322.3	318.8	314.0	312.8	223.6	220.0

235	Presente	305.0	300.7	301.0	301.0	301.3	303.7	309.3	318.7	325.3	326.0	323.0	316.3	225.0	221.3
236	Presente	310.1	310.4	308.6	308.4	307.2	310.3	318.3	322.7	325.1	321.6	315.8	315.1	225.1	225.5
237	Presente	306.4	307.3	307.3	308.0	308.5	311.4	321.5	326.2	327.0	321.5	314.6	315.2	228.5	229.0
238	Presente	316.1	315.9	314.5	309.1	302.4	301.0	302.8	307.9	314.4	315.7	316.8	315.1	207.6	208.6
239	Presente	293.9	294.5	298.7	304.8	311.6	316.8	323.6	326.0	317.5	308.2	300.2	302.5	203.2	204.1
240	Presente	311.7	308.9	309.2	311.1	303.3	319.9	304.5	341.8	338.1	331.0	319.9	312.4	204.0	208.9
241	Presente	300.1	300.6	300.3	307.0	314.1	320.1	329.5	342.3	330.2	320.7	311.9	307.4	208.8	210.0
242	Presente	305.0	305.0	306.0	308.0	309.0	312.0	323.0	328.0	328.0	321.0	314.0	314.0	230.0	230.0
243	Presente	300.2	300.3	295.4	303.5	307.0	310.3	322.8	335.7	325.1	318.7	311.6	306.9	204.0	207.3
244	Presente	305.5	303.5	306.0	312.3	315.8	316.5	319.5	319.8	321.5	323.3	319.5	315.0	223.5	224.0
245	Presente	305.2	305.6	308.8	324.1	324.6	327.3	335.4	352.0	343.0	333.2	325.9	317.5	202.4	206.3
246	Presente	293.5	291.0	292.0	288.0	279.0	269.5	270.5	291.5	307.0	306.5	303.0	295.5	202.0	200.0
247	Presente	317.7	317.3	314.1	311.7	299.1	302.5	294.1	321.7	337.7	332.6	329.7	320.9	217.2	219.3
248	Presente	311.5	306.5	306.7	305.2	291.3	280.6	279.7	307.1	324.4	326.3	325.4	313.5	218.4	220.6
249	Presente	287.5	286.3	290.8	292.5	295.5	298.5	307.5	315.5	322.3	322.5	314.5	302.5	216.5	218.3
250	Presente	274.7	274.3	273.1	271.6	259.9	251.4	252.8	270.7	278.8	282.4	288.7	277.4	175.2	174.4
251	Presente	312.1	310.2	308.8	310.2	300.6	316.8	298.4	337.5	335.5	328.9	320.7	313.0	203.7	207.8
252	Presente	301.0	304.3	311.5	318.0	318.5	321.8	335.0	342.0	351.0	324.5	312.0	316.0	195.0	197.0
253	Presente	295.0	296.0	299.0	306.0	313.0	318.0	324.0	326.0	318.0	311.0	304.0	303.0	201.0	201.0
254	Presente	172.8	170.4	168.6	166.4	165.6	156.6	149.8	155.2	162.0	167.6	166.8	168.8	71.8	75.2
255	Presente	226.7	226.3	225.0	223.3	222.7	217.3	214.0	218.0	224.7	225.0	221.3	223.3	121.7	125.3
256	Presente	284.5	285.0	291.7	292.8	291.0	295.8	301.7	312.4	318.8	319.6	311.4	293.7	218.1	217.6
257	Presente	188.5	189.0	187.5	185.5	185.5	180.5	176.0	181.0	185.0	187.0	183.5	186.5	105.0	107.0
258	Presente	332.0	335.0	332.0	316.0	310.0	299.0	298.0	305.0	309.0	311.0	312.0	316.0	216.0	216.0
259	Presente	338.5	341.5	338.0	319.0	314.0	301.5	299.5	305.0	312.0	316.0	316.5	319.5	225.5	225.5
260	Presente	298.7	304.8	309.1	306.6	297.7	289.4	289.7	295.1	302.4	305.3	303.3	296.9	187.6	188.3
261	Presente	290.5	291.5	296.5	300.8	300.8	303.0	309.5	319.0	326.5	324.5	314.8	298.5	222.5	220.8
262	Presente	304.9	306.6	306.4	303.7	300.2	300.1	303.0	310.5	315.2	314.2	311.6	309.1	215.1	215.8
263	Presente	286.3	286.5	293.3	293.5	290.8	297.0	303.5	314.5	320.8	322.5	314.5	296.3	220.8	220.3
264	Presente	301.1	296.4	299.6	303.6	305.5	304.3	308.7	314.8	317.3	319.9	319.5	310.2	230.0	230.1
265	Presente	310.8	311.8	309.9	307.2	304.0	306.5	311.8	317.1	320.4	318.4	314.4	312.5	221.8	222.0
266	Presente	301.9	302.0	300.5	307.0	313.3	318.1	328.3	340.9	329.7	321.4	313.3	309.3	209.2	210.8
267	Presente	303.5	304.3	303.5	310.2	318.0	324.9	333.2	345.8	333.0	322.9	315.0	310.2	215.6	216.4
268	Presente	303.0	302.2	304.3	306.6	310.9	314.0	320.5	327.3	327.0	324.1	317.6	314.0	227.9	227.6
269	Presente	302.9	304.0	302.9	303.6	304.8	301.6	301.7	312.8	314.6	313.2	311.1	307.2	208.7	208.8
270	Presente	304.0	301.7	301.7	305.8	312.4	315.4	321.3	329.8	325.6	321.2	316.0	314.0	223.0	220.2
271	Presente	303.8	301.8	302.7	305.2	310.3	312.8	318.9	325.8	324.3	320.3	314.7	313.9	225.9	223.0

272	Presente	287.2	286.2	289.7	291.4	293.5	296.7	306.0	313.8	320.0	319.9	311.6	301.6	211.6	212.7
273	Presente	306.3	307.1	307.0	307.7	308.6	311.5	321.1	325.8	326.5	321.0	314.1	314.5	228.4	228.4
274	Presente	305.7	306.5	307.0	308.3	309.3	312.3	323.2	327.5	328.0	321.3	314.0	314.8	230.0	230.3
275	Presente	304.1	304.5	305.1	306.6	308.3	311.0	319.2	324.7	328.6	326.2	317.9	315.4	227.4	229.5
276	Presente	302.5	301.2	301.7	303.5	307.2	309.8	314.8	322.6	321.7	318.0	312.8	311.1	223.0	220.1
277	Presente	299.8	300.6	302.4	305.7	309.0	312.2	319.5	324.8	329.3	326.9	319.7	313.7	224.1	225.2
278	Presente	304.4	306.1	306.0	303.3	299.9	299.5	302.2	310.0	314.7	313.8	311.3	308.7	214.8	215.5
279	Presente	301.6	302.6	302.2	303.1	304.4	307.8	312.1	320.9	320.5	316.4	311.0	307.2	221.2	219.8
280	Presente	302.0	300.3	300.6	302.9	307.3	309.7	314.1	322.5	321.0	317.9	313.0	311.1	221.1	217.8
281	Presente	304.0	301.7	302.6	305.4	310.8	313.5	319.3	326.6	324.7	320.6	315.2	314.2	225.6	222.6
282	Presente	302.2	304.1	304.5	303.5	307.3	301.7	302.7	315.3	317.7	314.5	310.9	307.1	213.1	214.8
283	Presente	301.6	304.0	302.7	303.7	304.6	308.4	312.3	322.1	320.2	316.2	310.7	306.1	219.8	219.5
284	Presente	316.8	315.3	309.0	305.8	287.0	278.3	280.3	302.0	322.0	324.5	326.0	321.3	222.8	225.5
285	Presente	239.0	238.6	236.1	239.5	240.6	236.7	227.2	233.0	238.4	247.3	253.4	250.9	128.5	128.6
286	Presente	219.2	218.1	216.9	216.8	214.7	205.1	201.4	207.5	216.3	223.2	225.9	222.8	108.8	110.0
287	Presente	265.0	270.0	263.0	266.0	263.7	256.0	251.7	257.7	264.0	274.3	282.3	278.0	157.0	156.7
288	Presente	237.7	240.7	235.3	237.3	235.7	226.7	221.0	226.0	232.3	244.0	251.0	248.0	125.7	126.0
289	Presente	305.8	302.9	304.3	304.6	298.0	312.2	303.8	335.0	328.8	321.9	313.9	307.1	195.0	201.0
290	Presente	304.5	302.5	304.7	307.4	309.1	312.0	317.7	323.7	325.4	325.5	323.4	317.3	214.7	215.7
291	Presente	298.6	297.0	294.9	300.1	301.6	307.0	321.0	334.3	321.1	314.8	308.5	303.7	194.0	200.9
292	Presente	293.6	288.9	293.7	295.0	299.2	302.8	308.3	317.3	323.8	327.0	320.8	307.9	227.4	227.7
293	Presente	300.0	301.0	298.0	293.5	291.0	286.5	284.0	295.0	301.5	304.0	307.5	306.0	200.5	202.5
294	Presente	287.4	286.0	289.4	290.7	291.1	293.9	303.1	312.2	320.4	322.8	313.2	302.0	205.2	206.6
295	Presente	316.4	319.7	318.5	312.4	306.8	301.5	301.7	310.6	319.0	320.2	319.4	315.5	223.7	224.3
296	Presente	283.6	284.9	295.7	314.6	314.7	319.9	332.6	350.8	333.6	324.0	313.3	300.6	183.5	185.5
297	Presente	307.4	303.3	307.3	308.7	305.1	314.3	318.0	332.7	337.7	331.1	313.9	308.7	206.3	213.3
298	Presente	307.1	307.0	306.7	307.5	308.3	311.5	320.2	328.6	335.6	336.7	325.6	320.1	224.9	227.1
299	Presente	298.8	298.3	301.5	306.7	311.7	316.3	321.8	323.3	318.8	315.2	308.0	307.3	204.2	204.6
300	Presente	312.3	308.9	311.9	313.0	308.8	318.0	316.8	338.5	343.3	336.1	320.3	312.9	210.6	216.2
301	Presente	308.5	308.1	307.3	307.4	306.6	309.0	316.9	322.2	327.1	325.9	319.1	317.5	223.5	225.6
302	Presente	282.0	283.0	289.0	290.0	286.0	294.0	299.0	310.0	316.0	317.0	308.5	291.0	219.5	218.5
303	Presente	313.5	312.0	310.2	310.0	298.0	307.7	296.0	329.3	334.0	329.1	322.9	314.7	206.2	209.4
304	Presente	316.3	313.2	310.2	303.3	302.5	291.5	284.8	302.5	312.0	304.2	313.2	308.0	220.6	217.2
305	Presente	291.8	290.4	292.9	294.9	286.7	276.9	276.4	296.6	299.7	302.3	301.6	292.8	195.1	196.5
306	Presente	263.6	257.3	259.2	273.0	274.6	272.0	269.9	281.6	276.0	283.9	280.1	265.9	137.5	136.6
307	Presente	241.7	240.0	237.8	242.7	244.9	242.3	234.9	240.5	243.2	248.8	255.4	255.4	135.3	136.9
308	Presente	286.2	279.4	280.0	288.7	291.6	291.3	291.5	301.1	303.3	300.2	296.4	289.2	173.2	171.6

309	Presente	318.7	315.6	312.8	305.1	305.1	293.5	284.9	303.5	315.1	303.5	315.9	307.6	224.3	222.1
310	Presente	287.5	282.4	285.5	300.1	299.4	295.7	293.6	307.3	296.9	307.8	300.7	287.2	166.4	166.0
311	Presente	304.7	301.4	303.3	306.6	305.3	304.1	307.3	320.9	319.1	318.9	313.0	306.8	207.6	206.0
312	Presente	280.9	284.4	278.5	283.8	278.3	270.8	266.8	274.8	279.0	288.0	296.5	294.3	175.8	175.0
313	Presente	285.9	281.6	282.0	290.1	289.9	288.4	285.3	293.8	297.8	294.9	294.4	288.1	175.9	176.0
314	Presente	311.5	305.5	307.1	306.5	294.8	285.8	283.8	311.6	326.0	328.1	325.2	311.7	219.0	220.1
315	Presente	300.6	297.2	297.6	294.6	282.6	271.8	275.2	295.0	309.7	313.9	311.5	301.1	208.3	208.0
316	Presente	310.3	308.1	303.8	300.2	297.6	291.5	285.7	297.2	307.0	307.7	311.1	309.1	210.4	209.7
317	Presente	187.3	185.6	183.6	184.0	180.8	170.9	166.6	170.7	179.9	190.0	193.2	190.1	75.8	77.1
318	Presente	275.1	273.6	273.1	271.1	268.6	266.4	266.7	272.6	277.2	278.9	277.2	276.7	170.2	171.7
319	Presente	213.0	212.3	213.7	212.0	212.0	209.3	208.3	212.0	215.7	212.0	207.0	208.7	109.0	112.7
320	Presente	312.0	315.2	310.9	306.7	306.6	305.3	300.5	311.6	318.3	321.5	320.3	318.8	215.1	218.3
321	Presente	309.9	306.9	306.9	305.1	299.9	298.7	301.9	322.4	331.1	322.8	320.4	310.3	218.1	217.9
322	Presente	143.9	138.7	151.4	150.0	150.6	146.0	145.3	157.9	155.7	173.9	167.9	153.7	21.3	18.9
323	Presente	321.0	318.4	315.8	314.2	312.8	312.2	309.1	322.3	326.0	327.8	321.6	319.7	219.4	220.9
324	Presente	321.3	319.2	316.7	315.8	313.4	312.7	311.2	324.2	328.2	327.4	323.5	322.9	220.1	222.0
325	Presente	310.3	310.7	306.6	303.3	299.9	294.3	291.9	306.4	311.6	309.7	310.5	312.6	213.5	213.0
326	Presente	308.7	306.5	306.7	304.0	298.5	289.6	287.2	307.1	320.9	316.4	318.9	307.7	213.6	210.7
327	Presente	307.0	303.0	296.0	293.0	290.0	283.0	281.0	291.0	295.0	301.0	300.0	303.0	209.0	208.0
328	Presente	307.4	303.6	305.4	306.6	306.9	304.9	309.7	321.6	321.9	319.4	313.5	309.7	212.5	210.6
329	Presente	304.7	302.1	304.0	304.4	304.4	302.2	308.3	318.6	319.1	317.0	311.2	307.4	211.3	209.1
330	Presente	298.3	298.3	290.3	301.3	301.3	304.3	318.3	331.0	322.0	316.3	308.7	303.3	201.0	205.7
331	Presente	298.4	296.9	293.0	300.1	300.9	305.9	319.9	332.8	321.0	315.0	308.5	303.4	195.8	202.0
332	Presente	308.8	310.2	309.1	306.3	303.9	305.6	312.4	319.5	320.9	317.7	313.0	313.0	207.9	206.4
333	Presente	309.6	309.5	312.0	316.4	319.5	322.3	325.4	328.3	330.0	329.3	325.1	320.6	217.2	218.0
334	Presente	301.7	303.6	303.5	300.7	296.8	295.6	297.3	305.8	311.3	311.1	309.2	306.4	211.7	212.3
335	Presente	303.1	304.9	305.7	304.2	303.3	300.0	302.3	312.3	316.3	315.7	311.8	308.1	217.2	219.0
336	Presente	311.6	308.2	310.7	312.4	307.1	317.8	314.5	339.0	341.7	334.5	319.3	312.7	208.4	214.0
337	Presente	307.2	308.1	308.1	308.0	308.9	309.1	316.4	328.0	324.2	318.9	316.3	311.7	219.1	216.3
338	Presente	299.2	298.3	292.5	301.3	301.8	306.2	319.8	332.5	322.2	316.7	309.2	304.3	199.2	204.7
339	Presente	306.2	307.5	307.3	305.5	304.4	306.3	311.6	319.2	321.2	317.3	312.6	309.3	223.7	223.3
340	Presente	306.9	305.9	304.8	304.6	301.3	301.1	305.5	316.6	317.9	316.4	312.8	309.7	202.9	201.1
341	Presente	304.0	301.1	300.6	300.6	296.0	296.7	303.9	319.3	321.3	316.3	312.0	305.8	211.0	211.6
342	Presente	305.3	295.3	284.5	302.0	307.0	309.0	310.3	314.0	318.5	324.8	324.8	318.3	221.0	222.0
343	Presente	309.7	310.7	312.7	318.0	323.7	330.0	336.7	339.7	333.7	326.0	317.7	319.7	217.7	218.7
344	Presente	315.5	313.5	312.5	315.5	306.5	322.5	304.0	345.5	343.5	335.5	324.5	316.5	209.5	213.0
345	Presente	299.0	296.0	299.0	303.0	304.0	303.0	307.0	313.0	315.0	318.0	317.0	308.0	231.0	231.0

346	Presente	308.2	309.0	312.0	317.3	323.0	329.2	335.3	337.7	331.3	323.5	315.5	318.3	216.8	217.8
347	Presente	299.8	298.8	293.8	302.0	302.8	306.8	320.8	333.5	322.8	317.0	309.8	304.8	199.0	205.0
348	Presente	301.0	300.0	295.0	303.0	304.0	308.0	322.0	335.0	324.0	318.0	311.0	306.0	200.3	206.0
349	Presente	300.5	300.7	297.8	304.5	309.9	314.0	325.0	337.6	326.7	319.6	311.9	307.8	206.3	208.7
350	Presente	300.0	299.6	297.6	303.6	308.1	312.5	324.6	337.6	325.9	318.6	310.9	306.7	202.0	205.7
351	Presente	303.7	304.0	305.9	308.9	312.1	315.4	321.6	325.9	329.6	328.1	322.1	316.5	219.2	220.3
352	Presente	299.0	298.0	291.0	302.0	301.0	305.0	318.0	331.0	322.0	316.0	309.0	304.0	201.0	206.0
353	Presente	313.1	313.6	315.5	320.6	323.4	326.5	329.4	332.1	333.6	330.8	326.6	323.4	220.4	222.1
354	Presente	301.0	299.0	295.0	302.0	303.0	308.0	321.0	335.0	323.0	317.0	310.0	306.0	199.0	205.0
355	Presente	308.0	301.9	309.7	307.8	307.1	312.2	321.9	327.5	326.5	319.4	313.2	311.8	217.2	216.5
356	Presente	306.3	296.3	305.8	307.1	304.5	313.9	324.1	330.1	330.2	322.7	310.8	309.2	211.2	215.6
357	Presente	300.0	298.0	294.0	301.0	301.0	306.0	320.0	333.0	322.0	316.0	309.0	304.0	197.0	204.0
358	Presente	302.1	301.1	300.8	302.8	307.5	310.0	314.8	324.2	321.6	318.1	313.4	310.5	219.8	217.1
359	Presente	305.2	299.6	300.7	307.7	306.9	311.4	323.5	331.9	327.6	320.3	313.5	310.8	217.7	218.0
360	Presente	303.0	297.2	293.1	304.8	308.8	309.9	310.4	315.1	319.3	322.8	320.4	315.0	225.1	225.5
361	Presente	303.1	303.3	306.5	309.6	313.1	315.4	319.7	323.3	327.2	326.7	321.0	316.3	221.3	222.1
362	Presente	304.7	295.3	285.3	302.3	306.8	308.9	310.0	314.0	318.5	324.4	324.2	317.7	221.5	222.4
363	Presente	299.0	299.0	293.0	301.5	303.3	306.8	320.5	333.5	322.8	316.8	309.8	304.5	199.8	205.3
364	Presente	300.0	280.0	293.0	303.0	307.0	308.0	312.0	315.0	322.0	327.0	325.0	312.0	221.0	223.0
365	Presente	299.0	282.0	296.0	303.0	307.0	307.0	311.0	315.0	321.0	325.0	324.0	310.0	223.0	224.0
366	Presente	299.0	284.5	296.0	303.0	306.0	306.5	310.5	314.5	320.0	324.0	322.5	309.5	224.5	225.0
367	Presente	300.3	298.6	301.0	306.6	309.8	309.8	307.9	315.7	321.0	321.3	317.3	312.3	231.7	231.9
368	Presente	302.0	284.0	289.0	302.0	307.0	309.0	311.0	314.0	321.0	327.0	326.0	315.0	221.0	221.0
369	Presente	304.0	297.0	290.3	304.3	308.3	310.0	310.3	315.0	319.0	323.3	322.0	316.3	223.7	224.7
370	Presente	303.0	298.5	296.0	306.0	310.0	310.5	310.5	316.0	320.0	322.5	320.0	314.5	226.5	227.5
371	Presente	298.7	298.3	292.7	301.0	302.3	306.3	320.3	333.3	322.3	315.7	309.3	304.3	198.0	203.7
372	Presente	300.9	303.1	304.3	302.7	307.5	300.3	300.8	314.5	317.8	314.0	310.1	306.2	215.1	217.8
373	Presente	307.8	307.1	309.2	307.6	308.1	308.7	315.8	324.6	323.8	318.5	314.5	311.8	216.2	214.6
374	Presente	300.0	299.0	292.5	302.5	303.5	306.5	320.5	333.5	323.5	318.0	310.5	305.5	201.5	206.0
375	Presente	308.6	305.9	306.3	306.8	299.0	313.3	302.4	335.5	330.8	324.4	316.4	309.5	198.5	203.7
376	Presente	299.5	298.5	293.5	301.5	302.5	306.5	320.5	333.5	322.5	316.5	309.5	304.5	198.5	204.5
377	Presente	301.9	299.1	299.9	300.9	301.9	305.0	310.8	319.4	323.8	323.2	319.4	313.3	219.6	218.6
378	Presente	298.5	299.3	301.0	303.5	306.2	309.7	318.0	323.8	328.8	326.3	319.0	312.2	221.9	223.1
379	Presente	312.9	309.9	311.1	313.2	306.0	319.7	309.3	342.5	341.5	334.0	321.4	314.1	207.2	212.0
380	Presente	310.7	307.0	308.9	310.7	304.7	317.8	310.0	340.2	338.8	331.5	318.6	311.7	204.7	210.0
381	Presente	305.4	306.3	304.9	304.6	303.3	304.5	308.9	316.5	317.3	314.9	311.0	308.7	211.9	211.8
382	Presente	295.7	292.4	295.8	300.2	303.7	307.9	314.8	321.2	320.8	318.5	313.9	304.4	204.9	204.0

383	Presente	299.4	300.9	301.9	300.2	300.1	296.1	296.8	308.3	312.7	311.0	307.9	305.3	212.8	214.1
384	Presente	308.7	304.5	308.8	309.9	306.7	315.2	320.5	332.8	339.1	332.6	314.9	309.7	208.8	215.7
385	Presente	309.8	306.0	309.2	310.7	306.3	316.5	316.8	336.3	339.7	332.8	316.8	310.8	207.2	213.6
386	Presente	301.6	302.5	292.1	305.0	305.7	307.2	320.6	333.5	325.8	320.2	312.7	307.5	207.2	210.8
387	Presente	313.3	314.0	310.7	308.7	305.4	308.0	313.4	318.1	321.6	320.6	316.3	314.4	221.4	222.1
388	Presente	293.1	290.6	293.7	297.8	301.2	306.0	312.8	316.9	315.4	312.9	307.3	301.4	199.2	199.0
389	Presente	304.1	302.2	303.1	301.6	301.7	299.1	305.5	316.3	317.8	314.9	309.9	306.7	213.5	211.7
390	Presente	297.0	293.8	297.7	302.6	306.5	310.8	317.9	325.0	324.3	321.8	317.0	305.9	207.7	206.7
391	Presente	300.0	300.0	294.0	303.0	303.0	307.0	321.0	334.0	323.0	317.0	311.0	305.0	199.0	206.0
392	Presente	303.0	298.0	295.0	306.0	310.0	310.0	310.0	315.0	319.0	322.0	320.0	315.0	226.0	227.0
393	Presente	300.8	300.0	294.8	303.0	303.8	307.8	321.5	334.5	323.8	317.8	311.0	305.8	200.3	206.0
394	Presente	299.5	299.5	292.5	302.5	303.5	306.5	320.5	333.0	323.5	317.5	310.5	305.5	201.0	206.5
395	Presente	300.6	297.5	299.6	300.9	302.7	305.7	311.5	319.1	324.5	325.7	320.3	311.6	214.7	213.7
396	Presente	304.8	305.0	308.5	311.8	315.5	317.6	321.2	324.1	327.4	326.6	321.5	317.0	220.0	220.6
397	Presente	304.3	301.7	303.1	304.3	306.1	309.4	315.4	322.7	326.3	326.2	321.7	316.0	219.5	219.6
398	Presente	159.2	156.8	158.6	160.4	159.0	149.6	140.3	144.9	152.7	162.4	161.7	159.8	67.3	69.7
399	Presente	196.0	197.0	195.0	193.0	193.0	188.0	185.0	190.0	194.0	196.0	191.0	194.0	110.0	112.0
400	Presente	206.6	204.6	205.1	204.2	202.8	196.3	190.4	194.6	201.4	205.9	204.9	204.4	102.9	105.4
401	Presente	289.0	290.3	296.0	301.0	301.8	303.3	309.3	318.8	324.0	322.3	313.0	296.5	222.8	221.3
402	Presente	296.1	296.9	299.9	303.6	301.5	301.5	306.9	316.5	325.8	326.8	318.2	303.0	221.2	220.2
403	Presente	296.0	296.0	299.3	303.0	301.5	301.8	307.3	317.0	327.0	328.0	319.8	303.8	221.0	220.0
404	Presente	294.8	295.0	299.3	302.0	299.5	298.9	305.3	314.9	326.0	329.6	319.3	304.5	213.7	214.1
405	Presente	293.6	293.1	296.4	300.8	298.8	300.1	306.6	317.0	326.5	327.7	317.8	300.5	221.5	218.7
406	Presente	304.3	306.4	310.0	312.0	310.5	308.8	312.2	320.2	328.1	330.1	323.5	311.4	221.6	221.6
407	Presente	278.2	279.4	286.2	289.3	287.8	289.9	295.1	305.9	312.4	313.1	304.5	287.3	210.2	210.8
408	Presente	284.9	285.7	292.0	292.2	289.5	296.1	302.1	313.3	319.4	321.0	312.6	294.5	220.6	220.0
409	Presente	280.4	279.2	287.9	287.8	287.0	290.7	296.8	307.7	314.3	316.1	308.9	290.2	209.9	210.4
410	Presente	331.5	336.8	332.9	317.3	307.2	296.0	293.2	297.7	305.8	308.8	314.0	314.1	224.6	225.3
411	Presente	299.2	300.3	304.0	306.7	304.8	304.2	309.3	318.0	325.8	326.8	319.2	305.3	223.7	223.0
412	Presente	319.5	326.6	324.1	310.7	300.1	295.2	293.6	300.7	310.7	310.6	314.3	312.0	209.1	211.6
413	Presente	299.9	299.1	299.7	302.5	300.4	303.1	311.8	322.1	334.8	341.3	326.5	316.2	205.6	207.6
414	Presente	291.6	292.4	296.4	299.8	298.9	301.3	308.4	318.1	326.3	325.2	315.7	299.1	222.1	220.4
415	Presente	311.1	308.5	307.4	307.3	292.0	294.9	293.9	320.2	329.3	326.0	319.8	309.5	199.5	201.3
416	Presente	310.0	304.8	311.9	310.3	309.3	315.8	325.3	330.7	336.0	328.6	315.2	312.6	216.8	220.1
417	Presente	317.0	315.3	309.0	305.4	286.7	278.6	279.5	302.1	321.6	324.8	327.0	322.6	222.0	225.9
418	Presente	305.5	303.0	304.0	311.5	315.5	316.0	319.0	320.0	322.0	323.0	320.0	315.5	223.0	224.0
419	Presente	314.6	313.5	311.6	309.4	294.8	297.3	293.5	320.5	332.6	329.6	325.2	316.8	209.3	211.9

420	Presente	314.5	310.5	307.5	302.0	286.0	278.0	280.0	300.5	317.5	321.5	324.5	318.5	213.5	215.5
421	Presente	315.3	312.1	314.3	312.7	305.6	303.6	300.7	326.7	335.6	331.2	325.8	315.9	221.0	219.5
422	Presente	256.0	261.0	255.5	259.5	257.5	249.0	244.5	250.5	256.5	267.0	275.5	270.5	147.0	146.0
423	Presente	317.0	315.0	309.0	306.0	287.0	278.7	280.0	302.0	322.0	325.0	327.0	321.7	222.7	225.7
424	Presente	257.7	256.0	255.9	253.6	251.4	249.1	249.9	255.1	258.9	259.6	257.0	256.6	150.1	152.0
425	Presente	317.5	315.5	314.5	310.5	299.5	292.0	296.5	315.5	336.0	331.5	330.5	322.5	221.5	223.5
426	Presente	172.6	168.0	169.3	178.6	179.0	175.8	174.3	185.2	183.2	197.7	192.9	178.1	37.8	39.4
427	Presente	132.0	128.0	128.0	136.0	139.0	135.0	134.0	144.0	145.0	158.0	155.0	141.0	0.0	3.0
428	Presente	234.2	232.5	230.3	235.3	237.6	234.6	228.4	233.2	235.8	241.1	247.3	248.0	128.7	130.4
429	Presente	260.2	256.4	259.3	273.7	272.8	269.8	269.1	283.6	271.7	285.2	276.5	261.0	133.3	133.1
430	Presente	211.2	206.0	202.4	213.2	215.6	214.2	213.2	218.0	217.8	220.6	222.8	215.4	85.4	87.6
431	Presente	199.7	195.7	196.7	196.3	202.0	207.1	194.5	197.9	199.4	203.8	208.0	206.3	86.5	87.6
432	Presente	302.3	303.9	308.1	310.3	309.3	303.8	304.3	311.1	321.4	325.2	318.6	309.5	214.7	215.2
433	Presente	317.1	315.0	314.0	309.1	294.9	284.5	291.9	309.4	331.9	329.8	329.9	322.0	222.1	224.9
434	Presente	268.2	274.9	281.4	280.1	272.4	261.8	264.1	270.2	277.3	281.2	276.7	268.9	162.5	161.7
435	Presente	294.5	294.7	298.6	301.3	298.8	298.9	306.0	315.9	326.8	329.9	319.0	305.0	213.0	213.8
436	Presente	241.1	240.0	237.6	243.4	245.4	241.1	236.4	240.9	243.7	248.9	254.9	257.9	140.1	143.3
437	Presente	308.0	312.2	305.8	308.3	302.2	294.8	291.8	301.3	305.3	310.0	316.0	316.9	208.2	207.8
438	Presente	317.3	312.6	311.5	307.8	308.0	307.6	310.4	323.6	327.7	324.0	318.4	318.1	213.2	212.4
439	Presente	305.6	308.9	306.0	306.7	300.1	294.5	297.1	303.9	307.0	308.5	309.7	311.6	213.9	213.8
								Tmin		Tmin					
Código	Modelo	Tmin 03	Tmin 04	Tmin 05	Tmin 06	Tmin 07	Tmin 08	09	Tmin 10	11	Tmin 12	Prec 01	Prec 02	Prec 03	Prec 04
1	HE	257.6	252.2	256.6	253.5	245.7	254.4	222.6	266.3	262.6	260.3	252.4	263.1	303.8	264.4
2	HE	257.9	256.5	257.2	255.7	249.4	256.5	230.0	273.0	270.3	264.4	299.2	290.0	333.4	321.9
3	HE	87.6	82.0	68.1	47.3	42.5	56.4	53.6	85.7	85.9	86.8	196.8	187.5	173.9	75.5
4	HE	260.2	258.5	258.6	259.7	250.0	259.4	232.1	272.6	267.0	263.7	266.5	268.2	316.0	283.9
5	HE	224.9	223.8	225.3	219.1	214.4	216.0	202.7	233.9	230.4	231.1	166.1	152.2	225.0	180.8
6	HE	252.0	253.5	247.9	241.9	234.1	246.1	233.1	261.3	255.7	254.9	169.5	192.0	223.6	183.0
7	HE	258.7	256.8	259.2	256.8	249.7	257.2	230.1	274.4	272.4	265.3	274.6	266.6	330.5	309.5
8	HE	153.3	154.1	157.7	155.4	152.3	153.4	131.3	156.1	151.1	153.3	106.1	108.0	158.4	202.1
9	HE	254.5	247.6	232.0	216.5	209.9	222.6	222.5	255.4	257.1	259.9	298.9	230.4	198.9	141.1
10	HE	250.4	239.3	219.2	199.9	187.4	206.6	210.5	246.1	247.3	253.5	371.8	333.8	294.8	178.2
11	HE	263.7	266.5	265.4	267.7	271.6	274.0	257.1	267.5	267.7	264.6	354.2	306.6	304.9	334.6
12	HE	267.3	265.0	267.6	269.3	272.4	274.4	251.2	265.5	266.9	267.1	211.9	266.5	330.7	333.3
13	HE	284.5	274.6	267.8	261.7	264.7	270.3	250.5	291.3	285.3	276.8	84.3	68.1	123.5	229.1
14	HE	194.3	186.3	176.7	169.3	166.3	181.3	167.3	200.0	198.3	197.3	262.7	244.7	213.0	120.3
15	HE	264.5	256.5	265.2	266.2	269.7	269.3	252.2	267.5	268.5	265.2	193.0	263.9	350.8	349.4
16	HE	211.0	204.8	196.0	180.6	172.5	189.7	177.5	213.0	212.7	214.7	258.6	251.4	206.7	115.6

17	HE	186.8	178.2	165.6	158.0	156.0	170.2	152.4	184.4	188.8	188.2	253.4	227.8	164.8	88.0
18	HE	269.0	272.0	269.0	270.0	278.0	282.0	261.0	273.0	273.0	271.0	270.0	194.0	213.0	292.0
19	HE	250.7	248.1	245.2	246.4	253.8	262.2	230.7	284.3	272.0	251.2	222.3	239.8	237.5	211.3
20	HE	258.5	246.6	233.1	226.7	222.5	248.2	234.3	268.6	264.0	246.6	273.9	288.9	227.7	170.3
21	HE	256.0	265.0	259.0	262.0	266.0	268.0	247.0	258.0	260.0	259.0	373.0	309.0	309.0	303.0
22	HE	254.6	253.0	245.8	244.4	247.0	252.8	231.6	281.8	276.2	257.8	196.2	224.0	215.8	129.4
23	HE	265.7	264.8	261.2	262.6	271.3	285.7	249.6	290.0	280.9	265.1	267.1	270.7	290.7	312.3
24	HE	264.7	249.7	236.7	230.7	228.3	254.7	240.7	274.7	269.7	249.3	275.0	292.0	226.0	165.7
25	HE	281.2	272.1	268.7	268.9	273.0	279.8	261.6	292.2	281.9	275.5	214.6	191.2	295.2	355.2
26	HE	285.2	277.0	271.6	271.4	276.3	284.2	267.4	295.3	284.7	276.7	191.2	152.3	234.1	314.4
27	HE	284.4	274.7	269.0	267.7	272.7	279.4	261.5	292.8	283.2	275.4	182.1	149.8	251.7	373.1
28	HE	293.2	288.8	281.3	280.6	287.4	296.2	272.1	313.5	300.6	284.1	159.3	169.8	234.1	245.5
29	HE	287.0	279.0	273.0	273.0	278.0	286.0	270.0	298.0	287.0	278.0	187.0	160.0	248.0	304.0
30	HE	275.5	274.7	270.9	271.2	278.2	291.9	257.6	301.7	293.0	277.1	93.4	115.2	196.5	253.5
31	HE	286.7	277.0	269.1	266.1	271.2	278.1	260.7	293.7	284.1	273.9	167.7	128.9	232.2	377.6
32	HE	255.0	264.0	260.0	261.3	265.7	268.3	247.0	259.7	260.0	259.0	350.3	279.7	290.0	281.7
33	HE	269.4	271.6	269.0	270.0	275.9	279.9	260.1	272.7	272.9	270.7	249.2	194.7	206.8	298.6
34	HE	263.5	255.5	241.0	235.5	238.5	265.5	252.5	286.5	273.5	254.5	290.0	289.5	289.0	183.5
35	HE	250.4	249.1	242.1	240.4	244.1	250.2	228.1	277.9	272.2	253.5	203.4	231.6	218.5	140.1
36	HE	265.4	263.0	259.9	250.1	244.8	256.2	240.1	281.8	268.1	256.8	256.5	241.4	229.3	196.7
37	HE	286.8	279.2	273.4	273.2	278.6	286.0	269.6	297.4	286.7	278.7	188.7	156.7	242.2	306.3
38	HE	225.7	219.3	210.7	198.3	190.0	207.0	192.7	227.0	228.7	230.0	255.3	241.3	205.0	120.0
39	HE	242.9	240.2	238.2	235.0	238.0	246.9	214.7	271.3	255.1	239.6	265.6	258.7	201.7	173.8
40	HE	282.2	271.5	265.6	260.2	262.7	267.6	245.7	287.8	281.8	275.1	87.9	78.0	143.4	257.0
41	HE	256.0	237.0	215.0	196.5	188.0	206.0	223.0	256.0	263.0	267.0	194.5	174.0	138.5	63.0
42	HE	243.5	223.5	201.5	188.5	173.5	192.0	211.0	228.5	241.5	251.5	319.0	255.0	142.0	90.5
43	HE	265.3	261.6	249.8	236.6	223.6	245.1	241.4	285.5	274.6	267.3	252.3	264.0	236.6	145.6
44	HE	262.7	259.0	245.0	229.0	216.0	241.0	238.0	281.0	274.0	268.0	255.0	252.3	224.7	124.7
45	HE	256.0	237.0	215.0	196.5	188.0	206.0	223.0	256.0	263.0	267.0	194.5	174.0	138.5	63.0
46	HE	254.1	246.7	232.2	215.9	206.3	219.6	222.5	254.5	256.9	258.8	289.6	224.1	188.3	137.5
47	HE	244.4	234.5	216.7	198.8	187.6	206.1	205.5	241.7	242.6	247.8	336.5	309.8	268.1	161.8
48	HE	243.5	238.0	224.8	214.3	209.9	222.8	215.4	247.8	249.0	251.9	374.1	344.8	296.2	186.2
49	HE	281.0	273.0	265.7	262.7	261.0	265.3	242.0	273.7	273.3	272.7	36.3	74.7	135.3	289.7
50	HE	166.5	156.3	144.4	133.2	130.6	144.8	131.6	165.1	167.5	169.2	251.5	227.7	178.2	94.2
51	HE	217.4	198.7	177.6	165.2	151.7	169.2	181.7	204.1	213.0	223.9	268.2	227.6	140.6	86.5
52	HE	256.7	238.6	214.0	196.6	182.9	203.4	221.1	248.3	254.5	262.1	380.4	321.0	267.6	167.4
53	HE	214.8	207.5	193.6	183.7	179.5	193.1	184.5	217.7	217.6	220.3	307.7	294.1	247.5	144.2

54	HE	255.7	255.0	251.1	241.8	230.3	248.0	229.7	267.9	259.6	258.8	283.8	306.8	290.1	216.5
55	HE	254.9	253.1	252.0	254.6	251.3	259.0	229.0	267.1	261.9	259.0	227.1	242.4	315.0	299.4
56	HE	256.0	265.0	261.0	263.0	267.0	269.0	248.0	261.0	262.0	260.0	320.0	265.0	273.0	271.0
57	HE	255.0	264.0	260.0	262.0	266.0	267.0	247.0	260.0	261.0	259.0	335.0	270.0	280.0	274.0
58	HE	284.0	275.0	268.0	266.0	272.0	279.0	262.0	291.0	281.0	272.0	159.0	124.0	208.0	321.0
59	HE	259.0	257.0	235.0	225.0	213.0	235.0	229.0	269.0	262.0	257.0	258.0	247.0	219.0	170.0
60	HE	260.0	263.0	262.0	255.9	257.3	265.7	255.0	295.0	285.5	268.1	39.3	40.9	44.7	129.1
61	HE	261.6	264.7	267.9	266.7	264.2	269.2	262.8	273.7	268.7	264.0	78.8	27.2	29.8	48.4
62	HE	252.0	257.3	262.0	262.0	260.0	262.0	254.8	266.8	261.3	256.8	73.5	29.3	23.0	41.3
63	HE	246.8	254.0	259.3	263.3	261.8	260.5	259.5	257.5	257.0	254.8	208.8	110.5	102.5	104.0
64	HE	251.6	245.3	241.8	240.9	236.5	241.5	216.8	251.7	249.0	245.2	99.6	88.0	157.2	301.3
65	HE	257.0	261.0	258.0	251.0	255.0	256.0	244.0	259.0	259.0	257.0	172.0	73.0	68.0	147.0
66	HE	254.0	261.0	264.0	257.0	257.0	260.0	244.0	259.0	258.0	255.0	83.0	47.0	38.0	82.0
67	HE	175.6	174.8	176.8	172.7	169.4	164.2	150.1	181.0	177.3	173.8	116.1	101.9	155.7	147.6
68	HE	100.6	93.8	87.1	72.8	67.3	83.8	76.0	106.1	102.8	101.4	191.1	205.0	187.2	89.7
69	HE	197.4	198.5	194.8	190.8	183.9	193.8	179.4	204.0	202.6	198.0	394.7	383.7	322.8	199.9
70	HE	230.5	224.0	211.0	197.5	189.0	205.5	196.5	232.0	232.0	235.0	287.5	274.0	234.5	137.0
71	HE	262.9	263.4	257.9	249.6	250.4	257.9	249.0	291.3	284.8	266.3	86.4	61.1	98.3	228.1
72	HE	298.3	285.7	273.0	267.0	263.0	264.0	249.3	275.0	275.0	273.3	15.3	38.7	104.3	234.3
73	HE	298.0	285.5	273.0	267.0	263.0	264.0	249.0	275.0	275.0	273.0	15.5	39.0	105.5	235.5
74	HE	243.0	243.5	242.5	244.5	238.5	242.5	215.0	241.5	244.0	243.0	259.5	239.0	283.5	323.0
75	HE	240.4	240.4	232.4	214.5	201.1	222.2	209.0	253.2	246.9	242.8	245.3	238.2	217.6	180.6
76	HE	253.9	252.3	251.3	251.3	249.5	256.9	227.2	265.0	260.6	257.5	263.1	246.0	325.3	320.6
77	HE	256.1	255.6	252.0	252.3	258.4	266.1	237.9	258.1	258.9	255.2	208.0	211.7	261.5	227.2
78	HE	238.0	233.7	230.3	212.3	201.3	233.3	217.7	246.3	239.7	232.0	315.7	308.0	259.0	154.3
79	HE	240.0	225.3	229.0	209.2	213.3	216.3	205.6	246.2	236.4	228.4	408.0	326.5	251.9	168.1
80	HE	195.0	196.3	204.0	203.0	198.0	199.3	178.0	206.0	201.7	201.0	198.0	175.7	249.3	313.0
81	HE	164.0	165.7	170.3	169.3	166.3	167.3	144.7	170.3	166.0	167.3	163.0	144.3	209.7	265.7
82	HE	237.4	230.8	227.4	211.5	195.5	219.6	217.4	252.5	247.1	238.9	249.3	248.9	217.3	114.5
83	HE	248.6	251.1	250.1	250.4	256.5	265.8	243.0	258.4	254.2	250.5	124.3	88.7	129.5	269.5
84	HE	274.4	267.0	264.2	261.7	260.8	265.3	234.8	278.5	273.3	270.7	184.4	120.2	216.7	260.1
85	HE	241.6	225.0	201.9	186.4	194.8	209.2	211.5	246.1	243.8	236.6	316.4	299.2	224.7	106.4
86	HE	276.3	275.7	270.3	257.6	258.4	265.4	250.3	292.6	292.9	277.5	42.2	33.2	67.5	156.3
87	HE	261.3	260.5	254.8	250.7	252.6	260.2	250.6	286.4	277.7	262.2	100.1	80.2	143.9	270.4
88	HE	261.0	257.8	250.9	237.6	230.7	254.1	245.7	280.4	269.3	257.3	346.5	308.0	318.4	209.2
89	HE	282.9	279.0	271.4	268.8	274.4	282.2	266.7	299.3	289.8	275.7	126.8	119.5	261.9	313.5
90	HE	276.0	264.2	270.2	264.6	256.9	259.9	238.2	277.0	279.4	273.4	76.9	146.4	145.5	257.1

91	HE	256.7	256.2	254.3	248.6	247.5	256.5	230.2	280.2	263.5	250.2	248.9	241.5	227.7	193.3
92	HE	274.1	271.5	266.4	259.8	256.7	267.8	251.2	289.5	274.9	263.9	242.9	195.9	215.9	240.6
93	HE	254.3	258.9	259.3	258.0	261.9	267.1	241.9	253.7	255.9	255.9	193.7	137.5	150.5	266.4
94	HE	267.6	258.5	253.7	250.5	249.7	255.2	225.9	271.0	265.2	260.8	80.8	71.7	130.2	215.0
95	HE	282.5	277.6	271.2	260.4	262.9	268.9	253.4	294.6	290.9	278.7	58.4	41.2	77.0	150.7
96	HE	262.7	260.8	258.1	256.6	246.6	261.7	245.7	281.3	269.8	260.0	331.5	288.3	305.0	253.8
97	HE	260.0	253.3	242.3	233.1	231.8	256.6	245.5	280.9	266.1	251.3	310.5	295.3	291.6	200.6
98	HE	237.1	234.0	230.6	231.8	239.7	247.0	216.8	269.6	256.9	236.8	215.8	234.4	232.5	205.9
99	HE	260.5	263.8	261.6	264.0	270.4	276.0	249.1	262.6	263.3	260.3	154.7	132.0	193.8	279.7
100	HE	267.7	265.7	261.9	251.5	244.5	257.4	243.1	284.0	270.7	258.9	258.7	236.5	230.0	195.8
101	HE	275.7	274.5	270.0	265.1	264.0	273.5	251.6	293.4	278.2	266.0	218.7	188.1	207.2	225.4
102	HE	265.9	266.3	262.0	258.9	258.7	268.5	241.2	290.2	273.6	259.2	224.1	197.0	217.9	217.0
103	HE	261.7	259.5	257.6	246.6	237.2	259.6	247.3	280.6	268.8	259.1	329.5	250.5	299.2	219.7
104	HE	261.1	254.0	244.9	242.5	235.4	254.6	240.1	279.8	267.3	253.0	243.9	271.4	264.5	207.7
105	HE	242.1	238.4	233.6	235.2	244.4	254.7	219.8	276.4	261.7	241.1	226.1	241.1	223.4	209.6
106	HE	273.0	271.9	267.8	262.0	259.5	269.1	248.6	290.3	275.2	263.5	236.8	205.7	216.5	230.8
107	HE	262.5	259.6	253.9	242.7	234.9	257.5	247.7	281.9	271.1	259.5	324.1	281.5	294.9	213.1
108	HE	256.1	250.8	250.8	238.3	235.4	244.3	228.1	270.7	257.9	247.6	285.1	278.9	236.0	178.5
109	HE	257.6	254.2	247.9	233.9	227.0	252.1	242.3	275.4	264.4	253.1	363.5	313.1	339.3	206.6
110	HE	261.2	259.7	258.5	246.5	236.1	256.0	241.4	279.7	268.2	257.8	317.1	255.5	259.7	193.4
111	HE	243.9	242.9	232.1	220.5	206.7	228.4	217.0	256.4	250.6	244.1	253.5	244.3	202.3	184.8
112	HE	245.3	241.2	232.4	228.2	218.7	238.4	224.4	259.7	252.8	242.5	254.7	295.4	321.6	195.5
113	HE	258.8	257.9	253.4	255.3	263.9	272.9	247.5	274.3	268.0	258.5	81.7	74.3	145.2	219.3
114	HE	280.8	276.8	271.2	265.9	264.7	275.1	258.9	294.8	279.8	269.4	230.8	189.0	233.5	276.6
115	HE	250.2	244.9	236.8	233.2	224.6	244.2	228.7	265.5	256.9	245.2	243.6	300.6	310.5	195.1
116	HE	259.6	263.4	260.3	247.3	246.2	252.1	235.2	276.3	279.9	265.1	35.4	26.4	54.8	133.1
117	HE	249.2	248.2	239.0	227.7	220.4	240.5	224.2	264.3	258.6	250.4	262.6	251.9	234.7	175.5
118	HE	244.2	242.8	231.3	221.0	206.4	228.9	218.4	256.8	250.8	244.5	256.7	246.2	201.3	186.5
119	HE	282.0	278.0	270.5	269.0	275.2	283.3	264.7	299.0	288.5	274.2	137.3	129.3	263.5	266.3
120	HE	267.5	267.8	259.9	255.3	259.4	274.3	242.4	298.6	282.8	263.5	183.3	152.3	189.7	209.4
121	HE	246.3	243.3	239.1	240.8	249.5	260.1	225.0	281.2	267.3	246.1	228.1	242.8	229.2	213.6
122	HE	266.5	264.7	264.6	264.6	260.5	268.5	238.7	279.5	270.5	263.2	297.6	258.0	343.3	321.7
123	HE	262.7	260.4	257.5	244.2	232.9	253.6	240.9	280.2	269.0	258.0	332.3	266.7	263.6	197.4
124	HE	264.5	263.6	261.8	262.7	252.8	263.2	243.8	281.3	270.5	261.6	318.1	283.6	337.4	285.2
125	HE	257.8	255.0	253.6	238.8	228.7	253.8	237.9	273.3	263.0	253.2	348.5	297.0	276.2	187.0
126	HE	286.7	280.8	271.6	268.6	274.2	282.0	265.4	299.1	289.8	275.3	132.9	114.2	236.5	272.5
127	HE	253.0	249.0	245.0	230.0	221.0	249.0	237.0	269.0	257.0	248.0	331.0	294.0	333.0	198.0

128	HE	251.0	247.0	245.0	228.0	220.0	248.0	235.0	265.0	254.0	245.0	306.0	305.0	317.0	197.0
129	HE	260.7	258.5	255.8	242.8	233.6	256.9	245.6	278.7	267.7	257.8	332.8	261.5	301.5	210.2
130	HE	263.0	256.0	244.8	238.0	238.1	264.0	251.0	285.3	273.0	256.0	309.1	286.1	294.0	198.9
131	HE	254.0	250.0	247.0	230.0	222.0	249.0	237.0	269.0	258.0	249.0	334.0	293.0	333.0	199.0
132	HE	252.0	248.2	244.2	228.6	220.4	248.2	236.2	267.2	255.8	246.6	327.6	292.6	332.0	198.2
133	HE	253.0	250.0	246.0	230.0	223.0	250.0	238.0	269.0	258.0	249.0	334.0	294.0	334.0	200.0
134	HE	263.0	254.0	240.0	235.0	237.0	263.3	251.0	285.3	272.3	253.0	286.0	284.7	279.0	189.0
135	HE	253.0	249.0	244.0	228.0	221.0	249.0	237.0	268.0	256.0	247.0	327.0	294.0	331.0	196.0
136	HE	252.5	257.8	258.1	255.5	258.0	261.7	238.2	249.4	251.5	252.9	209.2	141.0	145.0	274.3
137	HE	251.6	250.7	250.1	243.4	242.6	251.4	224.2	276.1	259.7	246.5	266.2	264.9	204.4	178.8
138	HE	256.1	253.4	252.6	237.7	227.8	254.1	238.9	271.1	260.8	252.0	358.8	308.1	307.6	208.7
139	HE	285.1	280.6	273.0	268.9	270.7	280.3	262.1	297.6	282.7	271.5	207.1	177.9	209.1	246.3
140	HE	254.4	255.8	253.6	255.5	263.4	271.5	246.0	264.4	260.8	255.8	110.3	86.2	138.6	239.2
141	HE	285.8	277.4	270.5	267.6	273.3	280.8	263.8	293.8	283.8	274.3	159.7	127.4	215.0	336.2
142	HE	258.1	255.0	252.9	238.6	228.4	251.7	236.9	274.0	263.7	253.1	340.1	281.3	263.4	187.2
143	HE	263.1	261.7	261.6	261.2	252.3	265.1	246.7	282.3	270.3	261.2	318.5	290.4	304.9	248.4
144	HE	276.0	272.2	264.1	260.1	264.1	272.2	259.6	296.3	287.2	270.5	112.8	94.5	206.0	332.2
145	HE	251.6	257.7	259.6	252.4	253.0	260.3	239.1	262.9	257.7	252.6	106.2	42.8	33.6	100.8
146	HE	249.6	256.5	261.2	258.1	255.2	258.5	244.7	272.8	268.3	256.9	21.5	16.0	23.5	53.4
147	HE	247.5	254.7	256.0	249.7	246.0	247.8	234.2	267.0	261.8	254.9	15.5	11.2	12.1	49.3
148	HE	250.8	256.6	258.0	252.2	248.6	251.2	237.4	269.8	265.4	256.0	18.8	13.6	16.2	51.2
149	HE	280.1	278.1	267.3	258.6	254.0	256.6	240.7	265.9	267.4	263.4	8.1	13.8	38.6	161.4
150	HE	220.0	226.7	230.9	225.4	221.1	223.4	207.5	241.7	240.7	231.1	23.3	18.7	32.6	88.6
151	HE	248.4	257.9	257.6	249.1	246.4	247.3	232.9	265.1	262.4	255.8	10.6	8.4	10.0	47.9
152	HE	246.5	252.3	249.7	243.8	238.8	241.7	223.8	252.1	253.0	245.8	35.9	20.5	33.5	135.0
153	HE	249.5	255.6	260.0	258.3	255.7	258.7	246.3	268.9	264.2	255.7	32.7	18.1	23.0	47.9
154	HE	251.1	258.7	258.6	250.1	246.3	246.1	232.0	264.7	262.9	258.0	13.1	11.0	16.7	60.5
155	HE	267.0	257.1	247.5	242.4	237.9	241.3	224.6	250.4	251.2	248.1	20.6	34.1	112.5	240.9
156	HE	257.0	261.0	258.0	250.0	254.0	256.0	243.0	259.0	259.0	257.0	170.0	72.0	65.0	142.0
157	HE	288.0	275.0	264.0	259.0	255.0	259.0	242.0	269.0	270.0	267.0	21.0	37.0	129.0	250.0
158	HE	224.3	207.0	187.0	177.5	161.0	182.0	197.8	213.0	225.0	233.8	197.3	176.0	115.0	124.3
159	HE	239.4	240.6	237.4	232.1	226.6	228.8	211.1	241.0	241.3	236.1	44.5	33.3	68.5	187.9
160	HE	261.2	265.2	266.0	265.0	267.6	274.6	267.6	280.4	273.2	262.8	61.0	20.6	15.6	50.4
161	HE	255.0	259.2	261.0	259.4	262.0	268.0	255.4	269.2	264.6	256.6	79.0	30.0	22.6	55.0
162	HE	252.0	257.8	260.3	258.2	260.3	265.0	251.5	266.5	262.3	255.0	74.7	29.8	26.8	58.7
163	HE	251.5	255.9	256.8	252.8	255.1	263.6	245.3	271.4	264.9	254.5	89.1	33.1	29.0	86.4
164	HE	240.6	240.6	232.3	219.5	211.0	231.0	214.5	255.1	249.2	242.6	258.2	226.4	230.2	183.2

165	HE	279.9	277.1	270.2	266.5	269.0	279.5	255.9	297.6	282.3	268.9	219.8	190.5	203.4	223.8
166	HE	202.0	184.1	164.0	153.9	139.7	156.6	166.4	189.2	196.1	207.7	220.7	206.3	132.9	96.2
167	HE	284.3	274.7	270.3	270.0	274.4	281.2	263.0	294.0	284.1	277.2	211.4	186.6	287.1	369.9
168	HE	231.9	226.6	216.8	207.0	202.9	215.6	204.1	236.6	237.2	239.5	516.3	489.6	402.3	251.1
169	HE	245.8	252.4	252.6	245.9	248.0	258.5	232.0	253.4	250.1	247.2	122.8	67.1	76.9	229.2
170	HE	258.0	255.8	255.0	241.3	231.4	255.9	241.2	274.4	263.6	254.6	362.2	302.4	326.3	224.9
171	HE	208.5	215.3	219.7	214.0	208.9	211.6	194.7	229.6	230.2	220.7	25.5	20.0	39.8	109.2
172	HE	180.1	162.7	142.1	124.9	113.8	133.4	140.4	181.0	179.7	188.8	352.1	304.9	259.8	126.7
173	HE	137.1	139.1	138.1	136.0	132.2	133.2	110.2	134.9	133.5	133.6	123.6	132.0	165.5	173.2
174	HE	216.6	217.0	215.7	208.7	203.0	212.3	196.4	222.7	221.1	223.0	250.6	244.1	274.9	222.3
175	HE	246.0	253.0	252.8	246.0	247.4	256.8	230.5	248.5	246.8	245.5	132.8	74.5	85.0	226.2
176	HE	249.4	253.9	254.6	250.3	249.9	249.1	231.8	242.3	244.9	248.8	233.6	133.5	139.4	300.8
177	HE	264.4	263.9	261.0	255.4	253.3	262.3	238.8	285.0	269.1	256.5	257.2	239.2	258.6	224.8
178	HE	257.3	254.2	254.9	251.8	245.3	250.0	224.4	263.6	262.4	262.3	127.4	162.0	234.8	266.3
179	HE	198.9	199.0	205.9	204.9	200.5	201.9	180.1	208.3	204.5	203.9	196.8	175.3	249.0	306.7
180	HE	274.7	263.4	261.5	262.6	266.2	271.4	247.1	285.7	275.4	270.9	206.5	184.0	305.2	409.5
181	HE	261.7	258.4	255.1	240.6	230.9	251.0	239.0	277.5	267.2	255.7	336.9	267.3	261.9	199.4
182	HE	231.9	238.7	244.6	239.5	239.6	246.3	234.1	263.4	255.5	242.5	120.1	98.5	83.7	145.5
183	HE	130.1	131.7	132.7	129.0	125.2	124.6	103.0	127.2	124.9	125.4	88.4	99.6	122.8	165.8
184	HE	210.5	203.1	190.6	180.3	176.8	190.6	181.3	214.1	214.2	216.3	335.8	317.4	268.1	157.6
185	HE	218.6	216.4	207.3	199.1	194.5	210.5	193.6	228.9	225.5	221.3	340.9	322.1	291.1	212.4
186	HE	263.4	257.1	247.0	243.8	239.4	259.9	247.2	284.9	270.6	255.9	286.0	270.8	259.5	204.3
187	HE	248.3	253.7	253.5	250.3	253.8	262.4	236.0	249.7	249.5	248.7	151.9	101.7	125.2	270.6
188	HE	186.4	193.3	199.6	195.9	193.1	198.6	180.6	214.6	211.8	199.9	37.8	34.7	52.3	89.3
189	HE	263.6	261.6	264.3	264.7	258.2	268.5	249.3	284.6	272.1	263.2	311.1	275.3	333.8	308.1
190	HE	188.7	188.9	189.2	188.4	183.7	186.5	158.6	185.2	186.7	188.3	122.1	136.7	208.1	260.7
191	HE	257.1	253.8	255.1	254.1	248.0	257.8	227.0	266.8	262.7	258.5	273.4	269.7	319.3	279.2
192	HE	261.7	257.0	261.9	256.5	253.8	258.0	234.1	273.1	278.7	265.6	313.8	321.2	376.7	327.6
193	HE	144.1	146.3	148.9	147.8	143.3	144.7	116.4	140.6	142.4	142.3	114.7	118.0	160.6	202.2
194	HE	201.2	199.5	199.2	195.9	187.6	190.6	170.4	193.3	197.7	201.4	80.3	97.9	143.5	208.7
195	HE	139.0	139.0	141.5	140.5	133.5	135.5	107.0	136.0	137.5	136.5	106.5	127.0	194.5	238.5
196	HE	255.6	253.2	252.9	250.9	244.5	249.5	224.4	260.8	258.3	259.6	117.7	162.0	248.6	308.7
197	HE	256.6	253.6	255.4	252.9	249.9	255.9	229.1	266.6	267.0	259.9	306.1	319.3	376.5	348.9
198	HE	189.0	188.9	189.4	189.5	184.9	187.7	160.0	185.7	187.8	188.6	154.8	156.8	233.2	286.8
199	HE	268.7	260.0	266.5	259.9	252.8	255.3	234.0	273.7	280.6	268.1	81.5	164.8	192.2	262.0
200	HE	261.1	252.6	253.9	249.3	239.9	239.7	224.4	250.4	254.5	255.7	34.6	94.4	149.9	295.4
201	HE	110.8	112.4	113.2	111.1	107.2	107.2	84.2	102.7	107.1	110.0	54.7	72.8	110.3	192.1

202	HE	256.5	251.8	250.0	247.5	238.5	239.6	223.0	246.7	251.3	254.2	69.8	132.5	239.8	348.0
203	HE	260.4	255.2	259.2	254.3	251.4	255.7	231.5	268.7	271.9	262.8	315.8	336.7	372.5	326.1
204	HE	229.3	220.8	209.2	193.4	176.5	201.2	206.9	243.6	243.2	237.0	261.6	233.3	191.9	111.3
205	HE	145.5	141.2	131.0	119.1	117.6	133.9	124.9	156.3	153.6	149.4	261.8	245.0	242.3	129.1
206	HE	238.2	232.7	229.1	214.4	205.1	229.8	220.0	254.4	241.2	233.1	278.2	290.3	255.9	155.3
207	HE	248.2	240.7	235.9	233.1	229.7	235.0	207.6	246.9	243.6	239.3	82.3	72.5	120.0	231.2
208	HE	266.9	258.7	255.6	253.9	252.9	258.1	226.8	271.4	265.3	262.4	152.2	120.9	193.9	259.8
209	HE	141.9	144.8	143.5	143.1	141.3	142.5	120.0	144.6	138.3	140.2	127.3	149.2	179.2	154.7
210	HE	146.0	144.8	139.6	128.9	124.1	128.6	112.8	143.7	142.8	144.2	108.3	129.4	159.8	132.4
211	HE	256.8	251.5	249.9	235.8	230.1	242.2	229.9	270.2	259.0	248.2	320.8	287.4	257.0	197.6
212	HE	132.0	132.4	135.5	131.6	129.3	129.8	107.7	131.3	127.4	128.4	107.7	124.4	153.4	209.4
213	HE	254.4	249.1	244.5	231.8	220.9	234.2	231.1	273.8	260.0	252.3	241.7	250.6	220.6	145.2
214	HE	274.9	268.9	263.2	254.6	255.5	261.3	240.7	283.9	281.3	272.0	53.1	45.3	85.9	168.8
215	HE	251.3	251.9	247.2	238.1	228.3	245.1	228.2	264.3	256.7	255.0	262.3	282.0	291.6	208.7
216	HE	246.0	245.1	240.2	238.8	243.7	254.9	219.6	279.2	261.6	243.0	239.8	254.3	196.5	166.5
217	HE	254.8	246.3	242.7	242.1	240.3	245.0	214.4	257.5	251.7	248.7	127.8	115.6	177.6	258.1
218	HE	171.2	172.6	171.5	170.7	166.7	168.3	145.0	171.3	170.7	169.7	211.2	216.7	264.7	328.8
219	HE	197.5	197.5	195.0	190.0	183.5	192.5	173.0	195.5	201.0	200.0	257.5	246.5	225.5	157.0
220	HE	55.0	34.7	21.0	3.8	0.6	19.4	16.1	46.2	58.6	67.6	215.5	188.7	145.9	48.9
221	HE	280.1	277.0	270.7	259.8	261.1	267.2	252.1	294.1	292.9	279.0	48.6	35.7	75.2	158.1
222	HE	151.7	142.8	127.1	113.8	109.3	126.3	113.7	148.6	152.3	155.7	188.1	173.0	117.1	54.8
223	HE	251.2	236.4	213.1	194.1	178.5	200.0	210.1	244.2	245.2	252.8	549.7	472.2	447.1	257.6
224	HE	112.6	116.4	111.1	110.3	110.6	110.3	86.0	114.2	108.9	109.5	109.7	143.2	181.5	140.5
225	HE	164.6	163.1	155.4	150.1	142.3	153.9	141.3	168.9	167.3	165.4	256.5	266.1	227.2	132.5
226	HE	274.9	264.6	258.3	255.0	250.2	256.6	236.1	267.4	267.3	264.9	42.4	49.5	149.6	315.1
227	HE	249.5	247.0	247.0	245.2	238.8	244.9	218.5	250.4	252.3	250.8	199.7	206.5	268.2	286.0
228	HE	245.2	244.8	235.3	222.7	211.0	232.3	218.2	259.4	253.5	246.2	256.0	246.9	217.3	181.9
229	HE	232.6	225.1	217.9	202.2	185.1	211.0	211.5	246.7	243.8	236.8	255.9	246.3	207.3	107.2
230	HE	251.9	237.1	236.1	217.5	219.8	226.4	222.7	258.3	250.6	240.5	384.1	338.5	274.4	185.2
231	HE	255.5	249.6	241.7	234.5	226.1	242.1	234.7	277.2	255.9	246.9	253.4	270.9	235.9	166.5
232	HE	255.1	252.3	251.1	236.2	226.1	252.6	236.9	269.5	259.3	250.5	357.8	305.8	298.4	200.4
233	HE	257.4	253.4	250.8	235.1	225.5	250.2	235.6	271.5	262.0	251.1	339.0	285.5	258.4	179.7
234	HE	269.6	266.5	270.2	269.6	265.7	273.7	256.5	290.9	277.8	270.7	335.0	266.1	317.6	315.0
235	HE	273.7	273.0	269.3	270.7	279.0	292.3	257.7	300.0	291.7	275.7	85.0	108.0	184.3	249.3
236	HE	280.2	269.3	265.7	265.7	269.8	275.5	255.8	289.3	280.0	274.5	172.0	159.0	277.4	395.9
237	HE	284.5	275.9	270.5	270.1	275.2	282.4	265.1	294.3	284.1	276.5	207.3	171.5	254.5	350.7
238	HE	268.1	259.9	254.1	248.3	247.8	253.5	226.9	271.6	267.2	261.4	49.9	37.8	83.9	173.6

239	HE	245.1	243.7	236.7	235.6	239.5	245.5	223.3	272.7	266.8	248.0	203.3	234.3	218.9	144.8
240	HE	247.8	241.4	239.6	225.3	210.9	226.7	224.8	264.9	258.3	248.6	245.3	237.8	218.0	138.6
241	HE	259.4	256.0	253.3	238.9	228.7	250.5	237.3	275.5	264.8	253.9	340.4	274.0	260.4	193.4
242	HE	285.0	278.0	273.0	272.0	277.0	285.0	269.0	297.0	285.0	277.0	184.0	154.0	241.0	299.0
243	HE	254.5	252.0	250.6	235.1	225.5	252.7	237.9	268.9	258.7	249.8	348.8	305.1	306.8	210.1
244	HE	255.0	264.0	260.3	261.8	266.0	268.3	247.0	260.0	260.5	259.0	339.5	272.8	280.8	275.0
245	HE	253.0	240.2	238.5	220.9	222.8	225.2	216.6	260.5	253.4	246.4	370.3	329.7	273.3	141.0
246	HE	253.2	243.4	227.6	209.9	194.2	212.7	226.2	257.7	260.7	257.0	272.7	232.6	180.0	110.2
247	HE	252.1	242.2	219.6	197.1	183.6	203.3	216.0	248.6	252.2	257.0	322.1	271.1	231.1	151.0
248	HE	257.8	261.5	262.5	262.0	268.3	275.0	246.0	258.3	260.5	260.3	176.5	128.5	167.5	274.0
249	HE	243.9	236.2	232.2	217.8	199.5	218.1	220.9	258.3	256.8	247.6	249.2	232.9	197.5	106.0
250	HE	247.0	225.8	209.3	199.3	211.5	225.0	219.8	255.5	250.0	236.0	292.5	302.8	219.3	119.8
251	HE	232.5	226.5	212.0	200.5	196.0	209.0	203.0	235.5	236.0	239.0	335.5	301.0	258.5	163.5
252	HE	245.0	242.0	239.0	240.0	244.0	249.0	225.0	275.0	264.0	245.0	197.0	211.0	229.0	183.0
253	HE	206.4	200.5	194.5	178.5	170.3	186.9	171.7	208.1	207.7	209.4	223.2	224.1	174.3	94.7
254	HE	251.5	256.0	255.6	247.4	247.6	250.9	233.1	249.5	249.7	249.7	182.7	79.6	65.2	140.6
255	HE	148.0	149.5	150.0	148.0	141.0	144.0	121.5	142.5	146.5	151.0	109.5	104.5	130.5	156.0
256	HE	266.0	259.0	258.0	254.0	247.0	248.0	231.0	257.0	261.0	261.0	30.0	88.0	146.0	349.0
257	HE	274.0	264.0	266.0	260.5	252.5	252.5	236.0	264.0	267.0	268.0	26.0	82.5	133.0	318.0
258	HE	116.8	118.8	120.2	118.6	113.0	115.6	89.2	114.4	116.4	116.8	116.8	123.4	156.6	208.0
259	HE	167.0	167.3	168.0	166.0	161.0	163.0	135.0	162.3	164.3	164.7	106.3	119.3	180.3	224.0
260	HE	245.4	249.3	245.8	237.9	232.2	234.7	217.1	248.9	250.8	244.9	49.7	33.6	61.1	173.2
261	HE	254.0	259.8	263.0	258.0	257.8	261.8	245.3	262.8	260.0	256.3	86.3	36.0	32.0	73.8
262	HE	259.5	254.8	253.8	254.7	254.4	262.8	232.6	274.1	264.6	259.9	276.5	233.1	364.4	376.2
263	HE	252.5	256.5	254.5	246.8	248.0	249.5	232.8	247.0	249.0	250.5	217.8	98.0	82.0	185.3
264	HE	264.4	255.9	264.8	265.9	269.5	269.2	252.3	267.6	268.6	265.0	189.5	261.7	348.5	347.6
265	HE	270.2	261.1	259.1	259.9	263.0	269.2	239.2	282.4	271.5	266.7	246.3	219.9	368.7	405.2
266	HE	259.9	256.9	255.3	241.0	230.7	255.0	239.8	275.6	265.5	255.2	344.5	291.7	271.0	186.9
267	HE	265.4	263.6	259.8	246.0	234.9	254.5	243.2	282.6	271.6	260.4	331.4	270.3	266.8	202.8
268	HE	285.3	279.4	273.9	270.6	270.2	279.3	264.9	296.8	281.8	272.9	202.7	173.0	224.6	281.3
269	HE	252.3	252.9	250.7	250.4	242.8	253.6	229.0	263.7	255.6	251.8	268.0	279.0	338.5	272.4
270	HE	271.0	269.1	270.9	266.1	259.3	270.7	255.9	292.0	278.4	270.4	292.0	266.4	303.8	286.0
271	HE	274.4	270.1	272.3	270.6	268.0	275.8	260.2	293.9	280.1	272.8	290.2	248.4	314.1	297.4
272	HE	253.8	258.0	258.4	259.7	268.0	275.0	244.9	256.5	257.5	256.6	179.0	130.1	156.5	274.7
273	HE	282.3	273.7	270.2	270.3	274.6	281.7	264.2	294.0	283.0	276.4	260.5	238.3	317.6	366.8
274	HE	285.0	277.2	272.2	271.8	277.2	285.0	268.2	296.2	285.3	277.3	209.7	181.5	264.5	327.8
275	HE	288.1	280.9	272.1	269.3	273.7	282.3	265.7	295.7	285.2	273.9	162.7	130.4	196.9	246.4

276	HE	268.9	265.3	268.6	269.0	266.1	273.8	255.6	290.0	277.0	269.3	325.0	254.3	324.2	317.3
277	HE	265.5	268.3	266.2	267.7	275.1	278.0	256.7	266.0	267.3	265.1	242.9	172.7	192.3	269.5
278	HE	259.0	254.6	253.5	254.5	254.0	262.5	232.2	273.5	264.3	259.7	272.6	232.1	359.9	369.7
279	HE	266.7	262.0	264.8	267.6	265.0	273.0	251.1	287.6	274.5	265.7	298.7	233.4	330.8	310.1
280	HE	265.9	263.8	267.9	267.9	262.5	270.9	253.0	288.0	275.2	268.0	330.6	266.0	329.5	320.6
281	HE	274.2	270.4	272.1	270.2	266.7	275.3	259.9	293.6	280.0	272.3	290.2	250.4	315.0	294.9
282	HE	258.9	258.0	254.4	255.6	246.9	256.4	233.1	269.3	260.7	255.0	271.8	277.6	342.2	276.8
283	HE	165.9	168.5	167.1	168.5	166.1	167.4	146.1	171.5	164.5	165.3	161.4	157.7	193.6	177.4
284	HE	280.0	276.2	269.9	259.7	260.6	266.7	249.5	291.9	290.1	278.2	49.8	39.2	78.9	163.7
285	HE	254.8	253.8	252.4	254.2	250.9	259.1	228.9	267.7	261.3	257.9	228.9	246.2	320.0	301.2
286	HE	230.5	226.5	214.5	199.0	187.0	215.0	205.0	238.5	234.5	228.0	338.5	310.0	240.5	143.0
287	HE	288.4	278.8	270.0	265.2	270.0	277.2	260.0	295.5	286.5	274.3	158.6	116.2	208.2	351.7
288	HE	257.0	237.8	213.0	198.0	180.0	201.0	216.3	244.8	250.0	260.3	587.5	505.5	440.0	287.8
289	HE	264.1	261.9	263.5	266.8	261.6	270.3	247.7	284.7	272.0	262.5	317.2	265.9	299.3	292.6
290	HE	253.1	250.3	249.4	233.3	223.7	251.4	235.8	267.0	257.3	248.9	347.4	301.2	289.5	194.0
291	HE	253.9	257.8	257.1	259.9	269.0	274.7	246.1	259.1	258.6	256.5	144.6	108.1	142.5	247.9
292	HE	251.4	248.9	245.1	246.6	254.7	265.9	230.4	286.6	273.1	252.1	231.4	244.5	232.7	216.8
293	HE	258.3	261.6	262.3	262.1	262.7	262.5	249.0	260.2	260.9	260.5	305.1	224.6	210.6	337.7
294	HE	273.7	270.8	266.9	259.8	254.7	266.8	252.6	289.7	275.4	265.0	258.3	202.2	247.6	265.5
295	HE	250.5	250.0	246.6	242.9	245.3	256.3	223.4	280.6	263.8	246.8	234.5	233.3	194.3	164.0
296	HE	260.8	266.5	264.6	251.6	249.7	255.7	238.3	278.2	282.6	269.3	31.7	21.3	42.6	112.2
297	HE	261.0	256.3	249.8	239.1	227.8	238.0	236.6	282.7	264.2	257.8	246.6	262.6	218.7	146.3
298	HE	263.5	255.8	243.5	239.7	236.9	258.9	247.1	285.8	269.1	253.5	258.4	254.4	245.7	185.1
299	HE	149.2	150.7	151.0	147.6	144.0	144.4	122.9	147.5	146.2	146.1	151.3	156.3	202.7	265.4
300	HE	260.0	254.5	247.2	239.5	229.5	241.4	236.6	282.0	260.1	252.3	240.7	263.1	222.5	152.9
301	HE	263.3	256.5	255.2	253.5	249.4	254.9	228.8	268.9	267.5	265.5	145.5	259.7	258.4	316.2
302	HE	251.0	254.5	252.0	244.0	246.0	248.0	232.5	248.0	248.5	248.5	197.5	87.0	73.5	154.0
303	HE	244.5	234.3	224.9	209.2	191.4	211.3	219.2	256.5	257.9	250.7	243.2	218.7	176.0	89.5
304	HE	258.5	254.5	256.5	250.8	244.0	250.4	223.3	265.5	266.2	264.1	119.4	180.5	233.1	260.4
305	HE	229.1	226.6	220.9	214.7	208.3	220.6	202.2	235.5	233.4	233.2	577.4	541.7	458.1	320.5
306	HE	170.5	167.2	158.0	146.8	144.5	160.9	148.2	179.7	177.1	172.8	288.9	267.8	266.5	146.6
307	HE	175.3	177.4	177.5	176.6	175.5	172.8	155.4	182.8	178.5	173.7	126.5	101.8	145.1	150.3
308	HE	204.6	206.3	199.7	195.0	188.6	200.4	189.0	215.1	211.9	208.0	275.7	268.4	247.0	173.6
309	HE	260.1	256.6	258.1	253.3	246.8	251.7	225.2	269.0	268.3	267.0	110.0	180.0	232.6	279.9
310	HE	199.9	197.2	188.2	181.7	179.9	195.5	177.6	209.4	207.0	201.7	283.0	268.3	261.9	151.8
311	HE	245.8	246.1	237.9	224.3	214.8	235.9	218.6	261.3	255.2	247.5	247.6	223.5	224.9	183.5
312	HE	216.1	216.7	224.3	224.3	218.4	219.2	199.3	228.1	223.5	220.8	229.3	193.6	267.4	272.7

313	HE	209.0	209.3	206.4	204.0	196.1	205.2	188.6	213.1	211.3	208.7	373.2	381.6	321.3	209.5
314	HE	252.4	243.0	222.9	202.3	190.0	207.4	216.7	249.2	251.8	256.5	314.0	265.2	216.1	147.5
315	HE	237.7	229.3	211.8	198.1	190.6	205.4	200.5	236.3	236.9	243.0	313.0	301.8	251.0	146.4
316	HE	251.5	250.0	249.3	249.1	242.8	247.6	222.0	253.4	253.4	253.7	176.1	179.4	261.2	286.9
317	HE	117.5	119.8	119.3	116.6	113.4	114.1	91.6	115.6	113.3	113.2	115.3	124.0	153.4	196.1
318	HE	210.4	210.6	210.4	211.9	208.1	210.1	186.4	210.4	210.0	210.0	175.1	162.0	228.7	253.0
319	HE	152.3	153.0	155.3	153.7	150.0	151.0	122.7	147.0	149.0	149.0	105.3	116.7	157.7	187.7
320	HE	261.3	259.8	260.8	260.8	253.3	261.0	232.7	275.5	270.0	266.1	270.6	259.9	294.4	278.4
321	HE	255.7	251.1	233.3	219.5	210.5	231.1	227.2	265.3	263.0	259.5	262.4	239.8	207.7	145.0
322	HE	52.0	33.9	18.6	1.0	-1.9	17.7	12.4	42.6	53.1	62.1	210.1	184.1	137.9	45.6
323	HE	263.7	262.3	260.7	259.9	249.3	263.9	237.1	275.9	269.6	267.4	249.5	258.4	264.4	249.0
324	HE	263.9	261.3	262.2	260.2	252.4	263.4	235.5	273.6	268.9	266.8	226.4	229.9	263.9	230.8
325	HE	255.5	249.5	253.6	249.7	242.8	250.6	219.5	260.3	258.9	257.5	204.5	218.4	296.1	251.4
326	HE	244.9	239.9	228.6	217.2	212.5	226.1	216.6	249.9	250.9	253.4	417.4	377.5	321.1	205.8
327	HE	247.0	246.0	246.0	245.0	239.0	243.0	219.0	244.0	247.0	251.0	180.0	213.0	348.0	433.0
328	HE	249.8	250.4	244.9	232.8	224.4	243.0	226.2	263.3	257.6	252.2	235.8	201.5	231.8	183.0
329	HE	250.4	249.7	244.0	231.1	223.6	242.3	225.2	263.6	258.6	252.7	242.2	206.3	239.2	189.3
330	HE	251.0	247.0	244.3	227.3	219.3	246.7	234.7	265.3	254.3	245.3	322.0	292.3	326.3	198.7
331	HE	246.0	241.9	239.5	221.5	213.8	244.4	230.1	258.0	248.1	239.6	254.5	296.4	283.3	190.5
332	HE	248.9	241.4	231.8	226.6	218.5	241.1	226.7	263.3	256.3	243.4	240.6	291.5	271.5	186.9
333	HE	260.3	263.4	258.2	260.4	265.6	271.1	245.7	258.1	258.8	256.6	237.5	243.8	281.6	380.3
334	HE	255.9	252.0	250.6	251.6	249.9	258.8	228.2	270.5	261.8	258.3	245.1	202.6	348.5	340.3
335	HE	261.1	259.2	259.3	259.7	256.1	264.8	234.4	275.3	266.6	259.8	314.6	272.5	377.2	343.1
336	HE	258.0	253.0	247.4	235.4	224.7	236.2	234.1	278.6	262.2	255.6	243.3	255.6	218.9	145.8
337	HE	263.6	262.6	259.5	260.5	248.0	259.7	243.0	280.5	269.8	261.4	335.4	302.3	328.9	274.7
338	HE	249.0	245.2	243.2	225.2	217.2	246.8	233.2	262.0	251.8	243.5	293.8	300.7	312.0	195.3
339	HE	267.3	262.9	262.9	264.1	265.2	272.4	243.9	283.5	272.5	263.5	296.0	221.3	274.0	258.3
340	HE	241.5	240.0	228.9	219.2	206.7	227.9	217.3	253.9	249.3	242.3	275.2	257.8	223.4	197.5
341	HE	251.3	249.3	234.3	222.7	208.9	231.3	221.4	261.8	255.8	249.0	250.3	245.2	208.0	178.4
342	HE	253.5	254.0	250.5	252.5	251.5	251.0	237.3	248.3	251.8	254.5	390.5	387.5	488.5	491.8
343	HE	260.7	258.0	249.3	246.7	253.3	263.3	237.3	284.7	281.7	261.7	232.0	244.3	256.0	201.0
344	HE	252.5	245.5	243.5	228.0	214.5	226.5	228.5	268.5	263.5	254.5	247.0	226.0	213.5	147.0
345	HE	265.0	254.0	265.0	266.0	269.0	269.0	254.0	270.0	269.0	265.0	119.0	206.0	283.0	308.0
346	HE	259.8	257.8	248.7	247.0	254.5	264.7	238.2	284.8	280.8	261.8	247.3	255.8	262.8	211.7
347	HE	249.0	245.8	242.8	225.5	216.8	247.0	233.5	262.0	251.8	243.8	284.8	306.0	306.3	194.5
348	HE	250.0	247.0	245.0	226.7	219.0	248.0	234.0	263.0	253.0	245.0	290.0	320.3	309.7	195.7
349	HE	257.3	254.6	253.4	238.7	228.7	254.4	238.0	272.6	262.1	252.9	356.6	305.0	291.2	194.8

350	HE	253.0	249.8	248.2	232.0	222.3	250.6	234.3	266.1	256.9	248.0	342.4	291.4	267.7	176.0
351	HE	261.5	264.5	261.3	263.7	270.3	273.2	251.0	260.1	262.0	260.0	216.1	158.9	188.4	260.6
352	HE	265.3	266.8	262.0	262.5	270.0	280.8	250.8	272.3	268.8	261.7	220.1	263.3	278.3	349.7
353	HE	250.0	247.0	244.0	227.0	219.0	247.0	235.0	265.0	254.0	246.0	323.0	292.0	329.0	199.0
354	HE	249.0	245.0	242.0	225.0	216.0	246.0	233.0	261.0	251.0	243.0	267.0	290.0	288.0	188.0
355	HE	263.3	257.0	247.3	245.6	239.6	258.1	244.8	284.0	270.1	255.8	259.6	271.1	266.2	203.1
356	HE	261.1	254.6	244.1	236.5	233.3	255.3	245.0	283.0	265.1	251.9	280.6	273.9	264.4	188.8
357	HE	248.0	243.0	241.0	224.0	215.0	245.0	232.0	260.0	250.0	242.0	273.0	288.0	291.0	189.0
358	HE	264.4	262.8	266.7	265.9	259.3	269.4	251.3	286.5	274.0	266.4	316.2	276.9	355.0	327.1
359	HE	264.2	259.2	251.9	243.0	238.8	262.6	250.6	284.8	273.4	259.3	331.8	283.2	298.0	225.1
360	HE	256.6	260.1	258.6	261.5	262.7	263.1	249.0	260.1	260.8	260.0	426.7	372.2	446.7	461.9
361	HE	262.9	263.8	261.6	264.0	268.3	270.6	252.1	262.2	263.2	260.8	328.7	277.4	276.5	313.3
362	HE	253.8	254.9	251.3	253.8	252.5	252.5	238.5	249.5	252.9	254.8	404.4	386.0	491.7	500.3
363	HE	250.3	247.3	244.3	227.3	219.3	248.3	233.3	263.3	252.5	244.3	307.5	317.0	313.3	197.8
364	HE	252.0	246.0	247.0	248.0	248.0	246.0	232.0	246.0	253.0	251.0	324.0	410.0	500.0	463.0
365	HE	255.0	246.0	251.0	250.0	252.0	251.0	236.0	250.0	257.0	254.0	274.0	353.0	453.0	403.0
366	HE	256.5	247.0	252.5	253.5	255.5	254.5	239.0	253.5	260.0	255.5	255.0	318.0	425.5	379.0
367	HE	263.8	267.2	269.7	273.2	276.3	277.9	266.8	276.5	274.9	269.3	427.6	407.3	432.0	466.9
368	HE	253.0	248.0	246.0	248.0	246.0	245.0	232.0	244.0	251.0	251.0	352.0	417.0	500.0	485.0
369	HE	255.7	258.3	256.0	258.7	259.0	259.3	245.7	257.0	258.0	258.0	424.7	374.0	467.0	478.0
370	HE	259.0	263.0	261.5	264.5	266.5	267.5	253.5	264.5	265.0	262.5	422.0	374.0	430.5	445.0
371	HE	248.3	245.7	242.7	225.7	216.7	246.3	232.3	261.3	251.3	243.0	296.7	326.0	311.3	197.3
372	HE	261.0	260.7	257.2	259.0	251.1	259.1	233.6	271.2	262.9	257.4	266.0	255.7	346.3	292.9
373	HE	261.3	257.1	250.9	250.4	240.9	255.4	239.7	278.1	266.9	255.6	282.6	276.3	306.7	230.0
374	HE	251.5	249.0	245.5	229.0	220.0	248.5	235.5	265.5	255.0	246.0	311.0	301.5	318.0	197.0
375	HE	239.5	232.6	228.2	212.8	195.8	218.5	218.4	254.6	250.6	242.7	250.6	243.7	205.4	105.2
376	HE	248.5	245.0	241.5	225.0	216.5	246.5	233.0	261.0	251.0	243.0	279.5	301.5	301.5	193.5
377	HE	267.9	268.5	264.3	267.4	275.1	287.2	251.8	288.5	281.7	269.3	106.5	122.3	212.9	280.9
378	HE	263.1	266.7	265.8	267.7	276.5	280.2	254.9	264.9	266.0	264.1	169.1	131.7	158.7	275.6
379	HE	251.8	246.4	243.2	229.2	217.8	232.2	229.1	270.2	258.9	250.3	242.8	246.5	221.9	145.7
380	HE	253.0	247.3	244.0	229.3	218.1	231.2	229.8	271.2	261.5	252.8	244.6	240.2	218.1	146.6
381	HE	254.2	254.0	245.8	239.8	234.8	250.7	231.4	269.2	263.4	255.7	243.0	235.0	249.6	212.2
382	HE	258.7	259.0	253.8	251.0	253.1	265.6	232.6	290.0	272.5	254.3	195.3	205.5	199.7	170.1
383	HE	256.3	255.4	254.0	255.8	252.0	260.1	230.0	269.5	261.6	258.2	236.8	249.4	336.3	305.1
384	HE	263.2	257.6	249.5	243.0	232.8	244.2	239.9	286.1	262.3	254.7	239.7	259.1	220.3	152.3
385	HE	258.6	253.6	247.8	237.8	226.9	239.2	235.6	279.8	260.9	253.7	240.8	260.7	221.9	147.2
386	HE	256.5	254.3	250.8	235.6	226.8	252.5	241.1	272.2	261.8	252.8	333.0	275.9	316.0	196.4

387	HE	274.4	262.7	259.8	259.9	263.4	268.2	241.0	283.6	273.8	270.0	169.2	164.6	297.3	392.2
388	HE	252.2	251.3	244.3	243.4	250.0	264.4	225.6	286.7	269.9	249.2	222.2	209.9	191.8	157.0
389	HE	253.5	252.8	248.4	235.9	227.4	245.4	227.6	265.8	260.6	256.1	259.3	234.5	257.2	196.6
390	HE	262.1	262.3	258.4	255.1	255.0	265.5	236.4	288.8	271.6	256.1	219.7	209.9	217.9	200.9
391	HE	249.0	246.0	244.0	226.0	218.0	248.0	234.0	262.0	252.0	244.0	286.0	313.0	308.0	195.0
392	HE	258.0	262.0	261.0	263.0	265.0	266.0	252.0	264.0	264.0	262.0	423.0	372.0	432.0	449.0
393	HE	250.0	246.8	244.8	226.5	218.8	248.0	234.3	262.8	252.8	244.8	289.0	316.0	309.3	195.3
394	HE	251.0	247.5	245.5	227.5	219.0	248.5	235.5	265.5	254.5	246.0	308.0	298.5	319.0	196.5
395	HE	273.0	271.3	262.2	258.8	263.9	278.4	248.1	300.4	286.4	266.9	192.2	177.0	191.1	225.9
396	HE	261.8	263.0	260.4	262.9	267.6	270.1	250.2	260.1	261.3	259.1	312.1	275.7	275.5	319.2
397	HE	264.8	265.8	263.9	267.4	274.4	284.4	251.5	276.5	273.3	266.0	113.6	112.3	190.6	267.5
398	HE	107.4	110.0	112.6	112.0	105.8	107.5	80.2	105.5	105.3	106.3	103.0	97.2	151.3	203.6
399	HE	153.0	154.0	155.0	152.0	145.0	149.0	126.0	148.0	152.0	156.0	126.0	117.0	141.0	172.0
400	HE	142.9	145.3	146.9	146.4	141.5	143.0	115.4	140.6	142.0	142.3	129.0	128.6	179.7	237.0
401	HE	254.5	261.0	264.0	257.3	257.8	260.5	244.0	260.0	258.0	255.5	82.3	46.0	37.5	81.0
402	HE	257.5	262.2	262.9	260.2	263.2	269.8	255.6	275.3	269.5	259.6	82.5	30.8	24.8	63.5
403	HE	259.8	264.3	265.5	261.8	263.0	271.3	255.0	278.0	272.0	262.5	83.0	28.5	26.0	69.5
404	HE	257.6	259.3	257.6	254.7	258.9	268.9	257.3	287.1	276.1	263.4	72.4	40.6	48.9	235.1
405	HE	255.1	261.3	262.3	259.5	261.1	267.4	250.3	271.5	265.9	258.2	84.0	30.0	25.5	60.1
406	HE	261.8	265.6	265.5	263.7	266.5	273.6	264.2	284.1	276.5	264.8	57.4	20.5	20.7	72.5
407	HE	246.9	252.7	253.9	244.4	245.0	251.1	230.7	250.6	248.5	246.3	138.2	54.0	41.5	117.5
408	HE	252.7	255.8	254.1	246.1	247.3	249.3	233.0	247.9	249.5	250.2	208.1	92.3	78.6	172.6
409	HE	248.1	254.2	254.0	243.6	242.8	249.0	226.3	245.6	245.1	244.9	193.3	80.0	59.2	139.0
410	HE	263.4	259.5	252.9	244.7	239.0	262.0	249.8	283.8	272.5	259.0	328.4	276.4	293.0	228.8
411	HE	258.0	261.7	263.2	261.2	264.0	271.0	260.0	275.2	268.8	260.0	69.0	27.5	21.2	54.8
412	HE	244.3	240.4	238.7	219.9	211.4	243.4	228.0	255.3	245.8	238.2	262.6	300.2	268.0	182.1
413	HE	254.3	254.4	251.2	248.8	249.4	257.3	248.4	282.2	269.8	255.9	60.8	69.4	128.6	237.5
414	HE	253.8	258.6	261.2	257.5	257.6	261.9	246.0	264.1	261.1	256.3	90.4	37.1	34.6	71.4
415	HE	235.5	223.5	208.7	191.2	175.7	198.4	210.2	248.8	252.4	247.7	213.1	193.8	156.1	85.8
416	HE	266.9	260.0	249.0	244.4	237.3	254.9	245.9	289.8	269.4	257.9	242.4	237.9	176.5	152.3
417	HE	257.9	238.2	213.4	199.8	179.7	200.6	214.5	244.9	250.8	260.4	637.1	551.3	486.1	317.0
418	HE	255.5	263.5	260.0	261.0	265.0	268.0	247.0	258.5	260.0	259.0	348.5	281.5	301.0	289.0
419	HE	246.4	233.6	218.5	201.1	186.3	206.6	218.9	254.3	258.1	254.4	226.0	202.1	161.4	85.1
420	HE	249.0	231.5	209.5	192.5	173.5	195.0	201.5	243.5	241.5	249.5	623.0	540.5	516.5	286.0
421	HE	254.9	249.3	234.4	219.6	212.6	227.2	227.1	259.8	260.9	261.0	281.1	231.4	197.1	131.9
422	HE	185.5	187.5	192.5	192.0	188.0	189.5	169.0	193.5	188.5	190.0	250.5	210.5	281.5	317.5
423	HE	257.7	238.3	212.7	199.0	180.0	200.3	216.0	245.7	250.7	260.7	607.7	523.7	459.0	299.0

424	HE	189.6	190.0	191.0	191.4	188.1	189.7	164.1	189.4	189.7	189.6	176.7	156.3	226.7	268.7
425	HE	256.5	249.5	227.5	206.0	192.0	214.5	228.5	257.5	259.5	260.5	316.5	257.0	195.5	139.0
426	HE	76.8	69.3	53.7	30.8	26.1	40.9	40.0	71.2	72.4	75.8	193.0	180.4	164.7	73.2
427	HE	42.0	33.0	13.0	-18.0	-25.0	-9.0	-5.0	23.0	26.0	36.0	177.0	169.0	166.0	61.0
428	HE	169.1	170.5	170.8	168.7	167.1	164.6	147.4	175.3	171.0	166.6	116.6	97.1	142.3	144.3
429	HE	167.7	163.7	152.4	145.0	144.7	160.0	146.2	179.7	177.3	171.2	254.4	252.3	234.6	143.1
430	HE	119.2	114.2	107.4	96.8	89.0	102.6	91.2	122.4	119.8	118.0	174.0	182.4	177.8	92.4
431	HE	121.9	125.2	117.4	118.7	119.3	118.2	94.3	123.2	118.5	118.1	100.2	112.6	152.9	121.9
432	HE	258.1	263.7	266.6	261.1	262.6	270.1	259.5	291.0	280.8	267.1	70.1	58.5	52.1	129.2
433	HE	258.5	246.3	221.2	199.6	186.8	209.6	227.0	254.5	256.8	260.9	371.4	300.5	246.8	165.3
434	HE	209.0	215.8	220.2	214.4	209.3	212.0	195.2	230.1	230.6	221.1	25.4	19.9	39.5	108.5
435	HE	257.9	258.9	256.3	253.5	257.6	267.4	256.6	287.6	276.0	262.9	73.3	50.0	67.9	253.3
436	HE	183.2	183.3	185.7	183.9	181.1	176.6	161.2	190.4	186.2	182.3	121.5	97.9	150.2	153.6
437	HE	249.7	247.1	254.1	253.4	248.4	249.9	226.4	257.8	255.3	251.7	222.5	197.8	261.5	256.0
438	HE	253.0	253.1	249.5	243.3	234.2	248.6	230.4	265.5	258.5	258.8	269.0	298.4	316.2	235.2
439	HE	257.7	255.2	256.6	254.9	249.6	256.0	229.4	269.5	268.4	262.4	330.2	307.3	357.6	320.7
1	MP	248.0	246.9	253.6	253.3	248.1	249.9	256.2	267.5	256.8	246.1	262.7	241.5	277.8	291.6
2	MP	248.7	248.8	250.5	253.0	252.8	253.0	259.1	267.8	260.9	248.8	244.9	243.0	307.9	352.4
3	MP	85.5	80.4	71.1	50.6	47.1	57.1	81.7	88.6	85.1	85.7	183.6	167.6	155.5	68.1
4	MP	251.3	252.2	253.5	259.1	252.0	254.5	262.7	269.0	260.0	250.4	231.5	235.5	281.6	312.5
5	MP	221.9	221.4	224.5	218.9	219.0	215.8	231.8	234.7	229.2	228.8	156.1	151.9	235.4	197.8
6	MP	254.6	255.8	252.9	244.3	236.4	243.4	258.4	268.1	259.7	254.8	175.9	197.3	247.9	213.6
7	MP	248.7	249.5	253.6	254.1	252.6	252.7	260.7	271.4	263.4	249.2	245.6	232.9	309.9	340.8
8	MP	150.3	151.1	156.7	157.4	156.3	154.3	154.6	154.3	150.9	149.3	129.0	149.1	204.6	233.0
9	MP	252.1	249.5	247.5	242.4	239.7	242.4	251.1	259.8	257.9	247.7	196.8	173.8	194.2	220.4
10	MP	265.0	256.2	245.8	226.0	219.4	225.4	249.7	270.1	270.4	266.2	306.4	254.7	237.4	138.5
11	MP	259.1	246.8	230.0	205.8	192.2	205.8	234.0	257.3	256.3	257.9	354.6	338.1	317.9	165.7
12	MP	256.3	260.9	265.1	266.7	263.7	259.4	258.0	261.2	260.1	260.3	180.9	101.9	155.5	251.2
13	MP	261.7	261.7	266.3	265.8	261.7	259.2	259.0	260.8	258.8	259.1	196.4	127.8	291.0	422.8
14	MP	292.3	287.7	276.2	268.8	275.4	279.3	287.3	293.7	292.4	278.7	33.4	40.8	63.1	173.8
15	MP	215.0	208.7	201.3	181.2	170.4	182.4	199.4	214.1	213.1	213.8	272.9	267.0	230.8	115.7
16	MP	199.3	190.3	182.7	171.3	165.3	176.3	191.3	203.0	201.3	197.3	251.3	235.3	216.0	118.3
17	MP	260.0	254.8	264.8	263.4	263.0	260.5	260.8	264.1	262.4	259.9	139.5	101.0	239.6	375.4
18	MP	187.8	179.0	169.4	157.2	155.2	166.4	178.4	185.4	187.8	186.4	254.4	229.6	170.0	88.4
19	MP	257.0	261.0	264.0	265.0	264.0	262.0	263.0	265.0	262.0	263.0	131.0	105.0	172.0	230.0
20	MP	255.1	248.7	249.2	245.1	242.9	243.7	245.0	249.9	261.6	248.1	211.0	181.0	237.8	262.5
21	MP	258.7	247.6	240.1	233.3	233.5	250.2	266.3	275.6	271.0	243.6	286.3	264.4	227.3	181.1

22	MP	252.0	264.0	263.0	262.0	258.0	251.0	248.0	250.0	252.0	254.0	227.0	84.0	109.0	233.0
23	MP	259.6	255.0	250.8	242.6	239.0	244.0	251.6	255.6	267.0	255.2	201.8	174.8	246.4	170.0
24	MP	272.5	271.3	269.8	269.1	268.3	265.6	261.4	258.1	263.7	262.0	240.7	142.5	225.2	335.7
25	MP	264.7	250.7	243.7	236.7	239.7	257.7	272.7	281.7	276.7	246.3	288.0	265.7	223.7	175.0
26	MP	297.9	284.5	275.6	281.0	288.8	287.0	287.5	299.3	292.3	277.9	161.9	126.1	153.1	262.0
27	MP	301.9	289.0	278.6	283.9	292.6	292.2	290.3	299.9	295.0	279.5	145.5	95.6	122.9	242.1
28	MP	300.3	287.4	275.4	279.1	287.9	288.0	287.8	297.7	292.9	277.7	130.0	99.6	137.4	290.5
29	MP	300.9	299.5	287.8	292.3	299.3	293.1	279.6	284.6	294.2	283.0	148.0	110.3	118.8	239.9
30	MP	303.0	291.0	281.0	286.0	294.0	294.0	292.0	301.0	297.0	280.0	145.0	99.0	129.0	233.0
31	MP	272.1	278.6	277.2	279.8	277.6	269.0	263.7	264.5	271.3	270.9	89.6	72.7	64.1	185.7
32	MP	300.1	288.9	274.1	275.7	285.1	287.3	285.6	293.7	292.2	275.9	115.1	82.5	131.1	323.6
33	MP	252.0	263.0	263.0	261.0	257.3	251.3	249.0	251.7	252.0	255.0	209.3	75.0	102.0	217.3
34	MP	257.4	260.2	264.7	264.1	262.2	261.2	263.0	264.7	261.9	263.3	123.6	115.7	186.9	244.2
35	MP	261.5	253.5	244.0	241.5	247.0	260.5	275.5	283.5	275.5	252.0	251.5	224.5	259.0	170.5
36	MP	256.2	251.1	247.1	239.4	236.1	241.3	247.6	250.9	261.6	250.6	205.5	175.6	245.4	181.8
37	MP	268.6	263.4	260.9	250.1	237.2	235.9	253.6	273.6	276.6	257.9	236.0	197.8	186.4	211.3
38	MP	303.4	291.1	280.9	286.2	294.6	293.8	291.6	301.8	296.8	280.8	145.7	97.8	126.1	235.2
39	MP	229.7	222.3	215.7	198.3	188.0	201.0	216.7	229.0	229.7	229.0	261.3	246.3	217.0	118.7
40	MP	242.9	236.0	235.9	226.6	219.7	220.2	227.7	242.6	255.5	236.3	241.0	187.4	192.8	213.8
41	MP	290.7	285.0	274.1	267.2	273.5	276.1	284.5	292.3	289.1	277.5	36.0	49.3	75.2	191.2
42	MP	263.0	243.0	229.0	207.5	200.0	214.0	248.0	270.0	272.0	269.0	208.5	220.5	166.5	57.0
43	MP	254.5	234.5	216.5	196.5	185.5	202.0	237.0	253.5	259.5	258.5	285.0	236.5	139.5	78.5
44	MP	263.3	260.6	254.8	241.6	232.5	243.9	268.4	286.0	276.1	260.6	266.4	239.4	226.1	159.1
45	MP	261.7	259.0	252.0	234.0	225.0	240.0	265.0	282.0	277.0	262.3	280.7	240.3	220.0	138.0
46	MP	263.0	243.0	229.0	207.5	200.0	214.0	248.0	270.0	272.0	269.0	208.5	220.5	166.5	57.0
47	MP	265.1	255.6	246.6	225.9	217.0	223.7	249.9	270.3	270.9	265.8	283.4	257.0	228.4	128.2
48	MP	252.3	241.2	226.5	203.7	190.6	203.2	228.7	250.3	249.3	251.2	328.3	317.2	292.0	152.5
49	MP	251.3	245.3	236.3	221.0	213.5	219.9	239.1	255.3	255.9	254.4	373.5	333.4	311.1	177.0
50	MP	284.0	279.0	264.0	257.7	258.0	263.3	270.0	277.0	271.7	270.0	26.0	55.7	72.3	252.3
51	MP	168.4	157.9	147.9	132.2	129.4	140.4	157.3	166.7	167.1	168.4	243.1	223.7	181.3	94.4
52	MP	227.0	207.9	190.2	171.4	160.5	176.3	206.7	226.1	229.0	230.3	242.0	209.7	139.8	77.1
53	MP	266.4	247.6	229.7	208.6	195.9	211.2	244.2	267.9	269.5	269.5	367.1	360.2	293.1	141.8
54	MP	221.8	214.0	202.8	188.2	181.6	189.9	209.4	225.7	224.1	223.4	297.0	286.4	258.9	139.3
55	MP	253.4	251.8	249.8	242.1	230.3	239.0	255.7	267.4	257.4	250.8	241.0	270.4	315.2	313.4
56	MP	252.7	248.1	247.0	255.0	257.6	261.0	265.3	266.6	258.9	250.0	250.4	291.1	307.4	354.9
57	MP	252.0	264.0	264.0	262.0	258.0	253.0	250.0	253.0	254.0	256.0	188.0	70.0	96.0	209.0
58	MP	251.0	263.0	263.0	261.0	257.0	251.0	249.0	252.0	253.0	255.0	197.0	72.0	98.0	211.0

59	MP	300.0	287.0	274.0	278.0	288.0	287.0	285.0	294.0	290.0	274.0	118.0	79.0	115.0	264.0
60	MP	262.0	259.0	244.0	232.0	222.0	234.0	260.0	274.0	269.0	255.0	266.0	238.0	231.0	178.0
61	MP	236.5	229.0	220.0	200.5	189.0	200.5	220.5	236.0	236.0	236.0	284.5	273.0	245.0	132.0
62	MP	246.3	255.7	264.9	267.3	271.8	275.2	275.6	271.0	271.3	257.2	40.1	38.2	14.7	55.8
63	MP	254.3	259.7	263.4	266.8	264.4	265.5	265.2	264.1	262.8	259.9	189.5	89.3	87.7	79.1
64	MP	258.2	252.9	243.0	238.8	238.2	243.4	248.6	259.2	251.9	245.4	62.6	89.7	107.1	282.2
65	MP	257.0	262.0	263.0	257.0	252.0	251.0	254.0	255.0	256.0	257.0	143.0	139.0	201.0	134.0
66	MP	251.0	258.0	265.0	259.0	254.0	252.0	252.0	251.0	253.0	252.0	67.0	69.0	68.0	53.0
67	MP	172.7	172.4	175.4	172.7	173.1	165.1	179.2	181.0	179.0	172.6	119.6	118.7	173.4	146.7
68	MP	102.6	97.8	91.1	73.6	69.1	79.0	100.0	110.2	105.9	102.4	166.2	178.0	165.3	72.8
69	MP	199.4	202.9	200.6	191.0	184.0	189.0	203.3	208.9	206.6	200.0	354.1	341.6	309.1	182.1
70	MP	256.5	267.3	266.3	259.8	265.5	269.7	271.5	269.6	275.9	258.5	31.6	32.8	20.7	139.1
71	MP	296.3	294.7	279.0	265.0	263.0	266.0	277.3	283.0	279.0	275.3	19.3	29.7	33.3	177.7
72	MP	296.0	294.5	279.0	265.0	263.0	266.0	277.0	283.0	279.0	275.0	19.5	30.0	33.5	178.5
73	MP	241.0	240.5	238.5	239.5	237.5	239.5	244.0	243.5	243.0	239.0	267.5	259.0	339.0	424.0
74	MP	244.3	243.8	241.5	221.5	207.3	217.4	239.1	257.0	251.9	242.2	232.7	234.2	232.8	208.8
75	MP	250.3	247.0	245.2	249.3	253.7	257.5	261.7	263.1	255.6	247.5	323.2	288.4	326.0	397.1
76	MP	256.2	256.4	253.3	252.0	248.7	244.7	244.3	245.4	247.0	249.6	194.6	102.8	230.7	283.9
77	MP	234.3	232.3	232.0	214.0	197.3	212.7	233.7	247.0	243.3	230.0	279.3	236.7	254.0	164.7
78	MP	235.9	220.7	226.0	201.3	194.8	188.2	212.0	237.4	240.7	223.7	370.6	258.4	258.5	194.3
79	MP	192.0	192.3	202.0	204.0	202.0	200.3	204.0	204.3	200.7	196.7	232.0	223.7	314.0	360.7
80	MP	160.0	161.7	168.3	170.3	169.3	168.3	169.7	168.3	165.0	162.3	193.0	187.0	266.7	305.7
81	MP	235.1	229.7	233.7	217.9	204.7	217.0	239.7	254.3	248.3	233.5	222.1	207.3	223.5	123.7
82	MP	237.6	244.7	249.0	249.3	247.4	241.2	237.8	234.6	237.8	242.6	94.2	58.3	46.8	148.7
83	MP	274.9	264.8	258.2	258.2	263.7	265.3	267.8	279.1	270.3	262.2	174.6	121.4	152.6	260.4
84	MP	234.6	223.8	201.9	183.9	185.0	190.6	217.4	242.7	247.3	230.8	316.4	283.7	250.7	123.9
85	MP	275.3	284.3	280.0	265.5	268.4	274.4	287.4	285.7	291.4	275.3	16.0	15.2	18.2	102.3
86	MP	252.2	261.4	261.9	261.5	265.7	262.0	254.6	253.8	260.0	253.7	56.2	48.9	37.7	157.9
87	MP	259.3	256.5	253.2	243.6	237.7	246.1	266.5	279.4	272.3	255.1	304.0	237.2	283.3	199.1
88	MP	288.9	290.0	278.8	281.4	289.6	283.8	270.1	273.3	282.9	275.1	108.2	75.5	102.2	259.4
89	MP	269.4	257.6	263.0	258.8	256.4	256.6	265.2	276.1	272.0	259.7	41.1	116.3	142.5	343.1
90	MP	260.5	257.2	255.4	246.1	235.9	233.2	243.7	260.8	269.3	251.3	222.9	169.4	188.9	219.4
91	MP	280.0	275.0	270.2	267.1	259.9	256.5	265.5	281.1	283.8	266.5	217.4	147.0	151.9	237.3
92	MP	243.2	247.3	253.0	247.7	242.2	243.5	245.3	243.4	243.2	247.2	128.2	105.8	149.8	201.8
93	MP	273.7	267.2	256.6	252.0	257.5	259.6	263.9	274.2	269.5	260.3	56.7	64.1	82.8	181.0
94	MP	286.1	288.8	279.3	266.5	273.0	278.7	289.6	291.3	294.5	277.9	17.2	19.0	28.0	112.0
95	MP	264.2	259.0	259.0	261.7	255.8	260.9	272.1	282.8	275.7	258.6	301.5	247.1	254.3	238.3

96	MP	256.0	250.4	245.3	239.0	239.0	249.0	267.8	279.8	267.4	246.3	277.0	227.6	257.8	192.1
97	MP	240.8	233.9	233.8	229.2	227.5	229.1	231.0	236.7	248.8	234.1	208.7	183.6	238.1	258.6
98	MP	256.7	264.8	266.8	269.2	266.5	258.5	254.1	252.9	255.3	258.4	120.7	65.1	68.6	191.3
99	MP	270.5	265.6	262.8	252.7	239.0	238.5	257.0	277.2	279.4	260.3	242.6	200.1	188.6	211.4
100	MP	282.5	279.7	274.5	270.9	264.1	259.2	265.2	279.4	285.6	269.3	190.0	124.6	144.0	227.7
101	MP	272.1	271.7	267.0	263.3	256.0	250.3	254.2	266.7	275.7	261.0	191.8	118.3	147.7	225.8
102	MP	262.2	257.5	258.7	251.3	242.8	251.7	267.2	279.3	274.0	257.2	299.1	197.2	254.4	217.4
103	MP	255.9	249.9	245.4	245.1	243.4	251.8	268.8	279.1	268.2	247.5	243.5	241.2	245.8	204.1
104	MP	245.6	237.6	236.1	232.2	231.3	232.6	233.8	240.1	252.4	237.1	211.3	180.8	215.4	258.5
105	MP	279.0	275.8	271.5	266.2	257.6	253.5	262.4	278.4	283.8	266.5	208.0	145.5	156.1	234.1
106	MP	261.9	258.1	255.9	248.0	242.1	250.6	268.8	280.9	274.9	257.5	284.9	218.2	258.9	202.7
107	MP	257.3	249.2	249.9	233.1	220.3	218.5	239.7	262.2	265.6	246.6	258.7	226.9	212.4	201.2
108	MP	255.4	252.3	250.7	240.0	233.0	242.5	262.6	275.0	267.4	250.4	322.5	242.8	304.1	199.2
109	MP	261.1	254.3	255.6	246.3	233.2	237.3	256.9	276.3	273.0	253.9	326.2	211.7	215.1	233.6
110	MP	246.3	245.0	240.7	227.5	214.1	226.4	247.4	261.8	256.6	242.2	246.2	238.5	223.8	210.2
111	MP	240.8	237.3	231.9	229.6	225.3	237.7	256.4	263.5	253.5	235.5	274.9	266.7	296.8	204.2
112	MP	255.1	262.1	259.5	264.2	266.4	256.2	248.1	247.4	252.8	254.2	86.8	62.9	56.2	163.5
113	MP	288.8	282.0	275.7	275.7	272.5	268.9	273.3	286.2	287.7	271.7	201.1	133.3	146.7	258.9
114	MP	245.2	240.1	235.5	234.3	231.1	243.2	260.6	267.7	256.7	237.6	261.0	266.3	283.5	200.0
115	MP	254.4	266.9	267.7	255.1	256.9	261.6	270.1	267.7	273.4	259.0	28.0	16.4	14.9	77.6
116	MP	251.0	248.7	244.7	232.7	225.4	235.5	252.9	267.7	261.6	247.0	242.9	244.8	253.5	204.9
117	MP	246.6	245.1	240.0	228.0	214.4	227.7	249.4	262.8	256.8	242.5	254.3	241.3	224.2	210.7
118	MP	290.1	289.6	278.0	281.5	289.3	283.2	269.4	273.2	282.9	274.0	126.6	84.3	115.9	242.2
119	MP	271.4	274.9	267.0	263.9	260.6	254.8	252.2	258.5	269.5	260.2	157.3	84.1	96.2	199.0
120	MP	250.6	243.7	242.4	238.9	237.4	238.1	239.0	244.1	256.1	242.0	212.0	178.5	219.0	262.1
121	MP	267.9	260.7	258.8	266.4	267.8	270.1	278.0	285.6	274.3	258.7	257.3	242.1	297.2	339.4
122	MP	262.0	255.4	255.5	243.3	227.6	232.2	255.3	276.0	273.5	254.0	348.8	224.3	231.2	245.4
123	MP	266.2	260.6	261.0	267.3	262.1	264.1	274.0	285.0	276.7	260.6	287.4	253.5	279.5	265.0
124	MP	256.2	250.0	251.6	238.1	223.6	231.8	253.2	270.1	266.6	249.2	364.6	238.9	237.2	227.4
125	MP	294.2	292.2	277.6	279.9	289.5	287.3	275.1	279.3	287.6	275.4	109.6	71.5	106.3	245.0
126	MP	251.0	247.0	248.0	236.0	226.0	237.0	256.0	269.0	261.0	246.0	299.0	233.0	306.0	196.0
127	MP	248.0	245.0	247.0	233.0	223.0	235.0	253.0	265.0	259.0	243.0	282.0	246.0	294.0	199.0
128	MP	260.4	256.5	256.9	247.6	239.0	247.7	265.1	277.2	272.7	255.8	301.3	205.3	261.5	207.5
129	MP	261.9	255.0	247.2	244.0	246.6	259.2	274.0	282.4	276.0	254.0	267.2	222.0	262.8	183.8
130	MP	251.0	248.0	249.0	236.0	227.0	237.0	256.0	269.0	263.0	247.0	302.0	233.0	303.0	198.0
131	MP	249.8	246.2	247.0	234.6	225.2	236.2	255.2	267.2	260.0	244.4	296.2	232.0	305.0	196.2
132	MP	251.0	248.0	249.0	236.0	227.0	239.0	258.0	269.0	262.0	247.0	302.0	233.0	305.0	197.0

133	MP	260.0	252.0	243.0	240.0	246.0	258.3	274.0	283.3	273.3	250.0	251.7	223.7	251.3	177.0
134	MP	250.0	247.0	247.0	234.0	226.0	237.0	257.0	268.0	260.0	244.0	295.0	233.0	303.0	193.0
135	MP	243.3	248.2	253.5	247.8	241.7	242.2	242.8	239.6	240.8	245.8	143.9	112.3	143.4	198.6
136	MP	253.9	248.9	249.0	237.1	226.6	225.3	237.6	256.3	265.3	246.0	244.8	194.7	192.5	218.3
137	MP	254.8	250.2	251.9	239.4	226.3	236.0	254.9	269.1	265.5	249.2	357.2	247.6	267.6	234.7
138	MP	294.2	287.4	277.9	279.5	279.7	276.2	276.0	285.8	289.2	273.5	182.0	121.1	127.3	237.9
139	MP	245.3	252.8	254.1	257.3	257.5	249.3	244.3	242.5	245.4	249.0	94.0	62.3	52.2	159.8
140	MP	301.6	289.8	276.5	279.3	288.3	289.6	286.9	295.3	293.5	277.3	117.7	81.4	120.6	281.3
141	MP	256.5	250.0	250.6	237.3	222.1	228.9	251.5	270.3	267.3	248.9	358.2	228.9	228.7	233.5
142	MP	266.9	259.7	261.1	266.2	261.6	264.9	273.8	286.1	278.2	260.0	290.2	259.2	247.2	240.6
143	MP	272.0	277.7	271.3	271.8	278.4	273.3	261.9	263.3	272.0	265.6	74.9	54.0	63.7	219.9
144	MP	243.4	250.3	256.9	254.4	249.2	247.0	245.9	245.1	246.7	245.9	82.0	91.9	101.8	72.7
145	MP	238.6	246.9	253.8	259.2	262.0	262.4	256.6	253.5	254.0	244.2	98.6	65.1	39.6	29.2
146	MP	238.1	247.7	252.8	251.7	254.0	254.2	253.8	253.4	250.9	241.9	49.7	28.1	12.3	21.0
147	MP	240.8	249.0	253.6	255.2	256.6	257.2	254.6	253.8	252.8	243.4	68.2	38.8	17.2	22.2
148	MP	277.7	285.9	279.1	261.6	256.6	261.4	271.7	277.5	273.4	267.4	15.4	13.3	9.6	90.4
149	MP	208.8	217.8	226.7	229.0	231.6	233.4	228.7	226.8	225.8	214.0	60.1	41.7	18.2	38.4
150	MP	239.5	251.5	256.0	251.9	254.3	254.9	256.8	256.3	254.4	242.8	29.5	17.6	7.3	19.0
151	MP	238.3	250.4	255.0	246.9	244.4	249.6	254.1	257.4	253.4	239.5	38.4	18.1	10.5	74.2
152	MP	239.0	247.0	252.5	258.1	259.8	259.9	256.4	253.1	253.1	245.6	130.9	76.4	64.7	52.3
153	MP	240.6	251.4	256.8	252.9	254.4	254.8	256.4	257.2	254.8	244.4	36.5	23.4	9.0	24.7
154	MP	267.3	266.3	253.7	241.1	238.0	243.7	253.5	259.9	255.5	251.2	20.2	30.6	41.1	179.1
155	MP	257.4	252.6	242.8	238.4	237.6	242.9	248.1	258.5	251.3	244.7	60.5	86.3	103.2	278.7
156	MP	257.0	262.0	263.0	256.0	251.0	250.0	253.0	255.0	257.0	257.0	143.0	142.0	202.0	131.0
157	MP	288.0	285.0	269.0	257.0	255.0	261.0	271.0	278.0	274.0	271.0	20.0	35.0	46.0	192.0
158	MP	235.3	217.0	201.0	184.5	172.0	193.0	223.8	239.0	243.0	240.8	174.3	159.5	110.5	105.0
159	MP	231.3	238.8	239.5	234.0	232.6	236.6	239.8	243.8	239.9	228.9	42.3	33.8	30.0	126.0
160	MP	253.6	257.2	261.0	268.0	270.2	270.0	272.6	270.0	266.6	257.0	103.0	54.4	27.0	30.6
161	MP	249.0	254.0	258.0	261.4	260.4	259.4	260.8	260.2	258.6	251.6	72.8	41.8	27.2	29.6
162	MP	246.3	252.7	257.7	259.7	258.0	255.8	257.3	257.7	256.3	250.0	71.2	44.3	36.0	33.8
163	MP	239.5	244.9	251.3	256.3	255.1	252.6	250.8	249.9	249.9	244.5	73.0	71.1	66.3	43.9
164	MP	244.9	244.6	241.1	225.8	216.5	226.1	242.2	259.1	252.9	242.3	239.6	223.0	244.1	224.1
165	MP	287.7	284.1	275.8	275.2	273.8	268.5	268.7	279.4	286.1	271.1	191.8	121.1	130.6	228.6
166	MP	211.5	193.1	176.1	159.6	147.6	162.8	191.0	210.4	211.6	213.6	201.2	190.0	132.8	86.9
167	MP	300.9	287.5	277.1	281.7	290.1	289.2	289.5	300.5	294.3	279.7	155.4	124.3	152.3	277.8
168	MP	237.3	232.8	226.4	212.1	204.4	210.9	227.0	240.7	240.4	239.9	492.7	449.9	398.3	236.4
169	MP	235.8	242.7	249.9	245.7	239.2	237.6	234.5	230.6	235.2	238.8	92.5	90.7	105.8	122.0

170	MP	257.3	252.3	254.5	243.3	231.7	240.4	258.1	272.5	268.5	251.8	354.9	242.1	278.1	247.1
171	MP	196.7	206.3	216.1	217.8	220.3	223.0	218.4	216.6	215.3	202.3	53.6	38.9	17.0	50.9
172	MP	187.0	169.4	150.3	126.9	115.7	132.3	160.6	190.6	186.8	191.4	346.3	296.8	271.1	126.8
173	MP	134.9	137.1	136.7	136.3	135.8	132.5	133.4	135.1	134.5	130.9	140.3	170.0	214.8	239.2
174	MP	215.7	217.6	216.6	208.9	206.7	209.8	222.9	226.8	223.0	221.9	214.8	210.8	268.2	217.7
175	MP	235.7	242.7	249.1	243.6	236.4	235.3	233.1	227.9	231.9	237.4	98.3	92.8	114.4	138.3
176	MP	247.0	251.4	256.6	249.2	241.8	241.4	240.1	236.9	240.5	246.8	179.2	116.3	136.2	188.3
177	MP	269.5	266.7	263.7	256.1	246.0	242.4	252.5	269.3	276.1	258.9	226.2	168.3	196.6	238.7
178	MP	250.9	249.6	249.9	247.9	247.6	248.9	257.8	269.3	261.0	254.0	152.0	167.6	237.7	322.4
179	MP	195.6	195.2	204.1	205.7	203.8	203.7	207.1	207.3	203.5	199.0	228.1	220.4	311.6	353.5
180	MP	287.9	273.7	264.7	270.5	279.4	277.1	281.6	294.8	284.4	271.2	149.2	131.5	160.8	307.9
181	MP	260.2	253.4	253.2	239.6	223.9	228.5	252.3	273.1	271.2	251.6	347.7	223.0	234.8	245.8
182	MP	218.8	224.7	236.5	244.9	249.6	251.6	246.8	241.4	236.5	227.2	279.8	185.4	91.5	59.5
183	MP	128.8	130.7	131.7	131.1	130.2	126.8	126.5	127.3	125.8	122.7	99.8	133.7	169.7	215.5
184	MP	216.6	209.1	199.3	184.3	178.2	186.4	205.0	219.6	218.8	218.0	327.1	304.2	276.0	151.1
185	MP	221.8	222.1	216.7	203.1	197.3	208.1	220.4	234.8	227.9	220.4	315.9	296.6	297.2	231.0
186	MP	260.5	254.5	249.1	248.5	248.0	256.1	272.4	283.1	272.6	252.2	260.9	225.0	234.3	194.3
187	MP	236.7	242.6	248.3	243.8	237.9	236.8	236.0	231.5	233.9	239.5	108.6	83.7	103.6	164.6
188	MP	173.9	180.6	192.8	200.6	203.8	206.3	198.0	193.4	191.8	181.5	70.3	50.2	36.0	37.6
189	MP	269.9	261.0	263.2	270.0	267.0	267.9	274.2	289.2	281.1	262.7	266.0	224.0	261.3	306.3
190	MP	187.6	187.5	186.2	184.8	184.7	184.3	184.2	187.8	185.7	184.5	129.8	164.2	227.4	323.5
191	MP	250.7	247.0	247.3	252.4	253.6	258.8	258.0	262.1	256.1	247.4	274.1	262.0	305.1	306.5
192	MP	253.1	249.2	255.2	252.2	255.5	253.6	257.5	264.4	266.2	249.5	212.9	241.8	343.7	386.8
193	MP	143.1	145.3	145.9	144.4	144.3	140.7	138.9	141.2	140.4	138.2	128.2	144.8	175.1	235.2
194	MP	200.9	198.4	196.3	191.9	187.9	191.0	196.0	198.5	197.7	199.7	67.0	124.5	160.1	252.5
195	MP	138.0	138.0	138.5	137.5	134.5	133.5	132.0	139.0	136.5	132.5	112.5	153.5	214.0	297.5
196	MP	250.6	249.6	248.9	246.8	246.7	248.8	256.5	266.8	257.5	253.0	136.4	170.6	245.2	368.1
197	MP	250.0	246.9	248.6	249.4	253.1	254.6	256.9	260.2	257.6	246.7	290.3	280.8	364.8	416.4
198	MP	188.4	187.9	186.4	185.6	185.8	184.8	184.7	187.6	186.2	184.8	166.6	188.4	258.2	352.3
199	MP	259.2	252.5	260.5	254.9	253.8	251.4	262.5	274.7	275.0	255.5	65.6	154.4	201.8	352.8
200	MP	259.2	250.2	251.9	246.1	242.3	242.7	251.4	257.0	255.8	254.9	36.0	114.9	144.7	345.7
201	MP	111.6	112.6	112.2	108.4	108.2	109.8	107.7	108.5	106.4	107.1	39.9	76.0	110.3	219.5
202	MP	254.9	249.7	247.1	244.0	240.0	241.4	250.1	253.2	252.4	253.2	67.0	167.4	249.0	418.3
203	MP	252.1	248.3	252.4	249.1	252.0	252.1	256.5	262.1	260.5	247.5	246.6	244.4	328.4	399.9
204	MP	227.3	219.6	213.7	197.4	182.9	198.2	229.4	245.5	244.5	231.0	239.6	208.8	228.2	121.9
205	MP	147.6	146.4	137.6	121.3	117.9	129.5	147.8	159.6	154.8	149.0	230.9	221.0	226.8	122.5
206	MP	233.8	229.7	233.6	219.9	212.2	222.4	242.1	255.6	242.4	226.2	247.2	217.5	235.8	161.3

207	MP	250.3	247.8	239.0	233.0	234.1	238.6	242.6	252.7	247.9	240.1	48.7	68.9	74.2	198.8
208	MP	271.0	260.8	251.9	251.9	258.2	259.4	261.8	273.5	265.4	256.6	138.3	117.6	130.8	241.3
209	MP	139.0	140.6	141.4	143.6	141.1	138.3	140.9	140.2	138.3	136.2	153.3	203.7	224.1	178.9
210	MP	147.0	145.8	139.3	127.8	126.8	124.7	138.8	146.7	147.7	146.5	105.5	143.9	183.5	122.6
211	MP	257.2	248.8	248.9	231.6	216.8	216.7	241.3	264.1	265.7	246.4	302.0	238.7	230.6	225.3
212	MP	130.4	130.5	134.6	134.0	133.8	132.5	131.8	131.0	128.0	124.9	126.7	172.0	205.2	248.3
213	MP	251.3	247.0	249.9	236.2	229.1	230.8	256.4	274.2	260.4	244.9	235.5	215.5	213.2	160.6
214	MP	278.6	280.5	272.5	260.7	265.0	269.8	281.0	284.5	285.1	272.2	17.8	23.9	32.5	123.6
215	MP	251.5	251.1	248.8	240.1	230.1	237.8	253.9	266.3	257.1	250.4	228.5	252.7	316.2	285.5
216	MP	247.2	242.4	239.6	232.9	227.6	228.3	233.2	245.4	258.0	239.5	213.5	171.5	172.4	202.6
217	MP	259.5	249.2	239.7	239.7	244.3	246.1	248.3	260.4	252.4	245.0	111.0	119.2	128.0	245.1
218	MP	169.2	170.6	169.5	169.9	168.9	167.5	169.8	171.4	170.8	166.7	224.5	263.7	346.5	451.0
219	MP	197.5	200.5	197.5	190.0	185.5	189.5	199.0	200.5	206.0	202.0	235.5	223.5	217.0	135.5
220	MP	58.0	38.8	26.8	2.7	-1.3	14.2	35.9	50.1	61.5	67.6	220.3	187.1	153.7	51.8
221	MP	281.3	287.1	280.7	266.1	271.0	277.0	289.5	289.2	293.9	277.5	14.9	16.2	23.1	110.9
222	MP	151.7	143.7	129.3	110.3	105.4	119.9	138.2	146.6	149.3	152.3	214.7	195.7	136.0	57.7
223	MP	260.0	244.9	225.5	201.2	185.5	202.4	232.6	259.3	257.3	258.5	502.9	446.6	444.8	237.5
224	MP	110.2	112.2	108.4	109.5	107.6	103.8	105.7	108.5	109.5	105.2	143.4	213.8	232.7	170.3
225	MP	165.4	166.3	159.8	149.0	141.8	149.2	165.7	172.9	171.2	168.3	232.1	238.3	216.3	114.8
226	MP	281.2	273.8	260.5	252.0	249.2	257.1	265.1	275.4	269.4	265.7	31.2	51.9	86.7	271.6
227	MP	243.9	243.1	243.4	241.8	239.3	243.6	251.1	253.7	250.4	243.6	214.4	212.9	291.9	352.8
228	MP	248.0	246.5	243.3	229.1	217.3	228.2	247.8	263.4	257.6	244.2	237.3	235.7	231.4	208.4
229	MP	229.9	223.6	222.8	207.0	192.3	207.1	233.0	247.3	244.8	231.1	229.1	207.8	230.4	116.0
230	MP	247.9	233.2	234.4	211.6	204.3	201.4	227.8	252.9	253.6	234.7	362.4	270.1	275.9	214.7
231	MP	249.5	245.9	245.4	238.4	233.0	234.9	258.5	276.7	255.8	238.6	238.0	212.3	211.0	172.9
232	MP	253.3	248.6	250.1	237.3	224.0	233.5	252.4	267.3	263.8	247.5	360.4	245.8	259.1	229.6
233	MP	254.6	248.4	248.7	233.3	217.3	225.7	249.4	267.7	265.0	247.1	351.9	229.3	232.9	223.9
234	MP	278.3	268.6	271.2	277.0	275.3	272.6	276.9	293.9	287.5	271.2	266.4	183.3	215.4	288.7
235	MP	269.7	277.0	275.3	278.7	278.7	269.3	263.7	264.3	270.7	270.0	82.7	70.0	59.7	182.3
236	MP	296.6	283.0	272.8	276.6	285.0	283.5	286.0	297.5	290.2	276.7	123.4	114.9	149.4	288.1
237	MP	301.2	288.1	277.5	282.3	291.4	290.5	289.4	299.4	294.3	279.0	154.6	109.7	134.5	268.6
238	MP	271.9	270.2	260.4	251.8	255.9	259.2	265.8	273.9	271.7	262.3	25.2	29.0	45.4	136.1
239	MP	250.9	245.7	241.7	234.6	231.5	236.7	242.7	245.7	256.1	245.2	205.2	177.8	245.8	188.0
240	MP	245.8	240.6	246.1	230.3	220.2	225.9	249.8	266.9	259.3	242.6	224.6	207.9	219.8	151.8
241	MP	257.8	251.0	251.2	237.4	221.6	227.3	251.1	271.1	268.6	249.4	357.8	226.3	231.2	242.7
242	MP	301.0	290.0	280.0	285.0	293.0	293.0	290.0	300.0	296.0	279.0	143.0	96.0	126.0	231.0
243	MP	253.4	249.0	250.6	237.7	225.1	235.7	253.9	267.9	263.2	247.8	338.8	245.8	273.0	229.7

244	MP	251.5	263.0	263.3	261.0	257.5	251.5	249.0	252.0	252.5	255.0	201.0	73.0	97.5	211.0
245	MP	244.2	234.3	234.5	211.9	206.4	202.6	220.1	244.9	255.4	240.4	339.2	271.9	286.9	170.9
246	MP	240.5	233.5	223.0	207.5	201.0	207.5	228.0	246.0	245.5	244.0	336.5	301.5	285.0	160.0
247	MP	260.2	249.4	241.4	219.6	206.2	218.7	249.7	269.6	269.7	261.4	282.8	314.3	227.0	112.2
248	MP	262.6	250.9	233.8	207.0	193.6	207.4	241.4	264.5	265.6	264.2	293.9	309.5	277.3	132.2
249	MP	244.3	247.5	253.0	249.8	245.5	245.5	248.0	246.3	245.5	248.5	111.8	80.8	137.0	196.3
250	MP	208.5	202.6	197.6	176.6	166.8	178.9	193.8	206.3	205.7	206.9	247.8	248.6	202.4	98.0
251	MP	243.5	236.7	240.0	224.0	209.8	219.1	244.5	261.3	258.1	243.5	232.2	231.9	217.9	119.5
252	MP	239.0	221.0	206.3	192.3	196.5	201.0	226.0	252.0	251.5	228.0	292.5	275.5	242.8	144.5
253	MP	248.0	242.0	242.0	237.0	233.0	236.0	240.0	246.0	258.0	243.0	198.0	174.0	250.0	238.0
254	MP	115.8	116.8	117.2	115.6	113.4	114.6	115.2	118.4	115.4	113.2	106.6	154.8	176.4	259.2
255	MP	166.0	165.3	165.0	163.0	162.0	161.0	160.3	165.3	163.3	160.7	112.0	144.7	198.3	280.0
256	MP	247.8	252.9	257.0	250.0	242.9	241.6	242.1	240.3	244.0	247.1	148.3	142.4	186.2	130.0
257	MP	147.5	148.5	147.0	144.0	141.0	143.0	145.5	146.5	145.5	148.0	87.5	132.5	151.0	188.5
258	MP	265.0	258.0	257.0	252.0	250.0	253.0	257.0	264.0	262.0	260.0	29.0	98.0	133.0	401.0
259	MP	272.0	262.5	264.0	258.0	255.5	257.0	263.0	270.5	268.5	267.0	26.5	94.0	118.5	363.5
260	MP	231.6	242.5	246.7	241.5	241.2	245.5	246.6	248.1	246.0	233.3	56.5	36.9	19.8	102.8
261	MP	249.5	255.8	262.0	260.0	254.3	252.5	252.8	253.3	254.5	252.3	73.8	56.0	56.3	47.8
262	MP	262.0	253.7	247.4	254.1	260.7	264.9	272.4	279.9	266.3	253.1	232.9	216.0	264.2	398.2
263	MP	250.5	254.5	257.5	249.3	243.0	241.5	242.3	240.5	244.5	248.5	172.5	156.5	203.3	170.5
264	MP	260.0	254.4	264.6	263.2	263.0	260.5	260.9	264.3	262.8	260.0	135.6	98.8	234.8	369.7
265	MP	277.4	265.2	256.0	262.3	272.5	272.4	278.3	289.9	277.2	263.1	185.0	167.3	213.2	352.4
266	MP	258.5	251.9	253.1	240.2	225.2	232.7	254.4	272.3	269.2	251.2	363.0	235.7	232.1	230.4
267	MP	265.0	258.6	257.8	245.3	229.1	233.3	257.2	277.7	276.6	256.6	346.2	230.0	237.0	250.2
268	MP	296.6	286.9	279.7	282.0	283.0	280.5	281.2	292.5	290.8	275.2	169.9	113.6	125.3	237.4
269	MP	246.3	247.2	245.0	250.3	248.1	253.9	262.5	264.1	253.4	244.6	261.2	263.0	283.8	265.0
270	MP	276.1	268.0	270.6	270.9	264.9	263.8	272.7	291.5	286.9	268.9	255.8	204.3	220.3	282.0
271	MP	283.9	273.8	274.6	279.5	278.6	275.7	279.2	295.5	289.8	273.8	229.0	163.6	192.2	250.6
272	MP	239.6	245.1	250.0	249.9	247.5	244.1	244.4	242.7	241.7	245.8	113.4	68.6	81.0	179.2
273	MP	298.8	285.4	276.6	282.8	290.7	289.0	288.6	300.1	293.9	278.6	198.0	151.9	162.9	271.7
274	MP	301.3	288.7	279.2	284.8	293.2	292.0	291.0	301.2	295.3	279.3	161.0	113.3	136.5	248.2
275	MP	301.9	292.9	277.2	280.1	288.8	289.2	283.3	289.5	292.0	275.8	137.1	86.3	117.3	237.5
276	MP	278.4	267.9	269.5	276.8	276.3	274.1	277.8	294.1	287.0	270.2	251.6	171.0	218.4	289.7
277	MP	254.6	259.1	262.9	265.6	264.6	258.7	257.2	259.0	257.1	258.9	122.7	75.5	105.6	195.7
278	MP	261.1	253.3	247.2	253.8	260.2	264.4	271.7	278.9	265.6	252.8	234.3	220.7	266.9	396.1
279	MP	275.8	264.1	264.0	274.4	275.5	274.8	278.6	294.0	284.2	266.0	228.2	162.9	225.8	291.7
280	MP	273.7	264.4	267.6	273.9	271.3	269.5	274.8	291.8	284.9	267.8	271.4	196.4	244.7	312.9

281	MP	282.8	273.2	274.3	278.6	276.6	273.8	278.3	294.9	289.9	273.0	233.4	169.9	198.6	254.7
282	MP	254.0	253.1	251.3	257.3	253.4	255.7	265.5	271.1	261.0	249.5	241.0	244.6	279.6	250.8
283	MP	162.1	164.5	165.1	169.5	166.7	163.2	168.5	166.6	164.7	161.6	187.8	204.5	235.8	197.8
284	MP	282.1	286.8	279.7	265.8	270.1	275.7	288.4	289.5	292.2	277.6	15.6	18.6	25.9	116.7
285	MP	252.8	249.1	247.3	254.7	257.1	260.9	265.6	267.8	258.8	249.6	243.7	291.2	306.8	355.4
286	MP	226.5	224.5	214.5	198.0	180.0	193.0	222.0	239.5	237.5	223.0	295.5	236.0	248.5	155.0
287	MP	298.5	290.3	273.7	272.9	282.9	286.8	284.4	290.8	292.5	275.5	99.4	69.7	109.3	312.0
288	MP	267.0	247.8	227.8	207.8	190.8	207.3	238.8	263.8	265.3	267.3	542.8	502.5	448.0	253.3
289	MP	270.9	261.2	261.5	272.3	271.2	271.9	276.3	291.4	280.9	261.7	258.0	212.9	234.9	296.9
290	MP	251.7	247.3	248.9	235.2	221.8	232.7	251.7	265.8	261.6	246.0	342.2	242.8	259.0	217.4
291	MP	242.0	249.2	253.1	256.4	256.0	248.9	246.8	245.4	244.9	248.7	101.4	65.2	53.8	166.4
292	MP	256.3	250.0	248.7	246.0	243.8	244.3	244.6	248.9	260.6	247.6	213.6	176.7	220.1	265.1
293	MP	252.0	254.8	259.4	256.4	251.5	254.1	256.1	256.3	256.3	258.2	183.2	153.0	245.0	291.9
294	MP	279.0	272.7	269.7	266.9	259.3	256.9	267.6	284.6	284.3	266.6	232.6	158.1	176.6	258.5
295	MP	252.4	249.0	247.0	238.8	231.3	229.8	236.8	250.0	261.5	244.5	209.3	156.3	163.0	193.7
296	MP	253.7	266.3	269.2	258.8	260.5	265.6	271.3	268.1	273.4	259.0	27.2	15.0	11.8	65.7
297	MP	258.1	254.3	255.1	243.6	236.2	235.8	262.6	282.8	264.5	249.9	253.8	234.7	209.2	163.8
298	MP	258.7	252.8	245.5	243.8	245.1	253.9	271.6	283.8	270.1	248.5	239.4	210.9	225.6	180.3
299	MP	147.2	149.7	150.0	149.2	148.6	146.0	146.5	147.6	146.9	143.2	167.4	203.2	279.5	363.1
300	MP	255.0	251.5	251.2	243.5	236.8	235.8	261.4	281.7	259.4	244.2	233.5	215.0	203.8	164.3
301	MP	262.8	252.8	247.4	247.6	247.8	251.2	256.7	265.6	257.7	250.8	66.2	121.9	155.7	306.5
302	MP	249.0	254.5	256.0	249.0	242.0	241.0	242.5	242.0	245.5	247.5	163.0	164.0	227.0	150.0
303	MP	245.3	235.6	233.3	215.2	201.0	214.0	242.3	260.2	260.3	247.9	239.0	247.1	212.3	101.9
304	MP	250.7	249.2	252.0	247.8	246.8	248.6	257.4	270.9	263.8	254.1	146.2	186.3	236.7	317.1
305	MP	232.3	231.7	228.8	217.1	209.8	218.1	229.3	241.0	235.3	232.1	523.0	481.4	458.3	325.7
306	MP	172.4	171.9	163.9	149.3	145.5	156.6	171.4	182.9	178.4	172.4	252.8	239.8	245.5	135.4
307	MP	173.3	174.5	176.5	178.0	177.5	170.8	181.4	181.8	180.6	172.7	135.7	124.0	167.4	149.9
308	MP	207.6	210.6	206.7	196.7	190.0	196.8	213.1	221.8	216.5	210.0	266.2	259.5	259.1	181.7
309	MP	252.7	251.5	253.3	249.4	249.5	250.5	258.7	274.5	266.0	257.4	132.2	185.1	232.4	337.0
310	MP	202.3	203.0	196.0	183.1	179.0	190.9	200.5	212.9	208.0	201.3	253.7	245.4	251.9	151.5
311	MP	249.8	248.4	246.0	230.3	219.8	229.6	247.2	263.8	258.3	245.9	216.8	206.0	227.6	213.0
312	MP	212.1	212.2	221.6	224.3	220.4	219.3	227.0	226.4	222.5	216.0	255.6	230.4	318.7	304.5
313	MP	210.0	212.6	210.9	203.2	195.3	200.6	212.7	217.1	215.3	210.9	338.1	342.3	308.7	185.2
314	MP	263.0	251.7	236.8	212.1	199.3	211.0	242.6	264.8	265.1	263.5	286.1	297.6	254.9	128.9
315	MP	245.6	236.6	222.8	203.8	193.7	202.5	225.3	245.3	244.6	246.5	299.7	298.5	262.2	136.8
316	MP	247.0	246.6	245.1	245.1	243.9	245.5	253.7	257.7	252.3	247.1	197.9	189.5	282.5	361.3
317	MP	115.8	118.4	118.3	117.7	117.8	115.1	115.0	115.6	114.0	110.2	127.9	159.9	211.2	277.9

318	MP	208.4	208.6	207.6	209.8	209.9	207.2	209.6	210.4	210.4	207.2	193.4	203.0	280.0	320.4
319	MP	150.3	152.0	152.3	150.7	151.0	147.0	145.7	148.0	147.0	145.0	117.0	142.0	173.0	223.7
320	MP	252.3	253.5	256.1	260.8	255.3	256.0	264.7	273.3	263.0	251.2	246.0	225.8	268.9	307.3
321	MP	261.0	255.5	243.7	227.2	218.9	230.5	255.4	271.0	269.9	259.8	285.9	248.7	227.9	152.2
322	MP	55.0	37.3	24.6	-0.3	-4.3	12.6	33.4	46.6	56.1	61.9	216.0	184.0	146.9	47.7
323	MP	256.4	256.7	257.0	259.7	250.1	256.2	266.1	273.6	263.1	254.4	234.3	231.8	251.4	310.2
324	MP	257.4	257.3	260.5	261.0	254.6	257.7	266.5	274.4	263.9	255.7	221.9	214.6	257.5	292.6
325	MP	246.6	244.5	250.6	248.2	244.3	248.8	254.3	263.4	254.9	245.7	229.1	213.9	282.1	280.9
326	MP	251.2	246.4	239.4	224.2	217.3	223.7	241.6	256.8	257.3	255.2	420.9	380.9	351.3	209.9
327	MP	245.0	244.0	243.0	240.0	240.0	242.0	246.0	247.0	246.0	247.0	192.0	253.0	372.0	533.0
328	MP	252.8	251.7	249.6	237.1	228.6	236.8	252.6	267.6	261.4	251.0	227.3	212.1	276.4	244.6
329	MP	252.0	250.0	248.5	235.5	227.7	236.5	252.3	266.7	261.3	249.7	232.5	216.5	284.5	247.6
330	MP	249.0	245.0	246.3	233.3	223.3	234.7	252.7	265.3	259.3	243.3	293.7	233.3	299.3	199.3
331	MP	243.0	239.9	242.5	226.8	217.3	230.6	248.1	259.0	253.1	237.6	233.9	241.6	270.1	193.1
332	MP	245.7	238.8	233.4	229.2	226.6	240.8	258.7	266.5	258.3	237.2	260.0	262.2	255.3	196.7
333	MP	259.4	266.8	266.3	266.3	262.9	255.1	249.3	248.0	250.6	254.5	178.0	88.0	115.9	260.0
334	MP	256.6	249.6	243.8	249.7	255.6	259.9	267.1	273.9	261.3	249.9	227.4	207.4	268.0	381.0
335	MP	262.3	255.5	253.0	260.4	262.8	266.3	274.4	280.8	268.5	254.1	273.5	265.8	328.1	377.5
336	MP	255.0	251.0	252.7	240.0	233.2	233.2	259.7	278.8	262.5	247.8	244.7	225.1	210.7	162.7
337	MP	263.9	259.6	260.1	264.8	257.7	259.7	272.2	282.4	275.1	259.6	300.9	259.3	277.0	247.5
338	MP	247.0	243.2	245.2	231.2	221.2	233.8	251.2	263.0	256.8	241.5	269.7	243.2	292.3	197.7
339	MP	273.2	262.1	257.9	267.7	274.5	275.2	282.1	293.6	280.2	261.5	224.4	172.0	206.8	278.1
340	MP	242.8	240.9	235.5	225.2	214.3	227.2	248.1	260.4	254.5	239.6	274.5	248.6	237.6	222.0
341	MP	253.6	251.7	243.5	230.3	217.3	229.8	252.5	266.8	262.2	247.6	250.7	235.9	223.3	193.6
342	MP	251.3	255.0	253.3	251.8	245.0	242.0	242.3	244.5	246.8	251.8	212.0	90.8	238.8	420.8
343	MP	265.7	260.0	252.3	246.3	244.0	246.3	252.3	254.7	262.7	256.7	214.7	145.3	257.3	252.3
344	MP	252.5	245.5	251.5	234.0	225.5	227.5	254.5	270.5	264.5	249.5	239.5	218.0	221.5	164.0
345	MP	260.0	253.0	265.0	263.0	264.0	263.0	263.0	267.0	264.0	261.0	82.0	77.0	181.0	315.0
346	MP	266.2	260.5	253.7	247.7	245.5	248.3	253.5	254.5	262.7	256.8	228.8	154.3	265.8	264.7
347	MP	247.0	243.8	245.3	231.5	220.8	234.0	251.5	263.0	256.8	241.8	262.0	248.3	288.3	197.0
348	MP	248.0	245.0	247.0	232.7	222.0	234.0	252.0	264.0	258.0	243.0	267.7	260.7	292.0	199.0
349	MP	255.7	249.9	252.1	239.1	225.4	234.0	254.0	269.7	266.1	249.0	366.5	244.9	249.7	229.3
350	MP	251.0	246.4	247.9	232.7	218.7	229.6	249.6	264.4	260.8	245.0	339.3	234.3	242.8	201.6
351	MP	254.0	260.0	262.4	265.6	263.8	256.0	252.4	253.0	253.2	256.1	122.9	63.7	81.2	180.9
352	MP	268.3	273.1	272.0	270.5	269.1	263.2	257.6	254.0	257.4	260.0	198.9	113.4	152.6	289.4
353	MP	248.0	245.0	246.0	233.0	223.0	235.0	253.0	265.0	259.0	244.0	294.0	233.0	302.0	199.0
354	MP	246.0	243.0	245.0	230.0	220.0	234.0	251.0	262.0	256.0	241.0	244.0	235.0	273.0	190.0

355	MP	259.1	253.4	248.8	249.4	248.1	254.8	271.4	281.7	271.6	251.6	243.7	235.7	245.4	192.4
356	MP	256.5	251.4	247.2	241.5	240.7	247.8	267.9	281.7	265.4	245.3	256.7	213.9	234.1	185.4
357	MP	245.0	241.0	244.0	229.0	219.0	233.0	250.0	261.0	255.0	240.0	250.0	234.0	275.0	190.0
358	MP	271.2	262.2	265.9	270.9	267.4	267.5	273.4	290.2	283.2	265.5	272.3	218.0	274.1	323.9
359	MP	263.5	258.2	253.9	249.0	247.3	257.6	273.1	283.5	276.7	257.4	288.2	220.1	262.7	210.3
360	MP	253.6	259.4	260.6	260.2	256.2	253.1	253.0	256.4	256.3	258.0	231.0	90.9	195.7	373.4
361	MP	255.3	258.2	261.7	264.0	260.9	254.9	251.7	255.0	254.9	256.0	163.1	87.7	129.1	223.0
362	MP	251.3	255.4	253.8	252.9	246.4	243.0	243.5	246.0	248.0	252.4	218.9	90.6	236.9	423.6
363	MP	248.3	245.3	246.3	232.3	221.3	233.3	251.3	263.3	257.5	242.3	285.5	257.8	292.0	203.8
364	MP	251.0	248.0	250.0	247.0	242.0	238.0	239.0	243.0	248.0	249.0	177.0	96.0	265.0	411.0
365	MP	253.0	248.0	253.0	249.0	246.0	242.0	243.0	247.0	252.0	251.0	154.0	89.0	245.0	365.0
366	MP	254.5	248.0	254.5	252.0	249.5	245.5	246.5	250.5	255.0	252.0	149.0	85.5	236.5	351.5
367	MP	259.1	264.3	270.2	271.9	270.4	269.4	269.4	273.4	271.5	267.7	228.8	108.8	199.6	369.1
368	MP	251.0	250.0	250.0	247.0	240.0	236.0	238.0	241.0	246.0	248.0	192.0	96.0	262.0	429.0
369	MP	252.7	258.3	258.0	257.7	253.0	250.0	249.7	253.0	253.0	256.0	230.0	89.7	212.0	394.0
370	MP	255.5	262.0	264.0	263.5	260.5	257.0	257.0	260.5	260.0	260.5	229.0	92.5	182.0	354.5
371	MP	245.7	243.0	244.7	230.7	219.7	232.0	250.3	261.7	256.3	241.0	275.3	266.0	292.7	203.0
372	MP	258.0	256.3	255.2	261.6	258.1	259.1	267.5	273.0	263.3	252.8	226.7	227.2	278.4	266.2
373	MP	256.8	252.7	250.3	252.9	248.6	253.4	268.5	278.0	268.4	251.1	264.9	236.0	275.0	209.0
374	MP	249.5	247.0	247.5	234.0	223.0	235.5	253.5	265.5	260.0	244.0	286.5	244.0	294.0	200.5
375	MP	237.7	231.6	235.1	218.8	205.2	217.2	240.8	256.6	251.2	237.1	225.5	215.2	218.7	115.7
376	MP	246.5	243.0	244.5	231.0	220.5	233.5	251.0	262.0	256.0	241.0	257.0	245.0	285.0	195.5
377	MP	264.4	271.9	270.8	274.8	272.5	264.4	260.1	259.4	264.0	264.7	104.6	76.5	64.6	203.4
378	MP	251.7	257.5	261.9	264.6	264.1	258.1	256.7	256.6	255.3	257.6	99.2	67.8	73.2	194.5
379	MP	251.3	246.5	250.5	234.6	227.3	230.1	255.4	272.8	262.2	246.9	237.3	215.0	217.5	162.8
380	MP	248.9	244.5	248.7	233.7	226.2	229.3	254.1	271.6	259.2	243.5	229.4	208.9	216.5	160.1
381	MP	250.0	249.2	243.8	239.9	237.2	247.0	261.9	270.1	260.6	246.9	241.8	237.1	268.8	256.5
382	MP	262.9	262.1	257.8	252.3	245.6	241.8	245.7	256.0	267.8	253.4	167.7	119.8	137.6	185.7
383	MP	255.0	251.4	249.3	257.2	258.5	261.4	267.2	270.3	260.4	250.9	231.7	276.0	309.9	343.9
384	MP	257.9	254.7	253.5	246.8	240.1	238.4	264.5	285.4	261.6	246.0	232.7	211.8	200.9	162.7
385	MP	254.7	251.0	251.9	241.5	234.4	234.7	260.4	279.8	260.7	245.5	234.9	217.5	207.8	160.5
386	MP	255.3	252.3	252.6	240.6	230.8	240.8	259.2	271.9	266.4	250.8	304.6	219.1	283.3	197.1
387	MP	285.2	272.4	262.0	265.5	274.4	273.2	277.8	290.2	280.3	268.7	120.2	123.9	158.3	289.1
388	MP	254.0	250.6	245.9	241.7	237.7	236.5	238.8	246.8	259.5	244.8	194.7	130.2	145.3	181.9
389	MP	253.4	251.4	250.4	238.6	230.1	239.0	255.0	267.6	261.2	251.0	245.4	239.8	303.9	267.5
390	MP	267.3	266.5	262.6	257.3	249.4	244.7	249.6	262.3	272.4	257.2	189.0	126.7	153.0	215.1
391	MP	247.0	244.0	246.0	232.0	221.0	234.0	252.0	263.0	257.0	242.0	264.0	255.0	290.0	198.0

392	MP	255.0	261.0	263.0	262.0	259.0	256.0	256.0	260.0	259.0	260.0	229.0	92.0	185.0	358.0
393	MP	248.0	244.8	246.8	232.5	221.8	234.0	252.3	263.8	257.8	242.8	266.5	257.3	291.3	198.3
394	MP	248.5	245.5	247.5	233.5	223.0	235.5	253.5	265.5	259.5	244.0	282.0	240.5	296.0	198.5
395	MP	276.7	279.4	269.3	268.7	268.3	262.5	256.0	261.3	272.4	263.3	170.8	103.7	91.0	210.3
396	MP	255.7	259.4	262.2	263.8	260.6	253.9	250.2	252.8	253.2	255.0	166.9	84.4	111.3	219.7
397	MP	261.5	268.6	270.1	273.9	271.1	263.7	259.5	258.5	261.6	263.5	112.5	70.9	58.9	192.7
398	MP	106.4	109.0	109.9	109.0	107.5	103.7	102.4	105.5	104.4	103.1	116.3	123.1	166.2	226.3
399	MP	152.0	153.0	152.0	148.0	145.0	148.0	150.0	152.0	151.0	153.0	102.0	149.0	164.0	210.0
400	MP	142.3	144.3	143.9	142.4	142.4	139.3	138.4	141.3	140.3	138.3	142.4	158.4	198.6	274.9
401	MP	251.0	258.0	264.5	259.3	254.3	252.0	252.0	251.5	253.3	252.5	66.8	68.3	66.8	52.8
402	MP	247.5	253.2	258.2	263.5	262.8	261.3	260.7	259.8	258.8	251.9	73.8	52.8	41.4	35.8
403	MP	247.8	253.3	259.5	264.8	263.8	261.3	260.0	258.0	259.0	253.5	69.8	56.5	54.0	37.5
404	MP	244.3	249.2	257.7	266.3	269.6	266.8	262.4	258.5	259.1	251.5	101.4	109.9	52.8	72.0
405	MP	246.6	252.8	257.8	261.0	258.7	256.7	256.2	257.0	256.2	251.0	73.1	54.9	49.5	38.5
406	MP	249.0	253.7	259.7	269.5	272.8	271.7	270.6	266.5	263.6	255.2	128.3	86.9	49.6	37.2
407	MP	241.1	247.7	253.6	247.6	240.7	239.4	238.5	236.4	239.7	241.9	111.0	118.1	146.9	101.3
408	MP	250.5	254.6	257.4	249.6	242.8	241.8	242.9	241.5	245.2	248.8	167.0	156.4	210.4	162.0
409	MP	240.6	246.8	252.1	244.2	235.9	235.1	234.0	230.1	234.8	239.6	153.2	152.7	203.2	139.8
410	MP	263.4	258.1	254.9	250.8	247.2	257.2	272.2	282.5	276.1	257.4	288.2	216.4	255.8	215.7
411	MP	250.0	254.7	258.2	264.0	264.8	264.2	264.7	263.3	261.7	253.0	71.2	45.0	29.2	29.7
412	MP	241.8	238.5	242.0	225.1	213.8	228.7	245.7	256.4	251.0	236.2	243.2	246.2	259.1	188.5
413	MP	242.6	250.0	257.6	261.0	261.8	255.8	246.7	244.2	247.7	246.8	44.3	55.5	36.9	104.3
414	MP	248.2	253.3	259.2	259.1	254.5	252.2	252.8	253.8	254.3	251.9	80.2	60.6	60.3	46.2
415	MP	235.0	223.8	215.3	195.5	183.5	199.8	234.8	252.5	252.4	241.7	213.7	204.9	191.0	92.7
416	MP	261.9	256.8	251.9	248.4	244.8	249.1	271.4	288.8	269.4	250.3	234.9	200.4	164.6	158.9
417	MP	267.5	247.3	226.8	207.9	188.8	205.3	236.2	262.7	264.5	267.0	588.3	535.7	489.9	285.5
418	MP	252.5	262.5	263.0	261.0	257.0	251.0	249.0	250.5	252.0	255.0	209.0	75.0	110.5	227.5
419	MP	249.2	236.3	228.3	208.1	196.2	210.1	242.3	261.8	262.7	253.5	237.1	248.2	200.4	89.6
420	MP	256.0	238.5	217.5	194.5	175.5	193.0	221.5	251.5	247.5	252.5	611.0	521.0	530.0	290.0
421	MP	264.4	256.6	247.6	229.1	222.0	229.3	253.5	272.0	272.1	265.5	311.4	255.7	232.3	135.6
422	MP	181.5	183.5	190.5	194.0	190.0	188.5	193.0	191.5	187.5	186.0	295.0	271.5	356.0	364.5
423	MP	267.7	248.0	227.3	208.3	189.7	206.3	238.0	264.0	265.3	267.3	559.3	514.0	464.0	265.0
424	MP	189.0	189.0	188.0	188.4	189.1	186.1	187.1	189.0	188.7	186.6	194.4	194.3	260.4	315.7
425	MP	266.5	256.5	242.5	217.0	205.0	220.5	252.5	274.5	272.5	267.5	301.0	329.0	246.5	125.0
426	MP	74.8	68.1	57.0	32.8	29.9	41.0	68.0	73.9	71.7	74.4	179.6	160.8	148.8	67.2
427	MP	39.0	30.0	15.0	-13.0	-16.0	-6.0	24.0	24.0	25.0	35.0	165.0	152.0	144.0	52.0
428	MP	167.1	168.2	169.8	170.1	169.3	163.2	174.0	174.5	173.4	165.6	124.4	117.3	163.4	142.5

429	MP	169.7	169.2	161.0	146.9	144.6	156.7	171.5	184.6	178.3	170.2	234.4	229.3	231.4	150.0
430	MP	119.2	117.2	110.4	95.8	90.0	98.0	116.6	126.0	123.4	120.0	156.6	164.4	161.0	72.6
431	MP	120.5	121.9	115.5	118.3	116.5	111.5	114.7	118.8	120.3	114.7	131.0	168.9	196.7	144.5
432	MP	244.4	251.0	262.2	270.1	275.1	276.9	274.5	269.2	264.4	253.2	155.7	110.5	47.8	45.3
433	MP	267.8	254.4	236.4	211.5	199.6	216.6	249.1	273.0	271.2	268.6	359.7	361.6	290.8	146.0
434	MP	197.2	206.8	216.5	218.3	220.7	223.4	218.8	217.0	215.7	202.8	53.7	38.9	16.9	50.5
435	MP	244.9	249.8	258.2	265.9	268.9	265.8	260.9	256.9	258.3	251.5	87.2	104.2	50.4	80.6
436	MP	180.2	180.8	184.5	184.3	184.2	176.6	189.5	189.7	188.2	180.8	126.7	114.9	168.7	152.7
437	MP	245.2	242.9	251.0	251.4	250.1	252.0	257.0	258.2	253.7	246.3	242.7	228.3	304.9	290.4
438	MP	249.8	250.3	248.4	243.6	235.2	242.6	257.2	266.7	255.5	250.6	220.5	233.6	299.8	292.5
439	MP	250.0	247.5	249.1	251.8	254.1	254.8	256.5	262.3	258.7	247.9	258.8	253.3	331.4	359.2
1	MR	243.2	244.1	252.4	251.1	245.7	245.8	227.8	244.5	246.6	243.6	278.1	249.0	280.6	282.3
2	MR	242.8	246.5	251.3	251.3	246.7	247.5	233.3	251.1	253.9	248.5	316.4	273.3	303.9	301.2
3	MR	78.5	74.3	63.9	41.4	33.6	40.6	58.6	76.6	79.2	81.3	192.2	162.2	142.1	68.9
4	MR	244.5	248.7	255.1	259.6	250.3	252.9	237.0	249.3	250.0	247.7	282.5	263.0	287.3	279.2
5	MR	217.9	218.8	225.1	225.6	219.3	214.2	207.8	222.0	223.6	225.4	142.4	129.6	187.8	193.1
6	MR	248.7	253.8	255.9	249.4	239.1	247.2	234.7	254.5	252.7	251.7	158.8	164.0	188.1	197.5
7	MR	243.6	247.2	253.8	252.2	247.4	248.1	233.4	251.4	255.5	248.4	316.5	262.4	307.1	298.9
8	MR	147.3	148.1	150.0	150.4	148.1	142.4	135.3	148.0	145.9	147.3	110.6	117.7	165.0	219.7
9	MR	242.7	243.0	243.7	239.0	237.5	243.5	252.1	253.8	248.3	243.2	264.2	257.8	281.0	245.5
10	MR	257.0	253.8	246.3	228.1	219.6	223.3	224.7	256.1	254.7	259.2	217.4	189.9	177.4	151.2
11	MR	255.7	248.4	234.8	214.7	200.4	210.3	211.9	251.6	248.9	257.3	279.3	281.1	245.6	189.6
12	MR	259.9	262.3	260.8	260.7	267.6	277.2	244.8	276.3	275.0	262.4	504.1	542.0	554.6	403.4
13	MR	261.0	257.7	259.9	259.2	256.3	259.1	244.8	270.4	269.8	261.2	205.9	285.6	346.7	333.0
14	MR	258.7	257.6	256.8	253.1	262.2	264.3	257.3	268.5	263.6	259.0	176.0	163.0	243.1	228.4
15	MR	215.0	211.6	205.5	185.0	173.9	184.4	180.1	214.6	212.8	216.0	209.8	218.6	175.1	130.3
16	MR	196.3	190.3	183.7	169.3	162.3	173.3	171.3	199.0	197.3	196.3	191.0	189.3	159.0	129.3
17	MR	261.0	251.7	258.8	259.2	261.1	262.3	247.7	270.1	269.9	261.8	167.7	272.7	347.4	324.6
18	MR	187.8	181.8	170.4	155.8	152.2	162.4	157.6	183.4	186.8	186.4	196.2	188.0	130.4	99.2
19	MR	261.0	264.0	262.0	261.0	272.0	281.0	249.0	278.0	276.0	264.0	470.0	454.0	546.0	394.0
20	MR	240.0	240.7	239.2	231.4	229.3	241.1	227.0	267.9	257.9	236.1	302.2	368.4	362.5	241.4
21	MR	252.5	247.6	245.5	245.3	244.7	257.5	238.3	256.6	254.4	240.4	235.9	273.1	211.4	187.0
22	MR	252.0	261.0	254.0	253.0	259.0	267.0	236.0	267.0	268.0	258.0	437.0	425.0	447.0	340.0
23	MR	246.6	248.0	242.8	229.6	226.0	238.0	233.6	267.8	264.2	243.6	253.0	304.0	289.0	141.4
24	MR	253.8	256.6	255.7	253.2	256.3	267.5	244.5	280.8	274.4	252.7	448.3	522.1	528.7	394.4
25	MR	258.7	250.7	249.7	249.0	250.7	264.7	244.7	262.7	260.7	243.3	234.0	271.7	208.0	181.0
26	MR	260.3	261.2	262.3	265.8	278.1	288.4	260.9	281.6	267.6	263.2	379.7	352.6	359.6	282.9

27	MR	263.0	263.9	264.6	268.2	281.0	293.9	264.8	288.1	270.7	264.7	358.1	296.4	316.9	273.1
28	MR	260.3	261.0	261.2	263.5	276.0	286.4	261.3	282.0	266.9	262.1	363.0	325.1	380.2	336.9
29	MR	261.5	266.5	268.4	271.8	288.5	303.2	261.7	300.1	278.1	266.2	395.3	451.4	477.7	315.6
30	MR	265.0	266.0	266.0	270.0	283.0	297.0	267.0	291.0	273.0	266.0	342.0	298.0	321.0	260.0
31	MR	246.5	253.4	256.6	257.2	267.5	281.1	248.5	282.9	272.0	257.9	261.9	378.0	457.2	323.3
32	MR	258.9	259.9	259.1	260.3	272.3	283.6	260.2	282.2	265.3	259.5	365.3	308.6	425.8	396.5
33	MR	252.0	261.0	255.0	253.0	258.7	268.0	236.0	267.7	267.0	258.7	397.7	375.0	409.0	312.3
34	MR	262.2	264.1	262.8	261.8	270.8	279.3	249.0	277.0	275.9	265.4	425.3	448.1	530.9	407.0
35	MR	252.5	252.5	251.0	252.0	255.0	271.0	247.5	268.0	258.5	247.0	277.5	280.5	296.5	169.0
36	MR	242.9	244.1	239.1	226.4	223.8	235.5	229.6	264.5	260.0	239.6	263.1	319.0	296.4	154.6
37	MR	248.3	250.8	251.7	241.7	232.5	243.5	231.6	273.9	256.2	249.0	313.2	327.1	311.5	211.5
38	MR	264.8	266.1	266.4	270.2	283.4	296.3	266.6	290.8	272.7	266.7	347.8	296.7	318.8	263.8
39	MR	228.7	225.3	218.7	200.3	189.0	200.0	196.7	228.0	228.7	230.0	199.7	199.3	163.7	133.3
40	MR	228.5	229.3	228.7	222.1	218.8	227.2	209.8	254.3	240.3	227.6	336.8	379.5	312.4	204.1
41	MR	257.4	256.0	255.3	251.7	259.8	260.0	253.8	263.6	261.0	257.7	196.8	194.5	268.3	252.0
42	MR	259.0	248.0	234.0	218.5	212.0	219.0	222.0	260.0	262.0	273.0	137.0	145.5	126.0	46.0
43	MR	250.5	235.5	217.5	204.5	192.5	202.0	213.5	240.5	250.0	259.0	213.5	197.5	108.0	79.0
44	MR	260.3	264.6	265.9	255.1	243.4	252.0	242.3	273.0	262.1	261.1	202.0	218.5	220.4	142.5
45	MR	257.7	261.3	261.0	246.3	235.0	247.0	238.0	268.3	262.0	261.0	197.0	204.0	204.7	121.3
46	MR	259.0	248.0	234.0	218.5	212.0	219.0	222.0	260.0	262.0	273.0	137.0	145.5	126.0	46.0
47	MR	257.2	254.1	248.6	230.6	220.2	223.6	224.4	256.9	255.2	259.6	209.1	189.5	174.4	143.1
48	MR	249.4	243.1	231.3	211.0	197.5	206.9	207.4	246.2	243.6	251.2	256.0	260.3	222.8	173.8
49	MR	244.5	241.2	234.7	217.5	208.9	216.1	216.8	245.5	245.1	248.9	282.2	271.6	227.5	190.7
50	MR	266.0	263.0	258.7	257.7	261.0	260.3	246.0	260.0	261.7	261.0	109.0	122.0	192.7	291.7
51	MR	167.4	159.2	147.9	130.1	125.7	135.8	136.6	164.0	165.4	167.8	187.8	182.7	136.3	104.5
52	MR	223.7	209.1	191.1	177.8	166.9	176.3	184.3	215.0	221.4	230.9	186.1	181.9	108.8	78.7
53	MR	261.2	249.3	233.6	222.0	210.5	219.2	219.7	257.5	258.1	269.2	274.5	273.2	232.0	144.1
54	MR	217.8	213.2	203.4	187.4	179.4	186.9	187.8	218.5	216.8	220.1	221.5	226.7	188.8	153.1
55	MR	245.7	250.1	255.1	250.4	239.3	247.0	230.7	250.2	247.6	247.8	235.6	252.9	262.6	250.8
56	MR	242.9	244.0	242.1	246.3	244.0	243.6	238.3	243.1	246.3	247.0	298.9	325.4	303.4	237.4
57	MR	253.0	262.0	256.0	255.0	260.0	269.0	237.0	268.0	269.0	259.0	353.0	350.0	379.0	297.0
58	MR	252.0	261.0	255.0	254.0	259.0	267.0	236.0	267.0	268.0	258.0	370.0	357.0	388.0	301.0
59	MR	259.0	260.0	259.0	262.0	275.0	287.0	260.0	283.0	265.0	259.0	331.0	278.0	342.0	314.0
60	MR	252.0	256.0	244.0	237.0	226.0	236.0	233.0	254.0	250.0	248.0	210.0	225.0	196.0	180.0
61	MR	235.5	231.0	223.0	203.5	192.0	201.5	200.5	234.0	233.0	237.0	216.5	219.0	183.0	147.0
62	MR	258.1	251.1	248.7	246.0	253.1	261.1	253.2	278.5	264.0	253.9	83.8	54.3	110.5	228.2
63	MR	248.3	255.5	259.3	260.0	264.0	268.0	245.5	267.3	265.0	258.8	132.0	76.8	72.8	187.5

64	MR	253.4	258.6	263.4	264.1	267.8	274.4	252.0	272.5	270.4	263.6	135.0	65.9	71.1	206.8
65	MR	237.6	234.6	233.3	235.4	235.3	234.2	223.4	235.5	237.2	236.4	260.1	236.0	271.9	323.1
66	MR	259.0	262.0	257.0	252.0	255.0	257.0	240.0	259.0	262.0	259.0	383.0	244.0	330.0	478.0
67	MR	256.0	260.0	262.0	256.0	258.0	260.0	239.0	258.0	260.0	256.0	184.0	129.0	147.0	302.0
68	MR	169.2	169.5	173.3	175.8	171.2	157.8	156.9	169.8	171.0	168.6	105.1	96.2	135.7	151.2
69	MR	94.6	90.8	85.2	66.8	59.3	72.9	77.0	100.2	98.8	96.4	176.2	162.1	145.4	83.7
70	MR	192.9	198.3	197.7	188.1	178.1	186.5	180.4	199.9	200.6	195.0	361.1	302.8	259.9	202.0
71	MR	244.2	241.9	241.9	237.6	246.0	253.6	246.8	269.2	254.5	243.1	116.8	91.7	255.0	294.5
72	MR	279.3	273.7	263.0	260.0	263.0	261.0	253.3	268.0	269.0	265.3	57.3	73.3	144.0	247.0
73	MR	279.0	273.5	263.0	260.0	263.0	261.0	253.0	268.0	269.0	265.0	57.5	74.5	145.5	248.0
74	MR	234.0	235.5	234.5	235.5	234.5	229.5	221.0	232.5	237.5	233.0	295.5	276.0	309.0	343.0
75	MR	234.3	238.1	238.5	221.3	206.2	216.2	212.8	237.3	236.7	236.8	217.6	241.4	202.2	198.6
76	MR	241.6	243.2	242.2	242.7	242.0	241.6	234.4	243.6	246.4	245.5	412.4	361.7	331.5	266.1
77	MR	249.7	249.6	247.0	241.8	240.6	246.9	228.7	266.9	266.3	250.4	269.7	290.6	355.9	268.3
78	MR	231.0	235.3	242.7	221.0	200.0	221.0	207.7	242.7	228.3	227.7	284.0	296.3	269.0	135.3
79	MR	231.8	219.0	228.5	208.2	203.9	205.0	191.4	248.6	227.4	222.7	401.2	387.6	300.0	175.2
80	MR	188.0	190.3	197.0	199.0	195.0	188.3	183.0	196.3	194.7	194.0	203.0	182.7	257.3	348.7
81	MR	157.0	159.7	162.3	164.3	162.3	155.3	149.7	161.3	159.0	160.3	167.3	151.0	217.3	296.0
82	MR	239.6	245.0	257.9	235.9	217.8	228.1	212.7	252.4	243.1	245.0	196.0	204.4	224.1	89.2
83	MR	232.7	235.5	238.3	238.2	249.7	262.8	223.3	258.3	246.6	238.2	407.1	303.9	464.3	361.2
84	MR	257.6	257.0	256.2	253.7	254.8	252.3	240.8	253.5	256.3	256.7	424.7	302.4	287.9	262.8
85	MR	239.6	231.3	223.4	204.7	205.0	214.6	196.5	256.5	237.3	231.8	259.2	264.0	182.3	95.3
86	MR	260.6	258.8	257.2	247.5	253.4	254.4	258.2	265.1	266.6	259.8	88.0	72.8	145.6	176.8
87	MR	240.6	238.6	240.4	240.1	251.4	263.9	235.7	271.1	250.4	240.2	270.5	198.5	429.6	365.4
88	MR	249.7	254.9	260.1	254.6	245.9	258.1	238.5	266.3	254.4	249.4	337.7	309.4	333.9	189.4
89	MR	252.7	255.5	257.8	260.6	277.8	293.2	253.2	291.7	268.8	258.2	402.2	390.6	606.7	387.6
90	MR	261.6	253.1	261.5	256.0	253.1	251.0	241.1	257.1	260.5	252.9	91.4	158.0	175.0	264.7
91	MR	238.0	242.5	243.7	236.7	233.0	241.8	223.8	266.6	249.7	240.1	327.6	348.5	362.0	235.7
92	MR	252.6	257.1	257.3	252.9	251.5	265.5	243.4	281.2	261.9	254.6	323.1	272.9	281.2	245.6
93	MR	245.6	250.1	251.0	248.6	253.9	260.5	232.0	255.5	254.8	249.2	403.0	370.7	455.2	380.2
94	MR	246.3	244.8	244.0	242.2	244.7	241.5	235.2	244.6	246.5	246.6	230.8	214.8	221.8	226.7
95	MR	259.4	258.2	257.3	250.4	258.8	261.1	259.6	270.2	266.4	259.3	109.3	92.4	170.5	164.3
96	MR	250.2	253.1	257.2	262.2	256.9	265.5	244.1	258.1	251.9	250.2	316.4	286.6	275.6	216.0
97	MR	251.1	253.4	257.1	253.8	249.8	262.0	239.8	267.4	253.1	245.1	306.2	291.7	311.2	186.2
98	MR	226.7	226.7	224.3	216.4	214.7	226.3	213.2	254.4	243.9	222.3	288.9	352.6	347.6	231.1
99	MR	248.1	253.4	252.6	253.0	260.5	271.0	238.8	269.7	268.3	252.5	421.4	427.9	496.8	379.3
100	MR	250.4	253.7	253.7	243.9	233.1	245.2	234.7	276.0	258.4	251.6	313.8	317.9	301.6	202.6

101	MR	253.0	258.5	259.0	254.5	256.0	269.5	244.0	283.8	264.9	255.6	304.3	272.3	315.6	262.6
102	MR	242.4	249.4	250.5	246.9	248.5	260.6	234.2	274.6	256.8	246.7	317.8	301.1	364.1	276.0
103	MR	248.0	252.4	259.1	256.6	247.6	261.9	239.2	263.9	251.5	249.4	312.8	250.9	296.3	191.9
104	MR	250.9	251.4	253.9	258.8	254.8	261.6	241.0	258.4	252.4	245.1	234.6	273.4	268.1	215.9
105	MR	229.5	229.5	225.9	220.0	219.8	231.7	215.8	257.8	246.1	225.1	307.6	377.3	350.9	243.3
106	MR	251.3	256.9	257.0	251.6	250.2	262.8	241.2	281.3	262.7	254.4	320.0	291.0	318.4	261.0
107	MR	250.5	254.5	259.5	256.4	248.5	261.4	240.8	265.8	254.9	250.5	310.9	279.0	298.7	190.9
108	MR	242.7	241.1	244.9	231.3	221.4	228.1	218.3	265.5	247.4	240.6	320.7	368.4	321.4	195.8
109	MR	247.2	252.2	258.9	252.0	242.7	256.1	234.6	263.7	250.6	246.1	358.8	320.2	363.3	187.4
110	MR	247.7	250.4	253.5	243.8	227.8	242.2	232.8	267.6	251.2	248.8	300.9	281.1	260.4	176.0
111	MR	237.2	241.5	240.5	233.1	221.0	231.0	219.7	241.6	240.6	238.1	221.5	246.1	199.8	197.7
112	MR	235.7	238.0	239.3	242.8	237.5	244.8	227.4	241.5	240.0	235.0	258.0	306.1	320.5	212.3
113	MR	233.0	238.3	240.8	243.5	258.8	272.4	233.7	269.3	255.0	242.4	313.3	334.9	429.3	293.3
114	MR	257.1	261.3	262.0	260.0	263.3	278.5	251.0	286.3	265.7	258.6	329.5	277.7	296.1	275.0
115	MR	240.2	241.3	243.1	248.1	243.8	250.6	231.7	245.5	243.3	237.2	246.8	312.7	310.9	210.6
116	MR	251.5	248.4	246.3	238.3	242.1	243.2	242.2	251.2	254.3	249.8	79.1	56.4	141.3	158.2
117	MR	241.2	245.9	244.7	236.6	230.7	240.1	225.7	247.8	248.5	243.2	230.6	245.9	225.8	185.3
118	MR	238.1	242.2	240.7	234.6	222.2	232.6	221.4	242.5	240.8	238.5	224.0	247.5	200.4	200.3
119	MR	251.7	255.4	257.5	260.8	278.0	293.7	252.4	291.0	268.4	257.1	408.3	403.1	580.7	341.0
120	MR	238.8	247.5	247.1	242.9	251.1	265.6	234.2	273.4	257.3	244.6	321.4	305.4	362.8	280.0
121	MR	233.7	234.6	231.4	226.1	225.3	236.9	221.0	262.0	251.4	230.0	315.5	387.8	365.0	250.4
122	MR	255.4	256.5	256.1	260.6	261.6	262.4	249.4	252.6	253.7	253.2	297.3	278.0	309.2	236.2
123	MR	250.5	252.2	253.7	240.2	221.8	236.3	231.8	270.2	253.4	250.0	321.4	300.1	280.1	187.0
124	MR	251.5	254.6	258.0	265.3	261.5	266.1	245.9	255.9	252.5	251.8	304.0	288.7	294.1	229.6
125	MR	245.1	247.9	252.5	238.6	220.5	237.6	228.2	261.7	245.9	244.0	314.1	309.2	278.7	174.3
126	MR	254.7	257.4	258.4	260.7	276.5	291.3	255.7	290.1	267.9	257.7	374.8	338.0	541.0	344.8
127	MR	243.0	247.0	257.0	248.0	237.0	252.0	229.0	260.0	245.0	241.0	331.0	309.0	365.0	180.0
128	MR	240.0	245.0	254.0	244.0	233.0	249.0	226.0	256.0	241.0	238.0	306.0	327.0	349.0	179.0
129	MR	247.6	252.4	259.2	255.0	245.0	259.1	237.3	263.7	251.2	248.5	320.7	264.8	306.6	186.7
130	MR	252.0	252.1	252.5	252.9	253.2	269.0	246.0	266.2	257.1	247.7	294.6	276.5	297.4	181.7
131	MR	243.0	248.0	256.0	248.0	236.0	252.0	229.0	259.0	245.0	242.0	333.0	309.0	362.0	181.0
132	MR	242.0	246.4	255.8	246.8	236.0	251.2	228.2	258.0	243.6	239.8	327.6	308.0	364.0	179.8
133	MR	243.0	248.0	257.0	248.0	237.0	253.0	230.0	259.0	245.0	242.0	333.0	309.0	364.0	181.0
134	MR	253.0	252.0	251.0	252.0	254.0	269.3	246.0	267.3	257.3	246.0	276.7	277.7	290.7	176.0
135	MR	243.0	248.0	256.0	248.0	237.0	252.0	229.0	259.0	244.0	241.0	327.0	309.0	363.0	178.0
136	MR	245.1	250.0	250.8	248.0	251.8	256.9	229.3	250.4	251.0	248.0	431.3	388.4	460.5	421.2
137	MR	235.7	238.7	240.3	232.4	227.1	234.2	218.2	262.7	246.3	236.9	339.2	380.4	323.6	214.6

138	MR	242.9	246.8	253.5	243.5	228.3	245.6	229.1	259.1	244.5	242.3	336.6	323.0	316.5	190.6
139	MR	258.4	262.8	262.7	262.0	270.0	286.2	254.3	288.8	267.2	259.4	336.2	300.1	304.5	268.4
140	MR	233.4	238.3	240.7	242.3	255.9	268.7	230.2	263.8	252.4	241.5	382.9	357.4	466.5	323.8
141	MR	260.6	262.1	261.5	263.4	275.8	288.0	261.9	285.3	267.5	261.3	337.8	291.9	365.8	337.6
142	MR	245.8	248.0	250.9	235.6	216.8	233.0	227.3	263.3	246.9	244.2	306.7	297.4	267.9	175.8
143	MR	250.8	252.8	257.6	264.0	261.2	269.5	245.1	259.8	252.7	252.0	303.1	305.2	271.1	195.5
144	MR	246.7	247.1	249.2	250.5	265.3	279.6	244.4	282.3	259.5	249.2	346.5	293.8	539.4	394.2
145	MR	247.6	249.9	251.2	247.8	250.8	257.0	231.2	254.2	255.1	249.2	235.3	146.9	199.6	386.1
146	MR	250.5	256.0	249.5	250.3	256.2	257.8	239.5	267.9	265.3	255.7	71.1	57.0	57.0	156.3
147	MR	253.3	257.8	244.5	241.7	246.0	245.7	234.8	260.3	258.6	254.3	40.9	30.8	24.8	113.0
148	MR	255.8	260.0	246.4	245.2	249.6	249.2	236.4	264.6	261.8	255.4	54.6	40.2	34.4	127.6
149	MR	267.4	267.2	254.1	249.5	252.0	252.9	247.7	262.5	263.4	257.4	23.5	31.9	68.5	183.1
150	MR	222.2	223.1	216.8	216.9	221.1	222.7	208.6	232.5	229.5	223.2	57.4	50.2	77.9	191.1
151	MR	253.8	259.5	244.6	240.1	245.4	244.9	236.4	258.1	258.4	253.8	26.5	22.9	19.8	97.8
152	MR	241.2	243.5	235.1	235.1	237.7	239.0	231.3	245.8	248.2	241.3	89.1	56.7	76.6	183.7
153	MR	247.9	254.3	250.7	251.5	257.0	259.7	240.2	265.8	263.2	254.6	85.6	59.7	65.9	162.3
154	MR	254.3	257.7	244.3	240.9	245.8	244.2	235.9	258.6	258.0	255.1	35.1	32.8	36.5	124.8
155	MR	250.3	245.8	238.5	237.3	239.3	238.8	229.6	244.1	245.7	241.9	75.1	84.6	172.6	247.6
156	MR	259.0	262.0	257.0	251.0	254.0	256.0	240.0	259.0	262.0	259.0	383.0	243.0	324.0	466.0
157	MR	270.0	264.0	256.0	255.0	257.0	256.0	247.0	262.0	264.0	261.0	83.0	99.0	194.0	254.0
158	MR	231.3	219.0	202.0	191.5	178.0	191.0	200.8	226.0	235.0	241.8	129.0	134.3	85.3	106.5
159	MR	229.8	228.9	223.5	224.6	226.6	226.8	216.9	233.1	233.8	229.8	121.2	99.9	153.3	253.7
160	MR	262.0	262.2	262.0	263.0	269.6	278.0	258.6	280.2	274.0	263.0	156.2	75.6	77.8	259.8
161	MR	257.0	259.0	259.0	259.4	264.0	269.8	247.0	269.4	266.6	257.6	186.6	94.6	96.6	259.0
162	MR	253.7	256.7	258.3	258.0	262.2	265.7	244.3	265.8	263.8	256.0	188.0	96.8	114.0	270.0
163	MR	245.5	245.9	246.8	247.8	252.6	261.1	235.8	260.4	257.9	248.0	212.6	125.5	201.3	397.9
164	MR	234.4	238.7	237.7	223.5	214.1	224.6	217.0	241.0	240.5	237.5	238.3	231.8	216.1	208.9
165	MR	254.2	259.5	259.0	256.9	264.7	279.9	248.0	286.0	265.9	256.4	338.6	305.9	322.4	271.9
166	MR	208.3	193.8	177.0	165.7	153.9	162.9	168.9	200.0	204.5	214.3	156.7	167.6	103.8	89.3
167	MR	262.0	262.5	263.4	266.3	278.8	289.0	262.7	283.1	268.9	264.4	396.4	373.1	385.8	310.5
168	MR	231.8	229.2	224.5	207.9	198.5	206.5	206.0	233.2	233.2	236.3	400.6	389.3	301.8	249.0
169	MR	237.0	240.0	241.8	239.0	243.2	252.3	219.5	245.2	245.1	240.5	314.9	232.6	338.7	406.2
170	MR	244.4	248.3	255.4	247.7	234.3	250.3	231.8	261.4	246.6	245.1	341.7	315.4	331.4	202.0
171	MR	209.1	208.6	204.4	205.0	208.7	210.9	197.3	218.9	216.0	209.9	59.5	55.0	100.0	220.1
172	MR	184.7	169.7	152.1	133.3	123.9	136.5	140.5	187.3	183.6	192.8	276.6	268.1	215.5	132.6
173	MR	129.1	131.3	129.1	127.8	127.2	122.3	114.2	129.3	129.8	127.6	141.1	154.0	181.7	188.4
174	MR	212.1	214.6	217.9	214.2	205.8	210.9	199.8	215.8	217.2	218.5	203.1	180.3	210.2	224.0

175	MR	236.0	240.0	241.6	238.3	242.4	250.6	218.3	241.9	241.6	238.8	334.6	252.4	359.0	388.3
176	MR	249.1	253.0	253.0	249.2	248.8	248.8	227.7	242.3	246.3	248.5	468.7	387.4	480.0	550.9
177	MR	244.3	249.3	250.3	243.8	240.5	251.1	231.8	273.5	255.9	247.0	343.9	342.1	399.0	267.6
178	MR	244.8	245.7	247.7	244.2	243.7	239.5	230.7	249.2	251.7	248.6	183.6	186.1	240.3	271.8
179	MR	191.7	193.0	199.1	201.1	197.3	190.9	185.2	198.5	197.5	196.2	201.8	182.8	255.9	339.4
180	MR	255.3	254.4	255.0	257.6	268.3	272.1	252.0	266.1	259.1	256.7	320.5	318.9	332.1	300.4
181	MR	249.2	250.6	252.3	237.6	219.3	233.7	229.0	269.1	251.8	247.7	323.8	300.2	283.1	190.8
182	MR	231.9	228.7	231.6	232.5	238.5	246.0	228.7	253.6	241.9	232.3	293.1	146.3	224.5	423.9
183	MR	123.8	126.1	124.9	123.3	122.4	114.4	106.8	121.7	121.5	120.7	95.0	115.5	141.1	183.0
184	MR	212.1	207.0	198.6	181.9	174.6	183.1	183.7	212.7	211.7	214.3	248.8	247.3	202.5	163.6
185	MR	214.0	216.0	213.1	198.7	190.0	200.4	196.9	220.9	220.2	217.1	302.6	288.8	250.0	213.0
186	MR	252.7	254.1	256.2	258.9	256.0	265.6	244.5	264.5	254.8	247.7	275.1	264.6	262.1	194.5
187	MR	236.2	240.4	242.4	240.0	246.4	255.3	221.6	247.8	243.9	239.9	386.7	310.3	438.3	383.6
188	MR	187.5	184.4	185.0	187.8	191.9	197.2	178.6	202.3	194.9	187.4	72.5	44.8	119.7	216.2
189	MR	250.9	252.6	258.6	265.8	266.2	274.6	246.1	264.7	255.0	254.1	294.1	296.7	309.4	232.7
190	MR	180.6	180.5	180.2	178.9	177.9	175.3	163.6	177.5	179.7	178.3	176.6	185.1	226.9	244.4
191	MR	243.1	243.8	247.2	248.6	243.3	245.9	231.8	246.8	248.6	245.6	331.5	288.9	295.3	238.0
192	MR	248.1	248.0	254.2	248.7	248.8	247.0	235.2	254.3	263.2	250.0	284.5	284.8	334.2	298.3
193	MR	136.9	138.3	138.9	138.4	137.1	132.7	120.4	134.2	136.4	133.3	163.7	153.9	165.2	177.2
194	MR	191.6	190.4	190.5	187.9	184.7	183.8	174.5	185.8	189.3	189.7	132.6	151.2	179.0	193.2
195	MR	131.0	131.0	132.5	131.5	127.5	124.5	112.0	129.0	130.5	126.5	154.5	171.5	212.0	223.0
196	MR	243.7	244.9	245.7	243.2	242.3	239.2	230.8	247.6	248.2	246.7	172.7	192.2	253.8	296.2
197	MR	243.8	244.6	247.3	244.6	243.7	243.6	232.2	247.7	252.8	246.3	361.6	337.1	352.0	303.1
198	MR	181.4	180.9	180.4	179.6	178.8	176.0	165.0	178.6	180.8	178.6	219.5	210.5	254.7	269.8
199	MR	253.1	249.1	257.4	250.8	249.6	244.8	237.5	254.0	265.0	250.7	108.9	173.0	203.8	263.1
200	MR	248.6	242.5	245.5	241.2	237.7	233.3	228.1	240.9	244.8	243.5	77.4	145.1	178.2	269.1
201	MR	102.0	104.2	105.2	103.6	105.2	102.2	86.6	97.7	99.3	98.9	105.4	114.7	143.4	179.3
202	MR	244.9	241.8	241.0	239.4	236.2	232.7	227.5	238.0	242.0	242.2	132.2	201.4	288.2	319.9
203	MR	247.2	246.2	250.4	245.5	245.9	244.6	233.4	249.8	256.2	247.2	356.8	331.8	343.0	297.6
204	MR	230.9	235.4	233.1	211.2	192.9	204.7	202.4	242.0	239.4	243.1	211.9	191.0	195.2	74.7
205	MR	137.9	137.7	130.6	113.2	109.7	121.7	125.2	148.7	147.9	143.2	241.6	209.4	201.0	124.2
206	MR	235.8	241.0	254.1	237.6	225.0	235.6	214.9	250.9	234.3	233.4	249.2	262.2	274.2	134.8
207	MR	228.4	226.0	225.4	226.0	226.6	225.0	216.0	226.5	229.1	228.8	240.3	220.6	234.0	250.8
208	MR	248.9	248.0	247.1	245.8	247.4	244.0	234.5	245.7	248.0	248.8	376.3	326.2	277.6	263.7
209	MR	136.0	138.5	135.0	137.1	135.2	130.5	123.8	133.8	131.1	133.1	124.3	149.0	172.4	172.9
210	MR	143.0	140.8	135.6	128.4	122.2	121.0	117.3	137.8	139.7	141.2	101.7	120.5	142.2	133.7
211	MR	244.1	242.5	245.9	231.0	217.7	226.1	219.2	266.1	247.7	241.5	344.5	362.8	328.5	208.6

212	MR	126.4	127.3	128.2	126.8	126.1	119.5	111.4	125.0	123.3	123.0	116.2	144.0	168.6	222.0
213	MR	252.8	257.5	268.8	252.5	241.0	241.4	229.4	268.8	251.9	252.2	182.3	202.1	220.5	122.6
214	MR	254.0	252.4	251.0	244.9	250.8	249.7	250.2	256.8	258.5	253.8	132.3	117.9	168.9	183.9
215	MR	244.1	249.1	252.6	246.3	236.7	244.9	229.7	249.5	247.8	247.0	216.4	228.4	254.0	235.0
216	MR	228.8	232.5	230.0	225.2	224.4	234.0	215.0	257.5	243.6	228.8	313.8	386.1	318.4	205.5
217	MR	236.8	234.8	234.2	234.9	235.8	232.5	221.8	233.5	235.1	236.5	337.8	324.4	274.2	280.2
218	MR	163.2	165.7	163.3	162.9	162.3	156.8	149.5	165.0	166.7	162.7	227.9	247.3	294.0	361.3
219	MR	193.5	196.5	196.5	190.0	179.5	186.5	176.0	191.5	199.0	197.0	236.0	190.5	178.5	158.5
220	MR	58.0	41.6	29.8	8.6	5.5	18.6	16.1	50.2	59.6	68.6	176.4	169.0	125.5	58.8
221	MR	260.6	259.2	257.7	249.1	256.3	257.2	259.5	267.6	267.3	260.1	97.0	81.0	162.5	176.4
222	MR	152.9	146.7	131.3	111.3	105.3	117.7	118.6	147.3	150.3	153.7	167.7	164.6	109.0	67.4
223	MR	256.4	246.0	230.1	212.4	196.8	209.2	209.8	252.2	248.6	257.5	398.8	387.6	354.0	264.6
224	MR	107.2	109.4	101.7	103.5	103.5	98.2	90.5	102.4	99.7	100.6	110.4	139.9	166.4	151.4
225	MR	159.4	162.0	156.5	146.5	135.0	146.2	142.6	163.9	164.8	162.4	238.4	209.2	182.6	132.2
226	MR	261.9	255.4	251.0	251.0	251.3	252.2	241.1	256.6	258.7	256.9	135.3	133.8	249.6	320.6
227	MR	238.3	239.6	240.9	239.1	238.2	234.4	224.6	237.4	243.1	238.9	228.7	224.1	269.4	304.5
228	MR	237.9	242.5	242.0	232.7	222.1	231.8	220.4	243.4	242.8	239.8	225.7	247.6	209.1	193.8
229	MR	234.7	239.8	246.7	223.8	204.1	216.5	206.0	246.1	240.6	243.6	208.6	202.9	215.5	77.9
230	MR	244.9	233.4	243.0	223.9	216.9	221.3	206.1	263.8	241.6	234.9	363.9	381.7	307.2	189.2
231	MR	250.2	254.3	262.7	255.6	245.6	247.6	231.5	267.5	245.5	243.4	230.7	245.1	247.6	152.5
232	MR	242.1	245.5	251.8	240.5	224.6	242.2	227.1	258.0	242.8	240.5	331.9	320.0	305.9	184.0
233	MR	245.4	247.5	250.4	232.3	212.2	229.5	225.1	261.7	245.6	242.5	297.0	294.4	264.1	170.3
234	MR	254.4	256.7	263.8	268.8	271.7	281.7	250.7	276.6	262.9	261.7	344.7	300.8	295.0	233.1
235	MR	245.0	252.0	255.3	256.7	268.7	281.3	248.7	282.3	272.0	257.0	245.7	367.7	440.0	320.7
236	MR	258.0	257.9	258.9	261.2	273.4	280.9	258.1	275.2	264.4	260.6	327.4	333.5	372.7	321.3
237	MR	262.1	262.8	263.3	266.8	279.6	291.6	263.4	285.6	269.2	264.1	391.8	341.6	348.8	303.1
238	MR	245.6	244.0	242.9	239.7	242.9	240.3	236.2	244.6	247.1	246.1	149.2	111.1	160.8	184.6
239	MR	237.6	238.7	233.7	221.6	219.2	230.9	224.7	259.5	254.7	234.2	263.2	323.5	297.6	160.1
240	MR	248.8	253.2	266.7	247.3	233.0	236.0	222.8	262.9	252.3	252.2	174.4	187.7	217.4	110.9
241	MR	247.4	249.0	251.0	235.4	216.3	231.6	227.5	265.9	249.1	245.6	314.9	298.3	273.2	184.0
242	MR	263.0	265.0	265.0	269.0	282.0	296.0	265.0	290.0	271.0	265.0	338.0	290.0	317.0	259.0
243	MR	241.5	246.0	253.5	243.7	229.3	246.7	227.9	257.9	243.1	241.1	333.4	322.4	322.3	192.0
244	MR	252.0	261.0	255.3	253.5	259.0	268.0	236.0	267.8	267.5	258.3	382.5	365.3	395.5	304.8
245	MR	245.0	234.5	237.8	218.6	215.0	220.8	202.1	265.9	246.5	240.4	342.1	355.7	269.1	133.3
246	MR	234.5	230.5	222.0	205.5	197.5	203.5	205.5	235.5	234.0	238.0	246.5	237.0	206.5	174.0
247	MR	256.2	255.1	252.4	237.6	224.2	230.7	223.5	262.6	259.1	264.6	188.6	204.1	181.0	92.1
248	MR	256.6	251.3	238.8	218.5	204.4	213.3	216.6	254.7	252.9	261.1	240.4	242.9	218.8	154.8

249	MR	246.0	249.5	251.0	249.5	256.5	265.5	234.0	260.3	257.5	250.5	386.5	351.5	502.8	369.5
250	MR	209.5	205.7	201.6	179.6	169.7	180.4	174.8	208.2	206.7	209.9	191.5	205.6	156.0	111.2
251	MR	245.9	249.7	260.6	241.3	223.2	229.1	217.9	258.1	251.7	253.7	170.7	184.4	197.3	82.4
252	MR	244.0	231.0	229.5	215.3	217.5	225.0	205.0	266.0	242.0	231.0	257.0	291.0	198.3	114.8
253	MR	236.0	236.0	234.0	224.0	220.0	232.0	223.0	263.0	253.0	231.0	258.0	303.0	325.0	201.0
254	MR	107.8	109.8	111.2	110.6	109.0	106.6	94.2	106.4	108.4	105.2	168.4	174.2	178.2	191.6
255	MR	159.0	158.3	159.0	157.0	155.0	152.0	140.0	155.3	157.3	154.7	155.0	162.0	196.0	209.0
256	MR	250.3	252.7	251.5	246.1	246.7	249.3	228.6	245.9	250.1	249.0	401.8	267.4	333.1	439.0
257	MR	139.0	140.5	142.0	140.0	138.0	137.0	125.5	135.5	137.5	139.0	168.0	158.0	161.5	143.0
258	MR	254.0	249.0	250.0	246.0	245.0	243.0	234.0	250.0	252.0	249.0	74.0	141.0	181.0	326.0
259	MR	261.0	253.5	257.0	253.0	250.5	247.0	239.0	255.0	257.0	255.0	64.0	129.0	160.0	292.0
260	MR	236.6	235.0	229.2	228.9	231.3	232.8	223.4	239.1	239.5	235.9	126.1	106.9	175.9	267.5
261	MR	254.5	258.3	260.0	257.0	257.8	261.0	239.8	260.3	261.5	256.8	200.5	106.0	132.8	299.8
262	MR	246.4	247.6	245.6	247.6	250.4	251.1	243.0	248.8	248.7	248.5	342.2	321.9	342.3	289.5
263	MR	252.5	254.5	251.5	245.8	247.0	247.5	228.8	244.5	249.5	249.5	463.0	319.0	386.8	542.8
264	MR	261.0	251.3	258.7	259.1	261.3	262.5	247.9	270.2	270.2	261.9	164.2	270.5	344.7	321.5
265	MR	253.4	253.4	251.8	253.6	261.7	262.4	248.0	256.9	254.5	253.1	316.9	318.9	352.8	294.2
266	MR	247.4	249.8	253.6	239.5	220.8	237.6	229.9	264.2	248.2	246.2	309.8	305.2	272.9	174.5
267	MR	252.9	254.8	255.6	242.0	223.5	237.7	233.9	273.5	256.6	252.4	331.1	312.6	293.0	194.4
268	MR	260.8	264.4	265.7	266.2	273.0	288.6	257.7	290.1	267.8	261.4	320.5	275.2	273.8	257.8
269	MR	238.3	243.8	245.4	249.8	243.8	245.5	234.9	242.1	240.9	241.5	306.4	298.0	322.3	244.7
270	MR	254.9	258.2	264.1	264.5	260.3	272.1	248.0	278.8	262.5	261.4	296.3	304.5	288.8	227.7
271	MR	257.2	259.5	265.5	269.0	273.0	284.5	253.6	281.9	265.7	263.7	324.4	292.2	285.6	219.0
272	MR	238.3	242.9	244.8	244.2	254.8	265.6	230.4	259.3	254.4	244.9	449.5	402.7	500.4	365.5
273	MR	261.5	262.9	263.5	267.5	280.1	291.4	262.3	284.4	269.0	264.4	452.1	424.0	377.6	291.0
274	MR	263.3	264.7	265.2	268.8	282.2	295.0	265.2	288.8	271.3	265.3	377.5	334.8	334.7	274.0
275	MR	260.3	262.7	261.6	263.4	275.7	290.4	260.8	288.9	267.6	259.6	371.8	324.9	391.9	290.7
276	MR	254.2	256.0	262.6	268.4	273.1	282.8	250.7	274.7	262.1	260.5	335.6	286.7	300.0	231.5
277	MR	256.3	258.6	257.2	257.2	267.9	277.3	243.7	273.8	272.1	258.6	485.1	447.4	495.8	369.4
278	MR	246.1	247.3	245.2	247.3	249.7	250.3	242.5	248.3	248.5	248.3	340.3	323.1	339.9	285.6
279	MR	253.2	254.0	258.5	266.6	272.6	280.8	250.0	268.6	259.4	256.8	297.8	254.2	294.7	219.5
280	MR	252.2	254.4	261.7	268.0	269.4	278.1	248.3	271.0	259.0	259.0	320.9	293.1	313.3	240.6
281	MR	257.0	259.4	265.5	268.7	271.2	282.7	252.9	281.8	265.5	263.3	317.6	292.0	288.1	220.4
282	MR	245.4	249.0	249.6	257.0	251.3	251.0	239.0	245.6	244.9	244.9	276.8	280.3	309.6	241.4
283	MR	159.1	162.5	159.3	164.4	161.3	155.4	150.9	159.5	157.5	158.3	158.3	155.7	186.2	200.0
284	MR	260.2	258.5	257.0	249.5	256.0	255.9	258.0	264.9	265.7	259.8	111.1	95.1	162.2	181.2
285	MR	242.8	244.6	242.4	246.1	243.7	243.8	238.6	243.4	245.5	246.5	291.4	326.5	305.8	237.1

286	MR	226.5	230.5	226.5	205.0	182.0	200.0	197.0	235.5	224.5	223.0	301.5	273.0	243.5	119.0
287	MR	257.7	258.6	257.6	257.6	269.3	280.4	259.2	281.8	264.7	257.9	356.8	285.4	428.8	404.6
288	MR	263.0	247.8	230.8	219.0	203.3	214.0	215.3	254.8	255.3	266.3	422.0	419.3	355.0	265.5
289	MR	252.1	253.8	257.4	266.8	269.6	276.5	247.3	263.5	255.6	253.5	296.1	283.7	272.1	216.4
290	MR	241.0	244.8	251.8	240.1	224.3	242.5	225.8	256.5	241.3	239.7	326.8	317.4	303.1	178.7
291	MR	236.8	242.4	244.2	244.7	257.4	268.3	232.7	262.0	256.6	244.8	424.0	411.9	482.7	347.8
292	MR	238.7	240.2	237.5	232.2	231.2	242.8	226.6	267.4	256.9	235.6	323.7	397.1	375.6	256.7
293	MR	258.0	261.6	262.1	259.7	261.6	265.0	243.6	264.7	266.2	261.5	468.9	467.5	483.5	443.2
294	MR	254.1	258.0	259.1	254.9	250.9	264.8	244.9	281.4	262.1	256.5	317.5	265.2	284.0	244.3
295	MR	231.9	236.3	236.0	230.3	228.6	237.2	218.2	260.6	246.1	233.4	308.7	358.2	323.1	204.8
296	MR	255.7	251.8	249.6	241.6	244.8	247.7	244.6	255.2	257.3	253.0	62.0	41.8	121.4	146.3
297	MR	258.3	263.3	272.0	259.1	247.7	245.6	235.6	275.1	254.8	255.4	186.9	209.8	212.9	127.8
298	MR	253.7	255.0	257.3	258.7	255.9	265.0	243.6	267.7	254.8	246.5	253.4	251.1	260.3	181.3
299	MR	142.2	144.7	143.0	141.6	141.0	134.1	126.6	142.0	142.7	141.0	161.6	178.4	232.5	301.7
300	MR	255.4	260.4	268.8	260.4	248.8	247.5	234.4	273.1	249.8	249.5	203.8	225.0	226.3	137.7
301	MR	251.3	247.4	248.1	246.6	246.7	247.0	231.7	246.8	247.5	245.8	216.8	229.8	281.7	335.2
302	MR	251.0	253.5	249.0	244.0	245.0	247.0	229.5	246.0	250.5	249.5	435.0	295.0	375.5	492.0
303	MR	246.3	247.6	250.3	231.4	214.8	222.3	216.2	256.1	253.2	257.6	162.7	173.9	173.2	66.4
304	MR	245.1	246.2	249.9	244.0	243.0	240.2	229.4	248.6	253.8	249.1	175.3	205.5	238.4	276.7
305	MR	226.5	227.8	226.5	212.7	200.7	208.7	206.5	230.2	229.2	229.7	478.2	456.0	378.5	314.7
306	MR	162.9	163.2	156.9	141.1	136.9	148.8	148.8	171.9	171.2	166.7	265.4	226.6	218.4	139.3
307	MR	169.3	171.4	171.5	177.0	174.5	163.5	161.8	172.1	171.6	167.7	117.5	97.4	131.1	156.7
308	MR	201.6	207.5	206.8	197.4	187.9	197.4	189.7	210.9	210.1	205.6	254.9	223.6	207.2	184.9
309	MR	246.8	247.9	251.1	245.9	245.4	241.3	231.2	252.8	256.3	252.1	164.8	205.9	237.0	284.3
310	MR	192.6	194.1	188.9	175.6	171.2	183.1	177.7	201.8	201.1	195.7	264.0	234.5	222.6	149.4
311	MR	238.0	242.8	242.6	229.8	220.5	230.8	221.1	244.2	244.1	240.9	221.1	222.8	209.3	200.2
312	MR	208.7	210.5	217.6	221.4	215.8	208.2	205.4	216.7	215.5	212.8	223.5	190.5	262.6	305.2
313	MR	204.0	208.6	208.9	201.6	189.7	198.2	189.7	208.4	209.3	205.7	344.7	299.0	258.4	210.7
314	MR	257.1	251.9	241.2	221.6	207.8	215.1	218.0	254.8	252.4	260.2	230.9	231.0	198.6	151.2
315	MR	242.5	237.7	226.0	207.6	196.3	202.7	203.8	239.7	238.1	245.2	226.8	236.0	194.6	154.0
316	MR	240.5	242.1	241.7	241.3	240.4	236.1	228.2	241.1	244.5	241.5	231.2	209.6	276.6	300.4
317	MR	110.5	113.4	111.2	109.8	109.9	103.3	95.2	110.2	110.0	107.2	124.2	140.9	175.7	226.7
318	MR	202.4	202.6	200.6	202.6	202.1	197.6	190.4	204.2	205.4	203.2	210.7	199.0	248.9	251.6
319	MR	143.7	145.0	145.3	144.7	143.3	139.0	126.7	140.0	143.0	140.0	152.3	151.0	162.3	166.3
320	MR	246.2	249.8	255.8	259.0	252.3	253.1	237.7	251.5	253.0	249.1	291.1	247.8	274.2	281.8
321	MR	250.5	250.2	241.4	227.8	218.3	228.5	229.5	252.9	251.0	250.8	213.0	213.8	184.7	157.4
322	MR	55.0	40.3	28.1	5.6	1.9	15.4	13.4	46.6	54.1	63.1	172.1	165.0	119.7	55.0

323	MR	249.9	254.4	260.6	264.5	254.4	260.2	241.1	253.9	253.2	252.0	248.6	236.9	234.3	262.6
324	MR	251.7	254.0	261.2	264.0	256.2	258.8	240.4	253.7	254.6	252.4	217.6	204.9	235.9	263.5
325	MR	242.2	241.5	249.2	246.4	243.6	241.7	225.8	241.7	245.7	242.3	230.6	215.1	274.2	272.1
326	MR	243.7	242.0	237.0	220.2	210.9	218.3	219.2	245.1	245.8	249.6	341.3	332.3	270.9	221.9
327	MR	238.0	237.0	237.0	236.0	234.0	232.0	225.0	236.0	239.0	241.0	262.0	288.0	377.0	404.0
328	MR	244.0	248.8	250.4	238.5	231.4	241.3	227.3	249.9	249.8	247.3	212.5	196.0	226.7	210.4
329	MR	243.4	247.7	250.0	238.1	232.3	241.5	226.2	248.7	249.3	246.5	215.3	198.8	234.7	210.4
330	MR	239.7	244.3	253.7	244.7	233.3	249.0	225.7	255.3	241.3	238.3	321.3	310.3	356.0	180.7
331	MR	236.0	240.9	251.8	239.8	227.8	245.6	221.1	251.5	236.6	233.6	255.5	319.9	317.8	172.6
332	MR	240.9	240.2	241.6	244.1	240.1	249.6	230.4	246.2	244.4	236.4	234.1	297.0	265.3	204.9
333	MR	252.2	255.8	252.2	252.0	257.0	267.4	234.6	268.6	267.5	251.6	489.3	542.0	568.5	463.8
334	MR	242.8	244.1	241.7	243.6	244.6	244.5	238.1	245.6	246.7	246.3	347.2	317.0	346.6	272.9
335	MR	250.1	251.4	250.1	253.8	254.1	254.8	245.8	248.5	250.0	249.8	330.1	311.3	346.8	257.2
336	MR	256.0	260.6	270.7	255.9	244.8	243.6	232.7	272.3	253.6	254.3	183.5	204.9	215.8	125.2
337	MR	250.6	254.6	258.2	265.1	258.4	262.6	244.3	255.1	252.0	251.6	318.9	296.3	294.1	235.1
338	MR	239.0	243.2	253.2	243.2	231.2	247.8	224.2	254.3	239.8	236.5	294.8	323.0	346.2	177.7
339	MR	256.0	256.8	255.9	261.5	270.3	273.1	252.1	259.8	257.2	255.5	275.1	228.7	237.1	187.7
340	MR	234.6	238.8	237.7	233.3	223.3	233.0	219.7	239.9	239.2	236.3	247.5	259.4	220.4	212.7
341	MR	244.4	248.3	243.3	235.4	222.5	232.9	225.2	247.0	244.8	241.9	209.7	233.8	193.4	189.9
342	MR	253.5	254.3	247.8	247.8	249.0	255.0	229.3	254.3	256.8	255.5	338.8	416.8	509.5	426.5
343	MR	251.7	252.0	244.3	233.7	232.0	242.3	235.3	273.7	271.7	248.7	292.0	332.3	351.3	228.0
344	MR	253.5	256.5	269.5	250.0	237.5	237.5	227.5	266.5	257.5	257.5	165.5	176.0	208.5	118.0
345	MR	262.0	250.0	260.0	260.0	263.0	264.0	251.0	272.0	270.0	263.0	100.0	212.0	280.0	286.0
346	MR	251.5	251.8	244.7	234.7	233.5	244.7	236.5	273.7	270.8	248.8	314.3	352.7	364.0	240.0
347	MR	239.0	244.3	253.8	243.5	230.8	248.0	224.5	255.0	239.8	237.3	285.8	329.0	340.8	177.0
348	MR	240.0	245.0	255.0	244.3	231.7	249.0	225.0	256.0	241.0	238.0	290.3	345.7	344.7	177.7
349	MR	244.3	247.3	253.1	241.1	224.5	241.7	229.0	260.6	245.1	243.2	326.7	318.1	295.1	179.7
350	MR	241.2	244.6	251.1	236.7	219.3	238.0	224.0	256.2	241.1	239.2	315.3	304.0	279.2	163.2
351	MR	252.2	255.3	253.3	253.4	262.9	272.9	238.0	269.2	268.3	253.7	469.9	428.7	462.9	353.5
352	MR	255.1	258.0	256.0	254.8	260.0	270.5	242.0	276.5	273.5	254.5	460.9	585.4	561.0	438.9
353	MR	240.0	245.0	254.0	245.0	233.0	250.0	226.0	255.0	241.0	239.0	323.0	310.0	360.0	181.0
354	MR	239.0	244.0	254.0	243.0	230.0	248.0	224.0	254.0	239.0	237.0	268.0	311.0	322.0	171.0
355	MR	252.5	253.8	256.0	260.7	256.9	264.0	243.7	261.5	253.9	247.4	248.0	268.4	271.3	200.0
356	MR	253.5	256.0	261.1	258.1	252.3	260.8	240.0	269.9	252.8	246.4	275.9	266.7	282.9	177.7
357	MR	238.0	242.0	253.0	242.0	229.0	247.0	223.0	253.0	238.0	236.0	274.0	309.0	325.0	171.0
358	MR	251.1	253.2	260.7	266.7	266.4	275.4	246.5	268.2	256.8	256.5	302.1	302.5	337.6	247.1
359	MR	252.1	254.5	257.1	256.4	252.9	266.9	245.1	266.3	256.8	250.4	315.6	275.1	296.4	202.8

360	MR	257.3	260.9	256.6	257.0	260.9	268.1	240.0	267.4	267.5	262.0	402.7	440.2	526.3	436.4
361	MR	257.9	258.2	255.7	256.0	263.0	273.4	238.7	271.7	270.8	257.3	513.9	530.0	536.3	394.0
362	MR	253.8	255.1	248.6	249.0	250.5	256.5	230.5	255.8	258.1	256.0	354.2	420.2	520.8	437.5
363	MR	239.3	243.3	253.3	242.3	230.3	247.3	224.3	254.3	239.5	237.3	306.5	342.0	344.3	180.8
364	MR	253.0	246.0	244.0	243.0	245.0	248.0	226.0	250.0	256.0	252.0	265.0	414.0	473.0	375.0
365	MR	255.0	246.0	247.0	245.0	249.0	251.0	230.0	254.0	259.0	253.0	224.0	355.0	424.0	330.0
366	MR	255.5	245.5	248.5	248.0	251.0	253.0	233.5	257.5	262.5	254.5	212.0	322.0	401.0	316.5
367	MR	264.8	268.6	268.8	269.5	276.3	285.6	257.2	285.2	283.1	271.7	453.1	553.6	583.7	473.3
368	MR	253.0	249.0	244.0	244.0	244.0	247.0	225.0	249.0	255.0	251.0	291.0	426.0	482.0	397.0
369	MR	256.7	259.3	254.0	254.7	257.0	264.0	236.7	263.3	264.0	260.0	389.0	427.0	527.3	438.3
370	MR	259.5	263.5	259.5	260.0	265.0	272.5	244.0	272.0	271.5	264.5	409.0	454.0	525.0	432.5
371	MR	237.7	242.7	252.0	241.7	228.7	246.7	223.3	253.3	238.7	236.0	296.3	352.7	345.0	180.0
372	MR	248.5	251.1	250.7	258.0	252.2	251.2	240.8	246.7	246.8	247.1	274.6	260.0	303.9	240.5
373	MR	249.2	251.4	254.0	261.4	256.0	259.8	241.2	253.7	250.3	246.4	268.3	272.4	300.1	223.6
374	MR	240.0	245.5	254.5	245.0	232.0	249.5	226.5	256.5	242.0	239.0	311.0	323.5	348.5	179.0
375	MR	242.1	246.8	258.4	236.9	218.2	227.8	213.8	254.6	246.3	249.0	188.4	196.9	209.9	80.8
376	MR	238.5	244.0	253.5	243.0	230.5	247.5	224.0	254.0	239.0	237.0	280.5	324.5	336.5	175.5
377	MR	243.1	250.2	251.3	253.3	262.1	274.0	244.1	275.4	268.1	252.9	304.7	415.2	518.2	371.6
378	MR	250.7	254.8	255.0	255.1	266.4	276.5	242.7	271.6	269.2	255.7	415.1	427.1	480.6	391.9
379	MR	252.8	257.4	269.5	250.6	239.1	239.8	228.4	267.9	254.4	254.7	174.8	189.9	216.0	120.5
380	MR	251.2	255.6	268.5	250.4	238.2	239.9	227.1	266.5	251.6	251.8	180.8	198.1	223.0	120.9
381	MR	243.0	248.3	249.3	246.0	242.7	249.4	234.0	251.2	250.2	245.8	239.7	233.7	254.6	225.9
382	MR	235.8	242.6	242.2	237.7	239.2	249.7	226.8	267.2	252.3	239.4	273.5	333.1	350.5	225.3
383	MR	244.4	246.4	244.0	248.1	245.3	245.1	240.2	244.4	245.6	247.2	279.1	306.4	311.9	235.9
384	MR	258.2	262.8	270.4	263.9	252.4	250.1	237.5	276.0	251.4	250.9	206.3	223.8	223.9	139.4
385	MR	255.7	260.5	270.1	258.3	246.5	245.6	233.4	272.7	251.5	251.7	193.4	216.3	223.4	129.1
386	MR	244.5	249.7	257.7	250.5	238.9	254.1	232.1	261.1	247.2	244.5	328.9	288.9	336.5	177.7
387	MR	253.5	252.8	252.2	253.2	261.4	262.5	248.1	259.9	255.6	254.2	291.3	321.7	354.8	301.1
388	MR	231.2	235.9	232.7	229.1	230.9	241.2	220.7	260.7	248.3	231.7	310.3	348.6	334.9	203.8
389	MR	245.2	249.9	253.6	243.5	236.5	244.7	229.1	249.4	250.3	248.0	230.7	218.7	251.7	220.5
390	MR	239.4	246.1	246.9	242.4	243.1	254.0	230.0	270.9	254.2	243.2	306.2	323.1	368.0	258.7
391	MR	239.0	244.0	254.0	244.0	231.0	249.0	225.0	255.0	240.0	237.0	287.0	338.0	342.0	177.0
392	MR	259.0	263.0	259.0	259.0	264.0	271.0	243.0	271.0	270.0	264.0	409.0	453.0	527.0	434.0
393	MR	240.0	244.8	254.8	244.5	231.8	249.0	225.3	255.8	240.8	237.8	289.5	341.0	344.0	177.3
394	MR	240.5	245.5	255.0	245.0	233.0	249.5	226.5	256.5	241.5	239.0	308.5	319.5	351.0	178.5
395	MR	242.1	249.7	248.9	247.0	258.3	274.4	238.5	278.0	260.8	247.6	386.6	395.4	370.7	295.9
396	MR	256.8	257.4	254.5	254.6	261.6	271.6	236.7	270.3	269.5	255.8	492.9	518.4	520.0	396.4

397	MR	245.4	251.3	252.7	254.3	261.9	273.4	243.6	274.2	269.5	253.9	348.6	410.7	498.0	367.4
398	MR	100.4	102.1	102.6	102.0	99.6	95.4	84.2	99.5	100.4	98.3	137.5	126.7	154.8	175.8
399	MR	144.0	145.0	146.0	144.0	142.0	142.0	130.0	141.0	143.0	144.0	188.0	175.0	173.0	158.0
400	MR	135.9	137.3	137.2	136.4	135.4	130.6	119.4	134.4	136.0	133.3	179.4	170.6	190.3	211.9
401	MR	256.0	260.0	261.5	256.3	258.3	260.0	239.0	258.5	260.0	256.5	183.8	128.0	146.0	302.3
402	MR	255.5	256.2	256.8	257.5	262.8	270.5	246.7	269.8	266.2	257.2	194.0	104.9	141.5	349.6
403	MR	254.8	255.3	256.5	256.8	262.0	270.3	245.8	269.0	266.0	257.5	196.3	103.8	171.0	361.0
404	MR	252.1	247.3	248.3	249.4	257.8	269.7	245.4	272.6	264.2	253.1	264.0	174.9	253.1	565.3
405	MR	252.9	255.6	256.2	256.3	260.6	266.2	242.5	266.0	264.1	255.5	199.7	103.7	138.8	318.5
406	MR	258.4	257.2	257.6	259.8	266.3	275.7	255.3	277.7	270.7	260.2	185.4	103.4	142.9	364.0
407	MR	244.7	247.7	247.4	241.7	243.5	249.0	223.9	244.5	247.9	244.4	312.7	191.7	245.8	395.4
408	MR	252.5	254.2	251.0	245.6	246.5	248.1	229.2	245.5	250.5	250.2	447.3	304.6	380.2	521.3
409	MR	242.6	245.5	245.3	239.8	240.3	245.0	219.9	237.8	242.7	241.7	434.1	283.4	357.6	419.3
410	MR	250.9	253.8	257.1	256.9	252.4	266.3	244.2	265.1	255.4	249.9	312.2	269.0	288.4	204.7
411	MR	259.0	258.7	259.2	260.0	266.0	273.0	251.0	273.3	268.7	259.0	162.0	88.7	103.8	280.5
412	MR	235.1	239.8	250.5	236.9	223.0	242.9	219.0	249.6	234.6	232.5	260.2	323.1	299.7	165.1
413	MR	242.3	237.8	240.2	240.9	249.4	262.1	229.3	267.1	247.5	239.0	209.9	150.8	349.3	343.2
414	MR	253.7	256.2	257.9	256.4	257.8	261.2	239.8	261.6	261.7	256.4	216.6	116.2	150.6	313.4
415	MR	236.5	236.5	227.9	206.7	193.0	203.1	208.0	245.7	246.4	252.8	148.1	150.5	144.9	54.3
416	MR	259.9	261.9	265.5	265.4	257.8	260.9	244.4	274.0	256.5	251.6	231.8	227.4	184.4	154.9
417	MR	263.0	248.0	229.5	218.7	200.8	211.9	213.7	254.6	255.8	266.8	461.3	456.9	388.0	300.2
418	MR	252.5	260.5	255.0	253.0	258.0	267.0	236.0	266.5	267.0	259.0	385.5	368.5	411.5	314.0
419	MR	248.0	245.5	240.0	222.5	209.7	217.5	216.0	255.0	254.2	261.1	155.8	165.6	155.0	61.8
420	MR	254.0	238.5	220.5	202.5	185.5	199.0	201.5	249.5	244.5	253.5	488.5	470.5	422.5	309.5
421	MR	254.6	251.9	245.1	228.1	220.0	225.8	228.1	255.7	254.1	256.4	212.3	191.1	173.6	142.0
422	MR	178.5	181.5	185.5	188.0	184.0	177.5	174.0	183.5	181.5	183.0	251.0	215.5	287.5	359.5
423	MR	263.3	248.3	230.3	219.3	202.0	213.0	215.0	255.7	255.7	266.7	437.3	432.7	368.0	279.0
424	MR	182.6	183.0	181.0	181.4	181.1	177.7	168.6	183.0	184.7	181.6	228.0	201.3	242.4	248.1
425	MR	260.5	259.5	250.5	234.0	223.0	232.5	226.5	264.5	259.5	266.5	234.0	239.0	200.5	130.0
426	MR	68.0	62.1	50.0	24.8	16.9	25.0	44.7	62.6	65.7	70.4	185.9	155.6	134.6	67.6
427	MR	32.0	23.0	7.0	-23.0	-32.0	-25.0	0.0	13.0	18.0	30.0	176.0	148.0	136.0	54.0
428	MR	163.1	164.5	165.5	169.7	166.3	155.5	154.3	164.5	164.8	160.8	107.7	92.8	127.5	148.9
429	MR	161.3	161.7	155.4	140.6	136.3	147.4	148.5	172.4	171.5	166.0	234.8	221.7	199.5	140.9
430	MR	112.2	110.2	104.4	88.8	80.0	91.6	93.6	116.0	115.4	113.6	165.4	147.6	140.6	86.6
431	MR	116.5	118.2	108.7	113.5	113.5	106.4	99.3	111.8	109.5	109.7	102.6	109.3	139.9	129.4
432	MR	260.0	254.2	254.3	254.2	260.3	268.7	255.3	281.6	267.1	256.5	216.5	109.4	172.7	324.6
433	MR	262.6	256.4	243.4	229.6	218.5	229.2	223.8	263.0	258.2	267.2	276.8	272.2	234.4	153.1

434	MR	209.7	209.2	204.9	205.5	209.1	211.3	197.7	219.4	216.5	210.5	59.5	54.8	99.2	218.8
435	MR	251.5	246.4	247.1	247.8	256.6	268.8	243.6	272.4	262.7	251.5	258.2	174.8	271.9	525.7
436	MR	176.2	177.3	181.1	185.8	182.1	168.6	168.2	178.7	180.2	176.8	110.5	92.6	132.8	158.3
437	MR	241.3	240.8	248.4	251.4	247.1	239.8	233.0	245.4	247.0	242.7	215.7	192.9	250.9	277.6
438	MR	243.7	248.5	253.6	252.4	242.5	249.6	233.0	249.6	247.5	247.8	206.2	209.1	241.9	245.2
439	MR	243.7	245.3	249.9	249.3	245.9	246.3	232.3	250.2	253.9	247.8	325.9	281.9	320.7	289.3
1	Presente	213.6	211.2	215.0	208.3	201.3	202.9	202.3	210.5	213.6	211.6	248.9	219.3	276.3	272.1
2	Presente	214.5	215.5	215.7	210.7	204.4	205.3	210.0	218.1	221.8	216.5	275.2	235.9	300.7	326.3
3	Presente	48.5	40.4	22.1	2.7	2.3	8.4	31.6	42.6	45.1	48.6	166.9	149.9	139.4	63.4
4	Presente	216.2	216.5	215.1	212.5	203.0	205.1	210.2	214.4	217.0	215.7	277.1	248.6	292.9	286.5
5	Presente	184.9	182.8	181.3	174.2	171.0	166.8	180.8	185.4	187.9	191.8	151.7	134.9	204.6	171.6
6	Presente	214.7	214.8	206.9	197.9	192.3	196.4	206.1	214.5	215.1	216.7	163.9	179.4	217.7	181.3
7	Presente	214.7	215.8	218.0	211.9	205.0	206.0	210.1	218.4	222.6	216.4	268.3	223.2	301.9	314.3
8	Presente	209.4	207.6	203.6	195.0	191.1	194.6	202.3	207.2	209.0	207.6	239.1	232.5	257.5	245.8
9	Presente	219.2	211.4	197.8	180.6	177.8	179.3	196.0	210.5	215.8	221.3	285.9	225.3	212.8	140.0
10	Presente	216.4	203.8	184.4	163.8	154.3	164.3	186.0	205.3	208.5	216.5	328.4	301.4	270.3	161.9
11	Presente	228.9	230.0	228.4	225.8	226.0	228.5	228.6	230.2	229.7	227.7	356.0	415.3	437.8	399.0
12	Presente	230.4	227.1	228.1	225.3	224.1	225.7	227.9	228.9	229.2	227.3	189.1	274.1	358.7	355.8
13	Presente	225.5	225.8	225.1	218.3	219.0	219.4	225.9	225.8	228.5	225.6	105.3	106.4	166.9	226.0
14	Presente	176.0	168.0	157.3	139.2	134.7	145.2	157.1	171.2	173.4	176.8	237.0	231.6	189.8	106.6
15	Presente	159.3	149.3	137.7	127.3	128.3	137.3	147.3	158.0	159.3	159.3	218.0	205.7	179.7	111.3
16	Presente	231.4	222.5	229.2	227.3	230.3	231.4	232.5	234.1	233.6	229.2	151.8	264.5	370.2	359.7
17	Presente	149.8	139.8	124.4	113.8	117.2	126.4	133.4	142.4	148.8	149.4	217.8	197.8	141.2	82.2
18	Presente	233.0	234.0	231.0	228.0	231.0	233.0	233.0	233.0	232.0	231.0	309.0	325.0	388.0	365.0
19	Presente	209.0	206.7	201.2	193.1	191.9	197.4	204.0	205.9	204.9	203.1	248.5	286.6	308.6	261.3
20	Presente	217.5	204.6	190.1	180.7	182.5	195.2	205.3	210.6	214.0	202.6	286.1	283.9	234.4	182.1
21	Presente	220.0	227.0	221.0	218.0	218.0	219.0	219.0	220.0	222.0	221.0	356.0	369.0	404.0	362.0
22	Presente	216.6	214.0	203.8	192.6	190.0	198.0	209.6	212.8	213.2	211.2	216.0	255.0	266.8	164.8
23	Presente	222.8	223.0	219.1	214.2	214.2	218.7	222.4	222.4	220.8	219.2	339.7	396.1	428.0	378.3
24	Presente	223.7	207.7	193.7	184.7	188.7	202.7	211.7	216.7	219.7	205.3	286.0	283.7	231.0	177.0
25	Presente	228.3	227.6	226.3	223.2	225.0	227.7	229.9	231.8	230.8	229.2	295.4	290.0	320.3	314.6
26	Presente	231.0	230.9	228.6	225.4	227.7	231.3	233.8	234.3	232.7	230.7	275.0	250.4	283.0	295.3
27	Presente	228.3	228.0	226.1	222.7	225.1	227.4	230.3	231.2	230.1	228.1	263.4	253.8	318.0	354.0
28	Presente	235.3	236.8	234.9	233.2	235.9	237.2	237.0	238.1	236.1	234.0	270.5	327.5	372.5	315.9
29	Presente	233.0	233.0	230.0	227.0	229.0	233.0	236.0	236.0	235.0	232.0	268.0	259.0	293.0	284.0
30	Presente	224.3	225.8	225.6	222.0	221.6	224.7	228.5	231.2	230.0	227.9	166.1	235.2	296.6	294.7
31	Presente	227.2	227.3	225.1	221.1	223.5	225.5	229.2	229.2	228.1	225.7	248.9	234.4	336.9	396.4

32	Presente	220.0	227.0	222.0	218.0	218.3	220.0	220.0	221.7	222.0	222.0	326.7	328.7	373.0	334.7
33	Presente	233.4	234.1	231.8	228.8	230.8	232.9	233.0	232.7	231.9	231.4	287.3	330.9	388.3	380.7
34	Presente	219.5	212.5	196.0	186.5	191.0	205.5	216.5	220.5	220.5	211.5	299.5	296.5	302.5	197.5
35	Presente	212.4	210.1	200.1	189.4	187.1	194.5	205.6	208.9	208.9	206.6	223.0	266.1	271.6	176.8
36	Presente	215.6	214.9	209.6	192.0	180.5	186.9	205.1	211.4	213.0	213.2	310.1	333.3	320.2	254.0
37	Presente	232.8	233.1	230.4	227.2	229.6	233.0	235.6	236.3	234.7	232.7	271.1	255.4	288.8	286.8
38	Presente	190.7	182.3	171.7	156.3	152.0	163.0	173.7	186.0	189.7	192.0	224.7	212.3	178.3	110.0
39	Presente	196.7	194.5	189.3	176.5	171.9	176.6	186.7	191.0	192.9	192.8	296.1	312.0	276.0	232.5
40	Presente	223.9	223.8	223.3	216.9	217.2	217.3	222.9	223.8	226.3	224.0	113.3	122.0	188.2	248.5
41	Presente	217.0	197.0	180.0	163.5	159.0	164.0	189.0	207.0	215.0	222.0	200.5	177.0	152.5	57.0
42	Presente	210.5	189.5	171.5	158.5	148.5	157.0	183.0	195.5	206.5	212.5	286.5	225.5	131.0	82.5
43	Presente	223.3	218.6	205.8	190.6	183.5	190.0	209.4	221.0	219.1	220.1	265.6	247.0	241.8	156.1
44	Presente	220.7	216.0	202.0	184.0	177.0	187.0	206.0	217.0	219.0	220.7	266.0	235.0	229.3	132.0
45	Presente	217.0	197.0	180.0	163.5	159.0	164.0	189.0	207.0	215.0	222.0	200.5	177.0	152.5	57.0
46	Presente	218.5	210.2	197.9	180.4	175.2	176.6	195.0	209.3	215.1	220.0	280.7	225.1	207.3	135.5
47	Presente	210.4	198.9	181.4	161.7	153.5	163.1	182.4	200.7	203.6	210.8	299.3	280.2	245.5	146.8
48	Presente	208.5	202.0	189.7	175.5	174.2	178.8	192.1	204.5	208.9	213.9	342.8	309.5	273.9	173.6
49	Presente	227.0	229.0	224.7	222.7	222.0	222.3	222.0	224.0	225.7	223.0	59.0	74.3	116.3	258.0
50	Presente	116.3	116.1	116.7	112.4	109.3	108.6	112.3	115.3	112.9	115.3	104.9	106.7	153.1	187.1
51	Presente	130.0	118.1	102.4	88.5	91.5	100.5	112.5	123.1	127.6	130.8	209.4	193.8	150.3	88.3
52	Presente	184.3	164.1	146.3	133.1	123.9	132.6	155.2	171.3	178.7	185.8	240.2	201.9	128.6	79.5
53	Presente	220.6	201.7	181.4	165.5	155.4	163.2	188.0	207.0	214.0	222.5	356.0	302.0	266.3	148.2
54	Presente	180.4	172.0	157.3	144.4	143.5	149.7	163.3	176.5	179.1	183.2	261.3	252.2	217.7	133.3
55	Presente	213.7	212.0	205.1	192.8	183.3	190.0	201.7	209.4	210.6	213.8	245.8	266.1	285.0	238.3
56	Presente	211.9	212.1	210.0	209.0	205.0	208.0	211.3	212.1	214.9	215.0	268.1	288.0	293.0	291.3
57	Presente	221.0	228.0	223.0	220.0	220.0	222.0	221.0	223.0	224.0	223.0	292.0	308.0	347.0	320.0
58	Presente	220.0	227.0	222.0	219.0	219.0	220.0	220.0	222.0	223.0	222.0	306.0	315.0	356.0	324.0
59	Presente	227.0	227.0	224.0	221.0	224.0	226.0	229.0	229.0	227.0	225.0	238.0	223.0	288.0	324.0
60	Presente	217.0	214.0	192.0	180.0	173.0	181.0	200.0	210.0	211.0	212.0	263.0	246.0	231.0	175.0
61	Presente	196.5	188.0	175.0	158.5	153.0	162.5	176.5	191.0	194.0	198.0	248.5	236.5	202.0	123.0
62	Presente	217.5	220.7	220.7	214.8	214.1	216.7	223.7	224.7	224.5	219.2	57.1	50.8	64.6	140.0
63	Presente	220.5	226.0	230.3	229.3	226.3	227.0	228.5	228.0	226.0	223.8	216.5	115.3	108.0	148.8
64	Presente	229.1	232.7	235.4	233.1	230.2	233.4	235.0	235.1	233.3	230.9	229.7	111.3	124.4	161.2
65	Presente	200.9	201.8	201.5	201.2	196.9	198.0	198.0	200.8	202.3	198.8	131.0	129.8	178.9	295.4
66	Presente	229.0	233.0	229.0	222.0	221.0	221.0	224.0	224.0	225.0	226.0	381.0	313.0	352.0	387.0
67	Presente	225.0	231.0	234.0	226.0	223.0	223.0	223.0	222.0	223.0	223.0	201.0	189.0	178.0	234.0
68	Presente	136.6	134.5	132.8	127.7	125.4	117.2	130.9	136.1	137.0	135.6	113.0	99.6	143.5	133.2

69	Presente	63.6	55.8	40.9	23.4	23.1	32.8	51.0	64.2	63.8	63.4	150.2	159.3	151.6	76.4
70	Presente	160.9	161.5	151.6	142.8	140.0	144.2	154.4	162.8	164.6	161.0	327.2	313.6	284.6	185.1
71	Presente	212.3	214.6	213.9	206.6	206.4	207.9	216.2	215.4	217.3	212.5	89.4	84.1	138.6	263.9
72	Presente	239.3	238.7	232.0	228.0	227.0	225.0	229.3	231.0	232.0	226.3	36.7	51.3	87.7	210.0
73	Presente	239.0	238.5	232.0	228.0	227.0	225.0	229.0	231.0	232.0	226.0	37.0	52.0	88.5	211.0
74	Presente	222.0	223.0	218.9	206.2	197.0	203.6	215.9	220.7	221.3	221.7	314.4	286.6	309.7	291.4
75	Presente	224.7	227.8	227.3	215.5	214.4	215.4	226.3	222.5	230.5	224.6	50.8	48.8	88.3	162.7
76	Presente	218.6	216.1	206.9	195.1	190.2	202.2	213.2	218.6	219.5	216.4	337.2	287.2	303.4	245.7
77	Presente	210.0	211.9	211.6	207.7	207.5	208.4	211.6	212.1	211.0	209.3	156.2	148.0	234.4	314.3
78	Presente	187.5	181.5	166.5	147.0	133.0	148.0	168.0	175.5	180.5	182.0	354.5	309.0	267.5	170.0
79	Presente	214.0	215.8	214.5	212.7	215.5	216.2	216.6	215.9	215.0	213.9	240.1	250.1	282.3	297.3
80	Presente	210.7	211.3	209.8	206.9	203.7	206.7	209.6	211.6	214.4	213.5	341.5	291.1	304.9	314.2
81	Presente	211.8	212.8	210.3	208.7	204.5	208.0	211.6	212.4	214.3	214.5	262.1	290.2	296.1	292.0
82	Presente	215.3	219.8	220.6	210.6	207.7	208.7	214.6	212.3	219.3	213.7	50.8	36.1	74.4	132.0
83	Presente	225.3	227.5	226.9	216.8	215.9	216.7	226.0	223.6	229.8	225.0	59.6	59.3	101.1	170.4
84	Presente	199.3	197.8	189.5	169.3	159.3	167.4	181.8	196.1	198.7	200.8	250.7	255.3	234.6	195.6
85	Presente	194.0	189.3	183.0	161.0	147.3	165.0	177.7	183.0	186.3	188.0	328.7	318.7	283.3	184.7
86	Presente	200.6	180.8	153.9	135.3	141.0	149.6	173.5	185.6	189.3	189.8	313.5	300.2	244.9	130.9
87	Presente	207.1	205.3	200.7	180.3	168.3	182.7	194.8	200.8	203.3	205.0	364.6	332.1	323.6	232.5
88	Presente	216.6	214.8	205.2	188.6	181.9	192.1	207.5	215.4	216.3	214.3	360.9	320.2	338.1	228.5
89	Presente	219.5	212.8	198.5	190.7	190.8	198.9	212.6	219.8	215.1	209.5	278.0	265.3	261.8	203.7
90	Presente	201.0	202.3	197.7	185.4	179.7	184.2	194.7	199.4	200.2	199.4	273.1	304.5	283.2	222.7
91	Presente	206.5	207.7	204.3	190.3	181.9	186.1	199.1	204.5	205.4	205.4	303.2	327.4	341.1	264.5
92	Presente	221.1	222.3	217.8	205.7	197.4	203.6	215.5	219.8	220.0	220.1	311.0	292.3	296.9	282.4
93	Presente	217.9	221.3	221.0	217.1	216.3	216.9	216.0	212.4	213.2	216.2	285.2	302.9	339.0	347.3
94	Presente	212.5	212.8	212.2	208.3	206.3	206.7	208.8	211.2	213.8	212.0	121.1	122.9	165.3	217.4
95	Presente	226.2	227.7	227.2	217.4	217.9	218.7	227.6	225.6	230.4	226.2	64.4	62.2	105.1	158.9
96	Presente	218.4	217.7	212.8	206.5	197.8	204.9	213.1	217.8	218.6	218.2	340.2	312.3	301.4	260.4
97	Presente	216.3	210.3	197.3	185.1	184.8	195.0	208.8	215.8	212.4	207.3	333.2	304.9	309.6	219.2
98	Presente	195.7	192.7	186.3	177.9	177.5	183.1	190.0	191.7	190.9	189.1	240.7	276.0	299.2	256.2
99	Presente	220.9	223.0	220.5	217.1	216.5	218.2	219.9	220.6	221.9	220.6	259.8	271.0	325.9	335.5
100	Presente	217.7	217.8	211.9	194.1	181.3	188.8	207.7	214.0	215.7	215.9	314.1	330.2	316.1	246.2
101	Presente	222.0	224.0	220.2	209.4	202.4	207.6	217.8	221.8	222.0	221.6	283.0	283.5	317.2	288.5
102	Presente	212.1	215.6	212.7	203.2	196.1	200.3	209.2	213.5	213.4	213.0	286.4	294.4	344.1	291.9
103	Presente	215.8	215.5	210.7	195.6	186.1	197.8	208.2	214.7	215.8	216.2	339.7	266.3	316.8	238.6
104	Presente	217.5	211.1	199.4	193.1	189.5	196.8	209.5	215.3	214.4	209.2	264.1	285.7	276.0	226.3
105	Presente	198.5	195.5	188.4	180.4	180.8	186.7	192.8	194.9	194.0	192.1	253.8	291.1	294.5	260.9

106	Presente	220.2	221.9	217.9	205.5	197.0	202.5	214.7	219.3	219.8	219.5	303.3	303.8	323.0	293.6
107	Presente	217.5	216.1	207.9	192.9	185.6	196.4	209.8	216.9	218.1	216.5	334.1	293.2	310.0	231.1
108	Presente	208.9	203.8	199.8	178.5	168.8	172.7	193.2	200.4	202.6	203.6	318.2	351.8	322.6	241.6
109	Presente	213.5	211.2	202.7	185.0	178.1	189.3	203.6	211.0	211.4	210.1	382.5	327.9	363.4	227.9
110	Presente	213.7	213.1	208.6	190.5	177.3	187.7	202.8	209.7	212.2	213.9	336.2	305.2	298.8	231.5
111	Presente	202.2	200.4	188.6	173.5	164.1	173.1	187.0	198.4	201.6	201.1	261.1	256.2	224.6	196.2
112	Presente	202.9	198.7	187.2	178.9	173.5	182.2	195.4	199.7	202.3	199.0	297.8	313.4	329.4	212.0
113	Presente	211.3	212.3	210.8	209.6	212.9	214.0	215.4	215.9	213.5	212.1	180.7	198.1	259.7	264.8
114	Presente	226.2	227.1	223.2	213.8	208.0	213.5	222.2	225.2	224.7	224.6	305.1	291.4	307.8	310.3
115	Presente	207.2	201.9	190.8	183.4	178.8	187.2	199.7	204.0	205.8	201.5	283.3	321.0	318.6	211.4
116	Presente	212.3	216.4	217.1	206.3	204.1	204.5	212.2	209.3	217.1	211.3	56.3	43.5	86.3	145.3
117	Presente	207.2	205.0	194.1	179.7	175.7	183.4	194.2	205.7	209.5	206.8	263.1	256.7	250.9	183.8
118	Presente	203.1	200.8	188.3	174.0	164.4	174.0	188.4	198.8	201.8	201.5	265.9	257.5	224.5	198.1
119	Presente	226.5	227.1	225.6	223.8	226.9	228.0	228.7	229.0	226.5	225.1	257.8	265.8	414.2	336.9
120	Presente	211.6	216.2	212.0	203.1	200.1	204.7	210.8	214.4	214.1	212.7	252.7	250.8	296.4	274.9
121	Presente	202.7	200.6	194.4	186.9	186.4	191.9	198.0	200.0	198.9	197.0	257.3	297.5	304.2	264.2
122	Presente	223.4	223.5	221.7	217.8	212.8	215.6	218.8	220.6	222.5	221.2	291.6	274.6	327.4	306.5
123	Presente	215.7	214.2	207.5	187.2	172.8	183.6	202.8	210.2	213.0	214.0	361.0	322.2	318.3	245.6
124	Presente	220.5	220.6	216.9	213.3	204.1	208.1	214.9	219.3	220.5	220.6	322.5	313.1	325.2	281.1
125	Presente	210.8	209.0	203.6	183.5	170.3	183.2	197.9	204.6	207.5	209.2	366.3	335.1	314.5	231.2
126	Presente	227.6	228.5	226.6	224.0	227.0	228.2	229.8	229.3	227.3	225.6	233.7	229.4	377.9	338.4
127	Presente	209.0	206.0	200.0	181.0	172.0	185.0	198.0	205.0	205.0	205.0	350.0	312.0	362.0	222.0
128	Presente	206.0	204.0	199.0	178.0	169.0	183.0	195.0	201.0	202.0	202.0	323.0	328.0	348.0	224.0
129	Presente	215.0	214.5	208.9	192.3	182.8	194.3	206.3	213.2	214.7	214.8	345.2	277.1	321.1	231.1
130	Presente	219.0	213.0	199.2	189.0	190.1	204.2	215.0	219.3	220.0	213.0	317.2	293.3	306.0	213.5
131	Presente	209.0	207.0	201.0	181.0	172.0	185.0	198.0	205.0	206.0	206.0	352.0	312.0	361.0	224.0
132	Presente	208.0	205.2	199.0	179.6	171.2	184.2	197.2	203.2	203.8	203.6	346.6	310.8	361.0	222.4
133	Presente	209.0	207.0	201.0	181.0	173.0	186.0	199.0	205.0	206.0	206.0	353.0	312.0	362.0	224.0
134	Presente	219.0	211.0	195.0	186.0	190.0	203.3	215.0	219.3	218.3	210.0	298.7	292.7	293.7	204.0
135	Presente	209.0	206.0	199.0	180.0	172.0	185.0	198.0	204.0	204.0	204.0	347.0	312.0	359.0	220.0
136	Presente	217.2	221.2	221.1	216.7	215.0	215.1	213.7	209.2	210.7	214.9	326.1	337.2	359.8	380.6
137	Presente	203.7	203.5	200.1	184.5	176.6	180.4	194.2	200.0	201.3	201.5	310.9	338.7	299.2	247.1
138	Presente	228.3	229.3	225.0	217.7	214.7	219.5	225.9	227.3	226.2	225.4	292.1	300.1	300.1	290.5
139	Presente	209.5	208.2	203.9	184.4	172.3	185.9	198.1	204.1	206.6	208.3	375.8	340.7	342.2	247.9
140	Presente	210.6	212.3	211.4	209.8	212.1	212.8	213.3	212.8	211.3	210.9	211.4	218.0	267.9	278.9
141	Presente	228.6	229.1	226.5	222.6	225.3	227.8	230.9	231.0	229.6	227.3	240.0	231.4	304.7	344.6
142	Presente	211.1	209.0	202.7	182.3	168.6	180.6	197.6	204.7	207.7	209.1	359.5	323.5	306.9	233.9

143	Presente	218.9	218.7	216.4	211.2	202.8	208.8	214.1	219.2	219.8	220.0	324.6	331.8	305.0	246.0
144	Presente	219.0	220.2	219.4	216.4	218.1	219.0	221.1	221.0	219.1	218.1	199.1	197.1	319.5	369.4
145	Presente	215.4	220.9	222.2	216.7	213.7	214.5	214.0	214.1	214.7	214.5	235.3	191.1	211.5	289.0
146	Presente	210.6	217.5	220.5	218.3	215.2	215.8	215.7	216.9	216.8	211.2	95.3	61.9	60.1	91.9
147	Presente	208.9	215.8	215.4	209.7	206.0	204.8	208.2	210.3	208.6	206.3	48.9	30.5	24.6	71.8
148	Presente	211.8	218.0	217.4	213.2	208.6	208.2	210.4	212.8	211.8	208.4	67.2	39.6	33.8	76.6
149	Presente	226.4	231.2	226.1	220.6	218.0	219.3	221.7	224.5	224.4	217.4	18.4	26.5	49.4	157.4
150	Presente	178.9	184.7	187.8	185.5	181.6	181.5	180.8	182.9	182.7	177.9	67.4	50.9	62.5	126.1
151	Presente	208.8	217.5	215.6	209.1	206.4	204.9	208.4	209.9	209.4	205.8	29.5	22.3	19.1	66.9
152	Presente	197.8	205.3	206.6	204.4	200.7	202.0	202.6	204.1	204.7	196.1	61.5	41.0	55.1	154.5
153	Presente	211.6	217.9	221.1	219.6	216.6	217.6	218.8	218.9	217.6	212.9	127.3	74.0	75.4	106.9
154	Presente	209.3	216.3	215.3	209.9	206.5	204.4	207.4	210.2	209.5	207.1	37.9	30.8	33.3	84.4
155	Presente	210.2	210.9	207.3	204.2	201.8	202.6	204.6	206.9	208.2	202.6	44.3	55.6	105.9	214.6
156	Presente	229.0	233.0	229.0	221.0	220.0	220.0	223.0	224.0	225.0	226.0	381.0	313.0	347.0	377.0
157	Presente	230.0	229.0	224.0	221.0	219.0	220.0	222.0	225.0	227.0	222.0	49.0	65.0	117.0	220.0
158	Presente	191.3	173.0	157.0	147.5	136.0	148.0	170.8	182.0	191.0	194.8	177.0	156.5	105.5	111.0
159	Presente	187.8	192.7	193.9	192.5	188.4	188.5	188.9	190.9	191.9	186.4	80.4	67.7	102.3	208.4
160	Presente	229.6	233.2	233.0	232.0	232.6	236.2	240.0	239.2	236.6	230.0	175.4	103.0	86.2	156.0
161	Presente	225.0	229.2	230.0	228.4	228.0	230.0	231.0	231.2	229.6	224.6	215.0	131.4	112.6	170.2
162	Presente	222.0	227.7	229.3	227.0	226.3	227.0	228.3	228.7	227.3	223.0	216.0	139.0	137.2	188.8
163	Presente	212.5	216.9	217.8	215.8	214.6	216.6	216.8	217.9	217.9	214.0	218.1	162.6	199.6	248.1
164	Presente	200.7	199.3	190.3	174.9	170.0	178.5	187.6	201.1	203.1	202.1	258.1	242.1	247.1	203.0
165	Presente	224.1	225.7	221.2	213.2	210.0	214.8	221.5	224.0	223.7	222.7	299.1	308.5	316.1	289.4
166	Presente	168.9	149.5	132.2	121.4	111.3	119.5	140.1	156.3	162.0	169.6	197.6	183.4	121.0	88.7
167	Presente	230.0	229.4	227.9	224.7	226.8	229.2	231.7	233.2	232.3	230.4	298.2	298.1	332.9	336.2
168	Presente	196.4	190.2	179.9	166.5	165.2	170.7	182.2	193.5	197.1	201.5	462.3	425.5	354.6	230.7
169	Presente	206.1	211.7	212.8	207.3	203.7	204.1	202.2	200.0	203.2	206.0	239.6	228.2	264.9	314.4
170	Presente	211.3	210.5	206.7	188.3	176.8	189.3	200.8	207.3	209.5	211.1	377.8	333.4	359.2	260.6
171	Presente	165.8	171.5	175.4	173.8	169.8	170.1	168.5	170.6	170.7	165.1	67.8	55.3	75.5	153.2
172	Presente	146.0	126.6	105.9	86.8	80.0	91.5	114.4	142.9	142.3	150.5	322.7	276.5	236.2	120.4
173	Presente	99.1	101.1	99.1	94.7	91.9	90.3	93.2	97.1	97.5	96.6	121.6	135.4	168.1	182.4
174	Presente	178.6	177.8	171.7	162.3	159.2	162.1	172.8	177.9	181.0	184.5	208.0	193.7	235.6	201.5
175	Presente	206.2	211.9	212.6	207.0	203.3	203.2	201.3	197.3	200.3	204.7	247.0	237.2	272.9	313.3
176	Presente	220.1	224.0	224.4	219.1	215.5	214.9	212.7	207.9	210.5	216.7	424.0	402.4	440.3	485.2
177	Presente	212.8	214.4	211.0	197.6	188.6	193.4	206.3	211.6	212.2	212.2	322.8	340.2	389.5	300.2
178	Presente	214.8	214.5	214.9	208.8	204.3	203.1	206.4	216.2	218.7	216.7	136.8	146.5	224.2	268.9
179	Presente	160.7	160.0	164.1	161.2	157.3	155.9	161.1	165.5	164.5	164.2	193.8	167.9	240.4	287.2

180	Presente	223.1	221.2	220.5	217.6	219.2	220.3	222.2	225.8	225.0	223.8	247.8	246.2	287.6	338.0
181	Presente	214.4	211.9	204.7	183.8	169.8	180.4	200.4	208.0	210.9	211.7	365.7	319.3	319.4	249.7
182	Presente	193.8	198.7	203.6	200.5	199.5	202.3	203.1	204.3	200.9	195.4	255.0	172.2	184.3	242.4
183	Presente	93.8	94.7	93.7	88.1	85.2	82.0	85.0	88.7	88.5	88.7	84.0	100.4	127.3	163.5
184	Presente	175.4	166.8	153.3	139.8	139.9	146.5	159.6	171.6	174.7	178.6	293.8	275.3	237.1	145.8
185	Presente	181.8	179.1	168.6	156.3	154.8	163.8	170.3	184.0	184.8	183.2	305.7	292.4	275.4	205.3
186	Presente	219.4	214.1	201.9	194.5	192.4	201.0	213.4	219.3	217.2	212.5	299.9	282.4	270.2	221.2
187	Presente	208.6	213.1	213.2	208.9	206.6	206.7	205.3	201.4	203.1	207.0	252.3	254.2	295.5	320.2
188	Presente	147.1	152.0	157.0	156.5	153.0	154.5	151.4	153.1	152.7	147.8	70.9	51.3	92.1	133.9
189	Presente	218.9	218.6	219.0	214.5	207.4	211.9	214.7	220.5	221.2	222.0	309.0	315.7	351.4	303.8
190	Presente	150.6	151.5	150.2	146.9	143.7	143.3	142.6	146.5	148.7	147.5	128.5	144.3	213.9	264.8
191	Presente	214.1	212.8	212.2	208.0	201.8	206.5	207.0	213.8	216.6	213.6	304.7	260.6	294.1	280.2
192	Presente	218.0	216.0	221.2	213.5	209.9	209.1	214.1	221.3	231.2	217.5	220.5	218.5	311.2	328.1
193	Presente	107.1	109.3	109.9	106.4	103.3	101.7	100.4	103.6	105.4	103.3	125.6	126.8	158.8	194.1
194	Presente	161.6	161.4	160.3	155.9	149.6	150.6	153.4	155.8	158.5	156.9	78.7	104.9	153.9	212.8
195	Presente	101.0	102.0	102.5	99.5	93.5	92.5	91.0	98.0	99.5	95.5	111.5	134.0	200.0	243.5
196	Presente	213.7	214.0	213.9	208.8	204.2	203.8	206.9	215.6	215.8	215.0	125.0	148.6	235.8	300.8
197	Presente	213.6	212.6	214.3	209.0	205.1	206.6	209.6	215.2	220.8	214.3	297.8	266.6	328.0	343.3
198	Presente	151.4	151.9	150.4	147.6	144.8	144.0	144.0	147.6	149.8	148.6	165.0	168.2	241.6	290.2
199	Presente	222.2	218.1	225.6	216.9	210.8	207.2	214.7	221.8	232.0	217.0	68.9	124.2	181.6	277.5
200	Presente	218.0	213.1	215.0	209.2	201.6	198.5	206.3	210.2	213.5	209.8	43.7	96.7	145.9	287.7
201	Presente	71.1	75.2	75.2	72.4	70.2	69.2	66.3	67.7	69.0	65.0	57.3	73.8	112.2	193.0
202	Presente	214.9	212.7	211.0	207.4	200.3	198.6	205.5	207.3	211.0	209.2	77.3	138.4	244.1	346.6
203	Presente	215.7	214.2	218.4	211.5	207.9	207.6	211.7	217.3	224.0	214.5	258.0	239.3	309.7	325.3
204	Presente	187.9	177.6	167.7	151.6	138.5	148.7	170.4	180.5	187.5	187.7	279.6	229.8	218.2	119.3
205	Presente	108.2	103.4	88.0	72.4	75.3	85.6	100.6	114.0	113.8	110.8	213.5	203.4	207.4	116.0
206	Presente	196.8	190.6	186.5	168.9	162.2	170.2	183.2	190.6	187.4	187.7	302.7	285.7	276.6	176.4
207	Presente	192.3	193.9	194.3	192.4	188.6	189.5	189.4	191.7	194.6	191.3	120.5	119.4	154.9	230.5
208	Presente	215.9	215.5	214.6	211.8	209.4	209.8	210.5	214.7	216.2	215.4	220.4	202.6	226.9	266.6
209	Presente	105.0	106.1	100.9	98.1	96.3	96.5	101.0	101.8	98.2	101.1	124.1	142.0	166.2	147.9
210	Presente	110.0	105.8	92.9	78.7	76.9	77.7	92.3	102.7	104.7	108.0	106.6	129.2	156.3	120.1
211	Presente	209.8	204.5	198.9	176.2	164.6	170.4	193.3	201.0	203.5	204.3	354.6	356.1	340.6	262.6
212	Presente	95.6	95.3	95.7	90.0	88.0	86.5	89.2	92.0	90.3	91.0	105.4	126.4	153.1	192.5
213	Presente	212.6	206.2	201.8	186.8	181.4	178.8	197.4	209.2	204.0	204.6	255.7	236.6	234.0	161.1
214	Presente	219.1	220.6	220.4	211.8	210.8	211.3	218.7	217.6	223.1	218.8	68.0	69.9	108.7	173.6
215	Presente	210.8	210.0	202.7	191.0	183.6	189.8	200.7	208.9	210.2	212.4	228.0	244.2	285.1	219.3
216	Presente	197.8	198.5	192.0	181.2	177.7	183.3	192.0	195.9	196.4	195.0	273.0	316.5	273.9	222.4

217	Presente	202.8	202.4	201.7	200.5	197.8	197.8	197.7	201.6	202.9	201.9	181.6	189.5	215.0	271.0
218	Presente	133.2	134.6	132.2	128.7	125.7	124.0	127.6	132.1	133.7	131.7	195.3	213.6	270.3	339.6
219	Presente	160.5	159.5	149.5	141.0	138.5	142.5	149.0	154.5	163.0	163.0	223.5	206.5	196.5	143.5
220	Presente	19.0	-2.4	-18.2	-40.1	-39.0	-26.7	-9.1	5.2	19.6	28.6	196.3	170.2	131.5	47.9
221	Presente	226.1	228.2	227.7	216.8	216.4	217.2	227.5	224.5	231.3	226.0	55.0	53.3	98.9	166.0
222	Presente	114.7	103.7	84.3	67.1	67.6	79.6	93.6	104.6	111.3	115.7	184.7	169.8	114.3	53.6
223	Presente	217.1	201.3	179.5	159.1	146.8	158.7	182.3	205.0	207.4	215.6	466.2	403.9	385.0	231.4
224	Presente	76.2	77.4	68.3	64.8	64.6	64.2	67.7	70.4	67.7	69.0	112.0	135.9	163.6	132.5
225	Presente	127.4	125.2	110.1	100.1	96.9	103.4	116.3	126.9	128.8	128.4	214.3	218.2	198.7	120.6
226	Presente	223.2	221.4	218.4	216.0	212.3	215.2	216.1	220.3	222.4	218.7	70.6	78.3	151.0	285.1
227	Presente	208.0	207.2	207.0	202.1	197.5	197.5	200.1	203.8	209.8	207.1	186.4	185.2	251.2	282.1
228	Presente	203.2	201.5	191.1	175.2	167.6	175.9	188.5	200.8	203.8	203.0	260.8	257.8	235.7	193.0
229	Presente	191.7	182.6	176.8	160.1	146.6	157.0	174.0	182.2	188.6	189.3	270.8	237.8	232.4	116.7
230	Presente	207.9	191.2	185.9	160.0	156.8	158.4	182.2	191.6	194.6	195.5	393.0	361.0	334.3	242.5
231	Presente	212.5	206.6	197.4	186.5	182.0	181.6	199.5	211.7	200.8	200.6	278.5	267.7	250.5	185.0
232	Presente	208.1	206.6	202.1	182.3	170.0	183.6	196.1	202.3	204.8	206.5	374.8	339.6	333.7	240.7
233	Presente	210.4	207.4	200.1	178.8	165.2	178.1	195.6	202.7	206.0	207.1	358.3	321.1	302.2	227.9
234	Presente	222.4	222.7	224.7	218.8	213.2	216.3	219.4	225.5	226.5	228.6	344.5	310.5	328.9	302.3
235	Presente	223.0	225.0	224.3	221.7	223.0	225.3	228.7	231.3	230.0	227.0	154.7	227.0	283.0	291.0
236	Presente	226.0	224.9	223.9	220.7	222.8	224.5	227.1	229.0	228.4	226.7	241.8	252.9	311.8	347.8
237	Presente	230.1	229.8	227.5	224.4	227.1	230.1	232.4	233.3	232.0	230.1	296.5	280.7	306.2	326.7
238	Presente	210.7	212.0	211.8	206.3	204.2	204.5	208.0	209.0	213.2	210.4	75.4	62.6	109.5	173.7
239	Presente	207.1	204.7	194.7	184.6	182.5	189.9	200.7	203.7	203.5	201.2	223.1	269.5	272.5	183.0
240	Presente	206.8	199.4	198.1	182.3	174.0	174.0	190.8	200.9	202.3	201.6	254.4	223.8	234.0	153.0
241	Presente	212.4	210.0	203.0	182.0	168.0	179.3	198.4	205.8	208.8	209.9	364.3	321.1	311.6	243.5
242	Presente	231.0	232.0	229.0	226.0	228.0	232.0	234.0	235.0	233.0	231.0	265.0	253.0	289.0	282.0
243	Presente	208.5	207.0	202.6	182.7	171.1	185.2	196.9	202.9	205.1	206.8	365.8	334.6	340.3	247.5
244	Presente	220.0	227.0	222.3	218.5	218.8	220.3	220.0	222.0	222.5	222.0	314.3	320.0	360.5	326.8
245	Presente	209.0	194.2	186.5	162.9	160.4	161.6	181.1	191.9	196.4	199.4	341.9	320.9	305.4	186.0
246	Presente	197.5	190.5	177.0	162.5	161.5	165.5	180.0	193.5	197.0	202.0	301.5	272.0	246.5	156.0
247	Presente	214.2	203.4	191.4	174.6	164.2	168.7	190.7	204.9	211.7	214.7	266.8	237.9	204.5	107.6
248	Presente	216.6	205.5	185.6	163.2	153.1	161.3	187.5	205.1	211.1	218.9	305.3	271.7	247.4	142.9
249	Presente	219.3	221.5	221.0	217.5	217.5	218.5	218.0	215.3	215.5	217.5	249.0	261.8	341.0	328.5
250	Presente	170.5	162.6	153.6	134.6	130.8	141.5	151.7	165.2	167.7	170.9	213.5	215.2	166.7	89.5
251	Presente	203.1	194.4	192.3	177.2	164.8	168.1	185.5	195.4	201.0	200.9	246.7	221.3	216.1	115.0
252	Presente	204.0	180.0	159.3	144.3	152.5	160.0	181.0	192.0	194.0	189.0	299.5	308.5	243.8	155.8
253	Presente	205.0	202.0	195.0	186.0	184.0	190.0	199.0	201.0	200.0	198.0	219.0	243.0	290.0	233.0

254	Presente	77.8	80.8	81.2	78.6	74.0	74.6	73.2	76.4	77.4	74.2	110.8	128.8	163.4	212.6
255	Presente	129.0	129.3	129.0	125.0	121.0	120.0	119.0	124.3	126.3	123.7	111.0	125.7	184.7	229.0
256	Presente	219.9	223.7	222.9	215.6	211.8	212.0	212.0	209.9	212.6	216.0	387.5	324.3	340.8	360.8
257	Presente	109.0	111.5	111.0	108.0	103.0	104.0	104.5	105.5	107.5	107.0	102.0	111.5	142.0	160.0
258	Presente	223.0	220.0	220.0	215.0	210.0	209.0	213.0	219.0	221.0	215.0	40.0	90.0	141.0	346.0
259	Presente	230.0	224.5	227.0	221.0	214.5	212.0	218.0	224.0	226.0	221.0	35.0	82.5	125.5	308.0
260	Presente	193.5	198.9	200.2	197.7	193.5	193.9	193.9	195.3	196.8	191.5	103.6	84.8	117.9	217.7
261	Presente	223.5	229.3	231.5	226.5	222.8	223.5	223.8	224.3	224.5	223.8	222.3	155.8	161.0	227.0
262	Presente	214.4	214.8	212.8	210.3	208.5	212.6	215.4	217.7	217.4	216.5	285.5	265.0	314.2	344.1
263	Presente	222.5	225.5	223.5	215.8	213.0	212.5	212.8	210.0	213.5	217.5	443.5	378.0	388.3	449.8
264	Presente	231.4	222.1	229.2	227.3	230.5	231.7	232.7	234.4	234.0	229.3	148.7	262.5	367.6	357.0
265	Presente	221.4	220.2	218.1	215.0	216.4	218.2	219.5	223.2	222.3	221.0	257.1	256.6	316.3	339.6
266	Presente	212.9	210.9	205.3	185.2	171.7	184.2	199.8	206.6	209.5	211.2	362.7	332.2	310.9	231.9
267	Presente	218.3	216.9	209.8	189.0	174.0	184.6	205.3	212.6	215.6	216.4	365.9	332.4	329.3	253.3
268	Presente	229.8	230.4	227.7	220.7	217.0	221.6	227.7	230.1	227.8	227.4	278.8	273.6	273.0	286.5
269	Presente	208.5	210.9	205.6	201.2	194.8	199.1	206.3	207.4	208.3	208.8	322.9	303.9	323.1	278.8
270	Presente	222.6	223.4	223.3	212.9	204.2	209.6	217.0	223.5	224.9	227.4	308.6	328.1	329.9	291.9
271	Presente	225.2	225.5	226.5	219.8	215.0	218.5	222.6	228.0	228.2	230.0	315.1	300.1	312.9	275.8
272	Presente	213.8	215.9	215.0	212.3	213.7	214.4	214.4	212.7	212.6	212.9	260.0	265.5	301.9	312.0
273	Presente	229.5	228.9	227.4	224.3	226.2	229.2	231.3	233.1	232.0	230.4	356.4	357.4	343.4	325.9
274	Presente	231.3	231.2	229.2	225.8	228.2	232.0	234.2	235.2	233.3	231.3	296.2	287.5	304.5	301.2
275	Presente	230.4	230.8	227.2	223.3	225.0	227.8	231.4	230.5	228.4	226.3	258.3	254.9	320.5	290.3
276	Presente	222.2	222.0	223.6	219.0	214.3	217.4	219.6	225.4	226.0	227.3	330.3	290.6	330.8	301.6
277	Presente	228.5	228.6	226.2	223.2	225.1	226.2	226.7	227.0	227.1	225.6	296.6	294.2	330.3	331.7
278	Presente	214.1	214.5	212.5	210.1	208.0	212.2	215.0	217.2	217.2	216.3	284.0	266.0	312.2	339.9
279	Presente	221.2	220.0	220.9	218.8	214.7	217.8	219.0	224.3	224.5	224.0	289.8	252.4	320.8	289.4
280	Presente	220.2	220.4	222.4	217.0	210.4	213.5	216.3	222.8	223.9	226.1	331.0	307.2	354.8	316.2
281	Presente	225.0	225.4	226.1	219.0	213.4	217.1	221.9	227.4	228.0	229.5	313.4	304.3	319.0	278.1
282	Presente	214.9	216.0	209.7	206.4	198.9	201.7	209.4	211.6	212.6	212.6	296.4	291.6	313.6	275.8
283	Presente	220.1	219.8	219.3	217.6	211.6	214.9	216.3	221.7	222.0	221.5	303.1	295.3	306.6	286.1
284	Presente	223.0	202.8	181.0	166.0	152.0	162.0	186.0	207.0	213.0	222.3	518.8	446.3	399.8	256.3
285	Presente	128.1	129.5	124.1	123.5	121.1	120.4	127.1	127.5	124.5	126.3	160.7	151.0	182.6	171.3
286	Presente	112.2	113.7	112.0	106.7	104.0	101.7	104.9	109.0	109.7	109.2	141.8	155.1	210.8	273.7
287	Presente	157.0	157.3	162.0	159.0	155.0	153.3	159.0	163.3	161.7	162.0	196.0	168.7	241.7	295.0
288	Presente	126.0	126.7	128.3	125.3	122.3	121.3	125.7	128.3	126.0	128.3	161.0	139.3	203.7	250.7
289	Presente	197.2	189.2	187.0	170.0	158.1	166.0	180.7	188.5	192.3	192.7	260.9	236.9	237.3	126.7
290	Presente	216.7	215.6	210.3	204.0	202.4	203.4	208.3	212.0	215.1	213.4	234.9	262.1	339.2	273.6

291	Presente	200.5	197.3	193.3	170.9	160.8	178.1	188.0	192.4	194.0	195.2	276.8	323.9	297.7	211.3
292	Presente	229.0	231.6	231.8	228.2	227.3	229.0	228.6	226.2	226.3	228.2	399.7	425.6	431.0	443.4
293	Presente	204.0	204.5	202.5	200.5	196.5	195.5	198.0	199.5	204.5	202.0	239.5	228.5	287.0	327.5
294	Presente	206.9	209.5	209.3	206.5	206.4	206.9	206.8	205.8	205.6	206.6	220.4	205.9	260.5	292.6
295	Presente	224.6	224.0	223.2	219.7	216.8	217.3	217.8	222.5	224.3	223.7	257.0	193.8	242.7	271.4
296	Presente	195.7	179.3	178.0	150.9	148.6	146.2	168.9	177.6	180.4	183.4	409.2	352.4	316.4	225.1
297	Presente	217.0	211.5	203.2	192.5	186.8	182.8	202.4	216.7	204.1	205.3	260.3	252.4	234.0	169.1
298	Presente	227.3	228.0	226.8	224.7	227.7	228.6	229.8	229.7	227.2	226.2	242.9	252.1	405.7	378.8
299	Presente	207.7	206.2	200.5	193.2	192.0	197.4	203.6	205.5	204.4	202.6	261.9	303.6	311.3	267.5
300	Presente	219.0	213.3	206.8	193.6	188.2	182.9	203.6	217.8	208.2	209.8	259.8	245.0	227.3	160.3
301	Presente	226.5	227.1	225.0	220.4	223.0	224.5	228.8	228.0	227.5	224.9	231.5	209.5	312.0	392.5
302	Presente	221.0	224.5	221.0	214.0	211.0	211.0	212.5	211.0	213.5	216.5	423.0	362.5	387.5	404.0
303	Presente	203.3	192.1	185.4	169.9	157.8	163.2	183.2	195.1	202.4	203.6	237.4	212.5	196.6	93.4
304	Presente	215.1	214.2	216.5	207.8	202.8	202.6	204.6	215.6	220.8	217.1	131.7	162.5	223.2	272.0
305	Presente	193.0	190.0	181.8	171.5	168.0	174.3	180.8	192.6	193.3	195.1	498.9	466.4	421.9	300.8
306	Presente	133.1	128.9	114.2	100.2	102.3	112.3	123.9	137.1	137.0	134.2	232.9	219.8	224.8	129.6
307	Presente	137.3	137.4	133.5	131.6	130.5	125.8	136.4	139.1	138.5	135.7	125.3	99.5	135.8	137.4
308	Presente	168.5	169.3	159.4	150.0	146.7	151.8	163.0	172.2	173.4	171.0	247.7	239.3	235.9	170.0
309	Presente	216.8	216.6	218.3	210.3	205.8	204.5	207.0	219.9	223.3	220.1	120.5	160.7	221.0	284.4
310	Presente	163.0	160.0	146.4	135.0	137.2	147.7	153.4	167.3	167.2	163.3	236.3	227.7	229.8	140.3
311	Presente	203.9	202.5	193.4	177.0	171.2	179.4	190.0	203.0	206.0	204.9	247.7	233.8	239.5	196.5
312	Presente	177.1	176.8	181.3	179.4	174.4	172.0	180.3	183.7	182.5	180.8	222.9	180.8	253.6	257.9
313	Presente	172.0	171.6	161.9	154.9	151.1	155.2	163.6	171.1	173.3	171.7	313.1	314.1	283.4	192.4
314	Presente	217.2	206.6	188.9	168.2	158.9	165.4	189.3	206.0	211.2	218.6	294.8	261.6	226.8	138.9
315	Presente	203.7	194.3	177.5	161.2	156.2	162.4	179.0	195.6	198.9	206.0	268.5	260.6	219.5	131.5
316	Presente	210.5	210.8	209.3	206.1	201.7	200.6	204.3	208.3	211.6	210.0	178.5	168.2	258.1	293.4
317	Presente	80.5	82.4	80.3	75.6	73.4	71.3	73.8	77.2	77.0	76.2	108.6	122.9	160.0	209.2
318	Presente	172.4	172.6	170.6	169.6	167.1	165.6	169.4	172.2	173.4	172.2	176.2	172.0	232.8	251.1
319	Presente	114.3	116.0	116.3	112.7	110.0	108.0	106.7	110.0	112.0	110.0	115.0	122.7	156.3	183.7
320	Presente	217.3	217.8	217.8	214.8	207.3	208.0	211.7	217.5	220.0	217.1	274.2	225.6	275.8	284.4
321	Presente	215.3	210.0	193.2	177.6	173.3	180.8	198.6	209.5	213.4	215.9	276.5	247.6	226.3	151.7
322	Presente	16.0	-3.7	-20.4	-42.7	-41.7	-28.7	-11.6	1.6	14.1	23.1	191.4	166.6	125.6	44.6
323	Presente	219.7	219.6	216.1	211.7	202.2	207.8	213.1	216.8	218.6	219.4	251.6	234.2	244.6	254.9
324	Presente	220.5	219.1	218.3	213.5	206.7	209.7	212.8	217.3	220.0	219.9	221.1	200.4	246.3	244.7
325	Presente	211.9	208.5	212.6	205.5	199.9	201.2	199.8	207.7	212.2	210.3	198.8	184.5	263.3	251.6
326	Presente	208.7	203.0	192.0	177.5	175.9	180.8	193.3	205.0	209.8	215.0	405.0	369.8	324.1	208.6
327	Presente	208.0	208.0	207.0	203.0	199.0	200.0	203.0	205.0	208.0	210.0	189.0	223.0	354.0	435.0

328	Presente	210.0	208.8	201.1	186.3	181.0	188.1	197.9	208.6	211.8	211.3	234.1	210.3	259.9	198.9
329	Presente	209.5	207.7	200.0	183.7	179.4	186.3	196.2	206.7	211.3	210.5	239.2	211.2	262.9	202.6
330	Presente	206.3	204.0	198.3	178.3	169.3	182.7	194.7	201.3	202.3	202.3	339.3	312.3	355.3	224.7
331	Presente	202.0	198.9	194.5	172.8	163.8	179.6	190.1	195.0	196.1	196.6	269.3	318.9	312.9	217.9
332	Presente	206.9	199.1	186.9	178.1	174.8	185.3	197.7	202.5	205.3	199.4	273.7	303.1	278.7	202.4
333	Presente	221.0	222.8	218.2	214.4	213.0	214.5	215.7	216.0	217.6	217.6	332.1	389.6	428.4	434.7
334	Presente	210.8	211.4	209.6	207.6	204.7	208.8	212.1	214.7	214.8	214.3	278.8	249.9	309.6	320.0
335	Presente	218.1	218.5	216.9	213.7	209.1	212.8	216.2	217.5	219.0	217.8	309.0	291.6	351.8	327.7
336	Presente	216.0	210.0	204.5	190.3	185.2	181.0	200.7	213.8	206.2	207.6	256.8	239.9	229.9	160.8
337	Presente	219.6	219.6	214.5	210.5	200.0	203.7	213.3	218.0	219.3	219.6	339.8	321.7	318.1	277.3
338	Presente	205.0	202.2	197.2	176.2	167.2	181.8	193.2	199.0	199.8	200.5	310.7	323.0	342.7	222.7
339	Presente	224.0	222.8	220.9	217.5	217.2	219.9	221.1	224.5	224.8	222.5	261.9	220.5	252.5	246.6
340	Presente	200.3	197.8	185.3	172.0	164.0	173.1	187.3	196.6	200.2	199.3	291.1	268.0	241.9	211.1
341	Presente	209.4	206.7	191.3	176.9	167.6	176.7	192.5	203.1	205.6	205.3	254.6	248.4	222.9	185.8
342	Presente	222.5	222.3	216.5	214.8	212.8	214.3	214.3	214.5	216.8	219.8	305.3	398.8	515.8	489.5
343	Presente	220.7	218.0	206.3	195.7	194.0	199.3	211.3	216.7	218.7	214.7	242.7	279.3	317.3	240.7
344	Presente	211.5	203.5	202.5	186.0	179.5	176.5	195.5	205.5	207.5	207.5	252.5	214.0	228.5	161.0
345	Presente	233.0	222.0	231.0	229.0	233.0	235.0	236.0	238.0	236.0	231.0	90.0	206.0	301.0	318.0
346	Presente	220.5	217.8	206.7	196.7	195.5	201.3	212.5	216.5	217.8	214.8	260.3	294.8	327.5	254.0
347	Presente	205.0	202.8	197.3	176.5	166.8	182.0	193.5	199.0	199.8	200.8	300.8	329.0	337.3	222.0
348	Presente	206.0	204.0	199.0	177.7	168.0	183.0	194.0	200.0	201.0	202.0	306.0	345.7	342.0	224.0
349	Presente	210.3	208.6	204.1	184.3	171.6	184.8	198.0	204.6	207.1	208.9	373.8	341.1	327.3	236.6
350	Presente	206.8	204.4	199.3	178.4	165.8	180.6	193.6	199.6	202.4	204.0	359.8	322.0	302.0	214.8
351	Presente	223.8	224.5	221.3	218.3	218.9	220.0	220.5	221.0	222.0	221.0	285.0	276.0	307.2	315.8
352	Presente	206.0	204.0	198.0	178.0	169.0	183.0	195.0	201.0	202.0	203.0	341.0	312.0	358.0	225.0
353	Presente	223.9	225.0	221.0	215.8	216.0	219.0	221.9	221.1	221.5	220.5	330.6	434.1	438.6	412.0
354	Presente	205.0	202.0	197.0	176.0	166.0	182.0	193.0	198.0	199.0	200.0	283.0	311.0	317.0	214.0
355	Presente	219.3	214.0	202.2	196.2	192.8	199.8	212.7	218.4	216.7	212.3	271.9	284.8	278.4	219.9
356	Presente	218.1	211.6	199.2	188.5	187.3	193.8	208.9	217.7	211.0	207.2	307.1	281.7	281.4	207.7
357	Presente	204.0	200.0	196.0	175.0	165.0	181.0	192.0	197.0	198.0	199.0	289.0	309.0	320.0	215.0
358	Presente	219.1	219.2	220.8	214.8	207.4	211.6	214.5	221.3	222.4	224.5	319.0	322.5	385.4	323.6
359	Presente	219.3	216.2	205.9	193.7	190.3	202.6	214.1	219.5	220.4	216.4	340.1	292.6	309.1	242.0
360	Presente	225.6	227.9	224.6	223.0	223.2	225.4	225.0	226.4	226.3	226.0	352.0	408.4	510.2	490.7
361	Presente	226.9	225.7	223.0	220.3	219.9	221.8	221.7	223.6	223.9	222.8	339.0	380.1	398.6	374.4
362	Presente	222.8	223.1	217.4	216.0	214.1	215.5	215.5	216.0	218.0	220.4	318.2	400.6	524.5	501.4
363	Presente	205.3	203.3	198.3	177.3	167.3	182.3	193.3	199.3	200.5	201.3	323.5	343.0	345.3	227.8
364	Presente	222.0	215.0	214.0	211.0	211.0	211.0	211.0	213.0	218.0	217.0	241.0	402.0	496.0	435.0

365	Presente	224.0	215.0	217.0	213.0	215.0	215.0	215.0	217.0	222.0	219.0	204.0	346.0	450.0	381.0
366	Presente	225.5	215.0	218.5	216.0	218.0	218.0	218.5	220.5	225.0	220.5	192.5	314.0	427.5	364.0
367	Presente	233.4	236.0	237.0	235.9	238.4	242.4	242.2	244.0	241.5	236.6	378.2	490.6	535.8	518.2
368	Presente	222.0	217.0	213.0	211.0	209.0	209.0	210.0	211.0	216.0	216.0	265.0	412.0	501.0	460.0
369	Presente	224.7	226.3	222.0	220.7	220.0	222.0	221.7	223.0	223.0	224.0	344.3	401.0	519.0	497.0
370	Presente	227.5	230.5	227.5	226.0	227.0	229.0	229.0	230.5	230.0	228.5	353.5	417.0	502.5	482.5
371	Presente	203.7	201.7	196.7	175.7	165.7	181.0	192.3	197.7	199.3	200.0	312.7	352.7	344.0	227.0
372	Presente	217.6	218.7	213.2	210.6	203.1	205.1	211.5	213.8	214.9	215.1	289.2	269.8	311.5	284.9
373	Presente	217.2	214.1	205.1	200.4	193.3	198.3	210.2	214.9	215.3	212.7	295.1	287.8	308.8	241.3
374	Presente	206.5	205.0	199.5	179.0	169.0	183.5	195.5	201.5	203.0	203.0	328.0	325.0	348.5	224.5
375	Presente	199.1	190.6	188.1	171.7	159.2	166.2	181.8	190.6	195.2	195.8	256.8	231.4	225.3	115.3
376	Presente	204.5	202.0	196.5	176.0	166.5	181.5	193.0	198.0	199.0	200.0	295.5	324.5	332.5	220.5
377	Presente	220.1	222.0	219.9	218.0	217.9	220.9	224.3	226.4	225.2	222.9	195.5	259.4	334.3	332.5
378	Presente	225.2	226.2	224.4	221.7	224.2	225.3	225.9	225.6	225.4	223.8	246.0	269.1	301.9	343.4
379	Presente	211.8	205.0	202.2	185.8	180.6	178.1	196.4	207.3	205.5	205.8	255.7	226.6	232.5	162.0
380	Presente	210.3	203.6	200.7	184.7	178.8	177.3	195.1	205.9	202.9	203.2	256.3	232.9	236.9	162.1
381	Presente	211.9	211.0	200.8	190.7	188.2	194.0	204.0	210.8	213.7	210.8	262.0	241.7	260.7	227.8
382	Presente	206.0	209.4	205.4	195.0	189.4	193.9	202.8	207.3	207.5	206.4	241.1	295.2	306.7	232.5
383	Presente	213.3	214.4	211.5	209.8	205.1	208.4	212.2	213.4	214.6	215.2	260.0	283.8	309.4	294.2
384	Presente	220.2	214.6	205.5	195.8	190.0	185.3	205.5	220.4	206.3	207.6	259.9	249.5	231.1	168.1
385	Presente	216.5	210.6	203.9	191.4	185.6	181.9	201.4	214.8	204.9	206.1	257.4	247.3	233.9	163.0
386	Presente	211.5	210.3	204.6	185.6	175.8	188.3	201.1	207.9	209.3	209.8	349.4	294.7	342.1	221.0
387	Presente	221.2	219.8	218.7	215.7	216.7	217.4	219.6	223.3	222.5	221.7	213.2	235.5	293.0	326.0
388	Presente	201.2	203.0	196.3	187.1	184.5	189.9	197.7	201.2	201.2	199.2	262.7	281.6	277.2	206.7
389	Presente	212.3	210.5	203.6	187.8	182.1	188.8	199.1	208.3	212.6	212.8	251.3	231.4	275.5	212.6
390	Presente	209.0	212.4	209.3	198.7	191.7	195.8	205.3	210.0	210.2	209.7	275.5	304.8	339.1	273.5
391	Presente	205.0	203.0	198.0	177.0	167.0	183.0	194.0	199.0	200.0	201.0	302.0	338.0	339.0	223.0
392	Presente	227.0	230.0	227.0	225.0	226.0	228.0	228.0	230.0	229.0	228.0	354.0	416.0	504.0	485.0
393	Presente	206.0	203.8	198.8	177.5	167.8	183.0	194.3	199.8	200.8	201.8	305.0	341.0	341.0	223.3
394	Presente	206.5	204.5	199.5	178.5	169.0	183.5	195.5	201.5	202.5	203.0	325.0	320.5	349.5	223.5
395	Presente	215.9	219.3	214.6	208.0	206.7	211.2	215.3	218.3	217.8	215.7	286.9	308.2	293.4	290.4
396	Presente	225.2	224.4	221.5	218.6	218.1	219.9	219.7	221.6	222.2	221.1	330.7	377.4	393.5	379.9
397	Presente	221.1	222.4	221.1	218.8	218.2	221.3	224.0	225.7	225.3	223.2	220.9	256.5	320.4	325.0
398	Presente	70.4	73.0	73.5	70.0	65.6	64.2	64.2	68.5	69.0	68.3	111.6	108.6	147.5	185.7
399	Presente	114.0	116.0	116.0	112.0	107.0	109.0	109.0	111.0	113.0	112.0	116.0	125.0	153.0	177.0
400	Presente	105.9	108.3	107.9	104.4	101.4	99.4	99.4	103.4	105.0	103.3	140.1	141.5	181.8	227.7
401	Presente	225.0	231.0	233.5	226.3	223.3	223.0	223.0	222.5	223.3	223.5	201.3	187.5	176.8	233.5

402	Presente	222.5	227.2	227.8	226.5	225.8	228.2	228.9	229.2	228.2	223.5	213.8	141.8	151.7	217.3
403	Presente	221.8	226.3	227.5	225.8	224.0	226.3	227.0	227.0	227.0	223.5	208.0	137.3	175.0	224.0
404	Presente	216.5	219.3	219.3	217.4	217.1	220.0	222.2	223.2	223.1	218.1	222.3	192.7	190.1	307.1
405	Presente	220.9	226.6	227.2	225.3	223.9	225.5	225.5	227.0	226.1	222.3	220.1	144.7	157.3	216.8
406	Presente	224.2	228.2	228.6	227.8	227.8	231.5	233.9	233.4	231.6	226.2	185.6	132.4	136.8	202.3
407	Presente	212.7	217.7	218.4	210.7	206.8	207.7	206.9	205.4	207.7	209.9	304.4	241.6	258.1	315.9
408	Presente	222.5	225.2	223.0	215.6	212.5	212.6	213.1	210.9	214.0	217.7	430.5	366.0	385.5	430.3
409	Presente	211.6	216.5	216.3	208.8	204.0	204.1	202.9	199.1	202.8	207.6	393.8	322.9	344.9	349.5
410	Presente	228.1	221.8	229.2	222.3	215.0	212.4	218.2	224.1	227.5	217.9	51.3	99.7	138.4	267.7
411	Presente	226.0	229.7	230.2	229.0	229.0	232.0	233.5	233.3	231.7	226.0	182.3	120.2	114.3	173.0
412	Presente	215.2	214.3	214.2	211.6	207.7	208.0	208.7	212.7	213.4	210.2	121.3	139.9	208.7	322.6
413	Presente	208.8	210.8	211.2	207.9	205.4	205.7	206.8	208.5	206.9	206.9	120.6	124.3	198.5	248.6
414	Presente	222.7	227.2	228.9	225.6	222.6	223.2	223.8	224.8	224.8	223.4	241.4	169.2	181.8	232.8
415	Presente	193.5	180.5	168.7	151.5	141.5	150.0	175.0	187.5	195.4	196.7	223.1	194.0	174.7	86.7
416	Presente	223.9	217.0	204.0	196.4	192.8	194.9	212.4	223.8	214.4	212.3	270.3	243.2	188.9	170.5
417	Presente	223.9	203.2	180.7	166.8	150.7	161.1	185.1	207.7	213.8	222.9	559.0	482.3	433.8	284.8
418	Presente	220.5	226.5	222.0	218.0	218.0	220.0	220.0	220.5	222.0	222.0	321.5	327.5	380.5	339.0
419	Presente	205.5	191.6	180.0	163.5	154.0	160.1	183.0	197.0	204.7	207.6	229.2	203.6	181.6	83.7
420	Presente	215.0	195.5	172.5	153.5	139.5	152.0	175.5	204.5	203.5	211.5	559.5	479.5	455.5	270.5
421	Presente	218.0	211.4	198.4	182.1	179.6	182.1	198.7	211.4	216.6	220.7	288.2	233.2	216.1	134.6
422	Presente	147.5	148.5	150.5	148.0	144.0	143.5	150.0	151.5	148.5	151.0	245.5	201.5	272.5	303.5
423	Presente	223.7	203.3	180.7	166.7	151.0	161.3	186.0	208.0	213.7	222.7	533.0	458.7	412.3	266.7
424	Presente	152.6	153.0	151.0	149.4	147.1	145.7	148.1	151.4	152.7	151.6	185.4	171.4	229.6	256.6
425	Presente	219.5	210.5	192.5	172.0	163.0	171.5	194.5	210.5	214.5	220.5	312.5	269.0	224.5	133.0
426	Presente	37.8	28.1	7.9	-14.3	-14.7	-7.4	17.9	28.1	31.6	37.4	163.8	144.7	133.6	62.3
427	Presente	2.0	-10.0	-34.0	-62.0	-64.0	-58.0	-28.0	-22.0	-17.0	-3.0	148.0	134.0	129.0	49.0
428	Presente	131.1	130.5	126.8	123.7	122.3	117.6	128.4	131.5	131.0	128.6	115.3	95.0	132.6	130.9
429	Presente	130.7	126.7	112.6	99.9	102.9	113.1	123.1	137.3	137.3	133.2	221.2	218.0	210.6	134.3
430	Presente	81.2	75.2	59.4	44.8	43.0	50.6	66.6	80.0	80.4	80.0	140.0	146.0	146.2	78.0
431	Presente	85.5	86.2	74.4	73.5	73.5	72.2	76.3	79.8	77.5	77.7	107.1	109.2	141.2	114.9
432	Presente	218.5	223.5	226.3	222.2	221.3	224.4	228.2	229.4	226.1	220.5	152.4	111.5	119.1	173.6
433	Presente	221.6	208.4	187.4	167.5	158.0	167.6	192.1	210.0	214.2	221.6	354.3	297.3	261.9	152.1
434	Presente	166.3	172.1	175.9	174.3	170.3	170.5	169.0	171.0	171.1	165.6	67.8	55.2	74.9	152.1
435	Presente	216.3	218.5	218.1	215.8	215.4	217.8	220.3	221.3	221.5	217.0	205.7	183.8	193.5	296.4
436	Presente	144.2	143.3	141.7	138.9	137.1	129.6	142.2	145.7	146.2	143.8	118.2	94.7	138.5	138.7
437	Presente	209.6	206.9	211.6	209.0	204.8	202.7	207.2	212.4	213.7	210.7	211.9	180.7	241.4	236.0
438	Presente	211.3	210.8	204.7	196.3	189.0	194.6	204.2	210.0	210.8	214.0	212.1	219.7	266.5	227.7

439	Presente	214.8	214.3	215.1	209.9	204.7	206.0	209.4	217.2	221.9	215.8	283.7	240.9	314.4	326.2
Código	Modelo	Prec 05	Prec 06	Prec 07	Prec 08	Prec 09	Prec 10	Prec 11	Prec 12	Bio1 mean	Bio2 mean	Bio3 mean	Bio4 mean	Bio5 mean	Bio6 mean
1	HE	287.3	248.8	228.6	233.1	204.7	174.8	226.6	280.7	259.2	98.6	85.8	421.9	315.3	201.1
2	HE	293.1	237.9	189.3	177.3	161.0	147.5	185.4	311.8	260.4	94.3	85.0	440.3	314.7	204.4
3	HE	17.0	8.3	11.2	22.1	42.9	67.9	105.2	139.1	112.5	160.3	76.1	1028.9	211.5	2.2
4	HE	258.2	181.8	128.4	145.2	144.8	135.1	181.0	259.5	261.5	97.5	83.2	423.5	319.6	203.0
5	HE	166.7	126.9	100.2	117.5	134.0	147.1	145.3	143.5	237.2	112.3	82.0	478.7	302.1	166.3
6	HE	128.0	101.1	65.8	76.2	87.3	126.6	191.7	189.9	264.4	110.6	78.4	530.7	332.8	192.3
7	HE	302.0	247.8	218.2	204.4	165.7	152.4	206.8	317.2	261.6	95.3	85.8	429.9	315.6	205.0
8	HE	217.3	255.4	190.1	164.3	116.6	116.4	128.9	133.7	170.1	113.3	86.1	502.0	239.7	108.6
9	HE	90.3	54.6	60.1	28.6	38.9	59.7	104.7	194.2	260.6	113.1	71.1	1125.8	335.9	177.8
10	HE	130.9	90.0	57.1	61.0	79.5	153.7	167.8	287.9	249.2	108.8	63.8	1709.6	323.4	154.3
11	HE	262.5	134.9	84.4	35.3	21.7	34.8	33.1	170.0	270.5	85.3	83.9	463.7	325.6	224.7
12	HE	255.0	113.0	68.6	13.0	8.5	9.8	10.2	78.4	271.4	88.2	83.0	416.4	328.3	222.6
13	HE	320.8	254.9	172.0	150.2	100.9	82.4	154.8	167.8	271.6	95.9	87.7	359.8	326.7	218.2
14	HE	64.3	36.7	28.7	49.0	60.0	127.3	134.0	216.7	194.7	93.0	72.0	1183.0	255.7	127.3
15	HE	268.0	131.8	67.5	12.7	11.1	7.8	8.1	58.3	269.2	78.5	79.8	487.5	320.1	222.2
16	HE	73.7	46.7	38.4	67.1	95.4	143.0	145.6	240.5	218.6	111.0	70.3	1240.0	291.4	134.7
17	HE	51.0	22.4	17.4	40.0	59.2	111.4	99.2	184.6	190.8	107.2	73.0	1031.4	259.4	113.6
18	HE	276.0	157.0	78.0	23.0	16.0	30.0	39.0	137.0	271.0	78.0	78.0	592.0	327.0	228.0
19	HE	73.9	25.8	15.3	7.2	8.7	25.1	92.4	215.2	256.6	109.1	81.2	310.3	325.6	191.9
20	HE	100.6	46.3	30.7	33.1	66.3	108.8	151.1	220.5	257.5	108.8	75.5	728.7	324.1	180.7
21	HE	217.0	95.0	73.0	36.0	35.0	65.0	56.0	222.0	268.0	95.0	90.0	258.0	323.0	218.0
22	HE	54.8	23.2	18.8	4.0	5.0	15.4	70.6	164.2	262.6	111.0	75.4	308.6	336.6	190.0
23	HE	130.7	42.1	20.3	6.0	4.1	9.6	68.3	194.5	271.0	102.9	86.6	321.9	332.2	213.8
24	HE	98.0	44.7	31.0	33.0	66.3	111.3	152.0	220.0	261.3	106.3	74.0	752.0	328.0	184.7
25	HE	266.3	137.4	109.2	90.0	88.1	97.1	144.4	266.9	270.8	86.3	83.6	398.6	325.9	223.2
26	HE	195.6	103.4	91.2	94.0	89.4	99.9	157.9	235.0	272.3	84.1	81.8	452.9	327.7	225.4
27	HE	301.8	163.6	120.0	106.3	99.4	104.0	146.2	243.4	270.8	86.8	83.2	403.3	326.2	222.7
28	HE	208.9	128.7	106.7	60.3	28.4	30.9	78.6	153.4	276.8	83.2	79.1	602.4	336.7	232.3
29	HE	205.0	100.0	86.0	71.0	71.0	87.0	153.0	225.0	274.0	83.0	81.0	455.0	329.0	227.0
30	HE	213.8	93.6	70.5	30.0	9.7	7.3	23.8	65.5	268.4	85.3	80.8	602.3	326.2	221.4
31	HE	323.5	171.1	133.6	112.5	85.3	85.2	129.5	218.6	269.6	87.5	82.8	418.0	325.8	221.1
32	HE	195.3	87.7	67.7	33.0	34.7	64.7	49.3	205.3	268.0	93.7	88.3	290.3	323.3	218.0
33	HE	285.7	147.4	69.2	17.7	10.8	23.4	34.2	138.7	270.0	77.0	78.6	592.9	326.2	228.8
34	HE	102.5	25.5	17.0	42.0	83.0	165.5	183.0	239.0	260.5	102.5	72.0	632.5	328.5	186.5
35	HE	56.6	22.2	19.3	4.0	5.1	14.2	71.7	170.9	258.2	110.0	75.8	296.5	331.3	187.1

36	HE	102.5	47.9	42.8	30.1	95.3	140.4	218.8	258.0	260.9	111.1	68.9	430.7	341.1	180.5
37	HE	199.3	100.3	88.1	80.2	78.7	92.4	155.0	228.3	273.8	83.3	81.7	457.9	328.9	227.2
38	HE	75.7	50.7	36.3	60.0	89.3	134.7	146.7	248.0	230.0	102.7	69.3	1314.7	298.7	152.0
39	HE	78.9	23.2	19.9	12.3	26.5	68.4	142.6	223.3	248.6	121.6	78.5	339.2	325.9	171.9
40	HE	333.0	260.6	182.1	156.4	116.4	96.3	160.3	177.9	270.5	97.4	88.8	348.4	325.7	216.7
41	HE	80.0	46.5	22.5	21.0	16.0	46.5	91.5	128.5	256.0	119.0	68.0	1834.5	334.0	159.0
42	HE	98.0	70.0	37.0	48.5	44.0	103.5	121.0	170.0	241.0	105.0	62.0	2171.0	315.5	148.5
43	HE	68.9	27.1	11.0	15.5	54.6	108.1	143.5	204.9	266.5	112.1	69.8	721.9	343.5	183.5
44	HE	71.7	31.3	13.7	19.3	52.0	98.0	138.0	206.0	265.0	114.0	69.0	836.0	342.0	177.0
45	HE	80.0	46.5	22.5	21.0	16.0	46.5	91.5	128.5	256.0	119.0	68.0	1834.5	334.0	159.0
46	HE	93.3	52.4	49.3	26.9	37.0	62.6	102.8	185.3	260.1	114.1	70.5	1136.0	336.0	175.2
47	HE	117.2	82.5	54.6	62.1	83.1	149.5	160.7	275.6	245.2	108.6	65.2	1596.2	318.6	153.5
48	HE	113.0	76.1	62.8	56.4	66.3	117.5	171.1	282.4	249.7	104.1	72.3	1168.3	317.4	174.2
49	HE	414.0	556.3	452.0	349.7	267.7	161.0	150.0	87.3	271.7	96.0	78.0	638.3	342.7	220.0
50	HE	52.3	28.2	21.6	44.6	59.7	114.8	109.0	190.2	169.5	108.1	71.5	1142.7	238.3	87.9
51	HE	76.1	62.1	32.0	50.1	36.8	87.8	109.2	152.2	219.8	114.0	65.6	1984.9	296.2	123.9
52	HE	159.9	103.1	54.5	49.1	50.9	103.2	168.0	275.0	253.0	111.8	64.5	1905.5	327.5	155.4
53	HE	91.4	69.7	52.6	54.8	60.9	115.3	145.3	242.1	218.8	102.0	70.6	1279.5	286.4	142.8
54	HE	168.4	114.3	64.7	89.1	118.8	162.6	193.4	279.5	254.4	99.7	73.9	620.1	317.1	183.3
55	HE	306.1	219.3	175.3	158.9	138.3	196.0	200.4	260.3	256.4	91.0	85.7	337.7	310.3	205.0
56	HE	179.0	84.0	63.0	30.0	33.0	61.0	42.0	188.0	269.0	92.0	89.0	307.0	323.0	220.0
57	HE	185.0	85.0	65.0	31.0	35.0	65.0	46.0	198.0	268.0	93.0	89.0	301.0	323.0	219.0
58	HE	266.0	141.0	122.0	122.0	100.0	105.0	158.0	217.0	269.0	86.0	83.0	417.0	324.0	221.0
59	HE	79.0	39.0	25.0	34.0	57.0	93.0	145.0	198.0	254.0	105.0	68.0	997.0	326.0	173.0
60	HE	299.3	306.4	190.2	116.3	38.6	18.4	32.0	38.4	264.2	91.3	79.8	617.9	327.0	213.2
61	HE	220.1	314.4	236.7	166.6	72.2	70.3	122.1	225.1	266.3	69.6	78.4	484.4	313.9	225.7
62	HE	220.8	311.3	248.8	216.0	108.3	94.5	149.8	233.3	262.0	75.0	78.5	502.8	311.0	216.5
63	HE	97.3	316.8	204.0	173.0	161.3	99.3	150.5	281.0	262.0	75.0	78.5	502.8	311.0	216.5
64	HE	486.0	471.3	355.9	276.9	216.6	200.1	189.1	171.0	254.9	111.0	88.4	413.0	320.6	195.7
65	HE	534.0	443.0	158.0	55.0	11.0	27.0	113.0	271.0	264.0	77.0	75.0	554.0	323.0	221.0
66	HE	327.0	328.0	140.0	53.0	15.0	22.0	77.0	155.0	265.0	81.0	78.0	586.0	324.0	221.0
67	HE	134.3	114.9	84.3	87.6	91.8	110.3	113.9	117.9	182.8	102.8	78.0	490.5	248.1	117.2
68	HE	54.9	20.3	24.0	39.1	82.1	114.4	131.0	182.7	124.7	147.0	78.9	771.3	208.3	23.1
69	HE	176.3	88.6	77.5	139.4	156.2	252.8	300.1	432.6	219.6	126.9	82.3	479.7	293.3	140.0
70	HE	91.0	64.5	45.0	61.0	89.0	136.0	154.0	267.5	235.5	105.5	69.0	1385.0	305.0	153.0
71	HE	372.9	282.2	181.2	98.4	39.9	29.3	67.5	130.0	259.5	96.1	81.4	565.7	323.8	206.4
72	HE	395.0	486.3	442.0	326.7	190.7	136.3	114.0	70.3	281.0	101.3	75.3	913.3	358.0	225.0

73	HE	395.5	488.0	442.5	328.5	192.5	138.0	116.0	71.5	281.0	101.5	75.5	902.5	358.0	225.0
74	HE	394.5	434.0	307.0	313.0	234.5	230.5	268.5	250.5	249.0	96.5	85.5	427.5	307.5	195.5
75	HE	97.4	44.1	33.4	45.2	59.1	118.5	177.1	220.3	246.3	115.0	72.6	803.9	316.6	159.3
76	HE	348.4	303.1	254.3	209.7	196.3	217.3	230.5	293.7	254.7	89.9	86.1	371.2	307.5	203.7
77	HE	111.7	32.4	18.1	7.0	4.2	8.0	18.4	92.5	262.4	103.5	83.5	379.1	325.7	202.4
78	HE	56.7	7.0	5.0	18.3	57.0	149.0	194.7	248.0	242.3	126.0	68.0	497.7	332.3	147.3
79	HE	51.6	9.6	11.4	8.7	78.2	157.8	352.9	343.5	243.5	140.9	68.3	591.7	350.8	146.2
80	HE	360.3	390.7	285.0	285.7	200.0	190.3	228.7	214.7	211.7	107.3	82.7	547.3	282.3	153.3
81	HE	330.3	388.3	309.0	275.7	180.0	174.0	192.3	187.3	181.0	110.7	85.0	506.0	251.0	121.3
82	HE	54.4	13.5	5.2	13.5	53.9	115.8	150.6	195.2	247.9	126.7	71.2	667.0	335.0	158.1
83	HE	349.7	149.2	110.4	60.6	17.9	14.9	19.2	79.9	253.7	94.2	79.4	619.1	322.8	204.8
84	HE	399.3	289.8	273.8	213.2	165.6	159.4	136.8	206.7	267.3	91.8	88.4	429.2	320.2	216.8
85	HE	31.7	1.0	2.1	8.7	22.3	183.4	201.1	276.3	245.9	143.7	69.9	954.9	339.6	135.3
86	HE	323.5	312.4	207.0	154.4	68.4	50.7	118.6	107.3	272.3	100.2	85.6	502.5	331.0	214.4
87	HE	417.0	224.8	138.6	75.1	26.9	17.7	45.5	89.9	259.2	99.4	78.8	647.3	332.2	206.9
88	HE	107.5	26.8	16.6	28.0	103.2	157.5	191.9	273.7	258.7	104.1	69.8	612.5	329.8	181.9
89	HE	293.3	135.1	105.6	81.4	45.1	37.9	75.2	145.2	272.4	90.6	80.4	608.0	336.7	224.6
90	HE	367.1	386.5	356.0	301.1	205.4	173.2	172.3	213.6	267.4	90.8	72.5	876.0	336.8	212.4
91	HE	112.4	35.6	20.0	21.4	51.3	105.3	163.5	252.7	255.5	111.9	74.6	454.7	331.1	181.9
92	HE	177.1	78.8	68.4	49.2	89.4	103.4	148.2	204.1	264.6	99.4	72.8	415.1	333.0	197.4
93	HE	313.1	172.5	84.9	28.8	23.5	46.1	39.1	175.5	259.0	84.8	76.7	585.2	322.3	212.4
94	HE	367.7	294.3	241.5	185.9	172.8	157.0	174.1	167.9	260.6	100.6	90.4	358.6	316.7	206.2
95	HE	327.4	295.9	193.2	151.9	80.0	61.0	141.9	136.0	272.5	96.9	87.1	420.5	328.3	217.4
96	HE	152.7	51.6	32.5	45.0	97.6	155.8	200.6	283.8	263.1	100.1	75.2	381.2	330.1	197.8
97	HE	110.3	23.5	19.1	27.8	106.5	159.6	192.8	239.4	258.0	106.8	73.2	574.4	329.3	184.6
98	HE	71.8	25.2	16.5	8.4	10.8	29.5	101.2	221.1	244.3	112.5	81.0	314.6	315.6	177.5
99	HE	261.1	123.4	81.6	26.9	13.8	10.3	38.8	84.3	267.6	96.3	85.1	448.7	328.6	216.4
100	HE	103.9	47.8	40.7	30.6	98.1	135.0	214.2	242.9	262.2	108.9	67.6	413.4	341.4	181.3
101	HE	163.8	71.3	75.9	59.1	79.2	108.0	159.1	210.2	267.4	100.5	75.6	455.8	334.5	202.4
102	HE	140.4	64.6	55.2	50.4	51.6	91.2	150.6	210.7	260.0	102.1	78.0	503.9	326.3	196.1
103	HE	110.0	39.8	21.4	25.3	95.5	144.8	212.6	282.4	260.7	104.7	70.1	521.1	334.6	186.1
104	HE	89.0	32.5	19.2	38.4	77.3	135.7	176.1	218.8	260.3	106.5	77.4	499.9	326.2	189.5
105	HE	85.0	28.0	16.4	11.2	11.6	31.5	101.6	205.4	247.7	113.6	82.1	302.4	317.8	180.3
106	HE	166.3	71.2	66.6	48.2	87.6	117.2	166.3	222.6	265.7	102.9	73.6	444.4	335.8	197.0
107	HE	105.1	31.6	19.3	32.2	92.0	146.2	198.0	277.4	260.4	102.9	70.2	572.9	331.4	185.6
108	HE	60.3	29.9	23.2	19.9	80.0	149.8	254.3	300.8	256.0	122.6	68.6	471.6	346.4	168.8
109	HE	107.9	26.1	11.9	26.4	105.9	163.8	202.5	276.0	256.7	107.4	69.9	574.1	330.8	178.1

110	HE	109.6	35.0	24.1	43.1	115.6	175.0	246.6	264.0	258.5	108.5	67.6	414.9	336.7	177.3
111	HE	97.4	26.2	23.1	35.3	53.3	93.3	157.8	219.4	249.3	116.0	74.7	727.8	318.3	164.1
112	HE	125.6	64.6	34.4	46.7	77.9	129.2	163.6	217.5	251.8	116.4	79.9	592.5	318.4	173.5
113	HE	230.3	87.7	84.0	55.5	21.4	8.8	29.3	46.2	257.6	91.0	81.0	644.0	321.0	209.4
114	HE	196.3	90.4	86.3	84.0	89.1	96.6	142.2	216.8	268.1	93.8	76.0	408.7	330.8	208.0
115	HE	123.3	61.5	27.8	32.0	86.1	136.5	159.7	209.0	254.2	113.2	79.7	548.8	320.1	178.8
116	HE	380.7	352.5	220.1	178.3	84.2	69.4	108.1	109.3	262.7	105.2	87.8	490.9	323.6	204.1
117	HE	107.9	33.6	35.6	46.0	60.8	109.6	176.0	249.9	254.2	112.2	77.0	608.2	320.4	175.7
118	HE	98.4	28.9	21.1	35.0	55.0	90.2	151.2	215.7	249.9	116.2	74.4	746.5	319.2	164.4
119	HE	253.2	123.2	92.7	63.7	31.0	31.5	76.5	139.5	270.6	88.7	80.6	604.0	333.0	223.7
120	HE	159.0	63.7	58.8	36.8	25.0	30.4	68.7	135.5	258.6	97.6	79.6	527.9	322.1	200.1
121	HE	86.0	27.3	15.2	9.7	9.6	26.2	94.4	205.4	251.4	110.6	82.4	307.3	319.6	186.4
122	HE	260.8	149.2	111.6	113.9	142.0	172.3	247.0	321.7	264.9	89.7	83.6	304.0	319.5	212.8
123	HE	101.6	31.4	18.4	41.1	101.6	170.0	216.9	277.6	260.0	112.6	65.6	426.4	343.0	172.8
124	HE	196.0	83.0	56.7	74.4	123.1	178.3	215.9	338.9	264.5	96.4	78.2	307.8	326.7	204.1
125	HE	94.7	19.2	13.0	36.4	112.5	186.9	241.0	293.2	256.6	114.3	67.2	447.3	339.1	170.3
126	HE	262.2	126.9	107.0	67.8	42.3	39.0	75.7	147.9	271.3	88.6	80.8	567.3	333.0	224.0
127	HE	95.0	20.0	5.0	22.0	106.0	190.0	226.0	291.0	254.0	112.0	70.0	532.0	332.0	172.0
128	HE	70.0	25.0	3.0	14.0	95.0	171.0	223.0	248.0	252.0	114.0	69.0	528.0	333.0	169.0
129	HE	103.6	34.3	19.8	29.1	104.5	154.2	210.1	280.3	259.4	105.5	69.5	537.4	333.7	182.8
130	HE	101.4	29.0	15.4	45.1	81.0	155.2	193.0	252.2	260.7	102.0	72.0	589.3	329.5	188.9
131	HE	93.0	23.0	7.0	24.0	109.0	187.0	223.0	287.0	254.0	111.0	69.0	560.0	332.0	172.0
132	HE	92.8	19.2	4.6	21.8	105.4	192.8	228.0	292.0	253.2	112.4	70.0	529.6	331.6	171.2
133	HE	94.0	22.0	6.0	23.0	108.0	187.0	223.0	287.0	254.0	111.0	69.0	551.0	332.0	173.0
134	HE	102.0	25.0	18.3	39.0	85.3	164.0	180.7	236.7	260.0	103.3	72.3	630.3	328.0	186.0
135	HE	95.0	18.0	4.0	21.0	105.0	191.0	227.0	291.0	254.0	112.0	70.0	525.0	332.0	172.0
136	HE	396.9	210.5	91.9	28.3	16.9	34.2	53.8	205.0	259.1	87.5	75.4	562.1	324.7	209.1
137	HE	89.6	36.5	10.7	14.7	52.2	95.3	154.5	250.7	254.1	117.6	74.4	434.3	333.9	176.6
138	HE	88.9	19.6	11.2	26.6	106.8	178.5	237.3	300.8	255.6	112.5	68.0	465.9	336.3	172.3
139	HE	184.5	111.7	116.5	95.4	79.3	88.9	129.2	183.7	269.5	90.9	78.8	429.4	329.3	214.7
140	HE	287.2	125.7	103.3	62.7	22.7	15.6	24.2	63.1	256.9	91.5	80.6	638.3	321.9	209.0
141	HE	286.3	152.2	130.2	118.5	93.7	100.2	152.7	213.3	270.6	86.0	82.0	446.0	326.6	222.6
142	HE	94.4	22.1	14.8	38.3	105.9	180.1	232.3	282.4	256.4	115.0	66.6	444.7	340.1	168.6
143	HE	170.7	69.7	53.8	58.4	105.8	153.4	211.2	313.0	263.4	96.7	76.9	355.6	327.9	202.8
144	HE	365.2	173.4	122.3	84.1	39.2	26.7	56.6	117.0	266.5	95.8	79.7	628.2	335.8	216.2
145	HE	345.1	320.8	172.3	78.1	25.3	43.3	91.5	160.9	257.6	84.4	78.2	595.0	320.2	213.0
146	HE	166.2	241.6	170.3	125.8	56.8	41.6	48.7	51.5	264.8	101.3	82.2	558.5	328.2	205.9

147	HE	163.1	266.1	229.6	195.3	95.0	65.2	55.9	42.2	257.3	98.1	80.6	561.8	321.3	200.8
148	HE	176.0	264.0	234.8	169.8	83.4	61.8	59.8	45.8	260.2	98.8	83.0	533.4	321.8	203.4
149	HE	387.3	544.0	456.4	402.1	230.5	189.4	144.8	59.6	273.7	104.4	72.9	936.9	355.6	213.4
150	HE	243.7	377.3	278.8	228.1	125.5	94.5	99.3	89.0	232.2	102.2	84.6	419.5	293.8	173.5
151	HE	164.4	278.1	264.6	246.0	119.6	76.0	64.6	34.8	258.9	102.1	81.8	564.5	325.6	201.4
152	HE	335.8	449.2	416.1	345.3	212.4	148.3	160.8	143.6	252.6	104.2	81.9	431.7	318.0	191.3
153	HE	184.0	255.1	190.6	151.9	69.9	62.1	81.0	90.4	260.4	89.8	81.7	524.8	317.0	207.7
154	HE	216.3	386.2	343.4	296.6	157.7	99.2	88.3	52.1	258.4	99.7	82.9	499.0	322.2	202.6
155	HE	473.3	620.7	509.0	398.4	257.4	180.3	156.9	90.9	258.0	105.7	77.9	792.7	334.1	199.1
156	HE	524.0	442.0	157.0	53.0	11.0	27.0	112.0	267.0	264.0	77.0	74.0	510.0	323.0	220.0
157	HE	471.0	614.0	502.0	391.0	250.0	171.0	156.0	97.0	276.0	104.0	78.0	856.0	352.0	219.0
158	HE	76.0	91.5	29.5	58.5	24.0	87.8	98.8	127.0	228.3	109.0	64.3	2089.0	304.5	136.0
159	HE	418.3	518.8	411.3	320.4	200.0	156.8	166.9	146.8	241.6	105.6	84.9	405.7	305.9	182.2
160	HE	220.2	283.8	192.2	111.2	37.4	24.0	41.0	87.4	273.2	81.0	80.2	563.0	326.4	225.8
161	HE	223.6	308.6	155.8	93.4	33.8	30.6	55.2	97.0	267.6	80.4	76.4	630.2	326.0	222.0
162	HE	262.5	323.2	166.7	80.8	28.7	32.8	54.5	109.0	265.7	80.3	74.5	679.2	326.5	219.5
163	HE	349.9	326.6	184.5	101.3	29.4	31.5	65.1	134.0	257.3	84.6	76.6	672.1	321.0	211.0
164	HE	98.1	58.5	48.1	55.7	77.8	138.1	198.0	236.5	250.5	115.4	76.3	635.6	320.4	170.0
165	HE	161.4	83.6	89.7	73.3	70.2	90.0	143.8	199.2	267.9	95.6	78.7	464.5	330.8	210.0
166	HE	64.2	72.2	30.8	64.1	31.6	80.0	95.2	135.0	207.2	118.0	68.1	1815.7	283.3	111.3
167	HE	282.9	150.5	110.0	92.4	92.1	100.6	141.1	261.1	272.4	86.4	83.6	394.5	327.5	224.7
168	HE	153.7	108.6	88.1	95.5	107.1	200.8	243.9	397.5	238.6	103.8	73.9	1097.9	304.9	165.1
169	HE	427.6	232.6	125.3	54.6	17.7	26.0	57.8	148.2	251.1	91.1	76.4	517.3	318.6	199.9
170	HE	101.8	25.2	15.5	29.3	115.5	185.2	239.2	313.0	257.1	109.7	68.7	468.3	335.2	176.8
171	HE	284.8	431.3	303.1	257.7	145.9	113.2	126.5	120.0	220.5	104.0	85.0	383.9	282.5	160.8
172	HE	81.4	68.7	59.6	65.6	61.7	119.7	154.6	229.5	191.7	135.3	67.0	1898.7	280.1	80.0
173	HE	207.0	225.9	209.8	195.6	126.2	103.8	126.8	131.9	149.2	106.6	88.4	359.4	210.1	90.3
174	HE	192.1	146.7	94.0	148.3	140.0	192.7	227.3	226.2	238.5	129.5	84.5	494.2	311.5	159.2
175	HE	419.4	222.3	119.9	47.6	16.2	24.3	56.4	157.2	251.0	92.4	75.2	513.1	319.6	197.3
176	HE	635.8	347.8	112.6	27.7	9.1	18.4	90.6	290.9	261.4	89.1	73.0	507.3	329.2	207.9
177	HE	143.7	49.6	46.4	39.1	73.6	129.7	195.7	277.9	260.3	107.6	73.9	459.1	333.4	188.6
178	HE	350.8	373.5	323.4	255.3	207.6	174.7	187.0	159.4	259.1	92.5	81.2	664.0	316.5	203.1
179	HE	360.7	392.5	286.1	287.6	198.9	190.4	223.7	214.3	213.9	106.1	83.2	551.9	282.6	155.9
180	HE	330.9	192.9	162.7	155.8	126.6	117.7	190.2	308.6	267.4	91.2	86.1	322.7	322.7	217.6
181	HE	95.9	28.1	17.7	38.9	97.0	167.9	215.1	282.4	259.0	115.3	65.7	443.0	343.9	169.8
182	HE	452.9	510.6	298.7	166.8	53.8	37.7	58.8	94.6	242.0	87.3	80.7	514.4	297.8	190.3
183	HE	211.4	261.0	216.2	209.0	153.5	113.0	123.4	124.9	141.4	105.1	82.6	611.1	208.5	82.0

184	HE	91.4	60.8	49.8	58.7	68.8	129.1	158.9	262.9	215.4	104.3	71.8	1180.7	283.2	138.9
185	HE	115.8	80.1	69.0	87.0	115.1	182.0	206.8	278.5	235.1	121.3	78.3	678.6	308.3	154.4
186	HE	100.1	29.2	18.4	38.2	79.2	149.5	181.1	233.2	261.5	103.6	75.2	515.4	329.2	192.2
187	HE	393.7	180.3	105.0	43.5	19.2	29.0	41.6	152.9	253.3	92.2	76.0	563.8	322.0	201.4
188	HE	282.1	323.2	213.9	127.3	52.7	42.7	45.2	53.1	200.8	99.5	83.6	377.6	262.5	144.1
189	HE	220.7	77.3	62.0	76.9	109.1	162.1	209.1	379.5	263.4	93.1	79.3	343.1	324.2	207.4
190	HE	353.9	398.6	345.8	311.5	176.8	128.9	147.2	148.6	196.2	98.5	89.8	284.7	251.2	142.4
191	HE	258.7	208.3	156.7	154.5	148.5	157.6	176.3	258.2	257.0	92.4	85.5	396.3	309.1	201.8
192	HE	341.8	252.2	242.9	185.3	185.4	159.1	210.6	383.4	261.1	88.4	84.3	496.0	313.4	209.1
193	HE	211.9	191.1	174.9	149.2	96.4	117.0	157.8	164.4	153.4	97.6	91.1	246.4	207.0	100.4
194	HE	279.1	272.1	190.5	196.2	128.6	159.0	201.8	127.0	202.4	92.4	86.2	366.2	256.1	149.4
195	HE	312.5	368.5	334.0	287.5	157.5	118.0	139.0	143.0	145.0	95.5	87.5	419.5	199.5	91.0
196	HE	359.3	390.8	340.2	295.7	219.1	183.1	193.4	155.3	257.3	91.2	81.6	643.7	314.8	203.8
197	HE	347.3	257.0	226.4	159.4	161.1	170.1	210.1	347.7	256.7	89.3	87.4	415.2	307.1	205.1
198	HE	385.4	439.1	368.4	329.1	185.0	141.5	169.3	183.4	198.4	101.0	90.7	255.9	254.0	143.5
199	HE	367.6	312.2	302.3	277.7	212.9	171.7	184.5	193.2	263.3	89.1	76.4	742.2	323.2	207.2
200	HE	421.5	433.7	375.3	346.1	217.9	212.1	214.0	117.1	258.6	97.6	76.7	746.7	325.0	198.5
201	HE	263.7	311.5	257.7	219.0	124.3	146.2	181.5	127.5	110.0	83.2	81.5	355.7	161.5	60.0
202	HE	465.6	448.4	334.2	313.6	208.7	209.0	215.5	137.3	260.1	104.6	82.3	562.4	325.0	198.6
203	HE	331.5	266.1	230.0	184.1	177.8	176.8	216.6	312.9	258.2	88.3	86.3	463.0	309.4	207.4
204	HE	48.6	17.0	8.4	13.3	42.3	109.1	147.5	201.9	239.0	131.2	70.7	994.5	322.6	138.5
205	HE	75.6	33.9	43.4	65.0	108.8	145.6	171.8	232.5	175.7	152.5	78.3	784.1	266.2	72.4
206	HE	84.2	14.4	12.1	30.1	89.8	141.5	165.8	189.9	244.8	121.8	72.3	523.8	329.5	162.2
207	HE	408.5	348.7	259.3	214.8	170.3	163.5	175.2	163.4	243.7	105.1	90.2	342.1	303.6	187.6
208	HE	371.5	303.3	263.2	203.0	185.6	167.9	164.1	210.0	261.3	95.8	89.4	382.5	315.8	209.3
209	HE	123.4	126.3	127.7	83.2	64.4	88.1	90.2	113.0	155.6	109.0	86.2	386.5	222.0	96.2
210	HE	81.2	47.4	26.8	49.5	62.8	113.1	119.9	122.5	167.0	139.2	83.2	623.3	243.2	76.7
211	HE	68.6	24.3	22.4	26.6	94.3	169.5	284.7	316.7	255.6	122.4	66.4	464.5	347.5	164.6
212	HE	252.6	294.5	233.8	227.0	165.6	129.1	124.0	137.0	146.1	107.9	85.5	455.3	212.3	86.7
213	HE	75.5	15.5	5.9	17.0	57.8	120.5	125.0	169.5	258.7	117.9	72.7	624.9	340.0	178.8
214	HE	323.5	278.5	190.3	157.7	99.6	83.1	143.9	130.8	266.9	100.3	88.6	407.5	323.5	210.8
215	HE	165.5	104.8	62.0	81.2	111.1	147.2	201.0	274.9	256.6	106.2	75.9	588.4	322.7	183.6
216	HE	91.3	26.9	21.4	14.3	20.8	50.3	117.6	195.7	249.2	115.6	79.8	354.6	321.6	177.7
217	HE	403.0	353.7	295.3	229.9	225.9	189.6	183.2	207.7	252.9	104.7	90.8	374.6	312.2	197.5
218	HE	417.0	489.9	424.0	377.5	262.6	184.0	228.0	230.8	185.7	111.2	88.0	413.9	249.7	124.0
219	HE	138.0	97.0	64.5	91.5	96.0	156.0	203.0	226.5	221.0	135.5	86.0	471.5	295.5	138.5
220	HE	34.4	28.7	17.2	26.4	46.2	68.9	82.7	126.8	76.7	156.6	71.7	1377.2	176.9	-40.2

221	HE	328.2	316.3	201.6	148.4	78.2	58.8	133.0	129.7	272.8	98.7	86.2	477.0	330.2	216.3
222	HE	32.1	16.7	16.4	39.9	61.0	84.1	76.1	137.2	164.9	134.2	73.8	1118.2	247.1	66.7
223	HE	176.7	122.3	75.5	73.4	101.0	196.8	234.6	404.3	248.9	113.4	63.0	1868.9	325.1	146.8
224	HE	78.1	69.0	75.8	42.5	34.6	63.3	57.2	85.4	127.7	115.3	88.6	248.2	193.6	64.2
225	HE	105.9	52.4	42.2	81.4	106.3	169.0	194.5	273.1	187.9	138.4	81.7	645.5	265.5	96.9
226	HE	587.7	601.8	469.4	381.6	275.0	210.2	164.2	109.5	272.6	108.8	81.3	706.0	345.4	212.3
227	HE	366.7	391.0	304.8	271.7	221.4	209.7	230.2	225.4	252.5	96.7	85.7	519.7	309.2	197.2
228	HE	98.0	27.5	32.5	39.4	55.1	107.1	174.2	234.6	250.7	114.8	75.4	677.0	319.1	167.6
229	HE	47.8	14.1	6.2	13.6	47.4	125.3	149.6	189.1	242.3	128.9	70.9	784.6	327.2	146.6
230	HE	51.9	14.8	12.6	14.3	82.4	164.4	292.0	324.3	254.0	138.8	68.1	604.0	358.7	156.8
231	HE	85.6	19.8	12.0	25.0	84.9	143.2	151.2	186.3	255.0	112.0	74.1	587.8	331.4	181.2
232	HE	90.0	17.7	10.6	29.2	108.6	182.2	238.8	300.4	254.2	113.4	68.0	459.3	335.6	170.0
233	HE	79.8	16.7	11.0	33.1	91.7	170.6	218.7	275.4	256.1	118.4	66.4	465.9	342.2	165.2
234	HE	233.5	126.4	87.0	82.3	121.0	151.8	229.5	332.2	266.4	89.6	80.8	393.7	323.5	213.2
235	HE	218.0	95.3	68.3	30.0	9.3	6.3	20.0	62.0	268.0	85.3	80.7	622.7	326.0	221.3
236	HE	320.6	172.9	132.6	110.3	99.1	101.6	131.1	250.1	269.7	89.1	84.8	361.0	325.1	220.7
237	HE	241.1	126.2	104.2	96.8	94.4	100.9	156.2	255.5	271.8	85.1	82.5	435.7	327.0	224.4
238	HE	341.2	298.6	205.1	177.2	146.4	138.5	178.1	118.8	259.7	102.2	90.4	369.5	316.8	204.2
239	HE	56.9	22.2	19.0	4.0	5.7	14.4	74.2	173.7	253.1	109.9	76.0	309.3	326.0	182.5
240	HE	60.2	11.8	4.9	13.0	45.4	103.1	127.8	175.4	256.3	122.4	72.4	683.3	341.8	173.7
241	HE	94.2	23.8	15.5	39.0	99.8	174.5	220.8	282.0	257.3	115.7	65.9	445.0	342.3	168.0
242	HE	206.0	101.0	89.0	78.0	75.0	91.0	153.0	220.0	272.0	84.0	82.0	480.0	328.0	226.0
243	HE	77.4	20.4	9.2	20.7	97.1	164.6	229.1	284.3	254.8	113.1	68.1	478.5	335.7	171.1
244	HE	188.3	86.3	66.0	32.0	34.5	64.8	47.8	202.0	268.0	93.5	88.8	290.3	323.3	218.5
245	HE	31.1	5.0	3.0	6.0	37.4	139.4	227.7	349.4	256.2	137.6	71.3	518.2	352.0	160.4
246	HE	94.4	41.9	22.1	22.7	32.4	66.7	121.3	194.3	257.0	118.7	67.7	1348.6	337.7	164.2
247	HE	123.4	77.3	44.2	37.3	43.0	98.3	121.9	205.8	250.8	111.0	63.6	1764.7	326.5	153.1
248	HE	276.0	150.0	84.0	41.3	33.0	73.5	43.0	155.8	260.5	85.0	78.8	597.3	322.5	215.3
249	HE	56.0	15.5	6.0	12.1	41.1	89.3	134.0	193.7	253.4	124.9	71.8	831.9	337.7	164.7
250	HE	30.0	4.0	2.0	4.5	34.8	170.8	235.0	256.8	250.0	142.0	68.0	850.8	351.0	144.3
251	HE	101.0	72.0	63.5	50.5	55.0	97.0	145.5	248.5	238.0	105.0	71.5	1227.5	307.0	161.5
252	HE	55.0	24.0	14.0	5.0	8.0	28.0	93.0	220.0	253.0	113.0	79.0	321.0	326.0	184.0
253	HE	59.9	36.5	31.6	66.0	96.1	133.8	131.7	213.1	214.5	113.1	71.0	1212.8	288.7	130.8
254	HE	510.3	412.8	155.3	56.0	16.9	33.6	120.6	265.7	257.8	83.9	75.5	463.6	320.0	209.4
255	HE	200.5	163.5	106.0	126.5	93.5	135.5	192.0	106.5	145.5	78.0	90.0	245.0	189.0	103.0
256	HE	422.0	482.0	317.0	393.0	306.0	237.0	201.0	108.0	265.0	98.0	77.0	706.0	335.0	209.0
257	HE	448.5	425.0	379.0	389.5	261.5	228.5	209.5	128.0	270.0	96.0	73.5	888.5	341.5	212.0

258	HE	279.6	274.6	219.4	191.6	130.0	120.0	151.6	138.8	120.0	88.0	86.6	376.6	172.8	71.6
259	HE	304.0	336.0	301.3	271.7	150.7	118.7	133.3	132.0	173.0	98.0	90.3	293.7	226.7	119.0
260	HE	418.5	503.2	374.9	295.2	179.4	150.4	188.7	200.8	246.9	105.7	86.0	369.3	309.4	187.3
261	HE	279.0	284.8	128.8	41.8	13.0	18.5	60.8	136.3	265.5	82.0	77.3	609.0	326.5	220.8
262	HE	345.3	262.9	188.3	175.1	170.3	208.1	243.3	336.8	260.5	92.9	86.5	351.2	315.2	208.4
263	HE	603.3	465.5	163.3	56.8	16.0	37.3	139.8	306.3	259.3	84.5	75.0	446.0	322.5	210.0
264	HE	264.8	128.1	64.0	12.3	11.0	7.7	8.3	57.4	269.1	78.2	79.3	496.1	319.9	221.8
265	HE	360.5	243.9	179.4	171.8	158.6	169.7	244.6	343.4	265.8	92.2	86.7	309.5	320.4	215.0
266	HE	96.6	21.1	14.4	38.0	112.0	185.8	239.5	289.3	258.2	114.0	67.0	443.4	340.9	171.7
267	HE	103.3	34.1	18.0	41.6	98.4	167.8	207.5	280.5	262.2	112.6	65.0	428.5	345.8	174.0
268	HE	213.5	131.2	114.6	116.7	86.0	89.5	141.5	203.9	269.9	88.0	79.6	407.7	327.3	217.0
269	HE	202.9	125.4	83.2	101.0	124.5	162.8	200.5	273.0	256.0	101.0	83.9	344.8	314.6	194.8
270	HE	171.4	75.8	60.9	66.5	118.5	152.4	230.4	280.2	266.5	94.8	75.0	396.3	329.8	204.2
271	HE	238.6	123.5	91.9	89.2	104.3	131.4	204.4	296.0	268.3	88.9	79.8	388.5	325.8	215.0
272	HE	296.1	146.0	91.6	48.5	23.6	44.9	36.2	125.9	257.3	88.0	80.4	607.9	320.3	211.5
273	HE	255.8	128.2	108.6	81.2	87.4	91.7	158.7	297.0	271.5	85.2	83.1	415.7	326.5	224.3
274	HE	208.3	105.0	93.7	78.3	81.5	91.0	157.7	250.3	272.7	84.0	81.8	453.3	328.0	225.8
275	HE	216.0	105.7	121.7	87.0	60.9	57.8	95.4	147.3	271.0	86.1	81.2	460.4	328.6	223.3
276	HE	247.1	132.6	94.7	92.5	127.2	148.2	230.6	359.0	265.9	88.9	81.6	371.9	322.6	214.3
277	HE	252.1	160.4	90.1	42.2	25.0	33.8	54.6	140.0	269.6	87.6	82.2	515.7	329.3	223.2
278	HE	341.0	261.6	188.7	175.4	168.6	207.8	241.3	331.6	260.1	92.7	86.4	354.2	314.7	208.0
279	HE	247.0	111.0	96.9	108.7	126.3	145.6	230.4	409.2	264.6	88.7	82.9	343.6	321.0	214.7
280	HE	224.8	104.8	74.1	82.5	126.1	167.3	222.7	366.5	264.5	90.9	80.7	372.1	322.5	210.4
281	HE	226.0	112.1	84.4	87.3	103.3	138.2	201.4	290.2	268.1	89.9	78.8	390.3	326.6	213.4
282	HE	191.3	106.7	64.0	85.7	104.4	155.1	190.6	269.7	258.7	97.5	81.6	345.9	317.7	198.9
283	HE	159.2	159.5	147.9	117.6	87.2	107.5	119.9	140.1	182.6	114.4	85.5	427.9	253.4	120.4
284	HE	323.3	299.1	196.0	152.3	84.1	67.0	139.0	128.4	272.5	99.4	86.9	440.4	329.5	215.9
285	HE	298.7	219.4	169.7	165.1	140.7	202.7	214.4	271.6	256.5	91.2	85.0	348.4	311.2	204.5
286	HE	45.0	6.0	3.0	15.0	52.0	168.5	209.5	256.5	235.5	131.0	68.0	637.5	323.5	133.0
287	HE	297.3	154.7	124.8	98.2	62.5	55.4	83.6	194.4	269.8	89.2	83.3	434.6	327.1	220.4
288	HE	219.8	161.0	92.5	86.5	99.0	170.0	279.3	443.5	252.0	110.3	63.0	1959.0	326.0	152.0
289	HE	214.8	93.0	86.0	89.8	112.5	148.4	228.7	406.5	263.8	90.8	81.5	298.2	322.1	211.6
290	HE	77.0	16.0	7.8	23.8	95.4	166.7	228.1	282.4	253.6	114.8	68.0	466.7	336.0	168.3
291	HE	276.7	140.8	99.8	49.5	18.6	24.3	26.2	88.4	258.8	89.1	80.8	614.8	321.3	211.9
292	HE	87.3	27.6	15.2	8.8	8.5	23.7	90.0	203.9	256.1	108.9	82.6	306.1	323.3	192.0
293	HE	402.2	201.8	84.0	11.8	6.3	10.8	29.5	196.7	267.3	78.1	76.9	596.5	327.0	226.1
294	HE	166.9	77.1	57.2	58.1	97.7	109.1	160.1	223.6	265.0	98.5	71.8	392.5	333.3	197.0

295	HE	94.0	33.5	15.2	12.9	29.6	59.3	122.3	211.8	251.4	113.1	77.9	416.0	324.4	179.7
296	HE	363.8	371.4	218.9	173.7	75.3	61.7	89.2	105.0	266.4	106.4	88.7	484.7	327.3	207.7
297	HE	89.9	17.0	5.0	13.0	61.3	116.4	129.6	194.9	262.8	114.4	70.9	653.7	343.3	182.9
298	HE	90.8	25.2	19.5	33.3	80.2	147.4	172.1	214.9	260.6	105.0	75.9	563.8	328.5	190.5
299	HE	305.8	351.6	283.4	262.5	209.5	154.8	195.7	202.1	161.9	107.2	85.8	484.0	226.0	101.7
300	HE	86.8	18.6	7.7	18.7	73.9	133.0	134.5	180.6	259.4	112.2	71.9	620.9	337.7	182.8
301	HE	415.6	430.6	364.8	269.9	216.3	184.1	166.6	175.8	260.4	98.5	82.4	570.7	326.6	207.7
302	HE	543.5	461.5	184.5	71.5	18.5	37.0	136.0	297.5	256.5	81.0	76.0	456.0	317.0	211.0
303	HE	58.2	21.6	9.5	13.7	33.1	75.8	125.9	184.7	251.8	125.5	70.8	1086.6	334.0	157.8
304	HE	369.7	355.3	311.5	265.0	216.6	176.2	180.4	163.1	258.8	92.3	80.5	695.2	316.3	202.5
305	HE	216.7	170.8	135.6	163.8	173.4	285.1	280.8	437.8	238.7	106.0	78.3	804.3	302.5	168.0
306	HE	89.4	40.4	46.0	76.9	121.1	163.3	191.5	254.7	197.9	146.6	79.4	714.4	283.9	100.2
307	HE	153.9	133.1	92.5	88.3	83.9	102.4	119.3	115.5	189.3	109.1	83.4	430.8	255.7	125.8
308	HE	135.6	83.4	74.7	95.9	110.9	179.3	251.3	301.8	227.7	127.4	80.8	521.2	303.3	146.7
309	HE	375.0	381.7	325.4	270.7	224.4	181.9	184.1	157.3	261.1	91.0	79.2	735.9	318.7	204.5
310	HE	81.0	46.6	52.7	79.1	126.8	172.4	201.4	247.8	225.5	139.3	80.0	629.5	308.2	135.0
311	HE	98.0	43.0	38.3	48.2	69.0	123.2	186.6	233.3	252.2	113.9	75.7	639.7	320.9	171.2
312	HE	323.5	310.7	235.4	251.7	185.1	177.2	221.7	245.8	229.5	103.1	82.3	538.4	296.5	172.0
313	HE	172.4	96.5	76.4	131.0	147.8	259.9	307.6	414.5	227.6	122.9	83.3	456.5	297.9	151.1
314	HE	117.2	74.1	46.6	37.1	43.6	92.9	119.1	202.9	252.7	110.7	64.9	1571.3	328.1	158.9
315	HE	107.2	85.0	58.4	54.5	72.5	117.6	146.0	255.8	241.5	108.4	68.2	1440.7	314.0	156.2
316	HE	353.9	398.4	339.5	295.9	215.1	192.8	214.2	188.2	254.9	94.7	84.7	528.6	311.7	200.6
317	HE	231.4	262.1	233.5	211.8	160.4	121.0	143.9	147.3	129.0	105.1	85.6	504.8	193.2	71.2
318	HE	334.5	337.0	310.0	299.0	173.0	150.7	180.4	191.4	221.7	102.7	90.0	277.7	278.9	165.6
319	HE	184.0	158.3	135.0	118.0	82.0	120.0	156.0	160.3	161.3	100.0	90.7	193.7	216.3	106.7
320	HE	276.5	216.8	169.1	178.9	169.2	134.8	230.4	291.2	263.5	97.1	84.7	444.5	321.5	207.3
321	HE	87.5	49.9	35.2	37.6	49.9	88.7	137.5	202.6	256.5	109.4	68.8	1021.5	331.1	173.3
322	HE	29.9	23.3	16.4	27.3	46.3	67.4	80.6	125.7	74.0	157.3	72.0	1307.7	173.9	-42.7
323	HE	236.4	183.4	114.1	141.0	149.9	145.1	189.8	252.0	266.7	103.0	81.4	444.6	327.8	202.2
324	HE	211.8	151.5	111.0	114.4	131.4	137.1	201.8	250.7	268.0	103.1	84.0	392.6	328.7	206.7
325	HE	290.4	288.0	263.8	247.3	195.1	171.5	203.2	230.3	256.6	97.7	85.8	487.1	312.6	199.6
326	HE	130.3	87.3	66.8	71.1	83.7	153.7	199.7	317.8	252.2	107.3	73.5	1071.0	320.9	175.9
327	HE	537.0	536.0	417.0	382.0	272.0	240.0	307.0	241.0	250.0	90.0	83.0	515.0	307.0	199.0
328	HE	121.8	62.6	37.7	60.0	77.7	106.5	171.0	233.7	256.4	108.6	76.6	570.9	322.0	181.0
329	HE	119.1	61.1	35.9	61.4	79.0	111.9	165.0	239.3	254.6	107.7	76.5	583.2	319.1	179.4
330	HE	84.7	23.3	5.3	20.7	106.3	185.3	224.7	275.0	251.3	112.3	69.0	517.7	331.0	169.3
331	HE	49.1	24.5	0.4	5.9	62.0	139.9	197.5	197.8	249.0	117.4	69.0	498.3	332.8	163.8

332	HE	114.8	55.6	26.3	36.3	68.1	120.1	165.7	209.5	253.6	115.9	79.0	634.7	320.9	174.8
333	HE	247.7	105.1	63.6	19.6	9.1	11.9	39.0	110.1	268.6	103.6	88.0	302.4	330.0	213.0
334	HE	317.4	265.1	195.2	173.5	154.1	197.9	207.5	284.9	257.1	92.6	85.9	384.1	311.5	204.7
335	HE	278.2	186.9	135.2	140.2	155.3	192.3	267.3	321.2	261.6	91.1	84.6	331.9	316.3	209.1
336	HE	82.7	16.2	5.2	14.9	59.2	118.7	126.1	180.4	261.0	116.0	71.8	638.6	341.7	181.0
337	HE	178.2	65.8	42.6	60.5	112.4	169.3	201.2	297.7	263.8	99.3	77.0	322.7	328.0	200.0
338	HE	67.0	22.3	2.0	11.5	86.7	169.8	220.0	245.3	251.2	115.0	69.0	501.8	332.5	167.2
339	HE	228.5	120.8	87.3	95.2	118.2	127.7	235.7	368.0	266.0	89.0	84.8	305.4	321.2	217.0
340	HE	107.6	37.3	24.7	39.6	60.0	100.2	159.7	233.0	249.1	118.7	76.6	728.8	317.9	164.0
341	HE	88.1	31.8	22.4	31.5	54.7	94.3	153.3	204.2	251.3	110.1	71.1	816.5	321.3	167.6
342	HE	299.5	124.3	72.3	21.3	24.0	21.3	12.8	114.0	263.5	92.0	81.8	473.3	324.8	212.8
343	HE	58.0	17.0	7.0	2.0	3.0	5.3	60.7	162.0	266.0	112.0	77.0	283.0	339.0	194.0
344	HE	58.5	11.0	4.0	10.0	36.0	91.5	121.0	174.0	260.5	121.5	71.5	741.0	345.5	176.5
345	HE	235.0	105.0	37.0	7.0	6.0	4.0	9.0	33.0	269.0	75.0	78.0	512.0	318.0	222.0
346	HE	60.8	18.0	9.0	2.8	3.3	6.0	64.5	172.2	266.3	110.7	77.7	280.7	337.7	195.5
347	HE	60.8	23.8	1.5	8.8	79.5	160.8	215.0	229.8	251.8	115.5	68.5	505.0	333.5	166.8
348	HE	56.3	26.3	1.7	7.7	80.0	156.7	217.7	222.3	253.0	115.7	68.7	506.7	335.0	168.0
349	HE	96.0	18.5	12.4	34.0	114.8	189.1	243.3	303.0	256.2	113.3	67.8	449.0	337.6	171.6
350	HE	74.7	12.1	7.0	27.0	90.5	164.4	222.0	276.5	253.5	116.9	67.6	463.3	337.6	165.8
351	HE	249.6	143.2	82.9	42.1	27.0	28.1	57.7	141.1	268.3	95.3	85.0	437.4	329.6	218.3
352	HE	186.9	65.0	31.9	9.0	5.6	8.0	50.6	143.3	272.3	103.2	87.2	312.8	333.6	215.6
353	HE	87.0	21.0	4.0	20.0	106.0	189.0	227.0	283.0	251.0	113.0	69.0	528.0	331.0	169.0
354	HE	58.0	21.0	1.0	8.0	69.0	150.0	204.0	218.0	252.0	117.0	69.0	492.0	335.0	166.0
355	HE	89.5	26.3	18.9	38.7	78.4	144.7	173.3	227.0	261.7	104.1	76.7	477.4	327.6	192.8
356	HE	101.3	23.3	19.9	27.7	100.1	151.2	178.8	220.0	259.5	107.6	74.8	570.1	330.5	187.3
357	HE	62.0	20.0	1.0	10.0	72.0	155.0	209.0	229.0	250.0	116.0	69.0	515.0	333.0	165.0
358	HE	229.4	87.6	60.2	76.0	121.2	170.5	213.0	380.3	264.0	92.9	79.0	368.0	324.2	207.4
359	HE	104.7	34.6	17.1	40.4	82.6	143.3	203.6	277.5	262.0	102.0	71.5	548.7	331.9	190.3
360	HE	280.4	107.1	64.5	19.7	23.9	28.4	18.9	138.2	267.5	84.8	84.8	448.1	322.8	223.0
361	HE	253.9	138.5	87.5	50.2	30.2	52.0	48.6	208.4	268.9	92.7	85.8	400.1	327.2	219.9
362	HE	300.9	120.2	69.9	20.5	22.9	21.5	13.5	116.1	263.7	90.8	81.9	471.2	324.4	214.1
363	HE	61.5	26.0	2.5	10.8	89.0	161.5	222.8	235.8	251.5	115.0	68.8	502.5	333.5	167.3
364	HE	308.0	144.0	74.0	17.0	17.0	6.0	5.0	85.0	262.0	93.0	80.0	537.0	327.0	211.0
365	HE	289.0	141.0	73.0	17.0	17.0	6.0	6.0	70.0	263.0	90.0	80.0	526.0	325.0	213.0
366	HE	280.0	141.0	74.5	17.5	17.5	7.5	6.5	67.0	264.0	87.5	79.5	527.0	324.0	215.0
367	HE	336.9	123.9	71.1	15.6	15.7	8.5	11.0	123.6	273.7	72.6	80.5	565.4	321.3	231.7
368	HE	309.0	144.0	79.0	20.0	23.0	12.0	7.0	103.0	262.0	94.0	79.0	514.0	327.0	209.0

369	HE	286.3	110.0	64.7	20.3	23.7	27.0	17.7	129.7	266.3	87.0	83.7	444.7	323.3	220.0
370	HE	276.0	105.5	65.0	20.0	24.0	28.0	19.0	141.0	269.5	82.0	84.5	454.5	322.5	226.0
371	HE	55.3	26.0	2.0	7.3	81.3	156.0	221.7	224.0	250.7	115.7	68.7	509.7	333.3	165.7
372	HE	208.0	119.2	75.2	106.8	118.1	161.2	194.0	275.2	259.8	93.9	81.3	336.7	317.8	203.1
373	HE	134.6	55.7	34.2	43.0	92.0	151.4	171.9	254.4	261.0	103.8	78.6	403.9	324.6	193.3
374	HE	72.0	25.0	4.5	15.5	99.0	173.5	223.0	251.5	252.5	113.5	68.5	521.5	333.5	169.0
375	HE	53.0	15.4	5.0	11.2	48.8	105.2	149.8	202.0	249.8	126.6	71.4	735.7	335.5	159.2
376	HE	60.0	23.0	1.0	8.5	76.0	158.5	213.0	227.0	251.0	116.0	69.0	502.0	333.5	166.5
377	HE	235.6	111.5	82.6	27.5	7.1	6.2	23.9	45.5	265.4	88.6	82.9	567.9	323.8	217.7
378	HE	270.4	153.3	90.3	40.3	18.3	24.6	41.1	106.9	268.1	87.8	81.6	558.7	328.8	221.7
379	HE	70.0	13.8	5.8	16.1	54.3	117.2	125.6	167.4	257.7	119.5	73.0	625.0	340.2	177.3
380	HE	67.1	13.1	4.8	13.6	47.4	107.5	124.0	171.3	259.4	119.9	72.4	662.8	342.5	178.0
381	HE	170.9	97.1	56.2	84.2	88.5	129.1	170.6	242.6	256.7	104.0	80.2	488.4	317.3	188.2
382	HE	106.9	42.0	23.9	17.4	24.1	47.3	106.9	187.4	254.8	104.8	79.0	461.7	321.3	189.4
383	HE	282.0	199.4	147.3	162.7	138.5	201.5	220.6	278.3	257.6	91.1	84.5	338.9	312.7	205.1
384	HE	82.7	18.7	8.6	17.5	72.4	129.0	137.4	184.3	261.4	110.7	71.5	634.1	339.1	185.3
385	HE	85.6	17.6	6.6	18.3	68.5	129.5	128.8	176.4	260.2	114.5	71.9	620.0	339.9	181.8
386	HE	94.2	28.6	12.9	30.9	119.6	178.0	216.7	273.6	256.3	109.4	68.9	541.3	333.5	175.8
387	HE	341.9	231.0	181.9	160.5	132.1	119.9	182.4	256.2	266.7	93.8	87.9	309.0	321.6	215.7
388	HE	99.7	29.1	19.4	14.3	12.5	29.4	83.4	171.4	250.1	107.5	80.7	393.2	316.9	184.5
389	HE	147.5	82.6	44.4	70.7	86.5	123.3	166.7	256.8	255.0	103.3	75.7	586.9	317.8	182.1
390	HE	124.3	51.2	37.9	32.3	39.2	76.1	138.5	213.1	257.6	104.5	77.8	485.2	325.2	191.7
391	HE	58.0	25.0	2.0	8.0	79.0	158.0	217.0	225.0	252.0	116.0	69.0	505.0	334.0	167.0
392	HE	277.0	106.0	65.0	20.0	24.0	28.0	19.0	141.0	269.0	83.0	85.0	448.0	322.0	225.0
393	HE	57.8	25.5	1.8	7.8	80.5	158.0	217.3	225.0	252.8	115.5	68.8	505.5	334.5	167.8
394	HE	74.5	23.5	3.0	15.5	97.5	177.5	223.0	258.0	252.5	113.5	69.0	523.0	333.0	169.0
395	HE	172.0	70.5	66.4	46.2	30.8	34.2	60.7	140.0	261.9	95.7	80.1	546.3	325.7	206.7
396	HE	249.2	130.7	80.3	42.2	20.4	37.3	36.3	177.9	268.7	95.7	87.0	355.9	327.4	218.1
397	HE	230.4	111.6	79.9	25.9	10.5	6.4	30.1	55.6	267.2	91.5	83.6	540.1	326.7	217.9
398	HE	239.3	257.5	261.1	215.1	103.6	98.3	110.6	121.7	111.7	86.9	87.6	441.4	162.5	64.1
399	HE	219.0	166.0	106.0	127.0	99.0	142.0	195.0	124.0	152.0	81.0	90.0	248.0	197.0	107.0
400	HE	299.1	342.1	326.6	267.1	141.7	116.1	144.1	164.2	152.6	97.8	90.1	348.4	206.9	99.1
401	HE	324.3	325.3	138.3	52.3	14.8	21.8	76.0	154.3	265.0	81.0	78.3	577.3	324.0	221.3
402	HE	287.2	331.9	183.5	103.1	38.9	41.0	67.8	113.2	266.7	82.4	76.8	651.7	326.8	220.2
403	HE	312.5	302.8	168.3	95.0	31.5	36.0	62.5	123.8	266.5	84.0	77.0	643.5	328.0	220.0
404	HE	477.0	320.6	202.8	100.5	27.0	18.5	40.0	93.2	262.8	88.8	76.0	715.7	329.6	213.6
405	HE	268.4	307.8	165.6	95.6	30.2	34.5	68.7	115.9	265.2	82.4	75.2	681.7	327.7	218.7

406	HE	313.9	309.7	190.2	110.2	36.1	27.4	44.8	88.0	271.3	86.9	79.6	598.2	330.1	221.5
407	HE	396.8	339.7	143.7	60.1	19.1	35.8	103.1	191.8	252.1	83.7	77.3	489.8	313.1	205.4
408	HE	578.8	461.4	170.7	62.5	17.1	38.1	139.4	303.4	258.6	83.1	75.0	449.4	321.0	210.8
409	HE	507.6	380.3	140.0	49.4	16.3	32.6	113.8	261.1	251.5	87.8	74.7	432.5	316.1	199.1
410	HE	107.7	36.6	17.8	39.9	81.3	142.7	205.3	278.3	261.9	102.5	71.7	534.1	332.5	190.2
411	HE	240.7	309.0	181.5	103.7	37.5	33.5	61.8	90.0	269.5	81.0	77.5	619.5	326.8	223.0
412	HE	42.3	21.6	0.5	4.9	53.3	123.9	192.9	183.9	248.5	119.8	68.5	490.7	334.3	160.8
413	HE	432.9	222.5	133.0	58.9	21.4	12.8	27.5	52.9	260.2	105.5	77.1	695.2	341.3	205.4
414	HE	269.5	305.5	170.6	62.7	23.3	29.2	71.5	134.9	264.9	81.9	76.9	610.1	326.3	220.4
415	HE	50.7	20.2	10.8	12.9	26.2	68.3	112.2	155.6	244.0	131.6	69.7	1347.7	329.3	141.5
416	HE	69.9	21.1	6.9	19.6	52.6	125.3	161.2	161.7	263.9	106.9	74.3	590.1	336.0	192.8
417	HE	228.9	174.8	103.2	96.2	112.0	186.2	309.4	483.5	252.0	110.5	62.3	2000.7	327.0	150.7
418	HE	198.0	86.0	65.5	33.0	35.5	63.5	47.5	197.0	268.0	93.0	88.0	307.5	323.0	218.0
419	HE	68.7	30.9	15.3	16.8	25.7	63.1	112.3	163.0	250.9	124.3	69.1	1385.1	332.6	154.0
420	HE	186.5	155.5	103.5	92.5	112.0	233.5	270.0	435.0	246.0	117.5	63.0	1996.5	324.5	139.5
421	HE	90.8	55.4	49.7	32.5	38.8	63.0	112.0	191.3	260.5	111.8	71.1	1042.3	335.6	179.6
422	HE	319.5	311.5	316.0	262.5	177.5	179.5	216.0	221.5	203.0	111.0	84.0	516.5	275.5	143.5
423	HE	223.7	165.3	96.3	89.7	104.3	176.0	291.0	460.3	252.0	110.3	62.3	1992.0	327.0	151.0
424	HE	345.9	376.4	309.1	292.9	165.4	140.9	175.4	196.9	202.7	104.9	91.3	242.7	259.9	145.7
425	HE	121.0	61.0	34.0	29.5	41.0	77.0	128.0	209.0	257.5	114.0	65.5	1541.5	336.0	163.0
426	HE	17.1	8.2	11.9	22.6	42.2	63.7	100.8	134.4	99.0	160.6	75.2	1098.0	197.7	-14.9
427	HE	12.0	7.0	8.0	20.0	44.0	47.0	82.0	110.0	57.0	164.0	73.0	1224.0	158.0	-64.0
428	HE	143.7	124.2	88.1	84.8	84.4	102.1	115.6	108.7	181.9	108.9	82.8	423.2	248.3	117.6
429	HE	66.1	39.5	46.6	60.5	95.5	139.0	159.8	217.6	196.6	146.4	78.4	732.3	285.5	99.9
430	HE	60.2	23.4	20.2	37.4	77.0	108.4	115.6	171.0	141.6	144.8	80.2	758.4	222.8	43.0
431	HE	81.4	77.7	72.7	51.8	41.9	67.7	62.5	79.3	139.7	121.5	88.5	296.5	208.3	71.7
432	HE	380.4	395.7	211.8	139.5	49.1	25.7	35.4	51.0	266.4	88.2	79.4	562.2	325.2	214.7
433	HE	148.0	80.2	44.9	39.2	47.7	93.4	154.0	257.2	255.9	113.0	64.2	1746.8	331.9	158.0
434	HE	283.8	430.8	303.5	257.9	146.0	112.9	125.9	119.1	221.0	103.9	85.0	384.9	283.0	161.3
435	HE	468.6	299.8	192.8	87.7	22.9	15.1	37.0	90.6	262.2	90.1	76.5	709.7	329.9	213.0
436	HE	153.6	135.1	95.7	95.8	94.2	107.3	119.1	114.7	192.6	102.9	79.6	464.7	257.9	129.6
437	HE	314.1	280.9	199.4	211.8	164.8	156.1	219.4	248.8	257.2	97.4	84.7	474.9	317.0	202.7
438	HE	178.4	120.9	82.0	103.0	135.6	163.9	207.6	263.3	260.5	109.7	78.6	547.8	327.7	189.0
439	HE	298.3	232.4	194.3	158.2	170.2	151.3	175.8	321.5	258.8	91.9	85.4	434.3	311.6	204.7
1	MP	308.6	270.4	242.8	147.5	148.2	183.7	283.7	303.8	259.2	98.6	85.8	421.9	315.3	201.1
2	MP	315.5	272.4	186.8	132.1	164.8	202.6	227.5	287.1	260.4	94.3	85.0	440.3	314.7	204.4
3	MP	14.0	6.8	8.1	16.7	48.4	73.4	119.3	156.2	112.5	160.3	76.1	1028.9	211.5	2.2

4	MP	263.4	182.1	112.0	79.6	124.5	163.3	206.6	233.2	261.5	97.5	83.2	423.5	319.6	203.0
5	MP	161.9	112.7	88.0	70.4	124.9	176.2	204.8	143.0	237.2	112.3	82.0	478.7	302.1	166.3
6	MP	119.5	71.8	46.8	45.3	64.4	125.3	235.4	216.3	264.4	110.6	78.4	530.7	332.8	192.3
7	MP	313.7	271.3	208.9	139.5	157.2	202.4	248.2	307.8	261.6	95.3	85.8	429.9	315.6	205.0
8	MP	226.9	351.4	163.7	92.3	117.4	157.9	247.1	178.3	170.1	113.3	86.1	502.0	239.7	108.6
9	MP	226.5	193.5	146.2	90.0	78.4	98.1	152.7	232.5	30.2	7.5	37.6	14.2	30.2	29.1
10	MP	64.1	48.8	50.2	25.5	42.5	55.3	111.3	196.1	260.6	113.1	71.1	1125.8	335.9	177.8
11	MP	105.5	74.1	39.3	42.2	72.8	114.2	154.9	274.2	249.2	108.8	63.8	1709.6	323.4	154.3
12	MP	356.1	219.4	173.7	126.4	70.8	51.7	23.6	146.9	270.5	85.3	83.9	463.7	325.6	224.7
13	MP	431.5	171.3	128.9	49.9	24.3	16.2	17.1	107.7	271.4	88.2	83.0	416.4	328.3	222.6
14	MP	303.7	221.0	142.8	44.8	26.5	43.0	86.6	96.8	271.6	95.9	87.7	359.8	326.7	218.2
15	MP	65.9	35.1	23.8	45.1	93.5	116.4	147.4	262.0	218.6	111.0	70.3	1240.0	291.4	134.7
16	MP	56.3	28.7	18.7	33.3	64.7	107.3	136.0	216.7	194.7	93.0	72.0	1183.0	255.7	127.3
17	MP	411.9	194.6	147.0	52.4	15.7	8.8	10.4	63.1	269.2	78.5	79.8	487.5	320.1	222.2
18	MP	48.0	16.8	11.8	29.8	61.0	98.2	99.8	188.6	190.8	107.2	73.0	1031.4	259.4	113.6
19	MP	396.0	281.0	172.0	96.0	43.0	33.0	29.0	131.0	271.0	78.0	78.0	592.0	327.0	228.0
20	MP	99.1	40.1	19.1	30.9	66.6	32.1	67.3	237.5	256.6	109.1	81.2	310.3	325.6	191.9
21	MP	93.5	40.4	36.2	27.3	50.6	101.5	163.4	299.9	257.5	108.8	75.5	728.7	324.1	180.7
22	MP	288.0	163.0	142.0	121.0	120.0	99.0	42.0	212.0	268.0	95.0	90.0	258.0	323.0	218.0
23	MP	69.2	35.4	24.8	27.2	50.4	36.2	71.8	185.8	262.6	111.0	75.4	308.6	336.6	190.0
24	MP	174.4	74.8	30.9	24.7	35.0	29.1	54.2	200.1	271.0	102.9	86.6	321.9	332.2	213.8
25	MP	91.7	39.7	38.0	27.0	49.7	103.0	164.3	298.7	261.3	106.3	74.0	752.0	328.0	184.7
26	MP	252.7	132.6	99.8	79.0	34.9	47.6	95.0	218.0	270.8	86.3	83.6	398.6	325.9	223.2
27	MP	193.2	107.6	85.6	83.7	39.1	50.3	116.0	209.4	272.3	84.1	81.8	452.9	327.7	225.4
28	MP	294.7	159.3	110.5	80.0	38.0	56.8	106.1	211.8	270.8	86.8	83.2	403.3	326.2	222.7
29	MP	304.2	209.4	111.2	59.2	39.3	16.9	58.3	197.3	276.8	83.2	79.1	602.4	336.7	232.3
30	MP	204.0	105.0	79.0	64.0	32.0	43.0	111.0	201.0	274.0	83.0	81.0	455.0	329.0	227.0
31	MP	264.1	174.0	98.0	50.9	32.0	12.0	21.7	87.3	268.4	85.3	80.8	602.3	326.2	221.4
32	MP	344.9	170.3	118.7	66.1	29.8	51.0	100.7	205.2	269.6	87.5	82.8	418.0	325.8	221.1
33	MP	261.0	153.0	131.3	114.0	109.7	93.0	36.7	194.0	268.0	93.7	88.3	290.3	323.3	218.0
34	MP	400.7	252.6	153.7	80.2	28.7	24.9	25.8	137.9	270.0	77.0	78.6	592.9	326.2	228.8
35	MP	91.0	30.0	19.5	46.0	30.5	93.5	145.5	260.0	260.5	102.5	72.0	632.5	328.5	186.5
36	MP	72.6	34.2	25.3	26.6	52.2	33.0	72.0	191.0	258.2	110.0	75.8	296.5	331.3	187.1
37	MP	123.9	52.0	35.3	34.6	100.0	55.7	142.3	286.9	260.9	111.1	68.9	430.7	341.1	180.5
38	MP	197.9	105.4	81.9	72.0	35.4	45.8	113.3	204.2	273.8	83.3	81.7	457.9	328.9	227.2
39	MP	68.0	39.0	23.7	43.0	88.3	112.3	147.3	257.7	230.0	102.7	69.3	1314.7	298.7	152.0
40	MP	92.5	31.2	20.0	32.4	77.1	40.7	105.5	262.1	248.6	121.6	78.5	339.2	325.9	171.9

41	MP	308.3	227.6	162.1	54.3	32.8	47.0	87.5	105.4	270.5	97.4	88.8	348.4	325.7	216.7
42	MP	45.0	54.5	20.5	22.5	31.5	42.5	107.0	169.0	256.0	119.0	68.0	1834.5	334.0	159.0
43	MP	75.0	50.5	24.5	31.0	41.5	80.0	121.5	188.0	241.0	105.0	62.0	2171.0	315.5	148.5
44	MP	65.9	21.1	14.8	13.8	31.1	79.4	155.6	275.5	266.5	112.1	69.8	721.9	343.5	183.5
45	MP	65.0	24.3	17.3	21.3	32.7	75.3	152.0	283.7	265.0	114.0	69.0	836.0	342.0	177.0
46	MP	45.0	54.5	20.5	22.5	31.5	42.5	107.0	169.0	256.0	119.0	68.0	1834.5	334.0	159.0
47	MP	58.6	49.1	42.8	25.8	43.8	58.0	105.7	183.0	260.1	114.1	70.5	1136.0	336.0	175.2
48	MP	96.0	67.3	36.6	42.6	77.4	113.2	151.8	270.0	245.2	108.6	65.2	1596.2	318.6	153.5
49	MP	95.3	73.9	58.3	51.6	74.5	121.1	189.3	291.7	249.7	104.1	72.3	1168.3	317.4	174.2
50	MP	417.3	634.3	616.0	337.7	166.7	146.3	196.0	133.7	271.7	96.0	78.0	638.3	342.7	220.0
51	MP	46.8	20.8	13.6	30.7	64.3	98.2	109.4	193.6	169.5	108.1	71.5	1142.7	238.3	87.9
52	MP	60.5	41.6	20.1	30.7	32.9	69.3	110.9	168.3	219.8	114.0	65.6	1984.9	296.2	123.9
53	MP	97.3	102.4	45.3	45.4	72.4	80.8	159.7	274.1	253.0	111.8	64.5	1905.5	327.5	155.4
54	MP	77.5	60.6	37.9	38.1	63.4	98.1	148.6	234.2	218.8	102.0	70.6	1279.5	286.4	142.8
55	MP	202.3	93.7	50.7	66.5	73.6	149.3	203.4	297.3	254.4	99.7	73.9	620.1	317.1	183.3
56	MP	354.0	261.1	186.9	116.6	92.1	171.9	225.3	344.1	256.4	91.0	85.7	337.7	310.3	205.0
57	MP	240.0	148.0	124.0	104.0	96.0	84.0	30.0	176.0	269.0	92.0	89.0	307.0	323.0	220.0
58	MP	248.0	150.0	127.0	108.0	103.0	88.0	34.0	185.0	268.0	93.0	89.0	301.0	323.0	219.0
59	MP	278.0	147.0	114.0	97.0	40.0	57.0	122.0	207.0	269.0	86.0	83.0	417.0	324.0	221.0
60	MP	61.0	28.0	26.0	37.0	51.0	84.0	139.0	259.0	254.0	105.0	68.0	997.0	326.0	173.0
61	MP	79.0	53.0	30.5	43.0	84.5	109.0	151.0	265.0	235.5	105.5	69.0	1385.0	305.0	153.0
62	MP	215.0	338.0	160.5	61.7	47.2	7.7	24.4	45.4	264.2	91.3	79.8	617.9	327.0	213.2
63	MP	113.9	282.3	159.6	116.1	132.9	97.7	126.1	277.7	266.3	69.6	78.4	484.4	313.9	225.7
64	MP	504.2	560.5	477.8	261.0	114.5	143.7	186.4	202.0	254.9	111.0	88.4	413.0	320.6	195.7
65	MP	462.0	390.0	95.0	139.0	60.0	67.0	101.0	309.0	264.0	77.0	75.0	554.0	323.0	221.0
66	MP	249.0	240.0	75.0	89.0	54.0	53.0	65.0	161.0	265.0	81.0	78.0	586.0	324.0	221.0
67	MP	115.2	109.4	71.4	46.9	91.4	149.1	204.0	129.3	182.8	102.8	78.0	490.5	248.1	117.2
68	MP	35.7	15.4	25.1	23.4	78.9	110.2	144.2	163.1	124.7	147.0	78.9	771.3	208.3	23.1
69	MP	127.1	70.5	73.3	70.6	137.7	234.9	340.7	400.0	219.6	126.9	82.3	479.7	293.3	140.0
70	MP	338.6	337.3	157.0	49.3	39.7	15.3	37.5	68.0	259.5	96.1	81.4	565.7	323.8	206.4
71	MP	366.0	573.0	560.3	320.7	109.0	118.7	140.3	97.3	281.0	101.3	75.3	913.3	358.0	225.0
72	MP	366.5	575.0	561.0	322.5	110.0	120.0	143.0	99.0	281.0	101.5	75.5	902.5	358.0	225.0
73	MP	429.5	533.0	420.0	175.0	195.0	317.5	483.5	307.0	249.0	96.5	85.5	427.5	307.5	195.5
74	MP	74.6	30.7	30.4	47.4	45.8	81.8	148.4	270.3	246.3	115.0	72.6	803.9	316.6	159.3
75	MP	431.7	373.7	295.3	164.0	158.5	225.1	293.4	431.8	254.7	89.9	86.1	371.2	307.5	203.7
76	MP	165.4	55.2	30.3	28.8	30.0	30.2	25.3	105.1	262.4	103.5	83.5	379.1	325.7	202.4
77	MP	59.0	9.0	6.0	25.0	22.3	76.7	139.0	292.7	242.3	126.0	68.0	497.7	332.3	147.3

78	MP	40.0	11.5	10.5	16.4	93.2	79.8	241.4	352.9	243.5	140.9	68.3	591.7	350.8	146.2
79	MP	374.7	574.0	282.3	160.0	201.0	253.7	435.3	277.0	211.7	107.3	82.7	547.3	282.3	153.3
80	MP	344.3	566.7	298.3	157.3	182.3	231.0	369.0	245.7	181.0	110.7	85.0	506.0	251.0	121.3
81	MP	53.3	10.3	8.0	12.7	28.0	71.5	150.3	229.7	247.9	126.7	71.2	667.0	335.0	158.1
82	MP	343.7	190.6	99.2	90.1	63.9	32.1	24.3	98.1	253.7	94.2	79.4	619.1	322.8	204.8
83	MP	482.1	426.1	458.4	209.1	118.1	139.5	152.3	246.5	267.3	91.8	88.4	429.2	320.2	216.8
84	MP	29.4	1.4	3.1	16.6	10.4	92.0	149.6	323.7	245.9	143.7	69.9	954.9	339.6	135.3
85	MP	293.6	316.0	182.2	71.9	22.8	19.4	56.8	58.0	272.3	100.2	85.6	502.5	331.0	214.4
86	MP	372.2	267.5	113.6	66.8	63.5	14.8	37.6	81.0	259.2	99.4	78.8	647.3	332.2	206.9
87	MP	97.7	32.4	19.6	31.8	36.5	84.5	147.0	303.7	258.7	104.1	69.8	612.5	329.8	181.9
88	MP	377.0	198.7	120.8	87.9	84.0	27.9	66.9	191.6	272.4	90.6	80.4	608.0	336.7	224.6
89	MP	502.0	532.7	540.7	243.1	164.8	211.7	208.1	204.6	267.4	90.8	72.5	876.0	336.8	212.4
90	MP	141.4	42.8	18.5	32.6	93.3	47.0	111.3	286.1	255.5	111.9	74.6	454.7	331.1	181.9
91	MP	216.1	85.5	56.9	48.4	83.6	44.7	95.9	220.2	264.6	99.4	72.8	415.1	333.0	197.4
92	MP	348.0	201.3	118.9	127.8	70.0	58.3	33.4	197.0	259.0	84.8	76.7	585.2	322.3	212.4
93	MP	399.2	363.6	339.2	134.7	82.4	92.1	131.0	156.9	260.6	100.6	90.4	358.6	316.7	206.2
94	MP	318.7	279.9	163.3	54.9	23.9	29.6	73.5	64.4	272.5	96.9	87.1	420.5	328.3	217.4
95	MP	146.6	53.5	33.2	44.3	37.6	89.0	167.3	309.9	263.1	100.1	75.2	381.2	330.1	197.8
96	MP	104.0	25.3	24.2	24.1	35.7	95.4	168.9	277.9	258.0	106.8	73.2	574.4	329.3	184.6
97	MP	94.1	38.8	20.3	35.9	79.8	35.4	74.8	249.2	244.3	112.5	81.0	314.6	315.6	177.5
98	MP	337.1	237.2	146.0	76.8	61.0	42.8	37.0	110.5	267.6	96.3	85.1	448.7	328.6	216.4
99	MP	132.3	51.8	33.1	33.9	89.1	54.7	140.0	275.1	262.2	108.9	67.6	413.4	341.4	181.3
100	MP	199.6	80.8	66.2	63.2	104.0	39.7	101.0	233.6	267.4	100.5	75.6	455.8	334.5	202.4
101	MP	180.6	83.4	53.3	63.7	88.3	36.6	93.2	231.9	260.0	102.1	78.0	503.9	326.3	196.1
102	MP	110.4	46.0	23.2	30.8	39.7	72.9	156.4	316.9	260.7	104.7	70.1	521.1	334.6	186.1
103	MP	88.4	28.9	20.3	15.1	34.7	92.9	170.6	270.9	260.3	106.5	77.4	499.9	326.2	189.5
104	MP	113.4	43.1	19.5	41.7	75.1	32.4	69.3	229.7	247.7	113.6	82.1	302.4	317.8	180.3
105	MP	201.6	78.2	56.8	53.0	111.8	44.2	107.8	249.4	265.7	102.9	73.6	444.4	335.8	197.0
106	MP	96.0	38.2	21.9	39.6	35.8	77.0	147.2	302.4	260.4	102.9	70.2	572.9	331.4	185.6
107	MP	61.2	32.7	18.9	26.5	93.7	64.1	165.7	322.3	256.0	122.6	68.6	471.6	346.4	168.8
108	MP	99.6	31.0	14.5	29.1	34.8	87.9	157.5	314.1	256.7	107.4	69.9	574.1	330.8	178.1
109	MP	145.9	40.6	21.7	48.6	32.2	76.0	176.8	325.4	258.5	108.5	67.6	414.9	336.7	177.3
110	MP	78.0	18.8	21.0	36.0	47.0	83.7	155.8	301.7	249.3	116.0	74.7	727.8	318.3	164.1
111	MP	125.7	61.6	27.9	16.6	53.6	119.5	189.6	282.8	251.8	116.4	79.9	592.5	318.4	173.5
112	MP	284.5	163.0	122.1	88.3	73.9	18.2	31.1	72.6	257.6	91.0	81.0	644.0	321.0	209.4
113	MP	230.3	99.8	73.6	76.6	72.8	43.4	90.2	216.7	268.1	93.8	76.0	408.7	330.8	208.0
114	MP	123.6	59.0	23.2	12.9	53.5	118.4	181.9	272.0	254.2	113.2	79.7	548.8	320.1	178.8

115	MP	305.7	348.1	215.3	95.7	27.6	23.1	55.9	76.9	262.7	105.2	87.8	490.9	323.6	204.1
116	MP	88.4	23.7	29.8	39.7	43.8	93.5	174.8	315.5	254.2	112.2	77.0	608.2	320.4	175.7
117	MP	81.0	21.4	19.5	34.4	50.0	84.9	155.5	301.5	249.9	116.2	74.4	746.5	319.2	164.4
118	MP	348.9	193.3	104.8	67.1	52.7	21.1	64.0	188.5	270.6	88.7	80.6	604.0	333.0	223.7
119	MP	218.6	109.4	70.0	51.4	53.3	16.6	43.2	151.5	258.6	97.6	79.6	527.9	322.1	200.1
120	MP	117.0	42.8	19.1	36.1	66.4	29.9	64.4	225.7	251.4	110.6	82.4	307.3	319.6	186.4
121	MP	306.5	203.3	144.5	47.5	65.0	124.5	211.8	305.3	264.9	89.7	83.6	304.0	319.5	212.8
122	MP	137.8	36.4	15.7	47.2	37.0	72.9	152.6	336.4	260.0	112.6	65.6	426.4	343.0	172.8
123	MP	190.4	84.5	58.5	50.2	45.7	104.4	182.6	354.7	264.5	96.4	78.2	307.8	326.7	204.1
124	MP	116.0	23.2	13.0	40.9	32.5	85.4	176.2	383.4	256.6	114.3	67.2	447.3	339.1	170.3
125	MP	354.5	173.6	104.7	59.2	46.3	24.5	63.1	184.8	271.3	88.6	80.8	567.3	333.0	224.0
126	MP	89.0	24.0	6.0	25.0	32.0	99.0	172.0	340.0	254.0	112.0	70.0	532.0	332.0	172.0
127	MP	67.0	31.0	4.0	16.0	29.0	85.0	163.0	294.0	252.0	114.0	69.0	528.0	333.0	169.0
128	MP	100.9	40.4	21.8	34.5	41.8	77.6	152.5	315.1	259.4	105.5	69.5	537.4	333.7	182.8
129	MP	88.4	34.9	17.5	53.1	30.7	86.2	149.1	270.2	260.7	102.0	72.0	589.3	329.5	188.9
130	MP	88.0	28.0	8.0	27.0	35.0	96.0	167.0	334.0	254.0	111.0	69.0	560.0	332.0	172.0
131	MP	87.4	23.0	5.6	24.8	32.0	100.0	173.8	341.6	253.2	112.4	70.0	529.6	331.6	171.2
132	MP	88.0	26.0	7.0	27.0	33.0	97.0	169.0	335.0	254.0	111.0	69.0	551.0	332.0	173.0
133	MP	92.0	28.0	22.3	38.0	31.0	94.7	149.0	263.7	260.0	103.3	72.3	630.3	328.0	186.0
134	MP	89.0	22.0	5.0	24.0	31.0	101.0	176.0	341.0	254.0	112.0	70.0	525.0	332.0	172.0
135	MP	388.1	202.8	106.1	113.7	60.6	51.3	45.8	222.8	259.1	87.5	75.4	562.1	324.7	209.1
136	MP	110.4	43.8	9.8	26.7	102.3	47.2	112.3	290.8	254.1	117.6	74.4	434.3	333.9	176.6
137	MP	99.7	23.6	12.2	29.8	35.5	84.2	170.4	376.7	255.6	112.5	68.0	465.9	336.3	172.3
138	MP	224.3	131.2	103.5	83.6	61.1	36.5	80.3	188.7	269.5	90.9	78.8	429.4	329.3	214.7
139	MP	333.0	221.3	138.7	110.6	80.8	31.2	27.8	89.3	256.9	91.5	80.6	638.3	321.9	209.0
140	MP	302.9	158.4	120.8	90.3	36.3	55.4	119.0	205.5	270.6	86.0	82.0	446.0	326.6	222.6
141	MP	121.0	26.6	13.8	43.7	31.5	79.1	169.4	363.2	256.4	115.0	66.6	444.7	340.1	168.6
142	MP	183.3	70.5	52.9	47.4	37.1	85.5	179.5	325.3	263.4	96.7	76.9	355.6	327.9	202.8
143	MP	389.0	225.2	119.7	89.3	85.0	21.7	51.4	132.0	266.5	95.8	79.7	628.2	335.8	216.2
144	MP	262.7	196.8	74.7	168.2	98.0	98.9	88.8	179.1	257.6	84.4	78.2	595.0	320.2	213.0
145	MP	57.0	180.3	120.8	86.4	54.9	24.8	50.1	118.5	264.8	101.3	82.2	558.5	328.2	205.9
146	MP	59.6	241.4	207.9	164.0	42.9	27.0	46.7	71.5	257.3	98.1	80.6	561.8	321.3	200.8
147	MP	61.2	219.2	191.6	129.6	42.2	27.6	51.8	87.4	260.2	98.8	83.0	533.4	321.8	203.4
148	MP	266.6	615.4	571.5	380.5	125.1	131.0	133.5	65.3	273.7	104.4	72.9	936.9	355.6	213.4
149	MP	114.7	364.5	281.5	198.0	73.1	49.1	85.9	118.2	232.2	102.2	84.6	419.5	293.8	173.5
150	MP	68.1	285.4	286.5	238.5	52.1	32.3	51.6	49.1	258.9	102.1	81.8	564.5	325.6	201.4
151	MP	221.7	553.3	542.8	379.6	127.0	100.4	145.8	158.2	252.6	104.2	81.9	431.7	318.0	191.3

152	MP	68.8	222.6	148.5	115.7	77.3	43.6	81.9	159.2	260.4	89.8	81.7	524.8	317.0	207.7
153	MP	97.9	410.0	394.5	299.3	72.5	47.2	72.9	68.2	258.4	99.7	82.9	499.0	322.2	202.6
154	MP	426.4	705.0	621.3	375.8	143.9	150.7	181.0	112.7	258.0	105.7	77.9	792.7	334.1	199.1
155	MP	499.4	559.9	475.1	259.3	113.2	142.6	184.5	198.4	312.6	97.2	74.2	880.6	380.4	250.4
156	MP	453.0	385.0	94.0	135.0	59.0	68.0	101.0	308.0	264.0	77.0	74.0	510.0	323.0	220.0
157	MP	438.0	692.0	609.0	367.0	138.0	145.0	187.0	123.0	276.0	104.0	78.0	856.0	352.0	219.0
158	MP	59.5	62.5	19.3	36.0	20.8	68.0	99.8	142.3	228.3	109.0	64.3	2089.0	304.5	136.0
159	MP	316.0	623.0	534.7	338.6	114.4	109.9	165.7	171.5	241.6	105.6	84.9	405.7	305.9	182.2
160	MP	129.4	195.8	103.0	59.2	95.2	51.4	46.0	123.0	273.2	81.0	80.2	563.0	326.4	225.8
161	MP	136.2	182.0	68.4	68.0	96.0	80.0	53.4	121.0	267.6	80.4	76.4	630.2	326.0	222.0
162	MP	170.0	193.8	75.2	82.7	89.7	85.8	50.5	131.0	265.7	80.3	74.5	679.2	326.5	219.5
163	MP	216.1	184.1	78.9	120.4	88.0	65.1	66.8	160.8	257.3	84.6	76.6	672.1	321.0	211.0
164	MP	82.6	44.9	45.5	49.8	53.9	92.4	171.0	273.0	250.5	115.4	76.3	635.6	320.4	170.0
165	MP	207.2	106.6	83.0	72.6	82.4	34.5	88.8	218.6	267.9	95.6	78.7	464.5	330.8	210.0
166	MP	52.3	47.0	18.8	38.6	27.9	64.3	97.3	148.8	207.2	118.0	68.1	1815.7	283.3	111.3
167	MP	269.7	145.0	101.2	76.2	35.8	52.0	96.8	218.3	272.4	86.4	83.6	394.5	327.5	224.7
168	MP	135.8	113.2	83.4	86.9	118.8	208.2	270.5	413.7	238.6	103.8	73.9	1097.9	304.9	165.1
169	MP	314.8	154.7	73.7	105.8	67.0	63.4	57.0	175.6	251.1	91.1	76.4	517.3	318.6	199.9
170	MP	114.3	29.6	16.4	33.0	39.7	86.7	172.3	382.3	257.1	109.7	68.7	468.3	335.2	176.8
171	MP	146.9	443.8	337.4	240.3	81.8	61.2	106.4	134.1	220.5	104.0	85.0	383.9	282.5	160.8
172	MP	71.4	46.9	36.8	43.5	63.3	109.9	166.4	252.4	191.7	135.3	67.0	1898.7	280.1	80.0
173	MP	243.9	314.4	307.5	126.7	116.9	147.7	230.7	179.0	149.2	106.6	88.4	359.4	210.1	90.3
174	MP	156.1	102.7	85.6	74.4	131.7	219.0	296.9	217.4	238.5	129.5	84.5	494.2	311.5	159.2
175	MP	341.9	155.7	73.7	109.2	66.2	60.6	56.0	187.0	251.0	92.4	75.2	513.1	319.6	197.3
176	MP	478.9	254.4	84.4	96.8	46.0	39.0	70.9	283.8	261.4	89.1	73.0	507.3	329.2	207.9
177	MP	176.4	56.9	41.2	50.1	113.2	50.8	129.4	313.7	260.3	107.6	73.9	459.1	333.4	188.6
178	MP	408.4	464.9	414.7	156.9	128.5	186.0	271.4	207.3	259.1	92.5	81.2	664.0	316.5	203.1
179	MP	376.3	570.8	284.5	157.7	197.4	254.9	423.0	274.1	213.9	106.1	83.2	551.9	282.6	155.9
180	MP	332.2	213.2	171.7	92.4	38.7	54.1	109.5	222.7	267.4	91.2	86.1	322.7	322.7	217.6
181	MP	126.8	32.3	14.9	45.1	38.9	71.6	150.3	340.9	259.0	115.3	65.7	443.0	343.9	169.8
182	MP	205.9	405.7	213.9	100.4	100.4	23.6	82.7	249.0	242.0	87.3	80.7	514.4	297.8	190.3
183	MP	231.2	364.4	236.5	114.5	124.6	136.3	204.9	152.1	141.4	105.1	82.6	611.1	208.5	82.0
184	MP	78.3	55.0	40.8	46.7	75.8	120.8	169.2	267.0	215.4	104.3	71.8	1180.7	283.2	138.9
185	MP	103.9	71.7	60.6	52.7	95.1	146.7	213.5	298.4	235.1	121.3	78.3	678.6	308.3	154.4
186	MP	93.0	30.2	21.0	32.5	30.4	88.4	153.4	265.9	261.5	103.6	75.2	515.4	329.2	192.2
187	MP	356.9	158.5	83.0	109.5	67.4	53.6	38.4	170.5	253.3	92.2	76.0	563.8	322.0	201.4
188	MP	134.5	282.8	178.2	80.4	68.8	25.4	53.2	102.0	200.8	99.5	83.6	377.6	262.5	144.1

189	MP	258.4	84.5	57.9	58.4	28.1	82.1	158.7	344.4	263.4	93.1	79.3	343.1	324.2	207.4
190	MP	395.3	563.1	570.6	217.9	163.6	195.1	263.1	210.6	196.2	98.5	89.8	284.7	251.2	142.4
191	MP	282.8	239.3	149.0	125.2	147.0	188.6	231.7	300.0	257.0	92.4	85.5	396.3	309.1	201.8
192	MP	396.9	302.5	302.6	174.7	202.7	218.0	257.4	309.7	261.1	88.4	84.3	496.0	313.4	209.1
193	MP	233.8	275.9	309.4	112.0	97.7	190.9	289.3	241.3	153.4	97.6	91.1	246.4	207.0	100.4
194	MP	285.1	343.3	276.2	137.4	115.1	246.4	336.2	166.0	202.4	92.4	86.2	366.2	256.1	149.4
195	MP	350.0	526.5	564.0	206.5	149.5	182.0	249.5	204.5	145.0	95.5	87.5	419.5	199.5	91.0
196	MP	416.0	513.0	467.7	192.5	144.8	203.1	291.1	203.4	257.3	91.2	81.6	643.7	314.8	203.8
197	MP	415.4	308.2	261.6	148.7	167.0	214.7	283.6	399.2	256.7	89.3	87.4	415.2	307.1	205.1
198	MP	431.9	612.0	606.0	223.5	173.7	219.0	305.6	260.1	198.4	101.0	90.7	255.9	254.0	143.5
199	MP	467.3	414.6	410.6	216.3	181.2	203.9	227.9	192.9	263.3	89.1	76.4	742.2	323.2	207.2
200	MP	438.6	547.9	489.1	225.9	159.8	273.7	316.7	160.4	258.6	97.6	76.7	746.7	325.0	198.5
201	MP	255.4	410.9	386.9	154.1	106.7	207.2	262.1	143.8	110.0	83.2	81.5	355.7	161.5	60.0
202	MP	484.3	568.9	456.2	210.9	166.6	289.3	339.9	185.2	260.1	104.6	82.3	562.4	325.0	198.6
203	MP	394.3	322.5	307.6	168.7	178.4	220.2	266.9	302.1	258.2	88.3	86.3	463.0	309.4	207.4
204	MP	48.5	17.5	11.4	11.2	24.7	67.9	149.2	245.0	239.0	131.2	70.7	994.5	322.6	138.5
205	MP	64.2	28.9	38.1	42.0	100.3	133.7	184.0	228.5	175.7	152.5	78.3	784.1	266.2	72.4
206	MP	83.2	11.4	18.7	24.3	30.9	83.9	157.2	220.1	244.8	121.8	72.3	523.8	329.5	162.2
207	MP	412.1	390.8	331.1	175.2	73.0	91.5	143.9	181.6	243.7	105.1	90.2	342.1	303.6	187.6
208	MP	440.1	442.7	436.8	185.9	113.4	126.3	162.9	232.7	261.3	95.8	89.4	382.5	315.8	209.3
209	MP	127.4	151.0	96.8	58.7	63.1	115.4	194.2	155.7	155.6	109.0	86.2	386.5	222.0	96.2
210	MP	57.8	31.1	30.7	26.2	61.9	133.1	178.8	126.8	167.0	139.2	83.2	623.3	243.2	76.7
211	MP	71.7	26.4	17.5	32.2	82.9	70.3	178.0	335.7	255.6	122.4	66.4	464.5	347.5	164.6
212	MP	264.6	412.6	225.9	118.2	144.2	163.6	216.3	170.5	146.1	107.9	85.5	455.3	212.3	86.7
213	MP	70.7	11.2	8.5	16.1	26.8	77.1	132.7	210.3	258.7	117.9	72.7	624.9	340.0	178.8
214	MP	299.8	260.1	166.0	70.1	32.7	36.1	72.2	77.1	266.9	100.3	88.6	407.5	323.5	210.8
215	MP	180.2	81.6	50.7	62.8	59.3	122.6	201.2	294.1	256.6	106.2	75.9	588.4	322.7	183.6
216	MP	116.3	39.1	23.2	36.9	67.9	30.8	79.2	222.7	249.2	115.6	79.8	354.6	321.6	177.7
217	MP	472.1	500.4	483.8	227.5	135.4	141.8	186.3	242.9	252.9	104.7	90.8	374.6	312.2	197.5
218	MP	472.3	654.4	579.5	226.2	234.0	254.7	412.0	288.1	185.7	111.2	88.0	413.9	249.7	124.0
219	MP	86.0	50.0	55.5	43.5	97.5	182.0	271.5	221.0	221.0	135.5	86.0	471.5	295.5	138.5
220	MP	34.6	21.4	11.7	20.4	49.3	69.6	92.2	137.9	76.7	156.6	71.7	1377.2	176.9	-40.2
221	MP	307.8	308.8	172.4	64.5	25.2	25.2	64.9	63.4	272.8	98.7	86.2	477.0	330.2	216.3
222	MP	31.6	11.9	10.6	29.4	64.4	79.8	83.1	159.2	164.9	134.2	73.8	1118.2	247.1	66.7
223	MP	144.7	99.5	54.9	51.8	90.2	146.5	215.0	371.4	248.9	113.4	63.0	1868.9	325.1	146.8
224	MP	85.1	69.1	51.3	32.5	30.8	85.1	139.5	127.9	127.7	115.3	88.6	248.2	193.6	64.2
225	MP	71.7	36.7	41.3	41.8	94.5	167.3	228.0	248.3	187.9	138.4	81.7	645.5	265.5	96.9

226	MP	573.4	683.1	610.1	361.6	158.1	176.0	192.0	144.4	272.6	108.8	81.3	706.0	345.4	212.3
227	MP	400.4	472.0	389.6	160.3	164.2	254.8	379.5	266.8	252.5	96.7	85.7	519.7	309.2	197.2
228	MP	75.1	19.0	28.7	40.9	42.9	85.6	159.3	304.2	250.7	114.8	75.4	677.0	319.1	167.6
229	MP	48.5	12.5	9.1	12.6	24.3	75.1	144.6	221.9	242.3	128.9	70.9	784.6	327.2	146.6
230	MP	46.4	15.8	11.1	23.3	58.4	75.3	187.0	349.7	254.0	138.8	68.1	604.0	358.7	156.8
231	MP	86.2	16.2	17.3	16.2	31.2	91.1	152.3	229.2	255.0	112.0	74.1	587.8	331.4	181.2
232	MP	102.9	21.7	11.6	32.8	34.9	85.6	172.4	381.9	254.2	113.4	68.0	459.3	335.6	170.0
233	MP	99.8	20.7	10.5	38.1	30.0	76.4	158.9	357.4	256.1	118.4	66.4	465.9	342.2	165.2
234	MP	271.1	144.4	72.8	66.2	32.9	66.6	146.5	271.1	266.4	89.6	80.8	393.7	323.5	213.2
235	MP	268.7	179.7	96.7	52.0	31.3	11.3	18.7	84.0	268.0	85.3	80.7	622.7	326.0	221.3
236	MP	295.7	157.0	120.8	84.5	34.8	52.1	83.0	198.2	269.7	89.1	84.8	361.0	325.1	220.7
237	MP	235.2	128.0	97.4	83.4	39.4	51.9	113.0	222.9	271.8	85.1	82.5	435.7	327.0	224.4
238	MP	341.1	315.3	235.1	103.7	56.7	65.7	108.0	98.0	259.7	102.2	90.4	369.5	316.8	204.2
239	MP	73.1	34.5	25.0	27.1	54.6	33.3	74.1	194.0	253.1	109.9	76.0	309.3	326.0	182.5
240	MP	54.1	9.1	6.9	12.6	25.3	68.8	136.1	209.4	256.3	122.4	72.4	683.3	341.8	173.7
241	MP	123.1	28.3	13.5	45.3	34.2	74.5	158.7	352.0	257.3	115.7	65.9	445.0	342.3	168.0
242	MP	207.0	107.0	82.0	70.0	34.0	44.0	112.0	200.0	272.0	84.0	82.0	480.0	328.0	226.0
243	MP	83.1	24.6	10.2	23.3	33.5	78.6	163.1	349.5	254.8	113.1	68.1	478.5	335.7	171.1
244	MP	251.5	150.5	128.8	110.3	106.8	90.5	35.3	189.8	268.0	93.5	88.8	290.3	323.3	218.5
245	MP	20.2	8.0	4.0	20.0	73.5	85.7	162.0	377.4	256.2	137.6	71.3	518.2	352.0	160.4
246	MP	84.0	65.5	51.5	39.0	60.0	91.5	157.5	248.5	238.0	105.0	71.5	1227.5	307.0	161.5
247	MP	52.7	43.9	26.2	26.3	50.5	58.6	146.4	263.9	257.0	118.7	67.7	1348.6	337.7	164.2
248	MP	77.5	74.0	35.7	33.2	51.0	82.5	112.8	194.3	250.8	111.0	63.6	1764.7	326.5	153.1
249	MP	318.5	206.5	119.5	153.8	93.3	84.8	36.0	166.5	260.5	85.0	78.8	597.3	322.5	215.3
250	MP	55.5	26.1	19.2	44.9	97.0	114.4	137.8	246.0	214.5	113.1	71.0	1212.8	288.7	130.8
251	MP	47.8	13.9	8.3	11.9	29.4	61.9	149.9	246.5	253.4	124.9	71.8	831.9	337.7	164.7
252	MP	28.0	5.0	2.0	8.0	12.3	79.5	178.5	309.0	250.0	142.0	68.0	850.8	351.0	144.3
253	MP	70.0	36.0	18.0	26.0	67.0	39.0	77.0	252.0	253.0	113.0	79.0	321.0	326.0	184.0
254	MP	297.0	375.8	357.4	143.4	125.8	189.6	268.2	189.2	120.0	88.0	86.6	376.6	172.8	71.6
255	MP	339.0	480.7	508.3	197.3	142.3	183.0	239.0	187.7	173.0	98.0	90.3	293.7	226.7	119.0
256	MP	435.5	327.5	85.9	144.1	83.4	79.8	112.7	308.4	257.8	83.9	75.5	463.6	320.0	209.4
257	MP	204.0	207.0	160.5	93.5	91.0	225.5	332.0	139.5	145.5	78.0	90.0	245.0	189.0	103.0
258	MP	417.0	632.0	434.0	262.0	230.0	301.0	281.0	131.0	265.0	98.0	77.0	706.0	335.0	209.0
259	MP	455.5	549.0	496.0	254.5	186.0	282.0	293.0	167.0	270.0	96.0	73.5	888.5	341.5	212.0
260	MP	277.4	604.1	502.4	319.7	95.0	92.7	170.3	207.2	246.9	105.7	86.0	369.3	309.4	187.3
261	MP	205.8	192.8	64.0	65.8	45.0	45.5	52.8	145.0	265.5	82.0	77.3	609.0	326.5	220.8
262	MP	446.5	402.6	307.0	95.4	79.4	150.1	221.8	307.8	260.5	92.9	86.5	351.2	315.2	208.4

263	MP	520.5	394.0	90.3	160.3	80.0	82.3	125.0	343.0	259.3	84.5	75.0	446.0	322.5	210.0
264	MP	404.9	191.0	140.8	51.3	15.3	8.7	10.5	61.6	269.1	78.2	79.3	496.1	319.9	221.8
265	MP	421.7	344.2	252.4	72.8	54.3	90.6	165.7	258.7	265.8	92.2	86.7	309.5	320.4	215.0
266	MP	121.2	25.5	13.9	43.0	31.8	83.3	175.7	377.0	258.2	114.0	67.0	443.4	340.9	171.7
267	MP	140.9	38.5	15.0	48.3	42.1	71.9	142.7	331.3	262.2	112.6	65.0	428.5	345.8	174.0
268	MP	235.6	142.2	99.9	100.8	51.2	38.7	90.7	191.0	269.9	88.0	79.6	407.7	327.3	217.0
269	MP	191.3	128.2	68.1	63.6	92.2	144.3	208.7	308.2	256.0	101.0	83.9	344.8	314.6	194.8
270	MP	211.6	83.0	51.5	63.7	38.8	67.1	154.4	275.0	266.5	94.8	75.0	396.3	329.8	204.2
271	MP	265.1	135.2	76.2	73.1	41.7	56.9	126.5	241.5	268.3	88.9	79.8	388.5	325.8	215.0
272	MP	348.5	258.0	130.1	128.6	79.1	59.1	35.6	139.4	257.3	88.0	80.4	607.9	320.3	211.5
273	MP	245.7	128.5	99.5	73.2	35.9	44.3	106.8	244.7	271.5	85.2	83.1	415.7	326.5	224.3
274	MP	204.2	108.8	86.5	70.5	36.0	44.5	112.7	218.0	272.7	84.0	81.8	453.3	328.0	225.8
275	MP	279.6	122.1	112.5	71.3	25.9	28.9	72.5	167.2	271.0	86.1	81.2	460.4	328.6	223.3
276	MP	283.9	153.3	80.8	69.2	29.7	65.4	145.5	280.5	265.9	88.9	81.6	371.9	322.6	214.3
277	MP	380.3	321.8	184.8	129.1	86.9	57.7	43.7	134.3	269.6	87.6	82.2	515.7	329.3	223.2
278	MP	441.1	396.5	302.5	97.2	80.9	153.2	224.1	311.4	260.1	92.7	86.4	354.2	314.7	208.0
279	MP	285.2	127.4	91.5	66.6	26.5	70.4	151.0	310.5	264.6	88.7	82.9	343.6	321.0	214.7
280	MP	268.0	120.5	64.1	66.9	27.9	76.5	151.8	310.9	264.5	90.9	80.7	372.1	322.5	210.4
281	MP	255.4	122.4	70.0	73.6	42.0	60.2	126.5	245.2	268.1	89.9	78.8	390.3	326.6	213.4
282	MP	170.1	114.7	50.5	50.8	53.4	100.3	169.6	286.1	258.7	97.5	81.6	345.9	317.7	198.9
283	MP	155.3	211.2	133.0	78.9	89.8	142.8	250.4	181.7	182.6	114.4	85.5	427.9	253.4	120.4
284	MP	299.4	283.4	164.8	66.2	27.0	28.5	67.8	68.1	272.5	99.4	86.9	440.4	329.5	215.9
285	MP	347.6	266.9	188.8	118.0	89.3	172.9	234.2	345.6	256.5	91.2	85.0	348.4	311.2	204.5
286	MP	50.0	9.0	4.0	23.5	16.0	76.5	151.5	301.5	235.5	131.0	68.0	637.5	323.5	133.0
287	MP	340.2	157.3	102.1	37.8	21.2	37.0	65.2	178.8	269.8	89.2	83.3	434.6	327.1	220.4
288	MP	158.8	136.3	67.8	65.5	107.5	130.5	263.0	424.0	252.0	110.3	63.0	1959.0	326.0	152.0
289	MP	256.9	101.8	87.0	50.4	29.7	79.1	171.5	344.1	263.8	90.8	81.5	298.2	322.1	211.6
290	MP	84.6	19.6	8.8	26.8	31.9	79.7	163.1	355.0	253.6	114.8	68.0	466.7	336.0	168.3
291	MP	347.9	304.9	166.0	113.2	71.1	46.4	29.8	118.3	258.8	89.1	80.8	614.8	321.3	211.9
292	MP	120.3	43.5	19.2	33.1	60.3	28.6	61.3	221.7	256.1	108.9	82.6	306.1	323.3	192.0
293	MP	387.1	238.7	156.8	65.2	21.7	14.7	24.8	213.8	267.3	78.1	76.9	596.5	327.0	226.1
294	MP	206.4	82.6	46.6	56.1	69.1	50.7	104.3	234.8	265.0	98.5	71.8	392.5	333.3	197.0
295	MP	121.7	47.5	16.6	28.1	76.1	33.8	84.5	237.2	251.4	113.1	77.9	416.0	324.4	179.7
296	MP	274.8	363.8	221.9	100.9	25.7	22.4	50.3	73.8	266.4	106.4	88.7	484.7	327.3	207.7
297	MP	85.0	12.8	7.0	12.9	29.3	75.6	140.3	253.9	262.8	114.4	70.9	653.7	343.3	182.9
298	MP	88.0	24.4	23.8	22.4	29.9	89.6	154.6	255.2	260.6	105.0	75.9	563.8	328.5	190.5
299	MP	346.8	492.9	338.4	151.1	174.0	192.8	331.4	246.7	161.9	107.2	85.8	484.0	226.0	101.7

300	MP	86.1	14.2	11.2	13.7	30.0	85.0	139.3	226.3	259.4	112.2	71.9	620.9	337.7	182.8
301	MP	462.9	564.9	586.2	301.3	180.4	205.5	222.7	231.2	260.4	98.5	82.4	570.7	326.6	207.7
302	MP	476.0	396.0	106.5	193.5	98.0	90.0	126.0	347.0	256.5	81.0	76.0	456.0	317.0	211.0
303	MP	45.0	22.1	12.4	13.1	31.6	57.1	150.9	253.8	251.8	125.5	70.8	1086.6	334.0	157.8
304	MP	427.6	424.9	372.6	160.4	131.1	180.5	249.2	212.8	258.8	92.3	80.5	695.2	316.3	202.5
305	MP	185.5	154.8	107.2	98.1	159.5	253.0	301.1	453.5	238.7	106.0	78.3	804.3	302.5	168.0
306	MP	73.6	34.6	41.7	50.0	114.6	151.9	204.7	247.1	197.9	146.6	79.4	714.4	283.9	100.2
307	MP	131.1	144.9	87.5	49.3	87.2	140.3	233.0	134.9	189.3	109.1	83.4	430.8	255.7	125.8
308	MP	113.0	65.9	61.6	44.6	92.9	166.1	297.0	305.5	227.7	127.4	80.8	521.2	303.3	146.7
309	MP	440.3	472.5	407.6	171.0	138.1	187.9	254.1	203.3	261.1	91.0	79.2	735.9	318.7	204.5
310	MP	72.7	39.3	43.3	51.2	111.1	154.5	215.7	249.9	225.5	139.3	80.0	629.5	308.2	135.0
311	MP	71.1	29.2	34.7	52.2	43.5	79.8	149.8	276.6	252.2	113.9	75.7	639.7	320.9	171.2
312	MP	319.7	446.1	237.5	143.3	186.9	232.7	420.0	302.9	229.5	103.1	82.3	538.4	296.5	172.0
313	MP	119.6	69.2	72.9	66.3	131.2	256.0	363.5	380.1	227.6	122.9	83.3	456.5	297.9	151.1
314	MP	73.9	71.2	37.5	32.5	50.3	78.3	110.8	187.9	252.7	110.7	64.9	1571.3	328.1	158.9
315	MP	88.1	75.5	42.2	39.2	68.7	93.0	141.3	238.7	241.5	108.4	68.2	1440.7	314.0	156.2
316	MP	400.9	493.1	451.1	172.2	150.3	231.5	345.3	242.0	254.9	94.7	84.7	528.6	311.7	200.6
317	MP	270.6	369.4	298.5	127.8	137.0	155.8	248.4	184.0	129.0	105.1	85.6	504.8	193.2	71.2
318	MP	372.5	443.5	468.9	185.5	163.6	228.1	333.6	264.7	221.7	102.7	90.0	277.7	278.9	165.6
319	MP	205.7	232.3	244.7	91.3	84.0	196.3	285.3	236.3	161.3	100.0	90.7	193.7	216.3	106.7
320	MP	290.1	227.0	155.9	108.0	139.1	156.0	257.9	272.8	263.5	97.1	84.7	444.5	321.5	207.3
321	MP	63.2	37.3	34.0	41.9	48.7	85.2	138.6	246.0	256.5	109.4	68.8	1021.5	331.1	173.3
322	MP	29.9	17.6	11.3	20.7	48.7	65.7	88.6	137.4	74.0	157.3	72.0	1307.7	173.9	-42.7
323	MP	274.5	180.1	96.2	78.6	120.1	154.1	226.5	260.6	266.7	103.0	81.4	444.6	327.8	202.2
324	MP	261.2	177.7	111.7	83.9	104.9	131.0	249.8	270.0	268.0	103.1	84.0	392.6	328.7	206.7
325	MP	312.3	322.1	310.8	149.8	135.6	183.0	291.7	270.2	256.6	97.7	85.8	487.1	312.6	199.6
326	MP	109.3	85.3	63.4	60.3	89.4	152.1	222.5	338.7	252.2	107.3	73.5	1071.0	320.9	175.9
327	MP	596.0	751.0	668.0	262.0	242.0	350.0	540.0	339.0	250.0	90.0	83.0	515.0	307.0	199.0
328	MP	114.4	45.1	33.5	44.2	39.0	78.9	158.1	274.4	256.4	108.6	76.6	570.9	322.0	181.0
329	MP	113.6	45.0	31.0	47.2	47.0	96.3	168.6	295.4	254.6	107.7	76.5	583.2	319.1	179.4
330	MP	80.3	28.3	6.3	24.3	33.7	93.7	166.7	322.3	251.3	112.3	69.0	517.7	331.0	169.3
331	MP	47.0	31.0	0.4	7.1	16.8	70.1	147.1	238.0	249.0	117.4	69.0	498.3	332.8	163.8
332	MP	115.0	52.1	25.2	18.7	46.2	107.4	187.5	278.9	253.6	115.9	79.0	634.7	320.9	174.8
333	MP	296.9	170.4	115.8	69.3	49.3	48.0	36.6	127.4	268.6	103.6	88.0	302.4	330.0	213.0
334	MP	419.2	396.0	307.8	106.2	84.3	156.4	207.9	296.5	257.1	92.6	85.9	384.1	311.5	204.7
335	MP	334.1	269.4	199.7	71.8	75.4	145.7	242.9	310.2	261.6	91.1	84.6	331.9	316.3	209.1
336	MP	77.8	11.9	7.4	14.8	27.8	76.7	135.7	229.8	261.0	116.0	71.8	638.6	341.7	181.0

337	MP	159.7	66.6	44.3	47.3	42.0	98.4	164.9	319.2	263.8	99.3	77.0	322.7	328.0	200.0
338	MP	64.0	28.0	2.2	13.8	24.8	85.3	163.2	291.8	251.2	115.0	69.0	501.8	332.5	167.2
339	MP	284.9	160.0	109.4	30.9	42.0	79.1	174.0	284.2	266.0	89.0	84.8	305.4	321.2	217.0
340	MP	93.0	29.5	21.6	31.5	51.9	95.2	168.0	314.5	249.1	118.7	76.6	728.8	317.9	164.0
341	MP	69.7	22.9	22.7	33.8	48.2	82.5	145.8	276.4	251.3	110.1	71.1	816.5	321.3	167.6
342	MP	441.5	279.8	149.0	98.3	33.3	21.3	9.8	106.0	263.5	92.0	81.8	473.3	324.8	212.8
343	MP	77.0	29.3	9.7	12.7	35.7	14.3	64.7	167.3	266.0	112.0	77.0	283.0	339.0	194.0
344	MP	49.5	9.0	5.0	12.0	23.0	64.5	136.0	218.0	260.5	121.5	71.5	741.0	345.5	176.5
345	MP	342.0	133.0	90.0	30.0	8.0	4.0	10.0	33.0	269.0	75.0	78.0	512.0	318.0	222.0
346	MP	80.2	30.7	12.0	14.8	39.2	15.8	66.7	178.2	266.3	110.7	77.7	280.7	337.7	195.5
347	MP	57.8	29.8	1.5	10.8	22.5	80.8	159.5	275.0	251.8	115.5	68.5	505.0	333.5	166.8
348	MP	54.3	32.3	1.7	8.7	23.0	78.0	159.7	267.0	253.0	115.7	68.7	506.7	335.0	168.0
349	MP	113.2	22.5	12.8	38.0	34.7	87.9	177.1	391.4	256.2	113.3	67.8	449.0	337.6	171.6
350	MP	84.3	15.1	8.0	31.1	30.4	79.2	158.9	353.3	253.5	116.9	67.6	463.3	337.6	165.8
351	MP	364.9	279.5	158.9	118.9	111.4	75.5	49.4	143.2	268.3	95.3	85.0	437.4	329.6	218.3
352	MP	220.4	110.4	55.2	35.4	38.2	44.4	46.8	166.7	272.3	103.2	87.2	312.8	333.6	215.6
353	MP	82.0	26.0	5.0	23.0	32.0	96.0	170.0	332.0	251.0	113.0	69.0	528.0	331.0	169.0
354	MP	55.0	27.0	1.0	10.0	19.0	76.0	154.0	261.0	252.0	117.0	69.0	492.0	335.0	166.0
355	MP	85.0	24.4	20.9	21.4	29.6	87.3	149.1	265.6	261.7	104.1	76.7	477.4	327.6	192.8
356	MP	99.3	22.6	25.9	19.5	34.6	94.3	167.4	263.9	259.5	107.6	74.8	570.1	330.5	187.3
357	MP	59.0	26.0	1.0	12.0	20.0	79.0	158.0	274.0	250.0	116.0	69.0	515.0	333.0	165.0
358	MP	272.7	98.3	53.3	65.2	29.6	81.6	155.3	345.7	264.0	92.9	79.0	368.0	324.2	207.4
359	MP	92.7	42.2	19.1	50.9	32.2	78.0	154.0	297.1	262.0	102.0	71.5	548.7	331.9	190.3
360	MP	378.7	206.8	132.8	87.6	40.8	29.1	13.3	123.9	267.5	84.8	84.8	448.1	322.8	223.0
361	MP	376.0	231.2	172.4	155.2	111.3	89.7	34.9	173.4	268.9	92.7	85.8	400.1	327.2	219.9
362	MP	437.7	265.5	144.2	94.7	32.5	21.5	10.1	107.1	263.7	90.8	81.9	471.2	324.4	214.1
363	MP	60.0	33.0	3.5	12.8	27.5	79.3	161.0	282.5	251.5	115.0	68.8	502.5	333.5	167.3
364	MP	474.0	349.0	155.0	85.0	20.0	6.0	4.0	80.0	262.0	93.0	80.0	537.0	327.0	211.0
365	MP	441.0	319.0	156.0	81.0	20.0	6.0	5.0	65.0	263.0	90.0	80.0	526.0	325.0	213.0
366	MP	427.5	301.0	162.0	82.5	20.5	7.5	6.5	63.0	264.0	87.5	79.5	527.0	324.0	215.0
367	MP	392.2	194.7	148.1	73.7	32.1	8.6	7.4	106.4	273.7	72.6	80.5	565.4	321.3	231.7
368	MP	474.0	351.0	164.0	98.0	27.0	11.0	5.0	97.0	262.0	94.0	79.0	514.0	327.0	209.0
369	MP	400.0	225.0	133.7	90.3	37.7	27.3	12.7	117.3	266.3	87.0	83.7	444.7	323.3	220.0
370	MP	364.5	196.0	134.0	86.5	43.5	29.0	13.0	126.0	269.5	82.0	84.5	454.5	322.5	226.0
371	MP	53.7	32.0	2.0	8.3	24.3	77.0	161.3	269.3	250.7	115.7	68.7	509.7	333.3	165.7
372	MP	186.9	129.7	66.8	80.8	61.1	99.5	165.2	284.9	259.8	93.9	81.3	336.7	317.8	203.1
373	MP	120.5	52.8	32.3	20.0	37.0	96.9	151.3	291.8	261.0	103.8	78.6	403.9	324.6	193.3

374	MP	69.5	31.0	5.5	18.5	31.0	86.0	162.5	297.5	252.5	113.5	68.5	521.5	333.5	169.0
375	MP	50.6	12.4	7.3	10.3	28.0	67.2	154.9	243.8	249.8	126.6	71.4	735.7	335.5	159.2
376	MP	57.0	29.0	1.0	10.5	21.5	79.5	158.0	272.0	251.0	116.0	69.0	502.0	333.5	166.5
377	MP	283.9	209.9	123.1	55.6	26.8	16.0	21.9	62.8	265.4	88.6	82.9	567.9	323.8	217.7
378	MP	381.5	342.6	178.5	114.0	67.6	48.1	39.6	125.6	268.1	87.8	81.6	558.7	328.8	221.7
379	MP	60.3	9.9	7.0	14.3	24.9	71.0	134.1	212.2	259.4	119.9	72.4	662.8	342.5	178.0
380	MP	65.2	10.2	8.2	15.4	25.7	75.2	132.3	202.5	257.7	119.5	73.0	625.0	340.2	177.3
381	MP	183.0	89.6	42.3	43.5	76.6	155.4	211.5	301.2	256.7	104.0	80.2	488.4	317.3	188.2
382	MP	146.1	62.1	26.6	31.4	62.4	26.8	64.6	199.0	254.8	104.8	79.0	461.7	321.3	189.4
383	MP	310.9	243.8	168.8	123.6	81.9	157.6	223.4	328.2	257.6	91.1	84.5	338.9	312.7	205.1
384	MP	82.6	14.5	12.4	12.3	29.5	83.2	142.1	232.5	261.4	110.7	71.5	634.1	339.1	185.3
385	MP	83.1	13.0	9.7	15.3	29.3	82.2	134.7	220.8	260.2	114.5	71.9	620.0	339.9	181.8
386	MP	91.0	34.3	15.1	35.7	42.3	88.9	157.3	315.9	256.3	109.4	68.9	541.3	333.5	175.8
387	MP	345.5	273.3	227.9	75.4	42.5	57.0	114.3	189.0	266.7	93.8	87.9	309.0	321.6	215.7
388	MP	136.1	47.4	24.4	36.5	48.1	20.5	51.8	184.1	250.1	107.5	80.7	393.2	316.9	184.5
389	MP	155.0	64.8	36.9	52.9	53.7	116.6	178.9	311.9	255.0	103.3	75.7	586.9	317.8	182.1
390	MP	163.3	68.4	37.9	46.7	77.4	34.8	85.8	231.9	257.6	104.5	77.8	485.2	325.2	191.7
391	MP	56.0	31.0	2.0	9.0	23.0	79.0	159.0	270.0	252.0	116.0	69.0	505.0	334.0	167.0
392	MP	363.0	195.0	134.0	87.0	43.0	29.0	13.0	126.0	269.0	83.0	85.0	448.0	322.0	225.0
393	MP	55.5	31.5	1.8	9.0	23.3	78.8	159.5	269.8	252.8	115.5	68.8	505.5	334.5	167.8
394	MP	71.0	29.0	4.0	18.5	29.5	89.0	164.5	305.5	252.5	113.5	69.0	523.0	333.0	169.0
395	MP	241.3	125.5	76.2	55.0	58.0	18.3	41.0	166.1	261.9	95.7	80.1	546.3	325.7	206.7
396	MP	351.8	214.2	155.1	130.0	83.4	72.0	27.4	156.7	268.7	95.7	87.0	355.9	327.4	218.1
397	MP	279.9	217.5	130.1	62.2	42.0	23.3	28.7	81.2	267.2	91.5	83.6	540.1	326.7	217.9
398	MP	256.8	349.8	427.4	147.1	103.1	157.2	202.5	176.0	111.7	86.9	87.6	441.4	162.5	64.1
399	MP	224.0	211.0	162.0	94.0	97.0	237.0	339.0	162.0	152.0	81.0	90.0	248.0	197.0	107.0
400	MP	329.1	474.5	546.3	184.4	139.6	187.0	263.9	236.2	152.6	97.8	90.1	348.4	206.9	99.1
401	MP	245.8	235.5	73.5	87.3	52.8	52.0	64.3	160.3	265.0	81.0	78.3	577.3	324.0	221.3
402	MP	171.6	194.1	80.5	80.5	110.0	95.9	68.2	140.2	266.7	82.4	76.8	651.7	326.8	220.2
403	MP	191.0	173.0	72.5	97.3	92.5	77.5	64.3	150.5	266.5	84.0	77.0	643.5	328.0	220.0
404	MP	246.3	225.4	119.8	53.5	71.6	23.9	46.0	146.6	262.8	88.8	76.0	715.7	329.6	213.6
405	MP	181.6	176.8	69.7	121.1	97.0	85.2	65.8	132.8	265.2	82.4	75.2	681.7	327.7	218.7
406	MP	164.3	217.6	110.2	62.0	91.7	42.6	53.3	138.9	271.3	86.9	79.6	598.2	330.1	221.5
407	MP	322.5	240.4	72.3	147.2	88.5	87.3	100.8	228.1	252.1	83.7	77.3	489.8	313.1	205.4
408	MP	502.9	393.2	95.8	173.0	88.0	86.5	126.0	344.4	258.6	83.1	75.0	449.4	321.0	210.8
409	MP	445.4	280.0	75.4	139.3	81.9	77.0	117.5	324.9	251.5	87.8	74.7	432.5	316.1	199.1
410	MP	97.5	44.0	19.9	50.4	32.4	77.2	155.5	300.5	261.9	102.5	71.7	534.1	332.5	190.2

411	MP	139.8	187.7	83.0	59.5	101.3	80.5	63.2	116.0	269.5	81.0	77.5	619.5	326.8	223.0
412	MP	41.0	27.5	0.5	6.0	14.8	61.4	140.8	224.0	248.5	119.8	68.5	490.7	334.3	160.8
413	MP	315.2	208.9	93.3	44.6	60.8	13.7	28.0	60.2	260.2	105.5	77.1	695.2	341.3	205.4
414	MP	194.2	196.0	80.6	93.2	80.2	73.8	63.6	147.2	264.9	81.9	76.9	610.1	326.3	220.4
415	MP	42.5	25.0	10.4	10.0	27.3	55.5	136.6	222.2	244.0	131.6	69.7	1347.7	329.3	141.5
416	MP	72.0	17.7	8.4	9.1	22.5	83.8	165.3	205.1	263.9	106.9	74.3	590.1	336.0	192.8
417	MP	174.2	140.8	72.7	70.0	116.3	146.3	296.8	467.9	252.0	110.5	62.3	2000.7	327.0	150.7
418	MP	267.5	154.0	129.0	114.0	102.5	90.0	35.5	187.0	268.0	93.0	88.0	307.5	323.0	218.0
419	MP	45.3	34.5	16.8	16.9	34.8	53.1	138.3	231.1	250.9	124.3	69.1	1385.1	332.6	154.0
420	MP	171.5	112.5	67.5	64.5	114.5	214.0	286.5	456.0	246.0	117.5	63.0	1996.5	324.5	139.5
421	MP	63.4	44.2	45.5	35.0	43.9	66.4	125.0	217.4	260.5	111.8	71.1	1042.3	335.6	179.6
422	MP	329.0	445.5	299.0	162.0	181.5	234.0	422.0	293.5	203.0	111.0	84.0	516.5	275.5	143.5
423	MP	164.7	138.3	69.7	67.0	110.7	136.0	275.0	439.7	252.0	110.3	62.3	1992.0	327.0	151.0
424	MP	377.1	497.3	485.7	186.6	159.3	220.6	322.1	277.9	202.7	104.9	91.3	242.7	259.9	145.7
425	MP	64.5	62.0	33.0	32.5	63.0	70.0	132.5	233.0	257.5	114.0	65.5	1541.5	336.0	163.0
426	MP	14.2	6.8	8.2	16.7	46.7	67.6	114.0	150.7	99.0	160.6	75.2	1098.0	197.7	-14.9
427	MP	9.0	5.0	6.0	17.0	55.0	55.0	94.0	120.0	57.0	164.0	73.0	1224.0	158.0	-64.0
428	MP	121.2	130.8	81.8	46.5	87.0	139.7	224.3	125.7	181.9	108.9	82.8	423.2	248.3	117.6
429	MP	61.0	34.1	36.8	37.6	80.0	119.4	171.3	231.6	196.6	146.4	78.4	732.3	285.5	99.9
430	MP	37.2	15.0	22.0	22.4	71.6	111.2	131.8	147.4	141.6	144.8	80.2	758.4	222.8	43.0
431	MP	83.1	77.6	58.0	36.9	40.1	96.3	153.6	116.2	139.7	121.5	88.5	296.5	208.3	71.7
432	MP	189.5	334.8	155.6	85.2	89.2	11.5	41.3	116.7	266.4	88.2	79.4	562.2	325.2	214.7
433	MP	86.4	80.5	41.3	38.6	68.1	76.3	150.6	269.5	255.9	113.0	64.2	1746.8	331.9	158.0
434	MP	146.1	442.6	337.2	240.3	81.6	60.9	105.9	133.6	221.0	103.9	85.0	384.9	283.0	161.3
435	MP	254.3	217.3	118.6	47.0	60.9	19.7	41.2	132.6	262.2	90.1	76.5	709.7	329.9	213.0
436	MP	131.6	140.2	85.5	51.5	95.3	145.1	220.6	128.9	192.6	102.9	79.6	464.7	257.9	129.6
437	MP	316.0	367.7	192.0	110.9	157.4	207.9	404.8	300.2	257.2	97.4	84.7	474.9	317.0	202.7
438	MP	208.5	107.4	65.9	66.1	91.3	150.2	232.7	261.2	260.5	109.7	78.6	547.8	327.7	189.0
439	MP	344.7	283.9	209.9	140.8	185.3	205.2	229.4	302.0	258.8	91.9	85.4	434.3	311.6	204.7
1	MR	376.9	403.5	248.8	224.4	194.0	215.1	259.4	250.1	296.2	101.0	80.4	389.3	363.6	238.7
2	MR	265.8	228.2	133.9	185.3	198.3	207.9	212.1	263.3	298.0	99.9	81.2	431.2	365.0	242.8
3	MR	22.8	12.9	6.2	11.9	37.5	58.6	114.1	135.1	135.9	138.6	72.9	1026.4	222.4	33.6
4	MR	279.7	266.7	118.4	137.6	171.8	187.8	219.6	235.3	298.3	96.9	74.2	792.5	373.6	244.0
5	MR	396.4	432.2	165.8	135.8	144.1	157.5	142.6	116.8	278.7	116.4	87.8	364.8	345.0	213.4
6	MR	263.5	233.3	59.1	72.8	120.9	164.0	239.5	187.9	312.8	124.4	74.7	638.2	404.4	239.1
7	MR	285.3	247.8	171.4	217.5	198.9	211.0	237.8	280.2	300.4	102.9	81.1	429.8	369.6	243.6
8	MR	310.4	493.7	240.1	121.3	89.7	112.3	117.1	113.6	202.9	111.7	85.6	446.3	272.7	142.4

9	MR	249.8	179.4	115.0	116.6	111.1	136.1	178.5	230.7	30.1	7.4	38.6	15.4	30.9	28.8
10	MR	136.1	49.8	55.7	18.8	40.9	85.3	150.0	174.7	312.3	131.1	69.6	1118.2	406.5	219.6
11	MR	162.1	74.9	37.0	26.7	67.2	147.0	190.6	249.7	305.3	131.1	66.3	1702.5	396.8	200.4
12	MR	315.5	180.8	52.3	116.1	72.1	53.5	80.3	212.5	313.5	95.3	71.8	1281.7	386.4	254.7
13	MR	313.3	152.7	82.3	49.9	24.3	15.0	24.9	76.8	309.4	95.6	75.9	850.1	379.5	254.2
14	MR	273.7	161.5	124.8	178.3	141.5	114.8	152.2	180.5	311.2	100.4	78.0	823.3	381.1	253.1
15	MR	89.6	36.0	15.2	24.8	71.1	113.8	156.8	208.6	272.0	133.9	72.2	1508.7	358.0	173.9
16	MR	85.3	31.3	13.7	20.3	49.0	108.3	146.7	172.0	242.7	109.3	69.3	1373.3	318.3	162.3
17	MR	308.3	186.0	70.6	52.5	15.7	8.6	15.5	46.1	302.6	81.9	74.5	743.0	360.6	251.5
18	MR	64.4	18.4	6.6	15.6	42.8	87.2	101.4	146.4	239.4	125.8	75.8	1229.2	316.4	152.0
19	MR	316.0	198.0	42.0	64.0	45.0	32.0	88.0	173.0	307.0	78.0	66.0	1494.0	375.0	258.0
20	MR	94.3	38.1	20.1	30.9	67.6	54.3	133.7	260.7	309.5	133.5	74.6	1497.8	406.9	229.3
21	MR	214.4	43.8	37.5	35.3	76.7	156.5	181.1	224.3	314.0	125.8	74.1	1045.1	409.5	240.4
22	MR	277.0	138.0	66.0	121.0	121.0	99.0	116.0	238.0	314.0	109.0	79.0	978.0	389.0	252.0
23	MR	68.8	35.4	25.6	27.2	51.4	57.6	113.8	203.8	301.8	112.4	73.0	1091.0	379.2	226.0
24	MR	191.6	68.9	30.8	24.7	36.3	55.2	131.9	283.6	320.1	118.8	74.0	1462.6	408.7	249.2
25	MR	212.7	42.0	39.0	35.3	74.0	159.0	179.7	221.7	318.7	124.0	72.3	1107.0	414.3	243.3
26	MR	204.5	78.6	48.8	71.2	88.3	122.4	153.8	278.8	317.2	94.3	67.1	1578.8	399.9	260.2
27	MR	160.9	63.0	38.4	58.6	82.0	121.4	181.1	275.0	319.7	92.6	63.6	1826.3	407.0	262.4
28	MR	248.2	99.2	53.5	79.8	106.4	137.3	171.2	287.0	316.5	94.5	67.5	1601.6	399.4	260.2
29	MR	228.6	99.9	41.9	26.3	24.4	41.9	121.1	245.0	326.8	98.7	56.7	2651.9	433.1	260.7
30	MR	169.0	61.0	36.0	41.0	62.0	103.0	173.0	261.0	322.0	92.0	62.0	1899.0	411.0	265.0
31	MR	234.3	83.6	31.7	20.1	19.5	15.7	58.7	140.4	300.2	75.0	58.3	2071.7	372.5	244.8
32	MR	287.1	110.4	60.2	79.0	94.7	118.2	166.9	284.7	315.0	95.2	66.0	1729.0	401.6	258.5
33	MR	247.3	127.3	59.7	114.0	110.7	91.7	98.3	211.7	314.0	108.0	79.7	969.0	387.3	252.0
34	MR	324.2	183.2	38.9	52.8	30.0	24.3	71.8	165.6	306.3	76.9	66.6	1434.7	373.6	258.8
35	MR	185.5	48.0	19.5	53.0	80.5	164.0	209.5	244.5	316.5	118.0	68.0	1654.5	419.0	247.0
36	MR	72.5	34.2	26.3	26.6	53.2	58.3	118.0	215.0	298.7	112.6	73.3	1123.3	376.3	223.8
37	MR	119.5	48.9	31.9	32.1	52.9	118.7	187.0	256.0	313.9	126.7	68.1	1678.2	417.2	232.5
38	MR	164.4	61.6	36.8	47.4	69.3	110.1	176.8	266.0	321.7	92.0	62.9	1870.0	409.8	264.0
39	MR	94.0	41.7	14.7	23.7	65.7	107.0	155.3	202.3	282.0	124.3	70.3	1621.3	364.7	189.0
40	MR	95.5	27.8	20.0	32.4	58.4	55.9	158.0	240.3	298.3	135.0	73.3	1495.1	401.6	218.8
41	MR	284.4	164.8	138.3	186.9	156.9	124.0	150.1	194.8	309.2	101.1	82.0	612.9	374.3	251.7
42	MR	96.0	45.5	30.5	17.5	21.5	66.0	109.0	113.5	310.0	125.5	63.5	1722.5	407.0	212.0
43	MR	98.5	45.5	24.5	21.0	37.0	111.0	140.0	163.0	298.5	129.0	65.0	2345.0	389.5	192.5
44	MR	141.4	26.0	14.8	20.0	46.4	121.3	151.5	189.8	331.0	140.5	71.0	1124.5	439.1	243.4
45	MR	143.3	28.3	18.0	25.0	45.7	114.7	148.7	189.3	328.0	141.3	70.0	1021.7	434.3	235.0

46	MR	96.0	45.5	30.5	17.5	21.5	66.0	109.0	113.5	310.0	125.5	63.5	1722.5	407.0	212.0
47	MR	130.0	47.0	49.2	18.6	40.2	90.6	145.1	166.5	314.9	134.6	69.3	1097.2	413.0	220.2
48	MR	144.8	68.2	31.7	26.5	68.0	136.7	181.1	236.5	300.7	131.7	67.6	1694.3	391.0	197.5
49	MR	182.9	75.9	56.6	36.9	67.6	147.2	229.6	245.9	292.3	112.3	68.4	1180.6	371.9	208.9
50	MR	396.3	409.0	415.7	383.0	312.3	227.3	256.7	233.0	313.7	105.3	78.7	667.3	390.7	257.7
51	MR	65.6	23.1	8.6	17.0	45.8	89.6	112.4	149.9	217.0	124.6	72.5	1320.9	296.2	125.6
52	MR	77.6	36.8	17.8	20.8	29.6	91.1	125.8	148.0	278.6	143.1	67.6	2202.7	376.4	166.9
53	MR	176.5	87.6	62.6	27.6	57.2	127.7	200.6	252.2	309.5	125.1	64.3	1551.2	403.5	210.5
54	MR	128.7	64.8	33.1	26.6	52.9	113.0	172.8	195.2	267.3	119.2	69.3	1451.0	350.1	179.4
55	MR	273.0	247.1	78.1	91.8	160.7	213.2	232.6	244.2	303.6	111.3	75.3	683.4	386.2	239.3
56	MR	265.6	312.7	194.3	150.9	138.6	208.1	206.7	255.1	289.0	89.3	91.9	190.9	338.6	242.1
57	MR	225.0	122.0	55.0	104.0	97.0	83.0	81.0	187.0	314.0	106.0	79.0	973.0	387.0	253.0
58	MR	233.0	124.0	56.0	108.0	104.0	87.0	89.0	198.0	313.0	107.0	79.0	950.0	386.0	252.0
59	MR	233.0	91.0	52.0	76.0	98.0	134.0	196.0	278.0	315.0	94.0	65.0	1814.0	402.0	259.0
60	MR	154.0	25.0	26.0	30.0	69.0	139.0	187.0	202.0	305.0	116.0	68.0	859.0	396.0	226.0
61	MR	115.0	55.0	21.5	26.0	67.0	115.5	168.5	215.0	289.0	129.0	70.0	1683.5	375.0	192.0
62	MR	327.2	283.4	179.1	156.3	47.9	39.3	67.7	92.1	295.9	75.2	62.9	1278.5	364.7	246.0
63	MR	412.3	398.0	239.8	184.3	75.0	96.8	157.3	241.5	307.8	97.8	70.0	1127.3	383.5	244.8
64	MR	364.3	339.7	197.7	117.7	45.1	59.9	115.5	227.4	316.8	105.5	68.3	1389.1	404.3	251.1
65	MR	416.3	306.9	305.2	320.9	248.3	252.4	266.5	335.6	291.6	112.4	88.6	369.8	358.6	232.3
66	MR	580.0	384.0	117.0	41.0	47.0	48.0	82.0	313.0	299.0	83.0	72.0	827.0	365.0	252.0
67	MR	404.0	277.0	99.0	30.0	31.0	34.0	63.0	196.0	301.0	86.0	76.0	811.0	365.0	252.0
68	MR	267.3	318.3	131.6	76.9	77.8	105.4	101.6	92.3	220.0	102.9	79.4	431.4	286.3	157.8
69	MR	85.8	48.4	19.9	22.8	74.2	94.7	117.9	147.2	161.1	145.7	72.4	580.0	258.9	59.3
70	MR	320.0	228.9	64.9	89.2	161.7	231.2	294.5	383.1	259.7	130.5	74.8	569.3	351.4	178.1
71	MR	308.0	208.4	162.2	124.7	61.5	60.7	100.0	171.9	296.7	96.1	63.1	1667.4	388.6	237.5
72	MR	376.0	375.7	427.0	369.7	215.0	197.7	185.7	194.7	321.0	108.0	75.0	1064.3	403.0	260.0
73	MR	376.5	377.0	427.5	371.5	217.0	200.0	189.0	198.0	321.0	108.0	75.0	1060.0	403.0	260.0
74	MR	425.0	511.5	354.5	202.0	182.0	250.5	258.0	222.5	281.5	96.5	85.0	327.0	342.0	229.5
75	MR	173.7	28.7	29.2	33.7	76.2	157.3	241.1	240.1	290.7	119.2	69.9	747.0	375.4	206.2
76	MR	295.0	343.0	238.9	193.7	216.7	252.2	254.9	334.9	286.0	85.9	90.9	215.0	335.2	241.2
77	MR	164.5	54.6	27.7	28.8	30.0	42.9	52.4	129.1	311.5	120.7	73.9	1278.4	402.7	240.6
78	MR	83.7	9.0	6.0	25.0	29.0	104.7	193.3	263.3	310.3	163.3	69.0	1476.3	434.3	200.0
79	MR	63.5	11.5	10.5	16.4	75.4	112.4	289.2	302.4	303.9	162.5	71.9	1811.6	428.5	203.8
80	MR	545.7	861.3	410.7	214.3	154.7	180.0	205.0	178.3	245.7	106.3	82.7	478.7	315.3	187.7
81	MR	500.3	844.7	437.7	207.0	140.0	163.3	172.0	156.7	214.3	109.7	85.0	433.0	284.0	155.3
82	MR	84.0	18.6	8.0	21.9	35.4	102.1	150.2	170.5	323.9	164.1	74.5	1046.1	436.7	217.8

83	MR	377.5	156.6	79.6	53.2	72.1	41.5	96.5	179.1	283.2	78.4	61.8	1833.9	357.9	232.1
84	MR	370.9	220.5	251.0	215.8	185.8	180.9	168.3	321.4	301.3	91.7	90.3	216.3	351.3	250.2
85	MR	47.8	1.4	3.1	16.6	13.9	115.7	171.7	257.9	319.5	179.4	71.1	1533.1	454.6	204.6
86	MR	274.6	222.7	191.2	219.9	95.5	72.5	119.3	128.3	309.9	101.8	78.4	697.3	376.5	247.5
87	MR	366.0	172.3	110.8	82.2	59.8	57.4	136.2	210.7	300.9	104.1	61.7	2139.3	403.0	235.6
88	MR	183.9	43.5	19.6	32.7	87.4	141.7	210.8	288.4	312.8	115.4	68.7	1537.1	412.5	245.9
89	MR	286.8	101.3	44.1	41.6	64.6	87.0	173.9	302.4	318.0	99.8	57.5	2651.3	423.7	252.0
90	MR	363.9	325.3	356.9	335.9	277.3	264.2	213.2	222.7	303.8	93.3	75.7	778.6	373.3	250.9
91	MR	136.2	36.4	16.5	30.0	37.8	84.0	157.9	265.0	305.8	124.8	71.2	1690.7	406.6	232.7
92	MR	183.5	71.7	41.5	35.0	50.4	92.4	140.0	221.3	319.2	118.8	67.2	1949.0	425.1	249.5
93	MR	336.7	203.9	62.4	59.2	78.8	58.0	74.0	193.7	291.0	79.0	69.2	1308.3	358.1	244.9
94	MR	334.2	196.5	216.1	213.8	187.9	165.2	185.8	250.0	293.1	96.5	89.7	230.5	347.2	240.1
95	MR	279.3	196.9	161.3	199.5	121.8	92.2	142.5	140.9	310.9	100.0	74.2	907.4	384.4	250.4
96	MR	215.1	126.4	33.7	59.1	116.8	165.0	223.9	253.8	311.3	111.3	65.3	1529.7	415.6	246.7
97	MR	211.8	35.8	24.3	35.2	88.5	154.4	215.7	254.2	318.5	126.4	70.8	1565.2	422.3	245.1
98	MR	89.9	37.3	21.1	35.9	80.6	54.8	142.3	263.0	298.2	139.4	74.9	1519.8	399.5	214.7
99	MR	317.4	152.8	52.9	58.5	54.8	41.5	129.1	203.4	304.1	93.3	69.5	1592.6	377.7	244.3
100	MR	122.3	49.4	30.7	31.7	54.7	118.1	183.9	242.4	315.1	124.8	66.8	1672.3	418.5	233.1
101	MR	178.9	65.9	46.8	46.5	40.6	89.5	151.6	235.6	323.4	123.5	67.5	2034.3	432.4	250.7
102	MR	163.2	60.9	38.9	49.0	29.5	75.9	149.4	236.3	313.9	122.7	67.7	2007.3	419.6	239.9
103	MR	157.8	64.2	24.2	27.8	90.4	131.6	220.9	279.4	310.9	113.3	66.7	1617.6	413.4	244.6
104	MR	178.0	67.2	23.5	52.9	90.2	157.7	204.4	230.9	315.4	121.9	71.2	1293.0	415.1	245.1
105	MR	107.3	39.4	20.5	41.7	73.5	50.6	137.6	241.5	301.4	139.1	74.8	1541.6	404.6	219.6
106	MR	183.4	67.3	43.7	41.8	46.0	98.0	155.9	243.2	320.5	123.4	68.8	1928.3	427.0	248.9
107	MR	169.1	55.5	21.9	37.5	85.8	135.4	215.9	281.9	312.4	113.2	67.7	1564.1	413.3	247.2
108	MR	74.0	33.0	18.8	26.9	50.7	119.1	209.0	281.1	308.6	135.1	70.0	1596.1	413.0	221.4
109	MR	185.2	39.2	14.5	31.3	83.4	142.1	221.5	298.5	311.6	118.5	69.6	1545.5	411.7	242.7
110	MR	129.7	40.6	22.5	48.8	80.6	152.8	211.0	247.5	314.8	131.6	65.5	1696.2	427.2	227.8
111	MR	171.6	20.0	21.9	28.7	71.7	139.8	217.8	236.1	300.3	126.5	73.7	837.5	391.5	221.0
112	MR	234.4	127.8	40.4	60.3	105.0	171.6	192.0	236.9	302.2	124.9	78.6	906.1	391.9	234.0
113	MR	244.5	81.0	30.4	27.9	53.1	29.1	97.5	127.7	289.0	79.2	56.1	2340.2	371.6	231.6
114	MR	189.4	74.6	44.7	45.0	53.4	87.6	139.9	239.5	322.1	111.8	65.1	2041.5	425.8	255.6
115	MR	233.9	128.4	32.2	41.7	110.4	173.1	185.6	230.1	305.1	122.1	76.3	1009.3	396.3	237.2
116	MR	319.3	247.8	192.4	245.4	101.0	101.9	131.3	144.4	302.8	109.3	82.4	705.5	370.4	238.3
117	MR	176.9	33.3	32.4	40.0	83.3	151.4	233.6	257.0	303.7	122.1	74.2	867.4	394.1	230.7
118	MR	177.6	23.3	20.5	29.7	74.5	138.3	207.9	231.5	301.8	127.6	73.9	831.4	393.7	222.2
119	MR	262.4	94.3	35.6	28.6	36.9	58.1	150.1	261.7	317.4	99.4	57.1	2681.4	423.0	250.8

120	MR	187.9	55.7	40.1	32.5	20.3	32.5	86.3	180.2	306.7	110.6	65.1	2099.0	404.9	236.3
121	MR	110.3	39.0	20.1	36.1	65.7	49.8	132.6	246.7	304.2	134.7	74.9	1531.8	404.3	225.3
122	MR	237.8	237.6	120.1	139.6	131.0	168.8	215.7	216.6	305.9	99.0	75.7	777.8	382.5	252.5
123	MR	122.7	37.4	16.7	49.2	64.7	147.3	179.9	256.0	318.3	138.5	64.7	1652.1	434.2	221.8
124	MR	250.5	203.9	56.2	94.5	139.7	185.2	234.2	276.7	310.6	107.4	66.5	1433.7	409.6	249.1
125	MR	118.8	23.4	13.2	40.6	67.8	148.6	213.5	296.1	316.4	143.6	67.1	1629.6	432.8	220.5
126	MR	263.9	93.5	45.3	37.2	53.3	73.0	144.0	272.3	317.8	99.1	58.4	2492.4	422.3	254.1
127	MR	158.0	28.0	6.0	27.0	76.0	154.0	244.0	324.0	308.0	121.0	70.0	1564.0	408.0	237.0
128	MR	111.0	34.0	4.0	16.0	66.0	133.0	236.0	278.0	305.0	121.0	69.0	1579.0	406.0	233.0
129	MR	155.8	53.4	22.4	31.7	91.5	135.4	220.4	286.0	310.2	113.7	67.2	1598.0	411.5	243.7
130	MR	177.6	57.7	17.5	56.8	81.5	154.4	219.7	254.7	315.0	116.6	67.6	1626.0	418.7	247.7
131	MR	153.0	32.0	8.0	28.0	80.0	152.0	240.0	317.0	307.0	119.0	69.0	1555.0	407.0	236.0
132	MR	155.0	26.6	5.6	26.0	76.0	156.0	246.2	325.2	307.2	121.2	70.0	1557.2	407.4	236.0
133	MR	157.0	31.0	7.0	28.0	79.0	152.0	241.0	318.0	308.0	120.0	69.0	1556.0	408.0	237.0
134	MR	191.7	45.0	22.3	50.0	82.3	164.7	207.7	244.7	317.0	121.0	69.0	1635.0	421.0	246.0
135	MR	161.0	25.0	5.0	26.0	75.0	156.0	247.0	325.0	309.0	122.0	70.0	1533.0	409.0	237.0
136	MR	406.1	234.4	66.1	50.6	65.6	48.0	86.7	228.0	291.3	83.3	69.7	1195.4	361.8	243.3
137	MR	110.5	39.6	9.6	26.2	52.3	73.4	153.1	261.7	302.9	127.2	71.7	1579.1	403.4	227.1
138	MR	119.9	24.6	12.2	28.7	72.1	141.5	225.2	314.4	310.5	130.0	67.8	1624.3	418.8	228.3
139	MR	180.8	88.8	53.8	42.2	44.3	76.5	131.5	218.7	324.0	110.2	63.8	2177.5	428.8	257.4
140	MR	316.0	133.1	47.9	42.1	76.0	38.1	101.3	160.8	284.7	74.1	57.4	2078.8	360.5	232.5
141	MR	253.5	98.6	55.8	74.0	93.8	130.0	191.8	276.4	317.1	94.0	65.0	1820.6	404.3	260.6
142	MR	114.3	26.7	14.3	44.6	63.1	146.4	199.3	274.0	317.5	147.1	66.1	1642.1	437.4	216.8
143	MR	201.9	141.5	50.0	67.9	114.7	156.2	217.2	247.9	310.8	107.5	65.4	1556.9	411.1	247.8
144	MR	323.2	126.0	71.2	63.3	72.6	82.9	164.7	277.3	310.4	103.2	59.6	2449.0	416.0	244.2
145	MR	382.8	267.5	120.8	55.2	78.2	64.3	78.5	190.6	297.3	93.5	72.9	1054.7	371.4	244.0
146	MR	264.4	258.5	154.8	180.7	82.9	100.6	116.9	130.5	310.4	109.0	77.2	941.9	385.7	245.7
147	MR	254.1	294.3	222.3	316.3	135.5	121.7	98.8	89.8	299.7	96.9	81.8	786.2	359.5	241.7
148	MR	278.8	292.4	221.8	266.4	122.2	132.2	123.6	108.6	303.2	97.6	83.2	790.2	361.6	245.2
149	MR	371.1	395.6	419.3	405.6	227.8	214.1	161.5	126.1	311.9	108.1	72.3	1192.6	397.8	249.5
150	MR	345.4	376.6	262.5	371.5	196.2	213.4	207.0	160.9	276.1	105.8	82.6	796.5	343.5	216.2
151	MR	244.8	293.5	261.9	400.0	163.4	122.8	93.6	65.0	301.5	101.3	80.9	796.0	364.6	240.1
152	MR	363.0	364.5	397.3	495.1	293.1	227.1	205.5	261.9	292.9	105.3	82.5	712.4	360.2	233.4
153	MR	314.0	313.5	194.0	211.9	89.7	116.2	143.0	155.8	305.1	99.8	75.5	942.8	375.3	243.8
154	MR	319.3	399.4	338.4	480.9	224.8	177.7	138.6	94.9	301.1	99.5	81.8	793.6	361.8	240.9
155	MR	430.3	449.0	464.3	447.9	285.6	251.9	240.5	220.4	298.8	113.4	77.3	941.6	382.0	236.2
156	MR	570.0	382.0	115.0	40.0	46.0	48.0	81.0	309.0	299.0	83.0	72.0	817.0	366.0	251.0

157	MR	424.0	444.0	460.0	444.0	276.0	242.0	251.0	244.0	317.0	113.0	77.0	996.0	401.0	255.0
158	MR	70.5	59.3	17.0	26.0	19.3	93.8	114.0	120.8	284.5	132.5	65.3	2344.3	380.3	178.0
159	MR	436.8	424.3	382.8	471.2	292.4	279.0	278.5	286.6	282.6	108.5	84.0	650.5	351.3	222.6
160	MR	300.2	244.6	163.2	85.2	29.8	33.2	65.6	149.2	312.2	88.8	72.8	1092.4	378.2	256.8
161	MR	295.6	255.2	123.4	59.8	33.6	42.8	73.0	154.0	303.6	84.0	72.4	983.2	368.0	253.0
162	MR	347.7	270.2	129.0	49.8	35.7	47.5	64.3	171.7	301.5	84.3	71.3	986.2	368.2	250.5
163	MR	402.4	273.5	146.1	79.9	49.9	42.0	84.4	185.1	298.0	93.5	70.9	1235.6	373.5	242.6
164	MR	184.9	58.1	36.3	44.4	100.8	171.2	264.0	252.7	291.4	115.8	71.3	709.8	375.3	214.1
165	MR	174.5	74.1	48.7	44.4	36.0	75.9	144.3	237.1	324.9	120.6	64.7	2235.1	437.0	252.1
166	MR	66.6	41.1	15.8	25.8	24.8	81.5	109.6	132.0	266.6	148.7	69.6	2039.9	365.8	153.9
167	MR	223.4	87.9	49.1	72.4	96.5	130.3	156.5	288.0	318.3	94.3	67.6	1563.6	400.5	261.9
168	MR	243.9	116.7	74.6	67.0	107.6	227.8	308.6	343.5	278.8	108.3	69.3	1142.7	353.7	198.5
169	MR	393.0	215.8	96.2	55.1	73.1	49.3	91.5	201.6	288.3	92.3	71.6	1202.9	363.6	235.4
170	MR	135.2	32.0	16.9	30.9	86.4	152.6	229.2	319.3	310.1	123.5	67.9	1626.9	415.0	234.3
171	MR	378.7	414.4	288.5	430.5	235.3	255.1	252.2	191.1	264.8	109.1	83.0	790.5	334.6	204.0
172	MR	94.5	38.5	30.1	25.0	50.9	120.6	176.9	225.0	251.3	166.6	70.8	1981.1	357.2	123.9
173	MR	232.2	261.0	234.1	126.8	103.2	115.3	116.7	116.8	182.6	110.1	86.6	348.7	248.4	122.2
174	MR	448.4	457.1	148.0	153.4	165.6	212.7	227.9	198.0	282.7	137.3	85.6	360.9	365.4	205.8
175	MR	396.6	210.3	90.5	51.6	75.4	50.6	92.7	202.3	285.7	89.8	71.8	1191.7	359.0	234.7
176	MR	579.2	335.0	87.9	38.4	39.8	30.5	86.3	319.2	293.8	90.8	72.8	801.6	366.2	242.3
177	MR	167.9	48.6	34.4	43.3	42.2	105.8	184.4	296.1	312.9	124.7	70.5	1801.3	415.4	239.6
178	MR	376.6	449.5	363.9	226.1	174.1	197.1	188.3	158.9	293.6	94.7	84.9	422.6	350.2	239.2
179	MR	539.1	851.1	407.9	214.8	152.5	181.7	202.0	178.3	247.7	104.9	83.2	474.5	315.7	190.4
180	MR	247.8	133.5	99.7	158.8	139.4	139.1	169.8	254.5	310.6	100.0	74.1	1030.4	388.2	254.3
181	MR	115.9	32.6	15.4	46.6	59.7	142.6	179.2	264.0	318.4	142.7	65.4	1651.9	435.7	219.3
182	MR	532.1	426.6	243.0	214.3	70.7	90.5	183.1	328.7	282.5	90.2	68.2	1222.4	358.6	227.2
183	MR	262.0	386.0	257.1	137.9	107.6	105.5	104.4	100.5	173.1	103.4	80.5	567.8	242.1	114.4
184	MR	136.7	57.7	36.3	31.5	63.4	134.0	194.8	219.0	260.6	116.6	69.5	1279.9	341.2	174.6
185	MR	186.7	92.6	47.6	59.0	119.7	187.1	256.7	275.0	265.4	108.1	73.7	706.6	335.7	190.0
186	MR	184.3	61.8	22.1	52.0	85.8	159.1	210.0	235.9	317.4	120.9	68.5	1534.8	422.1	247.2
187	MR	392.7	191.9	84.6	55.2	81.0	53.6	95.1	197.1	283.9	81.6	68.3	1370.9	354.1	235.7
188	MR	343.8	281.3	180.8	187.4	77.6	107.8	131.0	138.0	242.9	103.4	76.0	956.2	319.4	184.4
189	MR	215.9	105.0	48.9	78.1	102.3	163.5	191.5	269.6	311.0	103.2	65.4	1612.3	405.0	248.4
190	MR	332.5	362.2	363.3	225.1	169.7	162.3	150.3	162.2	225.6	95.0	91.1	184.3	276.4	172.6
191	MR	228.0	252.7	112.6	157.5	169.8	205.5	208.2	250.9	292.5	94.5	91.6	180.6	345.1	242.4
192	MR	270.3	190.5	155.5	199.0	245.0	222.2	219.4	268.7	297.6	93.4	89.0	319.6	351.4	247.0
193	MR	197.9	173.6	182.4	107.9	93.9	151.3	160.3	178.4	183.8	96.7	89.2	270.7	238.1	130.4

194	MR	239.4	206.1	179.9	157.2	142.9	212.5	220.0	155.4	230.9	85.1	88.4	235.6	279.0	183.3
195	MR	293.5	332.0	352.0	211.0	153.5	150.0	142.0	157.5	174.0	91.5	88.5	343.0	224.5	121.0
196	MR	360.5	420.3	371.8	249.0	185.0	207.6	191.5	158.3	290.5	91.6	84.9	429.2	346.2	238.9
197	MR	285.7	229.7	152.6	160.4	203.5	228.8	239.4	327.4	290.2	89.0	90.2	242.5	341.5	243.4
198	MR	368.1	406.0	386.6	229.4	174.5	179.5	173.0	197.3	228.5	99.3	91.3	174.2	282.0	174.0
199	MR	328.9	267.4	284.7	317.1	257.0	237.7	208.9	178.6	298.8	91.7	79.1	608.0	360.1	244.8
200	MR	371.2	328.3	341.8	294.6	227.5	274.6	243.1	165.8	291.5	97.4	79.0	612.8	356.2	233.3
201	MR	237.8	236.6	235.9	185.3	146.5	195.1	201.8	165.0	142.2	82.7	86.7	266.6	190.0	95.2
202	MR	400.0	342.9	313.5	259.1	221.2	271.7	237.9	177.7	290.6	100.9	83.9	391.5	352.2	232.7
203	MR	269.1	198.4	162.3	188.6	235.4	238.0	232.1	273.8	292.7	89.4	89.3	319.4	344.2	244.6
204	MR	85.7	24.0	13.4	20.5	26.0	95.6	137.1	163.6	305.0	151.9	68.1	1259.4	414.3	192.9
205	MR	124.9	60.5	26.4	41.2	99.4	128.5	177.9	204.7	201.5	133.9	74.0	726.0	289.7	109.7
206	MR	143.8	18.1	18.7	45.3	59.5	120.4	172.6	187.3	315.9	153.7	75.3	1267.3	427.9	225.0
207	MR	346.9	216.9	219.3	253.6	187.3	188.9	226.2	312.2	277.8	102.0	89.9	293.7	336.3	223.3
208	MR	340.6	225.5	241.9	212.9	203.8	184.1	194.2	318.4	294.4	94.5	90.6	190.1	345.8	242.2
209	MR	195.0	251.7	140.1	63.1	51.5	79.7	82.1	94.7	189.2	108.7	86.2	328.8	255.7	130.2
210	MR	176.6	138.7	54.1	41.8	62.4	109.9	114.3	110.4	206.5	142.1	86.4	353.0	284.6	121.0
211	MR	84.0	27.4	18.3	33.2	56.1	138.7	223.9	286.2	309.6	136.6	68.1	1579.9	416.9	217.7
212	MR	329.0	505.0	291.7	154.8	116.7	122.4	108.6	112.5	177.9	105.0	83.8	403.8	244.3	119.7
213	MR	122.7	17.9	8.5	27.5	42.1	116.4	125.9	147.1	333.5	158.0	74.7	1194.3	451.1	240.6
214	MR	280.5	186.5	171.7	214.4	140.4	108.3	134.6	164.5	304.1	102.2	83.2	500.7	367.1	244.9
215	MR	294.3	226.3	69.0	80.7	139.9	183.2	239.1	242.2	306.3	119.5	75.0	719.2	395.2	236.7
216	MR	112.4	31.4	23.2	36.9	46.2	45.9	130.9	211.9	296.7	126.0	73.8	1501.4	393.9	224.2
217	MR	386.4	248.0	262.3	249.0	243.3	210.3	231.3	362.7	286.5	102.9	91.1	199.5	342.6	230.2
218	MR	475.7	602.1	490.8	241.2	201.5	193.1	206.5	193.9	218.7	112.4	86.5	387.8	286.1	156.8
219	MR	274.0	236.5	73.0	72.0	113.5	171.5	209.5	217.5	264.5	144.0	81.5	319.5	354.0	179.5
220	MR	44.5	18.4	8.0	10.4	38.2	67.9	94.6	121.2	131.8	178.7	74.2	1322.9	244.4	5.5
221	MR	280.0	218.3	182.0	207.0	116.1	85.9	130.1	143.0	310.6	100.8	76.8	751.5	379.4	249.1
222	MR	39.6	11.9	5.3	13.8	43.4	65.9	82.0	126.0	214.8	151.7	76.0	1266.1	303.4	105.3
223	MR	214.9	97.9	58.1	31.8	86.1	196.7	262.4	354.1	305.6	134.0	65.6	1636.9	399.6	196.8
224	MR	120.9	127.3	72.9	31.2	26.8	58.1	56.8	76.4	160.7	114.6	88.7	228.0	226.6	98.1
225	MR	193.0	135.6	39.9	53.9	108.0	157.1	186.0	241.8	229.3	144.6	75.9	464.3	324.3	135.0
226	MR	512.0	406.6	407.8	428.5	314.9	287.9	261.6	254.8	313.7	117.0	81.2	764.0	393.9	250.7
227	MR	432.2	565.4	380.8	221.1	176.0	222.8	226.0	196.9	286.5	96.4	87.8	300.2	342.7	233.5
228	MR	165.7	20.8	29.5	30.6	72.7	149.8	237.1	251.2	299.9	123.8	73.3	843.2	389.8	222.1
229	MR	77.9	20.2	10.1	21.4	28.9	105.5	142.4	159.8	315.1	160.1	71.7	1068.9	425.9	204.1
230	MR	62.8	15.8	11.1	23.3	62.2	129.7	235.2	296.7	316.9	159.8	70.4	1833.4	442.1	216.9

231	MR	166.2	23.1	17.5	35.7	62.5	137.0	158.8	182.4	324.2	143.5	74.0	1411.5	435.7	243.1
232	MR	119.8	22.7	11.6	31.8	70.9	143.6	223.5	313.5	310.4	133.7	67.7	1624.9	420.8	224.6
233	MR	98.5	20.7	10.5	38.8	49.4	132.8	190.4	274.5	320.6	157.0	66.9	1626.3	445.3	212.2
234	MR	196.3	99.6	53.6	66.8	96.7	157.2	199.8	244.6	315.4	99.4	64.8	1708.3	404.4	252.0
235	MR	238.7	86.7	30.0	20.0	19.3	14.3	50.7	137.7	299.0	73.7	57.0	2109.0	370.3	242.3
236	MR	246.6	102.2	63.9	100.5	115.7	135.7	139.0	264.3	314.3	96.7	71.6	1310.0	392.0	257.8
237	MR	195.8	75.4	44.7	66.5	91.8	126.5	178.6	293.9	318.6	93.3	65.0	1730.1	404.2	261.9
238	MR	298.8	190.6	181.1	215.0	163.4	148.9	179.1	175.3	293.9	99.6	88.7	308.5	351.1	239.4
239	MR	72.9	34.5	26.0	27.1	55.6	58.3	121.9	218.8	293.8	113.0	73.5	1133.0	371.8	219.2
240	MR	90.1	14.8	6.9	22.0	33.3	101.8	129.5	146.4	333.3	164.1	74.9	1131.8	451.1	233.0
241	MR	113.4	29.0	14.3	47.0	59.7	144.8	185.7	266.4	318.0	146.5	65.6	1641.2	437.8	216.3
242	MR	172.0	63.0	36.0	43.0	65.0	106.0	174.0	260.0	321.0	92.0	62.0	1909.0	410.0	263.0
243	MR	109.5	25.8	10.2	22.3	65.8	128.2	224.5	303.6	308.5	127.1	68.0	1621.8	414.8	229.3
244	MR	238.3	125.5	57.5	110.3	107.8	89.8	94.3	206.5	313.8	107.5	79.3	967.8	386.8	252.0
245	MR	39.6	8.0	4.0	20.0	73.5	81.6	185.3	317.6	324.3	173.1	71.8	1734.1	454.4	215.0
246	MR	157.5	69.5	51.0	29.0	54.5	119.0	195.0	214.0	284.0	118.0	69.0	1285.0	367.5	197.5
247	MR	112.0	40.3	31.0	23.0	40.3	96.0	146.2	171.5	320.8	137.4	66.8	1130.7	428.4	224.2
248	MR	152.8	69.3	42.1	22.1	46.4	125.8	155.6	187.2	308.8	131.8	64.5	1544.1	407.1	204.4
249	MR	306.3	186.5	60.8	71.8	108.3	83.0	101.0	190.3	290.5	74.3	66.3	1438.5	356.0	245.3
250	MR	72.1	26.8	11.0	22.8	69.8	103.0	140.8	192.6	266.5	134.2	73.6	1448.5	350.8	169.7
251	MR	82.6	18.9	8.5	19.2	31.5	91.8	135.7	155.7	327.7	160.2	72.7	1115.5	441.9	223.2
252	MR	42.0	5.0	2.0	8.0	21.3	116.3	200.8	250.5	327.8	184.5	70.0	1803.8	477.3	215.3
253	MR	68.0	36.0	18.0	26.0	69.0	55.0	132.0	263.0	305.0	136.0	75.0	1432.0	402.0	220.0
254	MR	244.0	224.8	222.6	150.0	139.2	155.8	157.6	155.4	147.2	79.2	87.4	295.2	193.4	103.2
255	MR	283.3	300.7	317.0	201.7	148.0	150.7	136.3	145.3	202.3	93.3	90.0	226.3	252.3	149.0
256	MR	540.0	356.6	110.5	45.2	69.5	56.2	98.4	309.4	293.4	89.4	74.7	781.7	362.9	243.9
257	MR	172.0	123.5	100.5	100.5	106.5	184.0	207.5	127.0	172.5	67.5	86.5	245.5	212.5	134.5
258	MR	383.0	372.0	289.0	342.0	338.0	308.0	229.0	149.0	301.0	104.0	81.0	585.0	370.0	243.0
259	MR	406.0	325.0	343.0	339.0	279.0	297.0	242.5	185.0	305.5	100.5	77.5	764.5	376.0	247.0
260	MR	448.7	423.8	354.3	470.5	288.0	298.8	322.1	336.6	289.3	109.8	84.2	707.0	358.1	228.5
261	MR	353.8	239.3	92.5	24.0	24.5	27.8	54.3	180.8	301.3	87.5	75.0	887.0	368.0	251.8
262	MR	294.5	296.0	194.1	190.1	170.9	200.8	210.1	246.8	296.9	97.5	84.2	429.4	361.0	245.6
263	MR	618.8	404.5	118.3	50.3	67.0	59.0	112.5	350.5	293.3	88.8	74.5	718.5	363.0	244.5
264	MR	303.8	181.7	66.7	51.5	15.3	8.5	15.8	45.1	302.5	81.5	74.2	747.4	360.2	251.1
265	MR	286.0	221.0	151.2	188.7	162.2	169.1	199.9	236.6	306.5	101.9	77.5	720.9	382.7	251.8
266	MR	118.7	25.6	14.4	43.2	67.6	149.7	208.9	286.2	318.7	144.8	66.7	1632.5	436.5	220.8
267	MR	125.6	39.5	15.9	50.3	62.8	148.0	169.8	256.0	319.5	136.3	64.3	1635.0	433.4	223.5

268	MR	191.0	95.8	49.5	46.0	57.5	86.3	145.9	233.1	321.2	100.2	63.0	2003.7	418.0	259.6
269	MR	234.0	278.3	81.4	117.9	160.0	202.8	232.0	280.9	293.6	100.9	84.6	450.3	356.9	238.3
270	MR	166.3	69.1	43.0	53.8	98.0	154.5	203.7	239.3	317.5	107.3	66.3	1749.1	413.0	252.2
271	MR	196.6	87.3	50.7	62.0	79.7	138.1	183.7	239.0	317.9	98.9	64.0	1777.9	408.3	255.0
272	MR	344.9	187.9	55.4	56.9	90.4	55.3	127.3	210.6	283.6	69.3	60.9	1670.1	350.4	237.5
273	MR	197.1	72.5	46.8	58.8	81.2	112.4	169.9	310.3	318.4	93.5	65.5	1677.6	403.0	261.4
274	MR	167.8	62.5	39.2	48.8	72.7	108.8	176.0	282.2	320.3	92.5	63.5	1827.8	407.7	263.0
275	MR	218.1	75.2	49.1	42.8	55.6	72.4	127.1	212.4	319.0	96.7	61.5	2129.5	415.5	259.5
276	MR	201.6	102.1	57.1	78.9	100.0	152.6	198.5	252.0	314.5	98.5	65.0	1685.2	402.6	252.1
277	MR	303.4	208.4	40.8	92.3	87.3	53.8	162.3	230.5	305.9	85.7	67.3	1557.8	377.6	251.2
278	MR	291.5	298.2	196.2	188.2	169.3	201.8	210.5	247.9	296.1	96.7	85.0	408.3	358.8	245.2
279	MR	197.4	99.3	62.9	108.0	100.4	147.3	192.4	260.2	311.9	98.9	66.6	1585.2	399.0	251.7
280	MR	199.9	103.1	51.7	74.1	108.2	171.2	194.7	260.3	313.0	100.7	65.2	1656.5	402.7	249.6
281	MR	192.2	84.1	48.5	60.7	80.3	144.5	181.0	237.8	318.0	100.3	64.2	1782.3	409.5	254.6
282	MR	234.6	265.8	67.7	95.0	120.4	180.8	216.5	259.3	296.9	96.9	80.0	628.2	364.8	244.3
283	MR	271.4	374.6	198.2	89.3	70.8	97.1	105.5	113.8	216.9	114.2	86.1	362.2	287.4	155.4
284	MR	277.9	204.4	177.7	212.5	124.0	93.8	132.6	151.2	310.1	101.8	79.9	628.8	376.1	249.5
285	MR	259.9	316.5	192.5	158.6	139.6	211.2	215.3	254.7	289.3	90.0	91.8	200.1	339.7	242.3
286	MR	72.0	9.0	4.0	22.5	23.0	116.5	198.5	259.5	307.5	177.0	67.0	1493.5	445.0	182.0
287	MR	272.5	103.6	61.1	74.6	78.4	87.7	117.6	264.2	314.0	96.2	64.4	1791.6	405.0	256.7
288	MR	246.8	119.3	81.5	39.3	92.3	185.3	321.5	404.8	310.0	132.0	65.5	1722.8	403.0	203.3
289	MR	197.7	120.9	66.4	97.1	99.0	146.4	199.4	263.1	310.8	101.7	66.5	1566.1	402.2	250.5
290	MR	106.8	20.2	8.8	25.8	61.0	128.0	219.4	302.9	309.6	133.4	68.0	1608.2	419.1	224.3
291	MR	330.4	173.4	41.4	44.7	71.2	38.7	110.3	208.5	283.6	68.0	58.1	1849.2	351.7	235.5
292	MR	113.5	39.4	20.2	33.1	59.9	49.3	129.3	248.2	308.2	131.7	74.8	1522.6	406.3	231.1
293	MR	408.2	228.1	53.4	40.3	21.1	14.2	36.4	188.9	303.0	82.7	70.3	1101.3	373.5	256.7
294	MR	169.4	70.5	36.1	41.9	62.3	103.7	149.1	229.8	318.2	114.8	66.8	1875.6	421.2	250.4
295	MR	116.4	34.9	15.8	27.5	42.6	49.8	130.3	226.1	298.4	121.7	71.8	1570.0	394.6	226.4
296	MR	315.4	262.6	188.4	236.3	89.8	100.0	121.4	131.4	307.3	111.3	81.6	767.7	376.9	241.6
297	MR	156.3	18.8	7.0	20.0	46.8	116.8	130.5	170.8	335.3	152.3	73.3	1223.9	451.8	245.6
298	MR	185.2	42.6	25.0	44.5	77.4	154.8	198.9	224.7	320.8	126.1	70.0	1550.7	425.6	246.5
299	MR	377.5	494.9	336.7	174.0	150.9	148.6	167.5	162.9	194.1	106.7	83.7	452.7	261.0	134.1
300	MR	162.8	20.8	11.2	27.6	54.5	128.3	137.4	167.9	330.5	147.1	74.2	1337.3	444.3	247.4
301	MR	446.6	371.9	365.1	327.7	302.8	268.5	253.1	327.4	299.7	104.6	84.6	481.0	368.4	245.5
302	MR	576.0	400.0	133.5	58.5	81.5	64.5	104.5	342.5	291.5	86.5	74.5	755.0	359.0	244.0
303	MR	87.8	25.1	14.4	18.8	28.5	85.4	128.0	143.4	319.3	148.8	69.1	1210.1	428.5	214.8
304	MR	403.1	450.0	345.5	256.0	192.1	203.7	189.1	164.0	295.1	96.8	84.5	429.8	352.5	238.6

305	MR	321.3	181.7	90.4	103.2	172.0	287.0	345.2	404.6	272.0	98.4	72.9	891.4	334.8	200.7
306	MR	146.0	75.3	29.1	48.9	111.7	143.9	195.1	220.7	224.7	129.6	74.0	665.2	310.7	136.9
307	MR	289.3	357.3	148.5	70.9	68.0	94.9	102.5	90.1	224.5	108.5	84.1	378.4	291.7	163.3
308	MR	273.4	206.1	60.4	73.0	138.8	195.5	285.0	287.5	271.4	135.5	74.0	700.7	369.9	187.9
309	MR	392.9	445.8	355.1	259.2	197.6	210.2	189.1	158.7	296.8	94.9	83.0	493.4	354.3	240.4
310	MR	135.9	75.2	30.1	49.9	112.4	152.8	215.8	225.2	249.6	117.7	74.2	630.2	328.8	171.2
311	MR	170.0	36.0	30.3	36.8	87.5	156.5	249.2	246.6	298.0	120.1	71.8	785.8	386.6	220.5
312	MR	527.8	749.4	354.4	194.0	147.4	165.0	193.8	195.3	264.3	102.8	81.8	453.3	331.0	206.0
313	MR	320.5	254.3	71.7	87.9	154.7	245.4	300.3	371.3	269.5	129.3	76.4	457.9	357.8	189.7
314	MR	147.6	66.8	43.1	22.2	45.1	117.2	152.8	179.6	310.1	132.4	65.8	1455.5	407.7	207.8
315	MR	141.5	78.5	36.4	26.7	58.8	112.4	169.0	204.2	295.3	131.3	69.2	1660.7	384.9	196.3
316	MR	383.5	477.5	388.1	225.6	174.0	214.8	212.2	181.4	288.4	95.4	86.8	327.3	345.4	236.1
317	MR	283.3	351.2	274.3	140.6	119.7	120.6	125.1	120.5	161.6	106.0	83.2	472.3	229.4	103.2
318	MR	340.6	348.1	331.6	184.6	146.8	178.5	173.8	181.2	254.9	106.0	88.9	284.2	316.1	197.6
319	MR	173.0	142.3	142.0	88.0	81.3	155.0	158.0	176.0	190.7	97.3	88.0	269.0	247.0	136.7
320	MR	316.5	293.1	152.0	168.2	185.5	181.3	270.4	256.5	299.4	96.5	75.5	714.4	373.2	246.1
321	MR	163.3	35.5	36.2	31.2	59.5	134.1	193.5	207.0	302.6	117.7	67.0	861.3	392.7	218.3
322	MR	38.6	15.4	7.4	10.7	37.9	63.9	91.9	120.0	127.9	177.7	74.4	1271.1	239.6	1.9
323	MR	334.1	396.9	142.7	148.3	182.8	199.5	231.4	236.7	308.3	106.4	77.3	760.4	386.5	249.9
324	MR	394.9	406.6	152.7	136.0	147.8	173.5	231.7	222.4	307.9	105.2	81.2	555.5	379.8	251.0
325	MR	394.5	507.5	331.8	233.9	169.3	194.4	220.7	206.3	292.9	99.5	86.1	219.0	350.2	235.4
326	MR	222.3	84.5	64.0	54.2	93.9	197.9	281.3	300.3	292.3	110.6	68.9	1059.1	370.2	210.9
327	MR	500.0	491.0	437.0	276.0	258.0	298.0	312.0	263.0	280.0	86.0	86.0	369.0	332.0	232.0
328	MR	215.6	87.5	30.8	52.2	101.0	137.2	220.2	227.4	306.0	121.9	71.5	821.7	400.9	231.4
329	MR	198.9	83.7	32.3	56.6	108.6	150.9	215.2	234.5	304.3	119.8	73.0	815.6	395.4	232.3
330	MR	137.3	32.0	6.3	24.3	76.3	147.7	239.7	305.0	304.7	120.0	69.0	1570.7	405.3	233.3
331	MR	80.1	32.1	0.4	7.1	41.0	105.8	211.5	226.5	303.8	126.3	70.1	1550.3	406.0	227.8
332	MR	234.0	88.7	32.3	44.4	83.9	156.4	190.8	224.8	308.0	129.3	77.2	992.2	402.9	236.4
333	MR	322.6	148.4	63.9	69.3	50.3	53.9	118.9	207.6	315.7	117.1	75.1	1343.9	401.3	246.2
334	MR	272.3	296.2	206.3	171.5	159.1	196.0	191.2	243.1	290.7	92.8	89.1	278.8	345.1	241.7
335	MR	244.7	272.9	151.9	164.2	146.8	187.2	230.0	222.7	299.9	97.6	80.8	538.5	368.1	248.1
336	MR	138.5	18.2	7.4	23.7	44.3	117.0	126.8	156.9	334.8	155.4	74.0	1204.5	452.0	243.6
337	MR	257.7	179.4	44.3	82.4	138.1	183.1	231.6	266.9	310.8	110.1	66.1	1403.0	412.6	247.3
338	MR	108.8	30.0	2.2	13.8	59.0	130.7	235.0	277.2	304.8	122.8	69.8	1558.0	405.5	231.2
339	MR	191.6	144.2	77.1	117.8	103.3	125.3	188.7	208.2	311.1	102.3	69.4	1204.9	401.1	254.9
340	MR	193.1	38.6	25.5	37.6	83.2	150.3	212.1	247.6	300.8	129.8	76.2	832.2	392.5	223.3
341	MR	166.1	21.7	22.8	26.6	68.7	139.0	201.0	213.5	302.3	121.6	71.0	828.6	392.7	222.5

342	MR	328.5	168.8	60.3	100.3	33.3	20.3	19.0	82.5	303.8	102.0	79.3	852.8	375.5	247.5
343	MR	82.0	29.3	9.7	12.7	35.7	44.3	118.7	215.0	311.3	120.0	72.0	1250.0	398.3	232.0
344	MR	82.5	13.0	5.0	17.0	29.0	97.5	125.0	142.0	337.0	164.0	74.0	1149.5	456.5	237.5
345	MR	270.0	154.0	39.0	30.0	8.0	4.0	15.0	25.0	301.0	76.0	73.0	684.0	353.0	250.0
346	MR	85.2	30.7	13.0	14.8	39.2	48.2	123.2	227.7	310.2	118.2	72.0	1236.0	395.5	233.5
347	MR	97.8	31.8	1.5	10.8	53.8	122.5	229.5	261.0	305.3	123.5	70.0	1562.8	406.5	230.8
348	MR	90.3	34.3	1.7	8.7	53.0	118.7	231.0	252.7	306.0	123.0	69.3	1566.3	407.7	231.7
349	MR	123.9	23.2	12.9	37.0	73.2	150.2	222.0	311.4	313.7	137.0	67.7	1626.6	425.7	224.5
350	MR	102.2	15.2	8.0	30.6	54.0	124.3	209.9	296.8	312.7	142.3	68.0	1596.9	427.0	219.3
351	MR	305.7	184.9	42.0	94.6	107.9	73.1	190.6	269.4	306.8	95.9	70.0	1538.5	382.2	246.3
352	MR	262.3	99.5	43.4	35.4	39.2	55.0	129.9	255.4	320.6	118.4	74.0	1406.4	408.9	250.4
353	MR	142.0	29.0	5.0	24.0	75.0	151.0	243.0	315.0	305.0	120.0	69.0	1567.0	406.0	233.0
354	MR	95.0	28.0	1.0	10.0	46.0	115.0	220.0	249.0	306.0	125.0	70.0	1539.0	409.0	230.0
355	MR	170.4	59.6	22.9	54.7	91.0	160.3	204.5	234.5	316.6	120.3	69.3	1439.3	419.7	247.4
356	MR	203.2	32.1	26.7	36.3	81.5	150.1	198.8	230.5	323.1	131.7	71.9	1531.4	428.3	246.4
357	MR	101.0	27.0	1.0	12.0	48.0	119.0	225.0	261.0	305.0	125.0	70.0	1543.0	407.0	229.0
358	MR	218.0	103.8	46.1	71.2	111.8	174.2	192.3	279.0	312.1	102.8	65.0	1639.5	404.9	248.1
359	MR	172.6	68.3	19.1	49.9	83.9	140.6	227.4	276.9	314.5	114.3	67.3	1587.3	417.8	248.9
360	MR	322.0	146.9	51.5	88.6	41.8	28.1	27.8	109.2	309.3	95.8	79.1	926.0	375.7	255.1
361	MR	311.8	187.3	50.5	146.3	113.3	94.8	128.9	287.9	313.3	103.5	72.6	1339.0	391.9	250.3
362	MR	331.6	163.5	57.9	96.6	32.5	20.5	19.6	84.6	304.3	101.0	79.2	862.3	375.3	248.5
363	MR	96.5	34.0	3.5	12.8	60.3	123.0	233.0	264.5	304.3	122.3	69.0	1586.5	406.5	230.3
364	MR	321.0	196.0	61.0	87.0	20.0	6.0	8.0	57.0	300.0	101.0	77.0	840.0	373.0	243.0
365	MR	304.0	196.0	62.0	83.0	20.0	6.0	9.0	48.0	300.0	96.0	77.0	819.0	369.0	245.0
366	MR	300.5	198.5	66.0	83.5	20.5	7.5	11.0	47.0	300.0	93.5	76.5	823.5	367.5	245.5
367	MR	389.1	166.6	51.5	73.6	33.1	8.6	17.3	107.6	314.9	83.1	71.8	1097.5	376.8	261.7
368	MR	325.0	196.0	65.0	100.0	27.0	11.0	10.0	70.0	300.0	102.0	78.0	836.0	374.0	244.0
369	MR	324.7	150.7	53.3	91.3	38.0	26.3	25.7	99.0	307.7	98.0	80.0	882.0	375.7	253.7
370	MR	321.0	145.0	52.0	87.5	44.5	28.0	29.0	115.0	311.0	94.0	78.0	955.5	376.5	256.5
371	MR	87.7	34.0	2.0	8.3	53.7	118.0	233.3	253.7	303.7	123.3	69.0	1577.3	406.0	228.7
372	MR	236.5	270.2	82.1	111.9	128.0	180.7	216.0	254.8	296.9	94.0	81.4	519.5	361.1	246.4
373	MR	230.4	147.2	37.9	60.9	115.8	178.0	204.4	260.6	309.9	112.9	70.2	1243.0	405.4	245.7
374	MR	114.5	34.0	5.5	18.5	68.5	134.5	235.5	280.0	305.5	120.5	69.0	1591.0	406.5	232.0
375	MR	82.1	20.4	7.3	18.2	33.0	96.5	148.5	169.6	325.2	162.7	73.7	1053.5	437.5	218.2
376	MR	96.5	31.0	1.0	10.5	51.5	121.0	227.5	258.5	305.0	124.0	70.0	1558.5	406.5	230.5
377	MR	265.2	107.2	45.6	27.4	17.6	16.2	60.5	105.3	294.9	74.7	60.6	1880.6	363.1	240.9
378	MR	331.7	199.4	38.9	64.9	66.9	39.5	146.2	217.0	298.9	76.9	63.4	1672.6	367.9	247.7

379	MR	101.8	15.4	7.0	22.9	35.3	107.4	125.7	144.5	335.6	161.9	74.6	1160.9	454.2	238.8
380	MR	110.4	16.3	8.2	26.9	39.0	112.5	126.4	143.9	333.4	160.6	74.9	1177.0	451.3	238.1
381	MR	251.1	207.1	62.2	111.7	155.0	199.9	218.2	244.4	302.1	109.9	79.8	694.7	379.2	242.4
382	MR	132.0	39.5	22.8	28.1	23.9	43.2	112.8	203.4	302.0	114.9	69.9	1713.8	396.7	233.5
383	MR	246.3	308.1	171.8	160.1	134.6	205.0	217.4	246.1	291.2	91.6	90.7	211.1	344.1	243.8
384	MR	160.1	20.6	12.4	25.3	54.1	126.1	141.5	173.5	331.5	144.2	73.5	1366.8	444.5	249.5
385	MR	151.9	19.7	9.7	28.2	49.9	123.8	130.1	158.9	332.8	151.6	74.1	1263.6	448.3	244.9
386	MR	147.8	40.1	15.1	34.3	91.0	145.6	228.4	294.4	308.1	116.5	68.4	1590.5	408.0	238.9
387	MR	265.5	173.7	131.4	163.3	149.9	130.2	164.3	223.8	307.0	101.4	79.4	703.7	379.0	252.0
388	MR	125.1	31.0	23.8	36.1	28.8	33.1	98.1	191.0	295.1	114.9	72.3	1531.2	385.9	228.1
389	MR	234.3	140.4	45.3	71.0	123.2	169.2	213.4	244.9	304.3	115.0	74.3	739.7	390.4	236.5
390	MR	148.8	49.0	30.0	38.9	26.6	64.0	138.8	232.4	308.8	120.7	69.2	1864.0	409.8	236.8
391	MR	92.0	33.0	2.0	9.0	53.0	120.0	230.0	255.0	305.0	123.0	70.0	1575.0	407.0	231.0
392	MR	321.0	145.0	51.0	88.0	44.0	28.0	29.0	115.0	310.0	94.0	78.0	932.0	375.0	256.0
393	MR	92.5	33.5	1.8	9.0	53.5	120.3	230.5	255.3	305.8	123.0	69.8	1567.3	407.5	231.8
394	MR	120.5	32.0	4.0	18.5	67.5	138.5	237.5	289.0	305.5	120.5	69.0	1570.5	406.0	233.0
395	MR	197.9	59.8	35.4	28.6	24.1	38.7	85.1	204.9	310.4	109.5	62.6	2305.7	412.9	239.5
396	MR	311.7	180.3	52.7	126.8	84.7	76.9	100.1	255.2	314.2	108.1	73.8	1298.0	394.5	249.0
397	MR	267.9	121.5	48.3	36.7	32.2	21.3	86.0	142.4	297.9	79.4	64.0	1754.7	366.0	243.0
398	MR	222.2	241.8	268.2	142.2	95.9	125.0	110.3	125.5	144.2	90.2	85.2	407.3	199.6	94.3
399	MR	187.0	126.0	102.0	100.0	112.0	192.0	209.0	144.0	179.0	71.0	87.0	226.0	220.0	139.0
400	MR	282.2	316.6	338.5	182.4	133.9	149.8	146.9	174.5	183.8	98.5	88.8	303.0	239.7	129.4
401	MR	401.8	274.5	97.8	29.5	30.5	32.8	62.5	195.0	300.8	86.5	76.0	814.8	365.3	252.3
402	MR	359.5	276.8	147.7	74.2	45.9	55.8	92.0	167.3	304.8	88.3	72.2	1095.8	373.8	252.1
403	MR	373.0	252.8	134.3	72.5	46.8	48.3	82.0	174.0	306.0	91.3	71.8	1170.8	378.0	252.0
404	MR	486.8	278.0	186.1	112.2	40.4	31.4	91.9	209.4	305.4	96.6	67.9	1546.9	387.4	246.0
405	MR	343.7	254.7	125.7	63.3	47.5	48.9	77.2	161.2	302.8	88.7	71.7	1075.8	373.5	250.5
406	MR	378.8	266.3	166.4	101.3	35.2	41.6	84.2	167.0	311.3	93.7	71.7	1225.7	383.4	253.6
407	MR	419.1	288.5	99.9	44.9	78.9	59.5	79.7	224.6	291.0	92.1	75.2	906.3	362.9	241.1
408	MR	601.1	400.0	123.6	53.4	73.3	62.2	110.2	347.8	293.0	87.7	74.6	733.2	362.0	245.1
409	MR	519.4	330.2	94.2	44.9	80.9	56.6	106.1	305.5	288.7	93.4	74.9	863.6	361.8	237.8
410	MR	171.7	72.6	19.9	49.3	84.3	140.2	227.4	275.2	313.6	114.1	66.9	1597.9	417.4	248.0
411	MR	311.5	257.2	148.3	73.0	35.3	45.7	89.7	141.7	306.7	86.5	73.0	1044.2	372.2	254.7
412	MR	66.5	27.8	0.5	6.0	33.7	90.9	203.5	210.8	304.2	131.0	69.8	1534.9	409.4	223.0
413	MR	412.8	189.0	125.6	75.4	50.4	41.6	103.4	157.1	304.8	114.2	64.5	2011.6	411.1	235.6
414	MR	346.5	255.6	124.3	37.3	40.9	43.7	68.4	185.2	301.1	87.5	74.1	925.4	368.7	251.4
415	MR	89.9	27.0	15.8	16.8	22.0	76.8	107.7	116.5	301.7	139.6	64.8	1626.7	406.8	193.0

416	MR	153.3	26.3	9.4	26.7	45.0	133.4	180.6	164.8	328.2	132.9	73.2	1400.0	431.8	251.6
417	MR	260.1	123.2	82.2	41.6	100.3	197.3	353.9	443.3	310.7	134.4	65.9	1797.6	403.0	200.8
418	MR	249.0	125.0	59.0	114.0	102.5	89.0	92.0	196.5	313.5	108.0	80.0	962.5	387.0	252.5
419	MR	96.9	33.5	22.3	18.9	27.0	80.7	121.4	132.9	311.5	137.2	65.9	1394.2	416.4	209.7
420	MR	229.0	97.0	57.5	36.5	94.0	234.0	305.0	410.5	304.5	145.0	68.0	1917.0	397.5	185.5
421	MR	148.8	46.0	50.4	22.4	43.3	99.8	169.2	184.9	307.7	123.4	68.5	919.1	398.9	220.0
422	MR	500.5	691.5	442.0	200.5	141.0	163.5	190.0	183.5	237.0	110.5	83.0	449.5	309.5	177.0
423	MR	252.7	121.0	82.0	39.7	95.7	189.7	333.7	419.7	310.3	132.3	65.3	1739.3	403.0	202.0
424	MR	332.9	363.4	321.3	185.6	147.7	175.4	174.6	197.7	235.1	107.9	91.3	231.0	295.0	177.7
425	MR	139.0	56.0	43.0	22.5	53.0	114.0	165.0	197.5	318.5	131.0	65.0	1130.0	423.0	223.0
426	MR	22.9	12.7	6.4	12.2	37.1	55.6	110.3	130.8	122.9	139.1	72.0	1091.3	209.1	16.9
427	MR	15.0	11.0	5.0	11.0	38.0	40.0	86.0	103.0	82.0	145.0	70.0	1171.0	172.0	-32.0
428	MR	272.5	334.6	141.2	69.2	68.3	94.6	99.8	84.7	217.5	108.3	83.2	387.0	284.7	155.5
429	MR	106.5	53.5	27.2	37.7	86.2	127.6	184.6	210.6	221.0	124.7	75.1	756.5	301.1	136.3
430	MR	95.2	53.4	18.6	23.0	67.2	91.8	101.2	136.2	180.4	147.8	74.6	473.2	276.0	80.0
431	MR	134.7	168.7	86.3	37.7	32.9	64.3	62.8	72.3	173.0	120.4	88.1	308.0	242.0	106.1
432	MR	428.8	347.3	185.9	181.3	61.5	58.7	105.5	183.2	299.4	74.0	65.2	1182.8	364.9	252.4
433	MR	169.8	74.1	57.8	24.6	59.5	129.1	193.0	243.6	313.8	124.6	63.3	1201.2	413.6	218.5
434	MR	378.2	414.5	288.9	430.6	235.1	254.3	251.1	190.3	265.2	108.9	83.0	790.2	334.9	204.5
435	MR	468.9	259.7	178.6	100.5	37.1	26.9	89.5	211.0	305.4	98.6	67.2	1625.4	390.6	244.9
436	MR	294.9	366.9	150.8	80.5	77.6	100.6	103.2	88.4	228.9	102.7	81.0	430.2	294.9	168.6
437	MR	477.4	611.2	272.2	162.7	129.2	154.0	201.7	200.2	291.9	96.4	84.8	345.7	351.8	238.7
438	MR	346.8	337.8	111.4	124.1	168.0	202.8	225.9	219.0	308.1	120.1	79.7	648.2	391.6	241.9
439	MR	260.1	223.7	125.8	167.6	212.1	212.7	198.0	260.4	295.6	96.3	87.9	258.3	352.7	243.7
1	Presente	272.3	247.3	235.7	211.9	227.0	238.7	253.8	235.7	259.2	85.8	315.3	114.2	257.6	252.8
2	Presente	280.3	227.8	191.7	179.2	208.9	220.0	210.5	249.8	260.4	85.0	314.7	110.3	255.4	253.6
3	Presente	13.3	8.1	12.1	21.1	41.4	62.8	95.8	128.3	112.5	76.1	211.5	209.3	98.6	97.1
4	Presente	226.2	167.0	128.5	125.2	169.8	196.5	214.8	236.8	261.5	83.2	319.6	116.6	255.6	255.3
5	Presente	133.9	107.2	98.3	97.3	141.6	165.7	142.8	118.3	237.2	82.0	302.1	135.9	230.6	230.6
6	Presente	104.7	76.7	53.4	65.9	100.1	152.1	215.4	179.6	264.4	78.4	332.8	140.5	256.7	255.8
7	Presente	284.2	236.3	222.6	208.5	215.8	225.7	234.2	259.3	261.6	85.8	315.6	110.5	257.9	254.9
8	Presente	217.7	166.5	139.4	123.3	128.0	156.7	176.8	214.8	25.6	7.9	32.3	13.3	25.4	24.8
9	Presente	81.4	48.4	69.0	39.0	68.3	99.7	159.1	217.3	260.6	71.1	335.9	158.0	243.8	243.3
10	Presente	116.4	78.9	59.2	70.6	100.7	168.5	192.2	291.5	249.2	63.8	323.4	169.1	222.9	222.9
11	Presente	311.2	209.8	172.6	126.4	70.8	52.2	54.7	156.7	270.5	83.9	325.6	100.9	276.0	263.9
12	Presente	299.5	177.2	129.0	49.9	24.3	17.0	25.3	77.5	271.4	83.0	328.3	105.8	276.9	267.0
13	Presente	314.6	276.8	212.9	187.5	137.3	116.5	124.0	106.4	271.6	87.7	326.7	108.6	273.1	266.3

14	Presente	64.7	37.1	33.4	63.4	100.1	130.4	152.7	241.0	218.6	70.3	291.4	156.7	200.1	199.8
15	Presente	56.3	30.3	25.7	48.0	69.7	126.3	141.7	199.3	194.7	72.0	255.7	128.3	178.3	176.0
16	Presente	307.2	213.9	147.4	52.4	15.7	8.7	15.5	49.4	269.2	79.8	320.1	97.9	275.6	263.4
17	Presente	47.0	18.4	15.8	38.2	57.6	100.4	97.6	169.4	190.8	73.0	259.4	145.8	177.2	174.2
18	Presente	316.0	239.0	178.0	96.0	43.0	32.0	62.0	129.0	271.0	78.0	327.0	99.0	277.0	263.0
19	Presente	105.0	40.1	19.1	30.9	66.0	130.0	143.6	239.0	256.6	81.2	325.6	133.7	257.7	252.5
20	Presente	104.0	46.5	37.5	39.6	96.6	164.3	206.1	260.5	257.5	75.5	324.1	143.4	250.6	245.7
21	Presente	263.0	151.0	142.0	121.0	120.0	97.0	98.0	209.0	268.0	90.0	323.0	105.0	270.0	264.0
22	Presente	80.8	35.4	24.8	27.2	50.4	122.0	130.6	189.6	262.6	75.4	336.6	146.6	262.6	258.6
23	Presente	172.1	74.8	30.9	24.7	35.0	77.7	116.3	215.7	271.0	86.6	332.2	118.3	274.1	266.3
24	Presente	102.3	46.0	39.0	40.0	96.0	167.0	206.0	260.0	261.3	74.0	328.0	143.3	255.7	249.7
25	Presente	253.1	147.9	102.0	81.5	104.8	148.8	150.5	241.4	270.8	83.6	325.9	102.7	275.0	266.4
26	Presente	195.7	114.8	85.3	83.3	105.7	153.4	174.7	233.7	272.3	81.8	327.7	102.3	277.4	267.7
27	Presente	298.4	182.5	120.4	101.4	125.5	167.7	160.7	232.2	270.8	83.2	326.2	103.6	275.0	266.5
28	Presente	262.9	163.2	111.4	59.6	45.4	68.0	107.1	193.5	276.8	79.1	336.7	104.4	285.4	270.1
29	Presente	206.0	110.0	78.0	61.0	82.0	131.0	168.0	225.0	274.0	81.0	329.0	102.0	279.0	269.0
30	Presente	255.1	142.6	95.2	50.0	32.0	35.5	47.5	93.4	268.4	80.8	326.2	104.8	276.1	262.3
31	Presente	337.1	195.5	141.9	114.4	116.1	148.1	150.1	215.6	269.6	82.8	325.8	104.8	274.0	265.3
32	Presente	236.3	139.7	131.3	114.0	109.7	91.0	84.7	189.3	268.0	88.3	323.3	105.3	271.0	263.3
33	Presente	324.3	219.3	158.8	80.2	28.7	23.9	53.6	129.2	270.0	78.6	326.2	97.4	276.9	262.3
34	Presente	112.0	31.5	19.5	51.5	91.5	178.0	219.0	277.5	260.5	72.0	328.5	142.0	258.5	253.0
35	Presente	82.5	34.2	25.3	26.6	52.2	115.8	132.5	195.7	258.2	75.8	331.3	144.2	258.4	254.6
36	Presente	129.3	52.3	35.3	34.6	128.7	182.5	224.0	286.8	260.9	68.9	341.1	160.6	258.2	256.4
37	Presente	199.8	111.1	80.9	69.7	91.7	140.1	171.3	228.2	273.8	81.7	328.9	101.7	279.6	268.8
38	Presente	67.0	41.7	33.3	59.0	91.0	123.7	150.3	234.3	230.0	69.3	298.7	146.7	211.0	210.0
39	Presente	110.3	31.2	20.0	32.4	95.8	154.6	177.2	249.2	248.6	78.5	325.9	154.0	246.8	244.7
40	Presente	321.6	278.1	222.0	189.3	146.6	123.3	123.7	116.5	270.5	88.8	325.7	109.0	272.7	265.2
41	Presente	68.0	46.5	31.5	39.5	42.0	78.0	143.0	169.0	256.0	68.0	334.0	175.0	241.0	228.0
42	Presente	92.0	59.0	39.5	63.5	67.0	127.0	159.0	209.0	241.0	62.0	315.5	167.0	209.5	209.5
43	Presente	76.0	30.1	14.8	22.0	68.1	132.4	182.4	246.0	266.5	69.8	343.5	160.0	256.8	255.8
44	Presente	77.0	33.3	17.3	28.3	69.7	126.7	179.7	247.7	265.0	69.0	342.0	165.0	253.0	252.0
45	Presente	68.0	46.5	31.5	39.5	42.0	78.0	143.0	169.0	256.0	68.0	334.0	175.0	241.0	228.0
46	Presente	81.4	45.9	57.7	36.9	67.9	106.5	157.5	210.4	260.1	70.5	336.0	160.8	243.1	242.8
47	Presente	102.8	70.6	54.3	68.6	100.8	157.2	180.8	276.5	245.2	65.2	318.6	165.1	220.7	220.7
48	Presente	104.1	74.9	76.7	79.3	100.3	168.3	226.8	285.8	249.7	72.3	317.4	143.3	231.8	231.8
49	Presente	341.0	432.7	416.3	350.7	314.7	212.3	191.0	112.0	271.7	78.0	342.7	122.7	277.0	262.7
50	Presente	178.7	213.4	170.4	140.7	129.1	142.4	130.9	119.3	170.1	86.1	239.7	131.1	173.6	162.4

51	Presente	46.1	22.4	18.7	40.8	62.4	104.0	108.1	173.0	169.5	71.5	238.3	150.4	153.4	151.7
52	Presente	72.4	50.9	32.4	61.4	51.4	102.9	138.2	182.8	219.8	65.6	296.2	172.3	194.7	190.7
53	Presente	134.4	95.6	70.6	79.2	99.8	146.9	230.4	321.4	253.0	64.5	327.5	172.1	227.2	224.7
54	Presente	81.6	62.6	54.7	62.2	78.2	131.8	169.7	229.3	218.8	70.6	286.4	143.6	202.9	199.2
55	Presente	152.8	92.1	60.7	78.3	134.8	202.8	224.7	240.8	254.4	73.9	317.1	133.8	245.3	244.8
56	Presente	305.4	227.1	191.0	167.3	155.6	224.3	218.7	273.7	256.4	85.7	310.3	105.3	255.3	251.4
57	Presente	216.0	134.0	124.0	104.0	96.0	82.0	70.0	170.0	269.0	89.0	323.0	103.0	271.0	263.0
58	Presente	224.0	136.0	127.0	108.0	103.0	86.0	77.0	179.0	268.0	89.0	323.0	104.0	271.0	263.0
59	Presente	277.0	161.0	122.0	115.0	126.0	171.0	182.0	224.0	269.0	83.0	324.0	103.0	273.0	264.0
60	Presente	75.0	31.0	26.0	43.0	97.0	149.0	204.0	233.0	254.0	68.0	326.0	153.0	241.0	238.0
61	Presente	80.0	55.0	44.0	65.0	97.0	134.0	164.5	251.5	235.5	69.0	305.0	152.0	215.0	214.5
62	Presente	271.9	335.5	256.9	184.7	68.5	36.2	45.6	47.6	264.2	79.8	327.0	113.7	269.3	257.1
63	Presente	290.5	388.3	322.0	256.5	178.8	183.3	242.3	332.5	262.0	78.5	311.0	94.5	259.0	255.0
64	Presente	295.1	368.3	299.8	207.4	133.5	148.2	208.5	334.9	266.3	78.4	313.9	88.2	263.3	260.2
65	Presente	402.9	397.9	355.6	298.6	248.6	231.0	192.9	161.1	254.9	88.4	320.6	124.9	257.2	248.6
66	Presente	545.0	437.0	240.0	141.0	60.0	67.0	139.0	336.0	264.0	75.0	323.0	102.0	272.0	258.0
67	Presente	368.0	325.0	195.0	106.0	54.0	51.0	111.0	222.0	265.0	78.0	324.0	103.0	272.0	256.0
68	Presente	101.2	87.2	77.3	70.3	99.2	127.1	110.3	98.0	182.8	78.0	248.1	130.9	176.7	176.4
69	Presente	39.6	20.3	28.9	29.9	67.3	90.9	96.8	130.3	124.7	78.9	208.3	185.2	113.8	113.8
70	Presente	133.5	83.2	80.8	102.0	137.7	215.9	245.7	343.8	219.6	82.3	293.3	153.3	213.3	213.3
71	Presente	337.1	309.0	250.5	158.4	82.0	63.1	67.0	73.4	259.5	81.4	323.8	117.4	266.2	253.1
72	Presente	331.0	398.7	418.0	341.7	228.3	189.7	135.7	84.0	281.0	75.3	358.0	133.0	288.3	269.0
73	Presente	331.5	400.0	418.5	343.5	230.5	192.0	138.0	85.5	281.0	75.5	358.0	133.0	288.0	269.0
74	Presente	186.9	83.3	46.6	56.1	113.2	144.0	165.7	244.7	265.0	71.8	333.3	136.3	263.2	260.4
75	Presente	294.9	332.8	269.9	220.5	95.3	63.8	84.5	62.1	272.3	85.6	331.0	116.6	274.7	264.4
76	Presente	115.5	43.6	19.9	48.5	92.4	153.2	233.3	307.8	261.9	71.7	332.5	142.3	258.4	255.0
77	Presente	383.4	255.7	195.1	121.9	74.0	61.6	77.7	92.3	259.2	78.8	332.2	125.4	268.5	252.8
78	Presente	54.0	9.0	4.0	22.5	62.0	161.5	225.5	293.5	235.5	68.0	323.5	190.5	226.5	225.5
79	Presente	328.8	237.9	190.4	114.9	71.1	52.1	68.9	133.4	258.8	80.8	321.3	109.4	266.4	251.3
80	Presente	349.0	307.3	276.1	231.0	230.2	262.4	268.0	337.4	254.7	86.1	307.5	103.8	255.4	248.8
81	Presente	298.3	228.0	185.4	173.4	157.1	228.9	227.7	274.8	256.5	85.0	311.2	106.7	255.6	251.5
82	Presente	317.1	327.7	263.3	222.8	95.6	82.6	82.0	74.6	266.4	88.7	327.3	119.6	268.1	258.5
83	Presente	305.2	323.3	255.5	213.8	119.1	84.4	96.8	74.1	272.5	86.9	329.5	113.6	274.6	265.6
84	Presente	90.6	33.7	32.5	54.0	92.6	167.0	236.2	251.9	246.3	72.6	316.6	157.3	233.8	233.8
85	Presente	67.0	9.0	6.0	25.0	62.0	143.7	210.0	287.0	242.3	68.0	332.3	185.0	237.3	235.3
86	Presente	47.8	1.4	3.1	16.6	42.5	191.6	212.9	301.7	245.9	69.9	339.6	204.3	233.5	230.7
87	Presente	89.5	19.6	8.8	26.8	94.5	162.6	230.4	322.6	253.6	68.0	336.0	167.8	249.6	247.7

88	Presente	118.6	33.8	19.6	33.0	106.9	162.5	220.5	316.3	258.7	69.8	329.8	147.9	252.3	250.2
89	Presente	101.5	31.5	25.0	43.2	89.6	162.7	214.8	263.9	260.6	75.9	328.5	138.0	257.3	253.5
90	Presente	131.8	47.6	16.6	28.1	87.4	125.6	145.1	231.9	251.4	77.9	324.4	144.7	250.3	246.4
91	Presente	152.5	43.1	18.5	32.6	101.4	170.1	182.6	284.4	255.5	74.6	331.1	149.1	253.9	249.9
92	Presente	204.7	86.4	56.9	48.4	107.9	137.4	156.2	232.8	264.6	72.8	333.0	135.5	263.1	259.5
93	Presente	332.5	241.6	180.9	124.7	70.0	57.5	62.0	185.5	259.0	76.7	322.3	109.8	266.0	251.2
94	Presente	339.5	294.0	274.9	213.7	184.0	169.4	157.7	147.7	260.6	90.4	316.7	110.4	262.7	255.0
95	Presente	318.8	324.1	254.5	215.7	124.8	89.4	106.6	69.5	272.5	87.1	328.3	110.9	273.5	266.5
96	Presente	154.5	57.4	33.7	51.9	118.3	177.3	225.9	290.4	263.1	75.2	330.1	132.3	260.8	258.4
97	Presente	124.4	31.5	24.3	35.2	110.2	171.1	232.4	291.3	258.0	73.2	329.3	144.6	254.3	250.5
98	Presente	103.3	38.8	20.3	35.9	79.2	139.5	156.8	247.8	244.3	81.0	315.6	138.1	245.4	240.1
99	Presente	313.9	206.0	143.3	76.8	61.0	56.3	83.6	127.0	267.6	96.3	85.1	448.7	328.6	216.4
100	Presente	130.9	51.9	33.1	33.9	125.4	174.8	219.2	273.0	262.2	67.6	341.4	160.1	259.3	258.1
101	Presente	202.0	82.4	66.2	63.2	108.9	149.5	168.1	244.0	267.4	75.6	334.5	132.2	266.4	261.5
102	Presente	186.0	83.4	53.3	63.7	87.1	146.0	163.2	238.6	260.0	78.0	326.3	130.2	260.0	253.3
103	Presente	120.0	46.0	23.2	29.7	104.3	148.5	226.7	305.6	260.7	70.1	334.6	148.5	257.0	254.7
104	Presente	95.7	37.1	23.9	48.7	97.7	164.1	225.3	269.3	260.3	77.4	326.2	136.6	255.2	252.5
105	Presente	120.3	43.1	19.5	41.7	77.2	135.7	147.8	226.7	247.7	82.1	317.8	137.5	248.3	244.0
106	Presente	204.7	80.0	56.8	53.0	120.9	161.1	177.3	258.4	265.7	73.6	335.8	138.8	264.2	260.1
107	Presente	114.2	38.1	21.9	38.1	99.3	152.1	222.8	310.2	260.4	70.2	331.4	145.8	255.2	252.9
108	Presente	79.5	32.7	18.9	26.5	122.6	193.5	253.0	318.4	256.0	68.6	346.4	177.6	253.3	251.0
109	Presente	119.8	33.5	14.5	31.4	107.0	167.3	233.3	324.9	256.7	69.9	330.8	152.7	251.0	248.8
110	Presente	130.8	40.6	21.7	48.6	129.2	191.7	231.9	281.2	258.5	67.6	336.7	159.3	255.0	254.2
111	Presente	90.2	21.4	21.9	38.4	82.9	146.6	228.6	254.1	249.3	74.7	318.3	154.2	238.2	238.0
112	Presente	129.8	68.0	40.6	53.1	103.1	177.0	215.9	269.0	251.8	79.9	318.4	144.9	243.4	242.2
113	Presente	261.6	130.1	118.7	86.7	72.7	50.9	69.0	78.2	257.6	81.0	321.0	111.6	264.9	250.8
114	Presente	216.5	99.4	73.2	76.1	100.6	126.4	148.6	236.8	268.1	76.0	330.8	122.8	268.4	263.0
115	Presente	129.0	66.4	33.2	37.4	111.9	179.5	208.4	262.3	254.2	79.7	320.1	141.3	246.9	245.2
116	Presente	329.0	326.3	266.9	232.1	103.7	84.8	89.5	78.1	262.7	87.8	323.6	119.4	264.7	254.5
117	Presente	95.9	25.8	32.9	47.0	82.5	154.4	235.6	268.9	254.2	77.0	320.4	144.6	245.3	244.6
118	Presente	92.4	24.4	20.5	38.1	86.5	145.0	222.0	252.4	249.9	74.4	319.2	154.8	238.8	238.1
119	Presente	298.9	158.7	105.6	69.2	60.3	90.4	122.9	187.4	270.6	80.6	333.0	109.3	279.1	264.2
120	Presente	214.8	95.1	70.0	51.4	51.5	69.5	84.8	155.7	258.6	79.6	322.1	122.0	261.8	252.7
121	Presente	120.7	42.8	19.1	36.1	67.1	125.7	140.1	225.8	251.4	82.4	319.6	133.3	252.1	247.3
122	Presente	249.7	154.7	112.2	109.0	150.2	191.1	224.7	252.3	264.9	83.6	319.5	106.7	263.1	260.6
123	Presente	125.8	36.4	15.7	47.2	118.6	191.6	202.8	294.6	260.0	65.6	343.0	170.2	255.9	255.2
124	Presente	190.3	87.7	56.2	75.2	142.6	201.6	236.1	321.9	264.5	78.2	326.7	122.6	262.1	260.5

125	Presente	113.4	23.2	13.0	40.9	114.8	187.8	229.0	327.1	256.6	67.2	339.1	168.8	252.5	251.3
126	Presente	302.3	158.4	124.5	77.1	79.2	103.0	114.1	181.3	271.3	80.8	333.0	109.0	279.1	265.3
127	Presente	106.0	26.0	6.0	27.0	105.0	190.0	258.0	346.0	254.0	70.0	332.0	160.0	249.0	247.0
128	Presente	78.0	32.0	4.0	16.0	93.0	168.0	248.0	292.0	252.0	69.0	333.0	164.0	248.0	245.0
129	Presente	113.5	40.4	21.8	33.5	109.8	156.2	227.3	309.7	259.4	69.5	333.7	150.8	254.9	252.9
130	Presente	109.8	35.5	17.5	54.9	90.8	167.5	227.8	287.8	260.7	72.0	329.5	140.6	258.1	253.0
131	Presente	104.0	29.0	8.0	28.0	108.0	186.0	252.0	337.0	254.0	69.0	332.0	160.0	248.0	246.0
132	Presente	103.8	24.8	5.6	26.0	104.4	192.6	260.2	347.2	253.2	70.0	331.6	160.4	248.2	245.6
133	Presente	105.0	28.0	7.0	28.0	107.0	187.0	254.0	340.0	254.0	69.0	332.0	159.0	249.0	247.0
134	Presente	112.0	31.0	22.3	48.0	94.3	177.7	218.7	279.7	260.0	72.3	328.0	142.0	257.3	252.0
135	Presente	106.0	24.0	5.0	26.0	104.0	192.0	262.0	349.0	254.0	70.0	332.0	160.0	249.0	246.0
136	Presente	400.5	274.2	179.3	111.4	60.6	50.8	80.4	223.5	259.1	75.4	324.7	115.6	265.8	251.6
137	Presente	123.8	43.8	9.8	26.7	120.6	160.9	176.2	281.9	254.1	74.4	333.9	157.2	252.2	248.9
138	Presente	210.2	127.4	102.1	81.8	85.3	113.4	133.7	203.6	269.5	78.8	329.3	114.6	273.3	264.2
139	Presente	102.8	23.6	12.2	29.8	106.8	176.1	236.3	337.7	255.6	68.0	336.3	163.9	251.7	250.1
140	Presente	319.2	191.5	169.5	116.7	80.1	52.0	62.5	100.7	256.9	80.6	321.9	113.0	264.2	249.5
141	Presente	299.7	174.6	131.3	112.8	120.3	166.1	177.1	220.8	270.6	82.0	326.6	104.0	275.3	266.0
142	Presente	114.8	26.6	13.8	43.7	113.9	187.0	218.1	309.0	256.4	66.6	340.1	171.4	252.2	251.2
143	Presente	169.9	75.2	51.4	59.4	120.6	170.6	220.4	285.8	263.4	76.9	327.9	125.0	262.1	259.9
144	Presente	356.6	203.3	159.5	115.1	97.6	102.8	105.1	141.3	266.5	79.7	335.8	119.6	275.2	260.2
145	Presente	350.2	316.4	237.8	164.0	98.0	95.9	133.5	208.7	257.6	78.2	320.2	107.2	264.9	249.7
146	Presente	148.8	208.5	178.9	157.6	107.2	93.1	99.3	115.1	264.8	82.2	328.2	122.3	262.5	256.4
147	Presente	143.8	239.0	233.0	243.7	154.7	107.5	82.3	64.5	257.3	80.6	321.3	120.5	254.8	251.4
148	Presente	152.2	230.2	236.4	208.6	140.4	112.0	98.6	81.4	260.2	83.0	321.8	118.4	256.4	253.4
149	Presente	335.9	439.4	424.6	380.2	260.0	220.4	127.6	53.1	273.7	72.9	355.6	142.2	283.6	261.1
150	Presente	226.8	334.7	310.1	314.3	225.2	175.1	150.6	111.5	232.2	84.6	293.8	120.2	229.3	226.8
151	Presente	150.0	253.6	273.4	308.4	183.6	112.0	80.1	42.3	258.9	81.8	325.6	124.3	257.0	253.6
152	Presente	305.7	396.7	427.8	406.2	315.6	211.8	160.1	123.0	252.6	81.9	318.0	126.7	251.5	247.8
153	Presente	189.2	266.7	228.0	196.9	131.9	134.5	152.4	166.2	260.4	81.7	317.0	109.3	257.0	252.8
154	Presente	200.9	349.7	360.9	376.1	248.4	153.8	111.0	59.6	258.4	82.9	322.2	119.6	257.3	253.6
155	Presente	385.5	490.8	470.4	403.6	300.5	236.2	174.7	97.1	258.0	77.9	334.1	134.9	264.1	246.8
156	Presente	536.0	437.0	238.0	137.0	59.0	68.0	139.0	333.0	264.0	74.0	323.0	103.0	271.0	258.0
157	Presente	377.0	481.0	463.0	400.0	289.0	226.0	181.0	108.0	276.0	78.0	352.0	133.0	283.0	264.0
158	Presente	72.0	77.5	30.5	75.0	34.8	106.3	129.5	155.8	228.3	64.3	304.5	168.5	210.8	197.5
159	Presente	368.8	454.2	434.3	395.7	306.4	236.9	195.0	141.4	241.6	84.9	305.9	123.7	241.2	236.4
160	Presente	247.2	283.6	253.6	171.6	94.2	64.0	83.0	157.2	273.2	80.2	326.4	100.6	281.0	266.2
161	Presente	250.6	300.0	205.4	155.0	96.0	80.0	104.6	169.0	267.6	76.4	326.0	104.0	276.2	260.4

162	Presente	301.7	318.7	227.5	145.3	88.7	83.5	99.2	192.2	265.7	74.5	326.5	107.0	274.7	257.5
163	Presente	346.8	328.8	245.3	177.8	88.0	71.5	110.1	194.1	257.3	76.6	321.0	110.0	266.8	249.4
164	Presente	92.9	48.9	47.2	65.3	109.1	176.9	244.4	255.7	250.5	76.3	320.4	150.4	241.5	241.0
165	Presente	200.6	101.5	83.0	72.6	88.7	124.0	150.6	229.6	267.9	78.7	330.8	120.8	270.4	262.0
166	Presente	61.5	58.9	30.4	76.3	42.0	91.5	118.3	159.9	207.2	68.1	283.3	172.0	186.2	180.8
167	Presente	272.9	164.7	106.6	85.9	112.9	157.9	150.2	241.6	272.4	83.6	327.5	102.8	276.6	268.2
168	Presente	142.5	114.7	110.1	131.9	145.5	256.3	295.9	383.3	238.6	73.9	304.9	139.7	221.8	221.7
169	Presente	364.1	259.6	194.1	137.4	67.0	60.9	92.8	189.5	251.1	76.4	318.6	118.6	257.9	244.3
170	Presente	116.2	29.6	16.4	33.0	118.6	184.7	239.7	345.0	257.1	68.7	335.2	158.4	253.3	251.7
171	Presente	266.6	385.4	350.1	368.8	266.6	206.9	178.4	126.6	220.5	85.0	282.5	121.8	218.1	215.7
172	Presente	79.5	57.5	59.2	75.1	79.1	132.9	181.1	256.3	191.7	67.0	280.1	200.1	164.9	164.2
173	Presente	179.9	184.5	191.7	149.3	143.6	139.5	137.3	118.0	149.2	88.4	210.1	119.8	150.3	143.2
174	Presente	146.2	108.7	95.7	108.6	138.2	200.7	211.5	189.1	238.5	84.5	311.5	152.3	231.8	231.5
175	Presente	371.7	251.5	189.7	131.0	66.2	59.4	89.2	193.7	251.0	75.2	319.6	122.3	257.3	244.0
176	Presente	569.9	374.8	195.4	95.5	46.0	39.0	111.7	327.1	261.4	73.0	329.2	121.2	267.7	254.7
177	Presente	187.1	57.8	41.2	50.1	118.9	191.3	213.5	317.9	260.3	73.9	333.4	144.8	258.6	254.6
178	Presente	305.4	325.6	310.5	225.3	216.8	221.3	193.1	136.1	259.1	81.2	316.5	113.4	264.8	248.7
179	Presente	293.3	341.8	282.3	242.1	222.4	231.5	223.0	186.6	213.9	83.2	282.6	126.6	215.2	206.2
180	Presente	299.4	201.7	162.1	149.0	145.4	161.6	168.7	227.4	267.4	86.1	322.7	105.1	270.2	262.9
181	Presente	119.8	32.3	14.9	45.1	114.1	187.0	202.3	302.2	259.0	65.7	343.9	174.2	254.6	254.1
182	Presente	407.1	452.3	354.8	261.1	120.2	99.8	156.5	253.3	242.0	80.7	297.8	107.5	248.3	235.0
183	Presente	176.3	222.5	187.8	156.7	148.5	127.0	119.6	102.8	141.4	82.6	208.5	126.5	144.9	131.5
184	Presente	82.4	56.4	54.8	70.1	91.8	154.4	190.6	253.8	215.4	71.8	283.2	144.3	197.7	197.3
185	Presente	99.4	72.2	73.1	92.3	132.4	196.9	227.0	273.5	235.1	78.3	308.3	153.9	226.2	225.1
186	Presente	108.0	34.9	22.1	48.7	93.3	168.1	221.4	273.4	261.5	75.2	329.2	137.0	258.3	254.8
187	Presente	371.7	233.3	189.7	127.1	67.4	55.6	68.8	177.4	253.3	76.0	322.0	120.6	260.3	245.9
188	Presente	258.3	285.3	251.5	196.4	109.4	101.2	100.7	101.4	200.8	83.6	262.5	118.4	196.6	196.1
189	Presente	222.1	82.0	55.7	72.9	116.5	184.5	198.3	307.1	263.4	79.3	324.2	116.8	262.9	259.5
190	Presente	300.0	329.1	332.9	259.4	221.5	188.7	164.2	137.0	196.2	89.8	251.2	108.8	197.8	191.5
191	Presente	251.0	206.3	160.9	157.5	179.6	217.9	218.4	259.4	257.0	85.5	309.1	107.3	253.3	250.9
192	Presente	326.4	240.8	238.9	204.7	242.4	224.6	221.1	234.3	261.1	84.3	313.4	104.4	260.9	253.3
193	Presente	180.3	160.0	171.9	130.7	127.8	182.0	184.0	159.2	153.4	91.1	207.0	106.6	153.1	150.1
194	Presente	228.5	214.9	178.9	165.0	160.0	226.1	215.9	104.3	202.4	86.2	256.1	106.7	204.1	197.1
195	Presente	267.0	306.5	325.5	244.5	201.0	175.0	156.0	132.0	145.0	87.5	199.5	108.5	146.0	138.0
196	Presente	306.4	331.1	324.4	254.2	228.7	231.9	197.3	132.3	257.3	81.6	314.8	111.0	263.0	247.3
197	Presente	340.2	249.2	224.6	175.5	203.3	232.4	246.8	307.2	256.7	87.4	307.1	101.9	253.1	250.3
198	Presente	328.0	359.9	352.0	268.1	232.5	211.5	192.7	172.6	198.4	90.7	254.0	110.5	199.9	194.2

199	Presente	343.3	292.1	309.6	298.5	259.7	238.4	200.0	128.5	263.3	76.4	323.2	116.0	268.9	252.0
200	Presente	350.8	340.2	339.3	289.7	234.4	276.8	225.4	103.4	258.6	76.7	325.0	126.6	265.0	248.2
201	Presente	224.2	257.2	241.7	191.1	155.2	199.4	184.2	96.4	110.0	81.5	161.5	101.6	109.9	105.1
202	Presente	381.2	353.1	308.1	261.7	238.3	281.2	227.7	116.9	260.1	82.3	325.0	126.4	264.2	251.7
203	Presente	312.5	249.7	226.8	204.0	225.0	236.0	232.4	227.2	258.2	86.3	309.4	102.1	256.1	250.7
204	Presente	61.5	24.0	13.4	23.6	59.0	127.4	181.9	237.7	239.0	70.7	322.6	184.1	225.0	223.2
205	Presente	61.9	32.2	45.0	58.8	98.0	129.5	147.6	189.1	175.7	78.3	266.2	193.8	166.2	165.5
206	Presente	101.1	19.8	18.7	42.9	94.2	149.1	202.2	230.8	244.8	72.3	329.5	167.4	240.7	237.5
207	Presente	345.6	301.2	270.2	234.9	186.0	173.3	163.4	150.9	243.7	90.2	303.6	116.0	245.1	238.4
208	Presente	350.8	306.0	291.6	233.4	204.4	197.9	183.0	221.4	261.3	89.4	315.8	106.5	263.6	255.3
209	Presente	102.5	94.7	97.9	75.2	75.7	103.1	91.8	101.8	155.6	86.2	222.0	125.9	152.4	149.4
210	Presente	57.5	32.9	32.5	32.2	60.0	110.0	111.6	109.4	167.0	83.2	243.2	166.5	157.2	157.2
211	Presente	89.1	26.4	17.5	32.2	129.1	204.9	270.3	328.8	255.6	66.4	347.5	182.9	252.1	251.2
212	Presente	203.2	252.5	206.2	176.0	163.8	150.4	122.6	116.0	146.1	85.5	212.3	125.6	148.9	138.6
213	Presente	88.7	19.2	8.5	26.1	68.2	139.0	158.9	201.7	258.7	72.7	340.0	161.2	252.1	250.2
214	Presente	305.5	297.7	242.8	211.4	130.8	97.7	100.2	83.1	266.9	88.6	323.5	112.7	268.8	260.6
215	Presente	140.9	81.4	55.3	71.2	119.4	173.8	225.4	237.6	256.6	75.9	322.7	139.2	248.1	247.5
216	Presente	127.6	39.1	23.2	36.9	79.4	128.7	144.6	214.6	249.2	79.8	321.6	143.9	248.1	245.0
217	Presente	375.8	341.7	313.8	258.5	245.6	218.4	202.4	218.0	252.9	90.8	312.2	114.6	255.4	247.0
218	Presente	346.3	387.3	380.9	276.9	280.6	232.9	237.1	193.8	185.7	88.0	249.7	125.6	187.8	179.0
219	Presente	97.0	61.5	61.0	61.5	88.0	152.5	180.0	194.5	221.0	86.0	295.5	157.0	214.0	214.0
220	Presente	36.0	25.1	17.2	29.9	53.5	73.2	93.1	133.8	76.7	71.7	176.9	217.1	57.6	57.5
221	Presente	309.5	342.9	266.0	213.8	115.8	78.4	94.3	68.7	272.8	86.2	330.2	113.8	274.9	265.5
222	Presente	30.6	13.0	13.7	35.7	57.5	73.8	79.5	144.0	164.9	73.8	247.1	180.3	148.3	148.2
223	Presente	164.3	114.2	86.7	94.2	130.6	221.0	268.6	407.1	248.9	63.0	325.1	178.3	221.5	220.5
224	Presente	63.5	48.2	51.3	39.1	40.2	75.5	64.4	82.7	127.7	88.6	193.6	129.5	123.6	123.6
225	Presente	78.0	44.7	45.1	57.7	88.6	143.9	154.9	214.1	187.9	81.7	265.5	168.6	178.2	178.2
226	Presente	468.9	467.4	435.9	386.8	319.9	260.6	185.8	117.3	272.6	81.3	345.4	133.1	278.6	262.4
227	Presente	296.2	322.1	287.1	223.4	232.8	260.3	237.1	182.3	252.5	85.7	309.2	112.0	256.5	244.4
228	Presente	88.7	21.4	30.0	42.7	81.0	156.4	240.6	263.9	250.7	75.4	319.1	151.6	240.5	240.3
229	Presente	60.8	20.2	10.1	22.7	58.9	140.9	178.8	220.3	242.3	70.9	327.2	180.7	232.0	229.7
230	Presente	67.8	15.8	11.1	23.3	131.5	188.1	270.4	334.8	254.0	68.1	358.7	201.9	250.2	248.1
231	Presente	100.3	26.4	17.5	34.9	88.1	154.2	185.3	228.1	255.0	74.1	331.4	150.2	250.4	248.4
232	Presente	105.1	21.7	11.6	32.8	108.6	179.7	235.4	338.2	254.2	68.0	335.6	165.6	250.3	248.6
233	Presente	98.7	20.7	10.5	38.1	97.5	171.7	207.1	306.9	256.1	66.4	342.2	177.0	251.5	250.4
234	Presente	237.3	132.0	73.8	73.0	125.2	189.1	212.1	264.7	266.4	80.8	323.5	110.2	267.2	261.2
235	Presente	259.0	146.7	93.7	51.0	31.3	32.0	40.7	90.7	268.0	80.7	326.0	104.7	276.7	261.7

236	Presente	300.1	187.5	132.1	106.2	124.5	158.6	132.9	218.6	269.7	84.8	325.1	104.4	272.9	265.3
237	Presente	238.3	139.8	99.3	87.8	113.9	157.4	171.4	247.6	271.8	82.5	327.0	102.6	276.9	267.4
238	Presente	308.7	291.5	238.4	206.8	156.0	139.8	137.4	91.9	259.7	90.4	316.8	112.6	261.7	253.9
239	Presente	82.9	34.5	25.0	27.1	54.6	116.2	136.8	199.0	253.1	76.0	326.0	143.5	253.5	249.3
240	Presente	73.1	14.8	6.9	21.0	57.8	126.6	167.3	206.4	256.3	72.4	341.8	168.1	248.8	246.3
241	Presente	116.2	28.3	13.5	45.3	112.9	187.7	206.9	304.2	257.3	65.9	342.3	174.3	253.0	252.2
242	Presente	208.0	112.0	81.0	67.0	87.0	136.0	169.0	223.0	272.0	82.0	328.0	102.0	278.0	267.0
243	Presente	88.8	24.6	10.2	23.3	96.1	160.8	234.7	322.2	254.8	68.1	335.7	164.7	250.7	248.8
244	Presente	228.3	137.8	128.8	110.3	106.8	88.8	81.0	185.0	268.0	88.8	323.3	104.8	271.0	263.3
245	Presente	47.3	8.0	4.0	20.0	113.5	210.1	232.0	343.8	256.2	71.3	352.0	191.7	249.4	248.9
246	Presente	92.5	67.5	72.0	65.5	84.0	138.0	194.5	253.0	238.0	71.5	307.0	145.5	219.5	219.0
247	Presente	83.7	39.3	29.0	38.2	73.0	115.0	183.6	237.5	257.0	67.7	337.7	173.4	237.1	237.0
248	Presente	107.1	68.7	51.0	50.4	74.8	146.7	166.9	229.7	250.8	63.6	326.5	173.3	223.6	223.6
249	Presente	298.8	227.0	189.3	150.3	93.3	82.8	71.8	165.3	260.5	78.8	322.5	107.3	267.5	252.5
250	Presente	53.5	27.8	26.2	58.6	95.7	116.9	136.5	221.0	214.5	71.0	288.7	157.9	196.4	196.4
251	Presente	66.8	18.9	8.4	20.6	58.8	116.5	176.5	223.4	253.4	71.8	337.7	172.9	243.2	241.1
252	Presente	43.0	5.0	2.0	8.0	58.8	172.5	238.0	285.0	250.0	68.0	351.0	206.8	242.0	238.0
253	Presente	82.0	36.0	18.0	26.0	66.0	140.0	152.0	253.0	253.0	79.0	326.0	142.0	254.0	248.0
254	Presente	229.8	223.0	213.2	166.6	170.0	175.2	164.8	117.6	120.0	86.6	172.8	101.2	121.6	114.2
255	Presente	258.7	279.7	293.7	232.3	192.3	175.0	148.3	120.7	173.0	90.3	226.7	107.7	174.0	168.3
256	Presente	511.0	408.3	229.9	146.1	83.3	79.0	159.5	332.3	257.8	75.5	320.0	110.6	263.5	251.9
257	Presente	164.0	130.0	100.5	108.5	123.5	200.5	208.5	87.0	145.5	90.0	189.0	86.0	146.5	141.5
258	Presente	355.0	389.0	291.0	338.0	342.0	306.0	206.0	88.0	265.0	77.0	335.0	126.0	271.0	256.0
259	Presente	376.5	337.0	343.0	330.5	279.0	293.0	218.0	110.0	270.0	73.5	341.5	129.5	278.0	258.0
260	Presente	376.0	446.6	420.8	394.5	305.1	244.7	220.9	178.1	246.9	86.0	309.4	122.1	246.4	242.3
261	Presente	319.3	282.0	178.5	82.3	45.0	43.3	93.5	205.8	265.5	77.3	326.5	105.8	272.8	256.8
262	Presente	340.8	273.5	204.1	185.5	181.4	226.5	221.0	258.4	260.5	86.5	315.2	106.7	260.8	255.3
263	Presente	589.8	456.0	246.5	158.3	80.0	82.3	173.5	368.0	259.3	75.0	322.5	112.5	265.0	254.0
264	Presente	303.2	208.7	141.2	51.3	15.3	8.5	15.8	48.4	269.1	79.3	319.9	98.2	275.7	263.3
265	Presente	333.2	251.1	185.7	170.2	168.2	197.2	206.1	234.2	265.8	86.7	320.4	105.5	267.5	261.1
266	Presente	116.4	25.5	13.9	43.0	116.8	189.6	225.9	319.6	258.2	67.0	340.9	169.1	254.2	253.1
267	Presente	129.7	38.5	15.0	48.3	118.4	195.2	194.1	295.5	262.2	65.0	345.8	171.9	258.1	257.6
268	Presente	225.0	144.5	97.9	95.8	90.5	117.5	147.4	212.1	269.9	79.6	327.3	110.3	273.0	265.0
269	Presente	199.4	127.6	84.0	96.4	146.9	214.0	252.8	319.0	256.0	83.9	314.6	119.8	251.6	251.0
270	Presente	186.5	82.3	51.5	64.5	132.8	187.0	218.6	261.6	266.5	75.0	329.8	125.7	265.0	261.7
271	Presente	239.9	128.7	76.5	76.5	108.7	171.1	194.8	248.9	268.3	79.8	325.8	110.7	270.3	263.2
272	Presente	335.0	242.6	194.8	130.8	79.1	60.8	78.1	154.0	257.3	80.4	320.3	108.8	264.7	249.6

273	Presente	245.5	138.1	99.2	71.3	101.1	139.0	167.1	271.9	271.5	83.1	326.5	102.1	276.1	267.1
274	Presente	205.8	115.2	85.5	68.0	94.0	137.5	171.5	243.8	272.7	81.8	328.0	102.2	278.2	268.0
275	Presente	252.9	125.2	122.0	83.2	81.6	100.2	114.7	168.0	271.0	81.2	328.6	105.2	277.5	266.3
276	Presente	246.8	136.6	81.1	80.5	129.0	184.0	210.4	273.0	265.9	81.6	322.6	108.3	266.9	261.2
277	Presente	299.4	258.4	186.1	129.1	86.9	56.8	101.5	150.2	269.6	82.2	329.3	106.1	275.5	262.8
278	Presente	337.7	272.5	205.4	186.3	180.2	226.5	221.5	259.7	260.1	86.4	314.7	106.7	260.3	254.8
279	Presente	237.0	112.3	85.2	94.1	125.8	176.1	202.9	287.9	264.6	82.9	321.0	106.3	264.8	260.7
280	Presente	230.4	111.1	64.2	76.0	131.8	199.1	205.0	289.8	264.5	80.7	322.5	112.1	264.0	259.8
281	Presente	230.5	118.0	70.2	76.5	109.2	178.1	192.4	249.8	268.1	78.8	326.6	113.2	269.5	262.9
282	Presente	190.5	111.8	64.7	81.6	119.0	194.6	232.8	295.2	258.7	81.6	317.7	118.9	253.9	253.9
283	Presente	210.6	95.3	77.4	81.5	116.0	168.6	207.5	302.7	263.8	81.5	322.1	110.5	263.9	260.8
284	Presente	196.0	145.8	110.5	121.8	153.5	209.8	347.3	485.5	252.0	63.0	326.0	174.0	223.0	223.0
285	Presente	133.6	131.5	133.0	103.7	104.5	126.0	118.5	122.9	182.6	85.5	253.4	133.0	181.3	176.5
286	Presente	261.1	297.6	251.0	198.3	208.5	178.9	192.7	166.0	161.9	85.8	226.0	124.3	164.0	153.9
287	Presente	295.7	342.7	284.7	243.3	226.0	230.0	226.7	187.3	211.7	82.7	282.3	129.0	213.7	204.7
288	Presente	273.7	339.0	304.7	237.0	204.0	209.0	190.3	165.0	181.0	85.0	251.0	129.7	183.7	173.7
289	Presente	68.8	18.6	8.0	21.8	65.2	133.3	186.2	230.4	247.9	71.2	335.0	176.9	240.3	237.6
290	Presente	140.6	56.7	30.3	28.8	30.0	45.5	50.6	106.9	262.4	83.5	325.7	123.3	262.9	258.6
291	Presente	48.1	28.1	0.5	6.0	52.9	120.6	216.0	221.2	248.5	68.5	334.3	173.6	244.8	241.8
292	Presente	429.3	267.3	166.1	65.2	21.7	14.7	44.7	193.0	267.3	76.9	327.0	100.9	274.8	259.6
293	Presente	311.0	326.5	275.5	220.5	248.0	297.0	282.0	209.0	249.0	85.5	307.5	112.0	251.5	242.5
294	Presente	360.9	210.7	186.5	120.6	63.9	45.6	53.0	115.2	253.7	79.4	322.8	118.0	261.8	246.3
295	Presente	383.3	286.9	298.7	248.4	187.8	191.6	161.9	231.4	267.3	88.4	320.2	103.4	269.9	260.7
296	Presente	70.1	11.5	10.5	16.4	149.7	197.9	340.4	337.6	243.5	68.3	350.8	204.6	241.0	236.3
297	Presente	101.5	23.8	11.2	26.8	80.2	145.7	165.3	217.9	259.4	71.9	337.7	154.9	254.0	252.8
298	Presente	324.5	171.1	127.1	94.8	97.2	125.5	131.4	194.1	272.4	80.4	336.7	112.0	279.3	266.0
299	Presente	122.2	43.5	19.2	33.1	60.7	119.8	134.7	223.6	256.1	82.6	323.3	131.2	256.7	251.9
300	Presente	103.5	20.8	7.0	19.6	73.2	135.3	163.0	232.5	262.8	70.9	343.3	160.3	255.8	254.8
301	Presente	316.4	180.0	144.0	112.1	97.8	109.8	99.3	179.6	269.8	83.3	327.1	106.7	275.6	265.3
302	Presente	545.5	454.5	278.0	193.5	98.0	90.0	171.0	365.0	256.5	76.0	317.0	106.0	263.0	251.5
303	Presente	64.7	25.0	13.7	24.4	56.3	107.4	171.6	215.2	251.8	70.8	334.0	176.2	236.7	235.2
304	Presente	328.6	324.5	302.5	248.0	235.1	226.9	191.5	140.6	258.8	80.5	316.3	113.8	264.9	248.3
305	Presente	183.9	157.1	143.3	174.7	202.9	310.7	311.6	416.2	238.7	78.3	302.5	134.5	226.7	226.3
306	Presente	72.0	39.3	49.3	69.7	109.5	144.5	161.8	203.0	197.9	79.4	283.9	183.7	188.8	188.2
307	Presente	119.6	105.8	89.6	74.3	96.6	120.3	115.1	97.6	189.3	83.4	255.7	129.8	184.3	183.6
308	Presente	109.7	73.4	68.4	76.6	117.0	182.3	245.6	267.0	227.7	80.8	303.3	156.7	221.5	221.1
309	Presente	333.8	343.5	317.7	253.2	239.4	232.5	191.6	133.2	261.1	79.2	318.7	114.2	267.4	249.9

310	Presente	68.4	42.2	51.7	72.2	112.8	155.2	180.0	210.2	225.5	80.0	308.2	173.3	217.6	217.4
311	Presente	87.4	33.1	34.7	52.8	94.4	161.6	239.6	253.0	252.2	75.7	320.9	149.7	242.8	242.4
312	Presente	262.0	267.3	237.6	212.7	214.7	212.1	213.2	206.9	229.5	82.3	296.5	124.5	230.2	222.4
313	Presente	127.9	82.8	79.8	92.9	126.3	224.6	251.1	329.9	227.6	83.3	297.9	146.9	220.9	220.9
314	Presente	100.8	65.8	53.8	49.3	73.0	137.3	162.9	221.3	252.7	64.9	328.1	169.2	228.3	228.3
315	Presente	94.7	77.2	62.7	64.7	88.2	131.2	168.0	241.9	241.5	68.2	314.0	157.8	223.0	219.7
316	Presente	295.9	325.3	315.7	233.8	226.1	247.4	223.8	161.6	254.9	84.7	311.7	111.1	259.0	246.5
317	Presente	202.5	221.2	209.8	161.6	165.4	145.2	144.9	122.8	129.0	85.6	193.2	122.0	131.4	120.8
318	Presente	274.4	260.9	280.3	218.5	204.5	216.0	202.7	177.7	221.7	90.0	278.9	113.3	222.6	217.4
319	Presente	159.0	134.0	135.0	106.3	110.0	186.0	180.3	154.0	161.3	90.7	216.3	109.7	160.7	158.7
320	Presente	254.0	205.8	168.1	159.3	198.0	195.0	262.4	251.0	263.5	84.7	321.5	114.2	259.0	257.4
321	Presente	81.3	39.4	37.0	52.2	91.3	148.1	206.9	246.1	256.5	68.8	331.1	157.8	241.9	240.2
322	Presente	30.9	20.3	16.3	30.0	52.3	69.4	89.9	133.1	74.0	72.0	173.9	216.6	55.4	55.4
323	Presente	208.9	167.3	116.7	125.4	170.9	201.5	224.5	234.5	266.7	81.4	327.8	125.7	261.0	260.0
324	Presente	197.3	150.2	114.9	111.0	149.9	182.2	224.7	219.6	268.0	84.0	328.7	122.0	263.2	262.0
325	Presente	259.7	272.2	267.5	223.0	213.6	222.6	220.9	192.1	256.6	85.8	312.6	113.0	260.8	249.3
326	Presente	123.3	86.3	84.9	102.4	129.5	220.5	273.7	336.1	252.2	73.5	320.9	145.0	235.8	235.8
327	Presente	448.0	440.0	397.0	313.0	333.0	343.0	337.0	221.0	250.0	83.0	307.0	108.0	256.0	242.0
328	Presente	104.2	47.1	33.6	55.7	92.5	134.1	208.9	231.5	256.4	76.6	322.0	140.9	248.0	247.8
329	Presente	103.7	46.0	32.9	57.4	97.5	148.3	210.1	241.6	254.6	76.5	319.1	139.7	245.8	245.7
330	Presente	94.3	29.3	6.3	24.7	104.3	183.7	252.0	323.0	251.3	69.0	331.0	161.7	246.7	244.3
331	Presente	55.5	32.1	0.4	7.1	61.0	137.3	224.4	238.5	249.0	69.0	332.8	169.0	245.0	242.4
332	Presente	120.9	59.3	32.3	42.3	90.9	161.9	216.8	257.9	253.6	79.0	320.9	146.0	245.4	243.1
333	Presente	297.9	169.7	115.8	69.3	49.3	58.2	80.6	142.2	268.6	88.0	330.0	117.0	271.8	263.8
334	Presente	318.2	277.2	218.6	188.0	167.4	215.0	201.6	248.4	257.1	85.9	311.5	106.8	258.6	251.4
335	Presente	270.3	193.7	141.2	140.9	167.2	211.2	241.1	252.4	261.6	84.6	316.3	107.3	261.0	257.0
336	Presente	96.2	20.0	7.4	22.8	70.3	137.6	159.6	214.8	261.0	71.8	341.7	160.7	254.1	252.7
337	Presente	176.0	70.8	44.3	67.4	136.9	196.4	232.9	307.0	263.8	77.0	328.0	128.0	260.8	259.4
338	Presente	75.2	29.0	2.2	13.8	84.7	166.8	248.0	292.2	251.2	69.0	332.5	165.3	247.0	244.2
339	Presente	214.6	124.3	83.6	86.6	121.4	145.8	195.9	237.9	266.0	84.8	321.2	104.2	267.1	262.2
340	Presente	102.7	33.3	24.8	43.4	90.2	156.1	227.5	270.0	249.1	76.6	317.9	153.9	238.2	237.6
341	Presente	82.8	26.0	22.7	36.8	88.8	147.6	214.9	238.3	251.3	71.1	321.3	153.7	239.6	238.1
342	Presente	330.8	190.3	149.0	98.3	33.3	21.3	19.3	88.3	263.5	81.8	324.8	112.0	268.5	257.8
343	Presente	79.0	29.3	9.7	12.7	35.7	59.7	118.7	172.3	266.0	77.0	339.0	145.0	265.0	263.0
344	Presente	67.5	13.0	5.0	17.0	50.0	120.5	164.0	205.0	260.5	71.5	345.5	169.0	251.5	249.5
345	Presente	273.0	179.0	90.0	30.0	8.0	4.0	15.0	27.0	269.0	78.0	318.0	96.0	276.0	263.0
346	Presente	82.8	30.7	12.0	14.8	39.2	66.5	123.8	183.8	266.3	77.7	337.7	142.2	265.3	263.2

347	Presente	68.0	30.8	1.5	10.8	78.0	157.8	242.5	274.5	251.8	68.5	333.5	166.8	247.3	244.8
348	Presente	63.3	33.3	1.7	8.7	78.0	153.3	243.3	264.7	253.0	68.7	335.0	167.0	248.7	246.0
349	Presente	113.0	22.5	12.8	38.0	115.6	188.1	235.4	339.5	256.2	67.8	337.6	166.0	252.3	250.9
350	Presente	88.6	15.1	8.0	31.1	90.6	160.1	222.0	318.4	253.5	67.6	337.6	171.8	249.3	247.6
351	Presente	300.1	232.5	156.7	118.9	111.4	81.3	115.7	167.4	268.3	85.0	329.6	111.3	273.3	262.2
352	Presente	97.0	27.0	5.0	24.0	104.0	188.0	256.0	334.0	251.0	69.0	331.0	162.0	247.0	244.0
353	Presente	233.4	111.4	55.2	35.4	38.2	65.5	99.3	183.6	272.3	87.2	333.6	118.0	274.7	267.5
354	Presente	65.0	28.0	1.0	10.0	68.0	148.0	233.0	263.0	252.0	69.0	335.0	169.0	247.0	245.0
355	Presente	95.8	30.7	22.9	49.8	96.8	167.5	217.7	272.9	261.7	76.7	327.6	134.9	257.8	254.8
356	Presente	116.0	31.2	26.7	36.3	103.4	163.7	218.9	272.1	259.5	74.8	330.5	143.2	255.7	252.4
357	Presente	70.0	27.0	1.0	12.0	71.0	153.0	239.0	276.0	250.0	69.0	333.0	168.0	246.0	243.0
358	Presente	235.6	94.8	53.0	72.8	129.8	197.1	200.4	314.1	264.0	79.0	324.2	116.8	263.1	259.3
359	Presente	112.8	41.6	19.1	48.9	92.8	153.7	234.2	309.9	262.0	71.5	331.9	141.7	258.3	254.6
360	Presente	323.8	166.4	132.8	87.6	40.8	29.1	27.6	111.1	267.5	84.8	322.8	99.8	272.9	261.0
361	Presente	302.8	217.2	172.3	155.2	111.3	91.0	82.7	196.0	268.9	85.8	327.2	107.3	273.5	263.2
362	Presente	334.3	184.5	144.2	94.7	32.5	21.5	19.9	90.2	263.7	81.9	324.4	110.3	268.9	257.9
363	Presente	69.0	33.0	3.5	12.8	87.0	157.5	244.8	276.5	251.5	68.8	333.5	166.3	247.5	244.8
364	Presente	327.0	221.0	155.0	85.0	20.0	6.0	8.0	63.0	262.0	80.0	327.0	116.0	269.0	256.0
365	Presente	308.0	220.0	156.0	81.0	20.0	6.0	9.0	53.0	263.0	80.0	325.0	112.0	270.0	257.0
366	Presente	302.5	222.0	162.0	82.5	20.5	7.5	11.0	51.5	264.0	79.5	324.0	109.0	271.0	258.0
367	Presente	396.8	192.5	148.1	73.7	32.1	8.6	16.1	102.6	273.7	80.5	321.3	89.6	280.6	265.7
368	Presente	330.0	221.0	164.0	98.0	27.0	11.0	10.0	77.0	262.0	79.0	327.0	118.0	268.0	255.0
369	Presente	326.3	170.3	133.7	90.3	37.7	27.3	25.7	102.7	266.3	83.7	323.3	103.3	271.7	260.3
370	Presente	322.0	164.5	134.0	86.5	43.5	29.0	28.0	115.0	269.5	84.5	322.5	96.5	274.5	262.5
371	Presente	62.3	33.0	2.0	8.3	79.3	152.0	245.3	265.0	250.7	68.7	333.3	167.7	246.7	243.7
372	Presente	208.7	122.1	75.3	99.7	133.5	197.1	230.4	291.0	259.8	81.3	317.8	114.7	255.2	255.2
373	Presente	137.9	61.5	38.6	52.8	116.7	187.4	217.5	299.0	261.0	78.6	324.6	131.4	256.3	254.7
374	Presente	80.5	32.0	5.5	18.5	97.0	170.0	247.0	294.5	252.5	68.5	333.5	164.5	248.5	245.5
375	Presente	66.9	20.4	7.3	18.6	62.0	125.4	187.3	235.3	249.8	71.4	335.5	176.2	240.8	238.3
376	Presente	67.0	30.0	1.0	10.5	75.0	155.5	240.5	272.0	251.0	69.0	333.5	167.0	247.0	244.5
377	Presente	282.4	180.3	120.7	55.6	26.8	37.0	48.1	69.1	265.4	82.9	323.8	106.1	272.9	259.4
378	Presente	328.8	258.8	184.8	113.7	67.6	47.1	92.2	140.1	268.1	81.6	328.8	107.2	274.6	260.9
379	Presente	78.7	16.0	7.0	21.7	59.4	130.5	161.9	203.2	259.4	72.4	342.5	164.6	252.0	250.0
380	Presente	83.5	17.3	8.2	25.3	64.6	136.4	160.8	198.7	257.7	73.0	340.2	162.9	250.9	248.9
381	Presente	161.4	87.7	58.0	79.1	116.4	193.7	229.7	264.4	256.7	80.2	317.3	129.1	250.0	248.8
382	Presente	150.5	62.5	26.6	31.4	63.3	103.5	123.6	202.4	254.8	79.0	321.3	131.9	255.1	249.2
383	Presente	276.7	205.8	157.2	166.2	153.4	224.9	229.7	271.1	257.6	84.5	312.7	107.6	256.7	252.7

384	Presente	96.5	23.8	12.4	24.9	78.0	141.4	168.9	223.4	261.4	71.5	339.1	153.8	256.0	255.1
385	Presente	100.3	22.2	9.7	27.1	76.8	143.9	159.8	211.0	260.2	71.9	339.9	158.1	254.2	252.8
386	Presente	104.6	34.9	15.1	35.7	119.3	176.6	237.8	312.8	256.3	68.9	333.5	157.7	251.2	249.3
387	Presente	311.2	241.6	192.6	160.7	147.4	149.2	162.8	193.7	266.7	87.9	321.6	105.9	269.6	262.0
388	Presente	138.7	47.5	24.4	36.5	50.8	92.1	104.5	182.9	250.1	80.7	316.9	132.4	250.5	245.6
389	Presente	129.6	64.1	41.5	63.3	103.9	163.7	210.1	250.9	255.0	75.7	317.8	135.7	246.1	246.0
390	Presente	169.5	68.7	37.9	46.7	77.6	133.9	153.6	236.6	257.6	77.8	325.2	133.5	257.1	251.4
391	Presente	65.0	32.0	2.0	9.0	77.0	155.0	243.0	268.0	252.0	69.0	334.0	167.0	248.0	245.0
392	Presente	323.0	165.0	134.0	87.0	43.0	29.0	28.0	115.0	269.0	85.0	322.0	97.0	274.0	262.0
393	Presente	64.8	32.5	1.8	9.0	78.5	155.0	243.3	267.8	252.8	68.8	334.5	166.8	248.3	245.8
394	Presente	83.5	30.0	4.0	18.5	95.5	174.5	250.0	305.0	252.5	69.0	333.0	164.0	248.0	245.5
395	Presente	226.1	99.4	75.9	54.9	55.5	75.5	79.2	168.0	261.9	80.1	325.7	119.0	266.5	256.3
396	Presente	299.8	206.7	155.1	130.0	83.4	74.6	64.8	175.9	268.7	87.0	327.4	109.3	272.6	263.5
397	Presente	275.9	187.6	127.5	62.2	42.0	40.3	63.2	91.3	267.2	83.6	326.7	108.8	273.9	261.0
398	Presente	194.3	206.3	244.1	172.1	132.7	151.6	129.5	118.8	111.7	87.6	162.5	98.4	113.0	104.8
399	Presente	179.0	132.0	101.0	109.0	131.0	211.0	212.0	101.0	152.0	90.0	197.0	90.0	148.0	148.0
400	Presente	251.4	279.5	311.3	218.9	182.9	179.9	168.8	159.0	152.6	90.1	206.9	107.8	154.1	147.1
401	Presente	365.8	322.3	192.8	104.3	53.0	50.3	109.8	221.0	265.0	78.3	324.0	102.8	271.8	256.5
402	Presente	303.9	328.4	241.8	170.2	110.0	102.6	123.6	179.6	266.7	76.8	326.8	106.6	275.6	258.9
403	Presente	319.0	302.8	222.8	162.3	92.5	84.8	108.8	185.0	266.5	77.0	328.0	108.0	275.0	258.3
404	Presente	403.0	340.6	274.9	168.7	71.2	46.2	79.9	164.2	262.8	76.0	329.6	116.0	273.3	255.0
405	Presente	300.3	302.8	222.5	172.9	96.0	84.1	117.8	179.3	265.2	75.2	327.7	109.0	274.5	256.9
406	Presente	306.8	309.5	251.2	172.7	89.7	70.9	92.1	160.6	271.3	79.6	330.1	108.6	279.5	264.1
407	Presente	392.1	336.9	207.1	144.1	88.5	84.6	143.1	245.6	252.1	77.3	313.1	107.6	257.9	245.4
408	Presente	571.7	452.5	257.4	171.8	88.1	86.5	173.5	367.2	258.6	75.0	321.0	110.2	264.6	253.5
409	Presente	494.3	381.3	202.5	138.2	81.9	75.8	163.2	326.8	251.5	74.7	316.1	116.9	256.7	245.8
410	Presente	340.1	339.3	368.6	315.1	252.8	252.8	189.8	135.1	267.4	72.5	336.8	124.4	275.6	255.6
411	Presente	259.5	301.7	236.5	164.0	101.3	87.2	118.5	151.3	269.5	77.5	326.8	103.8	277.7	262.2
412	Presente	396.3	400.1	383.9	322.1	282.5	260.7	216.7	188.1	260.4	82.4	326.6	118.9	264.2	252.2
413	Presente	392.1	257.1	198.4	106.4	60.5	43.5	57.5	72.8	260.2	77.1	341.3	135.8	270.2	252.8
414	Presente	310.3	302.1	235.5	121.2	79.2	70.6	115.1	210.7	264.9	76.9	326.3	105.9	272.7	257.2
415	Presente	58.5	27.0	15.8	24.7	49.2	96.6	157.2	194.1	244.0	69.7	329.3	187.8	224.8	223.1
416	Presente	80.5	26.0	9.4	26.7	56.9	140.5	206.2	201.9	263.9	74.3	336.0	143.2	258.9	256.8
417	Presente	208.8	157.0	119.5	129.8	164.1	222.2	376.4	523.5	252.0	62.3	327.0	176.3	222.3	222.3
418	Presente	238.0	137.0	129.0	114.0	102.5	88.0	81.0	180.0	268.0	88.0	323.0	105.0	271.0	262.5
419	Presente	67.1	33.1	21.3	30.9	54.0	99.0	164.7	202.9	250.9	69.1	332.6	178.6	230.9	230.0
420	Presente	186.5	138.0	108.0	109.5	141.0	256.5	308.0	461.0	246.0	63.0	324.5	185.0	216.5	216.5

421	Presente	81.1	45.0	54.4	45.1	74.1	115.0	181.3	230.6	260.5	71.1	335.6	156.0	245.2	244.4
422	Presente	267.0	267.0	307.0	231.0	206.0	211.0	211.0	195.5	203.0	84.0	275.5	132.0	210.0	196.0
423	Presente	201.0	150.0	114.0	124.7	157.7	214.3	357.7	499.3	252.0	62.3	327.0	176.0	222.3	222.3
424	Presente	282.1	294.9	283.7	221.9	204.3	211.6	203.1	188.6	202.7	91.3	259.9	114.1	203.7	198.6
425	Presente	103.0	54.0	42.0	45.5	89.5	134.0	192.0	254.0	257.5	65.5	336.0	173.0	234.5	234.5
426	Presente	13.2	8.1	12.4	21.3	40.9	59.3	93.0	125.1	99.0	75.2	197.7	212.6	83.9	82.4
427	Presente	9.0	7.0	10.0	20.0	43.0	43.0	72.0	97.0	57.0	73.0	158.0	222.0	41.0	38.0
428	Presente	110.5	97.5	84.5	70.8	96.0	119.5	111.7	91.6	181.9	82.8	248.3	130.6	176.6	176.1
429	Presente	56.3	35.0	45.6	57.4	91.3	132.9	157.6	203.0	196.6	78.4	285.5	185.6	187.9	187.2
430	Presente	42.4	20.2	24.2	28.0	58.8	86.6	82.8	119.0	141.6	80.2	222.8	179.8	130.0	130.0
431	Presente	65.5	59.2	57.8	46.9	49.9	83.8	72.2	79.1	139.7	88.5	208.3	136.5	135.1	135.1
432	Presente	322.8	377.4	266.9	224.9	101.7	59.0	79.8	119.2	266.4	79.4	325.2	110.5	273.8	259.9
433	Presente	125.7	73.9	57.6	62.7	99.2	149.2	219.4	304.0	255.9	64.2	331.9	173.9	229.2	229.2
434	Presente	265.6	384.8	350.0	368.4	266.3	206.3	177.8	126.1	221.0	85.0	283.0	121.7	218.6	216.1
435	Presente	397.0	324.0	266.2	150.4	60.9	38.4	72.9	151.9	262.2	76.5	329.9	116.9	272.6	254.5
436	Presente	117.2	104.7	89.8	78.4	104.9	125.0	113.8	94.8	192.6	79.6	257.9	128.3	187.4	186.8
437	Presente	241.4	226.1	184.0	172.3	185.7	194.8	218.0	207.9	257.2	84.7	317.0	114.3	252.9	250.0
438	Presente	158.0	105.0	78.4	97.6	142.6	193.0	213.6	211.7	260.5	78.6	327.7	138.7	253.0	252.1
439	Presente	295.3	227.7	196.8	166.3	218.9	222.2	201.6	251.1	258.8	85.4	311.6	106.9	253.9	252.1
		Bio7	Bio8	Bio9	Bio10	Bio11	Bio12	Bio13	Bio14	Bio15	Bio16	Bio17	Bio18	Bio19	
Código	Modelo	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	mean	
1	HE	114.2	258.8	257.6	262.9	252.8	2939.0	276.9	206.1	9.0	820.7	658.9	713.8	695.2	
2	HE	110.3	260.1	255.4	265.4	253.6	2906.3	326.3	179.2	18.0	907.2	579.8	680.3	598.7	
3	HE	209.3	115.7	98.6	123.8	97.1	902.5	167.1	8.1	74.6	456.2	33.6	286.9	41.4	
4	HE	116.6	262.0	255.6	265.9	255.3	2570.0	293.2	125.1	25.9	828.8	420.4	648.1	420.7	
5	HE	135.9	236.1	230.6	243.1	230.6	1668.0	204.6	95.4	22.4	514.8	302.8	424.9	306.1	
6	HE	140.5	265.5	256.7	269.0	255.8	1690.3	222.2	53.4	39.4	583.2	196.0	509.2	234.8	
7	HE	110.5	261.6	257.9	266.0	254.9	2994.3	316.8	206.6	13.8	900.5	645.3	719.1	667.5	
8	HE	131.1	167.1	173.6	175.0	162.4	1776.9	213.4	101.4	22.0	582.3	330.9	386.4	524.6	
9	HE	158.0	267.4	243.8	270.6	243.3	1646.3	285.9	38.9	57.3	730.0	156.3	446.7	183.0	
10	HE	169.1	262.5	222.9	263.9	222.9	2140.0	328.4	59.2	52.3	921.3	208.7	720.6	208.7	
11	HE	100.9	265.4	276.0	276.1	263.9	2763.2	440.5	48.3	61.4	1256.1	176.8	213.2	1209.9	
12	HE	105.8	267.9	276.9	277.2	267.0	1977.3	366.9	16.1	77.1	1018.3	64.4	67.2	883.0	
13	HE	108.6	266.6	273.1	275.6	266.3	2080.8	316.4	98.1	41.9	842.3	304.5	374.8	829.9	
14	HE	128.3	202.3	178.3	206.0	176.0	1412.0	218.0	25.7	58.0	623.0	104.0	467.3	112.3	
15	HE	97.9	264.7	275.6	275.6	263.4	1956.3	377.8	8.6	81.6	1037.4	39.9	39.9	976.7	
16	HE	156.7	227.8	200.1	229.5	199.8	1587.9	243.6	33.4	55.9	709.7	132.5	557.9	135.4	
17	HE	145.8	198.0	177.2	200.2	174.2	1183.4	217.8	15.8	67.2	585.0	72.4	386.2	81.2	

18	HE	99.0	265.0	277.0	279.0	263.0	2482.0	388.0	32.0	61.0	1078.0	137.0	171.0	1022.0
19	HE	133.7	254.4	257.7	260.6	252.5	1878.7	308.6	19.1	65.4	856.5	90.1	226.9	795.0
20	HE	143.4	260.7	250.6	263.3	245.7	1941.5	286.1	37.5	56.0	830.5	123.6	489.5	188.0
21	HE	105.0	266.0	270.0	270.0	264.0	2692.0	404.0	97.0	51.0	1135.0	315.0	315.0	1129.0
22	HE	146.6	259.4	262.6	266.6	258.6	1563.4	267.8	24.8	64.8	737.8	87.4	199.6	660.6
23	HE	118.3	268.3	274.1	274.9	266.3	2289.4	428.0	24.7	78.0	1202.4	90.6	129.5	1163.1
24	HE	143.3	264.3	255.7	267.0	249.7	1934.0	286.0	39.0	56.0	829.7	125.0	413.7	187.3
25	HE	102.7	266.7	275.0	276.3	266.4	2450.3	325.8	81.5	43.0	936.8	288.3	335.0	861.9
26	HE	102.3	268.1	277.4	278.7	267.7	2250.3	295.7	80.9	40.4	828.8	273.9	342.4	808.5
27	HE	103.6	267.0	275.0	276.3	266.5	2578.0	354.1	101.2	38.0	978.2	347.3	394.6	846.1
28	HE	104.4	271.0	285.4	285.4	270.1	2297.6	372.5	45.4	57.5	1015.9	173.0	173.0	970.5
29	HE	102.0	270.0	279.0	280.0	269.0	2165.0	293.0	61.0	46.0	836.0	221.0	274.0	820.0
30	HE	104.8	262.7	276.1	276.8	262.3	1743.8	298.2	32.0	67.0	846.3	114.0	115.0	826.4
31	HE	104.8	265.8	274.0	275.3	265.3	2635.4	396.4	110.1	41.8	1070.6	369.6	378.4	901.1
32	HE	105.3	264.7	271.0	271.0	263.3	2459.0	373.0	84.7	51.0	1036.3	285.3	285.3	1028.3
33	HE	97.4	264.3	276.9	277.9	262.3	2405.2	388.3	23.9	66.1	1101.0	106.1	132.8	1006.6
34	HE	142.0	259.5	258.5	268.5	253.0	2076.5	304.5	19.5	60.0	898.5	102.5	321.0	255.5
35	HE	144.2	254.8	258.4	261.9	254.6	1602.3	271.7	25.3	65.6	760.7	86.1	194.6	684.8
36	HE	160.6	256.5	258.2	266.2	256.4	2291.1	335.5	31.1	57.3	963.6	122.2	460.9	839.1
37	HE	101.7	269.8	279.6	280.4	268.8	2194.9	289.7	69.7	43.4	831.0	242.2	301.4	815.3
38	HE	146.7	241.0	211.0	242.0	210.0	1525.7	234.3	33.3	54.3	671.3	134.0	609.3	142.0
39	HE	154.0	245.0	246.8	252.7	244.7	1987.3	315.7	18.9	62.3	884.8	83.6	372.1	754.7
40	HE	109.0	265.7	272.7	274.1	265.2	2193.1	322.3	102.5	39.6	864.7	326.6	381.4	844.4
41	HE	175.0	271.0	241.0	272.0	228.0	1204.5	200.5	31.5	59.5	546.5	113.0	450.5	146.0
42	HE	167.0	262.0	209.5	262.0	209.5	1541.5	286.5	39.5	57.5	721.0	162.0	721.0	162.0
43	HE	160.0	267.6	256.8	274.8	255.8	1682.3	265.6	14.8	65.3	758.6	66.9	382.9	120.9
44	HE	165.0	268.0	253.0	273.0	252.0	1642.0	266.0	17.3	64.3	748.7	79.0	376.0	127.7
45	HE	175.0	271.0	241.0	272.0	228.0	1204.5	200.5	31.5	59.5	546.5	113.0	450.5	146.0
46	HE	160.8	267.0	243.1	270.0	242.8	1612.8	280.7	36.9	57.7	716.3	140.5	463.3	176.5
47	HE	165.1	257.7	220.7	259.0	220.7	1983.3	299.3	54.3	52.1	856.0	193.4	655.8	193.4
48	HE	143.3	258.1	231.8	259.8	231.8	2215.8	342.8	74.9	51.6	938.0	230.8	710.1	245.3
49	HE	122.7	262.7	277.0	280.0	262.7	2878.3	432.7	59.0	52.7	1199.7	245.3	249.7	1199.7
50	HE	150.4	177.9	153.4	180.2	151.7	1217.4	209.5	18.6	64.2	576.3	81.5	398.4	87.1
51	HE	172.3	239.5	194.7	239.5	190.7	1342.6	240.3	32.2	59.0	624.9	136.4	620.0	146.8
52	HE	172.1	269.9	227.2	270.1	224.7	2250.7	356.0	70.6	52.2	979.3	244.6	920.2	251.6
53	HE	143.6	228.0	202.9	230.6	199.2	1734.6	262.4	51.2	52.9	743.0	173.6	567.3	190.0
54	HE	133.8	257.5	245.3	259.6	244.8	2222.1	285.0	60.7	40.3	796.9	231.0	641.8	305.6

55	HE	105.3	254.6	255.3	260.1	251.4	2903.6	305.4	155.6	20.6	889.7	513.9	598.6	723.6
56	HE	103.0	265.0	271.0	271.0	263.0	2263.0	347.0	70.0	52.0	975.0	248.0	282.0	947.0
57	HE	104.0	264.0	271.0	271.0	263.0	2341.0	356.0	77.0	51.0	995.0	266.0	266.0	977.0
58	HE	103.0	265.0	273.0	274.0	264.0	2451.0	324.0	115.0	32.0	889.0	363.0	412.0	749.0
59	HE	153.0	260.0	241.0	263.0	238.0	1773.0	263.0	26.0	58.0	742.0	100.0	450.0	132.0
60	HE	113.7	257.7	269.3	272.8	257.1	1559.4	335.5	35.2	78.3	864.2	126.1	150.4	786.7
61	HE	88.2	264.5	263.3	272.6	260.2	2622.3	368.3	111.1	38.4	963.2	397.0	489.1	465.4
62	HE	94.5	261.5	259.0	268.0	255.0	2782.5	388.3	108.0	37.0	1000.8	372.0	618.5	439.8
63	HE	94.5	261.5	259.0	268.0	255.0	2782.5	388.3	108.0	37.0	1000.8	372.0	618.5	439.8
64	HE	124.9	249.0	257.2	258.6	248.6	3023.8	418.3	121.7	37.9	1156.5	420.3	489.8	1086.4
65	HE	102.0	262.0	272.0	272.0	258.0	3398.0	545.0	60.0	52.0	1369.0	266.0	268.0	1046.0
66	HE	103.0	266.0	272.0	272.0	256.0	2234.0	368.0	51.0	50.0	927.0	211.0	211.0	612.0
67	HE	130.9	182.7	176.7	189.3	176.4	1259.7	143.5	70.3	21.1	385.7	233.2	335.3	234.8
68	HE	185.2	126.0	113.8	133.7	113.8	1041.6	159.9	20.3	56.7	461.1	79.1	318.0	80.2
69	HE	153.3	220.0	213.3	225.0	213.3	2452.9	345.4	80.2	45.8	984.7	265.9	600.9	269.5
70	HE	152.0	247.0	215.0	247.5	214.5	1701.0	251.5	44.0	52.0	736.5	164.0	664.5	179.0
71	HE	117.4	254.1	266.2	267.6	253.1	1916.4	338.7	62.4	61.8	922.5	202.5	212.1	893.2
72	HE	133.0	269.0	288.3	292.7	269.0	2512.7	418.0	36.7	62.0	1158.3	172.0	175.7	1158.3
73	HE	133.0	269.0	288.0	292.5	269.0	2528.0	418.5	37.0	61.5	1162.0	174.5	177.5	1162.0
74	HE	112.0	245.5	251.5	253.5	242.5	3252.0	328.0	209.0	14.5	965.0	677.0	788.0	822.5
75	HE	157.3	250.7	233.8	253.4	233.8	1894.7	255.3	32.5	55.1	757.9	120.2	655.1	120.2
76	HE	103.8	253.6	255.4	258.6	248.8	3513.1	358.9	227.4	14.0	1002.3	715.6	773.3	932.4
77	HE	123.3	259.9	262.9	267.7	258.6	1599.2	339.2	28.4	81.5	874.9	89.1	126.2	379.9
78	HE	185.0	242.0	237.3	247.7	235.3	1925.0	328.7	6.0	74.0	934.3	40.0	230.7	82.0
79	HE	204.6	237.7	241.0	249.6	236.3	2437.3	409.2	10.3	70.2	1104.0	38.4	364.1	1099.2
80	HE	129.0	209.3	213.7	219.7	204.7	2937.7	342.7	168.7	19.7	934.0	552.0	644.0	870.7
81	HE	129.7	176.0	183.7	187.0	173.7	2677.3	339.0	139.3	26.0	917.3	465.3	564.3	880.7
82	HE	176.9	250.4	240.3	253.7	237.6	1594.1	260.9	8.0	68.5	735.5	48.5	374.1	95.4
83	HE	118.0	248.9	261.8	262.0	246.3	2135.8	360.9	45.2	54.1	914.0	162.4	214.0	686.8
84	HE	103.4	261.1	269.9	270.6	260.7	2954.9	383.3	161.9	23.6	968.8	541.2	693.5	863.4
85	HE	204.3	248.9	233.5	254.2	230.7	1807.0	313.5	1.4	79.0	915.3	21.1	446.9	52.4
86	HE	116.6	265.1	274.7	276.8	264.4	1774.4	332.8	48.8	67.5	897.5	161.7	208.5	823.1
87	HE	125.4	254.0	268.5	268.6	252.8	2114.5	383.6	61.6	57.0	973.9	213.2	221.5	622.8
88	HE	147.9	256.2	252.3	266.0	250.2	2258.7	360.9	19.6	64.4	1019.1	86.3	489.9	172.0
89	HE	112.0	266.8	279.3	280.9	266.0	2545.1	406.5	92.6	49.2	1109.0	316.8	317.5	900.7
90	HE	124.4	259.9	275.6	279.3	255.6	2750.7	368.6	51.3	43.8	1048.0	285.7	289.4	1023.0
91	HE	149.1	249.9	253.9	261.5	249.9	2221.4	344.2	18.5	61.3	971.8	94.2	453.0	971.8

92	HE	135.5	259.5	263.1	269.9	259.5	2213.1	311.1	48.3	51.0	900.1	191.6	301.0	900.1
93	HE	109.8	255.0	266.0	266.5	251.2	2529.1	349.3	55.7	51.1	1018.8	189.5	252.1	927.2
94	HE	110.4	255.1	262.7	263.5	255.0	2407.5	339.5	119.8	34.6	908.5	391.2	463.0	890.4
95	HE	110.9	266.6	273.5	277.2	266.5	1894.1	328.5	61.8	58.6	897.4	196.0	307.9	882.2
96	HE	132.3	260.6	260.8	267.9	258.4	2323.7	340.2	33.7	54.5	953.9	143.0	385.0	249.8
97	HE	144.6	256.7	254.3	265.4	250.5	2187.3	333.2	24.3	60.7	947.8	91.0	316.4	180.2
98	HE	138.1	242.2	245.4	248.3	240.1	1893.7	299.2	20.3	62.2	831.4	95.0	254.0	774.9
99	HE	112.3	264.2	272.9	273.2	261.5	2260.1	335.9	55.8	55.5	975.4	193.5	199.0	856.7
100	HE	160.1	258.3	259.3	267.2	258.1	2248.6	330.2	30.5	57.1	960.4	118.8	449.3	770.3
101	HE	132.2	262.9	266.4	273.4	261.5	2256.5	317.3	62.7	48.0	890.1	211.8	391.1	883.8
102	HE	130.2	254.3	260.0	266.7	253.3	2238.0	344.1	53.3	52.7	933.0	196.2	396.3	924.9
103	HE	148.5	257.1	257.0	267.1	254.7	2165.3	339.9	23.2	61.6	922.8	99.0	311.9	189.2
104	HE	136.6	261.3	255.2	265.8	252.5	2013.8	288.7	23.9	58.2	827.6	109.7	486.8	156.7
105	HE	137.5	245.7	248.3	251.8	244.0	1912.2	294.9	19.5	61.3	846.4	104.3	254.5	821.8
106	HE	138.8	260.1	264.2	271.5	260.1	2336.0	325.0	52.9	49.9	930.2	189.8	423.8	930.2
107	HE	145.8	259.1	255.2	267.4	252.9	2165.1	334.1	21.9	62.2	938.6	98.1	466.8	174.2
108	HE	177.6	251.2	253.3	261.5	251.0	2279.3	353.7	18.1	64.5	993.3	78.1	430.9	989.9
109	HE	152.7	254.5	251.0	263.4	248.8	2333.5	382.5	14.5	66.3	1073.8	79.4	470.2	167.8
110	HE	159.3	255.3	255.0	263.1	254.2	2247.5	336.2	21.7	56.7	940.5	110.9	377.4	235.8
111	HE	154.2	253.6	238.2	255.6	238.0	1822.4	261.2	20.3	60.6	771.5	81.7	629.4	132.9
112	HE	144.9	254.9	243.4	256.8	242.2	2209.1	330.4	40.6	54.4	940.6	161.7	502.1	238.4
113	HE	111.6	251.4	264.9	266.2	250.8	1771.1	271.6	50.9	53.4	786.1	190.2	208.6	639.2
114	HE	122.8	263.8	268.4	273.5	263.0	2292.3	317.2	69.4	48.7	915.9	240.5	304.0	904.4
115	HE	141.3	257.0	246.9	259.3	245.2	2162.2	324.7	32.9	55.5	922.8	137.0	499.8	228.6
116	HE	119.4	256.3	264.7	266.5	254.5	1841.7	330.7	43.5	65.9	922.2	177.8	241.6	825.3
117	HE	144.6	257.1	245.3	259.7	244.6	1897.5	268.9	25.7	58.5	788.8	105.7	623.4	154.6
118	HE	154.8	254.5	238.8	256.1	238.1	1827.3	265.9	20.5	59.9	775.8	83.0	619.4	137.3
119	HE	109.3	265.1	279.1	279.1	264.2	2368.0	414.2	60.3	56.2	1050.0	219.9	219.9	937.8
120	HE	122.0	253.7	261.8	266.1	252.7	1867.5	302.6	49.3	59.3	829.7	165.0	205.8	791.3
121	HE	133.3	249.0	252.1	255.4	247.3	1900.8	304.5	19.1	64.3	866.2	98.0	229.0	846.0
122	HE	106.7	264.6	263.1	268.3	260.6	2643.9	327.5	107.4	32.9	910.5	370.2	565.3	516.3
123	HE	170.2	257.4	255.9	264.6	255.2	2279.8	361.0	15.7	60.8	1001.5	99.2	372.4	177.9
124	HE	122.6	262.5	262.1	268.0	260.5	2553.4	327.6	56.2	46.3	960.8	219.1	482.2	334.2
125	HE	168.8	255.2	252.5	261.6	251.3	2296.3	366.3	13.0	64.3	1028.5	77.2	343.5	149.6
126	HE	109.0	266.2	279.1	279.2	265.3	2319.4	380.2	75.0	51.3	1018.7	259.3	259.3	841.0
127	HE	160.0	252.0	249.0	260.0	247.0	2310.0	362.0	6.0	67.0	1024.0	59.0	322.0	138.0
128	HE	164.0	250.0	248.0	258.0	245.0	2154.0	348.0	4.0	69.0	999.0	52.0	277.0	114.0

129	HE	150.8	256.1	254.9	265.5	252.9	2186.8	345.2	21.8	62.0	943.5	95.7	387.7	175.7
130	HE	140.6	259.0	258.1	267.8	253.0	2121.5	317.6	17.5	60.7	916.5	107.9	313.1	162.8
131	HE	160.0	252.0	248.0	260.0	246.0	2301.0	361.0	8.0	67.0	1025.0	65.0	322.0	141.0
132	HE	160.4	251.2	248.2	259.2	245.6	2305.4	361.0	5.6	67.0	1018.4	56.4	323.0	134.2
133	HE	159.0	252.0	249.0	260.0	247.0	2307.0	362.0	7.0	67.0	1027.0	63.0	322.0	140.0
134	HE	142.0	259.0	257.3	267.3	252.0	2072.7	298.7	22.3	59.7	885.0	101.3	320.0	347.0
135	HE	160.0	252.0	249.0	260.0	246.0	2306.0	359.0	5.0	67.0	1018.0	55.0	322.0	135.0
136	HE	115.6	255.4	265.8	266.2	251.6	2784.5	411.6	49.9	54.4	1141.0	191.5	222.8	1023.1
137	HE	157.2	248.9	252.2	259.6	248.9	2139.7	338.7	9.8	62.6	949.9	80.2	456.3	948.8
138	HE	163.9	253.0	251.7	260.9	250.1	2332.1	375.8	12.2	67.4	1059.8	65.7	312.8	138.7
139	HE	114.6	264.8	273.3	275.5	264.2	2240.1	301.9	80.8	46.0	897.5	267.7	280.4	892.3
140	HE	113.0	251.2	264.2	265.4	249.5	2068.3	320.0	51.6	50.8	865.9	191.7	248.7	697.3
141	HE	104.0	266.6	275.3	276.7	266.0	2523.3	344.6	112.8	34.8	948.9	364.5	399.3	776.1
142	HE	171.4	254.5	252.2	261.3	251.2	2250.6	359.5	13.8	62.9	992.6	84.1	344.5	155.2
143	HE	125.0	260.4	262.1	268.2	259.9	2360.7	333.7	49.9	50.7	961.4	186.0	351.0	494.6
144	HE	119.6	261.1	275.2	275.3	260.2	2366.3	376.9	95.6	49.2	1045.5	302.1	304.6	719.4
145	HE	107.2	256.7	264.9	264.9	249.7	2531.3	350.2	95.9	36.8	955.6	327.3	355.4	638.0
146	HE	122.3	264.5	262.5	270.3	256.4	1417.7	208.5	60.0	37.2	545.5	213.9	320.1	272.3
147	HE	120.5	252.8	254.8	264.9	251.4	1444.3	243.7	24.6	64.4	715.7	104.0	240.2	143.9
148	HE	118.4	256.2	256.4	266.4	253.4	1477.0	236.4	33.8	54.8	675.2	140.6	262.6	188.2
149	HE	142.2	261.1	283.6	286.5	261.1	2492.7	439.4	18.4	72.9	1244.1	94.2	233.3	1244.1
150	HE	120.2	229.3	229.3	236.6	226.8	2155.0	337.0	49.3	54.7	960.0	180.8	458.6	348.6
151	HE	124.3	254.6	257.0	266.6	253.6	1541.1	308.4	19.1	77.4	835.4	70.9	236.0	94.0
152	HE	126.7	248.8	251.5	257.5	247.8	2658.2	434.8	40.5	64.6	1236.5	157.5	514.5	578.5
153	HE	109.3	260.0	257.0	265.8	252.8	1849.4	266.8	72.7	37.8	696.3	254.2	432.7	333.1
154	HE	119.6	253.7	257.3	265.4	253.6	2046.9	379.1	28.5	75.1	1086.7	102.1	318.7	971.2
155	HE	134.9	247.0	264.1	267.7	246.8	2979.3	491.6	44.3	61.9	1366.6	196.3	272.6	1364.8
156	HE	103.0	261.0	271.0	271.0	258.0	3365.0	536.0	59.0	52.0	1350.0	264.0	264.0	1027.0
157	HE	133.0	264.0	283.0	286.0	264.0	2976.0	481.0	49.0	59.0	1344.0	222.0	231.0	1344.0
158	HE	168.5	247.8	210.8	248.3	197.5	1231.3	177.0	30.5	44.3	489.3	140.3	462.3	180.0
159	HE	123.7	237.5	241.2	245.9	236.4	2991.7	468.1	65.2	55.9	1317.7	246.1	549.8	849.8
160	HE	100.6	271.2	281.0	281.0	266.2	1875.0	283.6	64.0	45.0	784.4	241.2	256.4	364.6
161	HE	104.0	265.2	276.2	276.2	260.4	1989.8	300.0	80.0	38.8	756.0	280.6	301.2	459.0
162	HE	107.0	264.0	274.7	274.7	257.5	2137.7	318.8	83.5	42.0	847.8	271.3	317.5	492.2
163	HE	110.0	254.4	266.8	266.8	249.4	2390.8	346.8	71.5	41.3	923.8	269.6	269.6	580.4
164	HE	150.4	253.5	241.5	256.5	241.0	1990.5	259.9	46.8	50.2	765.3	161.4	635.4	187.5
165	HE	120.8	262.4	270.4	274.1	262.0	2263.6	327.4	71.4	49.1	924.9	243.3	285.5	923.6

166	HE	172.0	225.7	186.2	225.7	180.8	1229.4	198.7	30.4	53.1	540.8	141.5	539.4	165.0
167	HE	102.8	268.6	276.6	277.8	268.2	2558.1	343.2	85.9	42.5	985.1	305.3	356.7	856.9
168	HE	139.7	246.4	221.8	248.3	221.7	3053.4	462.3	109.7	48.8	1271.1	356.0	1015.9	359.6
169	HE	118.6	249.1	257.9	258.0	244.3	2412.3	366.4	59.7	46.4	957.6	220.7	226.5	732.4
170	HE	158.4	254.2	253.3	262.4	251.7	2414.2	377.9	16.4	65.1	1071.5	79.0	336.3	162.2
171	HE	121.8	217.6	218.1	224.5	215.7	2501.1	388.7	55.3	55.1	1105.0	198.6	553.1	488.6
172	HE	200.1	207.5	164.9	210.8	164.2	1876.5	322.7	52.8	63.9	856.1	184.6	680.7	192.4
173	HE	119.8	147.1	150.3	152.1	143.2	1851.1	200.2	114.3	18.1	566.6	368.2	399.4	526.8
174	HE	152.3	238.4	231.8	244.1	231.5	2037.6	237.2	95.7	27.8	650.6	311.6	600.3	329.2
175	HE	122.3	248.8	257.3	257.4	244.0	2422.8	372.5	58.7	47.6	964.9	214.4	233.6	756.3
176	HE	121.2	258.4	267.7	267.7	254.7	3511.2	569.9	39.0	60.8	1495.6	180.6	181.8	1266.1
177	HE	144.8	254.6	258.6	266.3	254.6	2529.8	389.4	41.1	56.3	1052.3	148.9	523.3	1052.3
178	HE	113.4	250.8	264.8	265.2	248.7	2710.5	326.2	132.5	28.3	941.5	419.4	478.3	861.4
179	HE	126.6	210.7	215.2	221.2	206.2	2912.2	346.5	166.2	20.7	938.9	544.1	641.1	866.2
180	HE	105.1	263.9	270.2	271.3	262.9	2634.8	338.0	142.3	29.0	925.3	444.9	460.1	839.2
181	HE	174.2	256.5	254.6	263.8	254.1	2271.8	365.7	14.9	62.5	1007.1	92.3	365.3	176.1
182	HE	107.5	241.4	248.3	248.4	235.0	2959.2	452.3	99.8	43.0	1214.2	376.6	400.8	611.6
183	HE	126.5	135.6	144.9	146.2	131.5	1716.3	222.6	84.0	28.0	590.0	285.5	354.9	567.0
184	HE	144.3	223.7	197.7	226.3	197.3	1906.3	294.4	53.6	54.4	823.0	179.1	610.4	191.3
185	HE	153.9	236.2	226.2	241.5	225.1	2245.9	305.9	70.8	46.8	874.9	237.6	670.7	244.8
186	HE	137.0	260.1	258.3	267.7	254.8	2045.3	301.2	22.1	58.8	857.4	105.8	358.6	169.1
187	HE	120.6	249.8	260.3	260.6	245.9	2413.1	371.8	54.8	50.6	987.4	191.7	237.1	802.0
188	HE	118.4	198.7	196.6	205.3	196.1	1752.4	285.3	51.3	52.8	795.1	213.9	311.2	257.4
189	HE	116.8	259.6	262.9	267.8	259.5	2519.2	354.4	55.7	49.3	984.0	210.6	376.7	977.2
190	HE	108.8	193.0	197.8	198.6	191.5	2684.1	337.4	128.5	31.6	962.0	409.7	536.4	918.5
191	HE	107.3	258.1	253.3	261.1	250.9	2790.7	304.7	156.5	20.7	859.4	498.0	695.7	613.2
192	HE	104.4	262.7	260.9	265.5	253.3	3011.5	330.7	196.8	17.3	965.7	645.2	671.5	684.4
193	HE	106.6	152.9	153.1	156.3	150.1	1901.1	201.6	118.9	17.0	558.2	392.0	526.2	456.9
194	HE	106.7	201.0	204.1	206.4	197.1	2043.9	242.8	77.1	30.1	667.9	287.8	377.7	568.9
195	HE	108.5	142.0	146.0	148.5	138.0	2496.5	325.5	111.5	32.5	899.0	377.5	645.5	771.0
196	HE	111.0	250.0	263.0	263.2	247.3	2816.4	335.3	122.7	30.0	963.1	405.8	470.9	909.7
197	HE	101.9	256.9	253.1	260.8	250.3	3215.0	346.1	175.5	20.1	1011.5	602.7	786.5	691.9
198	HE	110.5	195.1	199.9	200.6	194.2	2982.4	367.8	163.1	28.1	1040.0	505.9	608.2	995.3
199	HE	116.0	256.7	268.9	270.8	252.0	2722.5	343.3	68.9	36.6	945.4	321.6	375.9	900.3
200	HE	126.6	251.8	265.0	268.6	248.2	2734.0	360.0	43.7	45.1	1031.1	243.7	286.3	969.2
201	HE	101.6	108.1	109.9	114.2	105.1	1985.7	257.3	57.3	38.2	723.1	227.5	482.5	621.5
202	HE	126.4	257.5	264.2	267.0	251.7	2974.7	381.2	77.3	37.4	1081.0	332.7	459.8	922.9

203	HE	102.1	259.2	256.1	261.9	250.7	3045.8	330.7	192.4	17.1	948.8	617.6	697.2	680.4
204	HE	184.1	245.0	225.0	247.4	223.2	1575.5	279.6	13.4	69.3	747.2	61.0	368.3	98.9
205	HE	193.8	174.3	166.2	185.4	165.5	1502.5	213.8	32.2	51.6	624.3	135.6	398.0	139.2
206	HE	167.4	244.5	240.7	251.5	237.5	1900.3	303.1	17.6	62.6	865.1	81.4	286.2	139.6
207	HE	116.0	238.8	245.1	246.5	238.4	2450.7	347.2	113.5	34.4	917.0	386.7	471.0	823.5
208	HE	106.5	256.0	263.6	264.4	255.3	2904.6	353.0	174.3	21.7	951.0	573.2	631.1	914.4
209	HE	125.9	156.6	152.4	159.4	149.4	1322.9	166.2	73.6	26.6	456.2	243.0	296.7	267.8
210	HE	166.5	169.3	157.2	173.3	157.2	1058.1	156.3	31.7	47.5	405.9	97.6	328.2	97.6
211	HE	182.9	251.7	252.1	260.9	251.2	2412.2	360.2	17.5	64.5	1051.4	76.1	409.7	669.5
212	HE	125.6	142.6	148.9	150.0	138.6	1975.2	255.7	104.6	27.6	675.0	342.4	388.6	637.5
213	HE	161.2	258.8	252.1	266.3	250.2	1597.7	255.7	8.5	64.2	726.3	53.9	356.0	116.5
214	HE	112.7	260.8	268.8	270.8	260.6	1889.3	308.3	66.9	52.8	846.0	221.0	286.0	802.5
215	HE	139.2	257.9	248.1	261.8	247.5	2081.7	285.1	55.3	43.4	758.9	207.9	574.1	277.6
216	HE	143.9	245.0	248.1	253.8	245.0	1880.0	316.5	23.2	62.2	863.5	99.2	283.9	863.5
217	HE	114.6	247.2	255.4	256.0	247.0	3031.3	375.8	175.6	24.0	1031.3	577.3	605.5	979.8
218	HE	125.6	181.2	187.8	190.0	179.0	3354.6	393.4	187.1	24.6	1116.2	600.1	663.7	1056.1
219	HE	157.0	221.0	214.0	226.5	214.0	1666.0	223.5	60.0	42.5	626.5	184.0	527.0	184.0
220	HE	217.1	84.7	57.6	92.5	57.5	1007.7	196.3	17.0	68.7	503.3	71.0	300.1	74.8
221	HE	113.8	266.1	274.9	277.5	265.5	1862.7	342.9	53.3	63.5	918.4	177.0	252.2	838.6
222	HE	180.3	173.2	148.3	175.4	148.2	970.1	185.0	13.0	70.4	498.4	57.1	396.7	57.9
223	HE	178.3	264.3	221.5	265.2	220.5	2973.1	466.2	86.4	52.9	1277.2	294.6	1090.8	295.1
224	HE	129.5	128.3	123.6	129.7	123.6	1008.7	163.6	39.1	47.3	432.0	130.5	225.1	132.6
225	HE	168.6	190.7	178.2	194.4	178.2	1578.8	224.3	43.5	51.5	649.8	147.5	442.9	147.8
226	HE	133.1	263.4	278.6	280.8	262.4	3227.5	475.9	70.4	53.1	1372.1	266.3	300.0	1290.1
227	HE	112.0	246.4	256.5	257.4	244.4	2946.2	322.5	180.7	18.6	912.9	554.0	634.8	832.6
228	HE	151.6	254.3	240.5	256.8	240.3	1872.2	264.7	21.4	59.8	782.6	94.2	655.7	132.6
229	HE	180.7	246.3	232.0	248.8	229.7	1570.3	270.8	10.1	69.8	741.1	53.0	378.6	91.0
230	HE	201.9	248.7	250.2	260.9	248.1	2373.8	393.0	11.1	69.9	1091.6	50.2	342.9	952.8
231	HE	150.2	253.9	250.4	262.4	248.4	1816.4	278.5	17.5	60.5	796.7	78.8	301.2	144.2
232	HE	165.6	252.7	250.3	259.4	248.6	2322.0	374.8	11.6	66.9	1052.7	66.1	321.2	138.5
233	HE	177.0	254.3	251.5	261.1	250.4	2160.7	358.3	10.5	66.5	986.3	69.3	307.3	129.9
234	HE	110.2	261.3	267.2	270.7	261.2	2593.5	345.1	71.5	43.3	983.9	270.2	502.8	975.9
235	HE	104.7	262.0	276.7	276.7	261.7	1700.7	291.0	31.3	67.7	833.0	104.0	104.0	801.0
236	HE	104.4	265.8	272.9	274.5	265.3	2514.8	347.8	106.2	37.5	959.8	362.7	389.3	835.4
237	HE	102.6	267.8	276.9	277.9	267.4	2465.5	326.9	87.8	40.7	915.8	301.0	359.2	844.1
238	HE	112.6	254.2	261.7	262.8	253.9	1991.7	308.7	62.4	47.2	838.5	230.0	362.6	773.3
239	HE	143.5	249.6	253.5	257.0	249.3	1624.4	273.1	25.0	65.5	765.2	86.6	197.9	691.6

240	HE	168.1	257.8	248.8	263.3	246.3	1539.0	254.4	6.9	67.9	712.2	42.7	351.6	94.8
241	HE	174.3	254.8	253.0	262.2	252.2	2255.6	364.3	13.5	62.8	997.4	87.1	351.3	158.1
242	HE	102.0	268.0	278.0	279.0	267.0	2172.0	289.0	67.0	44.0	824.0	235.0	290.0	807.0
243	HE	164.7	252.1	250.7	260.1	248.8	2248.9	365.8	10.2	69.4	1040.7	58.2	280.2	123.6
244	HE	104.8	264.8	271.0	271.0	263.3	2388.0	360.5	81.0	50.5	1007.3	276.5	276.5	994.8
245	HE	191.7	255.4	249.4	261.3	248.9	2133.0	344.1	4.0	72.5	1006.6	32.0	555.7	59.3
246	HE	173.4	267.3	237.1	268.7	237.0	1616.0	266.8	29.0	61.5	742.1	106.4	536.1	138.3
247	HE	173.3	263.0	223.6	266.1	223.6	1862.5	305.3	49.8	55.2	825.0	170.1	564.7	170.1
248	HE	107.3	256.3	267.5	268.0	252.5	2458.5	341.0	71.8	44.0	968.3	247.8	326.3	851.8
249	HE	172.9	257.4	243.2	260.6	241.1	1489.0	246.7	8.4	69.0	693.6	47.9	351.8	94.1
250	HE	206.8	250.0	242.0	259.0	238.0	1819.8	308.5	2.0	77.0	893.0	15.0	469.3	50.0
251	HE	145.5	247.0	219.5	249.0	219.0	1943.0	301.5	65.5	52.0	826.5	205.0	585.5	232.0
252	HE	142.0	251.0	254.0	257.0	248.0	1758.0	290.0	18.0	65.0	766.0	80.0	232.0	715.0
253	HE	157.9	224.0	196.4	225.2	196.4	1421.2	226.5	26.1	58.4	649.7	107.1	535.8	112.9
254	HE	110.6	256.4	263.5	263.6	251.9	3359.6	510.7	78.2	47.8	1279.2	305.3	311.8	1043.0
255	HE	86.0	145.0	146.5	147.5	141.5	1638.0	208.5	87.0	27.5	532.5	300.5	413.5	339.0
256	HE	126.0	263.0	271.0	275.0	256.0	2932.0	389.0	40.0	49.0	1090.0	218.0	271.0	1018.0
257	HE	129.5	262.0	278.0	282.5	258.0	2838.0	376.5	35.0	48.0	1056.5	227.5	243.0	1010.5
258	HE	101.2	117.6	121.6	122.6	114.2	2075.8	232.4	110.0	23.2	676.0	357.2	567.4	578.4
259	HE	107.7	171.0	174.0	175.7	168.3	2351.0	293.7	111.0	30.7	832.0	357.3	539.3	774.7
260	HE	122.1	243.2	246.4	250.7	242.3	3105.1	463.0	84.1	49.1	1291.2	305.0	628.0	932.0
261	HE	105.8	264.5	272.8	272.8	256.8	2015.5	319.3	43.3	51.0	828.3	170.5	170.5	539.0
262	HE	106.7	258.2	260.8	264.7	255.3	3100.1	347.0	177.5	21.3	999.2	570.1	626.3	819.7
263	HE	112.5	257.0	265.0	265.0	254.0	3813.8	589.8	80.0	49.5	1495.5	320.5	324.0	1189.5
264	HE	98.2	264.6	275.7	275.7	263.3	1928.1	375.2	8.5	82.1	1028.2	39.6	39.6	964.1
265	HE	105.5	262.9	267.5	269.2	261.1	2915.6	342.2	163.0	24.9	989.1	514.0	549.9	882.3
266	HE	169.1	256.9	254.2	263.2	253.1	2288.3	362.7	13.9	63.2	1014.5	82.4	349.4	155.7
267	HE	171.9	259.7	258.1	266.9	257.6	2315.6	365.9	15.0	61.2	1027.6	101.8	389.4	183.2
268	HE	110.3	266.4	273.0	275.7	265.0	2242.6	286.5	90.5	40.5	833.2	284.2	303.8	825.5
269	HE	119.8	255.7	251.6	259.6	251.0	2668.7	329.2	84.0	39.2	951.6	307.3	613.7	407.4
270	HE	125.7	261.7	265.0	270.9	261.7	2443.1	330.6	51.5	48.4	966.6	198.2	503.2	966.6
271	HE	110.7	263.2	270.3	272.7	263.2	2449.1	317.6	75.5	42.4	928.0	261.8	356.4	928.0
272	HE	108.8	252.6	264.7	265.2	249.6	2414.6	335.8	60.8	46.9	948.9	218.0	270.7	827.4
273	HE	102.1	267.1	276.1	277.3	267.1	2616.3	359.6	71.3	48.4	1057.2	271.6	311.4	978.9
274	HE	102.2	268.3	278.2	279.2	268.0	2310.7	304.5	68.0	45.7	893.2	247.5	299.5	888.2
275	HE	105.2	267.2	277.5	277.6	266.3	2171.8	320.5	81.4	46.5	868.3	264.9	265.1	833.6
276	HE	108.3	261.2	266.9	270.2	261.2	2594.6	342.6	76.1	41.3	951.9	284.8	404.2	949.0

277	HE	106.1	265.7	275.5	276.3	262.8	2521.2	333.8	56.8	46.7	962.3	245.3	272.9	921.1
278	HE	106.7	257.8	260.3	264.3	254.8	3092.1	343.2	176.6	20.9	989.8	570.9	626.2	816.5
279	HE	106.3	261.1	264.8	269.2	260.7	2473.4	321.4	85.2	39.9	872.3	291.4	395.7	863.1
280	HE	112.1	259.8	264.0	268.7	259.8	2616.7	355.3	64.2	45.3	993.3	251.3	513.6	991.7
281	HE	113.2	263.0	269.5	272.6	262.9	2439.5	321.4	70.2	43.7	936.7	254.4	406.1	933.0
282	HE	118.9	258.3	253.9	262.2	253.9	2467.6	313.6	64.7	42.7	901.6	258.1	546.3	344.2
283	HE	133.0	182.7	181.3	187.6	176.5	1639.5	182.6	103.3	18.1	505.7	333.3	367.5	368.2
284	HE	113.6	266.0	274.6	276.7	265.6	1862.6	323.6	59.0	59.3	884.0	193.1	263.2	812.5
285	HE	106.7	255.1	255.6	260.4	251.5	2914.0	301.5	157.1	20.0	886.6	515.8	613.6	711.7
286	HE	190.5	236.0	226.5	241.0	225.5	1933.0	354.5	4.0	76.0	957.0	35.5	449.0	67.0
287	HE	106.7	266.1	275.6	275.6	265.3	2384.5	392.5	93.2	47.2	1020.9	306.0	314.2	880.3
288	HE	174.0	270.0	223.0	270.0	223.0	3391.0	518.8	110.5	50.8	1450.5	378.0	1450.5	378.0
289	HE	110.5	261.1	263.9	267.9	260.8	2450.5	309.6	77.4	44.0	906.5	254.2	366.0	899.3
290	HE	167.8	251.6	249.6	258.9	247.7	2207.7	364.6	8.8	69.5	1022.0	55.1	283.9	117.9
291	HE	109.4	253.7	266.4	267.0	251.3	2267.3	328.8	52.1	49.3	908.4	192.1	238.1	772.4
292	HE	131.2	253.4	256.7	259.9	251.9	1901.0	311.4	19.2	66.1	882.4	95.8	213.5	875.0
293	HE	100.9	262.1	274.8	274.8	259.6	2901.9	443.7	14.7	70.4	1304.4	81.2	92.9	1256.3
294	HE	136.3	260.5	263.2	269.9	260.4	2242.6	315.0	46.6	51.4	911.1	186.0	322.2	910.7
295	HE	144.7	246.5	250.3	256.8	246.4	1897.5	308.3	16.5	63.3	864.8	91.1	355.6	860.8
296	HE	119.6	260.0	268.1	269.7	258.5	1758.9	329.4	36.1	69.4	908.0	160.0	240.0	813.8
297	HE	160.3	261.1	255.8	271.0	254.8	1647.3	259.8	7.0	64.5	737.3	47.4	371.4	131.3
298	HE	138.0	258.8	257.3	267.4	253.5	1940.9	278.0	25.0	58.2	807.5	99.7	295.5	157.9
299	HE	124.3	160.1	164.0	166.0	153.9	2535.5	298.2	141.8	22.3	833.6	462.9	537.5	747.0
300	HE	154.9	258.3	254.0	267.1	252.8	1688.3	260.3	11.2	61.8	747.0	61.9	381.2	136.6
301	HE	118.9	253.2	264.2	267.2	252.2	3242.9	407.4	121.2	34.6	1180.3	449.3	469.9	1106.1
302	HE	106.0	254.0	263.0	263.0	251.5	3772.5	545.5	90.0	44.5	1404.0	359.0	359.0	1150.5
303	HE	176.2	259.3	236.7	260.7	235.2	1418.3	237.4	13.7	67.6	665.2	63.1	420.0	103.4
304	HE	113.8	250.5	264.9	265.5	248.3	2787.4	329.1	131.7	27.7	955.7	434.8	475.1	875.0
305	HE	134.5	242.9	226.7	245.7	226.3	3588.4	498.9	143.3	41.0	1389.8	475.1	1038.5	483.6
306	HE	183.7	197.4	188.8	206.0	188.2	1656.1	233.6	39.3	49.8	677.7	157.3	447.2	160.6
307	HE	129.8	188.3	184.3	194.9	183.6	1316.7	138.8	74.3	17.2	393.3	258.8	332.9	269.6
308	HE	156.7	229.0	221.5	234.1	221.1	2033.0	275.7	67.6	43.9	773.3	218.4	548.3	250.7
309	HE	114.2	252.3	267.4	267.9	249.9	2831.6	344.9	120.5	30.5	995.0	414.4	492.5	914.4
310	HE	173.3	224.6	217.6	231.9	217.4	1726.7	238.3	42.2	49.0	695.0	161.1	480.5	162.3
311	HE	149.7	256.2	242.8	258.3	242.4	1874.2	253.0	32.5	54.8	741.4	120.7	647.4	154.9
312	HE	124.5	227.5	230.2	237.2	222.4	2741.8	272.0	180.1	11.9	793.7	600.5	632.2	717.6
313	HE	146.9	229.4	220.9	232.1	220.9	2418.1	331.8	79.6	46.3	957.0	255.5	631.9	259.3

314	HE	169.2	263.1	228.3	266.2	228.3	1786.4	294.8	49.3	54.5	784.9	168.9	521.5	168.9
315	HE	157.8	252.9	223.0	254.0	219.7	1808.5	268.9	58.5	49.9	771.1	200.7	585.4	207.9
316	HE	111.1	248.5	259.0	259.9	246.5	2928.0	329.5	160.6	22.7	940.1	508.4	582.9	875.7
317	HE	122.0	125.8	131.4	133.3	120.8	1974.1	227.5	108.4	22.2	646.5	354.0	412.9	592.6
318	HE	113.3	217.9	222.6	224.4	217.4	2667.0	287.7	169.5	16.8	817.3	525.9	603.9	808.1
319	HE	109.7	159.7	160.7	163.7	158.7	1742.3	187.7	105.0	19.7	520.3	351.0	499.0	483.3
320	HE	114.2	262.3	259.0	268.8	257.4	2753.5	285.8	159.3	18.2	814.1	525.4	708.4	533.2
321	HE	157.8	262.7	241.9	265.4	240.2	1804.4	276.5	36.9	56.4	770.2	128.6	464.7	157.7
322	HE	216.6	82.6	55.4	88.4	55.4	970.3	191.4	16.3	70.7	491.4	66.1	292.4	67.7
323	HE	125.7	267.9	261.0	270.1	260.0	2434.9	256.8	116.7	22.6	734.0	408.4	614.5	479.5
324	HE	122.0	268.1	263.2	271.3	262.0	2262.3	255.5	107.7	24.5	694.3	373.7	597.0	445.3
325	HE	113.0	251.8	260.8	261.2	249.3	2769.8	277.0	183.4	13.3	808.3	574.8	597.5	765.0
326	HE	145.0	259.8	235.8	261.8	235.8	2664.1	405.0	83.8	51.1	1110.9	273.6	931.1	277.4
327	HE	108.0	247.0	256.0	256.0	242.0	4033.0	448.0	189.0	25.0	1323.0	633.0	633.0	1150.0
328	HE	140.9	257.7	248.0	261.8	247.8	1810.8	259.9	33.6	51.8	704.2	136.4	515.7	184.9
329	HE	139.7	256.2	245.8	260.0	245.7	1853.1	262.9	32.9	51.7	713.2	136.2	597.9	179.0
330	HE	161.7	249.3	246.7	257.3	244.3	2249.3	355.3	6.3	67.0	1007.0	60.3	312.7	130.0
331	HE	169.0	247.3	245.0	255.1	242.4	1875.1	318.9	0.4	73.8	901.0	39.6	205.4	88.0
332	HE	146.0	257.7	245.4	258.9	243.1	2040.1	303.1	32.3	55.5	855.5	133.9	486.5	212.5
333	HE	117.0	265.9	271.8	271.8	263.8	2567.8	434.8	49.3	67.8	1252.7	176.7	177.6	1150.1
334	HE	106.8	254.8	258.6	261.6	251.4	2992.8	323.1	167.4	20.2	947.8	569.0	584.0	814.1
335	HE	107.3	261.0	261.0	265.5	257.0	2898.0	351.8	139.1	28.4	971.9	449.3	619.5	605.2
336	HE	160.7	261.0	254.1	268.8	252.7	1616.1	256.8	7.4	64.2	726.7	50.2	367.5	123.6
337	HE	128.0	262.4	260.8	267.6	259.4	2488.8	339.8	44.3	50.0	979.5	182.6	559.4	291.2
338	HE	165.3	249.3	247.0	257.0	244.2	2110.8	342.7	2.2	70.5	976.3	45.0	265.3	106.3
339	HE	104.2	264.8	267.1	270.1	262.2	2191.4	265.2	83.5	34.8	736.8	291.3	353.8	553.0
340	HE	153.9	253.7	238.2	255.2	237.6	1960.0	291.2	24.0	58.8	829.1	101.5	653.0	160.8
341	HE	153.7	255.8	239.6	258.0	238.1	1769.7	255.6	22.6	59.4	741.8	85.6	490.6	125.7
342	HE	112.0	257.8	268.5	269.3	257.8	2639.5	515.8	19.3	79.0	1404.0	73.8	128.8	1404.0
343	HE	145.0	265.0	265.0	270.0	263.0	1606.0	320.0	10.0	81.0	846.0	54.0	107.0	121.0
344	HE	169.0	262.0	251.5	268.5	249.5	1498.0	252.5	5.0	69.5	695.0	35.0	334.5	85.5
345	HE	96.0	265.0	276.0	276.0	263.0	1541.0	318.0	4.0	90.0	892.0	27.0	27.0	825.0
346	HE	142.2	263.2	265.3	269.7	263.2	1690.3	327.5	12.0	79.3	882.7	57.5	120.5	758.3
347	HE	166.8	249.8	247.3	257.5	244.8	2052.8	337.3	1.5	71.8	967.0	43.0	246.5	100.3
348	HE	167.0	251.0	248.7	259.0	246.0	2064.0	345.7	1.7	73.0	993.7	43.7	240.0	98.3
349	HE	166.0	255.0	252.3	261.2	250.9	2343.7	373.8	12.8	65.2	1054.4	73.3	341.8	148.4
350	HE	171.8	252.5	249.3	258.7	247.6	2132.5	359.8	8.0	69.8	1000.2	54.2	281.8	111.7

351	HE	111.3	265.2	273.3	273.7	262.2	2468.0	320.0	81.3	41.6	924.4	307.2	311.5	868.3
352	HE	118.0	269.6	274.7	275.6	267.5	2437.3	438.6	35.4	75.7	1284.7	128.8	139.1	1203.3
353	HE	162.0	250.0	247.0	257.0	244.0	2271.0	358.0	5.0	67.0	1011.0	56.0	316.0	129.0
354	HE	169.0	250.0	247.0	257.0	245.0	1941.0	317.0	1.0	72.0	911.0	39.0	226.0	94.0
355	HE	134.9	261.3	257.8	267.3	254.8	2009.1	286.6	22.9	58.9	835.8	103.4	456.0	149.9
356	HE	143.2	258.4	255.7	266.6	252.4	2046.1	307.1	26.7	59.2	870.2	94.2	303.4	173.8
357	HE	168.0	249.0	246.0	256.0	243.0	1982.0	320.0	1.0	71.0	918.0	40.0	236.0	98.0
358	HE	116.8	259.5	263.1	268.1	259.3	2648.0	385.4	53.0	49.2	1037.3	220.5	470.3	1028.7
359	HE	141.7	260.2	258.3	268.9	254.6	2196.7	340.1	19.1	61.7	944.8	109.5	308.1	173.4
360	HE	99.8	261.7	272.9	272.9	261.0	2680.5	510.2	27.6	78.0	1409.3	97.5	97.5	1270.6
361	HE	107.3	264.9	273.5	273.5	263.2	2820.7	398.6	82.5	48.1	1153.1	285.1	354.3	1117.7
362	HE	110.3	257.9	268.9	269.5	257.9	2666.4	524.5	19.9	80.2	1426.5	73.8	131.5	1343.5
363	HE	166.3	249.8	247.5	257.5	244.8	2123.5	345.5	3.5	71.5	1011.8	49.3	257.3	105.5
364	HE	116.0	256.0	269.0	269.0	256.0	2459.0	496.0	6.0	82.0	1333.0	34.0	34.0	1333.0
365	HE	112.0	257.0	270.0	270.0	257.0	2234.0	450.0	6.0	80.0	1177.0	35.0	35.0	1177.0
366	HE	109.0	258.0	271.0	271.0	258.0	2157.5	427.5	7.5	78.5	1105.5	39.0	39.0	1105.5
367	HE	89.6	267.2	280.6	280.6	265.7	2893.3	536.0	8.6	82.3	1544.6	56.8	92.0	1404.6
368	HE	118.0	255.0	268.0	268.0	255.0	2576.0	501.0	10.0	80.0	1373.0	48.0	48.0	1373.0
369	HE	103.3	260.7	271.7	271.7	260.3	2675.3	519.0	25.7	79.0	1417.0	90.7	90.7	1264.3
370	HE	96.5	264.0	274.5	274.5	262.5	2678.0	502.5	28.0	77.5	1402.0	100.5	100.5	1273.0
371	HE	167.7	248.7	246.7	256.7	243.7	2083.7	352.7	2.0	73.3	1009.3	43.3	239.7	97.3
372	HE	114.7	259.4	255.2	263.0	255.2	2513.1	311.5	75.3	38.2	871.4	297.1	560.9	345.1
373	HE	131.4	261.4	256.3	265.6	254.7	2244.3	311.4	38.6	52.5	893.0	152.9	521.6	237.9
374	HE	164.5	250.0	248.5	259.0	245.5	2171.0	348.5	5.5	68.5	1001.5	56.0	285.5	118.0
375	HE	176.2	253.1	240.8	256.0	238.3	1552.0	256.8	7.3	69.7	723.5	46.3	374.8	94.6
376	HE	167.0	249.5	247.0	257.0	244.5	2024.5	332.5	1.0	72.0	952.5	41.5	241.0	98.0
377	HE	106.1	260.1	272.9	273.1	259.4	1941.8	340.6	26.8	69.5	949.6	111.1	111.9	792.1
378	HE	107.2	263.9	274.6	275.4	260.9	2393.3	343.4	47.1	50.5	974.1	206.9	228.4	816.9
379	HE	162.9	257.9	250.9	264.8	248.9	1583.1	256.3	8.2	65.3	726.2	50.9	361.8	109.0
380	HE	164.6	260.1	252.0	267.1	250.0	1555.1	255.7	7.0	66.8	714.8	44.6	344.3	101.6
381	HE	129.1	258.4	250.0	261.4	248.8	2182.7	267.9	58.0	41.1	770.5	224.8	545.4	307.1
382	HE	131.9	249.5	255.1	261.3	249.2	1839.3	306.7	26.6	62.6	843.9	116.6	290.5	843.0
383	HE	107.6	256.9	256.7	261.4	252.7	2832.4	309.4	150.6	22.5	887.4	476.8	608.1	639.7
384	HE	153.8	259.9	256.0	269.3	255.1	1677.9	259.9	12.4	62.4	743.2	61.2	371.6	132.7
385	HE	158.1	259.2	254.2	267.9	252.8	1652.3	257.4	9.7	62.6	742.2	59.0	359.5	132.1
386	HE	157.7	253.7	251.2	262.2	249.3	2244.0	350.4	15.1	63.2	986.2	85.7	393.6	154.6
387	HE	105.9	263.5	269.6	270.0	262.0	2627.1	330.9	140.1	28.5	930.9	452.9	459.6	846.9

388	HE	132.4	245.6	250.5	255.3	245.6	1705.5	288.2	24.4	65.7	821.5	102.7	225.7	821.5
389	HE	135.7	257.3	246.1	260.2	246.0	1997.8	275.5	41.5	47.9	758.2	168.9	618.1	219.3
390	HE	133.5	252.1	257.1	264.2	251.4	2117.5	339.1	37.9	58.1	924.3	150.9	365.1	919.5
391	HE	167.0	250.0	248.0	258.0	245.0	2053.0	339.0	2.0	72.0	979.0	43.0	241.0	99.0
392	HE	97.0	263.0	274.0	274.0	262.0	2683.0	504.0	28.0	77.0	1405.0	100.0	100.0	1274.0
393	HE	166.8	250.8	248.3	258.5	245.8	2062.8	342.3	1.8	72.5	987.0	43.3	242.5	99.0
394	HE	164.0	250.5	248.0	258.5	245.5	2179.5	349.5	4.0	68.5	995.0	52.5	288.5	117.5
395	HE	119.0	256.7	266.5	269.7	256.3	2013.2	319.8	53.1	60.9	908.8	177.1	210.2	860.3
396	HE	109.3	265.4	272.6	272.7	263.5	2671.8	393.6	64.7	54.5	1150.8	222.8	279.7	1101.7
397	HE	108.8	262.1	273.9	274.3	261.0	2012.7	330.7	37.4	63.4	931.5	139.9	147.5	797.7
398	HE	98.4	109.6	113.0	115.3	104.8	1902.8	244.6	108.4	25.2	645.2	339.0	527.5	548.9
399	HE	90.0	152.0	148.0	154.0	148.0	1747.0	212.0	101.0	26.0	554.0	341.0	455.0	342.0
400	HE	107.8	150.1	154.1	155.4	147.1	2442.7	313.8	138.4	25.6	843.4	440.6	594.9	755.7
401	HE	102.8	265.5	271.8	271.8	256.5	2218.0	365.8	50.3	50.3	921.5	207.5	207.5	586.8
402	HE	106.6	264.5	275.6	275.6	258.9	2284.8	328.4	102.6	36.7	874.2	336.2	350.3	507.4
403	HE	108.0	263.8	275.0	275.0	258.3	2222.0	319.0	84.8	38.8	846.5	286.0	286.0	520.3
404	HE	116.0	258.8	273.3	273.3	255.0	2460.8	403.0	46.2	51.9	1051.5	197.2	197.2	605.1
405	HE	109.0	263.1	274.5	274.5	256.9	2214.6	303.4	84.1	36.8	825.5	297.9	310.5	522.1
406	HE	108.6	268.6	279.5	279.5	264.1	2110.7	310.4	70.9	43.5	867.5	252.7	257.4	454.8
407	HE	107.6	251.8	257.9	258.1	245.4	2762.0	392.1	84.6	41.2	1044.9	313.9	317.1	795.1
408	HE	110.2	256.4	264.6	264.6	253.5	3780.6	571.7	85.9	47.4	1454.4	342.1	346.6	1165.7
409	HE	116.9	250.6	256.7	256.8	245.8	3275.3	494.3	75.8	47.5	1225.2	295.9	298.1	1048.7
410	HE	142.3	260.1	258.4	268.6	255.0	2187.8	337.2	19.9	61.0	933.2	112.0	304.9	179.0
411	HE	103.8	267.0	277.7	277.7	262.2	2009.8	301.7	87.2	38.7	797.7	307.0	344.7	416.8
412	HE	173.6	247.0	244.8	254.2	241.8	1803.1	323.9	0.5	76.7	898.5	34.6	179.5	76.7
413	HE	135.8	255.4	270.2	270.2	252.8	1880.2	392.1	43.5	64.0	897.7	161.5	161.5	443.4
414	HE	105.9	263.6	272.7	272.9	257.2	2269.8	310.6	70.6	40.8	851.3	264.4	270.7	592.4
415	HE	187.8	253.8	224.8	255.3	223.1	1301.5	223.1	15.8	66.7	611.1	67.5	421.5	101.3
416	HE	143.2	262.0	258.9	271.2	256.8	1621.0	270.3	9.4	64.8	715.4	62.0	399.0	115.9
417	HE	176.3	270.3	222.3	270.3	222.3	3661.1	559.0	119.5	51.0	1564.8	406.3	1486.3	406.3
418	HE	105.0	264.5	271.0	271.0	262.5	2438.0	380.5	81.0	52.5	1047.0	271.5	271.5	1029.5
419	HE	178.6	261.7	230.9	262.9	230.0	1371.0	229.2	21.3	64.4	635.7	85.3	466.3	120.5
420	HE	185.0	264.0	216.5	264.0	216.5	3473.5	559.5	108.0	53.5	1500.0	355.5	1328.5	355.5
421	HE	156.0	266.8	245.2	269.7	244.4	1698.7	288.2	44.7	57.6	752.0	144.5	498.2	180.5
422	HE	132.0	200.5	210.0	210.0	196.0	2918.5	309.0	195.5	15.5	850.0	617.5	617.5	805.0
423	HE	176.0	270.0	222.3	270.3	222.3	3489.3	533.0	114.0	50.3	1491.0	388.7	1423.7	388.7
424	HE	114.1	199.0	203.7	204.4	198.6	2733.1	297.1	171.4	18.7	860.7	545.4	612.4	855.3

425	HE	173.0	269.5	234.5	271.5	234.5	1853.0	312.5	42.0	58.0	835.5	141.5	580.0	141.5
426	HE	212.6	104.2	83.9	110.4	82.4	877.8	165.2	8.1	74.8	443.0	33.8	277.4	41.6
427	HE	222.0	65.0	41.0	68.0	38.0	761.0	148.0	7.0	78.0	411.0	26.0	212.0	37.0
428	HE	130.6	181.5	176.6	187.4	176.1	1255.9	133.5	70.8	18.0	375.4	245.9	322.8	252.7
429	HE	185.6	195.0	187.9	204.7	187.2	1563.3	221.8	35.0	53.4	650.5	136.2	402.8	137.0
430	HE	179.8	145.0	130.0	149.2	130.0	972.2	148.2	20.2	57.4	432.2	72.4	288.4	72.4
431	HE	136.5	140.9	135.1	142.1	135.1	986.7	141.2	46.9	34.4	365.6	154.6	268.7	155.0
432	HE	110.5	263.9	273.8	274.2	259.9	2108.4	377.4	59.0	55.3	967.2	239.4	240.6	383.0
433	HE	173.9	269.9	229.2	270.8	229.2	2157.3	354.3	57.6	55.2	955.6	194.2	672.6	194.2
434	HE	121.7	218.0	218.6	224.9	216.1	2495.2	388.1	55.0	55.2	1104.0	197.9	549.7	488.3
435	HE	116.9	258.0	272.6	272.6	254.5	2341.1	397.0	38.4	55.0	1017.5	172.2	172.2	583.0
436	HE	128.3	192.1	187.4	199.1	186.8	1318.7	139.2	78.4	16.8	394.4	269.6	333.6	272.9
437	HE	114.3	256.6	252.9	262.8	250.0	2500.0	246.5	168.1	12.1	721.9	537.9	620.7	582.4
438	HE	138.7	260.6	253.0	265.3	252.1	2125.9	266.5	78.4	32.4	714.2	281.0	564.6	341.4
439	HE	106.9	259.0	253.9	263.5	252.1	2945.4	326.2	166.3	19.6	936.0	581.9	674.9	592.8
1	MP	114.2	258.8	257.6	262.9	252.8	2939.0	276.9	206.1	9.0	820.7	658.9	713.8	695.2
2	MP	110.3	260.1	255.4	265.4	253.6	2906.3	326.3	179.2	18.0	907.2	579.8	680.3	598.7
3	MP	209.3	115.7	98.6	123.8	97.1	902.5	167.1	8.1	74.6	456.2	33.6	286.9	41.4
4	MP	116.6	262.0	255.6	265.9	255.3	2570.0	293.2	125.1	25.9	828.8	420.4	648.1	420.7
5	MP	135.9	236.1	230.6	243.1	230.6	1668.0	204.6	95.4	22.4	514.8	302.8	424.9	306.1
6	MP	140.5	265.5	256.7	269.0	255.8	1690.3	222.2	53.4	39.4	583.2	196.0	509.2	234.8
7	MP	110.5	261.6	257.9	266.0	254.9	2994.3	316.8	206.6	13.8	900.5	645.3	719.1	667.5
8	MP	131.1	167.1	173.6	175.0	162.4	1776.9	213.4	101.4	22.0	582.3	330.9	386.4	524.6
9	MP	348.1	63.6	180.4	633.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	MP	158.0	267.4	243.8	270.6	243.3	1646.3	285.9	38.9	57.3	730.0	156.3	446.7	183.0
11	MP	169.1	262.5	222.9	263.9	222.9	2140.0	328.4	59.2	52.3	921.3	208.7	720.6	208.7
12	MP	100.9	265.4	276.0	276.1	263.9	2763.2	440.5	48.3	61.4	1256.1	176.8	213.2	1209.9
13	MP	105.8	267.9	276.9	277.2	267.0	1977.3	366.9	16.1	77.1	1018.3	64.4	67.2	883.0
14	MP	108.6	266.6	273.1	275.6	266.3	2080.8	316.4	98.1	41.9	842.3	304.5	374.8	829.9
15	MP	156.7	227.8	200.1	229.5	199.8	1587.9	243.6	33.4	55.9	709.7	132.5	557.9	135.4
16	MP	128.3	202.3	178.3	206.0	176.0	1412.0	218.0	25.7	58.0	623.0	104.0	467.3	112.3
17	MP	97.9	264.7	275.6	275.6	263.4	1956.3	377.8	8.6	81.6	1037.4	39.9	39.9	976.7
18	MP	145.8	198.0	177.2	200.2	174.2	1183.4	217.8	15.8	67.2	585.0	72.4	386.2	81.2
19	MP	99.0	265.0	277.0	279.0	263.0	2482.0	388.0	32.0	61.0	1078.0	137.0	171.0	1022.0
20	MP	133.7	254.4	257.7	260.6	252.5	1878.7	308.6	19.1	65.4	856.5	90.1	226.9	795.0
21	MP	143.4	260.7	250.6	263.3	245.7	1941.5	286.1	37.5	56.0	830.5	123.6	489.5	188.0
22	MP	105.0	266.0	270.0	270.0	264.0	2692.0	404.0	97.0	51.0	1135.0	315.0	315.0	1129.0

23	MP	146.6	259.4	262.6	266.6	258.6	1563.4	267.8	24.8	64.8	737.8	87.4	199.6	660.6
24	MP	118.3	268.3	274.1	274.9	266.3	2289.4	428.0	24.7	78.0	1202.4	90.6	129.5	1163.1
25	MP	143.3	264.3	255.7	267.0	249.7	1934.0	286.0	39.0	56.0	829.7	125.0	413.7	187.3
26	MP	102.7	266.7	275.0	276.3	266.4	2450.3	325.8	81.5	43.0	936.8	288.3	335.0	861.9
27	MP	102.3	268.1	277.4	278.7	267.7	2250.3	295.7	80.9	40.4	828.8	273.9	342.4	808.5
28	MP	103.6	267.0	275.0	276.3	266.5	2578.0	354.1	101.2	38.0	978.2	347.3	394.6	846.1
29	MP	104.4	271.0	285.4	285.4	270.1	2297.6	372.5	45.4	57.5	1015.9	173.0	173.0	970.5
30	MP	102.0	270.0	279.0	280.0	269.0	2165.0	293.0	61.0	46.0	836.0	221.0	274.0	820.0
31	MP	104.8	262.7	276.1	276.8	262.3	1743.8	298.2	32.0	67.0	846.3	114.0	115.0	826.4
32	MP	104.8	265.8	274.0	275.3	265.3	2635.4	396.4	110.1	41.8	1070.6	369.6	378.4	901.1
33	MP	105.3	264.7	271.0	271.0	263.3	2459.0	373.0	84.7	51.0	1036.3	285.3	285.3	1028.3
34	MP	97.4	264.3	276.9	277.9	262.3	2405.2	388.3	23.9	66.1	1101.0	106.1	132.8	1006.6
35	MP	142.0	259.5	258.5	268.5	253.0	2076.5	304.5	19.5	60.0	898.5	102.5	321.0	255.5
36	MP	144.2	254.8	258.4	261.9	254.6	1602.3	271.7	25.3	65.6	760.7	86.1	194.6	684.8
37	MP	160.6	256.5	258.2	266.2	256.4	2291.1	335.5	31.1	57.3	963.6	122.2	460.9	839.1
38	MP	101.7	269.8	279.6	280.4	268.8	2194.9	289.7	69.7	43.4	831.0	242.2	301.4	815.3
39	MP	146.7	241.0	211.0	242.0	210.0	1525.7	234.3	33.3	54.3	671.3	134.0	609.3	142.0
40	MP	154.0	245.0	246.8	252.7	244.7	1987.3	315.7	18.9	62.3	884.8	83.6	372.1	754.7
41	MP	109.0	265.7	272.7	274.1	265.2	2193.1	322.3	102.5	39.6	864.7	326.6	381.4	844.4
42	MP	175.0	271.0	241.0	272.0	228.0	1204.5	200.5	31.5	59.5	546.5	113.0	450.5	146.0
43	MP	167.0	262.0	209.5	262.0	209.5	1541.5	286.5	39.5	57.5	721.0	162.0	721.0	162.0
44	MP	160.0	267.6	256.8	274.8	255.8	1682.3	265.6	14.8	65.3	758.6	66.9	382.9	120.9
45	MP	165.0	268.0	253.0	273.0	252.0	1642.0	266.0	17.3	64.3	748.7	79.0	376.0	127.7
46	MP	175.0	271.0	241.0	272.0	228.0	1204.5	200.5	31.5	59.5	546.5	113.0	450.5	146.0
47	MP	160.8	267.0	243.1	270.0	242.8	1612.8	280.7	36.9	57.7	716.3	140.5	463.3	176.5
48	MP	165.1	257.7	220.7	259.0	220.7	1983.3	299.3	54.3	52.1	856.0	193.4	655.8	193.4
49	MP	143.3	258.1	231.8	259.8	231.8	2215.8	342.8	74.9	51.6	938.0	230.8	710.1	245.3
50	MP	122.7	262.7	277.0	280.0	262.7	2878.3	432.7	59.0	52.7	1199.7	245.3	249.7	1199.7
51	MP	150.4	177.9	153.4	180.2	151.7	1217.4	209.5	18.6	64.2	576.3	81.5	398.4	87.1
52	MP	172.3	239.5	194.7	239.5	190.7	1342.6	240.3	32.2	59.0	624.9	136.4	620.0	146.8
53	MP	172.1	269.9	227.2	270.1	224.7	2250.7	356.0	70.6	52.2	979.3	244.6	920.2	251.6
54	MP	143.6	228.0	202.9	230.6	199.2	1734.6	262.4	51.2	52.9	743.0	173.6	567.3	190.0
55	MP	133.8	257.5	245.3	259.6	244.8	2222.1	285.0	60.7	40.3	796.9	231.0	641.8	305.6
56	MP	105.3	254.6	255.3	260.1	251.4	2903.6	305.4	155.6	20.6	889.7	513.9	598.6	723.6
57	MP	103.0	265.0	271.0	271.0	263.0	2263.0	347.0	70.0	52.0	975.0	248.0	282.0	947.0
58	MP	104.0	264.0	271.0	271.0	263.0	2341.0	356.0	77.0	51.0	995.0	266.0	266.0	977.0
59	MP	103.0	265.0	273.0	274.0	264.0	2451.0	324.0	115.0	32.0	889.0	363.0	412.0	749.0

60	MP	153.0	260.0	241.0	263.0	238.0	1773.0	263.0	26.0	58.0	742.0	100.0	450.0	132.0
61	MP	152.0	247.0	215.0	247.5	214.5	1701.0	251.5	44.0	52.0	736.5	164.0	664.5	179.0
62	MP	113.7	257.7	269.3	272.8	257.1	1559.4	335.5	35.2	78.3	864.2	126.1	150.4	786.7
63	MP	88.2	264.5	263.3	272.6	260.2	2622.3	368.3	111.1	38.4	963.2	397.0	489.1	465.4
64	MP	124.9	249.0	257.2	258.6	248.6	3023.8	418.3	121.7	37.9	1156.5	420.3	489.8	1086.4
65	MP	102.0	262.0	272.0	272.0	258.0	3398.0	545.0	60.0	52.0	1369.0	266.0	268.0	1046.0
66	MP	103.0	266.0	272.0	272.0	256.0	2234.0	368.0	51.0	50.0	927.0	211.0	211.0	612.0
67	MP	130.9	182.7	176.7	189.3	176.4	1259.7	143.5	70.3	21.1	385.7	233.2	335.3	234.8
68	MP	185.2	126.0	113.8	133.7	113.8	1041.6	159.9	20.3	56.7	461.1	79.1	318.0	80.2
69	MP	153.3	220.0	213.3	225.0	213.3	2452.9	345.4	80.2	45.8	984.7	265.9	600.9	269.5
70	MP	117.4	254.1	266.2	267.6	253.1	1916.4	338.7	62.4	61.8	922.5	202.5	212.1	893.2
71	MP	133.0	269.0	288.3	292.7	269.0	2512.7	418.0	36.7	62.0	1158.3	172.0	175.7	1158.3
72	MP	133.0	269.0	288.0	292.5	269.0	2528.0	418.5	37.0	61.5	1162.0	174.5	177.5	1162.0
73	MP	112.0	245.5	251.5	253.5	242.5	3252.0	328.0	209.0	14.5	965.0	677.0	788.0	822.5
74	MP	157.3	250.7	233.8	253.4	233.8	1894.7	255.3	32.5	55.1	757.9	120.2	655.1	120.2
75	MP	103.8	253.6	255.4	258.6	248.8	3513.1	358.9	227.4	14.0	1002.3	715.6	773.3	932.4
76	MP	123.3	259.9	262.9	267.7	258.6	1599.2	339.2	28.4	81.5	874.9	89.1	126.2	379.9
77	MP	185.0	242.0	237.3	247.7	235.3	1925.0	328.7	6.0	74.0	934.3	40.0	230.7	82.0
78	MP	204.6	237.7	241.0	249.6	236.3	2437.3	409.2	10.3	70.2	1104.0	38.4	364.1	1099.2
79	MP	129.0	209.3	213.7	219.7	204.7	2937.7	342.7	168.7	19.7	934.0	552.0	644.0	870.7
80	MP	129.7	176.0	183.7	187.0	173.7	2677.3	339.0	139.3	26.0	917.3	465.3	564.3	880.7
81	MP	176.9	250.4	240.3	253.7	237.6	1594.1	260.9	8.0	68.5	735.5	48.5	374.1	95.4
82	MP	118.0	248.9	261.8	262.0	246.3	2135.8	360.9	45.2	54.1	914.0	162.4	214.0	686.8
83	MP	103.4	261.1	269.9	270.6	260.7	2954.9	383.3	161.9	23.6	968.8	541.2	693.5	863.4
84	MP	204.3	248.9	233.5	254.2	230.7	1807.0	313.5	1.4	79.0	915.3	21.1	446.9	52.4
85	MP	116.6	265.1	274.7	276.8	264.4	1774.4	332.8	48.8	67.5	897.5	161.7	208.5	823.1
86	MP	125.4	254.0	268.5	268.6	252.8	2114.5	383.6	61.6	57.0	973.9	213.2	221.5	622.8
87	MP	147.9	256.2	252.3	266.0	250.2	2258.7	360.9	19.6	64.4	1019.1	86.3	489.9	172.0
88	MP	112.0	266.8	279.3	280.9	266.0	2545.1	406.5	92.6	49.2	1109.0	316.8	317.5	900.7
89	MP	124.4	259.9	275.6	279.3	255.6	2750.7	368.6	51.3	43.8	1048.0	285.7	289.4	1023.0
90	MP	149.1	249.9	253.9	261.5	249.9	2221.4	344.2	18.5	61.3	971.8	94.2	453.0	971.8
91	MP	135.5	259.5	263.1	269.9	259.5	2213.1	311.1	48.3	51.0	900.1	191.6	301.0	900.1
92	MP	109.8	255.0	266.0	266.5	251.2	2529.1	349.3	55.7	51.1	1018.8	189.5	252.1	927.2
93	MP	110.4	255.1	262.7	263.5	255.0	2407.5	339.5	119.8	34.6	908.5	391.2	463.0	890.4
94	MP	110.9	266.6	273.5	277.2	266.5	1894.1	328.5	61.8	58.6	897.4	196.0	307.9	882.2
95	MP	132.3	260.6	260.8	267.9	258.4	2323.7	340.2	33.7	54.5	953.9	143.0	385.0	249.8
96	MP	144.6	256.7	254.3	265.4	250.5	2187.3	333.2	24.3	60.7	947.8	91.0	316.4	180.2

97	MP	138.1	242.2	245.4	248.3	240.1	1893.7	299.2	20.3	62.2	831.4	95.0	254.0	774.9
98	MP	112.3	264.2	272.9	273.2	261.5	2260.1	335.9	55.8	55.5	975.4	193.5	199.0	856.7
99	MP	160.1	258.3	259.3	267.2	258.1	2248.6	330.2	30.5	57.1	960.4	118.8	449.3	770.3
100	MP	132.2	262.9	266.4	273.4	261.5	2256.5	317.3	62.7	48.0	890.1	211.8	391.1	883.8
101	MP	130.2	254.3	260.0	266.7	253.3	2238.0	344.1	53.3	52.7	933.0	196.2	396.3	924.9
102	MP	148.5	257.1	257.0	267.1	254.7	2165.3	339.9	23.2	61.6	922.8	99.0	311.9	189.2
103	MP	136.6	261.3	255.2	265.8	252.5	2013.8	288.7	23.9	58.2	827.6	109.7	486.8	156.7
104	MP	137.5	245.7	248.3	251.8	244.0	1912.2	294.9	19.5	61.3	846.4	104.3	254.5	821.8
105	MP	138.8	260.1	264.2	271.5	260.1	2336.0	325.0	52.9	49.9	930.2	189.8	423.8	930.2
106	MP	145.8	259.1	255.2	267.4	252.9	2165.1	334.1	21.9	62.2	938.6	98.1	466.8	174.2
107	MP	177.6	251.2	253.3	261.5	251.0	2279.3	353.7	18.1	64.5	993.3	78.1	430.9	989.9
108	MP	152.7	254.5	251.0	263.4	248.8	2333.5	382.5	14.5	66.3	1073.8	79.4	470.2	167.8
109	MP	159.3	255.3	255.0	263.1	254.2	2247.5	336.2	21.7	56.7	940.5	110.9	377.4	235.8
110	MP	154.2	253.6	238.2	255.6	238.0	1822.4	261.2	20.3	60.6	771.5	81.7	629.4	132.9
111	MP	144.9	254.9	243.4	256.8	242.2	2209.1	330.4	40.6	54.4	940.6	161.7	502.1	238.4
112	MP	111.6	251.4	264.9	266.2	250.8	1771.1	271.6	50.9	53.4	786.1	190.2	208.6	639.2
113	MP	122.8	263.8	268.4	273.5	263.0	2292.3	317.2	69.4	48.7	915.9	240.5	304.0	904.4
114	MP	141.3	257.0	246.9	259.3	245.2	2162.2	324.7	32.9	55.5	922.8	137.0	499.8	228.6
115	MP	119.4	256.3	264.7	266.5	254.5	1841.7	330.7	43.5	65.9	922.2	177.8	241.6	825.3
116	MP	144.6	257.1	245.3	259.7	244.6	1897.5	268.9	25.7	58.5	788.8	105.7	623.4	154.6
117	MP	154.8	254.5	238.8	256.1	238.1	1827.3	265.9	20.5	59.9	775.8	83.0	619.4	137.3
118	MP	109.3	265.1	279.1	279.1	264.2	2368.0	414.2	60.3	56.2	1050.0	219.9	219.9	937.8
119	MP	122.0	253.7	261.8	266.1	252.7	1867.5	302.6	49.3	59.3	829.7	165.0	205.8	791.3
120	MP	133.3	249.0	252.1	255.4	247.3	1900.8	304.5	19.1	64.3	866.2	98.0	229.0	846.0
121	MP	106.7	264.6	263.1	268.3	260.6	2643.9	327.5	107.4	32.9	910.5	370.2	565.3	516.3
122	MP	170.2	257.4	255.9	264.6	255.2	2279.8	361.0	15.7	60.8	1001.5	99.2	372.4	177.9
123	MP	122.6	262.5	262.1	268.0	260.5	2553.4	327.6	56.2	46.3	960.8	219.1	482.2	334.2
124	MP	168.8	255.2	252.5	261.6	251.3	2296.3	366.3	13.0	64.3	1028.5	77.2	343.5	149.6
125	MP	109.0	266.2	279.1	279.2	265.3	2319.4	380.2	75.0	51.3	1018.7	259.3	259.3	841.0
126	MP	160.0	252.0	249.0	260.0	247.0	2310.0	362.0	6.0	67.0	1024.0	59.0	322.0	138.0
127	MP	164.0	250.0	248.0	258.0	245.0	2154.0	348.0	4.0	69.0	999.0	52.0	277.0	114.0
128	MP	150.8	256.1	254.9	265.5	252.9	2186.8	345.2	21.8	62.0	943.5	95.7	387.7	175.7
129	MP	140.6	259.0	258.1	267.8	253.0	2121.5	317.6	17.5	60.7	916.5	107.9	313.1	162.8
130	MP	160.0	252.0	248.0	260.0	246.0	2301.0	361.0	8.0	67.0	1025.0	65.0	322.0	141.0
131	MP	160.4	251.2	248.2	259.2	245.6	2305.4	361.0	5.6	67.0	1018.4	56.4	323.0	134.2
132	MP	159.0	252.0	249.0	260.0	247.0	2307.0	362.0	7.0	67.0	1027.0	63.0	322.0	140.0
133	MP	142.0	259.0	257.3	267.3	252.0	2072.7	298.7	22.3	59.7	885.0	101.3	320.0	347.0

134	MP	160.0	252.0	249.0	260.0	246.0	2306.0	359.0	5.0	67.0	1018.0	55.0	322.0	135.0
135	MP	115.6	255.4	265.8	266.2	251.6	2784.5	411.6	49.9	54.4	1141.0	191.5	222.8	1023.1
136	MP	157.2	248.9	252.2	259.6	248.9	2139.7	338.7	9.8	62.6	949.9	80.2	456.3	948.8
137	MP	163.9	253.0	251.7	260.9	250.1	2332.1	375.8	12.2	67.4	1059.8	65.7	312.8	138.7
138	MP	114.6	264.8	273.3	275.5	264.2	2240.1	301.9	80.8	46.0	897.5	267.7	280.4	892.3
139	MP	113.0	251.2	264.2	265.4	249.5	2068.3	320.0	51.6	50.8	865.9	191.7	248.7	697.3
140	MP	104.0	266.6	275.3	276.7	266.0	2523.3	344.6	112.8	34.8	948.9	364.5	399.3	776.1
141	MP	171.4	254.5	252.2	261.3	251.2	2250.6	359.5	13.8	62.9	992.6	84.1	344.5	155.2
142	MP	125.0	260.4	262.1	268.2	259.9	2360.7	333.7	49.9	50.7	961.4	186.0	351.0	494.6
143	MP	119.6	261.1	275.2	275.3	260.2	2366.3	376.9	95.6	49.2	1045.5	302.1	304.6	719.4
144	MP	107.2	256.7	264.9	264.9	249.7	2531.3	350.2	95.9	36.8	955.6	327.3	355.4	638.0
145	MP	122.3	264.5	262.5	270.3	256.4	1417.7	208.5	60.0	37.2	545.5	213.9	320.1	272.3
146	MP	120.5	252.8	254.8	264.9	251.4	1444.3	243.7	24.6	64.4	715.7	104.0	240.2	143.9
147	MP	118.4	256.2	256.4	266.4	253.4	1477.0	236.4	33.8	54.8	675.2	140.6	262.6	188.2
148	MP	142.2	261.1	283.6	286.5	261.1	2492.7	439.4	18.4	72.9	1244.1	94.2	233.3	1244.1
149	MP	120.2	229.3	229.3	236.6	226.8	2155.0	337.0	49.3	54.7	960.0	180.8	458.6	348.6
150	MP	124.3	254.6	257.0	266.6	253.6	1541.1	308.4	19.1	77.4	835.4	70.9	236.0	94.0
151	MP	126.7	248.8	251.5	257.5	247.8	2658.2	434.8	40.5	64.6	1236.5	157.5	514.5	578.5
152	MP	109.3	260.0	257.0	265.8	252.8	1849.4	266.8	72.7	37.8	696.3	254.2	432.7	333.1
153	MP	119.6	253.7	257.3	265.4	253.6	2046.9	379.1	28.5	75.1	1086.7	102.1	318.7	971.2
154	MP	134.9	247.0	264.1	267.7	246.8	2979.3	491.6	44.3	61.9	1366.6	196.3	272.6	1364.8
155	MP	130.0	308.9	310.4	324.8	302.5	1262.6	347.0	15.1	105.8	834.5	83.0	92.1	84.6
156	MP	103.0	261.0	271.0	271.0	258.0	3365.0	536.0	59.0	52.0	1350.0	264.0	264.0	1027.0
157	MP	133.0	264.0	283.0	286.0	264.0	2976.0	481.0	49.0	59.0	1344.0	222.0	231.0	1344.0
158	MP	168.5	247.8	210.8	248.3	197.5	1231.3	177.0	30.5	44.3	489.3	140.3	462.3	180.0
159	MP	123.7	237.5	241.2	245.9	236.4	2991.7	468.1	65.2	55.9	1317.7	246.1	549.8	849.8
160	MP	100.6	271.2	281.0	281.0	266.2	1875.0	283.6	64.0	45.0	784.4	241.2	256.4	364.6
161	MP	104.0	265.2	276.2	276.2	260.4	1989.8	300.0	80.0	38.8	756.0	280.6	301.2	459.0
162	MP	107.0	264.0	274.7	274.7	257.5	2137.7	318.8	83.5	42.0	847.8	271.3	317.5	492.2
163	MP	110.0	254.4	266.8	266.8	249.4	2390.8	346.8	71.5	41.3	923.8	269.6	269.6	580.4
164	MP	150.4	253.5	241.5	256.5	241.0	1990.5	259.9	46.8	50.2	765.3	161.4	635.4	187.5
165	MP	120.8	262.4	270.4	274.1	262.0	2263.6	327.4	71.4	49.1	924.9	243.3	285.5	923.6
166	MP	172.0	225.7	186.2	225.7	180.8	1229.4	198.7	30.4	53.1	540.8	141.5	539.4	165.0
167	MP	102.8	268.6	276.6	277.8	268.2	2558.1	343.2	85.9	42.5	985.1	305.3	356.7	856.9
168	MP	139.7	246.4	221.8	248.3	221.7	3053.4	462.3	109.7	48.8	1271.1	356.0	1015.9	359.6
169	MP	118.6	249.1	257.9	258.0	244.3	2412.3	366.4	59.7	46.4	957.6	220.7	226.5	732.4
170	MP	158.4	254.2	253.3	262.4	251.7	2414.2	377.9	16.4	65.1	1071.5	79.0	336.3	162.2

171	MP	121.8	217.6	218.1	224.5	215.7	2501.1	388.7	55.3	55.1	1105.0	198.6	553.1	488.6
172	MP	200.1	207.5	164.9	210.8	164.2	1876.5	322.7	52.8	63.9	856.1	184.6	680.7	192.4
173	MP	119.8	147.1	150.3	152.1	143.2	1851.1	200.2	114.3	18.1	566.6	368.2	399.4	526.8
174	MP	152.3	238.4	231.8	244.1	231.5	2037.6	237.2	95.7	27.8	650.6	311.6	600.3	329.2
175	MP	122.3	248.8	257.3	257.4	244.0	2422.8	372.5	58.7	47.6	964.9	214.4	233.6	756.3
176	MP	121.2	258.4	267.7	267.7	254.7	3511.2	569.9	39.0	60.8	1495.6	180.6	181.8	1266.1
177	MP	144.8	254.6	258.6	266.3	254.6	2529.8	389.4	41.1	56.3	1052.3	148.9	523.3	1052.3
178	MP	113.4	250.8	264.8	265.2	248.7	2710.5	326.2	132.5	28.3	941.5	419.4	478.3	861.4
179	MP	126.6	210.7	215.2	221.2	206.2	2912.2	346.5	166.2	20.7	938.9	544.1	641.1	866.2
180	MP	105.1	263.9	270.2	271.3	262.9	2634.8	338.0	142.3	29.0	925.3	444.9	460.1	839.2
181	MP	174.2	256.5	254.6	263.8	254.1	2271.8	365.7	14.9	62.5	1007.1	92.3	365.3	176.1
182	MP	107.5	241.4	248.3	248.4	235.0	2959.2	452.3	99.8	43.0	1214.2	376.6	400.8	611.6
183	MP	126.5	135.6	144.9	146.2	131.5	1716.3	222.6	84.0	28.0	590.0	285.5	354.9	567.0
184	MP	144.3	223.7	197.7	226.3	197.3	1906.3	294.4	53.6	54.4	823.0	179.1	610.4	191.3
185	MP	153.9	236.2	226.2	241.5	225.1	2245.9	305.9	70.8	46.8	874.9	237.6	670.7	244.8
186	MP	137.0	260.1	258.3	267.7	254.8	2045.3	301.2	22.1	58.8	857.4	105.8	358.6	169.1
187	MP	120.6	249.8	260.3	260.6	245.9	2413.1	371.8	54.8	50.6	987.4	191.7	237.1	802.0
188	MP	118.4	198.7	196.6	205.3	196.1	1752.4	285.3	51.3	52.8	795.1	213.9	311.2	257.4
189	MP	116.8	259.6	262.9	267.8	259.5	2519.2	354.4	55.7	49.3	984.0	210.6	376.7	977.2
190	MP	108.8	193.0	197.8	198.6	191.5	2684.1	337.4	128.5	31.6	962.0	409.7	536.4	918.5
191	MP	107.3	258.1	253.3	261.1	250.9	2790.7	304.7	156.5	20.7	859.4	498.0	695.7	613.2
192	MP	104.4	262.7	260.9	265.5	253.3	3011.5	330.7	196.8	17.3	965.7	645.2	671.5	684.4
193	MP	106.6	152.9	153.1	156.3	150.1	1901.1	201.6	118.9	17.0	558.2	392.0	526.2	456.9
194	MP	106.7	201.0	204.1	206.4	197.1	2043.9	242.8	77.1	30.1	667.9	287.8	377.7	568.9
195	MP	108.5	142.0	146.0	148.5	138.0	2496.5	325.5	111.5	32.5	899.0	377.5	645.5	771.0
196	MP	111.0	250.0	263.0	263.2	247.3	2816.4	335.3	122.7	30.0	963.1	405.8	470.9	909.7
197	MP	101.9	256.9	253.1	260.8	250.3	3215.0	346.1	175.5	20.1	1011.5	602.7	786.5	691.9
198	MP	110.5	195.1	199.9	200.6	194.2	2982.4	367.8	163.1	28.1	1040.0	505.9	608.2	995.3
199	MP	116.0	256.7	268.9	270.8	252.0	2722.5	343.3	68.9	36.6	945.4	321.6	375.9	900.3
200	MP	126.6	251.8	265.0	268.6	248.2	2734.0	360.0	43.7	45.1	1031.1	243.7	286.3	969.2
201	MP	101.6	108.1	109.9	114.2	105.1	1985.7	257.3	57.3	38.2	723.1	227.5	482.5	621.5
202	MP	126.4	257.5	264.2	267.0	251.7	2974.7	381.2	77.3	37.4	1081.0	332.7	459.8	922.9
203	MP	102.1	259.2	256.1	261.9	250.7	3045.8	330.7	192.4	17.1	948.8	617.6	697.2	680.4
204	MP	184.1	245.0	225.0	247.4	223.2	1575.5	279.6	13.4	69.3	747.2	61.0	368.3	98.9
205	MP	193.8	174.3	166.2	185.4	165.5	1502.5	213.8	32.2	51.6	624.3	135.6	398.0	139.2
206	MP	167.4	244.5	240.7	251.5	237.5	1900.3	303.1	17.6	62.6	865.1	81.4	286.2	139.6
207	MP	116.0	238.8	245.1	246.5	238.4	2450.7	347.2	113.5	34.4	917.0	386.7	471.0	823.5

208	MP	106.5	256.0	263.6	264.4	255.3	2904.6	353.0	174.3	21.7	951.0	573.2	631.1	914.4
209	MP	125.9	156.6	152.4	159.4	149.4	1322.9	166.2	73.6	26.6	456.2	243.0	296.7	267.8
210	MP	166.5	169.3	157.2	173.3	157.2	1058.1	156.3	31.7	47.5	405.9	97.6	328.2	97.6
211	MP	182.9	251.7	252.1	260.9	251.2	2412.2	360.2	17.5	64.5	1051.4	76.1	409.7	669.5
212	MP	125.6	142.6	148.9	150.0	138.6	1975.2	255.7	104.6	27.6	675.0	342.4	388.6	637.5
213	MP	161.2	258.8	252.1	266.3	250.2	1597.7	255.7	8.5	64.2	726.3	53.9	356.0	116.5
214	MP	112.7	260.8	268.8	270.8	260.6	1889.3	308.3	66.9	52.8	846.0	221.0	286.0	802.5
215	MP	139.2	257.9	248.1	261.8	247.5	2081.7	285.1	55.3	43.4	758.9	207.9	574.1	277.6
216	MP	143.9	245.0	248.1	253.8	245.0	1880.0	316.5	23.2	62.2	863.5	99.2	283.9	863.5
217	MP	114.6	247.2	255.4	256.0	247.0	3031.3	375.8	175.6	24.0	1031.3	577.3	605.5	979.8
218	MP	125.6	181.2	187.8	190.0	179.0	3354.6	393.4	187.1	24.6	1116.2	600.1	663.7	1056.1
219	MP	157.0	221.0	214.0	226.5	214.0	1666.0	223.5	60.0	42.5	626.5	184.0	527.0	184.0
220	MP	217.1	84.7	57.6	92.5	57.5	1007.7	196.3	17.0	68.7	503.3	71.0	300.1	74.8
221	MP	113.8	266.1	274.9	277.5	265.5	1862.7	342.9	53.3	63.5	918.4	177.0	252.2	838.6
222	MP	180.3	173.2	148.3	175.4	148.2	970.1	185.0	13.0	70.4	498.4	57.1	396.7	57.9
223	MP	178.3	264.3	221.5	265.2	220.5	2973.1	466.2	86.4	52.9	1277.2	294.6	1090.8	295.1
224	MP	129.5	128.3	123.6	129.7	123.6	1008.7	163.6	39.1	47.3	432.0	130.5	225.1	132.6
225	MP	168.6	190.7	178.2	194.4	178.2	1578.8	224.3	43.5	51.5	649.8	147.5	442.9	147.8
226	MP	133.1	263.4	278.6	280.8	262.4	3227.5	475.9	70.4	53.1	1372.1	266.3	300.0	1290.1
227	MP	112.0	246.4	256.5	257.4	244.4	2946.2	322.5	180.7	18.6	912.9	554.0	634.8	832.6
228	MP	151.6	254.3	240.5	256.8	240.3	1872.2	264.7	21.4	59.8	782.6	94.2	655.7	132.6
229	MP	180.7	246.3	232.0	248.8	229.7	1570.3	270.8	10.1	69.8	741.1	53.0	378.6	91.0
230	MP	201.9	248.7	250.2	260.9	248.1	2373.8	393.0	11.1	69.9	1091.6	50.2	342.9	952.8
231	MP	150.2	253.9	250.4	262.4	248.4	1816.4	278.5	17.5	60.5	796.7	78.8	301.2	144.2
232	MP	165.6	252.7	250.3	259.4	248.6	2322.0	374.8	11.6	66.9	1052.7	66.1	321.2	138.5
233	MP	177.0	254.3	251.5	261.1	250.4	2160.7	358.3	10.5	66.5	986.3	69.3	307.3	129.9
234	MP	110.2	261.3	267.2	270.7	261.2	2593.5	345.1	71.5	43.3	983.9	270.2	502.8	975.9
235	MP	104.7	262.0	276.7	276.7	261.7	1700.7	291.0	31.3	67.7	833.0	104.0	104.0	801.0
236	MP	104.4	265.8	272.9	274.5	265.3	2514.8	347.8	106.2	37.5	959.8	362.7	389.3	835.4
237	MP	102.6	267.8	276.9	277.9	267.4	2465.5	326.9	87.8	40.7	915.8	301.0	359.2	844.1
238	MP	112.6	254.2	261.7	262.8	253.9	1991.7	308.7	62.4	47.2	838.5	230.0	362.6	773.3
239	MP	143.5	249.6	253.5	257.0	249.3	1624.4	273.1	25.0	65.5	765.2	86.6	197.9	691.6
240	MP	168.1	257.8	248.8	263.3	246.3	1539.0	254.4	6.9	67.9	712.2	42.7	351.6	94.8
241	MP	174.3	254.8	253.0	262.2	252.2	2255.6	364.3	13.5	62.8	997.4	87.1	351.3	158.1
242	MP	102.0	268.0	278.0	279.0	267.0	2172.0	289.0	67.0	44.0	824.0	235.0	290.0	807.0
243	MP	164.7	252.1	250.7	260.1	248.8	2248.9	365.8	10.2	69.4	1040.7	58.2	280.2	123.6
244	MP	104.8	264.8	271.0	271.0	263.3	2388.0	360.5	81.0	50.5	1007.3	276.5	276.5	994.8

245	MP	191.7	255.4	249.4	261.3	248.9	2133.0	344.1	4.0	72.5	1006.6	32.0	555.7	59.3
246	MP	145.5	247.0	219.5	249.0	219.0	1943.0	301.5	65.5	52.0	826.5	205.0	585.5	232.0
247	MP	173.4	267.3	237.1	268.7	237.0	1616.0	266.8	29.0	61.5	742.1	106.4	536.1	138.3
248	MP	173.3	263.0	223.6	266.1	223.6	1862.5	305.3	49.8	55.2	825.0	170.1	564.7	170.1
249	MP	107.3	256.3	267.5	268.0	252.5	2458.5	341.0	71.8	44.0	968.3	247.8	326.3	851.8
250	MP	157.9	224.0	196.4	225.2	196.4	1421.2	226.5	26.1	58.4	649.7	107.1	535.8	112.9
251	MP	172.9	257.4	243.2	260.6	241.1	1489.0	246.7	8.4	69.0	693.6	47.9	351.8	94.1
252	MP	206.8	250.0	242.0	259.0	238.0	1819.8	308.5	2.0	77.0	893.0	15.0	469.3	50.0
253	MP	142.0	251.0	254.0	257.0	248.0	1758.0	290.0	18.0	65.0	766.0	80.0	232.0	715.0
254	MP	101.2	117.6	121.6	122.6	114.2	2075.8	232.4	110.0	23.2	676.0	357.2	567.4	578.4
255	MP	107.7	171.0	174.0	175.7	168.3	2351.0	293.7	111.0	30.7	832.0	357.3	539.3	774.7
256	MP	110.6	256.4	263.5	263.6	251.9	3359.6	510.7	78.2	47.8	1279.2	305.3	311.8	1043.0
257	MP	86.0	145.0	146.5	147.5	141.5	1638.0	208.5	87.0	27.5	532.5	300.5	413.5	339.0
258	MP	126.0	263.0	271.0	275.0	256.0	2932.0	389.0	40.0	49.0	1090.0	218.0	271.0	1018.0
259	MP	129.5	262.0	278.0	282.5	258.0	2838.0	376.5	35.0	48.0	1056.5	227.5	243.0	1010.5
260	MP	122.1	243.2	246.4	250.7	242.3	3105.1	463.0	84.1	49.1	1291.2	305.0	628.0	932.0
261	MP	105.8	264.5	272.8	272.8	256.8	2015.5	319.3	43.3	51.0	828.3	170.5	170.5	539.0
262	MP	106.7	258.2	260.8	264.7	255.3	3100.1	347.0	177.5	21.3	999.2	570.1	626.3	819.7
263	MP	112.5	257.0	265.0	265.0	254.0	3813.8	589.8	80.0	49.5	1495.5	320.5	324.0	1189.5
264	MP	98.2	264.6	275.7	275.7	263.3	1928.1	375.2	8.5	82.1	1028.2	39.6	39.6	964.1
265	MP	105.5	262.9	267.5	269.2	261.1	2915.6	342.2	163.0	24.9	989.1	514.0	549.9	882.3
266	MP	169.1	256.9	254.2	263.2	253.1	2288.3	362.7	13.9	63.2	1014.5	82.4	349.4	155.7
267	MP	171.9	259.7	258.1	266.9	257.6	2315.6	365.9	15.0	61.2	1027.6	101.8	389.4	183.2
268	MP	110.3	266.4	273.0	275.7	265.0	2242.6	286.5	90.5	40.5	833.2	284.2	303.8	825.5
269	MP	119.8	255.7	251.6	259.6	251.0	2668.7	329.2	84.0	39.2	951.6	307.3	613.7	407.4
270	MP	125.7	261.7	265.0	270.9	261.7	2443.1	330.6	51.5	48.4	966.6	198.2	503.2	966.6
271	MP	110.7	263.2	270.3	272.7	263.2	2449.1	317.6	75.5	42.4	928.0	261.8	356.4	928.0
272	MP	108.8	252.6	264.7	265.2	249.6	2414.6	335.8	60.8	46.9	948.9	218.0	270.7	827.4
273	MP	102.1	267.1	276.1	277.3	267.1	2616.3	359.6	71.3	48.4	1057.2	271.6	311.4	978.9
274	MP	102.2	268.3	278.2	279.2	268.0	2310.7	304.5	68.0	45.7	893.2	247.5	299.5	888.2
275	MP	105.2	267.2	277.5	277.6	266.3	2171.8	320.5	81.4	46.5	868.3	264.9	265.1	833.6
276	MP	108.3	261.2	266.9	270.2	261.2	2594.6	342.6	76.1	41.3	951.9	284.8	404.2	949.0
277	MP	106.1	265.7	275.5	276.3	262.8	2521.2	333.8	56.8	46.7	962.3	245.3	272.9	921.1
278	MP	106.7	257.8	260.3	264.3	254.8	3092.1	343.2	176.6	20.9	989.8	570.9	626.2	816.5
279	MP	106.3	261.1	264.8	269.2	260.7	2473.4	321.4	85.2	39.9	872.3	291.4	395.7	863.1
280	MP	112.1	259.8	264.0	268.7	259.8	2616.7	355.3	64.2	45.3	993.3	251.3	513.6	991.7
281	MP	113.2	263.0	269.5	272.6	262.9	2439.5	321.4	70.2	43.7	936.7	254.4	406.1	933.0

282	MP	118.9	258.3	253.9	262.2	253.9	2467.6	313.6	64.7	42.7	901.6	258.1	546.3	344.2
283	MP	133.0	182.7	181.3	187.6	176.5	1639.5	182.6	103.3	18.1	505.7	333.3	367.5	368.2
284	MP	113.6	266.0	274.6	276.7	265.6	1862.6	323.6	59.0	59.3	884.0	193.1	263.2	812.5
285	MP	106.7	255.1	255.6	260.4	251.5	2914.0	301.5	157.1	20.0	886.6	515.8	613.6	711.7
286	MP	190.5	236.0	226.5	241.0	225.5	1933.0	354.5	4.0	76.0	957.0	35.5	449.0	67.0
287	MP	106.7	266.1	275.6	275.6	265.3	2384.5	392.5	93.2	47.2	1020.9	306.0	314.2	880.3
288	MP	174.0	270.0	223.0	270.0	223.0	3391.0	518.8	110.5	50.8	1450.5	378.0	1450.5	378.0
289	MP	110.5	261.1	263.9	267.9	260.8	2450.5	309.6	77.4	44.0	906.5	254.2	366.0	899.3
290	MP	167.8	251.6	249.6	258.9	247.7	2207.7	364.6	8.8	69.5	1022.0	55.1	283.9	117.9
291	MP	109.4	253.7	266.4	267.0	251.3	2267.3	328.8	52.1	49.3	908.4	192.1	238.1	772.4
292	MP	131.2	253.4	256.7	259.9	251.9	1901.0	311.4	19.2	66.1	882.4	95.8	213.5	875.0
293	MP	100.9	262.1	274.8	274.8	259.6	2901.9	443.7	14.7	70.4	1304.4	81.2	92.9	1256.3
294	MP	136.3	260.5	263.2	269.9	260.4	2242.6	315.0	46.6	51.4	911.1	186.0	322.2	910.7
295	MP	144.7	246.5	250.3	256.8	246.4	1897.5	308.3	16.5	63.3	864.8	91.1	355.6	860.8
296	MP	119.6	260.0	268.1	269.7	258.5	1758.9	329.4	36.1	69.4	908.0	160.0	240.0	813.8
297	MP	160.3	261.1	255.8	271.0	254.8	1647.3	259.8	7.0	64.5	737.3	47.4	371.4	131.3
298	MP	138.0	258.8	257.3	267.4	253.5	1940.9	278.0	25.0	58.2	807.5	99.7	295.5	157.9
299	MP	124.3	160.1	164.0	166.0	153.9	2535.5	298.2	141.8	22.3	833.6	462.9	537.5	747.0
300	MP	154.9	258.3	254.0	267.1	252.8	1688.3	260.3	11.2	61.8	747.0	61.9	381.2	136.6
301	MP	118.9	253.2	264.2	267.2	252.2	3242.9	407.4	121.2	34.6	1180.3	449.3	469.9	1106.1
302	MP	106.0	254.0	263.0	263.0	251.5	3772.5	545.5	90.0	44.5	1404.0	359.0	359.0	1150.5
303	MP	176.2	259.3	236.7	260.7	235.2	1418.3	237.4	13.7	67.6	665.2	63.1	420.0	103.4
304	MP	113.8	250.5	264.9	265.5	248.3	2787.4	329.1	131.7	27.7	955.7	434.8	475.1	875.0
305	MP	134.5	242.9	226.7	245.7	226.3	3588.4	498.9	143.3	41.0	1389.8	475.1	1038.5	483.6
306	MP	183.7	197.4	188.8	206.0	188.2	1656.1	233.6	39.3	49.8	677.7	157.3	447.2	160.6
307	MP	129.8	188.3	184.3	194.9	183.6	1316.7	138.8	74.3	17.2	393.3	258.8	332.9	269.6
308	MP	156.7	229.0	221.5	234.1	221.1	2033.0	275.7	67.6	43.9	773.3	218.4	548.3	250.7
309	MP	114.2	252.3	267.4	267.9	249.9	2831.6	344.9	120.5	30.5	995.0	414.4	492.5	914.4
310	MP	173.3	224.6	217.6	231.9	217.4	1726.7	238.3	42.2	49.0	695.0	161.1	480.5	162.3
311	MP	149.7	256.2	242.8	258.3	242.4	1874.2	253.0	32.5	54.8	741.4	120.7	647.4	154.9
312	MP	124.5	227.5	230.2	237.2	222.4	2741.8	272.0	180.1	11.9	793.7	600.5	632.2	717.6
313	MP	146.9	229.4	220.9	232.1	220.9	2418.1	331.8	79.6	46.3	957.0	255.5	631.9	259.3
314	MP	169.2	263.1	228.3	266.2	228.3	1786.4	294.8	49.3	54.5	784.9	168.9	521.5	168.9
315	MP	157.8	252.9	223.0	254.0	219.7	1808.5	268.9	58.5	49.9	771.1	200.7	585.4	207.9
316	MP	111.1	248.5	259.0	259.9	246.5	2928.0	329.5	160.6	22.7	940.1	508.4	582.9	875.7
317	MP	122.0	125.8	131.4	133.3	120.8	1974.1	227.5	108.4	22.2	646.5	354.0	412.9	592.6
318	MP	113.3	217.9	222.6	224.4	217.4	2667.0	287.7	169.5	16.8	817.3	525.9	603.9	808.1

319	MP	109.7	159.7	160.7	163.7	158.7	1742.3	187.7	105.0	19.7	520.3	351.0	499.0	483.3
320	MP	114.2	262.3	259.0	268.8	257.4	2753.5	285.8	159.3	18.2	814.1	525.4	708.4	533.2
321	MP	157.8	262.7	241.9	265.4	240.2	1804.4	276.5	36.9	56.4	770.2	128.6	464.7	157.7
322	MP	216.6	82.6	55.4	88.4	55.4	970.3	191.4	16.3	70.7	491.4	66.1	292.4	67.7
323	MP	125.7	267.9	261.0	270.1	260.0	2434.9	256.8	116.7	22.6	734.0	408.4	614.5	479.5
324	MP	122.0	268.1	263.2	271.3	262.0	2262.3	255.5	107.7	24.5	694.3	373.7	597.0	445.3
325	MP	113.0	251.8	260.8	261.2	249.3	2769.8	277.0	183.4	13.3	808.3	574.8	597.5	765.0
326	MP	145.0	259.8	235.8	261.8	235.8	2664.1	405.0	83.8	51.1	1110.9	273.6	931.1	277.4
327	MP	108.0	247.0	256.0	256.0	242.0	4033.0	448.0	189.0	25.0	1323.0	633.0	633.0	1150.0
328	MP	140.9	257.7	248.0	261.8	247.8	1810.8	259.9	33.6	51.8	704.2	136.4	515.7	184.9
329	MP	139.7	256.2	245.8	260.0	245.7	1853.1	262.9	32.9	51.7	713.2	136.2	597.9	179.0
330	MP	161.7	249.3	246.7	257.3	244.3	2249.3	355.3	6.3	67.0	1007.0	60.3	312.7	130.0
331	MP	169.0	247.3	245.0	255.1	242.4	1875.1	318.9	0.4	73.8	901.0	39.6	205.4	88.0
332	MP	146.0	257.7	245.4	258.9	243.1	2040.1	303.1	32.3	55.5	855.5	133.9	486.5	212.5
333	MP	117.0	265.9	271.8	271.8	263.8	2567.8	434.8	49.3	67.8	1252.7	176.7	177.6	1150.1
334	MP	106.8	254.8	258.6	261.6	251.4	2992.8	323.1	167.4	20.2	947.8	569.0	584.0	814.1
335	MP	107.3	261.0	261.0	265.5	257.0	2898.0	351.8	139.1	28.4	971.9	449.3	619.5	605.2
336	MP	160.7	261.0	254.1	268.8	252.7	1616.1	256.8	7.4	64.2	726.7	50.2	367.5	123.6
337	MP	128.0	262.4	260.8	267.6	259.4	2488.8	339.8	44.3	50.0	979.5	182.6	559.4	291.2
338	MP	165.3	249.3	247.0	257.0	244.2	2110.8	342.7	2.2	70.5	976.3	45.0	265.3	106.3
339	MP	104.2	264.8	267.1	270.1	262.2	2191.4	265.2	83.5	34.8	736.8	291.3	353.8	553.0
340	MP	153.9	253.7	238.2	255.2	237.6	1960.0	291.2	24.0	58.8	829.1	101.5	653.0	160.8
341	MP	153.7	255.8	239.6	258.0	238.1	1769.7	255.6	22.6	59.4	741.8	85.6	490.6	125.7
342	MP	112.0	257.8	268.5	269.3	257.8	2639.5	515.8	19.3	79.0	1404.0	73.8	128.8	1404.0
343	MP	145.0	265.0	265.0	270.0	263.0	1606.0	320.0	10.0	81.0	846.0	54.0	107.0	121.0
344	MP	169.0	262.0	251.5	268.5	249.5	1498.0	252.5	5.0	69.5	695.0	35.0	334.5	85.5
345	MP	96.0	265.0	276.0	276.0	263.0	1541.0	318.0	4.0	90.0	892.0	27.0	27.0	825.0
346	MP	142.2	263.2	265.3	269.7	263.2	1690.3	327.5	12.0	79.3	882.7	57.5	120.5	758.3
347	MP	166.8	249.8	247.3	257.5	244.8	2052.8	337.3	1.5	71.8	967.0	43.0	246.5	100.3
348	MP	167.0	251.0	248.7	259.0	246.0	2064.0	345.7	1.7	73.0	993.7	43.7	240.0	98.3
349	MP	166.0	255.0	252.3	261.2	250.9	2343.7	373.8	12.8	65.2	1054.4	73.3	341.8	148.4
350	MP	171.8	252.5	249.3	258.7	247.6	2132.5	359.8	8.0	69.8	1000.2	54.2	281.8	111.7
351	MP	111.3	265.2	273.3	273.7	262.2	2468.0	320.0	81.3	41.6	924.4	307.2	311.5	868.3
352	MP	118.0	269.6	274.7	275.6	267.5	2437.3	438.6	35.4	75.7	1284.7	128.8	139.1	1203.3
353	MP	162.0	250.0	247.0	257.0	244.0	2271.0	358.0	5.0	67.0	1011.0	56.0	316.0	129.0
354	MP	169.0	250.0	247.0	257.0	245.0	1941.0	317.0	1.0	72.0	911.0	39.0	226.0	94.0
355	MP	134.9	261.3	257.8	267.3	254.8	2009.1	286.6	22.9	58.9	835.8	103.4	456.0	149.9

356	MP	143.2	258.4	255.7	266.6	252.4	2046.1	307.1	26.7	59.2	870.2	94.2	303.4	173.8
357	MP	168.0	249.0	246.0	256.0	243.0	1982.0	320.0	1.0	71.0	918.0	40.0	236.0	98.0
358	MP	116.8	259.5	263.1	268.1	259.3	2648.0	385.4	53.0	49.2	1037.3	220.5	470.3	1028.7
359	MP	141.7	260.2	258.3	268.9	254.6	2196.7	340.1	19.1	61.7	944.8	109.5	308.1	173.4
360	MP	99.8	261.7	272.9	272.9	261.0	2680.5	510.2	27.6	78.0	1409.3	97.5	97.5	1270.6
361	MP	107.3	264.9	273.5	273.5	263.2	2820.7	398.6	82.5	48.1	1153.1	285.1	354.3	1117.7
362	MP	110.3	257.9	268.9	269.5	257.9	2666.4	524.5	19.9	80.2	1426.5	73.8	131.5	1343.5
363	MP	166.3	249.8	247.5	257.5	244.8	2123.5	345.5	3.5	71.5	1011.8	49.3	257.3	105.5
364	MP	116.0	256.0	269.0	269.0	256.0	2459.0	496.0	6.0	82.0	1333.0	34.0	34.0	1333.0
365	MP	112.0	257.0	270.0	270.0	257.0	2234.0	450.0	6.0	80.0	1177.0	35.0	35.0	1177.0
366	MP	109.0	258.0	271.0	271.0	258.0	2157.5	427.5	7.5	78.5	1105.5	39.0	39.0	1105.5
367	MP	89.6	267.2	280.6	280.6	265.7	2893.3	536.0	8.6	82.3	1544.6	56.8	92.0	1404.6
368	MP	118.0	255.0	268.0	268.0	255.0	2576.0	501.0	10.0	80.0	1373.0	48.0	48.0	1373.0
369	MP	103.3	260.7	271.7	271.7	260.3	2675.3	519.0	25.7	79.0	1417.0	90.7	90.7	1264.3
370	MP	96.5	264.0	274.5	274.5	262.5	2678.0	502.5	28.0	77.5	1402.0	100.5	100.5	1273.0
371	MP	167.7	248.7	246.7	256.7	243.7	2083.7	352.7	2.0	73.3	1009.3	43.3	239.7	97.3
372	MP	114.7	259.4	255.2	263.0	255.2	2513.1	311.5	75.3	38.2	871.4	297.1	560.9	345.1
373	MP	131.4	261.4	256.3	265.6	254.7	2244.3	311.4	38.6	52.5	893.0	152.9	521.6	237.9
374	MP	164.5	250.0	248.5	259.0	245.5	2171.0	348.5	5.5	68.5	1001.5	56.0	285.5	118.0
375	MP	176.2	253.1	240.8	256.0	238.3	1552.0	256.8	7.3	69.7	723.5	46.3	374.8	94.6
376	MP	167.0	249.5	247.0	257.0	244.5	2024.5	332.5	1.0	72.0	952.5	41.5	241.0	98.0
377	MP	106.1	260.1	272.9	273.1	259.4	1941.8	340.6	26.8	69.5	949.6	111.1	111.9	792.1
378	MP	107.2	263.9	274.6	275.4	260.9	2393.3	343.4	47.1	50.5	974.1	206.9	228.4	816.9
379	MP	164.6	260.1	252.0	267.1	250.0	1555.1	255.7	7.0	66.8	714.8	44.6	344.3	101.6
380	MP	162.9	257.9	250.9	264.8	248.9	1583.1	256.3	8.2	65.3	726.2	50.9	361.8	109.0
381	MP	129.1	258.4	250.0	261.4	248.8	2182.7	267.9	58.0	41.1	770.5	224.8	545.4	307.1
382	MP	131.9	249.5	255.1	261.3	249.2	1839.3	306.7	26.6	62.6	843.9	116.6	290.5	843.0
383	MP	107.6	256.9	256.7	261.4	252.7	2832.4	309.4	150.6	22.5	887.4	476.8	608.1	639.7
384	MP	153.8	259.9	256.0	269.3	255.1	1677.9	259.9	12.4	62.4	743.2	61.2	371.6	132.7
385	MP	158.1	259.2	254.2	267.9	252.8	1652.3	257.4	9.7	62.6	742.2	59.0	359.5	132.1
386	MP	157.7	253.7	251.2	262.2	249.3	2244.0	350.4	15.1	63.2	986.2	85.7	393.6	154.6
387	MP	105.9	263.5	269.6	270.0	262.0	2627.1	330.9	140.1	28.5	930.9	452.9	459.6	846.9
388	MP	132.4	245.6	250.5	255.3	245.6	1705.5	288.2	24.4	65.7	821.5	102.7	225.7	821.5
389	MP	135.7	257.3	246.1	260.2	246.0	1997.8	275.5	41.5	47.9	758.2	168.9	618.1	219.3
390	MP	133.5	252.1	257.1	264.2	251.4	2117.5	339.1	37.9	58.1	924.3	150.9	365.1	919.5
391	MP	167.0	250.0	248.0	258.0	245.0	2053.0	339.0	2.0	72.0	979.0	43.0	241.0	99.0
392	MP	97.0	263.0	274.0	274.0	262.0	2683.0	504.0	28.0	77.0	1405.0	100.0	100.0	1274.0

393	MP	166.8	250.8	248.3	258.5	245.8	2062.8	342.3	1.8	72.5	987.0	43.3	242.5	99.0
394	MP	164.0	250.5	248.0	258.5	245.5	2179.5	349.5	4.0	68.5	995.0	52.5	288.5	117.5
395	MP	119.0	256.7	266.5	269.7	256.3	2013.2	319.8	53.1	60.9	908.8	177.1	210.2	860.3
396	MP	109.3	265.4	272.6	272.7	263.5	2671.8	393.6	64.7	54.5	1150.8	222.8	279.7	1101.7
397	MP	108.8	262.1	273.9	274.3	261.0	2012.7	330.7	37.4	63.4	931.5	139.9	147.5	797.7
398	MP	98.4	109.6	113.0	115.3	104.8	1902.8	244.6	108.4	25.2	645.2	339.0	527.5	548.9
399	MP	90.0	152.0	148.0	154.0	148.0	1747.0	212.0	101.0	26.0	554.0	341.0	455.0	342.0
400	MP	107.8	150.1	154.1	155.4	147.1	2442.7	313.8	138.4	25.6	843.4	440.6	594.9	755.7
401	MP	102.8	265.5	271.8	271.8	256.5	2218.0	365.8	50.3	50.3	921.5	207.5	207.5	586.8
402	MP	106.6	264.5	275.6	275.6	258.9	2284.8	328.4	102.6	36.7	874.2	336.2	350.3	507.4
403	MP	108.0	263.8	275.0	275.0	258.3	2222.0	319.0	84.8	38.8	846.5	286.0	286.0	520.3
404	MP	116.0	258.8	273.3	273.3	255.0	2460.8	403.0	46.2	51.9	1051.5	197.2	197.2	605.1
405	MP	109.0	263.1	274.5	274.5	256.9	2214.6	303.4	84.1	36.8	825.5	297.9	310.5	522.1
406	MP	108.6	268.6	279.5	279.5	264.1	2110.7	310.4	70.9	43.5	867.5	252.7	257.4	454.8
407	MP	107.6	251.8	257.9	258.1	245.4	2762.0	392.1	84.6	41.2	1044.9	313.9	317.1	795.1
408	MP	110.2	256.4	264.6	264.6	253.5	3780.6	571.7	85.9	47.4	1454.4	342.1	346.6	1165.7
409	MP	116.9	250.6	256.7	256.8	245.8	3275.3	494.3	75.8	47.5	1225.2	295.9	298.1	1048.7
410	MP	142.3	260.1	258.4	268.6	255.0	2187.8	337.2	19.9	61.0	933.2	112.0	304.9	179.0
411	MP	103.8	267.0	277.7	277.7	262.2	2009.8	301.7	87.2	38.7	797.7	307.0	344.7	416.8
412	MP	173.6	247.0	244.8	254.2	241.8	1803.1	323.9	0.5	76.7	898.5	34.6	179.5	76.7
413	MP	135.8	255.4	270.2	270.2	252.8	1880.2	392.1	43.5	64.0	897.7	161.5	161.5	443.4
414	MP	105.9	263.6	272.7	272.9	257.2	2269.8	310.6	70.6	40.8	851.3	264.4	270.7	592.4
415	MP	187.8	253.8	224.8	255.3	223.1	1301.5	223.1	15.8	66.7	611.1	67.5	421.5	101.3
416	MP	143.2	262.0	258.9	271.2	256.8	1621.0	270.3	9.4	64.8	715.4	62.0	399.0	115.9
417	MP	176.3	270.3	222.3	270.3	222.3	3661.1	559.0	119.5	51.0	1564.8	406.3	1486.3	406.3
418	MP	105.0	264.5	271.0	271.0	262.5	2438.0	380.5	81.0	52.5	1047.0	271.5	271.5	1029.5
419	MP	178.6	261.7	230.9	262.9	230.0	1371.0	229.2	21.3	64.4	635.7	85.3	466.3	120.5
420	MP	185.0	264.0	216.5	264.0	216.5	3473.5	559.5	108.0	53.5	1500.0	355.5	1328.5	355.5
421	MP	156.0	266.8	245.2	269.7	244.4	1698.7	288.2	44.7	57.6	752.0	144.5	498.2	180.5
422	MP	132.0	200.5	210.0	210.0	196.0	2918.5	309.0	195.5	15.5	850.0	617.5	617.5	805.0
423	MP	176.0	270.0	222.3	270.3	222.3	3489.3	533.0	114.0	50.3	1491.0	388.7	1423.7	388.7
424	MP	114.1	199.0	203.7	204.4	198.6	2733.1	297.1	171.4	18.7	860.7	545.4	612.4	855.3
425	MP	173.0	269.5	234.5	271.5	234.5	1853.0	312.5	42.0	58.0	835.5	141.5	580.0	141.5
426	MP	212.6	104.2	83.9	110.4	82.4	877.8	165.2	8.1	74.8	443.0	33.8	277.4	41.6
427	MP	222.0	65.0	41.0	68.0	38.0	761.0	148.0	7.0	78.0	411.0	26.0	212.0	37.0
428	MP	130.6	181.5	176.6	187.4	176.1	1255.9	133.5	70.8	18.0	375.4	245.9	322.8	252.7
429	MP	185.6	195.0	187.9	204.7	187.2	1563.3	221.8	35.0	53.4	650.5	136.2	402.8	137.0

430	MP	179.8	145.0	130.0	149.2	130.0	972.2	148.2	20.2	57.4	432.2	72.4	288.4	72.4
431	MP	136.5	140.9	135.1	142.1	135.1	986.7	141.2	46.9	34.4	365.6	154.6	268.7	155.0
432	MP	110.5	263.9	273.8	274.2	259.9	2108.4	377.4	59.0	55.3	967.2	239.4	240.6	383.0
433	MP	173.9	269.9	229.2	270.8	229.2	2157.3	354.3	57.6	55.2	955.6	194.2	672.6	194.2
434	MP	121.7	218.0	218.6	224.9	216.1	2495.2	388.1	55.0	55.2	1104.0	197.9	549.7	488.3
435	MP	116.9	258.0	272.6	272.6	254.5	2341.1	397.0	38.4	55.0	1017.5	172.2	172.2	583.0
436	MP	128.3	192.1	187.4	199.1	186.8	1318.7	139.2	78.4	16.8	394.4	269.6	333.6	272.9
437	MP	114.3	256.6	252.9	262.8	250.0	2500.0	246.5	168.1	12.1	721.9	537.9	620.7	582.4
438	MP	138.7	260.6	253.0	265.3	252.1	2125.9	266.5	78.4	32.4	714.2	281.0	564.6	341.4
439	MP	106.9	259.0	253.9	263.5	252.1	2945.4	326.2	166.3	19.6	936.0	581.9	674.9	592.8
1	MR	124.8	295.9	299.6	300.7	291.4	3262.1	404.0	194.0	22.1	1063.6	631.9	855.8	813.1
2	MR	122.3	292.8	302.8	302.8	292.6	2889.6	316.5	133.9	22.1	894.5	517.5	518.9	893.7
3	MR	189.1	138.1	120.1	146.2	120.1	964.4	192.2	6.2	77.9	496.4	31.3	307.9	31.3
4	MR	129.6	293.7	307.8	308.5	288.1	2728.9	289.8	118.4	25.3	847.7	427.7	522.7	832.9
5	MR	131.6	278.9	278.2	282.8	273.9	2343.9	433.8	114.6	51.5	1021.6	381.3	415.7	498.0
6	MR	165.3	311.6	321.4	321.9	306.0	2049.3	263.5	59.1	35.2	694.2	252.8	357.8	525.8
7	MR	125.9	296.4	305.0	305.1	295.1	3034.8	316.9	171.3	17.8	893.3	587.9	599.6	873.9
8	MR	130.0	200.9	204.4	208.4	196.9	2211.3	493.7	89.7	60.7	1047.4	318.7	339.0	451.1
9	MR	360.6	52.8	249.4	858.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	MR	186.9	316.1	307.1	323.4	296.6	1447.2	217.4	18.8	53.1	586.5	115.4	278.5	161.4
11	MR	196.4	317.8	292.6	319.4	279.1	1950.7	282.2	26.7	54.3	810.1	130.9	652.6	138.6
12	MR	131.7	297.9	328.8	330.2	297.5	3086.2	564.5	40.2	74.6	1605.1	186.5	240.8	1601.5
13	MR	125.3	302.1	321.9	322.6	301.3	1910.4	350.3	14.9	79.4	996.3	62.3	64.2	963.4
14	MR	128.0	302.6	319.8	323.0	302.4	2137.9	286.1	106.2	29.2	750.9	395.7	422.5	744.0
15	MR	184.1	283.6	248.8	285.1	248.8	1449.7	219.7	15.2	58.4	637.0	76.1	560.2	76.1
16	MR	156.0	251.3	222.3	254.7	222.0	1295.7	191.0	13.7	58.7	552.3	65.0	304.7	129.7
17	MR	109.1	296.0	313.7	313.7	294.7	1815.9	349.9	8.6	84.5	981.2	40.0	40.0	944.6
18	MR	164.4	249.0	221.8	250.8	220.6	1096.2	196.2	6.6	68.0	530.8	41.0	444.0	79.0
19	MR	117.0	288.0	326.0	326.0	288.0	2823.0	546.0	32.0	78.0	1470.0	141.0	141.0	1470.0
20	MR	177.6	292.6	312.7	330.5	292.5	1974.7	368.4	20.1	77.3	1033.1	89.4	152.7	931.4
21	MR	168.9	305.3	323.0	329.1	303.5	1877.1	273.1	35.3	52.0	733.2	116.5	197.1	671.6
22	MR	137.0	302.0	324.0	327.0	302.0	2824.0	447.0	66.0	59.0	1308.0	308.0	341.0	1308.0
23	MR	153.0	289.6	301.4	318.0	289.6	1570.8	304.2	25.6	76.6	845.8	88.4	222.6	845.8
24	MR	159.5	303.6	333.2	340.6	303.6	2716.6	529.3	24.7	84.2	1499.1	91.9	202.4	1499.1
25	MR	170.7	309.3	328.3	335.0	307.7	1858.0	271.7	35.3	52.0	727.7	116.3	148.3	660.7
26	MR	139.7	301.5	333.6	340.8	301.5	2421.1	385.8	48.8	59.0	1091.9	198.4	208.2	1091.9
27	MR	144.6	301.7	336.6	346.7	301.7	2224.6	358.1	38.4	58.7	971.5	159.9	178.9	971.5

28	MR	139.2	301.5	332.0	340.1	301.3	2587.8	389.5	53.5	53.8	1071.8	232.0	241.2	1068.4
29	MR	172.5	298.5	363.3	365.7	298.5	2469.2	478.0	24.4	79.1	1324.3	90.3	92.6	1324.3
30	MR	146.0	303.0	339.0	350.0	303.0	2126.0	342.0	36.0	62.0	960.0	138.0	138.0	960.0
31	MR	127.7	274.3	326.4	326.4	273.9	2024.7	457.2	15.7	88.5	1158.5	55.4	55.4	1097.3
32	MR	143.1	299.7	339.2	340.7	299.0	2697.4	425.9	60.2	57.3	1138.8	233.8	292.0	1103.4
33	MR	135.3	302.0	323.7	326.7	302.0	2554.7	409.0	59.7	58.7	1181.7	284.3	316.3	1181.7
34	MR	114.7	288.3	324.9	324.9	288.1	2702.2	530.9	24.3	80.6	1404.3	107.0	107.0	1404.2
35	MR	172.5	298.0	334.5	340.5	298.0	2028.0	296.5	19.5	55.5	855.0	121.0	153.0	855.0
36	MR	152.6	285.9	298.6	315.4	285.9	1637.1	319.0	26.2	76.6	878.7	86.9	229.4	878.7
37	MR	184.7	293.6	324.1	338.4	293.6	2010.3	334.7	28.5	66.1	951.7	107.4	203.7	951.7
38	MR	145.4	302.9	339.0	349.0	302.9	2159.8	347.8	36.8	60.9	963.6	145.8	153.3	963.6
39	MR	175.7	295.7	257.7	296.3	257.7	1400.0	204.3	14.7	56.7	601.3	80.0	556.7	80.0
40	MR	182.8	280.3	302.6	318.8	280.3	1921.1	379.8	18.7	78.3	1028.6	80.2	225.6	1028.6
41	MR	122.5	302.5	316.1	317.5	302.0	2311.8	305.0	120.9	28.3	808.5	427.6	445.8	784.2
42	MR	195.0	318.0	302.0	326.0	285.0	953.5	145.5	17.5	56.0	409.0	69.0	288.5	172.0
43	MR	197.5	323.0	280.0	323.0	265.0	1238.5	213.5	21.0	60.0	574.5	82.5	574.5	129.0
44	MR	195.9	318.8	334.4	347.4	318.8	1494.6	220.5	14.8	60.0	640.9	60.8	187.8	640.9
45	MR	199.3	318.0	328.0	343.0	318.0	1440.0	205.0	18.0	58.3	605.7	71.0	185.3	556.0
46	MR	195.0	318.0	302.0	326.0	285.0	953.5	145.5	17.5	56.0	409.0	69.0	288.5	172.0
47	MR	192.9	317.2	310.6	326.7	300.2	1403.4	209.1	18.6	53.0	573.0	108.0	275.9	138.4
48	MR	193.5	313.5	282.8	315.1	274.6	1806.2	260.3	26.4	54.1	752.9	123.4	659.1	126.3
49	MR	163.0	300.0	285.1	302.5	274.6	2013.6	282.2	36.9	50.3	799.5	160.9	444.0	169.1
50	MR	133.0	306.0	323.0	323.0	306.0	3349.3	415.7	109.0	37.0	1221.3	423.7	423.7	1216.7
51	MR	170.7	227.0	197.6	228.8	197.0	1123.4	188.1	8.6	65.1	520.4	48.6	384.1	74.2
52	MR	209.4	302.3	257.6	302.4	247.1	1103.1	189.1	17.7	63.7	516.0	67.1	498.6	95.7
53	MR	193.0	322.1	301.3	323.5	286.9	1915.8	275.0	27.6	52.6	800.0	147.3	502.2	326.6
54	MR	170.7	277.1	252.8	280.0	245.4	1577.2	227.2	24.4	53.6	644.6	105.6	446.1	146.7
55	MR	146.6	300.4	312.3	312.3	295.7	2542.4	273.0	78.1	29.7	786.9	330.5	330.5	755.2
56	MR	96.4	287.1	290.0	291.0	287.0	2897.6	325.4	138.6	25.0	927.9	483.3	669.9	806.9
57	MR	134.0	302.0	324.0	327.0	302.0	2332.0	379.0	55.0	60.0	1082.0	255.0	283.0	1082.0
58	MR	134.0	302.0	323.0	326.0	302.0	2416.0	388.0	56.0	59.0	1116.0	268.0	299.0	1116.0
59	MR	144.0	298.0	330.0	342.0	298.0	2422.0	342.0	52.0	51.0	950.0	219.0	309.0	950.0
60	MR	170.0	301.0	304.0	318.0	298.0	1645.0	225.0	25.0	54.0	638.0	81.0	238.0	206.0
61	MR	183.5	303.0	263.5	304.0	263.5	1549.5	219.0	21.5	54.0	650.0	103.0	600.0	103.0
62	MR	118.7	283.3	312.9	314.8	283.2	1669.9	327.2	38.0	66.6	839.2	153.7	174.3	838.8
63	MR	138.8	304.0	295.0	324.0	295.0	2273.0	412.3	72.8	58.8	1049.5	281.3	356.0	281.3
64	MR	153.2	308.2	333.5	337.0	302.2	1945.9	364.3	45.1	63.0	913.4	219.7	222.8	271.9

65	MR	126.3	288.6	293.7	296.3	287.4	3543.1	416.7	211.0	18.8	1054.4	709.4	768.5	1005.0
66	MR	114.0	293.0	310.0	311.0	291.0	3046.0	580.0	41.0	70.0	1441.0	135.0	177.0	958.0
67	MR	113.0	297.0	311.0	311.0	291.0	1896.0	404.0	30.0	72.0	983.0	94.0	94.0	461.0
68	MR	128.4	221.7	216.7	225.2	215.9	1659.4	318.3	73.5	52.1	736.9	259.6	299.2	296.7
69	MR	199.7	158.9	157.1	168.8	155.2	1178.8	176.2	19.9	51.0	486.3	91.3	286.6	154.3
70	MR	173.3	254.7	264.9	267.2	253.4	2899.1	384.8	64.8	39.8	1053.6	315.9	482.1	922.1
71	MR	151.1	282.6	320.4	322.2	281.9	1955.7	312.8	60.7	51.1	861.4	222.3	246.8	810.8
72	MR	143.3	308.0	335.0	335.0	308.0	2863.0	427.0	57.3	49.0	1178.7	274.7	274.7	1172.0
73	MR	143.0	308.0	335.0	335.0	308.0	2882.0	427.5	57.5	48.5	1181.0	277.5	277.5	1175.5
74	MR	112.5	279.5	281.5	287.0	279.0	3629.0	511.5	182.0	30.0	1291.0	634.5	731.0	1068.0
75	MR	169.1	289.7	286.3	300.8	284.5	1839.6	241.7	28.4	54.0	699.3	91.6	474.6	564.3
76	MR	94.1	286.5	286.4	288.9	283.7	3500.9	412.4	193.3	21.8	1110.5	641.2	846.8	888.1
77	MR	162.2	300.3	318.5	331.7	299.9	1714.4	355.9	27.3	81.5	917.3	86.5	125.3	916.2
78	MR	234.3	293.0	315.3	331.0	293.0	1699.7	296.3	6.0	77.0	849.7	40.0	158.7	849.7
79	MR	224.7	282.7	307.7	328.9	281.1	2145.3	402.2	10.3	79.9	1094.0	38.4	204.2	1088.8
80	MR	128.3	243.7	250.3	253.0	241.0	3742.0	861.3	154.7	64.3	1818.0	539.3	563.0	1243.0
81	MR	128.7	212.7	217.7	220.3	209.3	3452.3	844.7	140.0	70.3	1782.0	469.3	492.0	784.3
82	MR	218.9	315.3	319.0	337.2	315.3	1304.6	224.1	8.0	68.6	624.6	48.5	159.5	593.4
83	MR	125.8	263.4	307.9	308.0	262.0	2592.8	464.6	41.5	69.6	1234.5	166.7	166.8	1148.9
84	MR	101.0	303.3	301.2	303.3	299.1	3192.5	424.7	168.2	28.6	1048.6	535.1	1006.7	721.7
85	MR	250.0	303.8	316.5	341.3	303.8	1429.3	264.0	1.4	83.8	781.2	21.1	146.2	781.2
86	MR	129.0	302.0	317.3	319.7	300.8	1807.2	274.6	72.2	42.0	688.6	285.8	287.3	674.0
87	MR	167.3	281.8	333.3	333.4	281.2	2459.5	435.1	54.8	60.9	1162.5	199.2	199.4	1096.8
88	MR	166.7	292.7	324.8	333.3	292.7	2178.3	338.6	19.6	62.1	981.1	95.8	261.8	981.1
89	MR	171.8	290.7	352.0	356.9	290.5	2888.5	606.7	41.4	72.5	1402.5	150.2	193.1	1399.5
90	MR	122.4	298.3	315.9	315.9	295.6	3048.6	364.9	91.4	32.1	1046.1	424.5	424.5	1001.5
91	MR	173.9	285.0	316.0	329.6	285.0	2037.6	367.3	16.5	74.7	1038.0	80.3	151.8	1038.0
92	MR	175.6	296.9	342.0	348.6	296.9	1958.6	323.1	35.0	61.1	877.2	127.0	177.9	877.2
93	MR	113.2	274.5	307.0	307.7	274.5	2675.7	455.2	55.5	67.1	1228.9	193.9	196.1	1228.9
94	MR	107.1	291.4	294.3	295.7	290.7	2643.7	334.2	163.9	20.3	786.7	536.7	603.5	655.4
95	MR	133.9	302.9	311.0	323.9	301.1	1870.9	279.3	88.4	32.6	643.7	339.7	392.0	640.8
96	MR	169.0	294.7	332.9	333.2	294.7	2288.5	316.4	33.7	45.5	878.6	208.9	209.7	878.6
97	MR	177.2	299.8	332.4	339.2	299.8	2114.9	311.4	24.3	58.4	909.0	95.3	182.4	909.0
98	MR	184.8	281.3	301.9	319.7	281.0	1945.0	353.4	21.1	74.5	989.0	94.3	171.3	909.8
99	MR	133.4	282.7	323.1	323.3	282.7	2735.7	496.8	40.8	71.5	1346.0	154.0	154.7	1346.0
100	MR	185.4	295.1	324.7	339.9	295.1	1969.1	320.1	28.4	64.9	933.2	109.4	204.6	933.2
101	MR	181.7	300.1	346.6	353.9	300.1	2010.2	318.3	40.0	61.3	892.2	134.0	176.6	892.2

102	MR	179.7	290.2	335.5	343.2	290.2	2062.3	364.1	29.5	68.0	983.1	117.5	154.5	983.1
103	MR	168.7	290.1	326.0	332.1	290.1	2048.2	313.0	23.7	58.0	860.0	116.2	215.1	860.0
104	MR	170.0	301.7	331.3	334.0	301.6	1996.8	278.9	23.5	50.4	776.2	143.3	166.6	775.7
105	MR	185.0	284.3	305.4	323.2	284.3	1991.4	377.3	20.5	75.2	1035.9	101.7	165.9	1034.2
106	MR	178.1	298.0	341.5	349.3	298.0	2069.5	329.8	41.0	61.7	929.3	131.5	185.8	929.3
107	MR	166.2	292.3	326.5	333.0	292.3	2082.5	311.0	21.9	58.3	888.6	115.0	210.7	888.6
108	MR	191.7	288.6	312.3	330.8	288.6	2018.8	368.4	18.1	73.9	1010.5	78.7	196.7	1010.5
109	MR	168.9	291.2	323.2	332.2	291.2	2245.5	364.2	14.5	65.2	1042.4	85.1	256.8	1042.4
110	MR	199.4	294.5	323.2	339.3	294.0	1951.9	300.9	22.5	58.0	843.3	111.9	282.1	842.4
111	MR	170.7	293.0	303.5	311.9	290.0	1772.7	246.1	19.1	56.9	703.6	70.5	240.2	667.3
112	MR	157.9	291.2	314.5	314.5	291.2	2265.2	322.4	40.4	45.9	884.5	205.6	205.6	884.4
113	MR	140.0	260.8	318.6	319.6	260.7	2061.9	429.3	24.8	79.4	1077.8	106.1	110.1	1077.5
114	MR	170.2	299.6	348.1	352.7	299.6	2052.5	329.5	41.5	60.8	903.3	143.0	186.0	903.3
115	MR	159.1	293.5	319.3	319.3	293.5	2216.5	316.8	32.2	47.8	870.4	184.3	184.3	870.4
116	MR	132.0	293.3	307.9	309.8	293.1	1918.7	319.3	56.4	46.6	759.6	276.6	334.3	726.3
117	MR	163.4	296.4	309.6	315.3	292.2	1895.3	257.0	29.5	53.1	736.1	105.7	274.7	702.2
118	MR	171.4	294.4	305.1	313.5	291.5	1775.3	247.5	20.5	56.4	702.5	73.5	242.2	672.1
119	MR	172.3	288.8	352.0	356.4	288.8	2660.9	580.7	28.6	78.8	1392.1	101.2	123.7	1392.1
120	MR	168.6	282.1	336.5	336.8	281.9	1905.2	363.4	20.3	78.3	992.8	85.3	85.4	989.5
121	MR	179.1	287.2	308.0	325.7	287.1	2019.0	387.8	20.1	77.6	1068.3	95.2	151.4	1046.8
122	MR	130.0	298.8	317.1	317.6	298.8	2587.8	309.4	120.1	28.3	884.5	390.7	497.3	884.5
123	MR	212.4	298.5	324.0	342.4	298.5	1962.4	321.4	16.7	62.9	901.6	103.2	261.2	901.6
124	MR	160.5	296.1	331.0	331.4	296.1	2557.4	304.5	56.2	36.2	886.8	290.4	350.4	886.8
125	MR	212.4	298.1	324.3	339.5	296.6	1998.0	314.1	13.2	65.9	919.3	77.1	257.0	902.0
126	MR	168.2	292.8	350.2	354.9	292.7	2581.0	541.0	37.1	73.0	1255.2	135.7	163.4	1253.8
127	MR	171.0	288.0	319.0	329.0	288.0	2203.0	365.0	6.0	68.0	1006.0	61.0	257.0	1006.0
128	MR	173.0	284.0	316.0	326.0	284.0	2040.0	349.0	4.0	71.0	982.0	54.0	216.0	982.0
129	MR	167.8	289.3	323.9	331.2	289.3	2075.3	320.7	22.4	59.5	892.0	107.5	248.7	892.0
130	MR	170.9	296.5	332.9	338.3	296.5	2070.0	300.4	17.5	55.1	868.5	131.8	155.8	868.5
131	MR	170.0	286.0	318.0	328.0	286.0	2194.0	362.0	8.0	67.0	1003.0	67.0	260.0	1003.0
132	MR	171.4	287.0	318.0	328.2	287.0	2196.2	364.0	5.6	68.0	999.6	58.0	257.8	999.6
133	MR	171.0	288.0	319.0	329.0	288.0	2201.0	364.0	7.0	67.0	1007.0	66.0	259.0	1007.0
134	MR	175.0	299.0	335.0	340.7	299.0	2029.7	290.7	22.3	55.0	845.3	117.3	154.7	845.3
135	MR	172.0	289.0	319.0	330.0	289.0	2197.0	363.0	5.0	68.0	999.0	57.0	257.0	999.0
136	MR	118.5	278.0	306.0	306.3	276.2	2887.0	481.1	43.7	69.0	1330.9	160.1	164.2	1280.2
137	MR	176.3	283.1	308.8	324.4	283.1	1984.3	380.4	9.6	77.1	1043.2	75.0	151.9	1043.2
138	MR	190.5	290.8	320.8	332.9	289.6	2105.2	336.6	12.2	68.6	978.2	65.6	242.2	975.9

139	MR	171.4	300.9	352.8	356.8	300.9	2045.6	336.2	41.6	62.5	940.7	140.2	163.1	940.7
140	MR	128.1	259.2	310.8	311.4	259.1	2445.9	466.5	36.8	73.2	1206.9	155.0	159.5	1196.7
141	MR	144.1	300.1	342.3	343.8	299.6	2507.3	365.8	55.8	52.4	998.5	223.6	297.9	995.4
142	MR	220.7	299.1	324.0	341.0	298.0	1930.4	306.7	14.3	64.6	878.1	85.6	254.0	871.9
143	MR	163.3	293.9	332.9	332.9	293.9	2272.1	308.6	49.9	43.3	879.3	232.6	233.0	879.3
144	MR	171.8	287.5	343.3	347.2	286.9	2755.2	539.4	59.9	65.1	1277.5	201.4	218.9	1236.3
145	MR	127.4	289.5	311.7	311.7	286.6	2205.7	388.4	55.2	60.2	1036.3	197.8	197.8	581.7
146	MR	140.0	301.4	304.6	324.2	301.2	1630.6	265.3	56.4	49.7	679.6	185.1	300.4	679.1
147	MR	117.8	290.6	301.5	307.1	288.8	1742.4	316.3	24.8	66.9	833.1	96.5	356.1	770.8
148	MR	116.6	292.2	303.8	312.0	292.2	1802.8	292.4	34.4	58.6	793.2	128.8	378.2	793.2
149	MR	148.4	296.6	324.9	327.3	296.6	2628.2	419.3	23.5	63.9	1220.5	123.9	283.4	1220.5
150	MR	127.3	267.8	277.6	285.6	265.3	2509.7	392.4	48.3	53.6	1030.8	185.7	611.9	984.0
151	MR	124.4	292.1	304.1	308.0	290.0	1811.1	400.0	19.8	77.6	955.3	68.9	140.1	800.1
152	MR	126.9	286.1	296.6	299.6	282.8	3012.6	500.0	55.7	58.1	1263.7	221.7	616.2	1118.0
153	MR	131.5	297.9	297.9	318.3	295.9	1911.6	324.6	59.4	53.5	826.2	211.2	362.1	520.9
154	MR	120.9	291.5	305.2	307.4	289.5	2403.3	480.9	29.9	72.9	1218.6	104.5	338.9	1057.1
155	MR	145.8	287.3	310.6	311.0	287.2	3369.9	468.0	74.8	47.7	1362.6	331.8	375.2	1348.3
156	MR	115.0	293.0	310.0	310.0	291.0	3008.0	570.0	40.0	69.0	1418.0	134.0	176.0	950.0
157	MR	146.0	305.0	330.0	330.0	305.0	3417.0	460.0	83.0	44.0	1349.0	376.0	376.0	1349.0
158	MR	202.0	309.0	267.0	309.5	250.5	975.8	135.8	17.0	49.8	384.0	62.8	363.8	147.3
159	MR	128.7	277.4	287.2	289.3	273.7	3479.4	504.2	95.1	45.7	1318.9	369.0	744.3	1239.3
160	MR	121.4	302.4	326.8	328.0	302.4	1640.2	300.2	29.8	63.6	804.6	128.4	148.2	804.6
161	MR	115.2	296.0	317.4	317.4	294.6	1674.0	295.6	33.6	61.8	809.8	136.0	136.0	377.8
162	MR	117.5	294.3	315.0	315.0	291.5	1785.0	347.7	35.7	65.5	887.7	132.7	132.7	398.8
163	MR	131.0	286.0	314.9	314.9	286.0	2200.1	402.4	42.0	64.0	1073.6	171.8	171.8	1073.6
164	MR	161.3	290.4	290.7	301.3	283.9	2007.6	264.4	36.1	48.4	755.2	138.8	352.8	633.6
165	MR	185.0	300.4	353.0	358.6	300.4	2073.9	343.9	35.8	64.9	966.9	129.2	156.4	966.9
166	MR	211.9	289.2	247.5	289.2	237.7	1014.6	167.9	15.8	59.8	456.3	65.9	448.9	88.0
167	MR	138.6	303.2	333.4	341.7	303.2	2569.8	412.3	49.1	58.9	1155.3	209.4	218.0	1155.3
168	MR	155.2	285.9	268.4	288.7	261.4	2830.3	400.7	66.8	48.8	1133.4	246.7	709.4	258.9
169	MR	128.1	277.8	304.5	304.5	275.7	2468.2	412.5	48.4	62.5	1138.9	177.5	178.6	893.4
170	MR	180.7	289.8	321.5	332.3	288.9	2193.0	342.1	16.9	65.3	990.8	79.8	269.8	988.4
171	MR	130.6	257.3	267.2	273.9	253.8	2880.5	441.2	54.3	51.8	1146.7	214.5	727.6	1079.1
172	MR	233.3	268.0	225.2	272.3	223.3	1654.5	277.5	24.4	69.3	771.8	93.2	640.7	95.3
173	MR	126.2	181.4	185.0	187.4	178.8	1971.3	263.5	99.7	32.5	728.9	328.5	348.8	510.3
174	MR	159.5	281.4	284.3	287.1	277.8	2828.9	459.8	141.2	43.0	1129.5	453.1	543.4	626.1
175	MR	124.2	275.2	301.5	301.5	272.2	2504.3	407.7	48.8	62.7	1144.4	177.6	177.6	961.1

176	MR	123.9	287.5	303.5	303.7	283.9	3403.1	579.2	30.5	72.5	1610.0	108.6	137.0	1336.0
177	MR	175.8	291.3	327.3	339.2	291.3	2274.7	398.9	34.0	68.5	1084.8	117.3	191.3	1084.8
178	MR	110.9	290.0	298.2	298.9	288.4	3016.5	449.5	158.9	36.1	1190.1	524.6	530.9	1039.6
179	MR	125.4	245.7	250.4	254.8	242.6	3706.9	851.1	152.5	63.2	1803.4	528.4	561.9	1077.1
180	MR	133.9	301.5	323.7	326.2	301.0	2614.5	343.4	99.7	38.4	974.7	383.9	397.9	920.1
181	MR	216.4	298.9	323.7	342.3	298.9	1953.9	323.8	15.4	65.2	909.4	94.6	248.9	908.6
182	MR	131.4	272.3	299.1	301.1	272.2	3177.1	532.1	70.7	51.0	1382.6	344.2	375.5	1294.4
183	MR	127.6	169.0	177.8	179.9	165.1	1995.3	386.0	90.7	52.3	905.1	292.5	310.2	770.3
184	MR	166.6	269.0	246.6	272.1	241.4	1735.6	251.6	28.5	54.4	715.1	120.8	428.6	142.8
185	MR	145.7	265.1	257.9	272.8	257.6	2278.7	303.0	47.6	46.5	869.2	199.1	509.7	277.0
186	MR	175.0	300.6	335.3	339.4	300.6	2009.2	280.2	22.1	51.8	802.5	136.2	160.2	786.5
187	MR	118.4	270.2	301.7	301.9	267.5	2670.2	444.8	51.6	65.2	1220.0	189.4	189.8	1140.9
188	MR	135.0	231.8	240.0	256.5	231.8	1900.8	343.8	44.8	53.6	841.1	236.6	350.8	841.1
189	MR	156.7	292.5	332.8	333.4	292.5	2307.7	316.4	48.9	45.8	900.2	227.2	229.3	900.2
190	MR	103.7	226.6	226.5	227.2	223.3	2760.7	370.2	150.3	33.1	1058.1	473.8	742.9	691.8
191	MR	102.6	291.3	292.7	294.6	291.0	2738.8	331.5	112.6	26.0	915.6	439.8	664.5	801.5
192	MR	104.4	298.2	294.9	301.3	294.9	2972.4	334.2	155.5	20.0	921.8	545.0	772.5	550.3
193	MR	107.9	185.3	181.8	187.1	180.7	1906.0	205.7	93.9	19.6	572.0	349.6	522.1	452.9
194	MR	95.8	230.5	232.1	233.9	228.3	2169.5	248.3	121.9	19.9	654.4	418.0	471.4	532.5
195	MR	103.0	175.0	174.5	177.0	169.0	2551.5	352.0	142.0	33.5	977.0	445.0	848.5	716.0
196	MR	107.3	287.0	295.2	295.8	285.2	3058.9	420.3	157.3	33.3	1152.6	518.9	523.2	1015.2
197	MR	98.1	290.4	289.0	293.2	287.8	3181.4	368.0	149.8	26.6	1053.0	510.2	914.6	659.1
198	MR	108.1	229.4	228.8	230.2	226.7	3068.7	411.5	168.1	32.2	1160.8	526.8	765.2	763.9
199	MR	115.3	295.2	305.4	306.0	292.0	2828.9	328.9	108.9	26.6	887.0	459.9	477.3	849.3
200	MR	122.9	287.7	299.7	300.8	284.7	2916.8	371.9	77.4	35.4	1041.3	378.4	400.8	864.3
201	MR	94.9	143.9	143.2	144.6	138.4	2146.7	242.0	104.5	24.9	710.3	363.3	557.1	525.6
202	MR	119.5	288.2	295.2	296.5	286.4	3165.9	400.0	132.2	27.6	1068.0	511.3	621.8	795.5
203	MR	99.6	294.5	289.1	296.3	288.9	3126.8	367.0	162.2	23.6	1039.5	548.5	863.6	582.5
204	MR	221.5	302.1	293.7	319.6	290.3	1238.8	211.9	13.4	68.4	598.2	57.5	258.6	104.7
205	MR	180.0	197.7	196.0	210.6	194.7	1639.9	241.6	26.4	50.1	659.4	128.1	382.8	330.9
206	MR	202.9	300.7	320.6	333.7	300.7	1686.1	275.2	16.9	62.7	785.8	82.1	225.1	785.8
207	MR	113.0	277.0	279.2	281.0	274.5	2897.1	353.6	179.3	19.9	847.9	595.8	704.7	741.6
208	MR	103.6	295.8	294.1	296.2	292.5	3165.1	385.1	179.5	24.0	1023.3	577.3	891.1	671.2
209	MR	125.4	189.0	187.5	192.8	184.7	1576.2	252.6	51.5	44.5	622.4	193.7	277.4	323.2
210	MR	163.6	206.0	202.7	211.2	202.1	1306.4	183.0	41.8	37.6	474.9	158.3	327.4	225.7
211	MR	199.2	290.0	313.1	332.0	290.0	2112.0	363.0	18.3	71.8	1035.7	78.8	228.0	1035.7
212	MR	124.6	175.4	181.6	182.8	172.3	2400.1	507.2	102.5	58.3	1132.9	327.8	344.8	873.6

213	MR	210.4	320.7	334.0	350.4	320.7	1335.9	220.5	8.5	62.1	604.9	53.9	186.1	604.9
214	MR	122.1	297.9	310.9	310.9	297.4	2003.9	280.5	107.2	27.5	654.2	383.3	383.3	651.1
215	MR	158.5	303.8	315.6	315.7	297.8	2408.6	294.4	68.3	34.8	796.2	289.6	326.8	713.1
216	MR	169.7	278.5	301.4	317.1	278.5	1862.5	386.1	23.2	79.3	1018.2	91.5	206.8	1018.2
217	MR	112.4	287.8	286.2	288.6	284.5	3409.8	399.1	210.3	19.5	1029.5	684.1	897.5	711.1
218	MR	129.3	216.2	223.5	224.4	214.7	3735.4	602.2	181.7	43.1	1568.5	578.2	593.5	1360.0
219	MR	175.0	265.5	266.0	267.5	260.5	2131.0	274.0	71.0	34.5	674.0	258.5	356.0	605.0
220	MR	238.8	137.8	113.1	146.9	113.1	932.9	177.0	8.0	72.1	473.8	36.9	283.7	45.2
221	MR	130.4	303.5	311.1	321.6	301.5	1879.4	280.0	81.0	36.5	680.6	320.9	332.1	674.7
222	MR	198.3	224.9	195.7	226.7	195.7	896.8	169.9	5.3	72.2	458.6	30.8	375.9	30.8
223	MR	202.8	316.8	291.6	319.9	281.3	2707.2	399.2	31.8	56.3	1143.2	172.9	851.2	210.7
224	MR	128.3	161.6	158.4	162.7	157.6	1138.4	166.4	26.8	47.2	457.7	116.4	236.7	130.8
225	MR	189.2	228.0	229.2	235.2	224.3	1877.8	246.0	39.9	41.3	689.6	198.5	352.0	499.6
226	MR	143.2	304.5	322.7	324.1	304.5	3713.4	512.0	129.9	35.6	1326.4	512.1	518.7	1325.1
227	MR	109.2	283.9	288.0	290.9	283.2	3447.8	565.4	175.9	38.7	1378.4	609.0	645.5	1167.2
228	MR	167.7	293.6	303.1	311.6	289.3	1833.7	251.8	20.8	56.4	725.3	80.9	253.2	682.4
229	MR	221.7	309.4	305.4	327.4	305.4	1270.8	215.8	10.1	70.1	626.9	51.6	242.3	54.9
230	MR	225.3	294.3	321.4	342.4	294.3	2078.8	381.7	11.1	77.3	1052.7	50.2	215.2	1052.7
231	MR	192.6	307.5	332.7	343.2	307.5	1659.3	247.7	17.5	58.4	723.4	76.3	235.3	723.4
232	MR	196.2	292.2	320.3	333.1	289.7	2079.4	331.9	11.6	68.2	965.5	66.1	246.2	957.9
233	MR	233.2	301.8	326.2	343.6	301.8	1841.5	297.0	10.5	68.5	866.0	70.0	221.0	859.7
234	MR	152.4	294.4	337.2	338.3	294.4	2288.2	344.7	53.6	48.6	940.5	216.6	217.1	940.5
235	MR	127.7	272.3	325.0	325.0	272.0	1971.7	440.0	14.3	88.3	1128.7	53.7	53.7	1053.7
236	MR	134.1	302.1	327.6	334.1	302.0	2522.9	372.7	63.9	50.7	1039.7	266.4	280.1	1033.0
237	MR	142.3	301.7	334.8	344.3	301.7	2458.4	391.8	44.7	58.5	1082.3	186.5	202.9	1082.3
238	MR	111.7	290.5	295.4	297.4	290.0	2158.1	298.8	109.4	25.3	678.2	413.2	498.7	676.1
239	MR	152.5	280.8	293.7	310.4	280.8	1659.9	323.5	26.0	76.5	884.5	87.8	235.9	884.5
240	MR	218.2	322.9	330.1	348.4	322.9	1235.1	217.4	6.9	66.0	579.5	43.7	157.1	575.4
241	MR	221.6	298.8	323.5	341.7	298.6	1930.7	314.9	14.3	64.9	887.1	90.3	251.6	886.4
242	MR	146.0	302.0	338.0	349.0	302.0	2125.0	338.0	36.0	61.0	946.0	143.0	145.0	946.0
243	MR	185.5	287.4	319.1	330.8	287.4	2060.1	333.4	10.2	70.7	978.1	58.3	216.2	978.1
244	MR	134.8	301.8	323.8	326.5	301.8	2478.3	395.5	57.5	58.5	1143.8	275.5	307.8	1143.8
245	MR	239.4	309.0	324.1	348.8	304.3	1829.9	355.7	4.0	85.0	1015.3	32.0	175.1	966.8
246	MR	170.5	292.0	276.5	295.5	264.5	1753.5	246.5	29.0	51.0	697.5	134.5	368.5	149.0
247	MR	204.1	319.1	313.9	334.6	308.4	1326.0	204.1	23.0	57.5	573.9	93.0	282.5	183.1
248	MR	202.8	315.2	299.6	323.5	285.9	1657.9	243.5	22.1	53.8	702.0	110.6	327.7	133.5
249	MR	111.0	272.0	307.3	308.5	272.0	2717.8	502.8	60.8	63.3	1240.8	240.8	263.3	1240.8

250	MR	181.3	278.4	244.4	279.3	244.4	1303.5	208.5	11.0	61.0	589.7	60.5	525.1	60.5
251	MR	218.7	321.0	320.2	340.9	318.7	1178.6	197.3	8.5	67.0	552.4	46.5	186.9	279.6
252	MR	261.8	307.0	330.3	353.8	307.0	1506.3	291.0	2.0	83.0	798.0	15.0	145.5	798.0
253	MR	181.0	288.0	308.0	325.0	288.0	1756.0	325.0	18.0	76.0	887.0	81.0	151.0	825.0
254	MR	90.2	148.6	144.4	149.6	142.8	2162.0	244.0	138.4	18.8	697.2	442.6	656.2	511.8
255	MR	103.0	204.0	202.0	204.3	199.3	2405.3	317.0	136.3	31.0	900.7	431.3	866.7	613.7
256	MR	119.0	288.1	303.7	303.8	285.2	3024.6	539.7	44.9	65.6	1342.9	170.7	205.2	1001.6
257	MR	78.0	171.5	170.5	175.5	169.5	1752.5	207.5	100.0	22.5	518.0	307.5	396.0	391.0
258	MR	127.0	298.0	307.0	310.0	294.0	3132.0	383.0	74.0	38.0	1081.0	364.0	395.0	969.0
259	MR	129.0	300.0	317.5	317.5	297.0	3061.0	406.0	64.0	38.0	1073.5	353.0	353.0	961.0
260	MR	129.6	282.4	294.3	295.7	279.2	3611.2	500.4	105.1	42.4	1297.3	405.5	745.6	1235.8
261	MR	116.3	296.3	313.3	313.3	291.0	1735.3	353.8	23.8	73.0	893.0	76.0	76.0	439.3
262	MR	115.5	293.5	301.7	302.7	293.1	3099.1	349.7	169.5	23.9	1006.4	551.2	555.4	929.3
263	MR	118.5	288.0	302.8	303.0	286.0	3492.0	618.8	50.3	66.5	1566.0	176.3	238.8	1168.8
264	MR	109.1	295.7	313.6	313.6	294.5	1789.5	347.2	8.5	84.9	971.4	39.7	39.7	936.7
265	MR	130.9	301.2	316.4	317.4	300.4	2897.4	353.1	150.0	28.2	990.2	500.9	502.1	941.7
266	MR	215.6	300.5	326.0	341.9	299.0	1977.0	309.8	14.4	64.7	901.3	83.3	260.5	887.9
267	MR	209.7	300.2	324.7	343.5	300.2	1999.3	331.1	15.9	64.1	936.7	105.8	261.2	936.7
268	MR	158.4	299.9	348.7	350.8	299.9	2032.5	320.5	46.0	56.8	869.5	152.9	189.8	869.5
269	MR	118.7	287.7	298.5	299.2	287.7	2758.7	322.4	81.4	31.9	926.7	359.4	477.4	926.7
270	MR	160.8	295.5	332.7	341.3	295.5	2145.0	305.8	43.0	51.3	889.7	165.8	305.5	889.7
271	MR	153.4	296.6	342.0	342.0	296.6	2158.1	324.4	50.7	50.7	902.2	192.3	192.3	902.2
272	MR	112.9	262.0	303.9	304.1	262.0	2846.6	500.6	52.3	67.1	1352.5	199.8	204.2	1352.3
273	MR	141.5	301.5	335.4	343.6	301.5	2593.7	452.1	46.8	65.9	1253.7	177.9	186.7	1253.7
274	MR	145.0	302.3	337.5	347.3	302.3	2278.7	377.5	39.2	62.8	1046.7	150.8	160.7	1046.7
275	MR	156.0	298.2	348.3	351.1	298.2	2232.2	392.1	42.8	68.1	1088.6	147.5	170.8	1088.6
276	MR	150.5	294.4	336.4	337.7	294.4	2296.5	336.3	57.1	46.6	922.3	233.8	236.0	922.3
277	MR	126.3	285.7	324.7	325.3	285.7	2976.6	495.8	40.8	65.1	1428.2	220.3	233.5	1428.2
278	MR	113.6	292.9	300.6	301.5	292.4	3092.5	347.9	168.2	23.8	1003.3	549.8	565.2	920.4
279	MR	147.3	294.6	333.3	334.5	294.5	2234.2	302.7	62.9	42.0	846.9	263.4	271.7	846.6
280	MR	153.0	292.7	332.7	335.2	292.7	2331.1	323.9	51.7	46.2	927.3	228.9	234.0	927.3
281	MR	154.9	296.5	340.7	341.8	296.5	2147.2	317.6	48.5	50.9	897.6	188.6	209.6	897.6
282	MR	120.5	289.7	304.8	305.9	289.7	2548.2	309.6	67.7	35.5	866.7	283.0	428.6	866.7
283	MR	131.9	216.5	214.7	221.1	212.4	2020.7	374.6	70.8	49.2	850.9	256.7	316.4	357.8
284	MR	126.6	302.8	318.3	319.0	302.0	1923.6	277.9	93.1	32.5	665.2	350.2	350.3	663.5
285	MR	97.3	287.3	291.0	291.3	287.2	2909.3	326.5	139.6	24.2	923.8	490.7	627.9	858.7
286	MR	263.0	292.5	309.0	329.0	290.5	1642.0	301.5	4.0	79.0	834.0	35.5	162.0	818.0

287	MR	148.3	298.1	338.1	341.3	297.9	2535.3	428.8	61.1	62.8	1126.0	214.1	240.7	1109.5
288	MR	199.8	326.0	298.3	326.0	285.3	2952.5	422.0	39.3	54.3	1245.8	213.0	1172.8	447.8
289	MR	151.7	294.5	333.2	333.2	294.3	2258.2	296.4	66.4	41.0	852.2	262.5	265.4	851.9
290	MR	194.8	290.1	319.4	331.9	288.9	1998.6	326.8	8.8	71.3	949.1	54.6	214.8	947.3
291	MR	116.1	259.1	305.2	306.2	259.1	2685.1	482.8	38.7	71.3	1318.6	154.7	157.4	1318.6
292	MR	175.1	291.3	312.0	329.6	291.3	2045.9	397.1	20.2	79.1	1096.5	92.7	164.2	1093.9
293	MR	116.7	289.7	317.5	317.6	289.7	2853.9	483.6	14.2	81.1	1419.9	71.2	71.8	1419.9
294	MR	170.8	296.4	339.2	346.3	296.4	1973.8	317.5	36.0	58.8	866.7	140.0	207.9	866.7
295	MR	168.2	279.0	308.1	319.7	279.0	1838.1	361.9	15.5	79.6	989.9	72.7	161.0	989.9
296	MR	135.3	296.7	313.3	314.6	296.7	1816.8	315.4	41.8	52.8	766.5	225.1	311.2	765.9
297	MR	206.3	322.0	337.2	352.6	322.0	1403.8	212.9	7.0	61.9	609.5	45.8	183.5	609.5
298	MR	179.1	303.5	337.2	342.4	303.4	1899.4	260.3	25.0	53.0	764.8	112.2	146.9	731.9
299	MR	126.9	190.8	197.3	200.0	188.2	2887.1	494.9	142.8	43.7	1209.5	461.3	479.0	999.4
300	MR	197.0	315.0	336.4	348.7	315.0	1503.3	227.0	11.2	59.8	655.0	59.5	210.5	655.0
301	MR	122.9	294.4	306.0	307.0	294.3	3726.7	446.6	212.4	20.8	1184.6	721.9	728.4	1183.7
302	MR	115.5	286.0	301.0	302.0	284.0	3357.0	576.0	58.5	62.5	1467.5	203.5	250.0	1105.5
303	MR	213.7	317.0	306.7	333.2	305.7	1107.5	174.5	14.4	64.0	509.8	58.3	241.8	113.2
304	MR	113.9	291.5	300.4	300.4	289.9	3099.3	450.0	164.0	34.8	1198.7	528.4	528.4	1051.4
305	MR	134.2	275.7	263.2	279.4	258.6	3532.6	478.2	90.3	42.6	1338.8	363.9	809.5	375.2
306	MR	173.8	221.1	219.9	232.5	218.2	1820.3	265.4	29.1	48.5	720.5	153.3	373.8	442.1
307	MR	128.2	225.3	222.0	229.3	220.7	1723.7	357.3	67.8	58.9	804.1	233.4	287.8	298.7
308	MR	181.9	268.7	279.2	281.3	262.9	2390.3	304.5	60.3	37.5	834.1	272.2	407.3	686.1
309	MR	113.8	292.7	302.4	302.5	290.8	3100.7	445.8	158.7	34.6	1193.8	512.0	512.7	1060.0
310	MR	157.6	246.2	245.9	256.1	244.6	1867.4	265.2	30.1	48.1	734.3	155.1	351.9	412.1
311	MR	166.2	296.4	300.1	309.2	288.4	1866.4	250.3	29.4	52.1	716.9	103.3	280.8	653.2
312	MR	124.9	263.1	265.6	271.0	260.0	3509.1	749.4	147.4	58.3	1631.7	501.6	554.2	719.5
313	MR	168.1	266.2	273.6	275.9	264.9	2918.6	371.3	71.7	37.9	1020.0	314.3	488.1	885.8
314	MR	199.9	315.7	301.3	324.1	288.5	1586.3	232.1	22.2	52.8	660.5	110.5	315.2	132.1
315	MR	188.5	307.8	279.8	309.3	269.7	1638.9	236.0	26.3	51.5	667.8	119.5	572.4	141.6
316	MR	109.4	285.9	290.7	292.9	284.7	3275.2	477.5	172.0	34.1	1249.1	589.9	611.0	1050.5
317	MR	126.3	158.7	165.7	167.8	155.7	2202.6	351.2	111.3	41.0	909.2	357.9	366.1	727.6
318	MR	118.5	253.9	257.3	259.3	252.6	2795.7	355.0	146.8	29.6	1020.4	495.4	533.6	782.9
319	MR	110.3	191.0	190.0	194.3	188.0	1747.7	180.7	81.3	20.3	506.0	304.0	455.7	429.7
320	MR	127.1	298.4	308.4	308.4	290.2	2918.7	316.5	152.0	22.0	891.7	505.8	514.0	813.0
321	MR	174.4	301.8	295.9	314.1	293.2	1629.0	214.7	31.1	52.0	633.8	102.9	318.6	257.5
322	MR	237.6	134.7	110.0	141.9	110.0	898.0	172.1	7.4	73.7	459.9	33.6	275.9	33.6
323	MR	136.6	310.0	317.6	318.3	299.5	2855.0	396.9	142.7	29.0	993.6	473.8	687.8	721.0

324	MR	128.8	308.3	314.6	315.0	301.1	2787.4	408.1	134.5	36.6	1065.0	432.3	612.0	687.1
325	MR	114.9	292.4	293.9	295.2	290.7	3250.3	507.5	169.3	34.4	1235.6	580.3	705.3	815.5
326	MR	159.3	298.2	278.3	302.1	276.4	2465.0	341.3	54.2	49.7	973.9	201.2	579.7	202.8
327	MR	100.0	277.0	284.0	285.0	276.0	4165.0	500.0	258.0	25.0	1428.0	813.0	837.0	971.0
328	MR	169.4	301.7	312.9	317.1	295.7	1917.8	230.3	30.8	44.0	661.4	170.4	290.4	635.3
329	MR	163.1	299.4	311.0	314.8	293.5	1940.0	235.8	32.3	42.9	665.4	172.5	307.5	649.0
330	MR	172.3	283.7	315.7	325.7	283.7	2137.3	356.0	6.3	68.0	988.0	62.7	248.3	988.0
331	MR	178.5	283.3	313.6	324.9	283.3	1769.3	321.1	0.4	76.3	892.8	39.1	153.3	892.8
332	MR	166.5	297.0	321.3	322.1	296.9	2056.6	297.0	32.3	49.4	796.4	160.2	160.6	775.3
333	MR	155.3	299.2	333.5	333.5	299.2	3098.2	568.5	50.3	76.3	1599.6	173.5	173.5	1599.6
334	MR	103.5	288.6	292.5	293.5	287.8	3019.5	351.6	159.1	25.4	1010.8	526.6	547.5	871.0
335	MR	119.9	294.8	307.6	307.8	294.8	2865.9	346.8	146.7	27.3	988.1	463.0	551.8	988.1
336	MR	208.6	321.9	335.9	351.9	321.9	1362.4	215.8	7.4	61.7	604.2	49.4	185.0	604.2
337	MR	165.4	296.5	330.9	331.0	296.5	2528.0	318.9	44.3	39.5	909.2	264.9	290.2	909.2
338	MR	174.3	284.0	315.2	326.0	284.0	1998.3	346.2	2.2	72.2	963.7	46.3	203.8	963.7
339	MR	146.2	300.5	329.2	329.2	300.5	2084.8	275.1	77.1	33.2	741.0	298.3	306.5	740.9
340	MR	169.2	293.4	305.5	312.1	290.1	1928.0	261.5	24.4	53.7	754.6	101.6	271.0	727.4
341	MR	170.1	296.7	303.3	314.6	294.1	1686.0	234.0	20.7	56.0	657.2	71.1	237.8	612.2
342	MR	127.8	294.3	314.5	314.5	294.3	2504.8	509.5	19.0	83.3	1352.5	72.5	72.5	1265.0
343	MR	166.0	298.7	309.3	330.7	298.7	1752.3	351.3	9.7	85.0	976.3	52.0	198.3	976.3
344	MR	219.0	327.5	333.0	352.5	327.5	1179.5	208.5	5.0	67.0	550.5	35.0	143.5	502.5
345	MR	103.0	294.0	311.0	311.0	293.0	1424.0	286.0	4.0	92.0	836.0	28.0	28.0	778.0
346	MR	162.2	297.5	309.3	329.5	297.5	1853.3	364.0	13.0	84.3	1031.2	58.5	210.7	1031.2
347	MR	175.3	284.5	315.8	326.5	284.5	1941.0	340.8	1.5	73.8	955.0	44.0	187.0	955.0
348	MR	176.0	285.0	316.7	327.0	285.0	1949.3	346.7	1.7	75.0	980.7	44.7	180.7	980.7
349	MR	201.3	295.4	322.8	336.4	293.2	2073.4	326.7	12.9	66.6	956.2	73.0	260.4	939.9
350	MR	207.7	294.5	321.2	334.9	292.7	1902.5	315.3	8.0	71.8	916.0	53.8	208.7	898.3
351	MR	135.9	286.4	324.9	325.6	286.4	2983.0	471.9	42.0	60.0	1361.5	244.3	275.5	1361.5
352	MR	158.5	304.4	334.8	340.0	304.4	2966.3	585.4	35.4	82.0	1607.2	118.1	129.7	1607.2
353	MR	173.0	284.0	316.0	326.0	284.0	2159.0	360.0	5.0	68.0	993.0	59.0	250.0	993.0
354	MR	178.0	286.0	316.0	327.0	286.0	1836.0	322.0	1.0	74.0	901.0	40.0	171.0	901.0
355	MR	172.3	301.3	334.5	337.4	301.3	1985.5	274.2	22.9	51.0	787.7	137.2	168.6	773.7
356	MR	181.8	305.1	336.4	343.1	305.1	1962.4	282.9	26.7	56.6	825.5	95.1	207.0	822.6
357	MR	178.0	285.0	315.0	326.0	285.0	1874.0	325.0	1.0	73.0	909.0	39.0	179.0	909.0
358	MR	156.8	292.1	332.1	334.1	292.1	2385.8	337.9	46.1	47.3	942.2	221.0	229.2	942.2
359	MR	168.9	295.4	331.3	336.5	295.4	2128.5	315.7	19.1	55.9	887.1	137.2	152.9	887.1
360	MR	120.3	299.5	321.0	321.0	297.7	2621.8	526.3	27.5	83.4	1402.7	97.8	103.7	1368.9

361	MR	141.7	296.6	328.5	330.6	296.6	3295.1	537.1	50.5	62.9	1580.2	309.5	354.5	1580.2
362	MR	126.7	294.8	315.2	315.2	294.5	2539.7	520.8	19.6	84.4	1378.6	72.5	72.5	1295.4
363	MR	176.3	283.3	315.0	326.0	283.3	2000.0	344.5	3.5	73.5	992.3	49.8	195.8	992.3
364	MR	130.0	291.0	311.0	311.0	291.0	2284.0	473.0	6.0	86.0	1262.0	34.0	34.0	1262.0
365	MR	124.0	291.0	311.0	311.0	291.0	2060.0	424.0	6.0	84.0	1108.0	34.0	34.0	1108.0
366	MR	122.0	292.0	312.0	312.0	292.0	1987.0	401.0	7.5	82.5	1040.0	39.0	39.0	1040.0
367	MR	115.2	303.9	328.7	329.6	301.5	2911.2	583.7	8.6	89.6	1612.7	59.0	115.5	1590.3
368	MR	130.0	291.0	311.0	311.0	291.0	2399.0	482.0	10.0	84.0	1305.0	48.0	48.0	1305.0
369	MR	121.7	298.3	319.0	319.0	297.3	2591.0	527.3	25.7	83.7	1392.7	90.0	90.0	1343.0
370	MR	120.0	302.0	323.0	324.0	300.0	2642.5	525.0	28.0	83.0	1411.5	101.5	160.0	1388.5
371	MR	177.0	282.7	314.3	325.3	282.7	1965.3	352.7	2.0	75.7	994.3	44.7	180.0	994.3
372	MR	114.8	291.1	303.5	304.4	291.1	2559.3	303.9	82.1	32.0	838.5	322.1	464.3	838.5
373	MR	159.8	296.9	327.7	327.7	296.9	2299.6	300.9	37.9	42.7	840.8	214.6	216.6	840.8
374	MR	173.5	284.0	316.0	327.0	284.0	2053.5	348.5	5.5	70.0	983.0	58.0	222.0	983.0
375	MR	219.3	318.0	318.3	337.8	317.6	1251.4	209.9	7.3	68.9	595.1	45.9	147.7	353.3
376	MR	176.0	284.5	315.5	326.5	284.5	1914.0	336.5	1.0	74.0	940.5	42.5	183.0	940.5
377	MR	122.1	271.6	317.4	317.4	269.9	2254.6	518.2	16.2	90.2	1305.0	61.2	61.2	1238.1
378	MR	120.3	276.7	319.1	319.2	276.5	2819.2	480.6	38.6	67.9	1323.0	170.5	170.7	1322.7
379	MR	215.4	324.2	333.6	351.7	324.2	1260.9	216.0	7.0	64.4	580.7	45.2	165.6	578.1
380	MR	213.2	321.2	332.9	349.9	321.2	1306.5	223.0	8.2	63.4	601.9	51.4	178.6	601.9
381	MR	136.9	295.7	310.8	310.8	292.8	2403.4	259.2	62.2	29.0	739.7	328.8	328.8	728.0
382	MR	163.3	281.2	317.7	325.8	281.2	1788.1	350.5	21.7	79.5	957.1	74.8	95.8	957.1
383	MR	100.3	288.8	293.6	293.6	288.8	2822.5	316.6	134.6	24.4	897.5	466.6	469.1	897.5
384	MR	195.0	315.7	338.2	349.8	315.7	1507.2	225.0	12.4	59.9	654.1	58.4	205.5	654.1
385	MR	203.4	318.6	336.2	350.5	318.6	1434.5	224.4	9.7	60.7	633.1	57.7	201.9	633.1
386	MR	169.0	286.9	319.7	329.4	286.9	2128.6	337.6	15.1	63.1	954.3	89.5	270.8	954.3
387	MR	127.1	301.5	312.6	317.6	300.2	2670.9	358.0	123.7	35.7	978.4	426.5	444.5	921.5
388	MR	157.7	276.9	305.2	316.2	276.9	1764.9	354.8	22.9	82.6	993.8	86.4	160.0	993.8
389	MR	153.9	300.0	313.1	313.6	294.8	2163.3	251.7	45.3	37.3	707.2	238.3	249.9	701.1
390	MR	173.0	286.5	327.4	335.5	286.5	1984.6	368.0	25.8	73.3	997.3	95.6	129.6	997.3
391	MR	176.0	284.0	316.0	327.0	284.0	1940.0	342.0	2.0	75.0	968.0	44.0	182.0	968.0
392	MR	119.0	301.0	322.0	322.0	299.0	2642.0	527.0	28.0	83.0	1414.0	100.0	159.0	1389.0
393	MR	175.8	284.8	316.8	327.0	284.8	1949.5	344.5	1.8	74.8	974.8	44.8	183.0	974.8
394	MR	172.5	284.5	316.5	326.5	284.5	2065.0	351.0	4.0	70.5	979.0	54.5	224.5	979.0
395	MR	173.3	284.1	340.1	343.7	284.1	2123.2	405.6	24.0	81.7	1152.7	85.6	91.4	1152.7
396	MR	145.5	298.1	329.2	331.1	298.1	3115.9	525.8	52.7	67.1	1531.3	246.8	288.4	1531.3
397	MR	123.0	275.9	318.5	318.5	274.3	2381.0	498.0	21.3	82.5	1284.7	90.2	91.1	1257.3

398	MR	105.5	144.8	144.6	148.0	138.4	1925.8	268.7	95.8	32.3	732.3	329.6	425.8	506.3
399	MR	81.0	178.0	177.0	181.0	176.0	1868.0	209.0	100.0	23.0	545.0	314.0	416.0	404.0
400	MR	110.2	184.9	183.3	186.1	179.6	2477.5	343.1	130.7	31.5	937.4	427.7	711.4	650.9
401	MR	113.0	297.0	311.3	311.3	291.0	1884.0	401.8	29.5	72.5	978.5	92.3	92.3	458.5
402	MR	121.8	295.0	320.3	320.3	295.0	2009.4	359.5	45.9	61.7	986.1	175.8	175.8	986.1
403	MR	126.3	295.0	322.3	322.3	295.0	2016.3	373.0	46.8	63.5	986.8	167.5	169.8	986.8
404	MR	141.4	289.4	326.7	327.4	288.9	2693.5	565.3	31.3	70.0	1337.0	163.7	184.0	1330.1
405	MR	122.8	293.9	317.6	317.6	292.8	1882.8	343.7	47.5	62.1	916.8	159.7	163.1	442.2
406	MR	129.8	299.5	327.9	328.9	299.5	2036.5	378.8	35.2	63.9	1009.1	161.0	178.2	1009.1
407	MR	121.7	285.0	303.3	303.3	281.6	2440.9	419.3	44.9	61.9	1103.1	183.4	183.4	750.3
408	MR	116.8	287.7	302.6	302.9	285.8	3424.8	601.1	53.4	64.8	1522.3	188.6	245.5	1132.1
409	MR	123.9	282.6	299.9	299.9	279.4	3032.4	519.4	44.9	63.3	1296.4	182.3	182.3	1075.1
410	MR	169.3	294.3	330.6	335.7	294.3	2114.9	312.6	19.9	55.0	869.6	142.0	153.6	869.6
411	MR	117.5	297.3	321.7	321.7	297.3	1736.5	311.5	35.3	60.8	848.8	154.0	154.0	848.8
412	MR	186.4	284.1	315.3	325.3	284.1	1687.8	323.1	0.5	79.7	883.0	33.5	130.6	883.0
413	MR	175.4	286.3	335.6	335.6	286.3	2208.7	412.8	41.6	63.9	1105.4	167.3	167.3	1055.9
414	MR	117.3	294.7	313.6	313.6	291.3	1898.4	346.5	37.2	64.4	915.4	122.0	122.0	483.1
415	MR	213.8	304.6	294.4	318.9	279.0	970.4	150.5	15.8	62.1	443.6	54.6	206.5	132.7
416	MR	180.3	312.4	340.2	346.2	312.3	1538.1	233.8	9.4	59.6	643.6	62.3	132.1	634.2
417	MR	202.1	327.5	297.4	327.6	284.6	3207.7	461.3	41.6	55.6	1361.3	224.0	1258.3	465.3
418	MR	134.0	301.5	323.0	326.0	301.5	2508.0	411.5	59.0	59.5	1166.0	276.0	306.0	1166.0
419	MR	206.7	312.9	306.4	326.9	293.0	1072.0	165.6	18.5	59.8	476.5	68.2	229.2	152.5
420	MR	212.0	318.0	289.0	323.0	276.5	3155.0	488.5	36.5	60.0	1381.5	187.5	1204.0	191.0
421	MR	178.9	309.7	306.4	318.0	295.9	1483.8	212.3	22.4	52.0	588.3	116.1	312.3	245.3
422	MR	132.5	235.5	241.0	243.5	232.5	3626.0	691.5	141.0	53.0	1633.5	495.0	537.0	1050.5
423	MR	201.0	326.3	298.0	326.3	285.0	3051.7	437.3	39.7	55.0	1289.7	217.7	1190.3	456.3
424	MR	117.6	235.3	237.4	238.1	233.1	2818.6	363.4	147.7	29.3	1018.0	497.4	547.6	773.4
425	MR	200.5	318.5	318.0	332.5	305.5	1594.5	239.0	22.5	55.0	673.5	119.0	332.0	238.5
426	MR	192.3	127.2	106.1	133.1	106.1	931.6	185.9	6.4	77.7	479.2	31.1	296.3	31.1
427	MR	204.0	88.0	63.0	92.0	63.0	824.0	176.0	5.0	82.0	460.0	27.0	230.0	27.0
428	MR	129.2	218.6	214.5	222.2	213.3	1642.3	334.6	66.7	57.4	756.4	232.1	279.4	280.5
429	MR	164.8	218.3	214.3	229.3	213.8	1630.8	234.8	27.2	52.8	667.2	118.5	351.1	240.9
430	MR	196.4	179.4	176.0	186.0	174.6	1126.8	165.4	18.6	49.6	456.0	95.0	260.2	167.2
431	MR	135.7	173.5	169.7	175.7	168.9	1141.0	168.7	32.9	43.0	432.8	134.7	245.5	156.7
432	MR	112.6	289.1	316.1	317.4	289.1	2375.3	428.8	58.1	56.0	1100.8	225.6	301.4	1100.8
433	MR	195.2	319.2	311.6	327.2	297.7	1887.8	276.8	24.6	54.0	792.6	141.9	381.4	301.6
434	MR	130.4	257.7	267.6	274.3	254.3	2875.3	441.1	54.2	52.0	1147.0	213.5	725.6	1079.1

Código	Nome	Categoria	País	Área (km ²)
1	ACR Alto Nanay- Pintuyacu Chambira	V	Perú	10423.9
2	ACR Ampiyacu Apayacu	V	Perú	4335.3
3	ACR Choquequirao	V	Perú	305.9
4	ACR Comunal Tamshiyacu Tahuayo	V	Perú	4198.8
5	ACR Cordillera Escalera	V	Perú	1499.0
6	ACR Imiria	V	Perú	1358.2
7	ACR Maijuna Kichwa	V	Perú	3908.7
8	AECM Siete Iglesias	V	Equador	113.1
9	AMIMZE de Amortiguamiento Santos Reyes	IV	Bolívia	8992.2
10	ANCM Cuencas Eva - Eva Mosevenes	VI	Bolívia	2397.8
11	APA Arquipélago do Marajó	V	Brasil	45236.7
12	APA Baixada Maranhense	V	Brasil	10784.5
13	APA Baixo Rio Branco	V	Brasil	15645.6
14	APA Cumbre de Apacheta	V	Bolívia	77.1
15	APA das Reentrâncias Maranhenses	V	Brasil	4124.0
16	APA de cuencas y biodiversidad Cumbre Alto Beni	V	Bolívia	849.2
17	APA de ruinas arqueologicas Paititi	V	Bolívia	123.0
18	APA Fazendinha	V	Brasil	1.5
19	APA Igarapé Gelado	V	Brasil	233.4
20	APA Igarapé São Francisco	V	Brasil	300.2
21	APA Ilha do Combu	V	Brasil	0.1
22	APA Lago de Santa Isabel	V	Brasil	69.5
23	APA Lago de Tucuruí	V	Brasil	5682.1
24	APA Lago do Amapá	V	Brasil	51.8
25	APA Margem Direita do Rio Negro - Paduari - Solimões	V	Brasil	4611.5
26	APA Margem Esquerda do Rio Negro - Tarumã Açú - Tarumã Mirima	V	Brasil	559.3
27	APA Margem Esquerda do Rio Negro - Tarumã Açú - Tarumã Mirima	V	Brasil	5689.6
28	APA Nhamundá	V	Brasil	2015.9
29	APA Parque Linear do Bindá	V	Brasil	0.1
30	APA Paytuna	V	Brasil	673.6
31	APA Presidente Figueiredo - Caverna do Moroaga	V	Brasil	4085.5
32	APA Região Metropolitana de Belém	V	Brasil	81.1
33	APA Rio Curiaú	V	Brasil	218.7
34	APA Rio Madeira	V	Brasil	67.6
35	APA São Geraldo do Araguaia	V	Brasil	258.5
36	APA Tapajós	V	Brasil	20403.8

37	APA Taruma/Ponta Negra	V	Brasil	181.6
38	APA Tres Arroyos	V	Bolivia	8.3
39	APA Triunfo do Xingu	V	Brasil	16797.1
40	APA Xeriuini	V	Brasil	16064.6
41	APM Area de Influencia Laguna Yaguarú	V	Bolivia	2.8
42	APM Curichi El Cuajo	V	Bolivia	3.8
43	APM Lago San José	V	Bolivia	164.4
44	APM Lago Tumichucua	V	Bolivia	4.0
45	APM Laguna Yaguarú	V	Bolivia	1.8
46	APM Pampas del Río Yacuma	V	Bolivia	5962.0
47	APM Río Maniqui y TCO Tsimane	V	Bolivia	1158.0
48	APM Serranía Ibadebe (Tigre negro)	V	Bolivia	288.3
49	AR Cuatro Microcuencas del Municipio de Inirida	V	Colombia	0.8
50	Area Natural de Manejo Integado Nacional Apolobamba	IV	Bolivia	2198.4
51	Area Natural de Manejo Integradado Amboró	IV	Bolivia	1187.3
52	Area Natural de Manejo Integradado Humedales del Norte	IV	Bolivia	4763.5
53	Area Natural de Manejo Integradado Madidi	IV	Bolivia	6012.7
54	ARIE Japiim Pentecoste	IV	Brasil	256.5
55	ARIE Javari Burity	IV	Brasil	130.1
56	ARIE Museu Parque Seringal	IV	Brasil	0.0
57	ARIE Parque Ambiental Antonio Danubio Lourenço da Silva	IV	Brasil	0.0
58	ARIE Projeto Dinâmica Biológica de Fragmentos Florestais	IV	Brasil	31.8
59	ARIE Seringal Nova Esperança	IV	Brasil	25.7
60	AURG Kanuku Mountains Protected Area	VI	Guiana	6099.5
61	AURG Shell Beach Protected Area	VI	Guiana	785.5
62	AURG Shell Beach Protected Area	VI	Guiana	4.0
63	AURG Shell Beach Protected Area	VI	Guyana	4.0
64	Biosphere Reserve Alto Orinoco-Casiquiare	VI	Venezuela Guiana	28007.6
65	Biotope Protection Order Grand Matoury	IV	Francesa Guiana	11.5
66	Biotope Protection Order Sables blancs de Mana	IV	Francesa	30.5
67	Bosque de Protección Alto Mayo	VI	Perú	1775.3
68	Bosque de Protección Pui Pui	VI	Perú	158.9
69	Bosque de Protección San Matías San Carlos	VI	Perú	1494.4
70	Cascada Tapir	IV	Bolivia	15.8
71	Community Owned Conservation Area Kanashen	VI	Guiana	6525.2
72	El Tuparro PARNA Natural	II	Colombia	65.7

73	El Tuparro RNN	IV	Colombia	54.8
74	ESEC Alto Maués	Ia	Brasil	36.7
75	ESEC Caracarái	Ia	Brasil	790.8
76	ESEC Cuniã	Ia	Brasil	8315.2
77	ESEC Grão Pará	Ia	Brasil	2711.8
78	ESEC Iquê	Ia	Brasil	85.4
79	ESEC Jari	Ia	Brasil	3421.9
80	ESEC Juami-Japurá	Ia	Brasil	78.9
81	ESEC Jutai-Solimões	Ia	Brasil	90.2
82	ESEC Maracá	Ia	Brasil	6159.7
83	ESEC Niquiá	Ia	Brasil	11754.2
84	ESEC Rio Acre	Ia	Brasil	382.9
85	ESEC Rio Flor do Prado	Ia	Brasil	1026.7
86	ESEC Rio Ronuro	Ia	Brasil	868.1
87	ESEC Rio Roosevelt	Ia	Brasil	42040.2
88	ESEC Samuel	Ia	Brasil	699.3
89	ESEC Serra dos Três Irmãos	Ia	Brasil	4079.2
90	ESEC Terra do Meio	Ia	Brasil	8875.9
91	FLONA Altamira	VI	Brasil	6709.9
92	FLONA Amaná	VI	Brasil	5426.3
93	FLONA Amapá	VI	Brasil	4612.6
94	FLONA Amazonas	VI	Brasil	8695.7
95	FLONA Anauá	VI	Brasil	2594.0
96	FLONA Balata-Tufari	VI	Brasil	10773.4
97	FLONA Bom Futuro	VI	Brasil	972.4
98	FLONA Carajás	VI	Brasil	3921.2
99	FLONA Caxiuanã	VI	Brasil	3179.2
100	FLONA Crepori	VI	Brasil	7399.4
101	FLONA de Itaituba II	VI	Brasil	3839.4
102	FLONA do Trairão	VI	Brasil	2575.3
103	FLONA Humaitá	VI	Brasil	4749.3
104	FLONA Iquiri	VI	Brasil	14726.6
105	FLONA Itacaiunas	VI	Brasil	1367.8
106	FLONA Itaituba I	VI	Brasil	2128.9
107	FLONA Jacundá	VI	Brasil	2212.2
108	FLONA Jamanxim	VI	Brasil	13014.8
109	FLONA Jamari	VI	Brasil	2194.0

110	FLONA Jatuarana	VI	Brasil	5761.0
111	FLONA Macauã	VI	Brasil	1764.3
112	FLONA Mapiá-Inauini	VI	Brasil	3688.5
113	FLONA Mulata	VI	Brasil	2164.9
114	FLONA Pau-Rosa	VI	Brasil	9713.8
115	FLONA Purus	VI	Brasil	2561.2
116	FLONA Roraima	VI	Brasil	1672.4
117	FLONA Santa Rosa do Purus	VI	Brasil	2315.5
118	FLONA São Francisco	VI	Brasil	211.5
119	FLONA Saracá - Taquera	VI	Brasil	4411.1
120	FLONA Tapajós	VI	Brasil	5306.1
121	FLONA Tapirapé-Aquiri	VI	Brasil	1140.9
122	FLONA Tefê	VI	Brasil	8652.4
123	FLOTA Apuí	VI	Brasil	1808.5
124	FLOTA Canutaba	VI	Brasil	1505.9
125	FLOTA de Aripuanã	VI	Brasil	3287.4
126	FLOTA de Faro	VI	Brasil	6284.3
127	FLOTA de Rendimento Sustentado Araras	VI	Brasil	10.1
128	FLOTA de Rendimento Sustentado Cedro	VI	Brasil	25.6
129	FLOTA de Rendimento Sustentado do Rio Machado	VI	Brasil	951.2
130	FLOTA de Rendimento Sustentado do Rio Madeira B	VI	Brasil	520.8
131	FLOTA de Rendimento Sustentado Gavião	VI	Brasil	4.3
132	FLOTA de Rendimento Sustentado Mutum	VI	Brasil	108.5
133	FLOTA de Rendimento Sustentado Periquito	VI	Brasil	11.4
134	FLOTA de Rendimento Sustentado Rio Vermelho C	VI	Brasil	40.9
135	FLOTA de Rendimento Sustentado Tucano	VI	Brasil	5.1
136	FLOTA do Amapá	VI	Brasil	23004.1
137	FLOTA do Iriri	VI	Brasil	4366.7
138	FLOTA Manicoré	VI	Brasil	837.3
139	FLOTA Maúes	VI	Brasil	4142.5
140	FLOTA Paru	VI	Brasil	36155.1
141	FLOTA Rio Urubu	VI	Brasil	270.5
142	FLOTA Sucunduri	VI	Brasil	4810.3
143	FLOTA Tapauá	VI	Brasil	8814.4
144	FLOTA Trombetas	VI	Brasil	31433.2
			Guiana	
145	Forest Biological Reserve Lucifer Dekou Dekou	Ib	Francesa	1105.5
146	Forest Plot El Dorado - Tumeremo	IV	Venezuela	647.9

147	Forest Plot El Frio (C.V.G.)	IV	Venezuela	230.0
148	Forest Plot Fundo Flamerich	IV	Venezuela	123.4
149	Forest Plot Río Parguaza	IV	Venezuela	285.2
150	Forest Plot San Pedro	IV	Venezuela	30745.5
151	Forest Plot Sector Caño Blanco (Bombonera)	IV	Venezuela	185.2
152	Forest Reserve El Caura	VI	Venezuela	50854.7
153	Forest Reserve Imataca	VI	Venezuela	33066.2
154	Forest Reserve La Paragua	VI	Venezuela	3567.1
155	Forest Reserve Sipapo	VI	Venezuela	15769.8
156	Land acquired by Conservatoire du Littoral Petit Cayenne	IV	Francesa	24.1
157	MN Cerro Autana	III	Venezuela	45.0
158	MN Espejillos	III	Bolivia	12.6
159	MN Formaciones de Tepuyes	III	Venezuela	19360.8
160	Multiple Use Management Area Bigi Pan	VI	Suriname	72.3
161	Multiple Use Management Area Noord Saramacca	VI	Suriname	60.5
162	Multiple Use Management Area North Commewijne	VI	Suriname	138.4
163	Nature Park Brownsberg	II	Suriname	144.1
164	PARNA Alto Purús	II	Perú	25032.1
165	PARNA Amazônia	II	Brasil	10665.4
166	PARNA Amboró	II	Bolivia	4005.0
167	PARNA Anavilhanas	II	Brasil	3444.5
168	PARNA Bahuaja Sonene	II	Perú	10866.0
169	PARNA Buffer zone/Area of adhesion Guyane	V	Francesa	13545.8
170	PARNA Campos Amazônicos	II	Brasil	9613.1
171	PARNA Canaima	II	Venezuela	30323.8
172	PARNA Carrasco	II	Bolivia	6885.3
173	PARNA Cayambe Coca	II	Equador	3060.2
174	PARNA Cordillera Azul	II	Perú	13538.9
175	PARNA Core Area Guyane (Parc Amazonien)	II	Francesa	19924.5
176	PARNA do Cabo Orange	II	Brasil	3422.5
177	PARNA do Jamanxim	II	Brasil	8740.1
178	PARNA Gáeppi-Sekime	II	Perú	2035.7
179	PARNA Ichigkat Muja - Cordillera del Cóndor	II	Perú	883.3
180	PARNA Jaú	II	Brasil	23698.1
181	PARNA Juruena	II	Brasil	19572.4

182	PARNA Kaieteur	II	Guiana	610.3
183	PARNA Llanganates	II	Equador	1433.1
184	PARNA Madidi	II	Bolivia	12645.9
185	PARNA Manu	II	Perú	16921.4
186	PARNA Mapinguari	II	Brasil	18307.5
187	PARNA Montanhas do Tumucumaque	II	Brasil	38509.4
188	PARNA Monte Roraima	II	Brasil	1167.5
189	PARNA Nascentes do Lago Jari	II	Brasil	8130.6
190	PARNA Natural Alto Fragua - Indiwasi	II	Colombia	759.5
191	PARNA Natural Amacayacu	II	Colombia	2624.1
192	PARNA Natural Cahuinari	II	Colombia	5586.5
193	PARNA Natural Complejo Volcánico Doña Juana Cascabel	II	Colombia	198.7
194	PARNA Natural Cordillera de los Picachos	II	Colombia	2882.4
195	PARNA Natural Cueva De Los Guacharos	II	Colombia	22.4
196	PARNA Natural La Paya	II	Colombia	4422.5
197	PARNA Natural Río Puré	II	Colombia	9873.6
198	PARNA Natural Serranía de los Churumbelos	II	Colombia	919.8
199	PARNA Natural Serranis de Chiribiquete	II	Colombia	27797.5
200	PARNA Natural Sierra de la Macarena	II	Colombia	6057.3
201	PARNA Natural Sumapaz	II	Colombia	1684.5
202	PARNA Natural Tinigua	II	Colombia	2151.8
203	PARNA Natural Yaigojé Apaporis	II	Colombia	10557.3
204	PARNA Noel Kempff Mercado	II	Bolivia	2689.0
205	PARNA Otishi	II	Perú	3060.4
206	PARNA Pacaás Novos	II	Brasil	7086.7
207	PARNA Parima-Tapirapecó	II	Venezuela	38204.2
208	PARNA Pico da Neblina	II	Brasil	22915.5
209	PARNA Podocarpus	II	Equador	1335.3
210	PARNA Río Abiseo	II	Perú	1933.2
211	PARNA Rio Novo	II	Brasil	5397.5
212	PARNA Sangay	II	Equador	3866.9
213	PARNA Serra da Cutia	II	Brasil	2840.2
214	PARNA Serra da Mocidade	II	Brasil	3592.2
215	PARNA Serra do Divisor	II	Brasil	8384.6
216	PARNA Serra do Pardo	II	Brasil	4453.9
217	PARNA Serranía de la Neblina	II	Venezuela	10506.6
218	PARNA Sumaco Napo-Galeras	II	Equador	2055.7

219	PARNA Tingo María	II	Perú	47.8
220	PARNA Tunari	II	Bolivia	179.5
221	PARNA Viruá	II	Brasil	2149.6
222	PARNA y Area Natural de Manejo Integrado Cotapata	II	Bolivia	379.3
223	PARNA y Territorio Indigena Isiboro Securé	II	Bolivia	12345.8
224	PARNA Yacuri	II	Equador	173.2
225	PARNA Yanachaga-Chemillén	II	Perú	1133.5
226	PARNA Yapacana	II	Venezuela	2798.8
227	PARNA Yasuni	II	Equador	10231.6
228	Parque Estadual Chandless	II	Brasil	6934.6
229	Parque Estadual Corumbiara	II	Brasil	3837.1
230	Parque Estadual Cristalino	II	Brasil	591.9
231	Parque Estadual Guajará-Mirim	II	Brasil	2001.9
232	Parque Estadual Guariba	II	Brasil	715.5
233	Parque Estadual Igarapés do Juruena	II	Brasil	1066.2
234	Parque Estadual Matupiri	II	Brasil	5093.9
235	Parque Estadual Monte Alegre	II	Brasil	56.4
236	Parque Estadual Rio Negro Setor Norte	II	Brasil	1484.3
237	Parque Estadual Rio Negro Setor Sul	II	Brasil	1554.8
238	Parque Estadual Serra do Aracá	II	Brasil	18709.1
239	Parque Estadual Serra dos Martírios/Andorinhas	II	Brasil	247.4
240	Parque Estadual Serra dos Reis	II	Brasil	363.1
241	Parque Estadual Sucunduri	II	Brasil	7881.8
242	Parque Estadual Sumaúma	II	Brasil	0.5
243	Parque Estadual Tucumã	II	Brasil	802.6
244	Parque Estadual Utinga	II	Brasil	11.9
245	Parque Estadual Xingu	II	Brasil	953.3
246	Parque Regional Pedro Ignacio Muiba	II	Bolivia	620.7
247	Parque Regional Yacuma	II	Bolivia	2348.1
248	PMU Cancão	II	Brasil	3.7
249	PMU Iténez	IV	Bolivia	14280.7
250	PMU Parque Florestal de Sinop	II	Brasil	1.1
251	PMU Tequeje	II	Bolivia	54.0
252	PMU Veredas dos Carajás	II	Brasil	8.3
253	PMU y de Protección de Cuencas Cascasa Boqueron - Quijarro	II	Bolivia Guiana	246.6
254	PNR Guyane	V	Francesa	5540.4
255	PNR La Siberia Y Parte De La Cuenca Alta Del Rio Las Ceibas	II	Colombia	63.9

256	PNR Laguna de Lomalinda	II	Colombia	8.1
257	PNR Laguna San Vicente	II	Colombia	4.9
258	PNRCerro Paramo de Miraflores	II	Colombia	104.6
259	PNRCorredor Biologico Guacharos Purace	II	Colombia	14.0
260	Protective Zone Sur del Estado Bolívar	V	Venezuela	50892.8
261	Ramsar Site Basse-Mana	VI	Francesa	80.0
262	Ramsar Site Mamirauá	VI	Brasil Guiana	11474.3
263	Ramsar Site Marais De Kaw	VI	Francesa	138.0
264	Ramsar Site Reentrancias Maranhenses	VI	Brasil	3257.5
265	RDS Amanã	VI	Brasil	22993.6
266	RDS Aripuanã	VI	Brasil	2181.0
267	RDS Bararati	VI	Brasil	1073.4
268	RDS Canumã	VI	Brasil	227.6
269	RDS Cujubim	VI	Brasil	24219.0
270	RDS do Juma	VI	Brasil	5807.8
271	RDS do Matupiri	VI	Brasil	1770.6
272	RDS do Rio Iratapuru	VI	Brasil	8617.4
273	RDS do Rio Negro	VI	Brasil	1026.2
274	RDS do Tupé	VI	Brasil	103.8
275	RDS do Uatumã	VI	Brasil	4234.5
276	RDS Igapó-Açu	VI	Brasil	3891.1
277	RDS Itatupã-Baquiá	VI	Brasil	644.4
278	RDS Mamirauá	VI	Brasil	13235.5
279	RDS Piagaçu Purus	VI	Brasil	12013.4
280	RDS Rio Amapá	VI	Brasil	2169.9
281	RDS Rio Madeira	VI	Brasil	2795.8
282	RDS Uacarí	VI	Brasil	6197.0
283	REBIO Abufari	Ia	Brasil	266.5
284	REBIO Bosque Experimental Elías Meneses	Ia	Bolivia	2853.2
285	REBIO Cerro Plateado	Ia	Equador	2895.1
286	REBIO Colonso Chalupas	Ia	Equador	2.4
287	REBIO El Cóndor	Ia	Equador	9385.9
288	REBIO El Quimi	Ia	Equador	111.1
289	REBIO Guaporé	Ia	Brasil	2239.3
290	REBIO Gurupi	Ia	Brasil	979.6
291	REBIO Jaru	Ia	Brasil	2378.1

292	REBIO Lago Piratuba	Ia	Brasil	995.3
293	REBIO Limoncocha	Ia	Equador	3309.0
294	REBIO Maicuru	Ia	Brasil	6660.9
295	REBIO Morro dos Seis Lagos	Ia	Brasil	33741.0
296	REBIO Nascentes Serra do Cachimbo	Ia	Brasil	1035.5
297	REBIO Rio Ouro Preto	Ia	Brasil	252.1
298	REBIO Rio Trombetas	Ia	Brasil	885.0
299	REBIO Tapirapé	Ia	Brasil	845.2
300	REBIO Traçadal	Ia	Brasil	548.6
301	REBIO Uatumã	Ia	Brasil	10952.2
302	Regional RNN Trésor	IV	Guiana Francesa	24.6
303	Reserva Científica, Ecológica y Arqueológica Kenneth Lee	VI	Bolivia	4472.2
304	Reserva Comunal Airo Pai	VI	Perú	2480.4
305	Reserva Comunal Amarakaeri	VI	Perú	4022.1
306	Reserva Comunal Ashaninka	VI	Perú	1845.3
307	Reserva Comunal Chayu Nain	VI	Perú	235.6
308	Reserva Comunal El Sira	VI	Perú	6168.5
309	Reserva Comunal Huimeki	VI	Perú	1413.4
310	Reserva Comunal Machiguenga	VI	Perú	2316.4
311	Reserva Comunal Purus	VI	Perú	2049.9
312	Reserva Comunal Tuntanain	VI	Perú	947.9
313	Reserva Comunal Yanasha	VI	Perú	334.2
314	Reserva de la Biósfera Estación Biológica del Beni	VI	Bolivia	1351.6
315	Reserva de la Biósfera y Territorio Indígena Pilon Lajas	VI	Bolivia	4008.1
316	Reserva de Producción de Fauna Cuyabeno	VI	Equador	5919.0
317	Reserva Ecológica Antisana	VI	Equador	688.5
318	Reserva Ecológica Cofán Bermejo	VI	Equador	548.4
319	Reserva Forestal Protectora Regional Serrania La Vieja	VI	Colombia	5.6
320	Reserva Nacional Allpahuayo Mishana	VI	Perú	580.8
321	Reserva Nacional Amazónica Manuripi Heath	VI	Bolivia	7738.8
322	Reserva Nacional de Fauna Andina Incacasani Altamachi	IV	Bolivia	137.1
323	Reserva Nacional Matsés	VI	Perú	4207.0
324	Reserva Nacional Pacaya Samiria	VI	Perú	21717.8
325	Reserva Nacional Pucacuro	VI	Perú	6384.3
326	Reserva Nacional Tambopata	VI	Perú	2778.3
327	Reserva Natural de la Sociedad Civil El Arrullo	VI	Colombia	0.2
328	RESEX Alto Juruá	VI	Brasil	5379.7

329	RESEX Alto Tarauacá	VI	Brasil	1509.8
330	RESEX Angelim	VI	Brasil	83.8
331	RESEX Aquariquara	VI	Brasil	192.8
332	RESEX Arapixi	VI	Brasil	1340.3
333	RESEX Arióca Puanã	VI	Brasil	838.2
334	RESEX Auati-Paraná	VI	Brasil	1469.0
335	RESEX Baixo Juruá	VI	Brasil	1780.4
336	RESEX Barreiro das Antas	VI	Brasil	1044.3
337	RESEX Canutama	VI	Brasil	1979.4
338	RESEX Castanheira	VI	Brasil	96.6
339	RESEX Catuá-Ipixuna	VI	Brasil	2123.2
340	RESEX Cazumbá-Iracema	VI	Brasil	7467.0
341	RESEX Chico Mendes	VI	Brasil	9314.5
342	RESEX Chocoaré-Mato Grosso	VI	Brasil	10.1
343	RESEX Ciriáco	VI	Brasil	3.6
344	RESEX Curralinho	VI	Brasil	17.0
345	RESEX de Cururupu	VI	Brasil	14.5
346	RESEX Extremo Norte do Tocantins	VI	Brasil	90.7
347	RESEX Freijó	VI	Brasil	6.3
348	RESEX Garrote	VI	Brasil	8.7
349	RESEX Guariba	VI	Brasil	1481.4
350	RESEX Guariba-Roosevelt	VI	Brasil	1380.8
351	RESEX Gurupá-Melgaço	VI	Brasil	1454.1
352	RESEX Ipaú-Anilzinho	VI	Brasil	558.3
353	RESEX Ipê	VI	Brasil	8.2
354	RESEX Itaúba	VI	Brasil	16.0
355	RESEX Ituxí	VI	Brasil	7762.5
356	RESEX Jaci-Paraná	VI	Brasil	2004.2
357	RESEX Jatobá	VI	Brasil	13.4
358	RESEX Lago do Capanã Grande	VI	Brasil	3035.7
359	RESEX Lago do Cuniã	VI	Brasil	501.6
360	RESEX Mãe Grande de Curuça	VI	Brasil	9.2
361	RESEX Mapuá	VI	Brasil	926.4
362	RESEX Maracanã	VI	Brasil	23.0
363	RESEX Maracatiara	VI	Brasil	86.6
364	RESEX Marinha Caeté-Taperaçu	VI	Brasil	16.6
365	RESEX Marinha de Araí-Peroba	VI	Brasil	11.8

366	RESEX Marinha de Gurupi-Piriá	VI	Brasil	35.5
367	RESEX Marinha de Soure	VI	Brasil	190.1
368	RESEX Marinha de Tracuateua	VI	Brasil	39.6
369	RESEX Marinha Mestre Lucindo	VI	Brasil	4.0
370	RESEX Marinha Mocapajuba	VI	Brasil	34.2
371	RESEX Massaranduba	VI	Brasil	61.7
372	RESEX Médio Juruá	VI	Brasil	2521.0
373	RESEX Médio Purús	VI	Brasil	6042.2
374	RESEX Mogno	VI	Brasil	24.1
375	RESEX Pedras Negras	VI	Brasil	1262.6
376	RESEX Piquiá	VI	Brasil	12.8
377	RESEX Renascer	VI	Brasil	2131.5
378	RESEX Rio Cajari	VI	Brasil	5323.9
379	RESEX Rio Cautário	VI	Brasil	765.7
380	RESEX Rio Cautário	VI	Brasil	1510.6
381	RESEX Rio Gregório	VI	Brasil	3070.3
382	RESEX Rio Iriri	VI	Brasil	3989.9
383	RESEX Rio Jutai	VI	Brasil	2755.1
384	RESEX Rio Ouro Preto	VI	Brasil	2066.3
385	RESEX Rio Pacaás Novos	VI	Brasil	3497.8
386	RESEX Rio Preto-Jacundá	VI	Brasil	1197.7
387	RESEX Rio Unini	VI	Brasil	8478.8
388	RESEX Rio Xingu	VI	Brasil	3029.4
389	RESEX Riozinho da Liberdade	VI	Brasil	3249.2
390	RESEX Riozinho do Anfrísio	VI	Brasil	7360.8
391	RESEX Roxinho	VI	Brasil	10.4
392	RESEX São João da Ponta	VI	Brasil	11.0
393	RESEX Seringueira	VI	Brasil	4.8
394	RESEX Sucupira	VI	Brasil	28.2
395	RESEX Tapajós Arapiuns	VI	Brasil	6742.3
396	RESEX Terra Grande Pracuuba	VI	Brasil	1945.8
397	RESEX Verde para Sempre	VI	Brasil	12893.1
398	RFPN Laguna La Cocha Cerro Patascoy	VI	Colombia	261.2
399	RFPN Rio Las Ceibas	VI	Colombia	17.0
400	RFPN Rio Mocoa	VI	Colombia	299.7
401	RNN Amana	IV	Francesa	4.2
402	RNN Boven-Coesewijne	IV	Suriname	274.0

403	RNN Brinck-heuvel	IV	Suriname	60.9
404	RNN Central Suriname	IV	Suriname	15906.7
405	RNN Copi	IV	Suriname	282.3
406	RNN Kaboeri Kreek	IV	Suriname	745.5
407	RNN La Trinité	IV	Guiana Francesa	767.7
408	RNN Marais de Kaw-Roura	IV	Guiana Francesa	376.8
409	RNN Nouragues	IV	Francesa	1062.6
410	RNN Nukak	Ia	Colombia	1858.4
411	RNN Peruvia	IV	Suriname	139.8
412	RNN Puinawai	Ia	Colombia	3468.6
413	RNN Sipaliwini	IV	Suriname	1007.9
414	RNN Wane Kreek	IV	Suriname	359.5
415	RPN del Copaibo de Concepción	V	Bolivia	458.1
416	RVS Bruno Racua	Ib	Bolivia	737.3
417	RVS Cicatrices de Meandros Antiguos del Río Ichilo	Ib	Bolivia	240.2
418	RVS Metrópole da Amazônia	IV	Brasil	62.7
419	RVS Ríos Blanco y Negro	Ib	Bolivia	11332.6
420	RVSCavernas del Repechón	IV	Bolivia	2.1
421	RVSEI Dorado	IV	Bolivia	1717.1
422	RVSEI Zarza	IV	Equador	36.9
423	RVSIng. Federico Bascopé Vargas	IV	Bolivia	56.0
424	Santuario de Flora Plantas Medicinales Orito Ingi Ande	IV	Colombia	102.0
425	Santuario de Vida Silvestre Chuchini	IV	Bolivia	51.9
426	Santuario Histórico Machupicchu	III	Perú	224.0
427	Santuario Nacional Ampay	III	Perú	35.0
428	Santuario Nacional Cordillera de Colán	IV	Perú	391.5
429	Santuario Nacional Megantoni	III	Perú	2155.9
430	Santuario Nacional Pampa Hermosa	III	Perú	111.6
431	Santuario Nacional Tabaconas Namballe	III	Perú	321.2
432	Wilderness Reserve/AURG	VI	Guiana	3714.0
433	Wildlife Refuge Estancias San Rafael	IV	Bolivia	448.7
434	World Heritage Site Canaima National Park	II	Venezuela	30886.8
435	World Heritage Site Central Suriname RNN	IV	Suriname	4567.6
436	Zona Reservada Río Nieva	III	Perú	362.9
437	Zona Reservada Santiago Comaina	III	Perú	3979.7

438	Zona Reservada Sierra del Divisor	III	Perú	14693.3
439	Zona Reservada Yaguas	III	Perú	8682.6

Legenda: Variáveis de temperatura estão multiplicadas por 10. Tmax = Temperatura máxima; Tmin = Temperatura mínima; Prec = Precipitação. Variáveis bioclimáticas: Bio1 = Temperatura média anual; Bio2 = Variação média diurna; Bio3 = Isotermalidade; Bio4 = Sazonalidade da Temperatura; Bio5 = Máxima temperatura do mês mais quente; Bio6 = Mínima temperatura do mês mais frio; Bio7 = Variação média anual; Bio8 = Média da temperatura do período mais úmido; Bio9 = Média da temperatura do período mais seco; Bio10 = Média da temperatura do período mais quente; Bio11 = Média da temperatura do período mais frio; Bio12 = Precipitação anual; Bio13 = Precipitação do mês mais úmido; Bio14 = Precipitação do mês mais seco; Bio15 = Sazonalidade da precipitação; Bio16 = Precipitação do período mais úmido; Bio17 = Precipitação do período mais seco; Bio18 = Precipitação do período mais quente; Bio19 = Precipitação do período mais frio. Ia = Reservas Naturais Estritas, Ib = Regiões Selvagens, II = Proteção e Conservação de Ecossistemas, III = Conservação de Características Naturais, IV = Conservação por Gestão Ativa, V = Conservação de Paisagens e Recreação, VI = Uso Sustentável de Recursos Naturais. ACR = Área de Conservação Regional; AECM = Área Ecológica de Conservação Municipal; AMIMZE = Área de Manejo Integrado Municipal e Zona Externa; ANCM = Área Natural de Conservação e Manejo; APA = Área de Proteção Ambiental; APM = Área Protegida Municipal; AR = Área de Recreação; ARIE = Área de Relevante Interesse Ecológico; ARN = Área de Reserva Natural; AURG = Área de uso de recursos gerenciados; ESEC = Estação Ecológica; FLONA = Floresta Nacional; FLOTA = Floresta Estadual; MN = Monumento Natural; PARNA = Parque Nacional; PNR = Parque Natural Regional; PMU = Parque Municipal; REBIO = Reserva Biológica; RDS = Reserva de Desenvolvimento Sustentável; RESEX = Reserva Extrativista; RFPN = Reserva Florestal Protetora Nacional; RNN = Reserva Nacional Natural; RPN = Reserva do Patrimônio Natural e Cultural; RVS = Reserva de Vida Silvestre.

Tabela S6 - Espécies potencialmente encontradas em Unidades de Conservação da Amazônia.

Espécie	Unidade de Conservação	País	Categoria IUCN
<i>Alopoglossus angulatus</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Alopoglossus angulatus</i>	Nature Park Brownsberg	Suriname	II
<i>Alopoglossus angulatus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Alopoglossus angulatus</i>	Parque Estadual Utinga	Brasil	II
<i>Alopoglossus angulatus</i>	Parque Nacional Amazônia	Brasil	II
<i>Alopoglossus angulatus</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Alopoglossus angulatus</i>	Parque Nacional Manu	Peru	II
<i>Alopoglossus angulatus</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Alopoglossus angulatus</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Alopoglossus angulatus</i>	Parque Nacional Yasuni	Ecuador	II
<i>Alopoglossus angulatus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Alopoglossus angulatus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Alopoglossus angulatus</i>	Área de Conservación Regional Ampiyacu Apayacu	Peru	NA
<i>Alopoglossus angulatus</i>	National Park - Core Area Guyane (Parc Amazonien)	French Guiana	NA
<i>Alopoglossus angulatus</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Alopoglossus angulatus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Alopoglossus angulatus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Alopoglossus angulatus</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Alopoglossus angulatus</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Alopoglossus angulatus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Alopoglossus angulatus</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Alopoglossus angulatus</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Alopoglossus angulatus</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Alopoglossus angulatus</i>	Floresta Estadual Rio Urubu	Brasil	VI
<i>Alopoglossus angulatus</i>	Floresta Nacional de Itaituba II	Brasil	VI

<i>Alopoglossus angulatus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Alopoglossus angulatus</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Alopoglossus angulatus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva Comunal El Sira	Peru	VI
<i>Alopoglossus angulatus</i>	Reserva Comunal Purus	Peru	VI
<i>Alopoglossus angulatus</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Alopoglossus angulatus</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Alopoglossus angulatus</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Alopoglossus angulatus</i>	Reserva Nacional Tambopata	Peru	VI
<i>Alopoglossus atriventris</i>	Reserva Biológica Colonso Chalupas	Ecuador	Ia
<i>Alopoglossus atriventris</i>	Parque Nacional Amazônia	Brasil	II
<i>Alopoglossus atriventris</i>	Parque Nacional Llanganates	Ecuador	II
<i>Alopoglossus atriventris</i>	Parque Nacional Manu	Peru	II
<i>Alopoglossus atriventris</i>	Parque Nacional Natural Amacayacu	Colombia	II
<i>Alopoglossus atriventris</i>	Parque Nacional Natural Serranía de los Churumbelos	Colombia	II
<i>Alopoglossus atriventris</i>	Parque Nacional Sangay	Ecuador	II
<i>Alopoglossus atriventris</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Alopoglossus atriventris</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Alopoglossus atriventris</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Alopoglossus atriventris</i>	Parque Nacional Yasuni	Ecuador	II
<i>Alopoglossus atriventris</i>	Área de Conservación Regional Ampiyacu Apayacu	Peru	NA
<i>Alopoglossus atriventris</i>	Área de Conservación Regional Cordillera Escalera	Peru	NA
<i>Alopoglossus atriventris</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V

<i>Alopoglossus atriventris</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Alopoglossus atriventris</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Alopoglossus atriventris</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Alopoglossus atriventris</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Alopoglossus atriventris</i>	Reserva Ecológica Antisana	Ecuador	VI
<i>Alopoglossus atriventris</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Alopoglossus atriventris</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Alopoglossus atriventris</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Alopoglossus atriventris</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Alopoglossus atriventris</i>	Reserva Forestal Protectora Nacional Rio Mocoa	Colombia	VI
<i>Alopoglossus atriventris</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Ameiva ameiva</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Ameiva ameiva</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Ameiva ameiva</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Ameiva ameiva</i>	Reserva Biológica Nascentes Serra do Cachimbo	Brasil	Ia
<i>Ameiva ameiva</i>	National Park Kaieteur National Park	Guyana	II
<i>Ameiva ameiva</i>	National Park Yapacana	Venezuela	II
<i>Ameiva ameiva</i>	Nature Park Brownsberg	Suriname	II
<i>Ameiva ameiva</i>	Parque Estadual Corumbiara	Brasil	II
<i>Ameiva ameiva</i>	Parque Estadual Cristalino	Brasil	II
<i>Ameiva ameiva</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Ameiva ameiva</i>	Parque Estadual Serra dos Reis	Brasil	II
<i>Ameiva ameiva</i>	Parque Estadual Sumaúma	Brasil	II
<i>Ameiva ameiva</i>	Parque Estadual Utinga	Brasil	II
<i>Ameiva ameiva</i>	Parque Nacional Alto Purús	Peru	II
<i>Ameiva ameiva</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Ameiva ameiva</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Ameiva ameiva</i>	Parque Nacional Manu	Peru	II

<i>Ameiva ameiva</i>	Parque Nacional Mapinguari	Brasil	II
<i>Ameiva ameiva</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Ameiva ameiva</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Ameiva ameiva</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Ameiva ameiva</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Ameiva ameiva</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Ameiva ameiva</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Ameiva ameiva</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Ameiva ameiva</i>	Biotope Protection Order Grand Matoury	French Guiana	IV
<i>Ameiva ameiva</i>	Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Ameiva ameiva</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Ameiva ameiva</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Ameiva ameiva</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Ameiva ameiva</i>	Nature Reserve Copi	Suriname	IV
<i>Ameiva ameiva</i>	Nature Reserve Peruvia	Suriname	IV
<i>Ameiva ameiva</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Ameiva ameiva</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Ameiva ameiva</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açú - Tarumã Mirima	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Tapajós	Brasil	V

<i>Ameiva ameiva</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Ameiva ameiva</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Ameiva ameiva</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Ameiva ameiva</i>	Regional Nature Park Guyane	French Guiana	V
<i>Ameiva ameiva</i>	Bosque de Protección San Matías San Carlos	Peru	VI
<i>Ameiva ameiva</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Estadual Paru	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional Mulata	Brasil	VI
<i>Ameiva ameiva</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Ameiva ameiva</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Ameiva ameiva</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Ameiva ameiva</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Ameiva ameiva</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Ameiva ameiva</i>	Reserva Comunal Amarakaeri	Peru	VI
<i>Ameiva ameiva</i>	Reserva Comunal Purus	Peru	VI
<i>Ameiva ameiva</i>	Reserva Comunal Yanasha	Peru	VI
<i>Ameiva ameiva</i>	Reserva de Desenvolvimento Sustentável do Tupé	Brasil	VI
<i>Ameiva ameiva</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Extrativista Rio Xingu	Brasil	VI

<i>Ameiva ameiva</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Ameiva ameiva</i>	Reserva Nacional Allpahuayo Mishana	Peru	VI
<i>Ameiva ameiva</i>	Reserva Nacional Tambopata	Peru	VI
<i>Ameiva ameiva</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Anolis auratus</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Anolis auratus</i>	Estação Ecológica Jari	Brasil	Ia
<i>Anolis auratus</i>	Reserva Biológica Lago Piratuba	Brasil	Ia
<i>Anolis auratus</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Anolis auratus</i>	Nature Park Brownsberg	Suriname	II
<i>Anolis auratus</i>	Parque Estadual Monte Alegre	Brasil	II
<i>Anolis auratus</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Copi	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Kaboeri Kreek	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Peruvia	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Anolis auratus</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Anolis auratus</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	NA
<i>Anolis auratus</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Anolis auratus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Anolis auratus</i>	Área de Proteção Ambiental Fazendinha	Brasil	V
<i>Anolis auratus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Anolis auratus</i>	Área de Proteção Ambiental Paytuna	Brasil	V
<i>Anolis auratus</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Anolis auratus</i>	Regional Nature Park Guyane	French Guiana	V
<i>Anolis auratus</i>	Floresta Estadual do Amapá	Brasil	VI

<i>Anolis auratus</i>	Floresta Estadual Paru	Brasil	VI
<i>Anolis auratus</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Anolis auratus</i>	Floresta Nacional Amapá	Brasil	VI
<i>Anolis auratus</i>	Floresta Nacional Mulata	Brasil	VI
<i>Anolis auratus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Anolis auratus</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Anolis auratus</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Anolis auratus</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Anolis auratus</i>	Reserva Extrativista Renascer	Brasil	VI
<i>Anolis auratus</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Anolis auratus</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Anolis auratus</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Anolis brasiliensis</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Anolis brasiliensis</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Anolis brasiliensis</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Anolis brasiliensis</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V
<i>Anolis brasiliensis</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Anolis brasiliensis</i>	Área de Proteção Ambiental Triunfo do Xingu	Brasil	V
<i>Anolis brasiliensis</i>	Floresta Nacional Carajás	Brasil	VI
<i>Anolis chrysolepis</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Anolis chrysolepis</i>	Estação Ecológica Jari	Brasil	Ia
<i>Anolis chrysolepis</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Anolis chrysolepis</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Anolis chrysolepis</i>	Nature Park Brownsberg	Suriname	II
<i>Anolis chrysolepis</i>	Parque Nacional Montanhas do Tumucumaque	Brasil	II
<i>Anolis chrysolepis</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Anolis chrysolepis</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Anolis chrysolepis</i>	Nature Reserve Copi	Suriname	IV

<i>Anolis chrysolepis</i>	Nature Reserve Peruvia	Suriname	IV
<i>Anolis chrysolepis</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Anolis chrysolepis</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Anolis chrysolepis</i>	National Park - Core Area Guyane (Parc Amazonien)	French Guiana	NA
<i>Anolis chrysolepis</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Anolis chrysolepis</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	NA
<i>Anolis chrysolepis</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Anolis chrysolepis</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Anolis chrysolepis</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Anolis chrysolepis</i>	Regional Nature Park Guyane	French Guiana	V
<i>Anolis chrysolepis</i>	Floresta Estadual de Faro	Brasil	VI
<i>Anolis chrysolepis</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Anolis chrysolepis</i>	Floresta Estadual Paru	Brasil	VI
<i>Anolis chrysolepis</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Anolis chrysolepis</i>	Floresta Nacional Amapá	Brasil	VI
<i>Anolis chrysolepis</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Anolis chrysolepis</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Anolis chrysolepis</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Anolis chrysolepis</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Anolis chrysolepis</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Anolis chrysolepis</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Anolis fuscoauratus</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Anolis fuscoauratus</i>	Estação Ecológica Jari	Brasil	Ia
<i>Anolis fuscoauratus</i>	Estação Ecológica Samuel	Brasil	Ia
<i>Anolis fuscoauratus</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Anolis fuscoauratus</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Abufari	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Jaru	Brasil	Ia

<i>Anolis fuscoauratus</i>	Reserva Biológica Limoncocha	Ecuador	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Anolis fuscoauratus</i>	Reserva de Vida Silvestre Bruno Racua	Bolivia	Ib
<i>Anolis fuscoauratus</i>	National Park Canaima	Venezuela	II
<i>Anolis fuscoauratus</i>	National Park Kaieteur National Park	Guyana	II
<i>Anolis fuscoauratus</i>	Nature Park Brownsberg	Suriname	II
<i>Anolis fuscoauratus</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Estadual Utinga	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Amazônia	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Anolis fuscoauratus</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Güeppí-Sekime	Peru	II
<i>Anolis fuscoauratus</i>	Parque Nacional Llanganates	Ecuador	II
<i>Anolis fuscoauratus</i>	Parque Nacional Madidi	Bolivia	II
<i>Anolis fuscoauratus</i>	Parque Nacional Manu	Peru	II
<i>Anolis fuscoauratus</i>	Parque Nacional Mapinguari	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Monte Roraima	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Nascentes do Lago Jari	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Pacaás Novos	Brasil	II

<i>Anolis fuscoauratus</i>	Parque Nacional Sangay	Ecuador	II
<i>Anolis fuscoauratus</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Anolis fuscoauratus</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Anolis fuscoauratus</i>	Parque Nacional y Area Natural de Manejo Integrado Cotapata	Bolivia	II
<i>Anolis fuscoauratus</i>	Parque Nacional Yasuni	Ecuador	II
<i>Anolis fuscoauratus</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Anolis fuscoauratus</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Anolis fuscoauratus</i>	Área de Relevante Interesse Ecológico Javari Buriti	Brasil	IV
<i>Anolis fuscoauratus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Anolis fuscoauratus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Copi	Suriname	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Peruvia	Suriname	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Anolis fuscoauratus</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Anolis fuscoauratus</i>	Refugio de Vida Silvestre El Zarza	Ecuador	IV
<i>Anolis fuscoauratus</i>	Refúgio de Vida Silvestre Metr�pole da Amaz�nia	Brasil	IV
<i>Anolis fuscoauratus</i>	�rea de Conservaci�n Regional Ampiyacu Apayacu	Peru	NA
<i>Anolis fuscoauratus</i>	�rea de Conservaci�n Regional Comunal Tamshiyacu Tahuayo	Peru	NA
<i>Anolis fuscoauratus</i>	Area Natural de Manejo Integrado Ambor�	Bolivia	NA
<i>Anolis fuscoauratus</i>	Area Protegida Municipal Curichi El Cuajo	Bolivia	NA
<i>Anolis fuscoauratus</i>	Forest Plot San Pedro	Venezuela	NA
<i>Anolis fuscoauratus</i>	National Park - Core Area Guyane (Parc Amazonien)	French Guiana	NA
<i>Anolis fuscoauratus</i>	Parque Natural Municipal Canc�o	Brasil	NA
<i>Anolis fuscoauratus</i>	Parque Natural Municipal Veredas dos Caraj�s	Brasil	NA
<i>Anolis fuscoauratus</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	NA

<i>Anolis fuscoauratus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	NA
<i>Anolis fuscoauratus</i>	World Heritage Site Canaima National Park	Venezuela	NA
<i>Anolis fuscoauratus</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Anolis fuscoauratus</i>	Zona Reservada Sierra del Divisor	Peru	NA
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Igarapé São Francisco	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Lago de Tucurui	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Lago do Amapá	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Anolis fuscoauratus</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Anolis fuscoauratus</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Anolis fuscoauratus</i>	Protective Zone Sur del Estado Bolívar	Venezuela	V
<i>Anolis fuscoauratus</i>	Regional Nature Park Guyane	French Guiana	V
<i>Anolis fuscoauratus</i>	Community Owned Conservation Area Kanashen	Guyana	VI

<i>Anolis fuscoauratus</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Estadual de Faro	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Estadual Paru	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Estadual Rio Urubu	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Altamira	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Amapá	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Balata-Tufari	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Carajás	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Crepori	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Humaitá	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Jamari	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Anolis fuscoauratus</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Anolis fuscoauratus</i>	Forest Reserve Imataca	Venezuela	VI
<i>Anolis fuscoauratus</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Anolis fuscoauratus</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Anolis fuscoauratus</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Anolis fuscoauratus</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI

<i>Anolis fuscoauratus</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Comunal Airo Pai	Peru	VI
<i>Anolis fuscoauratus</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Aquariquara	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Auatí-Paraná	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Canutama	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Lago do Capanã Grande	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI

<i>Anolis fuscoauratus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Terra Grande Pracuaba	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Anolis fuscoauratus</i>	Reserva Nacional Allpahuayo Mishana	Peru	VI
<i>Anolis fuscoauratus</i>	Reserva Nacional Amazónica Manuripi Heath	Bolivia	VI
<i>Anolis fuscoauratus</i>	Reserva Nacional Tambopata	Peru	VI
<i>Anolis fuscoauratus</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Anolis ortonii</i>	Estação Ecológica Jari	Brasil	Ia
<i>Anolis ortonii</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Anolis ortonii</i>	Reserva Biológica Lago Piratuba	Brasil	Ia
<i>Anolis ortonii</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Anolis ortonii</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Anolis ortonii</i>	Nature Park Brownsberg	Suriname	II
<i>Anolis ortonii</i>	Parque Estadual Monte Alegre	Brasil	II
<i>Anolis ortonii</i>	Parque Estadual Sumaúma	Brasil	II
<i>Anolis ortonii</i>	Parque Estadual Utinga	Brasil	II
<i>Anolis ortonii</i>	Parque Nacional Amazônia	Brasil	II
<i>Anolis ortonii</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Anolis ortonii</i>	Parque Nacional do Cabo Orange	Brasil	II
<i>Anolis ortonii</i>	Parque Nacional Manu	Peru	II
<i>Anolis ortonii</i>	Parque Nacional Natural Cordillera de los Picachos	Colombia	II
<i>Anolis ortonii</i>	Parque Nacional Natural Serranís de Chiribiquete	Colombia	II
<i>Anolis ortonii</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Anolis ortonii</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Anolis ortonii</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Anolis ortonii</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Anolis ortonii</i>	Biotope Protection Order Grand Matoury	French Guiana	IV

<i>Anolis ortonii</i>	Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Anolis ortonii</i>	Nature Reserve Copi	Suriname	IV
<i>Anolis ortonii</i>	Nature Reserve Peruvia	Suriname	IV
<i>Anolis ortonii</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Anolis ortonii</i>	Refúgio de Vida Silvestre Metr�pole da Amaz�nia	Brasil	IV
<i>Anolis ortonii</i>	�rea Protegida Municipal Lago Tumichucua	Bolivia	NA
<i>Anolis ortonii</i>	Parque Natural Municipal Canc�o	Brasil	NA
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Arquip�lago do Maraj�	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental das Reentr�ncias Maranhenses	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Igarap� Gelado	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Ilha do Combu	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Nhamund�	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Parque Linear do Bind�	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Paytuna	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Regi�o Metropolitana de Bel�m	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Rio Madeira	Brasil	V
<i>Anolis ortonii</i>	�rea de Prote�o Ambiental Taruma/Ponta Negra	Brasil	V
<i>Anolis ortonii</i>	Regional Nature Park Guyane	French Guiana	V
<i>Anolis ortonii</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Anolis ortonii</i>	Floresta Estadual do Amap�	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Amap�	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Caraj�s	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Caxiuan�	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Sarac� - Taquera	Brasil	VI

<i>Anolis ortonii</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Anolis ortonii</i>	Floresta Nacional Tefé	Brasil	VI
<i>Anolis ortonii</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Anolis ortonii</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Anolis ortonii</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Anolis ortonii</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Anolis ortonii</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Anolis ortonii</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Anolis ortonii</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Anolis ortonii</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Anolis ortonii</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Anolis ortonii</i>	Reserva Extrativista Terra Grande Pracuaba	Brasil	VI
<i>Anolis planiceps</i>	Reserva Biológica Morro dos Seis Lagos	Brasil	Ia
<i>Anolis planiceps</i>	National Park Canaima	Venezuela	II
<i>Anolis planiceps</i>	National Park Serranía de la Neblina	Venezuela	II

<i>Anolis planiceps</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Anolis planiceps</i>	Parque Estadual Sumaúma	Brasil	II
<i>Anolis planiceps</i>	Parque Nacional Monte Roraima	Brasil	II
<i>Anolis planiceps</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Anolis planiceps</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Anolis planiceps</i>	Forest Plot San Pedro	Venezuela	NA
<i>Anolis planiceps</i>	World Heritage Site Canaima National Park	Venezuela	NA
<i>Anolis planiceps</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Anolis planiceps</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Anolis planiceps</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Anolis planiceps</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Anolis planiceps</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Anolis planiceps</i>	Floresta Nacional Roraima	Brasil	VI
<i>Anolis planiceps</i>	Forest Reserve Imataca	Venezuela	VI
<i>Anolis planiceps</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Anolis punctatus</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Anolis punctatus</i>	Reserva Biológica Limoncocha	Ecuador	Ia
<i>Anolis punctatus</i>	Reserva Biológica Nascentes Serra do Cachimbo	Brasil	Ia
<i>Anolis punctatus</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Anolis punctatus</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Anolis punctatus</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Anolis punctatus</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Anolis punctatus</i>	National Park Parima-Tapirapecó	Venezuela	II
<i>Anolis punctatus</i>	Parque Estadual Cristalino	Brasil	II
<i>Anolis punctatus</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Anolis punctatus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Anolis punctatus</i>	Parque Estadual Utinga	Brasil	II

<i>Anolis punctatus</i>	Parque Nacional Alto Purús	Peru	II
<i>Anolis punctatus</i>	Parque Nacional Amazônia	Brasil	II
<i>Anolis punctatus</i>	Parque Nacional Amboró	Bolivia	II
<i>Anolis punctatus</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Anolis punctatus</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Anolis punctatus</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Anolis punctatus</i>	Parque Nacional Madidi	Bolivia	II
<i>Anolis punctatus</i>	Parque Nacional Manu	Peru	II
<i>Anolis punctatus</i>	Parque Nacional Mapinguari	Brasil	II
<i>Anolis punctatus</i>	Parque Nacional Natural Serranis de Chiribiquete	Colombia	II
<i>Anolis punctatus</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Anolis punctatus</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Anolis punctatus</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Anolis punctatus</i>	Parque Nacional Yasuni	Ecuador	II
<i>Anolis punctatus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Anolis punctatus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Anolis punctatus</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Anolis punctatus</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Anolis punctatus</i>	Area Natural de Manejo Integrado Amboró	Bolivia	NA
<i>Anolis punctatus</i>	Área Protegida Municipal Serranía Ibadebe (Tigre negro)	Bolivia	NA
<i>Anolis punctatus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V

<i>Anolis punctatus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Anolis punctatus</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Anolis punctatus</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Anolis punctatus</i>	Floresta Estadual Paru	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Altamira	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Carajás	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Anolis punctatus</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Anolis punctatus</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Anolis punctatus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Anolis punctatus</i>	Reserva Comunal Purus	Peru	VI
<i>Anolis punctatus</i>	Reserva de Desenvolvimento Sustentável do Juma	Brasil	VI
<i>Anolis punctatus</i>	Reserva de Desenvolvimento Sustentável do Tupé	Brasil	VI
<i>Anolis punctatus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Anolis punctatus</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Anolis punctatus</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Chocoaré-Mato Grosso	Brasil	VI

<i>Anolis punctatus</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Maracanã	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Marinha de Arai-Peroba	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Anolis punctatus</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Anolis punctatus</i>	Reserva Nacional Amazónica Manuripi Heath	Bolivia	VI
<i>Anolis punctatus</i>	Reserva Nacional Tambopata	Peru	VI
<i>Anolis scypheus</i>	Reserva Biológica Limoncocha	Ecuador	Ia
<i>Anolis scypheus</i>	Parque Nacional Manu	Peru	II
<i>Anolis scypheus</i>	Parque Nacional Natural Sumapaz	Colombia	II
<i>Anolis scypheus</i>	Parque Nacional Sangay	Ecuador	II
<i>Anolis scypheus</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Anolis scypheus</i>	Parque Nacional Yasuní	Ecuador	II
<i>Anolis scypheus</i>	Área de Conservación Regional Alto Nanay- Pintuyacu Chambira	Peru	NA
<i>Anolis scypheus</i>	Reserva Comunal Tuntanain	Peru	VI

<i>Anolis scypheus</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Anolis scypheus</i>	Reserva Ecológica Antisana	Ecuador	VI
<i>Anolis scypheus</i>	Reserva Nacional Matsés	Peru	VI
<i>Anolis scypheus</i>	Reserva Nacional Pucacuro	Peru	VI
<i>Anolis tandai</i>	Parque Estadual Chandless	Brasil	II
<i>Anolis tandai</i>	Parque Estadual Matupiri	Brasil	II
<i>Anolis tandai</i>	Parque Nacional Amazônia	Brasil	II
<i>Anolis tandai</i>	Parque Nacional Manu	Peru	II
<i>Anolis tandai</i>	Parque Nacional Nascentes do Lago Jari	Brasil	II
<i>Anolis tandai</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Anolis tandai</i>	Zona Reservada Sierra del Divisor	Peru	NA
<i>Anolis tandai</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Anolis tandai</i>	Floresta Nacional Amaná	Brasil	VI
<i>Anolis tandai</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Anolis tandai</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Anolis tandai</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Anolis tandai</i>	Floresta Nacional Santa Rosa do Purus	Brasil	VI
<i>Anolis tandai</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Anolis tandai</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Anolis tandai</i>	Reserva de Desenvolvimento Sustentável do Juma	Brasil	VI
<i>Anolis tandai</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Anolis tandai</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI
<i>Anolis tandai</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Anolis tandai</i>	Reserva Extrativista Lago do Capanã Grande	Brasil	VI
<i>Anolis tandai</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Anolis tandai</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Anolis trachyderma</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Anolis trachyderma</i>	Reserva Biológica Limoncocha	Ecuador	Ia

<i>Anolis trachyderma</i>	Parque Nacional Alto Purús	Peru	II
<i>Anolis trachyderma</i>	Parque Nacional Amazônia	Brasil	II
<i>Anolis trachyderma</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Anolis trachyderma</i>	Parque Nacional Rio Novo	Brasil	II
<i>Anolis trachyderma</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Anolis trachyderma</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Anolis trachyderma</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Anolis trachyderma</i>	Parque Nacional Yasuni	Ecuador	II
<i>Anolis trachyderma</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Anolis trachyderma</i>	Zona Reservada Sierra del Divisor	Peru	NA
<i>Anolis trachyderma</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Anolis trachyderma</i>	Área de Proteção Ambiental Triunfo do Xingu	Brasil	V
<i>Anolis trachyderma</i>	Floresta Nacional Altamira	Brasil	VI
<i>Anolis trachyderma</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Anolis trachyderma</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Anolis trachyderma</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Anolis trachyderma</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Anolis trachyderma</i>	Reserva Comunal Purus	Peru	VI
<i>Anolis trachyderma</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Anolis trachyderma</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Anolis trachyderma</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Anolis trachyderma</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Anolis trachyderma</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Anolis transversalis</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Anolis transversalis</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Anolis transversalis</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Anolis transversalis</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Anolis transversalis</i>	Parque Nacional Mapinguari	Brasil	II

<i>Anolis transversalis</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Anolis transversalis</i>	Parque Nacional Yasuni	Ecuador	II
<i>Anolis transversalis</i>	Zona Reservada Santiago Comaina	Peru	NA
<i>Anolis transversalis</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Anolis transversalis</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Anolis transversalis</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Anolis transversalis</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Anolis transversalis</i>	Floresta Nacional Jamari	Brasil	VI
<i>Anolis transversalis</i>	Reserva de Desenvolvimento Sustentável Uacari	Brasil	VI
<i>Anolis transversalis</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Anolis transversalis</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Anolis transversalis</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Arthrosaura kockii</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Arthrosaura kockii</i>	Estação Ecológica Jari	Brasil	Ia
<i>Arthrosaura kockii</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Arthrosaura kockii</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Arthrosaura kockii</i>	Nature Park Brownsberg	Suriname	II
<i>Arthrosaura kockii</i>	Parque Estadual Utinga	Brasil	II
<i>Arthrosaura kockii</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Arthrosaura kockii</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Arthrosaura kockii</i>	National Nature Reserve La Trinité	French Guiana	IV
<i>Arthrosaura kockii</i>	National Nature Reserve Marais de Kaw-Roura	French Guiana	IV
<i>Arthrosaura kockii</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Arthrosaura kockii</i>	Nature Reserve Copi	Suriname	IV
<i>Arthrosaura kockii</i>	Nature Reserve Peruvia	Suriname	IV
<i>Arthrosaura kockii</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Arthrosaura kockii</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Arthrosaura kockii</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV

<i>Arthrosaura kockii</i>	National Park - Core Area Guyane (Parc Amazonien)	French Guiana	NA
<i>Arthrosaura kockii</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Arthrosaura kockii</i>	Ramsar Site, Wetland of International Importance Marais De Kaw	French Guiana	NA
<i>Arthrosaura kockii</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	NA
<i>Arthrosaura kockii</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Arthrosaura kockii</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Arthrosaura kockii</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Arthrosaura kockii</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Arthrosaura kockii</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Arthrosaura kockii</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Arthrosaura kockii</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Arthrosaura kockii</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Arthrosaura kockii</i>	Regional Nature Park Guyane	French Guiana	V
<i>Arthrosaura kockii</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Arthrosaura kockii</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Arthrosaura kockii</i>	Floresta Estadual Paru	Brasil	VI
<i>Arthrosaura kockii</i>	Floresta Nacional Amapá	Brasil	VI
<i>Arthrosaura kockii</i>	Floresta Nacional Carajás	Brasil	VI
<i>Arthrosaura kockii</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Arthrosaura kockii</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Arthrosaura kockii</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Arthrosaura kockii</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Arthrosaura kockii</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Arthrosaura kockii</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Arthrosaura kockii</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Arthrosaura kockii</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Arthrosaura kockii</i>	Reserva Extrativista Marinha de Tracuateua	Brasil	VI
<i>Arthrosaura kockii</i>	Reserva Extrativista Rio Xingu	Brasil	VI

<i>Arthrosaura reticulata</i>	Estação Ecológica Jari	Brasil	Ia
<i>Arthrosaura reticulata</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Arthrosaura reticulata</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Arthrosaura reticulata</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Arthrosaura reticulata</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Arthrosaura reticulata</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Arthrosaura reticulata</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Arthrosaura reticulata</i>	Nature Park Brownsberg	Suriname	II
<i>Arthrosaura reticulata</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Estadual Igarapés do Juruena	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Estadual Sumaúma	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Nacional Amazônia	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Nacional Juruena	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Nacional Rio Novo	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Arthrosaura reticulata</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Arthrosaura reticulata</i>	Parque Nacional Yasuní	Ecuador	II
<i>Arthrosaura reticulata</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Arthrosaura reticulata</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Arthrosaura reticulata</i>	Nature Reserve Copi	Suriname	IV
<i>Arthrosaura reticulata</i>	Nature Reserve Peruvia	Suriname	IV
<i>Arthrosaura reticulata</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Arthrosaura reticulata</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Arthrosaura reticulata</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Arthrosaura reticulata</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V

<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Arthrosaura reticulata</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Arthrosaura reticulata</i>	Floresta Estadual de Faro	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Estadual Paru	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Estadual Sucunduri	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Amaná	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Amapá	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Carajás	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Jamaxim	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Arthrosaura reticulata</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Arthrosaura reticulata</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI

<i>Arthrosaura reticulata</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Arthrosaura reticulata</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Rio Iriri	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Arthrosaura reticulata</i>	Reserva Nacional Allpahuayo Mishana	Peru	VI
<i>Arthrosaura reticulata</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Cercosaura argulus</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Cercosaura argulus</i>	Reserva Biológica El Quimi	Ecuador	Ia
<i>Cercosaura argulus</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Cercosaura argulus</i>	Nature Park Brownsberg	Suriname	II
<i>Cercosaura argulus</i>	Parque Estadual Utinga	Brasil	II
<i>Cercosaura argulus</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Cercosaura argulus</i>	Parque Nacional Cayambe Coca	Ecuador	II
<i>Cercosaura argulus</i>	Parque Nacional Ichigkat Muja - Cordillera del Cóndor	Peru	II
<i>Cercosaura argulus</i>	Parque Nacional Madidi	Bolivia	II

<i>Cercosaura argulus</i>	Parque Nacional Mapinguari	Brasil	II
<i>Cercosaura argulus</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Cercosaura argulus</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Cercosaura argulus</i>	Parque Nacional Yasuní	Ecuador	II
<i>Cercosaura argulus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Cercosaura argulus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Cercosaura argulus</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Cercosaura argulus</i>	National Park - Core Area Guyane (Parc Amazonien)	French Guiana	NA
<i>Cercosaura argulus</i>	Zona Reservada Santiago Comaina	Peru	NA
<i>Cercosaura argulus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Cercosaura argulus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Cercosaura argulus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Cercosaura argulus</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Cercosaura argulus</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Cercosaura argulus</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Cercosaura argulus</i>	Floresta Nacional Carajás	Brasil	VI
<i>Cercosaura argulus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Cercosaura argulus</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Cercosaura argulus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Cercosaura argulus</i>	Reserva de Desenvolvimento Sustentável Uacari	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Cercosaura argulus</i>	Reserva Nacional Allpahuayo Mishana	Peru	VI
<i>Cercosaura argulus</i>	Reserva Nacional Tambopata	Peru	VI

<i>Cercosaura eigenmanni</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Cercosaura eigenmanni</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Cercosaura eigenmanni</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Cercosaura eigenmanni</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Cercosaura eigenmanni</i>	Parque Estadual Serra dos Reis	Brasil	II
<i>Cercosaura eigenmanni</i>	Parque Nacional Manu	Peru	II
<i>Cercosaura eigenmanni</i>	Parque Nacional Matinguari	Brasil	II
<i>Cercosaura eigenmanni</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Cercosaura eigenmanni</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Cercosaura eigenmanni</i>	Área de Manejo Integrado Municipal y Zona Externa de Amortiguamiento Santos Reyes	Bolivia	NA
<i>Cercosaura eigenmanni</i>	Area Natural de Manejo Integrado Madidi	Bolivia	NA
<i>Cercosaura eigenmanni</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Cercosaura eigenmanni</i>	Floresta Nacional Jamari	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva de la Biósfera y Territorio Indígena Pilon Lajas	Bolivia	VI
<i>Cercosaura eigenmanni</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva Extrativista Chico Mendes	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Cercosaura eigenmanni</i>	Reserva Nacional Tambopata	Peru	VI
<i>Cercosaura ocellata</i>	Estação Ecológica Jari	Brasil	Ia
<i>Cercosaura ocellata</i>	Estação Ecológica Maracá	Brasil	Ia
<i>Cercosaura ocellata</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Cercosaura ocellata</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Cercosaura ocellata</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Cercosaura ocellata</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Cercosaura ocellata</i>	Reserva Biológica Tapirapé	Brasil	Ia

<i>Cercosaura ocellata</i>	National Park Yapacana	Venezuela	II
<i>Cercosaura ocellata</i>	Nature Park Brownsberg	Suriname	II
<i>Cercosaura ocellata</i>	Parque Estadual Cristalino	Brasil	II
<i>Cercosaura ocellata</i>	Parque Estadual Matupiri	Brasil	II
<i>Cercosaura ocellata</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Cercosaura ocellata</i>	Parque Estadual Sumaúma	Brasil	II
<i>Cercosaura ocellata</i>	Parque Estadual Utinga	Brasil	II
<i>Cercosaura ocellata</i>	Parque Nacional Amazônia	Brasil	II
<i>Cercosaura ocellata</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Cercosaura ocellata</i>	Parque Nacional Mapinguari	Brasil	II
<i>Cercosaura ocellata</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Cercosaura ocellata</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Cercosaura ocellata</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Cercosaura ocellata</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Copi	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Kaboeri Kreek	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Peruvia	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Cercosaura ocellata</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Cercosaura ocellata</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Cercosaura ocellata</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Cercosaura ocellata</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Cercosaura ocellata</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V

<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Cercosaura ocellata</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Cercosaura ocellata</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Cercosaura ocellata</i>	Regional Nature Park Guyane	French Guiana	V
<i>Cercosaura ocellata</i>	Bosque de Protección San Matias San Carlos	Peru	VI
<i>Cercosaura ocellata</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Estadual Paru	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Altamira	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Amaná	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Carajás	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Jamari	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Cercosaura ocellata</i>	Floresta Nacional Tapajós	Brasil	VI

<i>Cercosaura ocellata</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Cercosaura ocellata</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Cercosaura ocellata</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Cercosaura ocellata</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Cercosaura ocellata</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Cercosaura ocellata</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Cercosaura ocellata</i>	Reserva Comunal El Sira	Peru	VI
<i>Cercosaura ocellata</i>	Reserva Comunal Yanasha	Peru	VI
<i>Cercosaura ocellata</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva de Desenvolvimento Sustentável do Matupiri	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva de Desenvolvimento Sustentável Igapó-Açu	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Cercosaura ocellata</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Cercosaura oshaughnessyi</i>	Reserva Biológica El Quimi	Ecuador	Ia

<i>Cercosaura oshaughnessyi</i>	Parque Nacional Cayambe Coca	Ecuador	II
<i>Cercosaura oshaughnessyi</i>	Parque Nacional Ichigkat Muja - Cordillera del Cóndor	Peru	II
<i>Cercosaura oshaughnessyi</i>	Parque Nacional Llanganates	Ecuador	II
<i>Cercosaura oshaughnessyi</i>	Parque Nacional Natural Serranía de los Churumbelos	Colombia	II
<i>Cercosaura oshaughnessyi</i>	Parque Nacional Natural Yaigojé Apaporis	Colombia	II
<i>Cercosaura oshaughnessyi</i>	Parque Nacional Yasuní	Ecuador	II
<i>Cercosaura oshaughnessyi</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Cercosaura oshaughnessyi</i>	Zona Reservada Santiago Comaina	Peru	NA
<i>Cercosaura oshaughnessyi</i>	Regional Nature Park Guyane	French Guiana	V
<i>Cercosaura oshaughnessyi</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Cercosaura oshaughnessyi</i>	Reserva Comunal Tuntanain	Peru	VI
<i>Cercosaura oshaughnessyi</i>	Reserva Forestal Protectora Nacional Rio Mocoa	Colombia	VI
<i>Chatogekko amazonicus</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Chatogekko amazonicus</i>	Estação Ecológica Jari	Brasil	Ia
<i>Chatogekko amazonicus</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Chatogekko amazonicus</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Chatogekko amazonicus</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Chatogekko amazonicus</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Chatogekko amazonicus</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Chatogekko amazonicus</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Chatogekko amazonicus</i>	National Park Serranía de la Neblina	Venezuela	II
<i>Chatogekko amazonicus</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Estadual Utinga	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Mapinguari	Brasil	II

<i>Chatogekko amazonicus</i>	Parque Nacional Montanhas do Tumucumaque	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Nascentes do Lago Jari	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Chatogekko amazonicus</i>	Parque Nacional Viruá	Brasil	II
<i>Chatogekko amazonicus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Chatogekko amazonicus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Chatogekko amazonicus</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Chatogekko amazonicus</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Chatogekko amazonicus</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Igarapé São Francisco	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Lago do Amapá	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açú - Tarumã Mirima	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Chatogekko amazonicus</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V

<i>Chatogekko amazonicus</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual de Faro	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual de Rendimento Sustentado do Rio Madeira B	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual Paru	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual Rio Urubu	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Amapá	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Anauá	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Carajás	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Chatogekko amazonicus</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Chatogekko amazonicus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva de Desenvolvimento Sustentável do Juma	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva de Desenvolvimento Sustentável do Tupé	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Ituxí	Brasil	VI

<i>Chatogekko amazonicus</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Lago do Capanã Grande	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Marinha de Tracuateua	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Rio Gregório	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Chatogekko amazonicus</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Cnemidophorus cryptus</i>	Estação Ecológica Jari	Brasil	Ia
<i>Cnemidophorus cryptus</i>	Nature Park Brownsberg	Suriname	II
<i>Cnemidophorus cryptus</i>	Parque Estadual Guariba	Brasil	II
<i>Cnemidophorus cryptus</i>	Parque Estadual Monte Alegre	Brasil	II
<i>Cnemidophorus cryptus</i>	Parque Estadual Utinga	Brasil	II
<i>Cnemidophorus cryptus</i>	Parque Nacional Amazônia	Brasil	II
<i>Cnemidophorus cryptus</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Cnemidophorus cryptus</i>	Parque Nacional Rio Novo	Brasil	II
<i>Cnemidophorus cryptus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Cnemidophorus cryptus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Cnemidophorus cryptus</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Cnemidophorus cryptus</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Fazendinha	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V

<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Paytuna	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Cnemidophorus cryptus</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Cnemidophorus cryptus</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Estadual Manicoré	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Estadual Paru	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Nacional Carajás	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Nacional Crepori	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Nacional Jamaxim	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Nacional Jamari	Brasil	VI
<i>Cnemidophorus cryptus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Cnemidophorus cryptus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Guariba	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Mãe Grande de Curuça	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Marinha Mestre Lucindo	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista São João da Ponta	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Cnemidophorus cryptus</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Cnemidophorus gramivagus</i>	National Park Yapacana	Venezuela	II
<i>Cnemidophorus gramivagus</i>	Parque Estadual Matupiri	Brasil	II

<i>Cnemidophorus gramivagus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Cnemidophorus gramivagus</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Cnemidophorus gramivagus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Cnemidophorus gramivagus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Cnemidophorus gramivagus</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Cnemidophorus gramivagus</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Cnemidophorus gramivagus</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Cnemidophorus gramivagus</i>	Floresta Nacional Jamari	Brasil	VI
<i>Cnemidophorus gramivagus</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Cnemidophorus gramivagus</i>	Reserva de Desenvolvimento Sustentável do Juma	Brasil	VI
<i>Cnemidophorus gramivagus</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Cnemidophorus gramivagus</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI
<i>Cnemidophorus gramivagus</i>	Reserva Extrativista Lago do Capanã Grande	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Nature Park Brownsberg	Suriname	II
<i>Cnemidophorus lemniscatus</i>	Parque Estadual Utinga	Brasil	II
<i>Cnemidophorus lemniscatus</i>	Parque Nacional Amazônia	Brasil	II
<i>Cnemidophorus lemniscatus</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Cnemidophorus lemniscatus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Cnemidophorus lemniscatus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Cnemidophorus lemniscatus</i>	Biotope Protection Order Grand Matoury	French Guiana	IV
<i>Cnemidophorus lemniscatus</i>	Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Cnemidophorus lemniscatus</i>	National Nature Reserve Marais de Kaw-Roura	French Guiana	IV
<i>Cnemidophorus lemniscatus</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Cnemidophorus lemniscatus</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Cnemidophorus lemniscatus</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Cnemidophorus lemniscatus</i>	Nature Reserve Copi	Suriname	IV

<i>Cnemidophorus lemniscatus</i>	Nature Reserve Peruvia	Suriname	IV
<i>Cnemidophorus lemniscatus</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Cnemidophorus lemniscatus</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Cnemidophorus lemniscatus</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Cnemidophorus lemniscatus</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Cnemidophorus lemniscatus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Cnemidophorus lemniscatus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Cnemidophorus lemniscatus</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Cnemidophorus lemniscatus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Cnemidophorus lemniscatus</i>	Regional Nature Park Guyane	French Guiana	V
<i>Cnemidophorus lemniscatus</i>	Floresta Estadual Paru	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Cnemidophorus lemniscatus</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Cnemidophorus lemniscatus</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Cnemidophorus lemniscatus</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Cnemidophorus lemniscatus</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Cnemidophorus lemniscatus</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Copeoglossum nigropunctatum</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Estação Ecológica Jari	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Reserva Biológica Rio Trombetas	Brasil	Ia

<i>Copeoglossum nigropunctatum</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Copeoglossum nigropunctatum</i>	National Park Canaima	Venezuela	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Cristalino	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Matupiri	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Monte Alegre	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Serra dos Reis	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Sumaúma	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Tucumã	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Estadual Utinga	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Amazônia	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Madidi	Bolivia	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Matinguari	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Monte Roraima	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Pacaás Novos	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Copeoglossum nigropunctatum</i>	Parque Nacional Yasuní	Ecuador	II
<i>Copeoglossum nigropunctatum</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III

<i>Copeoglossum nigropunctatum</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Copeoglossum nigropunctatum</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Copeoglossum nigropunctatum</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Copeoglossum nigropunctatum</i>	Refúgio de Vida Silvestre MetrÓpole da Amazônia	Brasil	IV
<i>Copeoglossum nigropunctatum</i>	Forest Plot San Pedro	Venezuela	NA
<i>Copeoglossum nigropunctatum</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Copeoglossum nigropunctatum</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Copeoglossum nigropunctatum</i>	World Heritage Site Canaima National Park	Venezuela	NA
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Baixada Maranhense	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açú - Tarumã Mirima	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Paytuna	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Triunfo do Xingu	Brasil	V

<i>Copeoglossum nigropunctatum</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Copeoglossum nigropunctatum</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Estadual Paru	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Altamira	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Amaná	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Amapá	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Carajás	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Mulata	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Forest Reserve Imataca	Venezuela	VI
<i>Copeoglossum nigropunctatum</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI

<i>Copeoglossum nigropunctatum</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Alto Juruá	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Canutama	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Maracanã	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Marinha Mocapajuba	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista São João da Ponta	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Copeoglossum nigropunctatum</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Crocodilurus amazonicus</i>	National Park Yapacana	Venezuela	II

<i>Crocodilurus amazonicus</i>	Parque Estadual Utinga	Brasil	II
<i>Crocodilurus amazonicus</i>	Parque Nacional Jaú	Brasil	II
<i>Crocodilurus amazonicus</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Crocodilurus amazonicus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Crocodilurus amazonicus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Crocodilurus amazonicus</i>	Biotope Protection Order Grand Matoury	French Guiana	IV
<i>Crocodilurus amazonicus</i>	Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Crocodilurus amazonicus</i>	Área de Proteção Ambiental Baixo Rio Branco	Brasil	V
<i>Crocodilurus amazonicus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Crocodilurus amazonicus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Crocodilurus amazonicus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Crocodilurus amazonicus</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Crocodilurus amazonicus</i>	Regional Nature Park Guyane	French Guiana	V
<i>Crocodilurus amazonicus</i>	Biosphere Reserve Alto Orinoco-Casiquiare	Venezuela	VI
<i>Crocodilurus amazonicus</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Crocodilurus amazonicus</i>	Floresta Nacional Amapá	Brasil	VI
<i>Crocodilurus amazonicus</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Crocodilurus amazonicus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Crocodilurus amazonicus</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Crocodilurus amazonicus</i>	Reserva Extrativista Rio Unini	Brasil	VI
<i>Gonatodes concinnatus</i>	Reserva Biológica Limoncocha	Ecuador	Ia
<i>Gonatodes concinnatus</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Gonatodes concinnatus</i>	Parque Nacional Yasuní	Ecuador	II
<i>Gonatodes concinnatus</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Gonatodes hasemani</i>	Estação Ecológica Samuel	Brasil	Ia
<i>Gonatodes hasemani</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Gonatodes hasemani</i>	Estação Ecológica Terra do Meio	Brasil	Ia

<i>Gonatodes hasemani</i>	Reserva Biológica Jaru	Brasil	Ia
<i>Gonatodes hasemani</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Gonatodes hasemani</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Gonatodes hasemani</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Gonatodes hasemani</i>	Parque Estadual Matupiri	Brasil	II
<i>Gonatodes hasemani</i>	Parque Estadual Sumaúma	Brasil	II
<i>Gonatodes hasemani</i>	Parque Estadual Tucumã	Brasil	II
<i>Gonatodes hasemani</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Gonatodes hasemani</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Gonatodes hasemani</i>	Parque Nacional Manu	Peru	II
<i>Gonatodes hasemani</i>	Parque Nacional Mapinguari	Brasil	II
<i>Gonatodes hasemani</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Gonatodes hasemani</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Gonatodes hasemani</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Gonatodes hasemani</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Gonatodes hasemani</i>	Área de Relevante Interesse Ecológico Seringal Nova Esperança	Brasil	IV
<i>Gonatodes hasemani</i>	Área Protegida Municipal Lago Tumichucua	Bolivia	NA
<i>Gonatodes hasemani</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Gonatodes hasemani</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Gonatodes hasemani</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Gonatodes hasemani</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Gonatodes hasemani</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Gonatodes hasemani</i>	Floresta Estadual Manicoré	Brasil	VI
<i>Gonatodes hasemani</i>	Floresta Nacional Altamira	Brasil	VI
<i>Gonatodes hasemani</i>	Floresta Nacional Balata-Tufari	Brasil	VI
<i>Gonatodes hasemani</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Gonatodes hasemani</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Gonatodes hasemani</i>	Floresta Nacional Jamari	Brasil	VI

<i>Gonatodes hasemani</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva de Desenvolvimento Sustentável Uacari	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Chico Mendes	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Gonatodes hasemani</i>	Reserva Nacional Tambopata	Peru	VI
<i>Gonatodes humeralis</i>	Estação Ecológica Caracará	Brasil	Ia
<i>Gonatodes humeralis</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Gonatodes humeralis</i>	Estação Ecológica Jari	Brasil	Ia
<i>Gonatodes humeralis</i>	Estação Ecológica Maracá	Brasil	Ia
<i>Gonatodes humeralis</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Gonatodes humeralis</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Gonatodes humeralis</i>	Reserva Biológica Limoncocha	Ecuador	Ia
<i>Gonatodes humeralis</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Gonatodes humeralis</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Gonatodes humeralis</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Gonatodes humeralis</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Gonatodes humeralis</i>	Reserva Biológica Traçadal	Brasil	Ia

<i>Gonatodes humeralis</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Gonatodes humeralis</i>	Nature Park Brownsberg	Suriname	II
<i>Gonatodes humeralis</i>	Parque Estadual Chandless	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Cristalino	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Monte Alegre	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Serra dos Reis	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Sumaúma	Brasil	II
<i>Gonatodes humeralis</i>	Parque Estadual Utinga	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Alto Purús	Peru	II
<i>Gonatodes humeralis</i>	Parque Nacional Amazônia	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Gonatodes humeralis</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Jaú	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Madidi	Bolivia	II
<i>Gonatodes humeralis</i>	Parque Nacional Manu	Peru	II
<i>Gonatodes humeralis</i>	Parque Nacional Mapinguari	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Montanhas do Tumucumaque	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Rio Novo	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Serra do Pardo	Brasil	II

<i>Gonatodes humeralis</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Gonatodes humeralis</i>	Parque Nacional Viruá	Brasil	II
<i>Gonatodes humeralis</i>	Parque Nacional Yasuni	Ecuador	II
<i>Gonatodes humeralis</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Gonatodes humeralis</i>	Área de Relevante Interesse Ecológico Javari Buriti	Brasil	IV
<i>Gonatodes humeralis</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Gonatodes humeralis</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Gonatodes humeralis</i>	Área de Relevante Interesse Ecológico Seringal Nova Esperança	Brasil	IV
<i>Gonatodes humeralis</i>	National Nature Reserve Marais de Kaw-Roura	French Guiana	IV
<i>Gonatodes humeralis</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Gonatodes humeralis</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Gonatodes humeralis</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Gonatodes humeralis</i>	Nature Reserve Copi	Suriname	IV
<i>Gonatodes humeralis</i>	Nature Reserve Peruvia	Suriname	IV
<i>Gonatodes humeralis</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Gonatodes humeralis</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Gonatodes humeralis</i>	Refúgio de Vida Silvestre Metr�pole da Amaz�nia	Brasil	IV
<i>Gonatodes humeralis</i>	Parque Natural Municipal Canc�o	Brasil	NA
<i>Gonatodes humeralis</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Gonatodes humeralis</i>	Zona Reservada Sierra del Divisor	Peru	NA
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Arquip�lago do Maraj�	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Baixo Rio Branco	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental das Reentr�ncias Maranhenses	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Fazendinha	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Igarap� Gelado	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Igarap� S�o Francisco	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Ilha do Combu	Brasil	V
<i>Gonatodes humeralis</i>	�rea de Prote�o Ambiental Lago de Santa Isabel	Brasil	V

<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Lago do Amapá	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Paytuna	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Triunfo do Xingu	Brasil	V
<i>Gonatodes humeralis</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Gonatodes humeralis</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Gonatodes humeralis</i>	Protective Zone Sur del Estado Bolívar	Venezuela	V
<i>Gonatodes humeralis</i>	Regional Nature Park Guyane	French Guiana	V
<i>Gonatodes humeralis</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Gonatodes humeralis</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Estadual de Faro	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Estadual Paru	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Estadual Rio Urubu	Brasil	VI

<i>Gonatodes humeralis</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Altamira	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Amaná	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Amapá	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Amazonas	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Balata-Tufari	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Carajás	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Crepori	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Jamaxim	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Mulata	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Roraima	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Gonatodes humeralis</i>	Floresta Nacional Tefé	Brasil	VI
<i>Gonatodes humeralis</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Gonatodes humeralis</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Gonatodes humeralis</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Gonatodes humeralis</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Gonatodes humeralis</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Gonatodes humeralis</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Gonatodes humeralis</i>	Ramsar Site, Wetland of International Importance Marais De Kaw	French Guiana	VI

<i>Gonatodes humeralis</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Comunal Purus	Peru	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Canutama	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Chico Mendes	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Chocoaré-Mato Grosso	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Maracanã	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI

<i>Gonatodes humeralis</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Rio Unini	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Gonatodes humeralis</i>	Reserva Nacional Allpahuayo Mishana	Peru	VI
<i>Gonatodes humeralis</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Hemidactylus mabouia</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Hemidactylus mabouia</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Hemidactylus mabouia</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Hemidactylus mabouia</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Hemidactylus mabouia</i>	Parque Estadual Sumaúma	Brasil	II
<i>Hemidactylus mabouia</i>	Parque Estadual Tucumã	Brasil	II
<i>Hemidactylus mabouia</i>	Parque Estadual Utinga	Brasil	II
<i>Hemidactylus mabouia</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Hemidactylus mabouia</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Hemidactylus mabouia</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Hemidactylus mabouia</i>	National Nature Reserve Marais de Kaw-Roura	French Guiana	IV
<i>Hemidactylus mabouia</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Hemidactylus mabouia</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Hemidactylus mabouia</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Fazendinha	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V

<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Igarapé São Francisco	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Lago do Amapá	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Hemidactylus mabouia</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Hemidactylus mabouia</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Estadual Manicoré	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Nacional Carajás	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Hemidactylus mabouia</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Hemidactylus mabouia</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Hemidactylus mabouia</i>	Ramsar Site, Wetland of International Importance Marais De Kaw	French Guiana	VI
<i>Hemidactylus mabouia</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva de Desenvolvimento Sustentável Itatupã-Baquiá	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI

<i>Hemidactylus mabouia</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Hemidactylus mabouia</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Hemidactylus palaichthus</i>	Estação Ecológica Caracaraí	Brasil	Ia
<i>Hemidactylus palaichthus</i>	Estação Ecológica Maracá	Brasil	Ia
<i>Hemidactylus palaichthus</i>	Estação Ecológica Niquiá	Brasil	Ia
<i>Hemidactylus palaichthus</i>	National Park Yapacana	Venezuela	II
<i>Hemidactylus palaichthus</i>	Nature Park Brownsberg	Suriname	II
<i>Hemidactylus palaichthus</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Hemidactylus palaichthus</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Hemidactylus palaichthus</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Hemidactylus palaichthus</i>	Parque Nacional Viruá	Brasil	II
<i>Hemidactylus palaichthus</i>	Nature Reserve Copi	Suriname	IV
<i>Hemidactylus palaichthus</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Hemidactylus palaichthus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Hemidactylus palaichthus</i>	Biosphere Reserve Alto Orinoco-Casiquiare	Venezuela	VI
<i>Hemidactylus palaichthus</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Hemidactylus palaichthus</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Hemidactylus palaichthus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Hemidactylus palaichthus</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Hemidactylus palaichthus</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Iphisa elegans</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Iphisa elegans</i>	Reserva de Vida Silvestre Bruno Racua	Bolivia	Ib

<i>Iphisa elegans</i>	National Park Kaieteur National Park	Guyana	II
<i>Iphisa elegans</i>	Nature Park Brownsberg	Suriname	II
<i>Iphisa elegans</i>	Parque Estadual Matupiri	Brasil	II
<i>Iphisa elegans</i>	Parque Estadual Sumaúma	Brasil	II
<i>Iphisa elegans</i>	Parque Estadual Utinga	Brasil	II
<i>Iphisa elegans</i>	Parque Nacional Mapinguari	Brasil	II
<i>Iphisa elegans</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Iphisa elegans</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Iphisa elegans</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Iphisa elegans</i>	Área de Conservación Regional Ampiyacu Apayacu	Peru	NA
<i>Iphisa elegans</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Iphisa elegans</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Iphisa elegans</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açú - Tarumã Mirima	Brasil	V
<i>Iphisa elegans</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Iphisa elegans</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Iphisa elegans</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Iphisa elegans</i>	Regional Nature Park Guyane	French Guiana	V
<i>Iphisa elegans</i>	Floresta Estadual de Rendimento Sustentado do Rio Machado	Brasil	VI
<i>Iphisa elegans</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Iphisa elegans</i>	Floresta Nacional Humaitá	Brasil	VI
<i>Iphisa elegans</i>	Floresta Nacional Jamaxim	Brasil	VI
<i>Iphisa elegans</i>	Reserva de Desenvolvimento Sustentável do Juma	Brasil	VI
<i>Iphisa elegans</i>	Reserva de Desenvolvimento Sustentável do Matupiri	Brasil	VI
<i>Iphisa elegans</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI
<i>Iphisa elegans</i>	Reserva de Desenvolvimento Sustentável Igapó-Açu	Brasil	VI
<i>Iphisa elegans</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Iphisa elegans</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI

<i>Iphisa elegans</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Iphisa elegans</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Iphisa elegans</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Iphisa elegans</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Iphisa elegans</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Iphisa elegans</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Kentropyx altamazonica</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Kentropyx altamazonica</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Kentropyx altamazonica</i>	National Park Parima-Tapirapecó	Venezuela	II
<i>Kentropyx altamazonica</i>	National Park Serranía de la Neblina	Venezuela	II
<i>Kentropyx altamazonica</i>	National Park Yapacana	Venezuela	II
<i>Kentropyx altamazonica</i>	Parque Estadual Chandless	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Estadual Matupiri	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Estadual Sumaúma	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Alto Purús	Peru	II
<i>Kentropyx altamazonica</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Kentropyx altamazonica</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Jaú	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Madidi	Bolivia	II
<i>Kentropyx altamazonica</i>	Parque Nacional Mapinguari	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Kentropyx altamazonica</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Kentropyx altamazonica</i>	Parque Nacional Tingo María	Peru	II
<i>Kentropyx altamazonica</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Kentropyx altamazonica</i>	Área de Relevante Interesse Ecológico Javari Buriti	Brasil	IV

<i>Kentropyx altamazonica</i>	Áreas De Recreacion Cuatro Microcuencas del Municipio de Inirida	Colombia	NA
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Baixo Rio Branco	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Kentropyx altamazonica</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Kentropyx altamazonica</i>	Biosphere Reserve Alto Orinoco-Casiquiare	Venezuela	VI
<i>Kentropyx altamazonica</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Kentropyx altamazonica</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Kentropyx altamazonica</i>	Floresta Nacional Balata-Tufari	Brasil	VI
<i>Kentropyx altamazonica</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Kentropyx altamazonica</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Kentropyx altamazonica</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Comunal Purus	Peru	VI
<i>Kentropyx altamazonica</i>	Reserva Comunal Tuntanain	Peru	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável Rio Madeira	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva de Desenvolvimento Sustentável Uacarí	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Baixo Juruá	Brasil	VI

<i>Kentropyx altamazonica</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Canutama	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Médio Purús	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Extrativista Rio Unini	Brasil	VI
<i>Kentropyx altamazonica</i>	Reserva Nacional Tambopata	Peru	VI
<i>Kentropyx calcarata</i>	Estação Ecológica Alto Maués	Brasil	Ia
<i>Kentropyx calcarata</i>	Estação Ecológica Cuniã	Brasil	Ia
<i>Kentropyx calcarata</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Kentropyx calcarata</i>	Estação Ecológica Jari	Brasil	Ia
<i>Kentropyx calcarata</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Kentropyx calcarata</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Kentropyx calcarata</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Jaru	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Lago Piratuba	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Nascentes Serra do Cachimbo	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Traçadal	Brasil	Ia
<i>Kentropyx calcarata</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Kentropyx calcarata</i>	National Park Kaieteur National Park	Guyana	II
<i>Kentropyx calcarata</i>	National Park Parima-Tapirapecó	Venezuela	II

<i>Kentropyx calcarata</i>	Nature Park Brownsberg	Suriname	II
<i>Kentropyx calcarata</i>	Parque Estadual Corumbiara	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Cristalino	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Guajar-Mirim	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Guariba	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Rio Negro Setor Norte	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Serra dos Martrios/Andorinhas	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Serra dos Reis	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Sumama	Brasil	II
<i>Kentropyx calcarata</i>	Parque Estadual Utinga	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Amaznia	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Campos Amaznicos	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Ja	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Juruena	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Mnguari	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Montanhas do Tumucumaque	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Kentropyx calcarata</i>	Parque Nacional Pacas Novos	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Kentropyx calcarata</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Kentropyx calcarata</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Kentropyx calcarata</i>	rea de Relevante Interesse Ecolgico Museu Parque Seringal	Brasil	IV
<i>Kentropyx calcarata</i>	rea de Relevante Interesse Ecolgico Parque Ambiental Antonio Danubio Loureno da Silva	Brasil	IV
<i>Kentropyx calcarata</i>	rea de Relevante Interesse Ecolgico Projeto Dinmica Biolgica de Fragmentos Florestais	Brasil	IV

<i>Kentropyx calcarata</i>	Biotope Protection Order Grand Matoury Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Kentropyx calcarata</i>	Nature Reserve Central Suriname	French Guiana	IV
<i>Kentropyx calcarata</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Kentropyx calcarata</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Kentropyx calcarata</i>	Refúgio de Vida Silvestre Metr�pole da Amaz�nia	Suriname	IV
<i>Kentropyx calcarata</i>	National Park - Core Area Guyane (Parc Amazonien)	Brasil	IV
<i>Kentropyx calcarata</i>	Parque Natural Municipal Canc�o	French Guiana	NA
<i>Kentropyx calcarata</i>	Parque Natural Municipal Veredas dos Caraj�s	Brasil	NA
<i>Kentropyx calcarata</i>	World Heritage Site Central Suriname Nature Reserve	Brasil	NA
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Arquip�lago do Maraj�	Suriname	NA
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Baixada Maranhense	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Baixo Rio Branco	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental das Reentr�ncias Maranhenses	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Fazendinha	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Igarap� Gelado	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Ilha do Combu	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Lago de Santa Isabel	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Lago de Tucuru�	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Margem Direita do Rio Negro - Setor Paduari - Solim�es	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Margem Esquerda do Rio Negro - Setor Tarum�	Brasil	V
<i>Kentropyx calcarata</i>	A�u - Tarum� Mirima	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Margem Esquerda do Rio Negro-Setor Aturi�-Apauzinho	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Nhamund�	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Parque Linear do Bind�	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Kentropyx calcarata</i>	�rea de Prote�o Ambiental Regi�o Metropolitana de Bel�m	Brasil	V

<i>Kentropyx calcarata</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Kentropyx calcarata</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Kentropyx calcarata</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Kentropyx calcarata</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Kentropyx calcarata</i>	Área de Proteção Ambiental Triunfo do Xingu	Brasil	V
<i>Kentropyx calcarata</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Kentropyx calcarata</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Kentropyx calcarata</i>	Protective Zone Sur del Estado Bolívar	Venezuela	V
<i>Kentropyx calcarata</i>	Regional Nature Park Guyane	French Guiana	V
<i>Kentropyx calcarata</i>	Biosphere Reserve Alto Orinoco-Casiquiare	Venezuela	VI
<i>Kentropyx calcarata</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Kentropyx calcarata</i>	Floresta Estadual de Faro	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual Manicoré	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual Maúes	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual Paru	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual Rio Urubu	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Altamira	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Amaná	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Amapá	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Carajás	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Crepori	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional do Trairão	Brasil	VI

<i>Kentropyx calcarata</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Jacundá	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Jamari	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Mulata	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Kentropyx calcarata</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Kentropyx calcarata</i>	Forest Reserve Imataca	Venezuela	VI
<i>Kentropyx calcarata</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Kentropyx calcarata</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Kentropyx calcarata</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Kentropyx calcarata</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável do Juma	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável do Tupé	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva de Desenvolvimento Sustentável Itatupã-Baquiá	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Aquariquara	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista de Cururupu	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Extremo Norte do Tocantins	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Guariba	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI

<i>Kentropyx calcarata</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Lago do Cuniã	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Mãe Grande de Curuça	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha de Tracuateua	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha Mestre Lucindo	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Marinha Mocapajuba	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Cautário	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Iriri	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Unini	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista São João da Ponta	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Kentropyx calcarata</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Kentropyx calcarata</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Kentropyx pelviceps</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Kentropyx pelviceps</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Kentropyx pelviceps</i>	Parque Estadual Matupiri	Brasil	II

<i>Kentropyx pelviceps</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Kentropyx pelviceps</i>	Parque Nacional Mapinguari	Brasil	II
<i>Kentropyx pelviceps</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Kentropyx pelviceps</i>	Área de Proteção Ambiental Igarapé São Francisco	Brasil	V
<i>Kentropyx pelviceps</i>	Área de Proteção Ambiental Lago do Amapá	Brasil	V
<i>Kentropyx pelviceps</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Kentropyx pelviceps</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Kentropyx pelviceps</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva de Desenvolvimento Sustentável do Matupiri	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva de Desenvolvimento Sustentável Igapó-Açu	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Kentropyx pelviceps</i>	Reserva Nacional Allpahuayo Mishana	Peru	VI
<i>Kentropyx striata</i>	Estação Ecológica Caracaraí	Brasil	Ia
<i>Kentropyx striata</i>	Estação Ecológica Jari	Brasil	Ia
<i>Kentropyx striata</i>	Estação Ecológica Maracá	Brasil	Ia
<i>Kentropyx striata</i>	Reserva Biológica Lago Piratuba	Brasil	Ia
<i>Kentropyx striata</i>	National Park Canaima	Venezuela	II
<i>Kentropyx striata</i>	National Park Yapacana	Venezuela	II
<i>Kentropyx striata</i>	Nature Park Brownsberg	Suriname	II
<i>Kentropyx striata</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Kentropyx striata</i>	Parque Nacional Natural Sierra de la Macarena	Colombia	II
<i>Kentropyx striata</i>	Parque Natural Regional Laguna de Lomalinda	Colombia	II
<i>Kentropyx striata</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Kentropyx striata</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Kentropyx striata</i>	Nature Reserve Central Suriname	Suriname	IV

<i>Kentropyx striata</i>	Nature Reserve Copi	Suriname	IV
<i>Kentropyx striata</i>	Nature Reserve Peruvia	Suriname	IV
<i>Kentropyx striata</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Kentropyx striata</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Kentropyx striata</i>	Forest Plot San Pedro	Venezuela	NA
<i>Kentropyx striata</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Kentropyx striata</i>	World Heritage Site Canaima National Park	Venezuela	NA
<i>Kentropyx striata</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Kentropyx striata</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Kentropyx striata</i>	Área de Proteção Ambiental Fazendinha	Brasil	V
<i>Kentropyx striata</i>	Área de Proteção Ambiental Rio Curiaú	Brasil	V
<i>Kentropyx striata</i>	Regional Nature Park Guyane	French Guiana	V
<i>Kentropyx striata</i>	Biosphere Reserve Alto Orinoco-Casiquiare	Venezuela	VI
<i>Kentropyx striata</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Kentropyx striata</i>	Floresta Estadual Paru	Brasil	VI
<i>Kentropyx striata</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Kentropyx striata</i>	Floresta Nacional Amapá	Brasil	VI
<i>Kentropyx striata</i>	Floresta Nacional Mulata	Brasil	VI
<i>Kentropyx striata</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Kentropyx striata</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Kentropyx striata</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Kentropyx striata</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Kentropyx striata</i>	Reserva Extrativista Marinha de Soure	Brasil	VI
<i>Kentropyx striata</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Kentropyx striata</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Kentropyx striata</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Leposoma guianense</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Leposoma guianense</i>	Estação Ecológica Jari	Brasil	Ia

<i>Leposoma guianense</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Leposoma guianense</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Leposoma guianense</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Leposoma guianense</i>	Nature Park Brownsberg	Suriname	II
<i>Leposoma guianense</i>	Biotope Protection Order Grand Matoury	French Guiana	IV
<i>Leposoma guianense</i>	Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Leposoma guianense</i>	National Nature Reserve Marais de Kaw-Roura	French Guiana	IV
<i>Leposoma guianense</i>	National Nature Reserve Nouragues	French Guiana	IV
<i>Leposoma guianense</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Leposoma guianense</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Leposoma guianense</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Leposoma guianense</i>	Nature Reserve Kaboeri Kreek	Suriname	IV
<i>Leposoma guianense</i>	Nature Reserve Peruvia	Suriname	IV
<i>Leposoma guianense</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Leposoma guianense</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Leposoma guianense</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Leposoma guianense</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Leposoma guianense</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Leposoma guianense</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Leposoma guianense</i>	Regional Nature Park Guyane	French Guiana	V
<i>Leposoma guianense</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Leposoma guianense</i>	Floresta Estadual de Faro	Brasil	VI
<i>Leposoma guianense</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Leposoma guianense</i>	Floresta Estadual Paru	Brasil	VI
<i>Leposoma guianense</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Leposoma guianense</i>	Floresta Nacional Amapá	Brasil	VI
<i>Leposoma guianense</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Leposoma guianense</i>	Multiple Use Management Area Bigi Pan	Suriname	VI

<i>Leposoma guianense</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Leposoma guianense</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Leposoma guianense</i>	Ramsar Site, Wetland of International Importance Marais De Kaw	French Guiana	VI
<i>Leposoma guianense</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Leposoma guianense</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Leposoma guianense</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Leposoma osvaldoi</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Leposoma osvaldoi</i>	Reserva Biológica Jaru	Brasil	Ia
<i>Leposoma osvaldoi</i>	Parque Estadual Cristalino	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Estadual Igarapés do Juruena	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Nacional Amazônia	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Nacional Juruena	Brasil	II
<i>Leposoma osvaldoi</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Leposoma osvaldoi</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Leposoma osvaldoi</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Leposoma osvaldoi</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Estadual Sucunduri	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Nacional Altamira	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Nacional Amaná	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Leposoma osvaldoi</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Leposoma osvaldoi</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Leposoma osvaldoi</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI

<i>Leposoma osvaldoi</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Leposoma osvaldoi</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Leposoma osvaldoi</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Leposoma osvaldoi</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Leposoma osvaldoi</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Leposoma percarinatum</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Leposoma percarinatum</i>	Estação Ecológica Jari	Brasil	Ia
<i>Leposoma percarinatum</i>	Estação Ecológica Maracá	Brasil	Ia
<i>Leposoma percarinatum</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Leposoma percarinatum</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Leposoma percarinatum</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Leposoma percarinatum</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Leposoma percarinatum</i>	Parque Estadual Sumaúma	Brasil	II
<i>Leposoma percarinatum</i>	Parque Estadual Utinga	Brasil	II
<i>Leposoma percarinatum</i>	Parque Nacional Amazônia	Brasil	II
<i>Leposoma percarinatum</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Leposoma percarinatum</i>	Parque Nacional Jaú	Brasil	II
<i>Leposoma percarinatum</i>	Parque Nacional Nascentes do Lago Jari	Brasil	II
<i>Leposoma percarinatum</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Leposoma percarinatum</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Leposoma percarinatum</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Leposoma percarinatum</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Leposoma percarinatum</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Leposoma percarinatum</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Leposoma percarinatum</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Leposoma percarinatum</i>	Área de Conservación Regional Ampiyacu Apayacu	Peru	NA
<i>Leposoma percarinatum</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V

<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Baixo Rio Branco	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Leposoma percarinatum</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Leposoma percarinatum</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Leposoma percarinatum</i>	Floresta Estadual de Faro	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Estadual Paru	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional Amapá	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional Jamari	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Leposoma percarinatum</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Leposoma percarinatum</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Leposoma percarinatum</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Leposoma percarinatum</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI

<i>Leposoma percarinatum</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Lago do Capanã Grande	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Rio Unini	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Leposoma percarinatum</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Leposoma percarinatum</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Plica plica</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Plica plica</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Plica plica</i>	Reserva Biológica Jarú	Brasil	Ia
<i>Plica plica</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Plica plica</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Plica plica</i>	Reserva de Vida Silvestre Bruno Racua	Bolivia	Ib
<i>Plica plica</i>	Nature Park Brownsberg	Suriname	II
<i>Plica plica</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Plica plica</i>	Parque Estadual Rio Negro Setor Norte	Brasil	II
<i>Plica plica</i>	Parque Estadual Sumaúma	Brasil	II
<i>Plica plica</i>	Parque Nacional Amazônia	Brasil	II
<i>Plica plica</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Plica plica</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Plica plica</i>	Parque Nacional Mapinguari	Brasil	II
<i>Plica plica</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Plica plica</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Plica plica</i>	Parque Nacional Tingo María	Peru	II

<i>Plica plica</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Plica plica</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Plica plica</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Plica plica</i>	Nature Reserve Copi	Suriname	IV
<i>Plica plica</i>	Nature Reserve Peruvia	Suriname	IV
<i>Plica plica</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Plica plica</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Plica plica</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Plica plica</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Plica plica</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Plica plica</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Plica plica</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Plica plica</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Plica plica</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Plica plica</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Plica plica</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Plica plica</i>	Regional Nature Park Guyane	French Guiana	V
<i>Plica plica</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Plica plica</i>	Floresta Estadual de Faro	Brasil	VI
<i>Plica plica</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Amapá	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Carajás	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Plica plica</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Plica plica</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Jamaxim	Brasil	VI

<i>Plica plica</i>	Floresta Nacional Jamari	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Plica plica</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Plica plica</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Plica plica</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Plica plica</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Plica plica</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Plica plica</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Plica plica</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI
<i>Plica plica</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Aquariquara	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Plica plica</i>	Reserva Extrativista Verde para Sempre	Brasil	VI
<i>Plica plica</i>	Reserva Nacional Amazônica Manuripi Heath	Bolivia	VI
<i>Plica plica</i>	Reserva Nacional Tambopata	Peru	VI
<i>Plica umbra</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Plica umbra</i>	Estação Ecológica Jari	Brasil	Ia

<i>Plica umbra</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Plica umbra</i>	Estação Ecológica Samuel	Brasil	Ia
<i>Plica umbra</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia
<i>Plica umbra</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Plica umbra</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Plica umbra</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Plica umbra</i>	Reserva de Vida Silvestre Bruno Racua	Bolivia	Ib
<i>Plica umbra</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Plica umbra</i>	Parque Estadual Matupiri	Brasil	II
<i>Plica umbra</i>	Parque Estadual Serra dos Reis	Brasil	II
<i>Plica umbra</i>	Parque Estadual Sumaúma	Brasil	II
<i>Plica umbra</i>	Parque Estadual Utinga	Brasil	II
<i>Plica umbra</i>	Parque Nacional Amazônia	Brasil	II
<i>Plica umbra</i>	Parque Nacional Bahuaja Sonene	Peru	II
<i>Plica umbra</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Plica umbra</i>	Parque Nacional Madidi	Bolivia	II
<i>Plica umbra</i>	Parque Nacional Mapinguari	Brasil	II
<i>Plica umbra</i>	Parque Nacional Nascentes do Lago Jari	Brasil	II
<i>Plica umbra</i>	Parque Nacional Noel Kempff Mercado	Bolivia	II
<i>Plica umbra</i>	Parque Nacional Pico da Neblina	Brasil	II
<i>Plica umbra</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Plica umbra</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Plica umbra</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Plica umbra</i>	Parque Nacional Yasuní	Ecuador	II
<i>Plica umbra</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Plica umbra</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Plica umbra</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Plica umbra</i>	Área de Relevante Interesse Ecológico Seringal Nova Esperança	Brasil	IV

<i>Plica umbra</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Plica umbra</i>	Área Protegida Municipal Lago Tumichucua	Bolivia	NA
<i>Plica umbra</i>	Área Protegida Municipal Serranía Ibadebe (Tigre negro)	Bolivia	NA
<i>Plica umbra</i>	Parque Municipal Tequeje	Bolivia	NA
<i>Plica umbra</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Plica umbra</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Igarapé São Francisco	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Lago do Amapá	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Triunfo do Xingu	Brasil	V
<i>Plica umbra</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Plica umbra</i>	Floresta Estadual de Faro	Brasil	VI
<i>Plica umbra</i>	Floresta Estadual Paru	Brasil	VI
<i>Plica umbra</i>	Floresta Estadual Tapauá	Brasil	VI
<i>Plica umbra</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Altamira	Brasil	VI

<i>Plica umbra</i>	Floresta Nacional Carajás	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Jamari	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Plica umbra</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Plica umbra</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável do Matupiri	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável do Rio Iratapuru	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável Igapó-Açu	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Plica umbra</i>	Reserva de Desenvolvimento Sustentável Uacari	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Chico Mendes	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Chocoaré-Mato Grosso	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI

<i>Plica umbra</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Maracanã	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Marinha de Arai-Peroba	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Rio Xingu	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Riozinho da Liberdade	Brasil	VI
<i>Plica umbra</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Plica umbra</i>	Reserva Nacional Amazónica Manuripi Heath	Bolivia	VI
<i>Potamites epleopus</i>	Estação Ecológica Juami-Japurá	Brasil	Ia
<i>Potamites epleopus</i>	Reserva Biológica El Quimi	Ecuador	Ia
<i>Potamites epleopus</i>	Parque Estadual Serra dos Martírios/Andorinhas	Brasil	II
<i>Potamites epleopus</i>	Parque Nacional Amboró	Bolivia	II
<i>Potamites epleopus</i>	Parque Nacional Cayambe Coca	Ecuador	II
<i>Potamites epleopus</i>	Parque Nacional Cordillera Azul	Peru	II
<i>Potamites epleopus</i>	Parque Nacional Ichigkat Muja - Cordillera del Cóndor	Peru	II
<i>Potamites epleopus</i>	Parque Nacional Sangay	Ecuador	II
<i>Potamites epleopus</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Potamites epleopus</i>	Parque Nacional Yasuni	Ecuador	II
<i>Potamites epleopus</i>	Área de Conservación Regional Cordillera Escalera	Peru	NA
<i>Potamites epleopus</i>	Area de protección de cuencas y biodiversidad Cumbre Alto Beni (Serrania de Bella Vista)	Bolivia	NA
<i>Potamites epleopus</i>	Area Natural de Manejo Integrado Amboró	Bolivia	NA
<i>Potamites epleopus</i>	Area Protegida Municipal Curichi El Cuajo	Bolivia	NA
<i>Potamites epleopus</i>	Parque Municipal y de Protección de Cuencas Cascasa Boqueron - Quijarro	Bolivia	NA
<i>Potamites epleopus</i>	Área de Proteção Ambiental Lago de Santa Isabel	Brasil	V

<i>Potamites ecpleopus</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Potamites ecpleopus</i>	Área de Proteção Ambiental São Geraldo do Araguaia	Brasil	V
<i>Potamites ecpleopus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Potamites ecpleopus</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Potamites ecpleopus</i>	Reserva Ecológica Cofã Bermejo	Ecuador	VI
<i>Potamites ecpleopus</i>	Reserva Extrativista Alto Juruá	Brasil	VI
<i>Potamites ecpleopus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Potamites juruazensis</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Rondonops biscutatus</i>	Parque Estadual Corumbiara	Brasil	II
<i>Rondonops biscutatus</i>	Parque Estadual Cristalino	Brasil	II
<i>Rondonops biscutatus</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Rondonops biscutatus</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Rondonops biscutatus</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Rondonops biscutatus</i>	Floresta Nacional Itaituba I	Brasil	VI
<i>Rondonops biscutatus</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Thecadactylus rapicauda</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Thecadactylus rapicauda</i>	Estação Ecológica Jari	Brasil	Ia
<i>Thecadactylus rapicauda</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Thecadactylus rapicauda</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Thecadactylus rapicauda</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Thecadactylus rapicauda</i>	Parque Estadual Rio Negro Setor Sul	Brasil	II
<i>Thecadactylus rapicauda</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Thecadactylus rapicauda</i>	Parque Estadual Sumaúma	Brasil	II
<i>Thecadactylus rapicauda</i>	Parque Estadual Utinga	Brasil	II
<i>Thecadactylus rapicauda</i>	Parque Nacional Amazônia	Brasil	II
<i>Thecadactylus rapicauda</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Thecadactylus rapicauda</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Thecadactylus rapicauda</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV

<i>Thecadactylus rapicauda</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Thecadactylus rapicauda</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Thecadactylus rapicauda</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Baixada Maranhense	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açú - Tarumã Mirima	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro-Setor Aturiá-Apuauzinho	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Nhamundá	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Paytuna	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Tapajós	Brasil	V
<i>Thecadactylus rapicauda</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Thecadactylus rapicauda</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Thecadactylus rapicauda</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Estadual Paru	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Estadual Rio Urubu	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Amapá	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Carajás	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional de Itaituba II	Brasil	VI

<i>Thecadactylus rapicauda</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Jamaxim	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Thecadactylus rapicauda</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Thecadactylus rapicauda</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Thecadactylus rapicauda</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Thecadactylus rapicauda</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Thecadactylus rapicauda</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Thecadactylus rapicauda</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Thecadactylus rapicauda</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Thecadactylus rapicauda</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Thecadactylus rapicauda</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Thecadactylus rapicauda</i>	Reserva Extrativista Terra Grande Pracuaba	Brasil	VI
<i>Thecadactylus rapicauda</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI
<i>Tretioscincus agilis</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Tretioscincus agilis</i>	Estação Ecológica Jari	Brasil	Ia
<i>Tretioscincus agilis</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Tretioscincus agilis</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Tretioscincus agilis</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Tretioscincus agilis</i>	Nature Park Brownsberg	Suriname	II
<i>Tretioscincus agilis</i>	Parque Estadual Sumaúma	Brasil	II
<i>Tretioscincus agilis</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Tretioscincus agilis</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Tretioscincus agilis</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Tretioscincus agilis</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Tretioscincus agilis</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Tretioscincus agilis</i>	Area Natural de Manejo Integrado Amboró	Bolivia	NA

<i>Tretioscincus agilis</i>	Area Protegida Municipal Curichi El Cuajo	Bolivia	NA
<i>Tretioscincus agilis</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Tretioscincus agilis</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Lago de Tucuruí	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Rio Madeira	Brasil	V
<i>Tretioscincus agilis</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Tretioscincus agilis</i>	Regional Nature Park Guyane	French Guiana	V
<i>Tretioscincus agilis</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Tretioscincus agilis</i>	Floresta Estadual de Faro	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Estadual Paru	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Estadual Rio Urubu	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Nacional Amapá	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Nacional Carajás	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Tretioscincus agilis</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Tretioscincus agilis</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Tretioscincus agilis</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Tretioscincus agilis</i>	Reserva de Desenvolvimento Sustentável do Uatumã	Brasil	VI

<i>Tretioscincus agilis</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Tretioscincus agilis</i>	Reserva Extrativista Rio Cajari	Brasil	VI
<i>Tretioscincus agilis</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Tropidurus hispidus</i>	Estação Ecológica Caracaraí	Brasil	Ia
<i>Tropidurus hispidus</i>	Estação Ecológica Jari	Brasil	Ia
<i>Tropidurus hispidus</i>	Estação Ecológica Maracá	Brasil	Ia
<i>Tropidurus hispidus</i>	National Park Canaima	Venezuela	II
<i>Tropidurus hispidus</i>	National Park Yapacana	Venezuela	II
<i>Tropidurus hispidus</i>	Nature Park Brownsberg	Suriname	II
<i>Tropidurus hispidus</i>	Parque Estadual Monte Alegre	Brasil	II
<i>Tropidurus hispidus</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Tropidurus hispidus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Tropidurus hispidus</i>	Parque Estadual Utinga	Brasil	II
<i>Tropidurus hispidus</i>	Parque Nacional Montanhas do Tumucumaque	Brasil	II
<i>Tropidurus hispidus</i>	Parque Nacional Viruá	Brasil	II
<i>Tropidurus hispidus</i>	Natural Monument Formaciones de Tepuyes	Venezuela	III
<i>Tropidurus hispidus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Tropidurus hispidus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Tropidurus hispidus</i>	Biotope Protection Order Grand Matoury	French Guiana	IV
<i>Tropidurus hispidus</i>	Land acquired by Conservatoire du Littoral (national seaside and lakeside conservancy) Petit Cayenne	French Guiana	IV
<i>Tropidurus hispidus</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Tropidurus hispidus</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Tropidurus hispidus</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Tropidurus hispidus</i>	Nature Reserve Copi	Suriname	IV
<i>Tropidurus hispidus</i>	Nature Reserve Peruvia	Suriname	IV
<i>Tropidurus hispidus</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Tropidurus hispidus</i>	Refúgio de Vida Silvestre Metr�pole da Amaz�nia	Brasil	IV

<i>Tropidurus hispidus</i>	Forest Plot El Frío (C.V.G.)	Venezuela	NA
<i>Tropidurus hispidus</i>	Forest Plot San Pedro	Venezuela	NA
<i>Tropidurus hispidus</i>	National Park - Core Area Guyane (Parc Amazonien)	French Guiana	NA
<i>Tropidurus hispidus</i>	World Heritage Site Canaima National Park	Venezuela	NA
<i>Tropidurus hispidus</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Baixada Maranhense	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental das Reentrâncias Maranhenses	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Paytuna	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Tropidurus hispidus</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Tropidurus hispidus</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Tropidurus hispidus</i>	Protective Zone Sur del Estado Bolívar	Venezuela	V
<i>Tropidurus hispidus</i>	Regional Nature Park Guyane	French Guiana	V
<i>Tropidurus hispidus</i>	Floresta Estadual Paru	Brasil	VI
<i>Tropidurus hispidus</i>	Floresta Nacional Roraima	Brasil	VI
<i>Tropidurus hispidus</i>	Forest Reserve Imataca	Venezuela	VI
<i>Tropidurus hispidus</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Tropidurus hispidus</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Tropidurus hispidus</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Tropidurus hispidus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Tropidurus hispidus</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Tropidurus hispidus</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Tropidurus hispidus</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI

<i>Tupinambis teguixin</i>	Estação Ecológica Cuniã	Brasil	Ia
<i>Tupinambis teguixin</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Tupinambis teguixin</i>	Reserva Biológica Guaporé	Brasil	Ia
<i>Tupinambis teguixin</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Tupinambis teguixin</i>	National Park Yapacana	Venezuela	II
<i>Tupinambis teguixin</i>	Nature Park Brownsberg	Suriname	II
<i>Tupinambis teguixin</i>	Parque Estadual Chandless	Brasil	II
<i>Tupinambis teguixin</i>	Parque Estadual Cristalino	Brasil	II
<i>Tupinambis teguixin</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Tupinambis teguixin</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Tupinambis teguixin</i>	Parque Estadual Sumaúma	Brasil	II
<i>Tupinambis teguixin</i>	Parque Estadual Utinga	Brasil	II
<i>Tupinambis teguixin</i>	Parque Nacional Amazônia	Brasil	II
<i>Tupinambis teguixin</i>	Parque Nacional Jaú	Brasil	II
<i>Tupinambis teguixin</i>	Parque Nacional Serra do Divisor	Brasil	II
<i>Tupinambis teguixin</i>	Parque Nacional Serra do Pardo	Brasil	II
<i>Tupinambis teguixin</i>	Área de Relevante Interesse Ecológico Japiim Pentecoste	Brasil	IV
<i>Tupinambis teguixin</i>	Área de Relevante Interesse Ecológico Javari Buriti	Brasil	IV
<i>Tupinambis teguixin</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Tupinambis teguixin</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Tupinambis teguixin</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Tupinambis teguixin</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Tupinambis teguixin</i>	Nature Reserve Copi	Suriname	IV
<i>Tupinambis teguixin</i>	Nature Reserve Peruvia	Suriname	IV
<i>Tupinambis teguixin</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Tupinambis teguixin</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Tupinambis teguixin</i>	Refúgio de Vida Silvestre Metrópole da Amazônia	Brasil	IV
<i>Tupinambis teguixin</i>	Area Natural de Manejo Integrado Amboró	Bolivia	NA

<i>Tupinambis teguixin</i>	Area Protegida Municipal Curichi El Cuajo	Bolivia	NA
<i>Tupinambis teguixin</i>	Área Protegida Municipal Lago Tumichucua	Bolivia	NA
<i>Tupinambis teguixin</i>	Parque Departamental y Área Natural de Manejo Integrado Iténez	Bolivia	NA
<i>Tupinambis teguixin</i>	Parque Natural Municipal Cancão	Brasil	NA
<i>Tupinambis teguixin</i>	Parque Natural Municipal Veredas dos Carajás	Brasil	NA
<i>Tupinambis teguixin</i>	Parque Regional Yacuma	Bolivia	NA
<i>Tupinambis teguixin</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Arquipélago do Marajó	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Baixo Rio Branco	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Igarapé Gelado	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Ilha do Combu	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Lago de Tucurui	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Margem Esquerda do Rio Negro - Setor Tarumã Açu - Tarumã Mirima	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Parque Linear do Bindá	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Região Metropolitana de Belém	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Taruma/Ponta Negra	Brasil	V
<i>Tupinambis teguixin</i>	Área de Proteção Ambiental Xeriuini	Brasil	V
<i>Tupinambis teguixin</i>	National Park - Buffer zone/Area of adhesion Guyane (Parc Amazonien)	French Guiana	V
<i>Tupinambis teguixin</i>	Floresta Estadual Canutaba	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Estadual do Amapá	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Estadual Paru	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Amapá	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Balata-Tufari	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Carajás	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Iquiri	Brasil	VI

<i>Tupinambis teguixin</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Jacundá	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Jamanxim	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Mulata	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Santa Rosa do Purus	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Tupinambis teguixin</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Tupinambis teguixin</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Tupinambis teguixin</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Tupinambis teguixin</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Tupinambis teguixin</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva de Desenvolvimento Sustentável Canumã	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva de la Biósfera Estación Biológica del Beni	Bolivia	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Alto Juruá	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Arióca Pruanã	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Canutama	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Chocoaré-Mato Grosso	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Lago do Cuniã	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Maracanã	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Rio Unini	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Tupinambis teguixin</i>	Reserva Nacional Amazónica Manuripi Heath	Bolivia	VI
<i>Tupinambis teguixin</i>	Reserva Nacional Tambopata	Peru	VI

<i>Uracentron flaviceps</i>	Reserva Biológica Limoncocha	Ecuador	Ia
<i>Uracentron flaviceps</i>	Parque Nacional Natural Amacayacu	Colombia	II
<i>Uracentron flaviceps</i>	Parque Nacional Natural Yaigojé Apaporis	Colombia	II
<i>Uracentron flaviceps</i>	Parque Nacional Serra da Cutia	Brasil	II
<i>Uracentron flaviceps</i>	Parque Nacional Sumaco Napo-Galeras	Ecuador	II
<i>Uracentron flaviceps</i>	Parque Nacional Yanachaga-Chemillén	Peru	II
<i>Uracentron flaviceps</i>	Parque Nacional Yasuní	Ecuador	II
<i>Uracentron flaviceps</i>	Área de Relevante Interesse Ecológico Seringal Nova Esperança	Brasil	IV
<i>Uracentron flaviceps</i>	Área de Conservación Regional Ampiyacu Apayacu	Peru	NA
<i>Uracentron flaviceps</i>	Área de Conservación Regional Maijuna Kichwa	Peru	NA
<i>Uracentron flaviceps</i>	Zona Reservada Santiago Comaina	Peru	NA
<i>Uracentron flaviceps</i>	Área de Proteção Ambiental Margem Direita do Rio Negro - Setor Paduari - Solimões	Brasil	V
<i>Uracentron flaviceps</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Uracentron flaviceps</i>	Reserva Comunal Tuntanain	Peru	VI
<i>Uracentron flaviceps</i>	Reserva Comunal Yanesha	Peru	VI
<i>Uracentron flaviceps</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Uracentron flaviceps</i>	Reserva de Producción de Fauna Cuyabeno	Ecuador	VI
<i>Uracentron flaviceps</i>	Reserva Ecológica Antisana	Ecuador	VI
<i>Uracentron flaviceps</i>	Reserva Extrativista Barreiro das Antas	Brasil	VI
<i>Uracentron flaviceps</i>	Reserva Extrativista Chico Mendes	Brasil	VI
<i>Uracentron flaviceps</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Uracentron flaviceps</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Uracentron flaviceps</i>	Reserva Nacional Pacaya Samiria	Peru	VI
<i>Uracentron flaviceps</i>	Reserva Nacional Pucacuro	Peru	VI
<i>Uranoscodon superciliosus</i>	Estação Ecológica Grão Pará	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Estação Ecológica Jari	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Estação Ecológica Rio Roosevelt	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Estação Ecológica Serra dos Três Irmãos	Brasil	Ia

<i>Uranoscodon superciliosus</i>	Estação Ecológica Terra do Meio	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Reserva Biológica Maicuru	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Reserva Biológica Rio Ouro Preto	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Reserva Biológica Rio Trombetas	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Reserva Biológica Tapirapé	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Reserva Biológica Uatumã	Brasil	Ia
<i>Uranoscodon superciliosus</i>	Nature Park Brownsberg	Suriname	II
<i>Uranoscodon superciliosus</i>	Parque Estadual Cristalino	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Estadual Guajará-Mirim	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Estadual Matupiri	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Estadual Serra do Aracá	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Estadual Sumaúma	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Estadual Utinga	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Amazônia	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Anavilhanas	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Campos Amazônicos	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional do Jamanxim	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Mapinguari	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Nascentes do Lago Jari	Brasil	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Natural Amacayacu	Colombia	II
<i>Uranoscodon superciliosus</i>	Parque Nacional Natural Río Puré	Colombia	II
<i>Uranoscodon superciliosus</i>	Área de Relevante Interesse Ecológico Museu Parque Seringal	Brasil	IV
<i>Uranoscodon superciliosus</i>	Área de Relevante Interesse Ecológico Parque Ambiental Antonio Danubio Lourenço da Silva	Brasil	IV
<i>Uranoscodon superciliosus</i>	National Nature Reserve Marais de Kaw-Roura	French Guiana	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Boven-Coesewijne	Suriname	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Brinck-heuvel	Suriname	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Central Suriname	Suriname	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Copi	Suriname	IV

<i>Uranoscodon superciliosus</i>	Nature Reserve Kaboeri Kreek	Suriname	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Peruvia	Suriname	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Sipaliwini	Suriname	IV
<i>Uranoscodon superciliosus</i>	Nature Reserve Wane Kreek	Suriname	IV
<i>Uranoscodon superciliosus</i>	Refúgio de Vida Silvestre Metr�pole da Amaz�nia	Brasil	IV
<i>Uranoscodon superciliosus</i>	World Heritage Site Central Suriname Nature Reserve	Suriname	NA
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Arquip�lago do Maraj�	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental das Reentr�ncias Maranhenses	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Igarap� Gelado	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Ilha do Combu	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Lago de Tucuru�	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Margem Direita do Rio Negro - Setor Paduari - Solim�es	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Margem Esquerda do Rio Negro - Setor Tarum� A�u - Tarum� Mirima	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Margem Esquerda do Rio Negro-Setor Aturi�-Apuauzinho	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Nhamund�	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Parque Linear do Bind�	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Presidente Figueiredo - Caverna do Moroaga	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Regi�o Metropolitana de Bel�m	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Rio Madeira	Brasil	V
<i>Uranoscodon superciliosus</i>	�rea de Prote�o Ambiental Taruma/Ponta Negra	Brasil	V
<i>Uranoscodon superciliosus</i>	Regional Nature Park Guyane	French Guiana	V
<i>Uranoscodon superciliosus</i>	Biosphere Reserve Alto Orinoco-Casiquiare	Venezuela	VI
<i>Uranoscodon superciliosus</i>	Community Owned Conservation Area Kanashen	Guyana	VI
<i>Uranoscodon superciliosus</i>	Floresta Estadual de Faro	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Estadual de Rendimento Sustentado Rio Vermelho C	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Estadual do Amap�	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Estadual Ma�es	Brasil	VI

<i>Uranoscodon superciliosus</i>	Floresta Estadual Paru	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Estadual Trombetas	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Altamira	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Bom Futuro	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Carajás	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Caxiuanã	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional de Itaituba II	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional do Trairão	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Iquiri	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Itacaiunas	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Jamaxim	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Pau-Rosa	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Saracá - Taquera	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Tapajós	Brasil	VI
<i>Uranoscodon superciliosus</i>	Floresta Nacional Tapirapé-Aquiri	Brasil	VI
<i>Uranoscodon superciliosus</i>	Managed Resource Use Area Kanuku Mountains Protected Area	Guyana	VI
<i>Uranoscodon superciliosus</i>	Multiple Use Management Area Bigi Pan	Suriname	VI
<i>Uranoscodon superciliosus</i>	Multiple Use Management Area Noord Saramacca	Suriname	VI
<i>Uranoscodon superciliosus</i>	Multiple Use Management Area North Commewijne - Marowijne	Suriname	VI
<i>Uranoscodon superciliosus</i>	Ramsar Site, Wetland of International Importance Basse-Mana	French Guiana	VI
<i>Uranoscodon superciliosus</i>	Ramsar Site, Wetland of International Importance Mamirauá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Ramsar Site, Wetland of International Importance Marais De Kaw	French Guiana	VI
<i>Uranoscodon superciliosus</i>	Ramsar Site, Wetland of International Importance Reentrancias Maranhenses	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Amanã	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Cujubim	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável do Matupiri	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável do Rio Negro	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Igapó-Açu	Brasil	VI

<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Mamirauá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Piagaçu Purus	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Rio Amapá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva de Desenvolvimento Sustentável Uacari	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Baixo Juruá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Chocoaré-Mato Grosso	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Guariba-Roosevelt	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Gurupá-Melgaço	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Ipaú-Anilzinho	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Ituxí	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Jaci-Paraná	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Mãe Grande de Curuçá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Mapuá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Maracanã	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Marinha Caeté-Taperaçu	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Marinha de Araí-Peroba	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Marinha de Gurupi-Piriá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Marinha de Tracuateua	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Marinha Mestre Lucindo	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Médio Juruá	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Rio Ouro Preto	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Rio Pacaás Novos	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Riozinho do Anfrísio	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista São João da Ponta	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Tapajós Arapiuns	Brasil	VI
<i>Uranoscodon superciliosus</i>	Reserva Extrativista Terra Grande Pracuuba	Brasil	VI
<i>Uranoscodon superciliosus</i>	Wilderness Reserve/Managed Resource Use Area Iwokrama	Guyana	VI

Legenda: Ia = Reserva natural estrita; Ib = Área de vida selvagem; II = Parque nacional; III = Monumento natural; IV = Área de gestão de espécies e habitat; V = Paisagens protegidas terrestres e marinhas; VI = Área protegida de utilização sustentável dos recursos naturais, de acordo com a IUCN.

ANEXO E - Script das análises efetuadas no ambiente R (R CORE TEAM 2018; Somente na versão online).

Seção 1

```
# Meta-analysis of partial data #
setwd("C:/Users/Luisa Diele-Viegas/Google Drive/Cap1")
library(metafor)

#### MS Ecography - by Higher taxa & Regions

data_macro<- read.csv("C:/Users/Luisa Diele-Viegas/Cap1/Ecography/ data_macro.csv", header=T)
str(data_macro)
meta <- escalc(measure= "ZCOR", ri = r, ni = n_sp, data = data_macro)

#Random Effect Model
ma_r <- rma(yi, vi, data = meta, method = "DL")
ma_r
#Forest plot
forest(ma_r)

#### MS JTB = by Vulnerability / source
data_macro2<-read.csv("C:/Users/Luisa Diele-Viegas/ Cap1/JTB/ data_macro2.csv", header=T)
str(data_macro2)
meta2 <- escalc(measure= "ZCOR", ri = r, ni = n_sp, data = data_macro2)

#Random Effect Model
ma_r2 <- rma(yi, vi, data = meta3, method = "DL")
ma_r2
#Forest plot
forest(ma_r2)

# Qui quadrado – MS JTB #
library(meta)
#### H0 = O nível taxonômico é independente do grupo
##Variável preditora: grupo = categórica
##Variável resposta: nível taxonômico = categórica
dados.metanalise<-table(group, biolevel)
result.quiquadrado<-chisq.test(dados.metanalise)
result.quiquadrado
### X-squared = 57.835, df= 16, p-value = 1.207e-06
#### The subject is dependent of the study's group // we reject the null hypothesis
corrplot(result.quiquadrado$residuals, is.cor = FALSE)
contrib <- 100*result.quiquadrado$residuals^2/result.quiquadrado$statistic
round(contrib, 3)
corrplot(contrib, is.cor = FALSE)
result.quiquadrado$p.value

#### H0 = o grupo é independente do continente
##Variável preditora: continente = categórica
##Variável resposta: grupo = categórica
dados.metanalise<-table(group, ecozone)
result.quiquadrado<-chisq.test(dados.metanalise)
result.quiquadrado
### X-squared = 75.332, df= 40, p-value = 0.0006097
#### The study's group is dependent of the ecozone// we reject the null hypothesis
corrplot(result.quiquadrado$residuals, is.cor = FALSE)
contrib <- 100*result.quiquadrado$residuals^2/result.quiquadrado$statistic
```

```
round(contrib, 3)  
corrplot(contrib, is.cor = FALSE)  
result.quiquadrado$p.value
```

Seção 2

```

library(raster)
library(rgdal)
library(gtools)
setwd("D:/FN")
### shapefile ###
noronha <- readOGR("C:/Users/Luisa Diele-Viegas/PhD/ExposureNoronha/ilhasFN.shp", "ilhasFN")

# ler os rasters
# GCM He; fazer o mesmo procedimento para MP e MR.
bio1_present<-raster("D:/rasters/Noronha/wc2-5/bio1.bil")
bio1_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi501.tif")
bio1_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi501.tif")
bio1_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi701.tif")
bio1_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi701.tif")
bio2_present<-raster("D:/rasters/Noronha/wc2-5/bio2.bil")
bio2_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi502.tif")
bio2_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi502.tif")
bio2_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi702.tif")
bio2_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi702.tif")
bio3_present<-raster("D:/rasters/Noronha/wc2-5/bio3.bil")
bio3_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi503.tif")
bio3_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi503.tif")
bio3_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi703.tif")
bio3_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi703.tif")
bio4_present<-raster("D:/rasters/Noronha/wc2-5/bio4.bil")
bio4_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi504.tif")
bio4_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi504.tif")
bio4_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi704.tif")
bio4_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi704.tif")
bio5_present<-raster("D:/rasters/Noronha/wc2-5/bio5.bil")
bio5_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi505.tif")
bio5_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi505.tif")
bio5_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi705.tif")
bio5_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi705.tif")
bio6_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi506.tif")
bio6_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi506.tif")
bio6_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi706.tif")
bio6_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi706.tif")
bio7_present<-raster("D:/rasters/Noronha/wc2-5/bio7.bil")
bio7_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi507.tif")
bio7_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi507.tif")
bio7_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi707.tif")
bio7_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi707.tif")
bio8_present<-raster("D:/rasters/Noronha/wc2-5/bio8.bil")
bio8_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi508.tif")
bio8_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi508.tif")
bio8_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi708.tif")
bio8_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi708.tif")
bio9_present<-raster("D:/rasters/Noronha/wc2-5/bio9.bil")
bio9_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi509.tif")
bio9_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi509.tif")
bio9_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi709.tif")
bio9_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi709.tif")
bio10_present<-raster("D:/rasters/Noronha/wc2-5/bio10.bil")
bio10_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi5010.tif")
bio10_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi5010.tif")
bio10_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45bi7010.tif")
bio10_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85bi7010.tif")
bio11_present<-raster("D:/rasters/Noronha/wc2-5/bio11.bil")

```



```

prec3_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr503.tif")
prec3_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr703.tif")
prec3_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr703.tif")
prec4_present<-raster("D:/rasters/Noronha/wc2-5/prec4.bil")
prec4_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr504.tif")
prec4_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr504.tif")
prec4_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr704.tif")
prec4_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr704.tif")
prec5_present<-raster("D:/rasters/Noronha/wc2-5/prec5.bil")
prec5_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr505.tif")
prec5_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr505.tif")
prec5_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr705.tif")
prec5_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr705.tif")
prec6_present<-raster("D:/rasters/Noronha/wc2-5/prec6.bil")
prec6_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr506.tif")
prec6_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr506.tif")
prec6_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr706.tif")
prec6_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr706.tif")
prec7_present<-raster("D:/rasters/Noronha/wc2-5/prec7.bil")
prec7_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr507.tif")
prec7_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr507.tif")
prec7_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr707.tif")
prec7_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr707.tif")
prec8_present<-raster("D:/rasters/Noronha/wc2-5/prec8.bil")
prec8_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr508.tif")
prec8_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr508.tif")
prec8_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr708.tif")
prec8_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr708.tif")
prec9_present<-raster("D:/rasters/Noronha/wc2-5/prec9.bil")
prec9_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr509.tif")
prec9_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr509.tif")
prec9_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr709.tif")
prec9_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr709.tif")
prec10_present<-raster("D:/rasters/Noronha/wc2-5/prec10.bil")
prec10_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr5010.tif")
prec10_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr5010.tif")
prec10_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr7010.tif")
prec10_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr7010.tif")
prec11_present<-raster("D:/rasters/Noronha/wc2-5/prec11.bil")
prec11_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr5011.tif")
prec11_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr5011.tif")
prec11_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr7011.tif")
prec11_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr7011.tif")
prec12_present<-raster("D:/rasters/Noronha/wc2-5/prec12.bil")
prec12_he_2050_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr5012.tif")
prec12_he_2050_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr5012.tif")
prec12_he_2070_45<-raster("D:/rasters/Noronha/cmip5/2_5m/he45pr7012.tif")
prec12_he_2070_85<-raster("D:/rasters/Noronha/cmip5/2_5m/he85pr7012.tif")

```

```
### Extraction Exposure ###
```

```
# bio
```

```

bio1_present_extract_mean_noronha<-extract(bio1_present,noronha[1], fun=mean, na.rm=TRUE)
bio1_present_extract_sd_noronha<-extract(bio1_present,noronha[1], fun=sd, na.rm=TRUE)
bio1_he_2050_45_extract_mean_noronha<-extract(bio1_he_2050_45,noronha[1], fun=mean, na.rm=TRUE)
bio1_he_2050_45_extract_sd_noronha<-extract(bio1_he_2050_45,noronha[1], fun=sd, na.rm=TRUE)
bio1_he_2050_85_extract_mean_noronha<-extract(bio1_he_2050_85,noronha[1], fun=mean, na.rm=TRUE)
bio1_he_2050_85_extract_sd_noronha<-extract(bio1_he_2050_85,noronha[1], fun=sd, na.rm=TRUE)
bio1_he_2070_45_extract_mean_noronha<-extract(bio1_he_2070_45,noronha[1], fun=mean, na.rm=TRUE)
bio1_he_2070_45_extract_sd_noronha<-extract(bio1_he_2070_45,noronha[1], fun=sd, na.rm=TRUE)
bio1_he_2070_85_extract_mean_noronha<-extract(bio1_he_2070_85,noronha[1], fun=mean, na.rm=TRUE)

```



```

prec9_he_2050_85_extract_sd_noronha<-extract(prec9_he_2050_85,noronha[1], fun=sd, na.rm=TRUE)
prec9_he_2070_45_extract_mean_noronha<-extract(prec9_he_2070_45,noronha[1], fun=mean, na.rm=TRUE)
prec9_he_2070_45_extract_sd_noronha<-extract(prec9_he_2070_45,noronha[1], fun=sd, na.rm=TRUE)
prec9_he_2070_85_extract_mean_noronha<-extract(prec9_he_2070_85,noronha[1], fun=mean, na.rm=TRUE)
prec9_he_2070_85_extract_sd_noronha<-extract(prec9_he_2070_85,noronha[1], fun=sd, na.rm=TRUE)
prec10_present_extract_mean_noronha<-extract(prec10_present,noronha[1], fun=mean, na.rm=TRUE)
prec10_present_extract_sd_noronha<-extract(prec10_present,noronha[1], fun=sd, na.rm=TRUE)
prec10_he_2050_45_extract_mean_noronha<-extract(prec10_he_2050_45,noronha[1], fun=mean,
na.rm=TRUE)
prec10_he_2050_45_extract_sd_noronha<-extract(prec10_he_2050_45,noronha[1], fun=sd, na.rm=TRUE)
prec10_he_2050_85_extract_mean_noronha<-extract(prec10_he_2050_85,noronha[1], fun=mean,
na.rm=TRUE)
prec10_he_2050_85_extract_sd_noronha<-extract(prec10_he_2050_85,noronha[1], fun=sd, na.rm=TRUE)
prec10_he_2070_45_extract_mean_noronha<-extract(prec10_he_2070_45,noronha[1], fun=mean,
na.rm=TRUE)
prec10_he_2070_45_extract_sd_noronha<-extract(prec10_he_2070_45,noronha[1], fun=sd, na.rm=TRUE)
prec10_he_2070_85_extract_mean_noronha<-extract(prec10_he_2070_85,noronha[1], fun=mean,
na.rm=TRUE)
prec10_he_2070_85_extract_sd_noronha<-extract(prec10_he_2070_85,noronha[1], fun=sd, na.rm=TRUE)
prec11_present_extract_mean_noronha<-extract(prec11_present,noronha[1], fun=mean, na.rm=TRUE)
prec11_present_extract_sd_noronha<-extract(prec11_present,noronha[1], fun=sd, na.rm=TRUE)
prec11_he_2050_45_extract_mean_noronha<-extract(prec11_he_2050_45,noronha[1], fun=mean,
na.rm=TRUE)
prec11_he_2050_45_extract_sd_noronha<-extract(prec11_he_2050_45,noronha[1], fun=sd, na.rm=TRUE)
prec11_he_2050_85_extract_mean_noronha<-extract(prec11_he_2050_85,noronha[1], fun=mean,
na.rm=TRUE)
prec11_he_2050_85_extract_sd_noronha<-extract(prec11_he_2050_85,noronha[1], fun=sd, na.rm=TRUE)
prec11_he_2070_45_extract_mean_noronha<-extract(prec11_he_2070_45,noronha[1], fun=mean,
na.rm=TRUE)
prec11_he_2070_45_extract_sd_noronha<-extract(prec11_he_2070_45,noronha[1], fun=sd, na.rm=TRUE)
prec11_he_2070_85_extract_mean_noronha<-extract(prec11_he_2070_85,noronha[1], fun=mean,
na.rm=TRUE)
prec11_he_2070_85_extract_sd_noronha<-extract(prec11_he_2070_85,noronha[1], fun=sd, na.rm=TRUE)
prec12_present_extract_mean_noronha<-extract(prec12_present,noronha[1], fun=mean, na.rm=TRUE)
prec12_present_extract_sd_noronha<-extract(prec12_present,noronha[1], fun=sd, na.rm=TRUE)
prec12_he_2050_45_extract_mean_noronha<-extract(prec12_he_2050_45,noronha[1], fun=mean,
na.rm=TRUE)
prec12_he_2050_45_extract_sd_noronha<-extract(prec12_he_2050_45,noronha[1], fun=sd, na.rm=TRUE)
prec12_he_2050_85_extract_mean_noronha<-extract(prec12_he_2050_85,noronha[1], fun=mean,
na.rm=TRUE)
prec12_he_2050_85_extract_sd_noronha<-extract(prec12_he_2050_85,noronha[1], fun=sd, na.rm=TRUE)
prec12_he_2070_45_extract_mean_noronha<-extract(prec12_he_2070_45,noronha[1], fun=mean,
na.rm=TRUE)
prec12_he_2070_45_extract_sd_noronha<-extract(prec12_he_2070_45,noronha[1], fun=sd, na.rm=TRUE)
prec12_he_2070_85_extract_mean_noronha<-extract(prec12_he_2070_85,noronha[1], fun=mean,
na.rm=TRUE)
prec12_he_2070_85_extract_sd_noronha<-extract(prec12_he_2070_85,noronha[1], fun=sd, na.rm=TRUE)

## write table
#bio
Extractions <- data.frame(bio1_present_extract_mean_noronha, bio1_present_extract_sd_noronha,
bio1_he_2050_45_extract_mean_noronha, bio1_he_2050_45_extract_sd_noronha,
bio1_he_2050_85_extract_mean_noronha, bio1_he_2050_85_extract_sd_noronha,
bio1_he_2070_45_extract_mean_noronha, bio1_he_2070_45_extract_sd_noronha,
bio1_he_2070_85_extract_mean_noronha, bio1_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_bio1.txt", append=FALSE, quote=TRUE, sep=";")

extractions<-data.frame(bio2_present_extract_mean_noronha, bio2_present_extract_sd_noronha,
bio2_he_2050_45_extract_mean_noronha, bio2_he_2050_45_extract_sd_noronha,
bio2_he_2050_85_extract_mean_noronha, bio2_he_2050_85_extract_sd_noronha,

```



```

extractions<-data.frame(tmax9_present_extract_mean_noronha, tmax9_present_extract_sd_noronha,
tmax9_he_2050_45_extract_mean_noronha, tmax9_he_2050_45_extract_sd_noronha,
tmax9_he_2050_85_extract_mean_noronha, tmax9_he_2050_85_extract_sd_noronha,
tmax9_he_2070_45_extract_mean_noronha, tmax9_he_2070_45_extract_sd_noronha,
tmax9_he_2070_85_extract_mean_noronha, tmax9_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmax9.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmax10_present_extract_mean_noronha, tmax10_present_extract_sd_noronha,
tmax10_he_2050_45_extract_mean_noronha, tmax10_he_2050_45_extract_sd_noronha,
tmax10_he_2050_85_extract_mean_noronha, tmax10_he_2050_85_extract_sd_noronha,
tmax10_he_2070_45_extract_mean_noronha, tmax10_he_2070_45_extract_sd_noronha,
tmax10_he_2070_85_extract_mean_noronha, tmax10_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmax10.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmax11_present_extract_mean_noronha, tmax11_present_extract_sd_noronha,
tmax11_he_2050_45_extract_mean_noronha, tmax11_he_2050_45_extract_sd_noronha,
tmax11_he_2050_85_extract_mean_noronha, tmax11_he_2050_85_extract_sd_noronha,
tmax11_he_2070_45_extract_mean_noronha, tmax11_he_2070_45_extract_sd_noronha,
tmax11_he_2070_85_extract_mean_noronha, tmax11_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmax11.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmax12_present_extract_mean_noronha, tmax12_present_extract_sd_noronha,
tmax12_he_2050_45_extract_mean_noronha, tmax12_he_2050_45_extract_sd_noronha,
tmax12_he_2050_85_extract_mean_noronha, tmax12_he_2050_85_extract_sd_noronha,
tmax12_he_2070_45_extract_mean_noronha, tmax12_he_2070_45_extract_sd_noronha,
tmax12_he_2070_85_extract_mean_noronha, tmax12_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmax12.txt", append=FALSE, quote=TRUE, sep=";")

```

```
#tmin
```

```

extractions<-data.frame(tmin1_present_extract_mean_noronha, tmin1_present_extract_sd_noronha,
tmin1_he_2050_45_extract_mean_noronha, tmin1_he_2050_45_extract_sd_noronha,
tmin1_he_2050_85_extract_mean_noronha, tmin1_he_2050_85_extract_sd_noronha,
tmin1_he_2070_45_extract_mean_noronha, tmin1_he_2070_45_extract_sd_noronha,
tmin1_he_2070_85_extract_mean_noronha, tmin1_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin1.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin2_present_extract_mean_noronha, tmin2_present_extract_sd_noronha,
tmin2_he_2050_45_extract_mean_noronha, tmin2_he_2050_45_extract_sd_noronha,
tmin2_he_2050_85_extract_mean_noronha, tmin2_he_2050_85_extract_sd_noronha,
tmin2_he_2070_45_extract_mean_noronha, tmin2_he_2070_45_extract_sd_noronha,
tmin2_he_2070_85_extract_mean_noronha, tmin2_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin2.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin3_present_extract_mean_noronha, tmin3_present_extract_sd_noronha,
tmin3_he_2050_45_extract_mean_noronha, tmin3_he_2050_45_extract_sd_noronha,
tmin3_he_2050_85_extract_mean_noronha, tmin3_he_2050_85_extract_sd_noronha,
tmin3_he_2070_45_extract_mean_noronha, tmin3_he_2070_45_extract_sd_noronha,
tmin3_he_2070_85_extract_mean_noronha, tmin3_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin3.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin4_present_extract_mean_noronha, tmin4_present_extract_sd_noronha,
tmin4_he_2050_45_extract_mean_noronha, tmin4_he_2050_45_extract_sd_noronha,
tmin4_he_2050_85_extract_mean_noronha, tmin4_he_2050_85_extract_sd_noronha,
tmin4_he_2070_45_extract_mean_noronha, tmin4_he_2070_45_extract_sd_noronha,
tmin4_he_2070_85_extract_mean_noronha, tmin4_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin4.txt", append=FALSE, quote=TRUE, sep=";")

```



```

extractions<-data.frame(tmin5_present_extract_mean_noronha, tmin5_present_extract_sd_noronha,
tmin5_he_2050_45_extract_mean_noronha, tmin5_he_2050_45_extract_sd_noronha,
tmin5_he_2050_85_extract_mean_noronha, tmin5_he_2050_85_extract_sd_noronha,
tmin5_he_2070_45_extract_mean_noronha, tmin5_he_2070_45_extract_sd_noronha,
tmin5_he_2070_85_extract_mean_noronha, tmin5_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin5.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin6_present_extract_mean_noronha, tmin6_present_extract_sd_noronha,
tmin6_he_2050_45_extract_mean_noronha, tmin6_he_2050_45_extract_sd_noronha,
tmin6_he_2050_85_extract_mean_noronha, tmin6_he_2050_85_extract_sd_noronha,
tmin6_he_2070_45_extract_mean_noronha, tmin6_he_2070_45_extract_sd_noronha,
tmin6_he_2070_85_extract_mean_noronha, tmin6_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin6.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin7_present_extract_mean_noronha, tmin7_present_extract_sd_noronha,
tmin7_he_2050_45_extract_mean_noronha, tmin7_he_2050_45_extract_sd_noronha,
tmin7_he_2050_85_extract_mean_noronha, tmin7_he_2050_85_extract_sd_noronha,
tmin7_he_2070_45_extract_mean_noronha, tmin7_he_2070_45_extract_sd_noronha,
tmin7_he_2070_85_extract_mean_noronha, tmin7_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin7.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin8_present_extract_mean_noronha, tmin8_present_extract_sd_noronha,
tmin8_he_2050_45_extract_mean_noronha, tmin8_he_2050_45_extract_sd_noronha,
tmin8_he_2050_85_extract_mean_noronha, tmin8_he_2050_85_extract_sd_noronha,
tmin8_he_2070_45_extract_mean_noronha, tmin8_he_2070_45_extract_sd_noronha,
tmin8_he_2070_85_extract_mean_noronha, tmin8_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin8.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin9_present_extract_mean_noronha, tmin9_present_extract_sd_noronha,
tmin9_he_2050_45_extract_mean_noronha, tmin9_he_2050_45_extract_sd_noronha,
tmin9_he_2050_85_extract_mean_noronha, tmin9_he_2050_85_extract_sd_noronha,
tmin9_he_2070_45_extract_mean_noronha, tmin9_he_2070_45_extract_sd_noronha,
tmin9_he_2070_85_extract_mean_noronha, tmin9_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin9.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin10_present_extract_mean_noronha, tmin10_present_extract_sd_noronha,
tmin10_he_2050_45_extract_mean_noronha, tmin10_he_2050_45_extract_sd_noronha,
tmin10_he_2050_85_extract_mean_noronha, tmin10_he_2050_85_extract_sd_noronha,
tmin10_he_2070_45_extract_mean_noronha, tmin10_he_2070_45_extract_sd_noronha,
tmin10_he_2070_85_extract_mean_noronha, tmin10_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin10.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin11_present_extract_mean_noronha, tmin11_present_extract_sd_noronha,
tmin11_he_2050_45_extract_mean_noronha, tmin11_he_2050_45_extract_sd_noronha,
tmin11_he_2050_85_extract_mean_noronha, tmin11_he_2050_85_extract_sd_noronha,
tmin11_he_2070_45_extract_mean_noronha, tmin11_he_2070_45_extract_sd_noronha,
tmin11_he_2070_85_extract_mean_noronha, tmin11_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin11.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(tmin12_present_extract_mean_noronha, tmin12_present_extract_sd_noronha,
tmin12_he_2050_45_extract_mean_noronha, tmin12_he_2050_45_extract_sd_noronha,
tmin12_he_2050_85_extract_mean_noronha, tmin12_he_2050_85_extract_sd_noronha,
tmin12_he_2070_45_extract_mean_noronha, tmin12_he_2070_45_extract_sd_noronha,
tmin12_he_2070_85_extract_mean_noronha, tmin12_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_tmin12.txt", append=FALSE, quote=TRUE, sep=";")

```

```
#prec
```

```

extractions<-data.frame(prec1_present_extract_mean_noronha, prec1_present_extract_sd_noronha,
prec1_he_2050_45_extract_mean_noronha, prec1_he_2050_45_extract_sd_noronha,
prec1_he_2050_85_extract_mean_noronha, prec1_he_2050_85_extract_sd_noronha,

```



```

extractions<-data.frame(prec10_present_extract_mean_noronha, prec10_present_extract_sd_noronha,
prec10_he_2050_45_extract_mean_noronha, prec10_he_2050_45_extract_sd_noronha,
prec10_he_2050_85_extract_mean_noronha, prec10_he_2050_85_extract_sd_noronha,
prec10_he_2070_45_extract_mean_noronha, prec10_he_2070_45_extract_sd_noronha,
prec10_he_2070_85_extract_mean_noronha, prec10_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_prec10.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(prec11_present_extract_mean_noronha, prec11_present_extract_sd_noronha,
prec11_he_2050_45_extract_mean_noronha, prec11_he_2050_45_extract_sd_noronha,
prec11_he_2050_85_extract_mean_noronha, prec11_he_2050_85_extract_sd_noronha,
prec11_he_2070_45_extract_mean_noronha, prec11_he_2070_45_extract_sd_noronha,
prec11_he_2070_85_extract_mean_noronha, prec11_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_prec11.txt", append=FALSE, quote=TRUE, sep=";")

```

```

extractions<-data.frame(prec12_present_extract_mean_noronha, prec12_present_extract_sd_noronha,
prec12_he_2050_45_extract_mean_noronha, prec12_he_2050_45_extract_sd_noronha,
prec12_he_2050_85_extract_mean_noronha, prec12_he_2050_85_extract_sd_noronha,
prec12_he_2070_45_extract_mean_noronha, prec12_he_2070_45_extract_sd_noronha,
prec12_he_2070_85_extract_mean_noronha, prec12_he_2070_85_extract_sd_noronha)
write.table(extractions, file="extractions_prec12.txt", append=FALSE, quote=TRUE, sep=";")

```

```
#coord noronha
```

```
coord<-c(-33, -32, -4, -3)
```

```
# bio1
```

```
bio1_present_crop<-crop(bio1_present, noronha)
```

```
tiff("bio1_present.tif")
```

```
plot(bio1_present_crop/10, col=rev(rainbow(6)))
```

```
dev.off()
```

```
bi_1_he_2050_45_crop<-crop(bi_1_he_2050_45, noronha)
```

```
tiff("bi_1_he_2050_45.tif")
```

```
plot(bi_1_he_2050_45_crop/10, col=rev(rainbow(6)))
```

```
dev.off()
```

```
bi_1_he_2050_85_crop<-crop(bi_1_he_2050_85, noronha)
```

```
tiff("bi_1_he_2050_85.tif")
```

```
plot(bi_1_he_2050_85_crop/10, col=rev(rainbow(6)))
```

```
dev.off()
```

```
bi_1_he_2070_45_crop<-crop(bi_1_he_2070_45, noronha)
```

```
tiff("bi_1_he_2070_45.tif")
```

```
plot(bi_1_he_2070_45_crop/10, col=rev(rainbow(6)))
```

```
dev.off()
```

```
bi_1_he_2070_85_crop<-crop(bi_1_he_2070_85, noronha)
```

```
tiff("bi_1_he_2070_85.tif")
```

```
plot(bi_1_he_2070_85_crop/10, col=rev(rainbow(6)))
```

```
dev.off()
```

```
# bio12
```

```
library(RColorBrewer)
```

```
dat <- data.frame(x = rnorm(0, 8000, .2))
```

```
bio12_present_crop<-crop(bio12_present, noronha)
```

```
tiff("bio12_present.tif")
```

```
plot(bio12_present_crop, col=brewer.pal(n = 6, name = "RdBu"))
```

```
dev.off()
```

```
bi_12_he_2050_45_crop<-crop(bi_12_he_2050_45, noronha)
```

```
tiff("bi_12_he_2050_45.tif")
```

```
plot(bi_12_he_2050_45_crop, col=brewer.pal(n = 6, name = "RdBu"))
```

```
dev.off()
```

```
bi_12_he_2050_85_crop<-crop(bi_12_he_2050_85, noronha)
```

```
tiff("bi_12_he_2050_85.tif")
```

```
plot(bi_12_he_2050_85_crop, col=brewer.pal(n = 6, name = "RdBu"))
```

```
dev.off()
```

```
bi_12_he_2070_45_crop<-crop(bi_12_he_2070_45, noronha)
```

```
tiff("bi_12_he_2070_45.tif")
plot(bi_12_he_2070_45_crop, col=brewer.pal(n = 6, name = "RdBu"))
dev.off()
bi_12_he_2070_85_crop<-crop(bi_12_he_2070_85, noronha)
tiff("bi_12_he_2070_85.tif")
plot(bi_12_he_2070_85_crop, col=brewer.pal(n = 6, name = "RdBu"))
dev.off()

# Aumento do nível do mar

#Sea level rise

sealevelrise <- readOGR("C:/Users/Luisa Diele-Viegas/Google
Drive/Shapes/Dados_nível_mar_Li/dados/1m/inun_1m.kml", "inun_1m")

sealevelrise_mean<-extract(sealevelrise,noronha[1], fun=mean, na.rm=TRUE)
sealevelrise_sd<-extract(sealevelrise,noronha[1], fun=sd, na.rm=TRUE)

extractions<-data.frame(sealevelrise_mean,sealevelrise_sd)
write.table(extractions, file="sealevelrise.txt", append=FALSE, quote=TRUE, sep=";")
```

Seção 3

Análises T. atlantica

```

library(rgdal)
library(raster)

#get rasters worldclim
setwd("D:/Rasters")
tmax_present <- getData("worldclim",lon=-3, lat=-33,var="tmax",res=0.5)
tmax_MR_50_45<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=45, model='MR', year=50)
tmax_MR_50_85<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=85, model='MR', year=50)
tmax_MR_70_45<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=45, model='MR', year=70)
tmax_MR_70_85<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=85, model='MR', year=70)
tmax_HE_50_45<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=45, model='HE', year=50)
tmax_HE_50_85<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=85, model='HE', year=50)
tmax_HE_70_45<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=45, model='HE', year=70)
tmax_HE_70_85<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=85, model='HE', year=70)
tmax_MR_70_85<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=85, model='MR', year=70)

tmax_HE_70_45<-getData('CMIP5',lon=-3, lat=-33, var='tmax', res=0.5, rcp=45, model='HE', year=70)

#geral
noronha <- readOGR("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/Analyses/ExposureNoronha/ShapefileNoronha_byme/Trace_noronha_delimited-line.shp",
"Trace_noronha_delimited-line")

# curva de performance térmica

PerfGAMM<- function (performance_input,
                    knots_vector=NA,
                    size = TRUE,
                    acc = FALSE,
                    hydration = FALSE
                    ) {
# load required packages
require('mgcv')
# dependencies: nlme
require("ggplot2")
#dependencies: grid
# use knots

uni_temp <- if (is.na(knots_vector)) {
  uni_temp <- unique(performance_input$round_temp)
} else {uni_temp <- knots_vector}
k <- length(uni_temp)
##### plot points measured visual inspection
require(grid)
plot_dispersion_species <- ggplot(performance_input,aes(x= temp,y= performance, color = id)) +
  geom_point(size = 6, alpha = 0.7) +
  theme_bw() +
  theme(legend.text = element_text(size = 7),
        legend.key.size = unit(0.2,"cm"),
        legend.margin = unit(0,"cm"),
        panel.grid.major = element_line(colour = "gray"),
        panel.grid.minor = element_line(colour = "gray", linetype = "dotted"))+
  geom_rug(col="darkred",alpha=.7)
##### Correlation schemes by ID #####
## corAR1 : autoregressive process
cor_1 <- corAR1(form=~1|id) # no autocorrelation
cor_2 <- corAR1(0.1,form=~1|id) # autocorrelation set to 0.1

```

```

## corCAR1 : continuous autoregressive process
cor_3 <- corCAR1(0.1,form=~1|id) # correlation between two observations one unit of time apart set to 0.1
## corGaus : Gaussian spatial correlation
cor_5 <- corGaus(form=~1|id)
cor_6 <- corGaus(form=~1|id, nugget = TRUE) # account for nugget effect
## corExp : exponential spatial correlation structure
cor_9 <- corExp(form=~1|id)
cor_10 <- corExp(form=~1|id, nugget = TRUE)
## corRatio : Rational quadratics spatial correlation.
cor_11 <- corRatio(form=~1|id)
cor_12 <- corRatio(form=~1|id, nugget = TRUE)
## corSpher : spherical spatial correlation.
cor_13 <- corSpher(form=~1|id)
cor_14 <- corSpher(form=~1|id, nugget = TRUE)
## corARMA : autoregressive moving average process
cor_16 <- corARMA(form = ~ 1 | id, p=0, q=1)
cor_17 <- corARMA(form = ~ 1 | id, p=1, q=0)
cor_18 <- corARMA(form = ~ 1 | id, p=1, q=1)
cor_19 <- corARMA(form = ~ 1 | id, p=1, q=2)
cor_20 <- corARMA(form = ~ 1 | id, p=2, q=1)
cor_str_id_list <- NULL
cor_str_id_list <- list(cor_1, cor_2, cor_3, cor_5, cor_6, cor_9, cor_10, cor_11, cor_12, cor_13, cor_14, cor_16,
cor_17, cor_18, cor_19, cor_20)
cor_str_names <- NULL
cor_str_names <- c("corAR1(form=~1|id)",
"corAR1(0.1,form=~1|id)",
"corCAR1(0.1,form=~1|id)",
"corGaus(form=~1|id)",
"corGaus(form=~1|id, nugget = TRUE)",
"corExp(form=~1|id)",
"corExp(form=~1|id, nugget = TRUE)",
"corRatio(form=~1|id)",
"corRatio(form=~1|id, nugget = TRUE)",
"corSpher(form=~1|id)",
"corSpher(form=~1|id, nugget = TRUE)",
"corARMA(form = ~ 1 | id, p=0, q=1)",
"corARMA(form = ~ 1 | id, p=1, q=0)",
"corARMA(form = ~ 1 | id, p=1, q=1)",
"corARMA(form = ~ 1 | id, p=1, q=2)",
"corARMA(form = ~ 1 | id, p=2, q=1)")
##### models by ID #####
gamm_models_id_list <- list()
if(size == TRUE & acc == FALSE & hydration == FALSE) {
for (i in 1:length(cor_str_id_list)) {
gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + size,
correlation=cor_str_id_list[[i]],
data=performance_input,
method="REML",
knots=list(x=uni_temp)), silent=TRUE)
if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
failed'
next
} else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size == FALSE & acc == FALSE & hydration == FALSE) {
for (i in 1:length(cor_str_id_list)) {
gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs"),
correlation=cor_str_id_list[[i]],
data=performance_input,

```

```

        method="REML",
        knots=list(x=uni_temp)), silent=TRUE)
failed' if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
        next
    } else {gamm_models_id_list[i] <- list(gamm_temp)}
}
        } else if(size == TRUE & acc == TRUE & hydration == FALSE) {
for (i in 1:length(cor_str_id_list)) {
    gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + size + acctemp,
        correlation=cor_str_id_list[[i]],
        data=performance_input,
        method="REML",
        knots=list(x=uni_temp)), silent=TRUE)
failed' if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
        next
    } else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size ==
FALSE & acc == TRUE & hydration == FALSE) {
for (i in 1:length(cor_str_id_list)) {
    gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + acctemp,
        correlation=cor_str_id_list[[i]],
        data=performance_input,
        method="REML",
        knots=list(x=uni_temp)), silent=TRUE)
failed' if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
        next
    } else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size == FALSE & acc == TRUE & hydration == TRUE) {
for (i in 1:length(cor_str_id_list)) {
    gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + size + hydration,
        correlation=cor_str_id_list[[i]],
        data=performance_input,
        method="REML",
        knots=list(x=uni_temp)), silent=TRUE)
failed' if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
        next
    } else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size == FALSE & acc == FALSE & hydration == TRUE) {
for (i in 1:length(cor_str_id_list)) {
    gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + hydration,
        correlation=cor_str_id_list[[i]],
        data=performance_input,
        method="REML",
        knots=list(x=uni_temp)), silent=TRUE)
failed' if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
        next
    } else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size == TRUE & acc == FALSE & hydration == TRUE) {

```

```

for (i in 1:length(cor_str_id_list)) {
  gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + size + hydration,
    correlation=cor_str_id_list[[i]],
    data=performance_input,
    method="REML",
    knots=list(x=uni_temp)), silent=TRUE)
  if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
failed'
  next
} else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size == TRUE & acc == TRUE & hydration == TRUE) {
for (i in 1:length(cor_str_id_list)) {
  gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + size + acctemp + hydration,
    correlation=cor_str_id_list[[i]],
    data=performance_input,
    method="REML",
    knots=list(x=uni_temp)), silent=TRUE)
  if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
failed'
  next
} else {gamm_models_id_list[i] <- list(gamm_temp)}
}
} else if(size ==
FALSE & acc == TRUE & hydration == TRUE) {
for (i in 1:length(cor_str_id_list)) {
  gamm_temp <- try(gamm(performance~te(temp,k=k,bs="cs") + acctemp + hydration,
    correlation=cor_str_id_list[[i]],
    data=performance_input,
    method="REML",
    knots=list(x=uni_temp)), silent=TRUE)
  if ('try-error' %in% class(gamm_temp)) { gamm_models_id_list[i] <- 'correlation structure
failed'
  next
} else {gamm_models_id_list[i] <- list(gamm_temp)}
}
}
# names list based on correlation names
names(gamm_models_id_list) <- cor_str_names
# remove fail correlation structures
oo <- gamm_models_id_list[gamm_models_id_list != 'correlation structure failed']
gamm_models_id_list <- oo
# save models $gam and $lme to list
gamm_models_id_list_lme <- list()
for (i in 1:length(gamm_models_id_list)) {
  gamm_models_id_list_lme[i] <- list(gamm_models_id_list[[i]]$lme)
  } # save models $lme to list for anova comparisons
# save models $gam and $lme to list
gamm_models_id_list_gam <- list()
for (i in 1:length( gamm_models_id_list)) {
  gamm_models_id_list_gam[i] <- list(gamm_models_id_list[[i]]$gam)
  } # save models $gam to list for anova comparisons
gamm_models_id_list_lme_logLik <- list()
for (i in 1:length( gamm_models_id_list_lme)) {
  gamm_models_id_list_lme_logLik[i] <- list(gamm_models_id_list_lme[[i]]$logLik)
  }
gamm_models_id_list_lme_logLik_unlist <- unlist(gamm_models_id_list_lme_logLik)
##### model comparison #####

```



```

## creates a dataframe with list of retained models
updated_names_gamm_models_id_list <- as.data.frame(names(gamm_models_id_list))
## gets AIC and BIC of the retained models
all_models_scores_df <- NULL # clean up previous runs
for (i in 1:length(gamm_models_id_list_lme)){
  if (!exists("all_models_scores_df")){
    AIC_gamm_models <- AIC(gamm_models_id_list_lme[[i]])
    BIC_gamm_models <- BIC(gamm_models_id_list_lme[[i]])
    logLik_gamm_models <- gamm_models_id_list_lme[[i]]$logLik
    all_models_scores_df <- cbind(AIC_gamm_models, BIC_gamm_models, logLik_gamm_models)
  }
  # if the merged dataset does exist, append to it
  if (exists("all_models_scores_df")){
    AIC_gamm_models <- AIC(gamm_models_id_list_lme[[i]])
    BIC_gamm_models <- BIC(gamm_models_id_list_lme[[i]])
    logLik_gamm_models <- gamm_models_id_list_lme[[i]]$logLik
    temp_scores <- cbind(AIC_gamm_models, BIC_gamm_models, logLik_gamm_models)
    all_models_scores_df <- rbind(all_models_scores_df, temp_scores)
  }
  rm(temp_scores)
}
}
moto <- cbind(updated_names_gamm_models_id_list, all_models_scores_df) # binds rows
#Compare models: either use AIC, BIC or Log-Likelihood ratio tests from table below to decide on your top
model
moto$delta_AIC <- do.call(function(x) x-x[which(x==min(x))], list(moto$AIC_gamm_models))
moto$delta_BIC <- do.call(function(x) x-x[which(x==min(x))], list(moto$BIC_gamm_models))
moto$knots <- k
names(moto) <- c("gamm_correlation_structure_class", "AIC", "BIC", "logLik", "delta_AIC", "delta_BIC",
"knobs")
#### select the best model for prediction
best_gamm_model_AIC <- gamm_models_id_list[[which.min(moto[,5])] ] ## model_best_AIC <-
which.min(moto[,5] )
best_gamm_model_BIC <- gamm_models_id_list[[which.min(moto[,6])] ] ## model_best_BIC <-
which.min(moto[,6] )
## summary for best models
cat("\n\n")
cat("best_gamm_model_AIC")
cat("\n\n")
print(summary(best_gamm_model_AIC$gam))
cat("\n\n")
print(best_gamm_model_AIC)
cat("\n\n")
cat("best_gamm_model_AIC -- adjusted R squared")
cat("\n\n")
print(summary(best_gamm_model_AIC$gam)$r.sq) #adjusted R squared
cat("\n\n")
cat("best_gamm_model_BIC")
cat("\n\n")
print(summary(best_gamm_model_BIC$gam))
cat("\n\n")
print(best_gamm_model_BIC)
cat("\n\n")
cat("best_gamm_model_BIC -- adjusted R squared")
cat("\n\n")
print(summary(best_gamm_model_BIC$gam)$r.sq) #adjusted R squared
cat("\n\n")
cat("Model comparison results")
cat("\n\n")
print(moto)
cat("\n\n")

```

```

# plot with size or not
plot(plot_dispersion_species)
devAskNewPage(ask=T)
plot(best_gamm_model_AIC$gam, pages =1,residuals=TRUE,pch=19, seWithMean = TRUE,
shade=TRUE,shade.col="gray") #
title("Best GAMM model AIC")
if(size == TRUE) {
devAskNewPage(ask=T)
vis.gam(best_gamm_model_AIC$gam,
view=c('size','temp'),
type = "response",
theta=55,
phi=30,
color="heat",
xlab="size mm",
ylab="Temperature °C",
zlab="Performance",
ticktype="detailed",
n.grid=50) # color: gray; theta is the perspective angle of the graph
title("Best GAMM model AIC")
}
if(acc == TRUE) {
devAskNewPage(ask=T)
vis.gam(best_gamm_model_AIC$gam,
view=c('acctemp','temp'),
type = "response",
theta=55,
phi=30,
color="heat",
xlab="Acclimation Temperature °C",
ylab="Temperature °C",
zlab="Performance",
ticktype="detailed",
n.grid=50) # color: gray; theta is the perspective angle of the graph
title("Best GAMM model AIC")
}
if(hydration == TRUE) {
devAskNewPage(ask=T)
vis.gam(best_gamm_model_AIC$gam,
view=c('hydration','temp'),
type = "response",
theta=55,
phi=30,
color="heat",
xlab="Hydration % of body mass",
ylab="Temperature °C",
zlab="Performance",
ticktype="detailed",
n.grid=50) # color: gray; theta is the perspective angle of the graph
title("Best GAMM model AIC")
}
devAskNewPage(ask=T)
plot(plot_dispersion_species)
devAskNewPage(ask=T)
plot(best_gamm_model_BIC$gam, pages =1,residuals=TRUE,pch=19, seWithMean = TRUE,
shade=TRUE,shade.col="gray") #
title("Best GAMM model BIC")
if(size == TRUE) {
devAskNewPage(ask=T)
vis.gam(best_gamm_model_BIC$gam,

```

```

    view=c('size','temp'),
    type = "response",
    theta=55,
    phi=30,
    color="heat",
    xlab="size mm",
    ylab="Temperature °C",
    zlab="Performance",
    ticktype="detailed",
    n.grid=50) # color: gray; theta is the perspective angle of the graph
title("Best GAMM model BIC")
}
if(acc == TRUE) {
devAskNewPage(ask=T)
vis.gam(best_gamm_model_BIC$gam,
    type = "response",
    view=c('acctemp','temp'),
    theta=55,
    phi=30,
    color="heat",
    xlab="Acclimation Temperature °C",
    ylab="Temperature °C",
    zlab="Performance",
    ticktype="detailed",
    n.grid=50) # color: gray; theta is the perspective angle of the graph
title("Best GAMM model BIC")
}
if(hydration == TRUE) {
devAskNewPage(ask=T)
vis.gam(best_gamm_model_BIC$gam,
    type = "response",
    view=c('hydration','temp'),
    theta=55,
    phi=30,
    color="heat",
    xlab="Hydration % of body mass",
    ylab="Temperature °C",
    zlab="Performance",
    ticktype="detailed",
    n.grid=50) # color: gray; theta is the perspective angle of the graph
title("Best GAMM model BIC")
}
if(size == TRUE & acc == TRUE & hydration == FALSE) {
Lizard_gam_TPC_AIC <- function (temp_value, size_value, acctemp_value) {
    formula_gam <- best_gamm_model_AIC$gam
    pred_data <- data.frame(temp=temp_value, size = size_value, acctemp=acctemp_value)
    P <- as.vector(predict.gam(formula_gam,pred_data))
    if(P>0) {
        return(P)
    } else { return(0) }
}
Lizard_gam_TPC_BIC <- function (temp_value, size_value, acctemp_value) {
    formula_gam <- best_gamm_model_BIC$gam
    pred_data <- data.frame(temp=temp_value, size = size_value, acctemp=acctemp_value)
    P <- as.vector(predict.gam(formula_gam,pred_data))
    if(P>0) {
        return(P)
    } else { return(0) }
}
}
}
}

```

```

if(size == TRUE & acc == FALSE & hydration == FALSE) {
Lizard_gam_TPC_AIC <- function (temp_value, size_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value, size = size_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
Lizard_gam_TPC_BIC <- function (temp_value, size_value) {
  formula_gam <- best_gamm_model_BIC$gam
  pred_data <- data.frame(temp=temp_value, size = size_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
}
if(size == FALSE & acc == FALSE & hydration == FALSE) {
Lizard_gam_TPC_AIC <- function (temp_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
Lizard_gam_TPC_BIC <- function (temp_value) {
  formula_gam <- best_gamm_model_BIC$gam
  pred_data <- data.frame(temp=temp_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
}
if(size == FALSE & acc == TRUE & hydration == FALSE) {
Lizard_gam_TPC_AIC <- function (temp_value, acctemp_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value, acctemp=acctemp_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
Lizard_gam_TPC_BIC <- function (temp_value, acctemp_value) {
  formula_gam <- best_gamm_model_BIC$gam
  pred_data <- data.frame(temp=temp_value, acctemp=acctemp_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
}
##
if(size == TRUE & acc == TRUE & hydration == TRUE) {
Lizard_gam_TPC_AIC <- function (temp_value, size_value, acctemp_value, hydration_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value, size = size_value, acctemp=acctemp_value,
hydration=hydration_value)

```

```

    P <- as.vector(predict.gam(formula_gam,pred_data))
    if(P>0) {
      return(P)
    } else { return(0) }
  }
  Lizard_gam_TPC_BIC <- function (temp_value, size_value, acctemp_value, hydration_value) {
    formula_gam <- best_gamm_model_BIC$gam
    pred_data <- data.frame(temp=temp_value, size = size_value, acctemp=acctemp_value,
hydration=hydration_value)
    P <- as.vector(predict.gam(formula_gam,pred_data))
    if(P>0) {
      return(P)
    } else { return(0) }
  }
}
}
if(size == TRUE & acc == FALSE & hydration == TRUE) {
Lizard_gam_TPC_AIC <- function (temp_value, size_value, hydration_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value, size = size_value,
hydration=hydration_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
Lizard_gam_TPC_BIC <- function (temp_value, size_value, hydration_value) {
  formula_gam <- best_gamm_model_BIC$gam
  pred_data <- data.frame(temp=temp_value, size = size_value,
hydration=hydration_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
}
if(size == FALSE & acc == FALSE & hydration == TRUE) {
Lizard_gam_TPC_AIC <- function (temp_value, hydration_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value, hydration=hydration_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
Lizard_gam_TPC_BIC <- function (temp_value, hydration_value) {
  formula_gam <- best_gamm_model_BIC$gam
  pred_data <- data.frame(temp=temp_value, hydration=hydration_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {
    return(P)
  } else { return(0) }
}
}
}
if(size == FALSE & acc == TRUE & hydration == TRUE) {
Lizard_gam_TPC_AIC <- function (temp_value, acctemp_value, hydration_value) {
  formula_gam <- best_gamm_model_AIC$gam
  pred_data <- data.frame(temp=temp_value, acctemp=acctemp_value,
hydration=hydration_value)
  P <- as.vector(predict.gam(formula_gam,pred_data))
  if(P>0) {

```

```

        return(P)
      } else { return(0) }
    }
  }
  Lizard_gam_TPC_BIC <- function (temp_value, acctemp_value, hydration_value) {
    formula_gam <- best_gamm_model_BIC1$gam
    pred_data <- data.frame(temp=temp_value, acctemp=acctemp_value,
hydration=hydration_value)
    P <- as.vector(predict.gam(formula_gam,pred_data))
    if(P>0) {
      return(P)
    } else { return(0) }
  }
}
}
return(list(Lizard_gam_TPC_AIC,Lizard_gam_TPC_BIC,best_gamm_model_BIC,best_gamm_model_AIC))
}
#####

tatlantiperf<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/Analyses/Performance/performance.csv", header=T)
attach(tatlantiperf)
tatlanticaPerfGAMM<-PerfGAMM(tatlantiperf)
tatlanticaPerfGAMMFUN<-tatlanticaPerfGAMM[[1]]

### SELECT THE MONTHS THAT ARE RELEVANT TO OUR MEASUREMENTS = 7 BECAUSE WE
COLLECTED DATA ON JULY

tmax7_present<-raster("D:/Rasters/cmip5/30s/wc2.0_30s_tmax_07.tif")
tmax7_present<-crop(tmax7_present, noronha)
tmax7_he_2050_45<-raster("D:/Rasters/cmip5/30s/he45tx507.tif")
tmax7_he_2050_45<-crop(tmax7_he_2050_45, noronha)
tmax7_he_2050_85<-raster("D:/Rasters/cmip5/30s/he85tx507.tif")
tmax7_he_2050_85<-crop(tmax7_he_2050_85, noronha)
tmax7_he_2070_45<-raster("D:/Rasters/cmip5/30s/he45tx707.tif")
tmax7_he_2070_45<-crop(tmax7_he_2070_45, noronha)

tmax7_he_2070_85<-raster("D:/Rasters/cmip5/30s/he85tx707.tif")
tmax7_he_2070_85<-crop(tmax7_he_2070_85, noronha)
tmax7_mr_2050_45<-raster("D:/Rasters/cmip5/30s/mr45tx507.tif")
tmax7_mr_2050_45<-crop(tmax7_mr_2050_45, noronha)
tmax7_mr_2050_85<-raster("D:/Rasters/cmip5/30s/mr85tx507.tif")
tmax7_mr_2050_85<-crop(tmax7_mr_2050_85, noronha)
tmax7_mr_2070_45<-raster("D:/Rasters/cmip5/30s/mr45tx707.tif")
tmax7_mr_2070_45<-crop(tmax7_mr_2070_45, noronha)
tmax7_mr_2070_85<-raster("D:/Rasters/cmip5/30s/mr85tx707.tif")
tmax7_mr_2070_85<-crop(tmax7_mr_2070_85, noronha)

##present

newdata_present = data.frame(temp = values(tmax7_present), size = 91.45)
performance_present<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
tmax7_present_new <- tmax7_present
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_present_new)
##2050 45 HE
newdata_he_2050_45 = data.frame(temp = values(tmax7_he_2050_45/10), size = 91.45)
performance_he_2050_45<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_he_2050_45)
tmax7_he_2050_45_new <- tmax7_he_2050_45
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_he_2050_45_new)

```

```

##2050 85 HE
newdata_he_2050_85 = data.frame(temp = values(tmax7_he_2050_85/10), size = 91.85)
performance_he_2050_85<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_he_2050_85)
tmax7_he_2050_85_new <- tmax7_he_2050_85
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_he_2050_85_new)
##2070 45 HE
newdata_he_2070_45 = data.frame(temp = values(tmax7_he_2070_45/10), size = 91.45)
performance_he_2070_45<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_he_2070_45)
tmax7_he_2070_45_new <- tmax7_he_2070_45
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_he_2070_45_new)
##2070 85 HE
newdata_he_2070_85 = data.frame(temp = values(tmax7_he_2070_85/10), size = 91.85)
performance_he_2070_85<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_he_2070_85)
tmax7_he_2070_85_new <- tmax7_he_2070_85
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_he_2070_85_new)
##2050 45 mr
newdata_mr_2050_45 = data.frame(temp = values(tmax7_mr_2050_45/10), size = 91.45)
performance_mr_2050_45<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_mr_2050_45)
tmax7_mr_2050_45_new <- tmax7_mr_2050_45
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_mr_2050_45_new)
##2050 85 mr
newdata_mr_2050_85 = data.frame(temp = values(tmax7_mr_2050_85/10), size = 91.85)
performance_mr_2050_85<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_mr_2050_85)
tmax7_mr_2050_85_new <- tmax7_mr_2050_85
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_mr_2050_85_new)
#2070 45 mr
newdata_mr_2070_45 = data.frame(temp = values(tmax7_mr_2070_45/10), size = 91.45)
performance_mr_2070_45<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_mr_2070_45)
tmax7_mr_2070_45_new <- tmax7_mr_2070_45
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_mr_2070_45_new)
##2070 85 mr
newdata_mr_2070_85 = data.frame(temp = values(tmax7_mr_2070_85/10), size = 91.85)
performance_mr_2070_85<-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_mr_2070_85)
tmax7_mr_2070_85_new <- tmax7_mr_2070_85
#values(tmax7_present_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata_present)
plot(tmax7_mr_2070_85_new)

extractions<-data.frame(performance_present,performance_he_2050_45, performance_he_2050_85,
performance_he_2070_45, performance_he_2070_85, performance_mr_2050_45, performance_mr_2050_85,
performance_mr_2070_45, performance_mr_2070_85)
write.table(extractions, file="extractions_tmax.txt", append=FALSE, quote=TRUE, sep=";")

newdata = data.frame(temp = values(tmax1_he_2050_45/10), size = 91.45)
predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata)
tmax1_he_2050_45_new <- tmax1_he_2050_45
values(tmax1_he_2050_45_new) <-predict(tatlanticaPerfGAMM[[3]]$gam, newdata = newdata)
plot(tmax1_he_2050_45_new)
perf_tmax<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/Analyses/Performance/extractions_tmax.csv", header=T)
attach(perf_tmax)
perf_model<-aov(perf~model)
perf_year_rcp<-aov(perf~year+rcp)
TukeyHSD(aov(perf~year+rcp))

```

```

#females
tatlanticafemale<-read.csv("D:/Noronha_2018/performanceFEMALE.csv", header=T)
tatlanticafemalePerfGAMM<-PerfGAMM(tatlanticafemale)
tatlanticaPerffemaleGAMMFUN<-tatlanticafemalePerfGAMM[[1]]
#males
tatlanticamale<-read.csv("D:/Noronha_2018/performanceMALE.csv", header=T)
tatlanticamalePerfGAMM<-PerfGAMM(tatlanticamale)
tatlanticaPerfmaleGAMMFUN<-tatlanticamalePerfGAMM[[1]]
TPCFUN_GAMM2 <- PerfGAMM2 (performance_data = "C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap
3 effectiveness/MS Trachylepis atlantica/Performance/performance.csv",
    dependent_variable = "performance",
    smooth_predictors = "temp",
    linear_predictors = "size",
    quadratic_predictors = NULL,
    criterion = "AIC",
    knots_vector = 1,
    lm_approx_terms_value = 10,
    fix_body_size_for_lm_value = 90.05,
    plot_variable_on_x = "size",
    plot_variable_on_y = "performance",
    plot_variable_on_z = "temp",
    output_directory = "C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS
Trachylepis atlantica/Performance/")

```

```

### Performance x Sexo
result.anova<-aov(tpref~sex)
summary(result.anova)
tatlantica<-read.csv("D:/Noronha_2018/tatlantica_bysex.csv", header=T)
attach(tatlantica)
# tpref
result.anova<-aov(tpref~sex)
summary(result.anova)
# vtmin
result.anova<-aov(vtmin~sex)
summary(result.anova)
# vtmax
result.anova<-aov(vtmax~sex)
summary(result.anova)
# ctmin
result.anova<-aov(ctmin~sex)
summary(result.anova)
# ctmax
result.anova<-aov(ctmax~sex)
summary(result.anova)
# mass
result.anova<-aov(mass~sex)
summary(result.anova)
# svl
result.anova<-aov(svl~sex)
summary(result.anova)
# db
result.anova<-aov(db~sex)
summary(result.anova)
# de_fn
result.anova<-aov(de_fn~sex)

```



```

summary(result.anova)
# e_fn
result.anova<-aov(e_fn~sex)
summary(result.anova)
# de_sancho
result.anova<-aov(de_sancho~sex)
summary(result.anova)
#e_sancho
result.anova<-aov(e_sancho~sex)
summary(result.anova)
# de_americano
result.anova<-aov(de_americano~sex)
summary(result.anova)
#e_americano
result.anova<-aov(e_americano~sex)
summary(result.anova)
# de_sueste
result.anova<-aov(de_sueste~sex)
summary(result.anova)
#e_sueste
result.anova<-aov(e_sueste~sex)
summary(result.anova)
# de_mediageraltemp
result.anova<-aov(de_mediageraltemp~sex)
summary(result.anova)
#e_mediageraltemp
result.anova<-aov(e_mediageraltemp~sex)
summary(result.anova)
#hobos
# Load the HOBO data
hobos<-read.csv("D:/Noronha_2018/hobosumidade.csv", header=T)
attach(hobos)
# humidade x local
result.anova<-aov(H~local)
summary(result.anova)
# De x local present
deelocal<-read.csv("F:/FN/tatlantica_bylocal.csv", header=T)
attach(deelocal)
result.anova<-aov(de~place)
summary(result.anova)
# E x local present
result.anova<-aov(e~place)
summary(result.anova)
# de x local future
degcm<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/ExposureNoronha/tatlantica_bygcm.csv", header=T)
attach(degcm)
result.anova<-aov(de~local)
summary(result.anova)
# E x local future
result.anova<-aov(e~local)
summary(result.anova)
# Hr x local
hrlocal<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/Ha_Hr/hr_locality2.csv", header=T)
attach(hrlocal)
result.anova<-aov(hr~local)
summary(result.anova)
# exposure x gcm

```

```

expo<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/exposure_gcm.csv", header=T)
attach(expo)
result.anova<-aov(exposure~gcm)
summary(result.anova)
# Hr x rcp
degcm<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/Analyses/Basic Stats/tatlantica_bygcm.csv", header=T)
attach(degcm)
result.anova<-aov(hr~rcp+year)
summary(result.anova)
tatlantica_bygcm<-read.csv("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 3 effectiveness/MS
Trachylepis atlantica/Analyses/Basic Stats/tatlantica_bygcm.csv", header=T)
attach(tatlantica_bygcm)
aov_de<-aov(de~rcp+year)
summary(aov_de)
aov_e<-aov(e~rcp+year)
summary(aov_e)
aov_tsm<-aov(tsm~rcp+year)
summary(aov_tsm)
# Create the Richards model for ha and hr from HOBO data

# HOBOS

library(Mappinguari)
community_HOBO_ha_hr <- Process_HOBO_data (HOBOfdata_value = "D:/Noronha_2018/Resultados - Ha
Hr/hobos.csv",
method_value = "mean",
                                Tlwr_value = 15.67,
                                Tupr_value = 30.73,
                                hcap_value = NULL,
                                diel_value='diurnal',
                                out_dir_value = "D:/Noronha_2018")

# bbmle list
RichHOBO_bbmle_list <- RichHOBO_bbmle_JCS (HOBOfdf_ha_hr_value =
"D:/Noronha_2018/Trachylepis_atlantica_HOBO_derived_ha_hr_for_Richards.txt",
t_air_var_selected_value = "t_air_mean",
hcap_value = NULL,
Tupr_value = 30.73,
remove_excess_of_0_logical_value = TRUE,
locality_value = 'all',
months_selected_value = 1:12,
upper_quantile_value = 1,
lower_quantile_value = 0,
round_tolerance_for_excess_0_value = 0,
size_sample_value = 'all',
species_name_value = "Trachylepis atlantica",
variables_value <- c('ha','hr'),
path_output_dir_value = "D:/Noronha_2018")

# regressão Tar x Hobo
tairhobo10<-read.csv("tair_x_hobo10.csv", header=T)
attach(tairhobo)
reg<-lm(Tair~hobo)
summary(reg)

#SDM
### Script T. atlantica ###
### GCM: HE ###

```

```
setwd("C:/Users/VIEGAS/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis atlantica/SDM")
##corte de noronha
```

```
# Script SDM Barry Sinervo #
```

```
library(raster)
```

```
e <- extent(c(-32.48,-32.37,-3.9,-3.8))
```

```
alt.raster <- raster("C:/Users/VIEGAS/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/SDM/alt/BRA_msk_alt.gri")
alt.crop <- crop(alt.raster,e)
plot(alt.crop)
```

```
m1 <- raster("wc0.5/tmin1_34.bil")
m2 <- raster("wc0.5/tmin2_34.bil")
m3 <- raster("wc0.5/tmin3_34.bil")
m4 <- raster("wc0.5/tmin4_34.bil")
m5 <- raster("wc0.5/tmin5_34.bil")
m6 <- raster("wc0.5/tmin6_34.bil")
m7 <- raster("wc0.5/tmin7_34.bil")
m8 <- raster("wc0.5/tmin8_34.bil")
m9 <- raster("wc0.5/tmin9_34.bil")
m10 <- raster("wc0.5/tmin10_34.bil")
m11 <- raster("wc0.5/tmin11_34.bil")
m12 <- raster("wc0.5/tmin12_34.bil")
m1.crop <- crop(m1,e)
m2.crop <- crop(m2,e)
m3.crop <- crop(m3,e)
m4.crop <- crop(m4,e)
m5.crop <- crop(m5,e)
m6.crop <- crop(m6,e)
m7.crop <- crop(m7,e)
m8.crop <- crop(m8,e)
m9.crop <- crop(m9,e)
m10.crop <- crop(m10,e)
m11.crop <- crop(m11,e)
m12.crop <- crop(m12,e)
```

```
# and the future for Tmin - HE
```

```
#during activity
```

```
m1_he_af_50_45 <- raster("cmip5/30s/he45tn501.tif")
m2_he_af_50_45 <- raster("cmip5/30s/he45tn502.tif")
m3_he_af_50_45 <- raster("cmip5/30s/he45tn501.tif")
m4_he_af_50_45 <- raster("cmip5/30s/he45tn502.tif")
m5_he_af_50_45 <- raster("cmip5/30s/he45tn505.tif")
m6_he_af_50_45 <- raster("cmip5/30s/he45tn506.tif")
m7_he_af_50_45 <- raster("cmip5/30s/he45tn507.tif")
m8_he_af_50_45 <- raster("cmip5/30s/he45tn508.tif")
m9_he_af_50_45 <- raster("cmip5/30s/he45tn509.tif")
m10_he_af_50_45 <- raster("cmip5/30s/he45tn5010.tif")
m11_he_af_50_45 <- raster("cmip5/30s/he45tn5011.tif")
m12_he_af_50_45 <- raster("cmip5/30s/he45tn5012.tif")
m1_he_af_50_45.crop <- crop(m1_he_af_50_45,e)
m2_he_af_50_45.crop <- crop(m2_he_af_50_45,e)
m3_he_af_50_45.crop <- crop(m3_he_af_50_45,e)
m4_he_af_50_45.crop <- crop(m4_he_af_50_45,e)
```

```

m5_he_af_50_45.crop <- crop(m5_he_af_50_45,e)
m6_he_af_50_45.crop <- crop(m6_he_af_50_45,e)
m7_he_af_50_45.crop <- crop(m7_he_af_50_45,e)
m8_he_af_50_45.crop <- crop(m8_he_af_50_45,e)
m9_he_af_50_45.crop <- crop(m9_he_af_50_45,e)
m10_he_af_50_45.crop <- crop(m10_he_af_50_45,e)
m11_he_af_50_45.crop <- crop(m11_he_af_50_45,e)
m12_he_af_50_45.crop <- crop(m12_he_af_50_45,e)

```

```
#during activity
```

```

m1_he_af_50_85 <- raster("cmip5/30s/he85tn501.tif")
m2_he_af_50_85 <- raster("cmip5/30s/he85tn502.tif")
m3_he_af_50_85 <- raster("cmip5/30s/he85tn501.tif")
m4_he_af_50_85 <- raster("cmip5/30s/he85tn502.tif")
m5_he_af_50_85 <- raster("cmip5/30s/he85tn505.tif")
m6_he_af_50_85 <- raster("cmip5/30s/he85tn506.tif")
m7_he_af_50_85 <- raster("cmip5/30s/he85tn507.tif")
m8_he_af_50_85 <- raster("cmip5/30s/he85tn508.tif")
m9_he_af_50_85 <- raster("cmip5/30s/he85tn509.tif")
m10_he_af_50_85 <- raster("cmip5/30s/he85tn5010.tif")
m11_he_af_50_85 <- raster("cmip5/30s/he85tn5011.tif")
m12_he_af_50_85 <- raster("cmip5/30s/he85tn5012.tif")
m1_he_af_50_85.crop <- crop(m1_he_af_50_85,e)
m2_he_af_50_85.crop <- crop(m2_he_af_50_85,e)
m3_he_af_50_85.crop <- crop(m3_he_af_50_85,e)
m4_he_af_50_85.crop <- crop(m4_he_af_50_85,e)
m5_he_af_50_85.crop <- crop(m5_he_af_50_85,e)
m6_he_af_50_85.crop <- crop(m6_he_af_50_85,e)
m7_he_af_50_85.crop <- crop(m7_he_af_50_85,e)
m8_he_af_50_85.crop <- crop(m8_he_af_50_85,e)
m9_he_af_50_85.crop <- crop(m9_he_af_50_85,e)
m10_he_af_50_85.crop <- crop(m10_he_af_50_85,e)
m11_he_af_50_85.crop <- crop(m11_he_af_50_85,e)
m12_he_af_50_85.crop <- crop(m12_he_af_50_85,e)

```

```
#during activity
```

```

m1_he_af_70_45 <- raster("cmip5/30s/he45tn701.tif")
m2_he_af_70_45 <- raster("cmip5/30s/he45tn702.tif")
m3_he_af_70_45 <- raster("cmip5/30s/he45tn701.tif")
m4_he_af_70_45 <- raster("cmip5/30s/he45tn702.tif")
m5_he_af_70_45 <- raster("cmip5/30s/he45tn705.tif")
m6_he_af_70_45 <- raster("cmip5/30s/he45tn706.tif")
m7_he_af_70_45 <- raster("cmip5/30s/he45tn707.tif")
m8_he_af_70_45 <- raster("cmip5/30s/he45tn708.tif")
m9_he_af_70_45 <- raster("cmip5/30s/he45tn709.tif")
m10_he_af_70_45 <- raster("cmip5/30s/he45tn7010.tif")
m11_he_af_70_45 <- raster("cmip5/30s/he45tn7011.tif")
m12_he_af_70_45 <- raster("cmip5/30s/he45tn7012.tif")
m1_he_af_70_45.crop <- crop(m1_he_af_70_45,e)
m2_he_af_70_45.crop <- crop(m2_he_af_70_45,e)
m3_he_af_70_45.crop <- crop(m3_he_af_70_45,e)
m4_he_af_70_45.crop <- crop(m4_he_af_70_45,e)
m5_he_af_70_45.crop <- crop(m5_he_af_70_45,e)
m6_he_af_70_45.crop <- crop(m6_he_af_70_45,e)
m7_he_af_70_45.crop <- crop(m7_he_af_70_45,e)
m8_he_af_70_45.crop <- crop(m8_he_af_70_45,e)
m9_he_af_70_45.crop <- crop(m9_he_af_70_45,e)
m10_he_af_70_45.crop <- crop(m10_he_af_70_45,e)
m11_he_af_70_45.crop <- crop(m11_he_af_70_45,e)
m12_he_af_70_45.crop <- crop(m12_he_af_70_45,e)

```

```

#during activity
m1_he_af_70_85 <- raster("cmip5/30s/he85tn701.tif")
m2_he_af_70_85 <- raster("cmip5/30s/he85tn702.tif")
m3_he_af_70_85 <- raster("cmip5/30s/he85tn701.tif")
m4_he_af_70_85 <- raster("cmip5/30s/he85tn702.tif")
m5_he_af_70_85 <- raster("cmip5/30s/he85tn705.tif")
m6_he_af_70_85 <- raster("cmip5/30s/he85tn706.tif")
m7_he_af_70_85 <- raster("cmip5/30s/he85tn707.tif")
m8_he_af_70_85 <- raster("cmip5/30s/he85tn708.tif")
m9_he_af_70_85 <- raster("cmip5/30s/he85tn709.tif")
m10_he_af_70_85 <- raster("cmip5/30s/he85tn7010.tif")
m11_he_af_70_85 <- raster("cmip5/30s/he85tn7011.tif")
m12_he_af_70_85 <- raster("cmip5/30s/he85tn7012.tif")
m1_he_af_70_85.crop <- crop(m1_he_af_70_85,e)
m2_he_af_70_85.crop <- crop(m2_he_af_70_85,e)
m3_he_af_70_85.crop <- crop(m3_he_af_70_85,e)
m4_he_af_70_85.crop <- crop(m4_he_af_70_85,e)
m5_he_af_70_85.crop <- crop(m5_he_af_70_85,e)
m6_he_af_70_85.crop <- crop(m6_he_af_70_85,e)
m7_he_af_70_85.crop <- crop(m7_he_af_70_85,e)
m8_he_af_70_85.crop <- crop(m8_he_af_70_85,e)
m9_he_af_70_85.crop <- crop(m9_he_af_70_85,e)
m10_he_af_70_85.crop <- crop(m10_he_af_70_85,e)
m11_he_af_70_85.crop <- crop(m11_he_af_70_85,e)
m12_he_af_70_85.crop <- crop(m12_he_af_70_85,e)

```

```

# and then the usual parameters for hr, hr, prec

```

```

r1 <- raster("wc0.5/tmax1_34.bil")
r2 <- raster("wc0.5/tmax2_34.bil")
r3 <- raster("wc0.5/tmax3_34.bil")
r4 <- raster("wc0.5/tmax4_34.bil")
r5 <- raster("wc0.5/tmax5_34.bil")
r6 <- raster("wc0.5/tmax6_34.bil")
r7 <- raster("wc0.5/tmax7_34.bil")
r8 <- raster("wc0.5/tmax8_34.bil")
r9 <- raster("wc0.5/tmax9_34.bil")
r10 <- raster("wc0.5/tmax10_34.bil")
r11 <- raster("wc0.5/tmax11_34.bil")
r12 <- raster("wc0.5/tmax12_34.bil")
r1.crop <- crop(r1,e)
r2.crop <- crop(r2,e)
r3.crop <- crop(r3,e)
r4.crop <- crop(r4,e)
r5.crop <- crop(r5,e)
r6.crop <- crop(r6,e)
r7.crop <- crop(r7,e)
r8.crop <- crop(r8,e)
r9.crop <- crop(r9,e)
r10.crop <- crop(r10,e)
r11.crop <- crop(r11,e)
r12.crop <- crop(r12,e)

```

```

# and the future for Tmin - HE

```

```

#during activity
r1_he_af_50_45 <- raster("cmip5/30s/he45tx501.tif")
r2_he_af_50_45 <- raster("cmip5/30s/he45tx502.tif")
r3_he_af_50_45 <- raster("cmip5/30s/he45tx501.tif")
r4_he_af_50_45 <- raster("cmip5/30s/he45tx502.tif")
r5_he_af_50_45 <- raster("cmip5/30s/he45tx505.tif")

```

```

r6_he_af_50_45 <- raster("cmip5/30s/he45tx506.tif")
r7_he_af_50_45 <- raster("cmip5/30s/he45tx507.tif")
r8_he_af_50_45 <- raster("cmip5/30s/he45tx508.tif")
r9_he_af_50_45 <- raster("cmip5/30s/he45tx509.tif")
r10_he_af_50_45 <- raster("cmip5/30s/he45tx5010.tif")
r11_he_af_50_45 <- raster("cmip5/30s/he45tx5011.tif")
r12_he_af_50_45 <- raster("cmip5/30s/he45tx5012.tif")
r1_he_af_50_45.crop <- crop(r1_he_af_50_45,e)
r2_he_af_50_45.crop <- crop(r2_he_af_50_45,e)
r3_he_af_50_45.crop <- crop(r3_he_af_50_45,e)
r4_he_af_50_45.crop <- crop(r4_he_af_50_45,e)
r5_he_af_50_45.crop <- crop(r5_he_af_50_45,e)
r6_he_af_50_45.crop <- crop(r6_he_af_50_45,e)
r7_he_af_50_45.crop <- crop(r7_he_af_50_45,e)
r8_he_af_50_45.crop <- crop(r8_he_af_50_45,e)
r9_he_af_50_45.crop <- crop(r9_he_af_50_45,e)
r10_he_af_50_45.crop <- crop(r10_he_af_50_45,e)
r11_he_af_50_45.crop <- crop(r11_he_af_50_45,e)
r12_he_af_50_45.crop <- crop(r12_he_af_50_45,e)

```

#during activity

```

r1_he_af_50_85 <- raster("cmip5/30s/he85tx501.tif")
r2_he_af_50_85 <- raster("cmip5/30s/he85tx502.tif")
r3_he_af_50_85 <- raster("cmip5/30s/he85tx501.tif")
r4_he_af_50_85 <- raster("cmip5/30s/he85tx502.tif")
r5_he_af_50_85 <- raster("cmip5/30s/he85tx505.tif")
r6_he_af_50_85 <- raster("cmip5/30s/he85tx506.tif")
r7_he_af_50_85 <- raster("cmip5/30s/he85tx507.tif")
r8_he_af_50_85 <- raster("cmip5/30s/he85tx508.tif")
r9_he_af_50_85 <- raster("cmip5/30s/he85tx509.tif")
r10_he_af_50_85 <- raster("cmip5/30s/he85tx5010.tif")
r11_he_af_50_85 <- raster("cmip5/30s/he85tx5011.tif")
r12_he_af_50_85 <- raster("cmip5/30s/he85tx5012.tif")
r1_he_af_50_85.crop <- crop(r1_he_af_50_85,e)
r2_he_af_50_85.crop <- crop(r2_he_af_50_85,e)
r3_he_af_50_85.crop <- crop(r3_he_af_50_85,e)
r4_he_af_50_85.crop <- crop(r4_he_af_50_85,e)
r5_he_af_50_85.crop <- crop(r5_he_af_50_85,e)
r6_he_af_50_85.crop <- crop(r6_he_af_50_85,e)
r7_he_af_50_85.crop <- crop(r7_he_af_50_85,e)
r8_he_af_50_85.crop <- crop(r8_he_af_50_85,e)
r9_he_af_50_85.crop <- crop(r9_he_af_50_85,e)
r10_he_af_50_85.crop <- crop(r10_he_af_50_85,e)
r11_he_af_50_85.crop <- crop(r11_he_af_50_85,e)
r12_he_af_50_85.crop <- crop(r12_he_af_50_85,e)

```

#during activity

```

r1_he_af_70_45 <- raster("cmip5/30s/he45tx701.tif")
r2_he_af_70_45 <- raster("cmip5/30s/he45tx702.tif")
r3_he_af_70_45 <- raster("cmip5/30s/he45tx701.tif")
r4_he_af_70_45 <- raster("cmip5/30s/he45tx702.tif")
r5_he_af_70_45 <- raster("cmip5/30s/he45tx705.tif")
r6_he_af_70_45 <- raster("cmip5/30s/he45tx706.tif")
r7_he_af_70_45 <- raster("cmip5/30s/he45tx707.tif")
r8_he_af_70_45 <- raster("cmip5/30s/he45tx708.tif")
r9_he_af_70_45 <- raster("cmip5/30s/he45tx709.tif")
r10_he_af_70_45 <- raster("cmip5/30s/he45tx7010.tif")
r11_he_af_70_45 <- raster("cmip5/30s/he45tx7011.tif")
r12_he_af_70_45 <- raster("cmip5/30s/he45tx7012.tif")

```

```

r1_he_af_70_45.crop <- crop(r1_he_af_70_45,e)
r2_he_af_70_45.crop <- crop(r2_he_af_70_45,e)
r3_he_af_70_45.crop <- crop(r3_he_af_70_45,e)
r4_he_af_70_45.crop <- crop(r4_he_af_70_45,e)
r5_he_af_70_45.crop <- crop(r5_he_af_70_45,e)
r6_he_af_70_45.crop <- crop(r6_he_af_70_45,e)
r7_he_af_70_45.crop <- crop(r7_he_af_70_45,e)
r8_he_af_70_45.crop <- crop(r8_he_af_70_45,e)
r9_he_af_70_45.crop <- crop(r9_he_af_70_45,e)
r10_he_af_70_45.crop <- crop(r10_he_af_70_45,e)
r11_he_af_70_45.crop <- crop(r11_he_af_70_45,e)
r12_he_af_70_45.crop <- crop(r12_he_af_70_45,e)

#during activity
r1_he_af_70_85 <- raster("cmip5/30s/he85tx701.tif")
r2_he_af_70_85 <- raster("cmip5/30s/he85tx702.tif")
r3_he_af_70_85 <- raster("cmip5/30s/he85tx701.tif")
r4_he_af_70_85 <- raster("cmip5/30s/he85tx702.tif")
r5_he_af_70_85 <- raster("cmip5/30s/he85tx705.tif")
r6_he_af_70_85 <- raster("cmip5/30s/he85tx706.tif")
r7_he_af_70_85 <- raster("cmip5/30s/he85tx707.tif")
r8_he_af_70_85 <- raster("cmip5/30s/he85tx708.tif")
r9_he_af_70_85 <- raster("cmip5/30s/he85tx709.tif")
r10_he_af_70_85 <- raster("cmip5/30s/he85tx7010.tif")
r11_he_af_70_85 <- raster("cmip5/30s/he85tx7011.tif")
r12_he_af_70_85 <- raster("cmip5/30s/he85tx7012.tif")
r1_he_af_70_85.crop <- crop(r1_he_af_70_85,e)
r2_he_af_70_85.crop <- crop(r2_he_af_70_85,e)
r3_he_af_70_85.crop <- crop(r3_he_af_70_85,e)
r4_he_af_70_85.crop <- crop(r4_he_af_70_85,e)
r5_he_af_70_85.crop <- crop(r5_he_af_70_85,e)
r6_he_af_70_85.crop <- crop(r6_he_af_70_85,e)
r7_he_af_70_85.crop <- crop(r7_he_af_70_85,e)
r8_he_af_70_85.crop <- crop(r8_he_af_70_85,e)
r9_he_af_70_85.crop <- crop(r9_he_af_70_85,e)
r10_he_af_70_85.crop <- crop(r10_he_af_70_85,e)
r11_he_af_70_85.crop <- crop(r11_he_af_70_85,e)
r12_he_af_70_85.crop <- crop(r12_he_af_70_85,e)

# now compute tvag to be used in h_a_by_months
a1.crop <- (r1.crop+m1.crop)/2
a2.crop <- (r2.crop+m2.crop)/2
a3.crop <- (r3.crop+m3.crop)/2
a4.crop <- (r4.crop+m4.crop)/2
a5.crop <- (r5.crop+m5.crop)/2
a6.crop <- (r6.crop+m6.crop)/2
a7.crop <- (r7.crop+m7.crop)/2
a8.crop <- (r8.crop+m8.crop)/2
a9.crop <- (r9.crop+m9.crop)/2
a10.crop <- (r10.crop+m10.crop)/2
a11.crop <- (r11.crop+m11.crop)/2
a12.crop <- (r12.crop+m12.crop)/2

#need a big for loop for all cells
#first make a stack
#best done as a matrix - in degrees C
a1.m <- as.matrix(a1.crop)/10
a2.m <- as.matrix(a2.crop)/10
a3.m <- as.matrix(a3.crop)/10
a4.m <- as.matrix(a4.crop)/10

```

```

a5.m <- as.matrix(a5.crop)/10
a6.m <- as.matrix(a6.crop)/10
a7.m <- as.matrix(a7.crop)/10
a8.m <- as.matrix(a8.crop)/10
a9.m <- as.matrix(a9.crop)/10
a10.m <- as.matrix(a10.crop)/10
a11.m <- as.matrix(a11.crop)/10
a12.m <- as.matrix(a12.crop)/10
#for the full space create a vector of months of the year
m1.m <- as.matrix(m1.crop)/10
m2.m <- as.matrix(m2.crop)/10
m3.m <- as.matrix(m3.crop)/10
m4.m <- as.matrix(m4.crop)/10
m5.m <- as.matrix(m5.crop)/10
m6.m <- as.matrix(m6.crop)/10
m7.m <- as.matrix(m7.crop)/10
m8.m <- as.matrix(m8.crop)/10
m9.m <- as.matrix(m9.crop)/10
m10.m <- as.matrix(m10.crop)/10
m11.m <- as.matrix(m11.crop)/10
m12.m <- as.matrix(m12.crop)/10
#for the full space create a vector of months of the year

# now compute tvag to be used in h_a by months FOR FUTURE!!
#HE
#2050 45
a1_he_50_45.crop <- (r1_he_af_50_45.crop+m1_he_af_50_45.crop)/2
a2_he_50_45.crop <- (r2_he_af_50_45.crop+m2_he_af_50_45.crop)/2
a3_he_50_45.crop <- (r3_he_af_50_45.crop+m3_he_af_50_45.crop)/2
a4_he_50_45.crop <- (r4_he_af_50_45.crop+m4_he_af_50_45.crop)/2
a5_he_50_45.crop <- (r5_he_af_50_45.crop+m5_he_af_50_45.crop)/2
a6_he_50_45.crop <- (r6_he_af_50_45.crop+m6_he_af_50_45.crop)/2
a7_he_50_45.crop <- (r7_he_af_50_45.crop+m7_he_af_50_45.crop)/2
a8_he_50_45.crop <- (r8_he_af_50_45.crop+m8_he_af_50_45.crop)/2
a9_he_50_45.crop <- (r9_he_af_50_45.crop+m9_he_af_50_45.crop)/2
a10_he_50_45.crop <- (r10_he_af_50_45.crop+m10_he_af_50_45.crop)/2
a11_he_50_45.crop <- (r11_he_af_50_45.crop+m11_he_af_50_45.crop)/2
a12_he_50_45.crop <- (r12_he_af_50_45.crop+m12_he_af_50_45.crop)/2
# 2050 85
a1_he_50_85.crop <- (r1_he_af_50_85.crop+m1_he_af_50_85.crop)/2
a2_he_50_85.crop <- (r2_he_af_50_85.crop+m2_he_af_50_85.crop)/2
a3_he_50_85.crop <- (r3_he_af_50_85.crop+m3_he_af_50_85.crop)/2
a4_he_50_85.crop <- (r4_he_af_50_85.crop+m4_he_af_50_85.crop)/2
a5_he_50_85.crop <- (r5_he_af_50_85.crop+m5_he_af_50_85.crop)/2
a6_he_50_85.crop <- (r6_he_af_50_85.crop+m6_he_af_50_85.crop)/2
a7_he_50_85.crop <- (r7_he_af_50_85.crop+m7_he_af_50_85.crop)/2
a8_he_50_85.crop <- (r8_he_af_50_85.crop+m8_he_af_50_85.crop)/2
a9_he_50_85.crop <- (r9_he_af_50_85.crop+m9_he_af_50_85.crop)/2
a10_he_50_85.crop <- (r10_he_af_50_85.crop+m10_he_af_50_85.crop)/2
a11_he_50_85.crop <- (r11_he_af_50_85.crop+m11_he_af_50_85.crop)/2
a12_he_50_85.crop <- (r12_he_af_50_85.crop+m12_he_af_50_85.crop)/2

# 2070 45
a1_he_70_45.crop <- (r1_he_af_70_45.crop+m1_he_af_70_45.crop)/2
a2_he_70_45.crop <- (r2_he_af_70_45.crop+m2_he_af_70_45.crop)/2
a3_he_70_45.crop <- (r3_he_af_70_45.crop+m3_he_af_70_45.crop)/2
a4_he_70_45.crop <- (r4_he_af_70_45.crop+m4_he_af_70_45.crop)/2
a5_he_70_45.crop <- (r5_he_af_70_45.crop+m5_he_af_70_45.crop)/2
a6_he_70_45.crop <- (r6_he_af_70_45.crop+m6_he_af_70_45.crop)/2
a7_he_70_45.crop <- (r7_he_af_70_45.crop+m7_he_af_70_45.crop)/2

```



```

a8_he_70_45.crop <- (r8_he_af_70_45.crop+m8_he_af_70_45.crop)/2
a9_he_70_45.crop <- (r9_he_af_70_45.crop+m9_he_af_70_45.crop)/2
a10_he_70_45.crop <- (r10_he_af_70_45.crop+m10_he_af_70_45.crop)/2
a11_he_70_45.crop <- (r11_he_af_70_45.crop+m11_he_af_70_45.crop)/2
a12_he_70_45.crop <- (r12_he_af_70_45.crop+m12_he_af_70_45.crop)/2

```

```
# 2070 85
```

```

a1_he_70_85.crop <- (r1_he_af_70_85.crop+m1_he_af_70_85.crop)/2
a2_he_70_85.crop <- (r2_he_af_70_85.crop+m2_he_af_70_85.crop)/2
a3_he_70_85.crop <- (r3_he_af_70_85.crop+m3_he_af_70_85.crop)/2
a4_he_70_85.crop <- (r4_he_af_70_85.crop+m4_he_af_70_85.crop)/2
a5_he_70_85.crop <- (r5_he_af_70_85.crop+m5_he_af_70_85.crop)/2
a6_he_70_85.crop <- (r6_he_af_70_85.crop+m6_he_af_70_85.crop)/2
a7_he_70_85.crop <- (r7_he_af_70_85.crop+m7_he_af_70_85.crop)/2
a8_he_70_85.crop <- (r8_he_af_70_85.crop+m8_he_af_70_85.crop)/2
a9_he_70_85.crop <- (r9_he_af_70_85.crop+m9_he_af_70_85.crop)/2
a10_he_70_85.crop <- (r10_he_af_70_85.crop+m10_he_af_70_85.crop)/2
a11_he_70_85.crop <- (r11_he_af_70_85.crop+m11_he_af_70_85.crop)/2
a12_he_70_85.crop <- (r12_he_af_70_85.crop+m12_he_af_70_85.crop)/2

```

```
#HE
```

```
#2050_45
```

```

a1_he_50_45.m <- as.matrix(a1_he_50_45.crop)/10
a2_he_50_45.m <- as.matrix(a2_he_50_45.crop)/10
a3_he_50_45.m <- as.matrix(a3_he_50_45.crop)/10
a4_he_50_45.m <- as.matrix(a4_he_50_45.crop)/10
a5_he_50_45.m <- as.matrix(a5_he_50_45.crop)/10
a6_he_50_45.m <- as.matrix(a6_he_50_45.crop)/10
a7_he_50_45.m <- as.matrix(a7_he_50_45.crop)/10
a8_he_50_45.m <- as.matrix(a8_he_50_45.crop)/10
a9_he_50_45.m <- as.matrix(a9_he_50_45.crop)/10
a10_he_50_45.m <- as.matrix(a10_he_50_45.crop)/10
a11_he_50_45.m <- as.matrix(a11_he_50_45.crop)/10
a12_he_50_45.m <- as.matrix(a12_he_50_45.crop)/10

```

```
# 2050 85
```

```

a1_he_50_85.m <- as.matrix(a1_he_50_85.crop)/10
a2_he_50_85.m <- as.matrix(a2_he_50_85.crop)/10
a3_he_50_85.m <- as.matrix(a3_he_50_85.crop)/10
a4_he_50_85.m <- as.matrix(a4_he_50_85.crop)/10
a5_he_50_85.m <- as.matrix(a5_he_50_85.crop)/10
a6_he_50_85.m <- as.matrix(a6_he_50_85.crop)/10
a7_he_50_85.m <- as.matrix(a7_he_50_85.crop)/10
a8_he_50_85.m <- as.matrix(a8_he_50_85.crop)/10
a9_he_50_85.m <- as.matrix(a9_he_50_85.crop)/10
a10_he_50_85.m <- as.matrix(a10_he_50_85.crop)/10
a11_he_50_85.m <- as.matrix(a11_he_50_85.crop)/10
a12_he_50_85.m <- as.matrix(a12_he_50_85.crop)/10

```

```
#2070_45
```

```

a1_he_70_45.m <- as.matrix(a1_he_70_45.crop)/10
a2_he_70_45.m <- as.matrix(a2_he_70_45.crop)/10
a3_he_70_45.m <- as.matrix(a3_he_70_45.crop)/10
a4_he_70_45.m <- as.matrix(a4_he_70_45.crop)/10
a5_he_70_45.m <- as.matrix(a5_he_70_45.crop)/10
a6_he_70_45.m <- as.matrix(a6_he_70_45.crop)/10
a7_he_70_45.m <- as.matrix(a7_he_70_45.crop)/10
a8_he_70_45.m <- as.matrix(a8_he_70_45.crop)/10
a9_he_70_45.m <- as.matrix(a9_he_70_45.crop)/10
a10_he_70_45.m <- as.matrix(a10_he_70_45.crop)/10

```

```

a11_he_70_45.m <- as.matrix(a11_he_70_45.crop)/10
a12_he_70_45.m <- as.matrix(a12_he_70_45.crop)/10

# 2070 85
a1_he_70_85.m <- as.matrix(a1_he_70_85.crop)/10
a2_he_70_85.m <- as.matrix(a2_he_70_85.crop)/10
a3_he_70_85.m <- as.matrix(a3_he_70_85.crop)/10
a4_he_70_85.m <- as.matrix(a4_he_70_85.crop)/10
a5_he_70_85.m <- as.matrix(a5_he_70_85.crop)/10
a6_he_70_85.m <- as.matrix(a6_he_70_85.crop)/10
a7_he_70_85.m <- as.matrix(a7_he_70_85.crop)/10
a8_he_70_85.m <- as.matrix(a8_he_70_85.crop)/10
a9_he_70_85.m <- as.matrix(a9_he_70_85.crop)/10
a10_he_70_85.m <- as.matrix(a10_he_70_85.crop)/10
a11_he_70_85.m <- as.matrix(a11_he_70_85.crop)/10
a12_he_70_85.m <- as.matrix(a12_he_70_85.crop)/10

#present
dim_a <- dim(a1.crop)
# which ends up too big as a matrix
# so

dim_a <- c(dim_a[1],dim_a[2]) # to make it a n x n dim
h_a_by_months <- array(0, dim=c(dim_a[1],dim_a[2]))

sum_activity_months <- function(){

T_start <- 3.086874
T_end <- 3.086874
#T_end <- 10.26832
resolution <- 0.1666667
for(r in 1:dim_a[1]){
  cat(r)
  for(c in 1:dim_a[2]){
    #   cat(c,',')
    if(c%%20==0) cat(",")
    sum_m <- 0 # zero the month accumulator for activity
    tav <- c(a1.m[r,c] , a2.m[r,c] , a3.m[r,c] , a4.m[r,c] , a5.m[r,c] , a6.m[r,c] , a7.m[r,c] , a8.m[r,c] , a9.m[r,c] ,
    a10.m[r,c] , a11.m[r,c] , a12.m[r,c])
    old_tav <- a12.m[r,c] #as in December (for the next UP test Jan)
    LatTest <- e[4] - r*resolution
    LonTest <- e[1] + c*resolution
    if(LatTest > 35 - 0.1666667/2 && LatTest < 35 + 0.1666667/2 && LonTest < -85 - 0.1666667/2 &&
LonTest > -85 + 0.1666667/2)
      cat("\n",tav,"\n")
    if(r==250 && c==250)
      cat("\n",tav,"\n")
    UP = FALSE # No UPcrossing YET
    DOWN = FALSE # No DOWNcrossing YET
    END_point_case <- FALSE
    m_DOWN <- 0
    m_UP <- 0
    if( !is.na(tav[1]) ){ # test for in ocean NA values
      #if (is.na(m_DOWN)) cat("r:",r," ", "c:",c," ",tav,"\n")
    }
    # first handle the simple ENDpoint of 0 and 12 hours above or below T_start and T_end -- then handle the UP
    and DOWN crossings
    if ( min(tav) > T_end && min(tav) > T_start ) { # min(tav) is bigger than T_end and T_start -- the temp
    never drops so 12 mo
      sum_m <- 12

```

```

    m_UP <- 0 # needed to set for the non-existent case
    m_DOWN <- 0 # needed to set for the non-existent case
    END_point_case <- TRUE
  }
  else if( max(tav) < T_end && max(tav) < T_start ){ # max(tav) is less than T_end and T_start -- the temp
never rises above so 0 mo
    sum_m <- 0
    m_UP <- 0 # needed to set for the non-existent case
    m_DOWN <- 0 # needed to set for the non-existent case
    END_point_case <- TRUE
  }
  else{ # the cases where you should have both an UPcrossing and a DOWNcrossing in months for T_start
and for T_end
    for(m in 1:12){
      if( ! UP && tav[m] > T_start && old_tav < T_start){ # this is the upcrossing case WITH tav >
T_start > old_tav
        # compute the y_crossing that solves y=ax+b=T_start = ax+b so b=y-ax
        # the DOWN_crossing or UP_crossing use the following linear interpolation
        # know Tav[Feb]-Tav[Jan] so x is 1 (month)
        # a = (tav[m]-old_tav)/(1.5-.5) = (tav[m]-old_tav)/1 = (tav[m]-old_tav), month avg are at midpoint
but here 0,1
        # b = old_tav-(tav[m]-old_tav),
        # so x = (y-b)/a

        # but first test for zero slope (which will generate infinity on the above x = (y-b)/a calc
        p_m <- (tav[m]-T_start)/(tav[m]-old_tav)
        sum_m <- p_m + sum_m # use the right (UP side) of m frac
        UP = TRUE
        m_UP <- m
        UP_digi_m <- m + (1-p_m)
      } # end if UPcrossing
      if( ! DOWN && tav[m] < T_end && old_tav > T_end){ # this is the DOWN_crossing case with tav
< T_end < old_tav
        # do the downcrossing with T_end
        p_m <- (old_tav-T_end)/(old_tav-tav[m])
        sum_m <- p_m + sum_m # use the left (DOWN side) of m frac
        DOWN <- TRUE # the DOWNcrossing must have occurred since tav[m] < T_end && old_tav >
T_end
        m_DOWN <- m
        DOWN_digi_m <- m + p_m
      }

      old_tav <- tav[m]

    } # end for loop for months

    # once you end the for loop you can compute the months in between UP DOWN including those where
there are ties
    # between tav[m] and old_tav (e.g., old_tav == tav[m-1]
    # if (is.na(m_DOWN)) cat("r:",r," ", "c:",c," ",tav)
    if(r==250 && c==250)
      cat('m_DOWN:',m_DOWN,' ', 'm_UP:',m_UP,'\n')

    # to handle the case where DOWN is in Jan and UP is thereafter m_UP > m_DOWN && m_DOWN < 3
    # 2.95 5.2 9.1 14.1 18.7 23.15 24.55 23.65 19.95 14.5 8.4 3.75
    # m_DOWN: 1 m_UP: 2

    if( END_point_case ){
      # endpoint case so Nothing
    }
  }

```

```

else if ( m_DOWN == m_UP ){
  sum_m <- 11 + sum_m
  # no sum_m <- sum_m + 1, as the p_m's above have computed, as above m_UP = m_DOWN = 0
}
else if( m_UP < m_DOWN ){ # the simple case
  sum_m <- sum_m + m_DOWN - m_UP # where p_m fractional crossings are added above
}
else if ( m_UP > m_DOWN && m_DOWN < 3 ){
  sum_m <- sum_m + 12 - (m_UP - m_DOWN)
}
else if ( m_UP > m_DOWN ){
  sum_m <- sum_m + m_UP - m_DOWN # where p_m fractional crossings are added above
}
else cat('[', m_UP, ',', m_DOWN, ']') # error handling

} #end else has a computable value
}
else{ # assign NA to sum_m
sum_m <- NA
}
h_a_by_months[r,c] <<- sum_m
} # end c
} # end r
h_a_by_months.raster <<- raster(h_a_by_months,xmn=-32.48,xmx=-32.37,ymn=-3.9,ymx=-
3.8,crs=crs(wrld_simpl)) # e <- extent(c(-32.48,-32.37,-3.9,-3.8))
plot(h_a_by_months.raster)
}

sum_activity_months() # RUN IT
# inclui a linha:
library(maptools)
data(wrld_simpl)

h_a_by_months.raster <- raster(h_a_by_months,xmn=-32.48,xmx=-32.37,ymn=-3.9,ymx=-
3.8,crs=crs(wrld_simpl)) # extent(c(-32.48,-32.37,-3.9,-3.8))
# correct errors
h_a_by_months.raster[h_a_by_months.raster>12] <- 12
h_a_by_months.raster[h_a_by_months.raster<0] <- 0

# future
#2050 45
#dim_a_2050_45 <- dim(a1_he_50_45.crop)
# which ends up too big as a matrix
# so
#dim_a_2050_45 <- c(dim_a_2050_45[1],dim_a_2050_45[2]) # to make it a n x n dim
#h_a_by_months_2050_45 <- array(0, dim=c(dim_a_2050_45[1],dim_a_2050_45[2]))
#sum_activity_months() # RUN IT

#h_a_by_months_2050_45.raster <- raster(h_a_by_months_2050_45,xmn=-44,xmx=-40,ymn=-24,ymx=-
20,crs=crs(wrld_simpl))#-32.48,-32.37,-3.9,-3.8
# correct errors
#h_a_by_months_2050_45.raster[h_a_by_months_2050_45.raster>12] <- 12
#h_a_by_months_2050_45.raster[h_a_by_months_2050_45.raster<0] <- 0
#plot(h_a_by_months_2050_45.raster)

#now loop through all months for all r,c
#testing for
#mean(tavg_start)

```

```

# 3.086874
# mean(tavg_end)
# 10.26832
# after running
data(wrld_simpl)
#> crs(wrld_simpl)
#CRS arguments:
# +proj=longlat +ellps=WGS84 +datum=WGS84 +no_defs +towgs84=0,0,0
#h_a_by_months.raster <- raster(h_a_by_months,nrow=dim_a[1],ncol=dim_a[2],crs=crs(world_simpl))

# preferred
#h_a_by_months.raster <- raster(h_a_by_months,xmn=-32.48,xmx=-32.37,ymn=-3.9,ymx=-
3.8,crs=crs(wrld_simpl))#e <- extent(c(-32.48,-32.37,-3.9,-3.8))

theta1 <- 15.0046131638812
theta2 <- 0.0149156034370082
theta3 <- 0.398067766069051
theta4 <- 0.0075126208383344

r_hr5.crop <- theta1/((1+theta2*exp(theta3*(r5.crop/10-17.2)))^(1/theta4))
r_hr6.crop <- theta1/((1+theta2*exp(theta3*(r6.crop/10-17.2)))^(1/theta4))
r_hr7.crop <- theta1/((1+theta2*exp(theta3*(r7.crop/10-17.2)))^(1/theta4))
r_hr8.crop <- theta1/((1+theta2*exp(theta3*(r8.crop/10-17.2)))^(1/theta4))
r_hr9.crop <- theta1/((1+theta2*exp(theta3*(r9.crop/10-17.2)))^(1/theta4))
r_ha5.crop <- 13/((1+8.778*exp(-1.4967*(r5.crop/10-35.5)))^(1/8.486635))
r_ha6.crop <- 13/((1+8.778*exp(-1.4967*(r6.crop/10-35.5)))^(1/8.486635))
r_ha7.crop <- 13/((1+8.778*exp(-1.4967*(r7.crop/10-35.5)))^(1/8.486635))
r_ha8.crop <- 13/((1+8.778*exp(-1.4967*(r8.crop/10-35.5)))^(1/8.486635))
rsum_ha.crop <- (r_ha5.crop+r_ha6.crop+r_ha7.crop+r_ha8.crop)
ravg_hr_MayAug.crop <- (r_hr5.crop+r_hr6.crop+r_hr7.crop+r_hr8.crop)/4

# the new Tmin surfaces
#2050 45
mavg_MayAug.crop <- (m5.crop+m6.crop+m7.crop+m8.crop)/4
mavg_MayAug_af_2050_45.crop <- (m5_he_af_50_45.crop +
m6_he_af_50_45.crop+m7_he_af_50_45.crop+m8_he_af_50_45.crop)/4
mavg_SepApr.crop <- (m9.crop+m10.crop+m11.crop+m12.crop+ m1.crop+m2.crop+m3.crop+m4.crop)/8
mavg_SepApr_af_2050_45.crop <- (m9_he_af_50_45.crop +
m10_he_af_50_45.crop+m11_he_af_50_45.crop+m12_he_af_50_45+
m1_he_af_50_45.crop+m2_he_af_50_45.crop+m3_he_af_50_45+m4_he_af_50_45.crop)/8

#2050 85
mavg_MayAug.crop <- (m5.crop+m6.crop+m7.crop+m8.crop)/4
mavg_MayAug_af_2050_85.crop <- (m5_he_af_50_85.crop +
m6_he_af_50_85.crop+m7_he_af_50_85.crop+m8_he_af_50_85.crop)/4
mavg_SepApr.crop <- (m9.crop+m10.crop+m11.crop+m12.crop+ m1.crop+m2.crop+m3.crop+m4.crop)/8
mavg_SepApr_af_2050_85.crop <- (m9_he_af_50_85.crop +
m10_he_af_50_85.crop+m11_he_af_50_85.crop+m12_he_af_50_85+
m1_he_af_50_85.crop+m2_he_af_50_85.crop+m3_he_af_50_85+m4_he_af_50_85.crop)/8

#2070 45
mavg_MayAug.crop <- (m5.crop+m6.crop+m7.crop+m8.crop)/4
mavg_MayAug_af_2070_45.crop <- (m5_he_af_70_45.crop +
m6_he_af_70_45.crop+m7_he_af_70_45.crop+m8_he_af_70_45.crop)/4
mavg_SepApr.crop <- (m9.crop+m10.crop+m11.crop+m12.crop+ m1.crop+m2.crop+m3.crop+m4.crop)/8
mavg_SepApr_af_2070_45.crop <- (m9_he_af_70_45.crop +
m10_he_af_70_45.crop+m11_he_af_70_45.crop+m12_he_af_70_45+
m1_he_af_70_45.crop+m2_he_af_70_45.crop+m3_he_af_70_45+m4_he_af_70_45.crop)/8

# 2070 85

```

```

mavg_MayAug.crop <- (m5.crop+m6.crop+m7.crop+m8.crop)/4
mavg_MayAug_af_2070_85.crop <- (m5_he_af_70_85.crop +
m6_he_af_70_85.crop+m7_he_af_70_85.crop+m8_he_af_70_85.crop)/4
mavg_SepApr.crop <- (m9.crop+m10.crop+m11.crop+m12.crop+ m1.crop+m2.crop+m3.crop+m4.crop)/8
mavg_SepApr_af_af_2070_85.crop <- (m9_he_af_70_85.crop +
m10_he_af_70_85.crop+m11_he_af_70_85.crop+m12_he_af_70_85+
m1_he_af_70_85.crop+m2_he_af_70_85.crop+m3_he_af_70_85+m4_he_af_70_85.crop)/8

#m1_he_af_50_85

# HE
# 2050 45
r1_af_he_50_45 <- raster("cmip5/30s/he45tx501.tif")
r2_af_he_50_45 <- raster("cmip5/30s/he45tx502.tif")
r3_af_he_50_45 <- raster("cmip5/30s/he45tx503.tif")
r4_af_he_50_45 <- raster("cmip5/30s/he45tx504.tif")
r5_af_he_50_45 <- raster("cmip5/30s/he45tx505.tif")
r6_af_he_50_45 <- raster("cmip5/30s/he45tx506.tif")
r7_af_he_50_45 <- raster("cmip5/30s/he45tx507.tif")
r8_af_he_50_45 <- raster("cmip5/30s/he45tx508.tif")
r9_af_he_50_45 <- raster("cmip5/30s/he45tx509.tif")
r10_af_he_50_45 <- raster("cmip5/30s/he45tx5010.tif")
r11_af_he_50_45 <- raster("cmip5/30s/he45tx5011.tif")
r12_af_he_50_45 <- raster("cmip5/30s/he45tx5012.tif")
r1_af_he_50_45.crop = crop(r1_af_he_50_45,e)
r2_af_he_50_45.crop = crop(r2_af_he_50_45,e)
r3_af_he_50_45.crop = crop(r3_af_he_50_45,e)
r4_af_he_50_45.crop = crop(r4_af_he_50_45,e)
r5_af_he_50_45.crop = crop(r5_af_he_50_45,e)
r6_af_he_50_45.crop = crop(r6_af_he_50_45,e)
r7_af_he_50_45.crop = crop(r7_af_he_50_45,e)
r8_af_he_50_45.crop = crop(r8_af_he_50_45,e)
r9_af_he_50_45.crop = crop(r9_af_he_50_45,e)
r10_af_he_50_45.crop = crop(r10_af_he_50_45,e)
r11_af_he_50_45.crop = crop(r11_af_he_50_45,e)
r12_af_he_50_45.crop = crop(r12_af_he_50_45,e)

r_hr5_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r5_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr6_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r6_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr7_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r7_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr8_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r8_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr9_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r9_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr3_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r3_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr4_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r4_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr10_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r10_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr11_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r11_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr12_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r12_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr1_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r1_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr2_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r2_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_ha5_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r5_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha6_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r6_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha7_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r7_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha8_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r8_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha9_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r9_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha10_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r10_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha11_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r11_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha12_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r12_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha1_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r1_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha2_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r2_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha3_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r3_af_he_50_45.crop/10-35.5)))^(1/8.486635))

```

```

r_ha4_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r4_af_he_50_45.crop/10-35.5)))^(1/8.486635))

r_hr1_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r1_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr2_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r2_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr3_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r3_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr4_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r4_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr10_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r10_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr11_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r11_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr12_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r12_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr5_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r5_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr6_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r6_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr7_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r7_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr8_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r8_af_he_50_45.crop/10-17.2)))^(1/theta4))
r_hr9_af_he_50_45.crop <- theta1/((1+theta2*exp(theta3*(r9_af_he_50_45.crop/10-17.2)))^(1/theta4))

r_ha9_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r9_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha10_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r10_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha11_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r11_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha12_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r12_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha1_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r1_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha2_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r2_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha3_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r3_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha4_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r4_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha5_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r5_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha6_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r6_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha7_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r7_af_he_50_45.crop/10-35.5)))^(1/8.486635))
r_ha8_af_he_50_45.crop <- 13/((1+8.778*exp(-1.4967*(r8_af_he_50_45.crop/10-35.5)))^(1/8.486635))
rsum_ha_MayAug_af_he_50_45.crop <-
(r_ha5_af_he_50_45.crop+r_ha6_af_he_50_45.crop+r_ha7_af_he_50_45.crop+r_ha8_af_he_50_45.crop)
ravg_hr_MayAug_af_he_50_45.crop <-
(r_hr5_af_he_50_45.crop+r_hr6_af_he_50_45.crop+r_hr7_af_he_50_45.crop+r_hr8_af_he_50_45.crop)/4
rsum_ha_SepApr_af_he_50_45.crop <-
(r_ha9_af_he_50_45.crop+r_ha10_af_he_50_45.crop+r_ha11_af_he_50_45.crop+r_ha12_af_he_50_45.crop+r_
ha1_af_he_50_45.crop+r_ha2_af_he_50_45.crop+r_ha3_af_he_50_45.crop+r_ha4_af_he_50_45.crop)
ravg_hr_SepApr_af_he_50_45.crop <-
(r_hr9_af_he_50_45.crop+r_hr10_af_he_50_45.crop+r_hr11_af_he_50_45.crop+r_hr12_af_he_50_45.crop+r_h
r1_af_he_50_45.crop+r_hr2_af_he_50_45.crop+r_hr3_af_he_50_45.crop+r_hr4_af_he_50_45.crop)/4

# 2050 85

r1_af_he_50_85 <- raster("cmip5/30s/he85tx501.tif")
r2_af_he_50_85 <- raster("cmip5/30s/he85tx502.tif")
r3_af_he_50_85 <- raster("cmip5/30s/he85tx503.tif")
r4_af_he_50_85 <- raster("cmip5/30s/he85tx504.tif")
r5_af_he_50_85 <- raster("cmip5/30s/he85tx505.tif")
r6_af_he_50_85 <- raster("cmip5/30s/he85tx506.tif")
r7_af_he_50_85 <- raster("cmip5/30s/he85tx507.tif")
r8_af_he_50_85 <- raster("cmip5/30s/he85tx508.tif")
r9_af_he_50_85 <- raster("cmip5/30s/he85tx509.tif")
r10_af_he_50_85 <- raster("cmip5/30s/he85tx5010.tif")
r11_af_he_50_85 <- raster("cmip5/30s/he85tx5011.tif")
r12_af_he_50_85 <- raster("cmip5/30s/he85tx5012.tif")

r1_af_he_50_85.crop = crop(r1_af_he_50_85,e)
r2_af_he_50_85.crop = crop(r2_af_he_50_85,e)
r3_af_he_50_85.crop = crop(r3_af_he_50_85,e)
r4_af_he_50_85.crop = crop(r4_af_he_50_85,e)
r5_af_he_50_85.crop = crop(r5_af_he_50_85,e)
r6_af_he_50_85.crop = crop(r6_af_he_50_85,e)
r7_af_he_50_85.crop = crop(r7_af_he_50_85,e)

```

```

r8_af_he_50_85.crop = crop(r8_af_he_50_85,e)
r9_af_he_50_85.crop = crop(r9_af_he_50_85,e)
r10_af_he_50_85.crop = crop(r10_af_he_50_85,e)
r11_af_he_50_85.crop = crop(r11_af_he_50_85,e)
r12_af_he_50_85.crop = crop(r12_af_he_50_85,e)

r_hr1_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r1_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr2_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r2_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr3_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r3_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr4_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r4_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr10_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r10_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr11_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r11_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr12_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r12_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr5_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r5_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr6_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r6_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr7_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r7_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr8_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r8_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_hr9_af_he_50_85.crop <- theta1/((1+theta2*exp(theta3*(r9_af_he_50_85.crop/10-17.2)))^(1/theta4))
r_ha9_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r9_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha10_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r10_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha11_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r11_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha12_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r12_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha1_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r1_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha2_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r2_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha3_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r3_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha4_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r4_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha5_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r5_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha6_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r6_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha7_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r7_af_he_50_85.crop/10-35.5)))^(1/8.486635))
r_ha8_af_he_50_85.crop <- 13/((1+8.778*exp(-1.4967*(r8_af_he_50_85.crop/10-35.5)))^(1/8.486635))
rsum_ha_MayAug_af_he_50_85.crop <-
(r_ha5_af_he_50_85.crop+r_ha6_af_he_50_85.crop+r_ha7_af_he_50_85.crop+r_ha8_af_he_50_85.crop)
ravg_hr_MayAug_af_he_50_85.crop <-
(r_hr5_af_he_50_85.crop+r_hr6_af_he_50_85.crop+r_hr7_af_he_50_85.crop+r_hr8_af_he_50_85.crop)/4

rsum_ha_SepApr_af_he_50_85.crop <-
(r_ha9_af_he_50_85.crop+r_ha10_af_he_50_85.crop+r_ha11_af_he_50_85.crop+r_ha12_af_he_50_85.crop+r_ha1_af_he_50_85.crop+r_ha2_af_he_50_85.crop+r_ha3_af_he_50_85.crop+r_ha4_af_he_50_85.crop)
ravg_hr_SepApr_af_he_50_85.crop <-
(r_hr9_af_he_50_85.crop+r_hr10_af_he_50_85.crop+r_hr11_af_he_50_85.crop+r_hr12_af_he_50_85.crop+r_hr1_af_he_50_85.crop+r_hr2_af_he_50_85.crop+r_hr3_af_he_50_85.crop+r_hr4_af_he_50_85.crop)/4

# 2070 45
r1_af_he_70_45 <- raster("cmip5/30s/he45tx701.tif")
r2_af_he_70_45 <- raster("cmip5/30s/he45tx702.tif")
r3_af_he_70_45 <- raster("cmip5/30s/he45tx703.tif")
r4_af_he_70_45 <- raster("cmip5/30s/he45tx704.tif")
r5_af_he_70_45 <- raster("cmip5/30s/he45tx705.tif")
r6_af_he_70_45 <- raster("cmip5/30s/he45tx706.tif")
r7_af_he_70_45 <- raster("cmip5/30s/he45tx707.tif")
r8_af_he_70_45 <- raster("cmip5/30s/he45tx708.tif")
r9_af_he_70_45 <- raster("cmip5/30s/he45tx709.tif")
r10_af_he_70_45 <- raster("cmip5/30s/he45tx7010.tif")
r11_af_he_70_45 <- raster("cmip5/30s/he45tx7011.tif")
r12_af_he_70_45 <- raster("cmip5/30s/he45tx7012.tif")

r1_af_he_70_45.crop = crop(r1_af_he_70_45,e)
r2_af_he_70_45.crop = crop(r2_af_he_70_45,e)
r3_af_he_70_45.crop = crop(r3_af_he_70_45,e)
r4_af_he_70_45.crop = crop(r4_af_he_70_45,e)

```



```

r5_af_he_70_45.crop = crop(r5_af_he_70_45,e)
r6_af_he_70_45.crop = crop(r6_af_he_70_45,e)
r7_af_he_70_45.crop = crop(r7_af_he_70_45,e)
r8_af_he_70_45.crop = crop(r8_af_he_70_45,e)
r9_af_he_70_45.crop = crop(r9_af_he_70_45,e)
r10_af_he_70_45.crop = crop(r10_af_he_70_45,e)
r11_af_he_70_45.crop = crop(r11_af_he_70_45,e)
r12_af_he_70_45.crop = crop(r12_af_he_70_45,e)

r_hr1_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r1_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr2_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r2_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr3_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r3_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr4_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r4_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr10_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r10_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr11_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r11_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr12_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r12_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr5_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r5_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr6_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r6_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr7_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r7_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr8_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r8_af_he_70_45.crop/10-17.2)))^(1/theta4))
r_hr9_af_he_70_45.crop <- theta1/((1+theta2*exp(theta3*(r9_af_he_70_45.crop/10-17.2)))^(1/theta4))

r_ha9_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r9_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha10_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r10_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha11_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r11_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha12_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r12_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha1_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r1_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha2_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r2_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha3_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r3_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha4_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r4_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha5_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r5_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha6_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r6_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha7_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r7_af_he_70_45.crop/10-35.5)))^(1/8.486635))
r_ha8_af_he_70_45.crop <- 13/((1+8.778*exp(-1.4967*(r8_af_he_70_45.crop/10-35.5)))^(1/8.486635))
rsum_ha_MayAug_af_he_70_45.crop <-
(r_ha5_af_he_70_45.crop+r_ha6_af_he_70_45.crop+r_ha7_af_he_70_45.crop+r_ha8_af_he_70_45.crop)
ravg_hr_MayAug_af_he_70_45.crop <-
(r_hr5_af_he_70_45.crop+r_hr6_af_he_70_45.crop+r_hr7_af_he_70_45.crop+r_hr8_af_he_70_45.crop)/4

rsum_ha_SepApr_af_he_70_45.crop <-
(r_ha9_af_he_70_45.crop+r_ha10_af_he_70_45.crop+r_ha11_af_he_70_45.crop+r_ha12_af_he_70_45.crop+r_
ha1_af_he_70_45.crop+r_ha2_af_he_70_45.crop+r_ha3_af_he_70_45.crop+r_ha4_af_he_70_45.crop)
ravg_hr_SepApr_af_he_70_45.crop <-
(r_hr9_af_he_70_45.crop+r_hr10_af_he_70_45.crop+r_hr11_af_he_70_45.crop+r_hr12_af_he_70_45.crop+r_h
r1_af_he_70_45.crop+r_hr2_af_he_70_45.crop+r_hr3_af_he_70_45.crop+r_hr4_af_he_70_45.crop)/4

# 2070 85

r1_af_he_70_85 <- raster("cmip5/30s/he85tx701.tif")
r2_af_he_70_85 <- raster("cmip5/30s/he85tx702.tif")
r3_af_he_70_85 <- raster("cmip5/30s/he85tx703.tif")
r4_af_he_70_85 <- raster("cmip5/30s/he85tx704.tif")
r5_af_he_70_85 <- raster("cmip5/30s/he85tx705.tif")
r6_af_he_70_85 <- raster("cmip5/30s/he85tx706.tif")
r7_af_he_70_85 <- raster("cmip5/30s/he85tx707.tif")
r8_af_he_70_85 <- raster("cmip5/30s/he85tx708.tif")
r9_af_he_70_85 <- raster("cmip5/30s/he85tx709.tif")
r10_af_he_70_85 <- raster("cmip5/30s/he85tx7010.tif")
r11_af_he_70_85 <- raster("cmip5/30s/he85tx7011.tif")
r12_af_he_70_85 <- raster("cmip5/30s/he85tx7012.tif")

```

```

r1_af_he_70_85.crop = crop(r1_af_he_70_85,e)
r2_af_he_70_85.crop = crop(r2_af_he_70_85,e)
r3_af_he_70_85.crop = crop(r3_af_he_70_85,e)
r4_af_he_70_85.crop = crop(r4_af_he_70_85,e)
r5_af_he_70_85.crop = crop(r5_af_he_70_85,e)
r6_af_he_70_85.crop = crop(r6_af_he_70_85,e)
r7_af_he_70_85.crop = crop(r7_af_he_70_85,e)
r8_af_he_70_85.crop = crop(r8_af_he_70_85,e)
r9_af_he_70_85.crop = crop(r9_af_he_70_85,e)
r10_af_he_70_85.crop = crop(r10_af_he_70_85,e)
r11_af_he_70_85.crop = crop(r11_af_he_70_85,e)
r12_af_he_70_85.crop = crop(r12_af_he_70_85,e)

r_hr1_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r1_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr2_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r2_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr3_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r3_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr4_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r4_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr10_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r10_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr11_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r11_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr12_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r12_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr5_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r5_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr6_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r6_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr7_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r7_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr8_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r8_af_he_70_85.crop/10-17.2))))^(1/theta4)
r_hr9_af_he_70_85.crop <- theta1/((1+theta2*exp(theta3*(r9_af_he_70_85.crop/10-17.2))))^(1/theta4)

r_ha9_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r9_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha10_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r10_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha11_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r11_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha12_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r12_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha1_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r1_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha2_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r2_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha3_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r3_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha4_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r4_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha5_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r5_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha6_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r6_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha7_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r7_af_he_70_85.crop/10-35.5)))^(1/8.486635))
r_ha8_af_he_70_85.crop <- 13/((1+8.778*exp(-1.4967*(r8_af_he_70_85.crop/10-35.5)))^(1/8.486635))
rsum_ha_MayAug_af_he_70_85.crop <-
(r_ha5_af_he_70_85.crop+r_ha6_af_he_70_85.crop+r_ha7_af_he_70_85.crop+r_ha8_af_he_70_85.crop)
avg_hr_MayAug_af_he_70_85.crop <-
(r_hr5_af_he_70_85.crop+r_hr6_af_he_70_85.crop+r_hr7_af_he_70_85.crop+r_hr8_af_he_70_85.crop)/4

rsum_ha_SepApr_af_he_70_85.crop <-
(r_ha9_af_he_70_85.crop+r_ha10_af_he_70_85.crop+r_ha11_af_he_70_85.crop+r_ha12_af_he_70_85.crop+r_
ha1_af_he_70_85.crop+r_ha2_af_he_70_85.crop+r_ha3_af_he_70_85.crop+r_ha4_af_he_70_85.crop)
avg_hr_SepApr_af_he_70_85.crop <-
(r_hr9_af_he_70_85.crop+r_hr10_af_he_70_85.crop+r_hr11_af_he_70_85.crop+r_hr12_af_he_70_85.crop+r_h
r1_af_he_70_85.crop+r_hr2_af_he_70_85.crop+r_hr3_af_he_70_85.crop+r_hr4_af_he_70_85.crop)/4

# prec
# HE

#2050 45
prec5 <- raster("wc0.5/prec5.bil")
prec6 <- raster("wc0.5/prec6.bil")
prec7 <- raster("wc0.5/prec7.bil")
prec8 <- raster("wc0.5/prec8.bil")
prec9 <- raster("wc0.5/prec9.bil")

```

```

r_sum05to09 = prec5 + prec6 + prec7 + prec8 + prec9
r_sum05to09.crop <- crop(r_sum05to09,e)
prec5_af_he_50_45 <- raster("cmip5/30s/he45pr505.tif")
prec6_af_he_50_45 <- raster("cmip5/30s/he45pr506.tif")
prec7_af_he_50_45 <- raster("cmip5/30s/he45pr507.tif")
prec8_af_he_50_45 <- raster("cmip5/30s/he45pr508.tif")
prec9_af_he_50_45 <- raster("cmip5/30s/he45pr509.tif")

r_sum05to09_af_he_50_45 = prec5_af_he_50_45 + prec6_af_he_50_45 + prec7_af_he_50_45 +
prec8_af_he_50_45 + prec9_af_he_50_45
r_sum05to09_af_he_50_45.crop <- crop(r_sum05to09_af_he_50_45,e)

prec10 <- raster("wc0.5/prec10.bil")
prec11 <- raster("wc0.5/prec11.bil")
prec12 <- raster("wc0.5/prec12.bil")
prec01 <- raster("wc0.5/prec1.bil")
prec02 <- raster("wc0.5/prec2.bil")
prec03 <- raster("wc0.5/prec3.bil")
prec04 <- raster("wc0.5/prec4.bil")
r_sum10to04 = prec10 + prec11 + prec12 + prec01 + prec02+ prec03 + prec04
r_sum10to04.crop <- crop(r_sum10to04,e)
prec10_af_he_50_45 <- raster("cmip5/30s/he45pr5010.tif")
prec11_af_he_50_45 <- raster("cmip5/30s/he45pr5011.tif")
prec12_af_he_50_45 <- raster("cmip5/30s/he45pr5012.tif")
prec01_af_he_50_45 <- raster("cmip5/30s/he45pr501.tif")
prec02_af_he_50_45 <- raster("cmip5/30s/he45pr502.tif")
prec03_af_he_50_45 <- raster("cmip5/30s/he45pr503.tif")
prec04_af_he_50_45 <- raster("cmip5/30s/he45pr504.tif")

r_sum10to04_af_he_50_45 = prec10_af_he_50_45 + prec11_af_he_50_45 + prec12_af_he_50_45 +
prec01_af_he_50_45 + prec02_af_he_50_45 + prec03_af_he_50_45 + prec04_af_he_50_45
r_sum10to04_af_he_50_45.crop <- crop(r_sum10to04_af_he_50_45,e)

#2050 85
prec5 <- raster("wc0.5/prec5.bil")
prec6 <- raster("wc0.5/prec6.bil")
prec7 <- raster("wc0.5/prec7.bil")
prec8 <- raster("wc0.5/prec8.bil")
prec9 <- raster("wc0.5/prec9.bil")
r_sum05to09 = prec5 + prec6 + prec7 + prec8 + prec9
r_sum05to09.crop <- crop(r_sum05to09,e)
prec5_af_he_50_85 <- raster("cmip5/30s/he85pr505.tif")
prec6_af_he_50_85 <- raster("cmip5/30s/he85pr506.tif")
prec7_af_he_50_85 <- raster("cmip5/30s/he85pr507.tif")
prec8_af_he_50_85 <- raster("cmip5/30s/he85pr508.tif")
prec9_af_he_50_85 <- raster("cmip5/30s/he85pr509.tif")

r_sum05to09_af_he_50_85 = prec5_af_he_50_85 + prec6_af_he_50_85 + prec7_af_he_50_85 +
prec8_af_he_50_85 + prec9_af_he_50_85
r_sum05to09_af_he_50_85.crop <- crop(r_sum05to09_af_he_50_85,e)

prec10 <- raster("wc0.5/prec10.bil")
prec11 <- raster("wc0.5/prec11.bil")
prec12 <- raster("wc0.5/prec12.bil")
prec01 <- raster("wc0.5/prec1.bil")
prec02 <- raster("wc0.5/prec2.bil")
prec03 <- raster("wc0.5/prec3.bil")
prec04 <- raster("wc0.5/prec4.bil")
r_sum10to04 = prec10 + prec11 + prec12 + prec01 + prec02+ prec03 + prec04
r_sum10to04.crop <- crop(r_sum10to04,e)

```

```

prec10_af_he_50_85 <- raster("cmip5/30s/he85pr5010.tif")
prec11_af_he_50_85 <- raster("cmip5/30s/he85pr5011.tif")
prec12_af_he_50_85 <- raster("cmip5/30s/he85pr5012.tif")
prec01_af_he_50_85 <- raster("cmip5/30s/he85pr501.tif")
prec02_af_he_50_85 <- raster("cmip5/30s/he85pr502.tif")
prec03_af_he_50_85 <- raster("cmip5/30s/he85pr503.tif")
prec04_af_he_50_85 <- raster("cmip5/30s/he85pr504.tif")

r_sum10to04_af_he_50_85 = prec10_af_he_50_85 + prec11_af_he_50_85 + prec12_af_he_50_85 +
prec01_af_he_50_85 + prec02_af_he_50_85 + prec03_af_he_50_85 + prec04_af_he_50_85
r_sum10to04_af_he_50_85.crop <- crop(r_sum10to04_af_he_50_85,e)

#2070 45
prec5 <- raster("wc0.5/prec5.tif")
prec6 <- raster("wc0.5/prec6.tif")
prec7 <- raster("wc0.5/prec7.tif")
prec8 <- raster("wc0.5/prec8.tif")
prec9 <- raster("wc0.5/prec9.tif")
r_sum05to09 = prec5 + prec6 + prec7 + prec8 + prec9
r_sum05to09.crop <- crop(r_sum05to09,e)
prec5_af_he_70_45 <- raster("cmip5/30s/he45pr705.tif")
prec6_af_he_70_45 <- raster("cmip5/30s/he45pr706.tif")
prec7_af_he_70_45 <- raster("cmip5/30s/he45pr707.tif")
prec8_af_he_70_45 <- raster("cmip5/30s/he45pr708.tif")
prec9_af_he_70_45 <- raster("cmip5/30s/he45pr709.tif")

r_sum05to09_af_he_70_45 = prec5_af_he_70_45 + prec6_af_he_70_45 + prec7_af_he_70_45 +
prec8_af_he_70_45 + prec9_af_he_70_45
r_sum05to09_af_he_70_45.crop <- crop(r_sum05to09_af_he_70_45,e)

prec10 <- raster("wc0.5/prec10.tif")
prec11 <- raster("wc0.5/prec11.tif")
prec12 <- raster("wc0.5/prec12.tif")
prec01 <- raster("wc0.5/prec1.tif")
prec02 <- raster("wc0.5/prec2.tif")
prec03 <- raster("wc0.5/prec3.tif")
prec04 <- raster("wc0.5/prec4.tif")
r_sum10to04 = prec10 + prec11 + prec12 + prec01 + prec02 + prec03 + prec04
r_sum10to04.crop <- crop(r_sum10to04,e)
prec10_af_he_70_45 <- raster("cmip5/30s/he45pr7010.tif")
prec11_af_he_70_45 <- raster("cmip5/30s/he45pr7011.tif")
prec12_af_he_70_45 <- raster("cmip5/30s/he45pr7012.tif")
prec01_af_he_70_45 <- raster("cmip5/30s/he45pr701.tif")
prec02_af_he_70_45 <- raster("cmip5/30s/he45pr702.tif")
prec03_af_he_70_45 <- raster("cmip5/30s/he45pr703.tif")
prec04_af_he_70_45 <- raster("cmip5/30s/he45pr704.tif")

r_sum10to04_af_he_70_45 = prec10_af_he_70_45 + prec11_af_he_70_45 + prec12_af_he_70_45 +
prec01_af_he_70_45 + prec02_af_he_70_45 + prec03_af_he_70_45 + prec04_af_he_70_45
r_sum10to04_af_he_70_45.crop <- crop(r_sum10to04_af_he_70_45,e)

#2070 85
prec5 <- raster("wc0.5/prec5.tif")
prec6 <- raster("wc0.5/prec6.tif")
prec7 <- raster("wc0.5/prec7.tif")
prec8 <- raster("wc0.5/prec8.tif")
prec9 <- raster("wc0.5/prec9.tif")
r_sum05to09 = prec5 + prec6 + prec7 + prec8 + prec9
r_sum05to09.crop <- crop(r_sum05to09,e)
prec5_af_he_70_85 <- raster("cmip5/30s/he85pr705.tif")

```

```

prec6_af_he_70_85 <- raster("cmip5/30s/he85pr706.tif")
prec7_af_he_70_85 <- raster("cmip5/30s/he85pr707.tif")
prec8_af_he_70_85 <- raster("cmip5/30s/he85pr708.tif")
prec9_af_he_70_85 <- raster("cmip5/30s/he85pr709.tif")

r_sum05to09_af_he_70_85 = prec5_af_he_70_85 + prec6_af_he_70_85 + prec7_af_he_70_85 +
prec8_af_he_70_85 + prec9_af_he_70_85
r_sum05to09_af_he_70_85.crop <- crop(r_sum05to09_af_he_70_85,e)

prec10 <- raster("wc0.5/prec10.bil")
prec11 <- raster("wc0.5/prec11.bil")
prec12 <- raster("wc0.5/prec12.bil")
prec01 <- raster("wc0.5/prec1.bil")
prec02 <- raster("wc0.5/prec2.bil")
prec03 <- raster("wc0.5/prec3.bil")
prec04 <- raster("wc0.5/prec4.bil")
r_sum10to04 = prec10 + prec11 + prec12 + prec01 + prec02 + prec03 + prec04
r_sum10to04.crop <- crop(r_sum10to04,e)
prec10_af_he_70_85 <- raster("cmip5/30s/he85pr7010.tif")
prec11_af_he_70_85 <- raster("cmip5/30s/he85pr7011.tif")
prec12_af_he_70_85 <- raster("cmip5/30s/he85pr7012.tif")
prec01_af_he_70_85 <- raster("cmip5/30s/he85pr701.tif")
prec02_af_he_70_85 <- raster("cmip5/30s/he85pr702.tif")
prec03_af_he_70_85 <- raster("cmip5/30s/he85pr703.tif")
prec04_af_he_70_85 <- raster("cmip5/30s/he85pr704.tif")

r_sum10to04_af_he_70_85 = prec10_af_he_70_85 + prec11_af_he_70_85 + prec12_af_he_70_85 +
prec01_af_he_70_85 + prec02_af_he_70_85 + prec03_af_he_70_85 + prec04_af_he_70_85
r_sum10to04_af_he_70_85.crop <- crop(r_sum10to04_af_he_70_85

#new min variable
tmn_average.raster <- mean(m1.crop , m2.crop , m3.crop , m4.crop , m5.crop , m6.crop , m7.crop , m8.crop ,
m9.crop , m10.crop , m11.crop , m12.crop)/10
##### 4 params 4 params #####
r_obj4.crop <- stack(ravg_hr_MayAug.crop, h_a_by_months.raster, r_sum05to09.crop,r_sum10to04.crop)
names(r_obj4.crop) = c("Hours Restriction", "Hours Activity", "Summer Precip", "Winter Precip")
dist_tatlantica <- read.table("C:/Users/VIEGAS/Google Drive/PhD/Cap 3 effectiveness/MS Trachylepis
atlantica/SDM/Trachylepis_atlantica_total_20_clean_points_res_1_km2.txt", header=T)
myRespXY <- data.frame(Lon = dist_tatlantica$Lon, Lat = dist_tatlantica$Lat)
myResp <- rep(1,length(dist_tatlantica$Lon))
myRespName <- 'Trachylepis atlantica'

##### NOW do both obj4 and obj5
library(ggplot2)
library(biomod2)
#plot(ravg_hr_MayAug.crop)
#points(dist_tatlantica)
#str(dist_tatlantica

# this code is excerpted directly out of the package biomod2.pdf
# vignettes for fitting SDM
# instead of bioclim variables we use ecophysiology

# set up the proper test in this case GLM with interactions at level 1 or what I think is things like r_hr x
prec09to02, etc. and quadratic terms
library(biomod2)

#START here for redo
myExpl <- r_obj4.crop

```

```

myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,
resp.xy = myRespXY,
resp.name = myRespName,
PA.nb.rep = 1,
PA.nb.absences = 5000,
PA.strategy = 'disk',
PA.dist.min = 50000,
PA.dist.max = 20000000,
PA.sre.quant = 0.025,
PA.table = NULL,
na.rm = TRUE)

# plot(myBiomodData)
myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")
myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))
myBiomodProj4 <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = myExpl,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred4 = get_predictions(myBiomodProj4)[[1]]
#windows() # delete this command on WINDOWS machines
library(maps)
library(mapdata)
quartz()
plot(pred4/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)
points(FamilyTb_Phrynosoma_hernandesii_complex$Lat~FamilyTb_Phrynosoma_hernandesii_complex$Lon,pc
h=21,cex=1, bg="black",col="white")
points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")

##### FUTURE CLIMATE #####
#Future climate
# 4 obj
r_obj4_af.crop <- stack(ravg_hr_MayAug_af.crop, h_a_by_month_af.raster, r_sum05to09_af.crop,
r_sum10to04_af.crop)
names(r_obj4_af.crop) = c("Hours Restriction","Hours Activity","Summer Precip","Winter Precip")

# must have exactly the same names!! as used in the 1975 SDM
future.climate = r_obj4_af.crop
myBiomodProj <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',

```

```

clamping.mask = F,
output.format = '.grd')
pred_af4 = get_predictions(myBiomodProj)[[1]]
#windows() # delete this command on WINDOWS machines
quartz()
plot(pred_af4/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)
#points(G_poly,pch=21,cex=1, bg="black",col="white")

##### pred5
##### 5 params with Tmin avg #####
r_obj5.crop <- stack(ravg_hr_MayAug.crop, h_a_by_months.raster, r_sum05to09.crop, r_sum10to04.crop,
mavg_MayAug.crop)
names(r_obj5.crop) = c("Hours Restriction", "Hours Activity", "Summer Precip", "Winter Precip", "Minimum T")
myExpl <- r_obj5.crop

myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,
resp.xy = myRespXY,
resp.name = myRespName,
PA.nb.rep = 1,
PA.nb.absences = 5000,
PA.strategy = 'disk',
PA.dist.min = 50000,
PA.dist.max = 20000000,
PA.sre.quant = 0.025,
PA.table = NULL,
na.rm = TRUE)

# plot(myBiomodData)
myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = myExpl,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred5 = get_predictions(myBiomodProj)[[1]]
library(maps)
library(mapdata)
quartz()
plot(pred5/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)

```

```

points(FamilyTb_Phrynosoma_hernandesi_complex$Lat~FamilyTb_Phrynosoma_hernandesi_complex$Lon,pc
h=21,cex=0.5, bg="black",col="white")
# points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")
# Plethodon cinereus Sinervo 1973 pers obs Finnmark Road

points( c( 48.652288, 48.652288 )~c( -89.835543,-89.835543),pch=2,cex=1, bg="black",col="white")

##### 5obj_af.crop FUTURE
r_obj5_af.crop <- stack(ravg_hr_MayAug_af.crop, h_a_by_months_af.raster, r_sum05to09_af.crop,
r_sum10to04_af.crop, mavg_MayAug_af.crop)
names(r_obj5_af.crop) = c("Hours Restriction", "Hours Activity", "Summer Precip", "Winter Precip", "Minimum
T")
future.climate = r_obj5_af.crop
myBiomodProj <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')

pred_af5 = get_predictions(myBiomodProj)[[1]]
#windows() # delete this command on WINDOWS machines
quartz()
plot(pred_af5/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)
#points(G_poly,pch=21,cex=1, bg="black",col="white")
#####
points(FamilyTb_Phrynosoma_hernandesi_complex$Lat~FamilyTb_Phrynosoma_hernandesi_complex$Lon,pc
h=21,cex=1, bg="black",col="white")
r_obj4_af.crop <- stack(ravg_hr_MayAug_af.crop, rsum_ha_af.crop, r_sum05to09_af.crop)
names(r_obj4_af.crop) = c("Hours Restriction", "Hours Activity", "Summer Precip")
#takes a long time:
# 35 min to plot
canada <- getData("GADM",country="CAN",level=1)
plot(canada,add=T)
#Ossoyos extinct P. hernandesi
#points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")
# Plethodon cinereus Sinervo 1973 pers obs Finnmark Road
points( c( 48.652288, 48.652288 )~c( -89.835543,-89.835543),pch=2,cex=1, bg="black",col="white")

# 5 obj future pred5
r_obj5.crop <- stack(ravg_hr_MayAug.crop, rsum_ha.crop, r_sum05to09.crop, r_sum10to04.crop,
mavg_MayAug.crop)
names(r_obj5.crop) = c("Hours Restriction", "Hours Activity", "Summer Precip", "Winter Precip", "Minimum T")

myExpl <- r_obj5.crop

myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,
resp.xy = myRespXY,
resp.name = myRespName,
PA.nb.rep = 1,

```



```

        PA.nb.absences = 5000,
        PA.strategy = 'disk',
        PA.dist.min = 50000,
        PA.dist.max = 20000000,
        PA.sre.quant = 0.025,
        PA.table = NULL,
        na.rm = TRUE)

#       plot(myBiomodData)

        myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
        modeling.output = myBiomodModelOut,
        new.env = myExpl,
        proj.name = 'current',
        selected.models = 'all',
        binary.meth = 'ROC',
        compress = 'xz',
        clamping.mask = F,
        output.format = 'grd')
pred6 = get_predictions(myBiomodProj)[[1]]
library(maps)
library(mapdata)
quartz()
        plot(pred6/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)

map("world",add=T)
map("state",add=T)
points(FamilyTb_Phrynosoma_hernandesi_complex$Lat~FamilyTb_Phrynosoma_hernandesi_complex$Lon,pc
h=21,cex=1, bg="black",col="white")
        points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")

##### 6obj present
r_obj6.crop <- stack(ravg_hr_MayAug.crop, rsum_ha.crop, r_sum05to09.crop, r_sum10to04.crop,
tmn_MaySep.raster,tmn_OctApr.raster)
names(r_obj6.crop) = c("Hours Restriction","Hours Activity","Summer Precip","Winter Precip", "Minimum
Sum","Minimum Win")
myExpl <- r_obj6.crop

        myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
        expl.var=myExpl,
        resp.xy = myRespXY,
        resp.name = myRespName,
        PA.nb.rep = 1,
        PA.nb.absences = 5000,
        PA.strategy = 'disk',
        PA.dist.min = 50000,
        PA.dist.max = 20000000,
        PA.sre.quant = 0.025,

```

```

        PA.table = NULL,
        na.rm = TRUE)

#       plot(myBiomodData)

        myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
        modeling.output = myBiomodModelOut,
        new.env = myExpl,
        proj.name = 'current',
        selected.models = 'all',
        binary.meth = 'ROC',
        compress = 'xz',
        clamping.mask = F,
        output.format = '.grd')
        pred6 = get_predictions(myBiomodProj)[[1]]
library(maps)
library(mapdata)
quartz()
        plot(pred6/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)

map("world",add=T)
map("state",add=T)
points(FamilyTb_Phrynosoma_hernandesi_complex$Lat~FamilyTb_Phrynosoma_hernandesi_complex$Lon,pc
h=21,cex=1, bg="black",col="white")
# points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")
# Plethodon cinereus Sinervo 1973 pers obs Finnmark Road

points( c( 48.652288, 48.652288 )~c( -89.835543,-89.835543),pch=2,cex=1, bg="black",col="white")
##### 6 params with Tmin avg #####

r_obj6.crop <- stack(ravg_hr_MayAug.crop, h_a_by_months.raster, r_sum05to09.crop, r_sum10to04.crop,
mavg_MayAug.crop,mavg_SepApr.crop)
names(r_obj6.crop) = c("Hours Restriction", "Hours Activity", "Summer Precip", "Winter Precip", "Minimum T
Sum", "Minimum T NotSum")
myExpl <- r_obj6.crop

        myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

        myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
        expl.var=myExpl,
        resp.xy = myRespXY,
        resp.name = myRespName,
        PA.nb.rep = 1,
        PA.nb.absences = 5000,
        PA.strategy = 'disk',
        PA.dist.min = 50000,
        PA.dist.max = 20000000,
        PA.sre.quant = 0.025,
        PA.table = NULL,
        na.rm = TRUE)

```

```

#       plot(myBiomodData)

myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
  modeling.output = myBiomodModelOut,
  new.env = myExpl,
  proj.name = 'current',
  selected.models = 'all',
  binary.meth = 'ROC',
  compress = 'xz',
  clamping.mask = F,
  output.format = '.grd')
pred6 = get_predictions(myBiomodProj)[[1]]
library(maps)
library(mapdata)
quartz()
  plot(pred6/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)

map("world",add=T)
map("state",add=T)
points(FamilyTb_Phrynosoma_hernandesii_complex$Lat~FamilyTb_Phrynosoma_hernandesii_complex$Lon,pch
h=21,cex=1, bg="black",col="white")
# points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")
# Plethodon cinereus Sinervo 1973 pers obs Finnmark Road

points( c( 48.652288, 48.652288 )~c( -89.835543,-89.835543),pch=2,cex=1, bg="black",col="white")

##### 6obj present with minimum temperatures

r_obj6.crop <- stack(ravg_hr_MayAug.crop, rsum_ha.crop, r_sum05to09.crop, r_sum10to04.crop,
tmn_MaySep.raster,tmn_OctApr.raster)
names(r_obj6.crop) = c("Hours Restriction","Hours Activity","Summer Precip","Winter Precip", "Minimum
Sum","Minimum Win")
myExpl <- r_obj6.crop

myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,
resp.xy = myRespXY,
resp.name = myRespName,
PA.nb.rep = 1,
PA.nb.absences = 5000,
PA.strategy = 'disk',
PA.dist.min = 50000,
PA.dist.max = 20000000,
PA.sre.quant = 0.025,
PA.table = NULL,
na.rm = TRUE)

#       plot(myBiomodData)

```

```

myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
  modeling.output = myBiomodModelOut,
  new.env = myExpl,
  proj.name = 'current',
  selected.models = 'all',
  binary.meth = 'ROC',
  compress = 'xz',
  clamping.mask = F,
  output.format = '.grd')
pred6 = get_predictions(myBiomodProj)[[1]]
library(maps)
library(mapdata)
quartz()
plot(pred6/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)
#points(FamilyTb_Phrynosoma_hernandesi_complex$Lat~FamilyTb_Phrynosoma_hernandesi_complex$Lon,p
ch=21,cex=1, bg="black",col="white")
# Plethodon cinereus Sinervo 1973 pers obs Finnmark Road
points( c( 48.652288, 48.652288 )~c( -89.835543,-89.835543),pch=2,cex=1, bg="black",col="white")
##### 6obj_af.crop FUTURE
r_obj6_af.crop <- stack(ravg_hr_MayAug_af.crop, rsum_ha_af.crop, r_sum05to09_af.crop,
r_sum10to04_af.crop, tmn_MaySep_af.raster,tmn_OctApr_af.raster)
names(r_obj6_af.crop) = c("Hours Restriction","Hours Activity","Summer Precip","Winter Precip", "Minimum
Sum","Minimum Win")
future.climate = r_obj6_af.crop
myBiomodProj <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred_af6 = get_predictions(myBiomodProj)[[1]]
#windows() # delete this command on WINDOWS machines
quartz()
plot(pred_af6/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)
##### 7 params with Tmin avg and Altitude #####
r_obj7.crop <- stack(ravg_hr_MayAug.crop, h_a_by_months.raster, r_sum05to09.crop, r_sum10to04.crop,
tmn_MaySep.crop,tmn_OctApr.crop,alt.crop)
names(r_obj7.crop) = c("Hours Restriction","Hours Activity","Summer Precip","Winter Precip", "Minimum T
Sum", "Minimum T NotSum","Altitude")
myExpl <- r_obj7.crop
myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))
myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,

```

```

        resp.xy = myRespXY,
resp.name = myRespName,
        PA.nb.rep = 1,
        PA.nb.absences = 5000,
        PA.strategy = 'disk',
        PA.dist.min = 50000,
        PA.dist.max = 20000000,
        PA.sre.quant = 0.025,
        PA.table = NULL,
        na.rm = TRUE)
#      plot(myBiomodData)
myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")
myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
  modeling.output = myBiomodModelOut,
  new.env = myExpl,
  proj.name = 'current',
  selected.models = 'all',
  binary.meth = 'ROC',
  compress = 'xz',
  clamping.mask = F,
  output.format = '.grd')
pred7 = get_predictions(myBiomodProj)[[1]]
library(maps)
library(mapdata)
quartz()
  plot(pred7/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)
#points(FamilyTb_Phrynosoma_hernandesi_complex$Lat~FamilyTb_Phrynosoma_hernandesi_complex$Lon,p
ch=21,cex=1, bg="black",col="white")
# points( c(49.03306,49.03306 )~c( -119.45237,-119.45237),pch=21,cex=1, bg="black",col="white")
# Plethodon cinereus Sinervo 1973 pers obs Finnmark Road
points( c( 48.652288, 48.652288 )~c( -89.835543,-89.835543),pch=2,cex=1, bg="black",col="white")
##### 7obj_af.crop FUTURE -- note Altitude is the only variable without _af designation
r_obj7_af.crop <- stack(ravg_hr_MayAug_af.crop, rsum_ha_af.crop, r_sum05to09_af.crop,
r_sum10to04_af.crop, tmn_MaySep_af.raster,tmn_OctApr_af.raster,alt.crop)
names(r_obj7_af.crop) = c("Hours Restriction","Hours Activity","Summer Precip", "Winter Precip", "Minimum
T Sum", "Minimum T NotSum","Altitude")
future.climate = r_obj7_af.crop
myBiomodProj <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred_af7 = get_predictions(myBiomodProj)[[1]]
quartz()
plot(pred_af7/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
map("world",add=T)
map("state",add=T)

```

Seção 4

```
#### MS Amazon
```

```
library(raster)
library(rgdal)
library (gtools)
```

```
setwd("C:/Users/Luisa Diele-Viegas/Google Drive/submitted/Cap 2 - MS Are Amazonia feeling the heat/MS_Amazon")
```

```
# ler os rasters
```

```
# GCM He; fazer o mesmo procedimento para MP e MR
```

```
#1
```

```
bi_1_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi501.tif")
```

```
bi_1_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi701.tif")
```

```
bi_1_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi501.tif")
```

```
bi_1_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi701.tif")
```

```
#2
```

```
bi_2_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi502.tif")
```

```
bi_2_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi702.tif")
```

```
bi_2_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi502.tif")
```

```
bi_2_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi702.tif")
```

```
#3
```

```
bi_3_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi503.tif")
```

```
bi_3_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi703.tif")
```

```
bi_3_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi503.tif")
```

```
bi_3_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi703.tif")
```

```
#4
```

```
bi_4_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi504.tif")
```

```
bi_4_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi704.tif")
```

```
bi_4_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi504.tif")
```

```
bi_4_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi704.tif")
```

```
#5
```

```
bi_5_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi505.tif")
```

```
bi_5_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi705.tif")
```

```
bi_5_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi505.tif")
```

```
bi_5_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi705.tif")
```

```
#6
```

```
bi_6_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi506.tif")
```

```
bi_6_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi706.tif")
```

```
bi_6_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi506.tif")
```

```
bi_6_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi706.tif")
```

```
#7
```

```
bi_7_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi507.tif")
```

```
bi_7_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi707.tif")
```

```
bi_7_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi507.tif")
```

```
bi_7_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi707.tif")
```

```
#8
```

```
bi_8_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi508.tif")
```

```
bi_8_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi708.tif")
```

```
bi_8_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi508.tif")
```

```
bi_8_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi708.tif")
```

```
#9
```

```
bi_9_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi509.tif")
```

```
bi_9_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi709.tif")
```

```
bi_9_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi509.tif")
```

```

bi_9_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi709.tif")
#10
bi_10_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5010.tif")
bi_10_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7010.tif")
bi_10_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5010.tif")
bi_10_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7010.tif")
#11
bi_11_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5011.tif")
bi_11_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7011.tif")
bi_11_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5011.tif")
bi_11_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7011.tif")
#12
bi_12_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5012.tif")
bi_12_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7012.tif")
bi_12_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5012.tif")
bi_12_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7012.tif")
#13
bi_13_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5013.tif")
bi_13_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7013.tif")
bi_13_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5013.tif")
bi_13_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7013.tif")
#14
bi_14_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5014.tif")
bi_14_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7014.tif")
bi_14_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5014.tif")
bi_14_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7014.tif")
#15
bi_15_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5015.tif")
bi_15_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7015.tif")
bi_15_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5015.tif")
bi_15_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7015.tif")
#16
bi_16_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5016.tif")
bi_16_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7016.tif")
bi_16_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5016.tif")
bi_16_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7016.tif")
#17
bi_17_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5017.tif")
bi_17_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7017.tif")
bi_17_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5017.tif")
bi_17_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7017.tif")
#18
bi_18_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5018.tif")
bi_18_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7018.tif")
bi_18_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5018.tif")
bi_18_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7018.tif")
#19
bi_19_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi5019.tif")
bi_19_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85bi7019.tif")
bi_19_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi5019.tif")
bi_19_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45bi7019.tif")

#tmax

#jan
tmax_jan_present<-raster("D:/Rasters/Amazon/wc2-5/tmax1.bil")

tmax_jan_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx501.tif")
tmax_jan_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx701.tif")
prec_jan_present<-raster("D:/Rasters/Amazon/wc2-5/prec1.bil")

```

```

prec_jan_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr501.tif")
prec_jan_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr701.tif")
tmin_jan_present<-raster("D:/Rasters/Amazon/wc2-5/tmin1.bil")
tmin_jan_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn501.tif")
tmin_jan_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn701.tif")
#feb
tmax_feb_present<-raster("D:/Rasters/Amazon/wc2-5/tmax2.bil")
tmax_feb_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx502.tif")
tmax_feb_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx702.tif")
prec_feb_present<-raster("D:/Rasters/Amazon/wc2-5/prec2.bil")
prec_feb_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr502.tif")
prec_feb_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr702.tif")
tmin_feb_present<-raster("D:/Rasters/Amazon/wc2-5/tmin2.bil")
tmin_feb_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn502.tif")
tmin_feb_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn702.tif")
#mar
tmax_mar_present<-raster("D:/Rasters/Amazon/wc2-5/tmax3.bil")
tmax_mar_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx503.tif")
tmax_mar_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx703.tif")
prec_mar_present<-raster("D:/Rasters/Amazon/wc2-5/prec3.bil")
prec_mar_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr503.tif")
prec_mar_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr703.tif")
tmin_mar_present<-raster("D:/Rasters/Amazon/wc2-5/tmin3.bil")
tmin_mar_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn503.tif")
tmin_mar_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn703.tif")
#apr
tmax_apr_present<-raster("D:/Rasters/Amazon/wc2-5/tmax4.bil")
tmax_apr_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx504.tif")
tmax_apr_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx704.tif")
prec_apr_present<-raster("D:/Rasters/Amazon/wc2-5/prec4.bil")
prec_apr_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr504.tif")
prec_apr_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr704.tif")
tmin_apr_present<-raster("D:/Rasters/Amazon/wc2-5/tmin4.bil")
tmin_apr_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn504.tif")
tmin_apr_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn704.tif")
#may
tmax_may_present<-raster("D:/Rasters/Amazon/wc2-5/tmax5.bil")
tmax_may_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx505.tif")
tmax_may_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx705.tif")
prec_may_present<-raster("D:/Rasters/Amazon/wc2-5/prec5.bil")
prec_may_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr505.tif")
prec_may_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr705.tif")

tmin_may_present<-raster("D:/Rasters/Amazon/wc2-5/tmin5.bil")
tmin_may_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn505.tif")
tmin_may_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn705.tif")

#jun
tmax_jun_present<-raster("D:/Rasters/Amazon/wc2-5/tmax6.bil")
tmax_jun_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx506.tif")
tmax_jun_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx706.tif")
prec_jun_present<-raster("D:/Rasters/Amazon/wc2-5/prec6.bil")
prec_jun_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr506.tif")
prec_jun_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr706.tif")
tmin_jun_present<-raster("D:/Rasters/Amazon/wc2-5/tmin6.bil")
tmin_jun_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn506.tif")
tmin_jun_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn706.tif")
#jul
tmax_jul_present<-raster("D:/Rasters/Amazon/wc2-5/tmax7.bil")

```



```

tmax_jul_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx507.tif")
tmax_jul_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx707.tif")
prec_jul_present<-raster("D:/Rasters/Amazon/wc2-5/prec7.bil")
prec_jul_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr507.tif")
prec_jul_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr707.tif")
tmin_jul_present<-raster("D:/Rasters/Amazon/wc2-5/tmin7.bil")
tmin_jul_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn507.tif")
tmin_jul_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn707.tif")
#aug
tmax_aug_present<-raster("D:/Rasters/Amazon/wc2-5/tmax8.bil")
tmax_aug_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx508.tif")
tmax_aug_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx708.tif")
prec_aug_present<-raster("D:/Rasters/Amazon/wc2-5/prec8.bil")
prec_aug_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr508.tif")
prec_aug_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr708.tif")
tmin_aug_present<-raster("D:/Rasters/Amazon/wc2-5/tmin8.bil")
tmin_aug_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn508.tif")
tmin_aug_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn708.tif")
#sep
tmax_sep_present<-raster("D:/Rasters/Amazon/wc2-5/tmax9.bil")
tmax_sep_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx509.tif")
tmax_sep_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx709.tif")
prec_sep_present<-raster("D:/Rasters/Amazon/wc2-5/prec9.bil")
prec_sep_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr509.tif")
prec_sep_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr709.tif")
tmin_sep_present<-raster("D:/Rasters/Amazon/wc2-5/tmin9.bil")
tmin_sep_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn509.tif")
tmin_sep_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn709.tif")
#oct
tmax_oct_present<-raster("D:/Rasters/Amazon/wc2-5/tmax10.bil")
tmax_oct_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx5010.tif")
tmax_oct_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx7010.tif")
prec_oct_present<-raster("D:/Rasters/Amazon/wc2-5/prec10.bil")
prec_oct_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr5010.tif")
prec_oct_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr7010.tif")
tmin_oct_present<-raster("D:/Rasters/Amazon/wc2-5/tmin10.bil")
tmin_oct_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn5010.tif")
tmin_oct_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn7010.tif")
#nov
tmax_nov_present<-raster("D:/Rasters/Amazon/wc2-5/tmax11.bil")
tmax_nov_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx5011.tif")
tmax_nov_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx7011.tif")
prec_nov_present<-raster("D:/Rasters/Amazon/wc2-5/prec11.bil")
prec_nov_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr5011.tif")
prec_nov_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr7011.tif")
tmin_nov_present<-raster("D:/Rasters/Amazon/wc2-5/tmin11.bil")
tmin_nov_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn5011.tif")
tmin_nov_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn7011.tif")
#dez
tmax_dez_present<-raster("D:/Rasters/Amazon/wc2-5/tmax12.bil")
tmax_dez_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx5012.tif")
tmax_dez_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tx7012.tif")
prec_dez_present<-raster("D:/Rasters/Amazon/wc2-5/prec12.bil")
prec_dez_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr5012.tif")
prec_dez_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85pr7012.tif")
tmin_dez_present<-raster("D:/Rasters/Amazon/wc2-5/tmin12.bil")
tmin_dez_he_2050_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn5012.tif")
tmin_dez_he_2070_85<-raster("D:/Rasters/Amazon/cmip5/2_5m/he85tn7012.tif")
#jan
tmax_jan_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx501.tif")

```



```

tmin_sep_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn709.tif")
#oct
tmax_oct_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx5010.tif")
tmax_oct_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx7010.tif")
prec_oct_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45pr5010.tif")
prec_oct_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45pr7010.tif")
tmin_oct_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn5010.tif")
tmin_oct_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn7010.tif")
#nov
tmax_nov_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx5011.tif")
tmax_nov_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx7011.tif")
prec_nov_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45pr5011.tif")
prec_nov_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45pr7011.tif")
tmin_nov_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn5011.tif")
tmin_nov_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn7011.tif")
#dez
tmax_dez_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx5012.tif")
tmax_dez_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tx7012.tif")
prec_dez_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45pr5012.tif")
prec_dez_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45pr7012.tif")
tmin_dez_he_2050_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn5012.tif")
tmin_dez_he_2070_45<-raster("D:/Rasters/Amazon/cmip5/2_5m/he45tn7012.tif")
#### shapefile ####

amazon <- readOGR("C:/Users/Luisa Diele-Viegas/Google Drive/Shapes/Amazon Biome
WWF/Amazon_Biome.shp", "Amazon_Biome")
ucs <- readOGR("C:/Users/Luisa Diele-Viegas/Google Drive/Shapes/Protection Areas Panamazonia
WWF/PAs_Panamazonia_NoTopo.shp", "PAs_Panamazonia_NoTopo")

# ler os rasters
#bi
# present
bio1_present<-raster("D:/Rasters/Amazon/wc2-5/bio1.tif")
bio2_present<-raster("D:/Rasters/Amazon/wc2-5/bio2.tif")
bio3_present<-raster("D:/Rasters/Amazon/wc2-5/bio3.tif")
bio4_present<-raster("D:/Rasters/Amazon/wc2-5/bio4.tif")
bio5_present<-raster("D:/Rasters/Amazon/wc2-5/bio5.tif")
bio6_present<-raster("D:/Rasters/Amazon/wc2-5/bio6.tif")
bio7_present<-raster("D:/Rasters/Amazon/wc2-5/bio7.tif")
bio8_present<-raster("D:/Rasters/Amazon/wc2-5/bio8.tif")
bio9_present<-raster("D:/Rasters/Amazon/wc2-5/bio9.tif")
bio10_present<-raster("D:/Rasters/Amazon/wc2-5/bio10.tif")
bio11_present<-raster("D:/Rasters/Amazon/wc2-5/bio11.tif")
bio12_present<-raster("D:/Rasters/Amazon/wc2-5/bio12.tif")
bio13_present<-raster("D:/Rasters/Amazon/wc2-5/bio13.tif")
bio14_present<-raster("D:/Rasters/Amazon/wc2-5/bio14.tif")
bio15_present<-raster("D:/Rasters/Amazon/wc2-5/bio15.tif")
bio16_present<-raster("D:/Rasters/Amazon/wc2-5/bio16.tif")
bio17_present<-raster("D:/Rasters/Amazon/wc2-5/bio17.tif")
bio18_present<-raster("D:/Rasters/Amazon/wc2-5/bio18.tif")
bio19_present<-raster("D:/Rasters/Amazon/wc2-5/bio19.tif")

#extraction biome
#jan

tmax_jan_present_extract_amazon_mean_amazon<-extract(tmax_jan_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jan_present_extract_amazon_sd_amazon<-extract(tmax_jan_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_jan_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_jan_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)

```

```
tmax_jan_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_jan_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_jan_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_jan_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_jan_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_jan_present_extract_amazon_mean_amazon<-extract(tmin_jan_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jan_present_extract_amazon_sd_amazon<-extract(tmin_jan_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_jan_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_jan_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_jan_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jan_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_jan_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_jan_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_jan_present_extract_amazon_mean_amazon<-extract(prec_jan_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_jan_present_extract_amazon_sd_amazon<-extract(prec_jan_present,amazon[1], fun=sd, na.rm=TRUE)
prec_jan_he_2050_85_extract_amazon_mean_amazon<-extract(prec_jan_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2050_85_extract_amazon_sd_amazon<-extract(prec_jan_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_jan_he_2070_85_extract_amazon_mean_amazon<-extract(prec_jan_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2070_85_extract_amazon_sd_amazon<-extract(prec_jan_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#jan
```

```
tmax_jan_present_extract_amazon_mean_amazon<-extract(tmax_jan_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jan_present_extract_amazon_sd_amazon<-extract(tmax_jan_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_jan_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_jan_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_jan_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_jan_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_jan_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_jan_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jan_present_extract_amazon_mean_amazon<-extract(tmin_jan_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jan_present_extract_amazon_sd_amazon<-extract(tmin_jan_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_jan_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_jan_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_jan_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jan_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_jan_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_jan_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_jan_present_extract_amazon_mean_amazon<-extract(prec_jan_present,amazon[1], fun=mean,
na.rm=TRUE)
```

```

prec_jan_present_extract_amazon_sd_amazon<-extract(prec_jan_present,amazon[1], fun=sd, na.rm=TRUE)
prec_jan_he_2050_45_extract_amazon_mean_amazon<-extract(prec_jan_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2050_45_extract_amazon_sd_amazon<-extract(prec_jan_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_jan_he_2070_45_extract_amazon_mean_amazon<-extract(prec_jan_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2070_45_extract_amazon_sd_amazon<-extract(prec_jan_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_jan<-
data.frame(tmax_jan_present_extract_amazon_mean_amazon,tmax_jan_present_extract_amazon_sd_amazon,tm
ax_jan_he_2050_85_extract_amazon_mean_amazon,tmax_jan_he_2050_85_extract_amazon_sd_amazon,tmax_
jan_he_2070_85_extract_amazon_mean_amazon,tmax_jan_he_2070_85_extract_amazon_sd_amazon,
tmin_jan_present_extract_amazon_mean_amazon,tmin_jan_present_extract_amazon_sd_amazon,tmin_jan_he_2
050_85_extract_amazon_mean_amazon,tmin_jan_he_2050_85_extract_amazon_sd_amazon,
tmin_jan_he_2070_85_extract_amazon_mean_amazon,tmin_jan_he_2070_85_extract_amazon_sd_amazon,
prec_jan_present_extract_amazon_mean_amazon,prec_jan_present_extract_amazon_sd_amazon,prec_jan_he_2
050_85_extract_amazon_mean_amazon,prec_jan_he_2050_85_extract_amazon_sd_amazon,
prec_jan_he_2070_85_extract_amazon_mean_amazon,prec_jan_he_2070_85_extract_amazon_sd_amazon,
tmax_jan_he_2050_45_extract_amazon_mean_amazon,tmax_jan_he_2050_45_extract_amazon_sd_amazon,
tmax_jan_he_2070_45_extract_amazon_mean_amazon,tmax_jan_he_2070_45_extract_amazon_sd_amazon,
tmin_jan_present_extract_amazon_mean_amazon,tmin_jan_present_extract_amazon_sd_amazon,tmin_jan_he_2
050_45_extract_amazon_mean_amazon,tmin_jan_he_2050_45_extract_amazon_sd_amazon,
tmin_jan_he_2070_45_extract_amazon_mean_amazon,tmin_jan_he_2070_45_extract_amazon_sd_amazon,
prec_jan_present_extract_amazon_mean_amazon,prec_jan_present_extract_amazon_sd_amazon,prec_jan_he_2
050_45_extract_amazon_mean_amazon,prec_jan_he_2050_45_extract_amazon_sd_amazon,
prec_jan_he_2070_45_extract_amazon_mean_amazon,prec_jan_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_jan, file="extractions_amazon_tmax_jan.txt", append=FALSE,
quote=TRUE, sep=";")

#fev

tmax_fev_present_extract_amazon_mean_amazon<-extract(tmax_fev_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_fev_present_extract_amazon_sd_amazon<-extract(tmax_fev_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_fev_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_fev_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_fev_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_fev_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_fev_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_fev_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

tmin_fev_present_extract_amazon_mean_amazon<-extract(tmin_fev_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_fev_present_extract_amazon_sd_amazon<-extract(tmin_fev_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_fev_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_fev_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_fev_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_fev_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_fev_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_fev_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_fev_present_extract_amazon_mean_amazon<-extract(prec_fev_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_fev_present_extract_amazon_sd_amazon<-extract(prec_fev_present,amazon[1], fun=sd, na.rm=TRUE)
prec_fev_he_2050_85_extract_amazon_mean_amazon<-extract(prec_fev_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2050_85_extract_amazon_sd_amazon<-extract(prec_fev_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_fev_he_2070_85_extract_amazon_mean_amazon<-extract(prec_fev_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2070_85_extract_amazon_sd_amazon<-extract(prec_fev_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#fev

tmax_fev_present_extract_amazon_mean_amazon<-extract(tmax_fev_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_fev_present_extract_amazon_sd_amazon<-extract(tmax_fev_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_fev_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_fev_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_fev_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_fev_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_fev_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_fev_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_fev_present_extract_amazon_mean_amazon<-extract(tmin_fev_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_fev_present_extract_amazon_sd_amazon<-extract(tmin_fev_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_fev_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_fev_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_fev_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_fev_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_fev_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_fev_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

prec_fev_present_extract_amazon_mean_amazon<-extract(prec_fev_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_fev_present_extract_amazon_sd_amazon<-extract(prec_fev_present,amazon[1], fun=sd, na.rm=TRUE)
prec_fev_he_2050_45_extract_amazon_mean_amazon<-extract(prec_fev_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2050_45_extract_amazon_sd_amazon<-extract(prec_fev_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_fev_he_2070_45_extract_amazon_mean_amazon<-extract(prec_fev_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2070_45_extract_amazon_sd_amazon<-extract(prec_fev_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_fev<-
data.frame(tmax_fev_present_extract_amazon_mean_amazon,tmax_fev_present_extract_amazon_sd_amazon,t
max_fev_he_2050_85_extract_amazon_mean_amazon,tmax_fev_he_2050_85_extract_amazon_sd_amazon,tma
x_fev_he_2070_85_extract_amazon_mean_amazon,tmax_fev_he_2070_85_extract_amazon_sd_amazon,
tmin_fev_present_extract_amazon_mean_amazon,tmin_fev_present_extract_amazon_sd_amazon,tmin_fev_he_
2050_85_extract_amazon_mean_amazon,tmin_fev_he_2050_85_extract_amazon_sd_amazon,
tmin_fev_he_2070_85_extract_amazon_mean_amazon,tmin_fev_he_2070_85_extract_amazon_sd_amazon,
prec_fev_present_extract_amazon_mean_amazon,prec_fev_present_extract_amazon_sd_amazon,prec_fev_he_2
050_85_extract_amazon_mean_amazon,prec_fev_he_2050_85_extract_amazon_sd_amazon,
prec_fev_he_2070_85_extract_amazon_mean_amazon,prec_fev_he_2070_85_extract_amazon_sd_amazon,
tmax_fev_he_2050_45_extract_amazon_mean_amazon,tmax_fev_he_2050_45_extract_amazon_sd_amazon,

```

```
tmax_fev_he_2070_45_extract_amazon_mean_amazon,tmax_fev_he_2070_45_extract_amazon_sd_amazon,
tmin_fev_present_extract_amazon_mean_amazon,tmin_fev_present_extract_amazon_sd_amazon,tmin_fev_he_
2050_45_extract_amazon_mean_amazon,tmin_fev_he_2050_45_extract_amazon_sd_amazon,
tmin_fev_he_2070_45_extract_amazon_mean_amazon,tmin_fev_he_2070_45_extract_amazon_sd_amazon,
prec_fev_present_extract_amazon_mean_amazon,prec_fev_present_extract_amazon_sd_amazon,prec_fev_he_2
050_45_extract_amazon_mean_amazon,prec_fev_he_2050_45_extract_amazon_sd_amazon,
prec_fev_he_2070_45_extract_amazon_mean_amazon,prec_fev_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_fev, file="extractions_amazon_tmax_fev.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#mar
```

```
tmax_mar_present_extract_amazon_mean_amazon<-extract(tmax_mar_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mar_present_extract_amazon_sd_amazon<-extract(tmax_mar_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_mar_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_mar_he_2050_85,amazon[1],
fun=mean, na.rm=TRUE)
tmax_mar_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_mar_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_mar_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_mar_he_2070_85,amazon[1],
fun=mean, na.rm=TRUE)
tmax_mar_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_mar_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_mar_present_extract_amazon_mean_amazon<-extract(tmin_mar_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mar_present_extract_amazon_sd_amazon<-extract(tmin_mar_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_mar_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_mar_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_mar_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_mar_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_mar_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_mar_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_mar_present_extract_amazon_mean_amazon<-extract(prec_mar_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_mar_present_extract_amazon_sd_amazon<-extract(prec_mar_present,amazon[1], fun=sd, na.rm=TRUE)
prec_mar_he_2050_85_extract_amazon_mean_amazon<-extract(prec_mar_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2050_85_extract_amazon_sd_amazon<-extract(prec_mar_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_mar_he_2070_85_extract_amazon_mean_amazon<-extract(prec_mar_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2070_85_extract_amazon_sd_amazon<-extract(prec_mar_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#mar
```

```
tmax_mar_present_extract_amazon_mean_amazon<-extract(tmax_mar_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mar_present_extract_amazon_sd_amazon<-extract(tmax_mar_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_mar_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_mar_he_2050_45,amazon[1],
fun=mean, na.rm=TRUE)
```

```

tmax_mar_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_mar_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_mar_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_mar_he_2070_45,amazon[1],
fun=mean, na.rm=TRUE)
tmax_mar_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_mar_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_mar_present_extract_amazon_mean_amazon<-extract(tmin_mar_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mar_present_extract_amazon_sd_amazon<-extract(tmin_mar_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_mar_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_mar_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_mar_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_mar_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_mar_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_mar_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_mar_present_extract_amazon_mean_amazon<-extract(prec_mar_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_mar_present_extract_amazon_sd_amazon<-extract(prec_mar_present,amazon[1], fun=sd, na.rm=TRUE)
prec_mar_he_2050_45_extract_amazon_mean_amazon<-extract(prec_mar_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2050_45_extract_amazon_sd_amazon<-extract(prec_mar_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_mar_he_2070_45_extract_amazon_mean_amazon<-extract(prec_mar_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2070_45_extract_amazon_sd_amazon<-extract(prec_mar_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

extractions_amazon_tmax_mar<-
data.frame(tmax_mar_present_extract_amazon_mean_amazon,tmax_mar_present_extract_amazon_sd_amazon,t
max_mar_he_2050_85_extract_amazon_mean_amazon,tmax_mar_he_2050_85_extract_amazon_sd_amazon,tm
ax_mar_he_2070_85_extract_amazon_mean_amazon,tmax_mar_he_2070_85_extract_amazon_sd_amazon,
tmin_mar_present_extract_amazon_mean_amazon,tmin_mar_present_extract_amazon_sd_amazon,tmin_mar_he
_2050_85_extract_amazon_mean_amazon,tmin_mar_he_2050_85_extract_amazon_sd_amazon,
tmin_mar_he_2070_85_extract_amazon_mean_amazon,tmin_mar_he_2070_85_extract_amazon_sd_amazon,
prec_mar_present_extract_amazon_mean_amazon,prec_mar_present_extract_amazon_sd_amazon,prec_mar_he
_2050_85_extract_amazon_mean_amazon,prec_mar_he_2050_85_extract_amazon_sd_amazon,
prec_mar_he_2070_85_extract_amazon_mean_amazon,prec_mar_he_2070_85_extract_amazon_sd_amazon,
tmax_mar_he_2050_45_extract_amazon_mean_amazon,tmax_mar_he_2050_45_extract_amazon_sd_amazon,
tmax_mar_he_2070_45_extract_amazon_mean_amazon,tmax_mar_he_2070_45_extract_amazon_sd_amazon,
tmin_mar_present_extract_amazon_mean_amazon,tmin_mar_present_extract_amazon_sd_amazon,tmin_mar_he
_2050_45_extract_amazon_mean_amazon,tmin_mar_he_2050_45_extract_amazon_sd_amazon,
tmin_mar_he_2070_45_extract_amazon_mean_amazon,tmin_mar_he_2070_45_extract_amazon_sd_amazon,
prec_mar_present_extract_amazon_mean_amazon,prec_mar_present_extract_amazon_sd_amazon,prec_mar_he
_2050_45_extract_amazon_mean_amazon,prec_mar_he_2050_45_extract_amazon_sd_amazon,
prec_mar_he_2070_45_extract_amazon_mean_amazon,prec_mar_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_mar, file="extractions_amazon_tmax_mar.txt", append=FALSE,
quote=TRUE, sep=";")

```

```
#abr
```

```

tmax_abr_present_extract_amazon_mean_amazon<-extract(tmax_abr_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_abr_present_extract_amazon_sd_amazon<-extract(tmax_abr_present,amazon[1], fun=sd, na.rm=TRUE)

```



```
tmax_abr_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_abr_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_abr_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_abr_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_abr_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_abr_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_abr_present_extract_amazon_mean_amazon<-extract(tmin_abr_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_abr_present_extract_amazon_sd_amazon<-extract(tmin_abr_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_abr_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_abr_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_abr_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_abr_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_abr_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_abr_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_abr_present_extract_amazon_mean_amazon<-extract(prec_abr_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_abr_present_extract_amazon_sd_amazon<-extract(prec_abr_present,amazon[1], fun=sd, na.rm=TRUE)
prec_abr_he_2050_85_extract_amazon_mean_amazon<-extract(prec_abr_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2050_85_extract_amazon_sd_amazon<-extract(prec_abr_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_abr_he_2070_85_extract_amazon_mean_amazon<-extract(prec_abr_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2070_85_extract_amazon_sd_amazon<-extract(prec_abr_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#abr
```

```
tmax_abr_present_extract_amazon_mean_amazon<-extract(tmax_abr_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_abr_present_extract_amazon_sd_amazon<-extract(tmax_abr_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_abr_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_abr_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_abr_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_abr_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_abr_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_abr_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_abr_present_extract_amazon_mean_amazon<-extract(tmin_abr_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_abr_present_extract_amazon_sd_amazon<-extract(tmin_abr_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_abr_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_abr_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_abr_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_abr_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_abr_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_abr_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
```

```

prec_abr_present_extract_amazon_mean_amazon<-extract(prec_abr_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_abr_present_extract_amazon_sd_amazon<-extract(prec_abr_present,amazon[1], fun=sd, na.rm=TRUE)
prec_abr_he_2050_45_extract_amazon_mean_amazon<-extract(prec_abr_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2050_45_extract_amazon_sd_amazon<-extract(prec_abr_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_abr_he_2070_45_extract_amazon_mean_amazon<-extract(prec_abr_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2070_45_extract_amazon_sd_amazon<-extract(prec_abr_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_abr<-
data.frame(tmax_abr_present_extract_amazon_mean_amazon,tmax_abr_present_extract_amazon_sd_amazon,t
max_abr_he_2050_85_extract_amazon_mean_amazon,tmax_abr_he_2050_85_extract_amazon_sd_amazon,tma
x_abr_he_2070_85_extract_amazon_mean_amazon,tmax_abr_he_2070_85_extract_amazon_sd_amazon,
tmin_abr_present_extract_amazon_mean_amazon,tmin_abr_present_extract_amazon_sd_amazon,tmin_abr_he_
2050_85_extract_amazon_mean_amazon,tmin_abr_he_2050_85_extract_amazon_sd_amazon,
tmin_abr_he_2070_85_extract_amazon_mean_amazon,tmin_abr_he_2070_85_extract_amazon_sd_amazon,
prec_abr_present_extract_amazon_mean_amazon,prec_abr_present_extract_amazon_sd_amazon,prec_abr_he_2
050_85_extract_amazon_mean_amazon,prec_abr_he_2050_85_extract_amazon_sd_amazon,
prec_abr_he_2070_85_extract_amazon_mean_amazon,prec_abr_he_2070_85_extract_amazon_sd_amazon,
tmax_abr_he_2050_45_extract_amazon_mean_amazon,tmax_abr_he_2050_45_extract_amazon_sd_amazon,
tmax_abr_he_2070_45_extract_amazon_mean_amazon,tmax_abr_he_2070_45_extract_amazon_sd_amazon,
tmin_abr_present_extract_amazon_mean_amazon,tmin_abr_present_extract_amazon_sd_amazon,tmin_abr_he_
2050_45_extract_amazon_mean_amazon,tmin_abr_he_2050_45_extract_amazon_sd_amazon,
tmin_abr_he_2070_45_extract_amazon_mean_amazon,tmin_abr_he_2070_45_extract_amazon_sd_amazon,
prec_abr_present_extract_amazon_mean_amazon,prec_abr_present_extract_amazon_sd_amazon,prec_abr_he_2
050_45_extract_amazon_mean_amazon,prec_abr_he_2050_45_extract_amazon_sd_amazon,
prec_abr_he_2070_45_extract_amazon_mean_amazon,prec_abr_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_abr, file="extractions_amazon_tmax_abr.txt", append=FALSE,
quote=TRUE, sep=";")

#mai

tmax_mai_present_extract_amazon_mean_amazon<-extract(tmax_mai_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mai_present_extract_amazon_sd_amazon<-extract(tmax_mai_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_mai_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_mai_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_mai_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_mai_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_mai_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_mai_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

tmin_mai_present_extract_amazon_mean_amazon<-extract(tmin_mai_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mai_present_extract_amazon_sd_amazon<-extract(tmin_mai_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_mai_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_mai_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_mai_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_mai_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_mai_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_mai_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_mai_present_extract_amazon_mean_amazon<-extract(prec_mai_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_mai_present_extract_amazon_sd_amazon<-extract(prec_mai_present,amazon[1], fun=sd, na.rm=TRUE)
prec_mai_he_2050_85_extract_amazon_mean_amazon<-extract(prec_mai_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2050_85_extract_amazon_sd_amazon<-extract(prec_mai_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_mai_he_2070_85_extract_amazon_mean_amazon<-extract(prec_mai_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2070_85_extract_amazon_sd_amazon<-extract(prec_mai_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#mai

tmax_mai_present_extract_amazon_mean_amazon<-extract(tmax_mai_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mai_present_extract_amazon_sd_amazon<-extract(tmax_mai_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_mai_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_mai_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_mai_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_mai_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_mai_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_mai_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_mai_present_extract_amazon_mean_amazon<-extract(tmin_mai_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mai_present_extract_amazon_sd_amazon<-extract(tmin_mai_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_mai_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_mai_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_mai_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_mai_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_mai_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_mai_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

prec_mai_present_extract_amazon_mean_amazon<-extract(prec_mai_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_mai_present_extract_amazon_sd_amazon<-extract(prec_mai_present,amazon[1], fun=sd, na.rm=TRUE)
prec_mai_he_2050_45_extract_amazon_mean_amazon<-extract(prec_mai_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2050_45_extract_amazon_sd_amazon<-extract(prec_mai_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_mai_he_2070_45_extract_amazon_mean_amazon<-extract(prec_mai_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2070_45_extract_amazon_sd_amazon<-extract(prec_mai_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_mai<-
data.frame(tmax_mai_present_extract_amazon_mean_amazon,tmax_mai_present_extract_amazon_sd_amazon,t
max_mai_he_2050_85_extract_amazon_mean_amazon,tmax_mai_he_2050_85_extract_amazon_sd_amazon,tm
ax_mai_he_2070_85_extract_amazon_mean_amazon,tmax_mai_he_2070_85_extract_amazon_sd_amazon,
tmin_mai_present_extract_amazon_mean_amazon,tmin_mai_present_extract_amazon_sd_amazon,tmin_mai_he
_2050_85_extract_amazon_mean_amazon,tmin_mai_he_2050_85_extract_amazon_sd_amazon,
tmin_mai_he_2070_85_extract_amazon_mean_amazon,tmin_mai_he_2070_85_extract_amazon_sd_amazon,
prec_mai_present_extract_amazon_mean_amazon,prec_mai_present_extract_amazon_sd_amazon,prec_mai_he
_2050_85_extract_amazon_mean_amazon,prec_mai_he_2050_85_extract_amazon_sd_amazon,
prec_mai_he_2070_85_extract_amazon_mean_amazon,prec_mai_he_2070_85_extract_amazon_sd_amazon,

```

```
tmax_mai_he_2050_45_extract_amazon_mean_amazon,tmax_mai_he_2050_45_extract_amazon_sd_amazon,
tmax_mai_he_2070_45_extract_amazon_mean_amazon,tmax_mai_he_2070_45_extract_amazon_sd_amazon,
tmin_mai_present_extract_amazon_mean_amazon,tmin_mai_present_extract_amazon_sd_amazon,tmin_mai_he_
_2050_45_extract_amazon_mean_amazon,tmin_mai_he_2050_45_extract_amazon_sd_amazon,
tmin_mai_he_2070_45_extract_amazon_mean_amazon,tmin_mai_he_2070_45_extract_amazon_sd_amazon,
prec_mai_present_extract_amazon_mean_amazon,prec_mai_present_extract_amazon_sd_amazon,prec_mai_he_
2050_45_extract_amazon_mean_amazon,prec_mai_he_2050_45_extract_amazon_sd_amazon,
prec_mai_he_2070_45_extract_amazon_mean_amazon,prec_mai_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_mai, file="extractions_amazon_tmax_mai.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#jun
```

```
tmax_jun_present_extract_amazon_mean_amazon<-extract(tmax_jun_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jun_present_extract_amazon_sd_amazon<-extract(tmax_jun_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_jun_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_jun_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jun_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_jun_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_jun_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_jun_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jun_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_jun_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_jun_present_extract_amazon_mean_amazon<-extract(tmin_jun_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jun_present_extract_amazon_sd_amazon<-extract(tmin_jun_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_jun_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_jun_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_jun_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jun_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_jun_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_jun_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_jun_present_extract_amazon_mean_amazon<-extract(prec_jun_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_jun_present_extract_amazon_sd_amazon<-extract(prec_jun_present,amazon[1], fun=sd, na.rm=TRUE)
prec_jun_he_2050_85_extract_amazon_mean_amazon<-extract(prec_jun_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2050_85_extract_amazon_sd_amazon<-extract(prec_jun_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_jun_he_2070_85_extract_amazon_mean_amazon<-extract(prec_jun_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2070_85_extract_amazon_sd_amazon<-extract(prec_jun_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#jun
```

```
tmax_jun_present_extract_amazon_mean_amazon<-extract(tmax_jun_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jun_present_extract_amazon_sd_amazon<-extract(tmax_jun_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_jun_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_jun_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
```

```

tmax_jun_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_jun_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_jun_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_jun_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jun_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_jun_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jun_present_extract_amazon_mean_amazon<-extract(tmin_jun_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jun_present_extract_amazon_sd_amazon<-extract(tmin_jun_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_jun_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_jun_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_jun_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jun_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_jun_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_jun_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_jun_present_extract_amazon_mean_amazon<-extract(prec_jun_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_jun_present_extract_amazon_sd_amazon<-extract(prec_jun_present,amazon[1], fun=sd, na.rm=TRUE)
prec_jun_he_2050_45_extract_amazon_mean_amazon<-extract(prec_jun_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2050_45_extract_amazon_sd_amazon<-extract(prec_jun_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_jun_he_2070_45_extract_amazon_mean_amazon<-extract(prec_jun_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2070_45_extract_amazon_sd_amazon<-extract(prec_jun_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

extractions_amazon_tmax_jun<-
data.frame(tmax_jun_present_extract_amazon_mean_amazon,tmax_jun_present_extract_amazon_sd_amazon,t
max_jun_he_2050_85_extract_amazon_mean_amazon,tmax_jun_he_2050_85_extract_amazon_sd_amazon,tma
x_jun_he_2070_85_extract_amazon_mean_amazon,tmax_jun_he_2070_85_extract_amazon_sd_amazon,
tmin_jun_present_extract_amazon_mean_amazon,tmin_jun_present_extract_amazon_sd_amazon,tmin_jun_he_
2050_85_extract_amazon_mean_amazon,tmin_jun_he_2050_85_extract_amazon_sd_amazon,
tmin_jun_he_2070_85_extract_amazon_mean_amazon,tmin_jun_he_2070_85_extract_amazon_sd_amazon,
prec_jun_present_extract_amazon_mean_amazon,prec_jun_present_extract_amazon_sd_amazon,prec_jun_he_2
050_85_extract_amazon_mean_amazon,prec_jun_he_2050_85_extract_amazon_sd_amazon,
prec_jun_he_2070_85_extract_amazon_mean_amazon,prec_jun_he_2070_85_extract_amazon_sd_amazon,
tmax_jun_he_2050_45_extract_amazon_mean_amazon,tmax_jun_he_2050_45_extract_amazon_sd_amazon,
tmax_jun_he_2070_45_extract_amazon_mean_amazon,tmax_jun_he_2070_45_extract_amazon_sd_amazon,
tmin_jun_present_extract_amazon_mean_amazon,tmin_jun_present_extract_amazon_sd_amazon,tmin_jun_he_
2050_45_extract_amazon_mean_amazon,tmin_jun_he_2050_45_extract_amazon_sd_amazon,
tmin_jun_he_2070_45_extract_amazon_mean_amazon,tmin_jun_he_2070_45_extract_amazon_sd_amazon,
prec_jun_present_extract_amazon_mean_amazon,prec_jun_present_extract_amazon_sd_amazon,prec_jun_he_2
050_45_extract_amazon_mean_amazon,prec_jun_he_2050_45_extract_amazon_sd_amazon,
prec_jun_he_2070_45_extract_amazon_mean_amazon,prec_jun_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_jun, file="extractions_amazon_tmax_jun.txt", append=FALSE,
quote=TRUE, sep=";")

```

```
#jul
```

```

tmax_jul_present_extract_amazon_mean_amazon<-extract(tmax_jul_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jul_present_extract_amazon_sd_amazon<-extract(tmax_jul_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_jul_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_jul_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)

```

```
tmax_jul_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_jul_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_jul_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_jul_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_jul_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_jul_present_extract_amazon_mean_amazon<-extract(tmin_jul_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jul_present_extract_amazon_sd_amazon<-extract(tmin_jul_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_jul_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_jul_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_jul_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jul_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_jul_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_jul_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_jul_present_extract_amazon_mean_amazon<-extract(prec_jul_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_jul_present_extract_amazon_sd_amazon<-extract(prec_jul_present,amazon[1], fun=sd, na.rm=TRUE)
prec_jul_he_2050_85_extract_amazon_mean_amazon<-extract(prec_jul_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2050_85_extract_amazon_sd_amazon<-extract(prec_jul_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_jul_he_2070_85_extract_amazon_mean_amazon<-extract(prec_jul_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2070_85_extract_amazon_sd_amazon<-extract(prec_jul_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#jul
```

```
tmax_jul_present_extract_amazon_mean_amazon<-extract(tmax_jul_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jul_present_extract_amazon_sd_amazon<-extract(tmax_jul_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_jul_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_jul_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_jul_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_jul_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_jul_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_jul_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jul_present_extract_amazon_mean_amazon<-extract(tmin_jul_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jul_present_extract_amazon_sd_amazon<-extract(tmin_jul_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_jul_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_jul_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_jul_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_jul_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_jul_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_jul_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_jul_present_extract_amazon_mean_amazon<-extract(prec_jul_present,amazon[1], fun=mean,
na.rm=TRUE)
```

```

prec_jul_present_extract_amazon_sd_amazon<-extract(prec_jul_present,amazon[1], fun=sd, na.rm=TRUE)
prec_jul_he_2050_45_extract_amazon_mean_amazon<-extract(prec_jul_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2050_45_extract_amazon_sd_amazon<-extract(prec_jul_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_jul_he_2070_45_extract_amazon_mean_amazon<-extract(prec_jul_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2070_45_extract_amazon_sd_amazon<-extract(prec_jul_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

extractions_amazon_tmax_jul<-
data.frame(tmax_jul_present_extract_amazon_mean_amazon,tmax_jul_present_extract_amazon_sd_amazon,tm
ax_jul_he_2050_85_extract_amazon_mean_amazon,tmax_jul_he_2050_85_extract_amazon_sd_amazon,tmax_j
ul_he_2070_85_extract_amazon_mean_amazon,tmax_jul_he_2070_85_extract_amazon_sd_amazon,
tmin_jul_present_extract_amazon_mean_amazon,tmin_jul_present_extract_amazon_sd_amazon,tmin_jul_he_20
50_85_extract_amazon_mean_amazon,tmin_jul_he_2050_85_extract_amazon_sd_amazon,
tmin_jul_he_2070_85_extract_amazon_mean_amazon,tmin_jul_he_2070_85_extract_amazon_sd_amazon,
prec_jul_present_extract_amazon_mean_amazon,prec_jul_present_extract_amazon_sd_amazon,prec_jul_he_20
50_85_extract_amazon_mean_amazon,prec_jul_he_2050_85_extract_amazon_sd_amazon,
prec_jul_he_2070_85_extract_amazon_mean_amazon,prec_jul_he_2070_85_extract_amazon_sd_amazon,
tmax_jul_he_2050_45_extract_amazon_mean_amazon,tmax_jul_he_2050_45_extract_amazon_sd_amazon,
tmax_jul_he_2070_45_extract_amazon_mean_amazon,tmax_jul_he_2070_45_extract_amazon_sd_amazon,
tmin_jul_present_extract_amazon_mean_amazon,tmin_jul_present_extract_amazon_sd_amazon,tmin_jul_he_20
50_45_extract_amazon_mean_amazon,tmin_jul_he_2050_45_extract_amazon_sd_amazon,
tmin_jul_he_2070_45_extract_amazon_mean_amazon,tmin_jul_he_2070_45_extract_amazon_sd_amazon,
prec_jul_present_extract_amazon_mean_amazon,prec_jul_present_extract_amazon_sd_amazon,prec_jul_he_20
50_45_extract_amazon_mean_amazon,prec_jul_he_2050_45_extract_amazon_sd_amazon,
prec_jul_he_2070_45_extract_amazon_mean_amazon,prec_jul_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_jul, file="extractions_amazon_tmax_jul.txt", append=FALSE,
quote=TRUE, sep=";")

```

```
#ago
```

```

tmax_ago_present_extract_amazon_mean_amazon<-extract(tmax_ago_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_ago_present_extract_amazon_sd_amazon<-extract(tmax_ago_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_ago_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_ago_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_ago_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_ago_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_ago_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_ago_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

tmin_ago_present_extract_amazon_mean_amazon<-extract(tmin_ago_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_ago_present_extract_amazon_sd_amazon<-extract(tmin_ago_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_ago_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_ago_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_ago_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_ago_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_ago_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_ago_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_ago_present_extract_amazon_mean_amazon<-extract(prec_ago_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_ago_present_extract_amazon_sd_amazon<-extract(prec_ago_present,amazon[1], fun=sd, na.rm=TRUE)
prec_ago_he_2050_85_extract_amazon_mean_amazon<-extract(prec_ago_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2050_85_extract_amazon_sd_amazon<-extract(prec_ago_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_ago_he_2070_85_extract_amazon_mean_amazon<-extract(prec_ago_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2070_85_extract_amazon_sd_amazon<-extract(prec_ago_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#ago

tmax_ago_present_extract_amazon_mean_amazon<-extract(tmax_ago_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_ago_present_extract_amazon_sd_amazon<-extract(tmax_ago_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_ago_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_ago_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_ago_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_ago_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_ago_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_ago_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_ago_present_extract_amazon_mean_amazon<-extract(tmin_ago_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_ago_present_extract_amazon_sd_amazon<-extract(tmin_ago_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_ago_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_ago_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_ago_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_ago_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_ago_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_ago_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

prec_ago_present_extract_amazon_mean_amazon<-extract(prec_ago_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_ago_present_extract_amazon_sd_amazon<-extract(prec_ago_present,amazon[1], fun=sd, na.rm=TRUE)
prec_ago_he_2050_45_extract_amazon_mean_amazon<-extract(prec_ago_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2050_45_extract_amazon_sd_amazon<-extract(prec_ago_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_ago_he_2070_45_extract_amazon_mean_amazon<-extract(prec_ago_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2070_45_extract_amazon_sd_amazon<-extract(prec_ago_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_ago<-
data.frame(tmax_ago_present_extract_amazon_mean_amazon,tmax_ago_present_extract_amazon_sd_amazon,t
max_ago_he_2050_85_extract_amazon_mean_amazon,tmax_ago_he_2050_85_extract_amazon_sd_amazon,tm
ax_ago_he_2070_85_extract_amazon_mean_amazon,tmax_ago_he_2070_85_extract_amazon_sd_amazon,
tmin_ago_present_extract_amazon_mean_amazon,tmin_ago_present_extract_amazon_sd_amazon,tmin_ago_he
_2050_85_extract_amazon_mean_amazon,tmin_ago_he_2050_85_extract_amazon_sd_amazon,
tmin_ago_he_2070_85_extract_amazon_mean_amazon,tmin_ago_he_2070_85_extract_amazon_sd_amazon,
prec_ago_present_extract_amazon_mean_amazon,prec_ago_present_extract_amazon_sd_amazon,prec_ago_he_
2050_85_extract_amazon_mean_amazon,prec_ago_he_2050_85_extract_amazon_sd_amazon,
prec_ago_he_2070_85_extract_amazon_mean_amazon,prec_ago_he_2070_85_extract_amazon_sd_amazon,
tmax_ago_he_2050_45_extract_amazon_mean_amazon,tmax_ago_he_2050_45_extract_amazon_sd_amazon,

```



```
tmax_ago_he_2070_45_extract_amazon_mean_amazon,tmax_ago_he_2070_45_extract_amazon_sd_amazon,
tmin_ago_present_extract_amazon_mean_amazon,tmin_ago_present_extract_amazon_sd_amazon,tmin_ago_he_
_2050_45_extract_amazon_mean_amazon,tmin_ago_he_2050_45_extract_amazon_sd_amazon,
tmin_ago_he_2070_45_extract_amazon_mean_amazon,tmin_ago_he_2070_45_extract_amazon_sd_amazon,
prec_ago_present_extract_amazon_mean_amazon,prec_ago_present_extract_amazon_sd_amazon,prec_ago_he_
_2050_45_extract_amazon_mean_amazon,prec_ago_he_2050_45_extract_amazon_sd_amazon,
prec_ago_he_2070_45_extract_amazon_mean_amazon,prec_ago_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_ago, file="extractions_amazon_tmax_ago.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#sep
```

```
tmax_sep_present_extract_amazon_mean_amazon<-extract(tmax_sep_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_sep_present_extract_amazon_sd_amazon<-extract(tmax_sep_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_sep_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_sep_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_sep_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_sep_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_sep_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_sep_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_sep_present_extract_amazon_mean_amazon<-extract(tmin_sep_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_sep_present_extract_amazon_sd_amazon<-extract(tmin_sep_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_sep_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_sep_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_sep_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_sep_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_sep_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_sep_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_sep_present_extract_amazon_mean_amazon<-extract(prec_sep_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_sep_present_extract_amazon_sd_amazon<-extract(prec_sep_present,amazon[1], fun=sd, na.rm=TRUE)
prec_sep_he_2050_85_extract_amazon_mean_amazon<-extract(prec_sep_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_sep_he_2050_85_extract_amazon_sd_amazon<-extract(prec_sep_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_sep_he_2070_85_extract_amazon_mean_amazon<-extract(prec_sep_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_sep_he_2070_85_extract_amazon_sd_amazon<-extract(prec_sep_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
#sep
```

```
tmax_sep_present_extract_amazon_mean_amazon<-extract(tmax_sep_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_sep_present_extract_amazon_sd_amazon<-extract(tmax_sep_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_sep_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_sep_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_sep_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
```

```

tmax_sep_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_sep_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_sep_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_sep_present_extract_amazon_mean_amazon<-extract(tmin_sep_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_sep_present_extract_amazon_sd_amazon<-extract(tmin_sep_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_sep_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_sep_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_sep_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_sep_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_sep_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_sep_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

prec_sep_present_extract_amazon_mean_amazon<-extract(prec_sep_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_sep_present_extract_amazon_sd_amazon<-extract(prec_sep_present,amazon[1], fun=sd, na.rm=TRUE)
prec_sep_he_2050_45_extract_amazon_mean_amazon<-extract(prec_sep_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_sep_he_2050_45_extract_amazon_sd_amazon<-extract(prec_sep_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_sep_he_2070_45_extract_amazon_mean_amazon<-extract(prec_sep_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_sep_he_2070_45_extract_amazon_sd_amazon<-extract(prec_sep_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_sep<-
data.frame(tmax_sep_present_extract_amazon_mean_amazon,tmax_sep_present_extract_amazon_sd_amazon,t
max_sep_he_2050_85_extract_amazon_mean_amazon,tmax_sep_he_2050_85_extract_amazon_sd_amazon,tma
x_sep_he_2070_85_extract_amazon_mean_amazon,tmax_sep_he_2070_85_extract_amazon_sd_amazon,
tmin_sep_present_extract_amazon_mean_amazon,tmin_sep_present_extract_amazon_sd_amazon,tmin_sep_he_
2050_85_extract_amazon_mean_amazon,tmin_sep_he_2050_85_extract_amazon_sd_amazon,
tmin_sep_he_2070_85_extract_amazon_mean_amazon,tmin_sep_he_2070_85_extract_amazon_sd_amazon,
prec_sep_present_extract_amazon_mean_amazon,prec_sep_present_extract_amazon_sd_amazon,prec_sep_he_2
050_85_extract_amazon_mean_amazon,prec_sep_he_2050_85_extract_amazon_sd_amazon,
prec_sep_he_2070_85_extract_amazon_mean_amazon,prec_sep_he_2070_85_extract_amazon_sd_amazon,
tmax_sep_he_2050_45_extract_amazon_mean_amazon,tmax_sep_he_2050_45_extract_amazon_sd_amazon,
tmax_sep_he_2070_45_extract_amazon_mean_amazon,tmax_sep_he_2070_45_extract_amazon_sd_amazon,
tmin_sep_present_extract_amazon_mean_amazon,tmin_sep_present_extract_amazon_sd_amazon,tmin_sep_he_
2050_45_extract_amazon_mean_amazon,tmin_sep_he_2050_45_extract_amazon_sd_amazon,
tmin_sep_he_2070_45_extract_amazon_mean_amazon,tmin_sep_he_2070_45_extract_amazon_sd_amazon,
prec_sep_present_extract_amazon_mean_amazon,prec_sep_present_extract_amazon_sd_amazon,prec_sep_he_2
050_45_extract_amazon_mean_amazon,prec_sep_he_2050_45_extract_amazon_sd_amazon,
prec_sep_he_2070_45_extract_amazon_mean_amazon,prec_sep_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_sep, file="extractions_amazon_tmax_sep.txt", append=FALSE,
quote=TRUE, sep=";")

tmax_sep_present_extract_tis_mean_amazon<-extract(tmax_sep_present,tis[1], fun=mean, na.rm=TRUE)
tmax_sep_present_extract_tis_sd_amazon<-extract(tmax_sep_present,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_he_2050_45_extract_tis_mean_amazon<-extract(tmax_sep_he_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2050_45_extract_tis_sd_amazon<-extract(tmax_sep_he_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_he_2070_45_extract_tis_mean_amazon<-extract(tmax_sep_he_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2070_45_extract_tis_sd_amazon<-extract(tmax_sep_he_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mr_2050_45_extract_tis_mean_amazon<-extract(tmax_sep_mr_2050_45,tis[1], fun=mean,
na.rm=TRUE)

```

```

tmax_sep_mr_2050_45_extract_tis_sd_amazon<-extract(tmax_sep_mr_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mr_2070_45_extract_tis_mean_amazon<-extract(tmax_sep_mr_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mr_2070_45_extract_tis_sd_amazon<-extract(tmax_sep_mr_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mp_2050_45_extract_tis_mean_amazon<-extract(tmax_sep_mp_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mp_2050_45_extract_tis_sd_amazon<-extract(tmax_sep_mp_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mp_2070_45_extract_tis_mean_amazon<-extract(tmax_sep_mp_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mp_2070_45_extract_tis_sd_amazon<-extract(tmax_sep_mp_2070_45,tis[1], fun=sd, na.rm=TRUE)

```

```

tmin_sep_present_extract_tis_mean_amazon<-extract(tmin_sep_present,tis[1], fun=mean, na.rm=TRUE)
tmin_sep_present_extract_tis_sd_amazon<-extract(tmin_sep_present,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_he_2050_45_extract_tis_mean_amazon<-extract(tmin_sep_he_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2050_45_extract_tis_sd_amazon<-extract(tmin_sep_he_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_he_2070_45_extract_tis_mean_amazon<-extract(tmin_sep_he_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2070_45_extract_tis_sd_amazon<-extract(tmin_sep_he_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mr_2050_45_extract_tis_mean_amazon<-extract(tmin_sep_mr_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mr_2050_45_extract_tis_sd_amazon<-extract(tmin_sep_mr_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mr_2070_45_extract_tis_mean_amazon<-extract(tmin_sep_mr_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mr_2070_45_extract_tis_sd_amazon<-extract(tmin_sep_mr_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mp_2050_45_extract_tis_mean_amazon<-extract(tmin_sep_mp_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mp_2050_45_extract_tis_sd_amazon<-extract(tmin_sep_mp_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mp_2070_45_extract_tis_mean_amazon<-extract(tmin_sep_mp_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mp_2070_45_extract_tis_sd_amazon<-extract(tmin_sep_mp_2070_45,tis[1], fun=sd, na.rm=TRUE)

```

```
#out
```

```

tmax_out_present_extract_amazon_mean_amazon<-extract(tmax_out_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_out_present_extract_amazon_sd_amazon<-extract(tmax_out_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_out_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_out_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_out_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_out_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_out_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_out_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

tmin_out_present_extract_amazon_mean_amazon<-extract(tmin_out_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_out_present_extract_amazon_sd_amazon<-extract(tmin_out_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_out_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_out_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_out_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_out_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_out_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_out_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_out_present_extract_amazon_mean_amazon<-extract(prec_out_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_out_present_extract_amazon_sd_amazon<-extract(prec_out_present,amazon[1], fun=sd, na.rm=TRUE)
prec_out_he_2050_85_extract_amazon_mean_amazon<-extract(prec_out_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_out_he_2050_85_extract_amazon_sd_amazon<-extract(prec_out_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_out_he_2070_85_extract_amazon_mean_amazon<-extract(prec_out_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_out_he_2070_85_extract_amazon_sd_amazon<-extract(prec_out_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#out

tmax_out_present_extract_amazon_mean_amazon<-extract(tmax_out_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_out_present_extract_amazon_sd_amazon<-extract(tmax_out_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_out_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_out_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_out_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_out_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_out_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_out_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_out_present_extract_amazon_mean_amazon<-extract(tmin_out_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_out_present_extract_amazon_sd_amazon<-extract(tmin_out_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_out_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_out_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_out_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_out_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_out_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_out_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

prec_out_present_extract_amazon_mean_amazon<-extract(prec_out_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_out_present_extract_amazon_sd_amazon<-extract(prec_out_present,amazon[1], fun=sd, na.rm=TRUE)
prec_out_he_2050_45_extract_amazon_mean_amazon<-extract(prec_out_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_out_he_2050_45_extract_amazon_sd_amazon<-extract(prec_out_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_out_he_2070_45_extract_amazon_mean_amazon<-extract(prec_out_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_out_he_2070_45_extract_amazon_sd_amazon<-extract(prec_out_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_out<-
data.frame(tmax_out_present_extract_amazon_mean_amazon,tmax_out_present_extract_amazon_sd_amazon,t
max_out_he_2050_85_extract_amazon_mean_amazon,tmax_out_he_2050_85_extract_amazon_sd_amazon,tma
x_out_he_2070_85_extract_amazon_mean_amazon,tmax_out_he_2070_85_extract_amazon_sd_amazon,
tmin_out_present_extract_amazon_mean_amazon,tmin_out_present_extract_amazon_sd_amazon,tmin_out_he_
2050_85_extract_amazon_mean_amazon,tmin_out_he_2050_85_extract_amazon_sd_amazon,
tmin_out_he_2070_85_extract_amazon_mean_amazon,tmin_out_he_2070_85_extract_amazon_sd_amazon,
prec_out_present_extract_amazon_mean_amazon,prec_out_present_extract_amazon_sd_amazon,prec_out_he_2
050_85_extract_amazon_mean_amazon,prec_out_he_2050_85_extract_amazon_sd_amazon,

```

```

prec_out_he_2070_85_extract_amazon_mean_amazon,prec_out_he_2070_85_extract_amazon_sd_amazon,
tmax_out_he_2050_45_extract_amazon_mean_amazon,tmax_out_he_2050_45_extract_amazon_sd_amazon,
tmax_out_he_2070_45_extract_amazon_mean_amazon,tmax_out_he_2070_45_extract_amazon_sd_amazon,
tmin_out_present_extract_amazon_mean_amazon,tmin_out_present_extract_amazon_sd_amazon,tmin_out_he_
2050_45_extract_amazon_mean_amazon,tmin_out_he_2050_45_extract_amazon_sd_amazon,
tmin_out_he_2070_45_extract_amazon_mean_amazon,tmin_out_he_2070_45_extract_amazon_sd_amazon,
prec_out_present_extract_amazon_mean_amazon,prec_out_present_extract_amazon_sd_amazon,prec_out_he_2
050_45_extract_amazon_mean_amazon,prec_out_he_2050_45_extract_amazon_sd_amazon,
prec_out_he_2070_45_extract_amazon_mean_amazon,prec_out_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_out, file="extractions_amazon_tmax_out.txt", append=FALSE,
quote=TRUE, sep=";")

```

```
#nov
```

```

tmax_nov_present_extract_amazon_mean_amazon<-extract(tmax_nov_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_nov_present_extract_amazon_sd_amazon<-extract(tmax_nov_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_nov_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_nov_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_nov_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmax_nov_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_nov_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_nov_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

tmin_nov_present_extract_amazon_mean_amazon<-extract(tmin_nov_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_nov_present_extract_amazon_sd_amazon<-extract(tmin_nov_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_nov_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_nov_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_nov_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_nov_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_nov_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_nov_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_nov_present_extract_amazon_mean_amazon<-extract(prec_nov_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_nov_present_extract_amazon_sd_amazon<-extract(prec_nov_present,amazon[1], fun=sd, na.rm=TRUE)
prec_nov_he_2050_85_extract_amazon_mean_amazon<-extract(prec_nov_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2050_85_extract_amazon_sd_amazon<-extract(prec_nov_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_nov_he_2070_85_extract_amazon_mean_amazon<-extract(prec_nov_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2070_85_extract_amazon_sd_amazon<-extract(prec_nov_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```
#nov
```

```

tmax_nov_present_extract_amazon_mean_amazon<-extract(tmax_nov_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_nov_present_extract_amazon_sd_amazon<-extract(tmax_nov_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_nov_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_nov_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_nov_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

tmax_nov_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_nov_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_nov_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_nov_present_extract_amazon_mean_amazon<-extract(tmin_nov_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_nov_present_extract_amazon_sd_amazon<-extract(tmin_nov_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_nov_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_nov_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_nov_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_nov_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_nov_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_nov_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

prec_nov_present_extract_amazon_mean_amazon<-extract(prec_nov_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_nov_present_extract_amazon_sd_amazon<-extract(prec_nov_present,amazon[1], fun=sd, na.rm=TRUE)
prec_nov_he_2050_45_extract_amazon_mean_amazon<-extract(prec_nov_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2050_45_extract_amazon_sd_amazon<-extract(prec_nov_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_nov_he_2070_45_extract_amazon_mean_amazon<-extract(prec_nov_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2070_45_extract_amazon_sd_amazon<-extract(prec_nov_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

```

```

extractions_amazon_tmax_nov<-
data.frame(tmax_nov_present_extract_amazon_mean_amazon,tmax_nov_present_extract_amazon_sd_amazon,t
max_nov_he_2050_85_extract_amazon_mean_amazon,tmax_nov_he_2050_85_extract_amazon_sd_amazon,tm
ax_nov_he_2070_85_extract_amazon_mean_amazon,tmax_nov_he_2070_85_extract_amazon_sd_amazon,
tmin_nov_present_extract_amazon_mean_amazon,tmin_nov_present_extract_amazon_sd_amazon,tmin_nov_he
_2050_85_extract_amazon_mean_amazon,tmin_nov_he_2050_85_extract_amazon_sd_amazon,
tmin_nov_he_2070_85_extract_amazon_mean_amazon,tmin_nov_he_2070_85_extract_amazon_sd_amazon,
prec_nov_present_extract_amazon_mean_amazon,prec_nov_present_extract_amazon_sd_amazon,prec_nov_he
_2050_85_extract_amazon_mean_amazon,prec_nov_he_2050_85_extract_amazon_sd_amazon,
prec_nov_he_2070_85_extract_amazon_mean_amazon,prec_nov_he_2070_85_extract_amazon_sd_amazon,
tmax_nov_he_2050_45_extract_amazon_mean_amazon,tmax_nov_he_2050_45_extract_amazon_sd_amazon,
tmax_nov_he_2070_45_extract_amazon_mean_amazon,tmax_nov_he_2070_45_extract_amazon_sd_amazon,
tmin_nov_present_extract_amazon_mean_amazon,tmin_nov_present_extract_amazon_sd_amazon,tmin_nov_he
_2050_45_extract_amazon_mean_amazon,tmin_nov_he_2050_45_extract_amazon_sd_amazon,
tmin_nov_he_2070_45_extract_amazon_mean_amazon,tmin_nov_he_2070_45_extract_amazon_sd_amazon,
prec_nov_present_extract_amazon_mean_amazon,prec_nov_present_extract_amazon_sd_amazon,prec_nov_he
_2050_45_extract_amazon_mean_amazon,prec_nov_he_2050_45_extract_amazon_sd_amazon,
prec_nov_he_2070_45_extract_amazon_mean_amazon,prec_nov_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_nov, file="extractions_amazon_tmax_nov.txt", append=FALSE,
quote=TRUE, sep=";")

```

```
#dez
```

```

tmax_dez_present_extract_amazon_mean_amazon<-extract(tmax_dez_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_dez_present_extract_amazon_sd_amazon<-extract(tmax_dez_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_dez_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_dez_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_dez_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)

```

```
tmax_dez_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_dez_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_dez_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
tmin_dez_present_extract_amazon_mean_amazon<-extract(tmin_dez_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_dez_present_extract_amazon_sd_amazon<-extract(tmin_dez_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_dez_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_dez_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_dez_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
tmin_dez_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_dez_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_dez_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_dez_present_extract_amazon_mean_amazon<-extract(prec_dez_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_dez_present_extract_amazon_sd_amazon<-extract(prec_dez_present,amazon[1], fun=sd, na.rm=TRUE)
prec_dez_he_2050_85_extract_amazon_mean_amazon<-extract(prec_dez_he_2050_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2050_85_extract_amazon_sd_amazon<-extract(prec_dez_he_2050_85,amazon[1], fun=sd,
na.rm=TRUE)
prec_dez_he_2070_85_extract_amazon_mean_amazon<-extract(prec_dez_he_2070_85,amazon[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2070_85_extract_amazon_sd_amazon<-extract(prec_dez_he_2070_85,amazon[1], fun=sd,
na.rm=TRUE)
#dez
```

```
tmax_dez_present_extract_amazon_mean_amazon<-extract(tmax_dez_present,amazon[1], fun=mean,
na.rm=TRUE)
tmax_dez_present_extract_amazon_sd_amazon<-extract(tmax_dez_present,amazon[1], fun=sd, na.rm=TRUE)
tmax_dez_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_dez_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_dez_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmax_dez_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_dez_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_dez_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_dez_present_extract_amazon_mean_amazon<-extract(tmin_dez_present,amazon[1], fun=mean,
na.rm=TRUE)
tmin_dez_present_extract_amazon_sd_amazon<-extract(tmin_dez_present,amazon[1], fun=sd, na.rm=TRUE)
tmin_dez_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_dez_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_dez_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
tmin_dez_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_dez_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_dez_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)
```

```
prec_dez_present_extract_amazon_mean_amazon<-extract(prec_dez_present,amazon[1], fun=mean,
na.rm=TRUE)
prec_dez_present_extract_amazon_sd_amazon<-extract(prec_dez_present,amazon[1], fun=sd, na.rm=TRUE)
```

```

prec_dez_he_2050_45_extract_amazon_mean_amazon<-extract(prec_dez_he_2050_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2050_45_extract_amazon_sd_amazon<-extract(prec_dez_he_2050_45,amazon[1], fun=sd,
na.rm=TRUE)
prec_dez_he_2070_45_extract_amazon_mean_amazon<-extract(prec_dez_he_2070_45,amazon[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2070_45_extract_amazon_sd_amazon<-extract(prec_dez_he_2070_45,amazon[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_dez<-
data.frame(tmax_dez_present_extract_amazon_mean_amazon,tmax_dez_present_extract_amazon_sd_amazon,t
max_dez_he_2050_85_extract_amazon_mean_amazon,tmax_dez_he_2050_85_extract_amazon_sd_amazon,tma
x_dez_he_2070_85_extract_amazon_mean_amazon,tmax_dez_he_2070_85_extract_amazon_sd_amazon,
tmin_dez_present_extract_amazon_mean_amazon,tmin_dez_present_extract_amazon_sd_amazon,tmin_dez_he
2050_85_extract_amazon_mean_amazon,tmin_dez_he_2050_85_extract_amazon_sd_amazon,
tmin_dez_he_2070_85_extract_amazon_mean_amazon,tmin_dez_he_2070_85_extract_amazon_sd_amazon,
prec_dez_present_extract_amazon_mean_amazon,prec_dez_present_extract_amazon_sd_amazon,prec_dez_he
2050_85_extract_amazon_mean_amazon,prec_dez_he_2050_85_extract_amazon_sd_amazon,
prec_dez_he_2070_85_extract_amazon_mean_amazon,prec_dez_he_2070_85_extract_amazon_sd_amazon,
tmax_dez_he_2050_45_extract_amazon_mean_amazon,tmax_dez_he_2050_45_extract_amazon_sd_amazon,
tmax_dez_he_2070_45_extract_amazon_mean_amazon,tmax_dez_he_2070_45_extract_amazon_sd_amazon,
tmin_dez_present_extract_amazon_mean_amazon,tmin_dez_present_extract_amazon_sd_amazon,tmin_dez_he
2050_45_extract_amazon_mean_amazon,tmin_dez_he_2050_45_extract_amazon_sd_amazon,
tmin_dez_he_2070_45_extract_amazon_mean_amazon,tmin_dez_he_2070_45_extract_amazon_sd_amazon,
prec_dez_present_extract_amazon_mean_amazon,prec_dez_present_extract_amazon_sd_amazon,prec_dez_he
2050_45_extract_amazon_mean_amazon,prec_dez_he_2050_45_extract_amazon_sd_amazon,
prec_dez_he_2070_45_extract_amazon_mean_amazon,prec_dez_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_dez, file="extractions_amazon_tmax_dez.txt", append=FALSE,
quote=TRUE, sep=";")

#extraction UCs
#jan

tmax_jan_present_extract_amazon_mean_amazon<-extract(tmax_jan_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_jan_present_extract_amazon_sd_amazon<-extract(tmax_jan_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_jan_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_jan_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_jan_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_jan_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_jan_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_jan_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

tmin_jan_present_extract_amazon_mean_amazon<-extract(tmin_jan_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_jan_present_extract_amazon_sd_amazon<-extract(tmin_jan_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_jan_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_jan_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_jan_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jan_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_jan_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_jan_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

prec_jan_present_extract_amazon_mean_amazon<-extract(prec_jan_present,ucs[1], fun=mean, na.rm=TRUE)
prec_jan_present_extract_amazon_sd_amazon<-extract(prec_jan_present,ucs[1], fun=sd, na.rm=TRUE)
prec_jan_he_2050_85_extract_amazon_mean_amazon<-extract(prec_jan_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)

```



```

prec_jan_he_2050_85_extract_amazon_sd_amazon<-extract(prec_jan_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_jan_he_2070_85_extract_amazon_mean_amazon<-extract(prec_jan_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2070_85_extract_amazon_sd_amazon<-extract(prec_jan_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#jan

tmax_jan_present_extract_amazon_mean_amazon<-extract(tmax_jan_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_jan_present_extract_amazon_sd_amazon<-extract(tmax_jan_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_jan_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_jan_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_jan_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_jan_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_jan_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jan_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_jan_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jan_present_extract_amazon_mean_amazon<-extract(tmin_jan_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_jan_present_extract_amazon_sd_amazon<-extract(tmin_jan_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_jan_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_jan_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_jan_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jan_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_jan_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jan_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_jan_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

prec_jan_present_extract_amazon_mean_amazon<-extract(prec_jan_present,ucs[1], fun=mean, na.rm=TRUE)
prec_jan_present_extract_amazon_sd_amazon<-extract(prec_jan_present,ucs[1], fun=sd, na.rm=TRUE)
prec_jan_he_2050_45_extract_amazon_mean_amazon<-extract(prec_jan_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2050_45_extract_amazon_sd_amazon<-extract(prec_jan_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_jan_he_2070_45_extract_amazon_mean_amazon<-extract(prec_jan_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_jan_he_2070_45_extract_amazon_sd_amazon<-extract(prec_jan_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_jan<-
data.frame(tmax_jan_present_extract_amazon_mean_amazon,tmax_jan_present_extract_amazon_sd_amazon,tm
ax_jan_he_2050_85_extract_amazon_mean_amazon,tmax_jan_he_2050_85_extract_amazon_sd_amazon,tmax_
jan_he_2070_85_extract_amazon_mean_amazon,tmax_jan_he_2070_85_extract_amazon_sd_amazon,
tmin_jan_present_extract_amazon_mean_amazon,tmin_jan_present_extract_amazon_sd_amazon,tmin_jan_he_2
050_85_extract_amazon_mean_amazon,tmin_jan_he_2050_85_extract_amazon_sd_amazon,
tmin_jan_he_2070_85_extract_amazon_mean_amazon,tmin_jan_he_2070_85_extract_amazon_sd_amazon,
prec_jan_present_extract_amazon_mean_amazon,prec_jan_present_extract_amazon_sd_amazon,prec_jan_he_2
050_85_extract_amazon_mean_amazon,prec_jan_he_2050_85_extract_amazon_sd_amazon,
prec_jan_he_2070_85_extract_amazon_mean_amazon,prec_jan_he_2070_85_extract_amazon_sd_amazon,
tmax_jan_he_2050_45_extract_amazon_mean_amazon,tmax_jan_he_2050_45_extract_amazon_sd_amazon,
tmax_jan_he_2070_45_extract_amazon_mean_amazon,tmax_jan_he_2070_45_extract_amazon_sd_amazon,
tmin_jan_present_extract_amazon_mean_amazon,tmin_jan_present_extract_amazon_sd_amazon,tmin_jan_he_2
050_45_extract_amazon_mean_amazon,tmin_jan_he_2050_45_extract_amazon_sd_amazon,
tmin_jan_he_2070_45_extract_amazon_mean_amazon,tmin_jan_he_2070_45_extract_amazon_sd_amazon,
prec_jan_present_extract_amazon_mean_amazon,prec_jan_present_extract_amazon_sd_amazon,prec_jan_he_2
050_45_extract_amazon_mean_amazon,prec_jan_he_2050_45_extract_amazon_sd_amazon,
prec_jan_he_2070_45_extract_amazon_mean_amazon,prec_jan_he_2070_45_extract_amazon_sd_amazon)

```

```
write.table(extractions_amazon_tmax_jan, file="extractions_amazon_tmax_jan.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#fev
```

```
tmax_fev_present_extract_amazon_mean_amazon<-extract(tmax_fev_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_fev_present_extract_amazon_sd_amazon<-extract(tmax_fev_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_fev_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_fev_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_fev_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_fev_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_fev_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_fev_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_fev_present_extract_amazon_mean_amazon<-extract(tmin_fev_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_fev_present_extract_amazon_sd_amazon<-extract(tmin_fev_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_fev_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_fev_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_fev_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_fev_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_fev_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_fev_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_fev_present_extract_amazon_mean_amazon<-extract(prec_fev_present,ucs[1], fun=mean, na.rm=TRUE)
prec_fev_present_extract_amazon_sd_amazon<-extract(prec_fev_present,ucs[1], fun=sd, na.rm=TRUE)
prec_fev_he_2050_85_extract_amazon_mean_amazon<-extract(prec_fev_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2050_85_extract_amazon_sd_amazon<-extract(prec_fev_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_fev_he_2070_85_extract_amazon_mean_amazon<-extract(prec_fev_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2070_85_extract_amazon_sd_amazon<-extract(prec_fev_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#fev
```

```
tmax_fev_present_extract_amazon_mean_amazon<-extract(tmax_fev_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_fev_present_extract_amazon_sd_amazon<-extract(tmax_fev_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_fev_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_fev_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_fev_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_fev_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_fev_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_fev_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_fev_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_fev_present_extract_amazon_mean_amazon<-extract(tmin_fev_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_fev_present_extract_amazon_sd_amazon<-extract(tmin_fev_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_fev_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_fev_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_fev_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_fev_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_fev_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_fev_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_fev_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```

prec_fev_present_extract_amazon_mean_amazon<-extract(prec_fev_present,ucs[1], fun=mean, na.rm=TRUE)
prec_fev_present_extract_amazon_sd_amazon<-extract(prec_fev_present,ucs[1], fun=sd, na.rm=TRUE)
prec_fev_he_2050_45_extract_amazon_mean_amazon<-extract(prec_fev_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2050_45_extract_amazon_sd_amazon<-extract(prec_fev_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_fev_he_2070_45_extract_amazon_mean_amazon<-extract(prec_fev_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_fev_he_2070_45_extract_amazon_sd_amazon<-extract(prec_fev_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_fev<-
data.frame(tmax_fev_present_extract_amazon_mean_amazon,tmax_fev_present_extract_amazon_sd_amazon,t
max_fev_he_2050_85_extract_amazon_mean_amazon,tmax_fev_he_2050_85_extract_amazon_sd_amazon,tma
x_fev_he_2070_85_extract_amazon_mean_amazon,tmax_fev_he_2070_85_extract_amazon_sd_amazon,
tmin_fev_present_extract_amazon_mean_amazon,tmin_fev_present_extract_amazon_sd_amazon,tmin_fev_he_
2050_85_extract_amazon_mean_amazon,tmin_fev_he_2050_85_extract_amazon_sd_amazon,
tmin_fev_he_2070_85_extract_amazon_mean_amazon,tmin_fev_he_2070_85_extract_amazon_sd_amazon,
prec_fev_present_extract_amazon_mean_amazon,prec_fev_present_extract_amazon_sd_amazon,prec_fev_he_2
050_85_extract_amazon_mean_amazon,prec_fev_he_2050_85_extract_amazon_sd_amazon,
prec_fev_he_2070_85_extract_amazon_mean_amazon,prec_fev_he_2070_85_extract_amazon_sd_amazon,
tmax_fev_he_2050_45_extract_amazon_mean_amazon,tmax_fev_he_2050_45_extract_amazon_sd_amazon,
tmax_fev_he_2070_45_extract_amazon_mean_amazon,tmax_fev_he_2070_45_extract_amazon_sd_amazon,
tmin_fev_present_extract_amazon_mean_amazon,tmin_fev_present_extract_amazon_sd_amazon,tmin_fev_he_
2050_45_extract_amazon_mean_amazon,tmin_fev_he_2050_45_extract_amazon_sd_amazon,
tmin_fev_he_2070_45_extract_amazon_mean_amazon,tmin_fev_he_2070_45_extract_amazon_sd_amazon,
prec_fev_present_extract_amazon_mean_amazon,prec_fev_present_extract_amazon_sd_amazon,prec_fev_he_2
050_45_extract_amazon_mean_amazon,prec_fev_he_2050_45_extract_amazon_sd_amazon,
prec_fev_he_2070_45_extract_amazon_mean_amazon,prec_fev_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_fev, file="extractions_amazon_tmax_fev.txt", append=FALSE,
quote=TRUE, sep=";")

#mar

tmax_mar_present_extract_amazon_mean_amazon<-extract(tmax_mar_present,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mar_present_extract_amazon_sd_amazon<-extract(tmax_mar_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_mar_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_mar_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mar_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_mar_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_mar_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_mar_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mar_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_mar_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

tmin_mar_present_extract_amazon_mean_amazon<-extract(tmin_mar_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_mar_present_extract_amazon_sd_amazon<-extract(tmin_mar_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_mar_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_mar_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_mar_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_mar_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_mar_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_mar_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

```

```

prec_mar_present_extract_amazon_mean_amazon<-extract(prec_mar_present,ucs[1], fun=mean, na.rm=TRUE)
prec_mar_present_extract_amazon_sd_amazon<-extract(prec_mar_present,ucs[1], fun=sd, na.rm=TRUE)
prec_mar_he_2050_85_extract_amazon_mean_amazon<-extract(prec_mar_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2050_85_extract_amazon_sd_amazon<-extract(prec_mar_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_mar_he_2070_85_extract_amazon_mean_amazon<-extract(prec_mar_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2070_85_extract_amazon_sd_amazon<-extract(prec_mar_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#mar

tmax_mar_present_extract_amazon_mean_amazon<-extract(tmax_mar_present,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mar_present_extract_amazon_sd_amazon<-extract(tmax_mar_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_mar_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_mar_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mar_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_mar_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_mar_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_mar_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mar_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_mar_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_mar_present_extract_amazon_mean_amazon<-extract(tmin_mar_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_mar_present_extract_amazon_sd_amazon<-extract(tmin_mar_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_mar_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_mar_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_mar_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_mar_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_mar_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mar_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_mar_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

prec_mar_present_extract_amazon_mean_amazon<-extract(prec_mar_present,ucs[1], fun=mean, na.rm=TRUE)
prec_mar_present_extract_amazon_sd_amazon<-extract(prec_mar_present,ucs[1], fun=sd, na.rm=TRUE)
prec_mar_he_2050_45_extract_amazon_mean_amazon<-extract(prec_mar_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2050_45_extract_amazon_sd_amazon<-extract(prec_mar_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_mar_he_2070_45_extract_amazon_mean_amazon<-extract(prec_mar_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_mar_he_2070_45_extract_amazon_sd_amazon<-extract(prec_mar_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_mar<-
data.frame(tmax_mar_present_extract_amazon_mean_amazon,tmax_mar_present_extract_amazon_sd_amazon,t
max_mar_he_2050_85_extract_amazon_mean_amazon,tmax_mar_he_2050_85_extract_amazon_sd_amazon,tm
ax_mar_he_2070_85_extract_amazon_mean_amazon,tmax_mar_he_2070_85_extract_amazon_sd_amazon,
tmin_mar_present_extract_amazon_mean_amazon,tmin_mar_present_extract_amazon_sd_amazon,tmin_mar_he
_2050_85_extract_amazon_mean_amazon,tmin_mar_he_2050_85_extract_amazon_sd_amazon,
tmin_mar_he_2070_85_extract_amazon_mean_amazon,tmin_mar_he_2070_85_extract_amazon_sd_amazon,
prec_mar_present_extract_amazon_mean_amazon,prec_mar_present_extract_amazon_sd_amazon,prec_mar_he
_2050_85_extract_amazon_mean_amazon,prec_mar_he_2050_85_extract_amazon_sd_amazon,
prec_mar_he_2070_85_extract_amazon_mean_amazon,prec_mar_he_2070_85_extract_amazon_sd_amazon,
tmax_mar_he_2050_45_extract_amazon_mean_amazon,tmax_mar_he_2050_45_extract_amazon_sd_amazon,
tmax_mar_he_2070_45_extract_amazon_mean_amazon,tmax_mar_he_2070_45_extract_amazon_sd_amazon,
tmin_mar_present_extract_amazon_mean_amazon,tmin_mar_present_extract_amazon_sd_amazon,tmin_mar_he
_2050_45_extract_amazon_mean_amazon,tmin_mar_he_2050_45_extract_amazon_sd_amazon,

```

```
tmin_mar_he_2070_45_extract_amazon_mean_amazon,tmin_mar_he_2070_45_extract_amazon_sd_amazon,
prec_mar_present_extract_amazon_mean_amazon,prec_mar_present_extract_amazon_sd_amazon,prec_mar_he
_2050_45_extract_amazon_mean_amazon,prec_mar_he_2050_45_extract_amazon_sd_amazon,
prec_mar_he_2070_45_extract_amazon_mean_amazon,prec_mar_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_mar, file="extractions_amazon_tmax_mar.txt", append=FALSE,
quote=TRUE, sep=",")
```

```
#abr
```

```
tmax_abr_present_extract_amazon_mean_amazon<-extract(tmax_abr_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_abr_present_extract_amazon_sd_amazon<-extract(tmax_abr_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_abr_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_abr_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_abr_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_abr_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_abr_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_abr_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_abr_present_extract_amazon_mean_amazon<-extract(tmin_abr_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_abr_present_extract_amazon_sd_amazon<-extract(tmin_abr_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_abr_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_abr_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_abr_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_abr_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_abr_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_abr_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_abr_present_extract_amazon_mean_amazon<-extract(prec_abr_present,ucs[1], fun=mean, na.rm=TRUE)
prec_abr_present_extract_amazon_sd_amazon<-extract(prec_abr_present,ucs[1], fun=sd, na.rm=TRUE)
prec_abr_he_2050_85_extract_amazon_mean_amazon<-extract(prec_abr_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2050_85_extract_amazon_sd_amazon<-extract(prec_abr_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_abr_he_2070_85_extract_amazon_mean_amazon<-extract(prec_abr_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2070_85_extract_amazon_sd_amazon<-extract(prec_abr_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
#abr
```

```
tmax_abr_present_extract_amazon_mean_amazon<-extract(tmax_abr_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_abr_present_extract_amazon_sd_amazon<-extract(tmax_abr_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_abr_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_abr_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_abr_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_abr_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_abr_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_abr_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_abr_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_abr_present_extract_amazon_mean_amazon<-extract(tmin_abr_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_abr_present_extract_amazon_sd_amazon<-extract(tmin_abr_present,ucs[1], fun=sd, na.rm=TRUE)
```

```
tmin_abr_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_abr_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_abr_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_abr_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_abr_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_abr_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_abr_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_abr_present_extract_amazon_mean_amazon<-extract(prec_abr_present,ucs[1], fun=mean, na.rm=TRUE)
prec_abr_present_extract_amazon_sd_amazon<-extract(prec_abr_present,ucs[1], fun=sd, na.rm=TRUE)
prec_abr_he_2050_45_extract_amazon_mean_amazon<-extract(prec_abr_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2050_45_extract_amazon_sd_amazon<-extract(prec_abr_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_abr_he_2070_45_extract_amazon_mean_amazon<-extract(prec_abr_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_abr_he_2070_45_extract_amazon_sd_amazon<-extract(prec_abr_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
extractions_amazon_tmax_abr<-
data.frame(tmax_abr_present_extract_amazon_mean_amazon,tmax_abr_present_extract_amazon_sd_amazon,t
max_abr_he_2050_85_extract_amazon_mean_amazon,tmax_abr_he_2050_85_extract_amazon_sd_amazon,tma
x_abr_he_2070_85_extract_amazon_mean_amazon,tmax_abr_he_2070_85_extract_amazon_sd_amazon,
tmin_abr_present_extract_amazon_mean_amazon,tmin_abr_present_extract_amazon_sd_amazon,tmin_abr_he_
2050_85_extract_amazon_mean_amazon,tmin_abr_he_2050_85_extract_amazon_sd_amazon,
tmin_abr_he_2070_85_extract_amazon_mean_amazon,tmin_abr_he_2070_85_extract_amazon_sd_amazon,
prec_abr_present_extract_amazon_mean_amazon,prec_abr_present_extract_amazon_sd_amazon,prec_abr_he_2
050_85_extract_amazon_mean_amazon,prec_abr_he_2050_85_extract_amazon_sd_amazon,
prec_abr_he_2070_85_extract_amazon_mean_amazon,prec_abr_he_2070_85_extract_amazon_sd_amazon,
tmax_abr_he_2050_45_extract_amazon_mean_amazon,tmax_abr_he_2050_45_extract_amazon_sd_amazon,
tmax_abr_he_2070_45_extract_amazon_mean_amazon,tmax_abr_he_2070_45_extract_amazon_sd_amazon,
tmin_abr_present_extract_amazon_mean_amazon,tmin_abr_present_extract_amazon_sd_amazon,tmin_abr_he_
2050_45_extract_amazon_mean_amazon,tmin_abr_he_2050_45_extract_amazon_sd_amazon,
tmin_abr_he_2070_45_extract_amazon_mean_amazon,tmin_abr_he_2070_45_extract_amazon_sd_amazon,
prec_abr_present_extract_amazon_mean_amazon,prec_abr_present_extract_amazon_sd_amazon,prec_abr_he_2
050_45_extract_amazon_mean_amazon,prec_abr_he_2050_45_extract_amazon_sd_amazon,
prec_abr_he_2070_45_extract_amazon_mean_amazon,prec_abr_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_abr, file="extractions_amazon_tmax_abr.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#mai
```

```
tmax_mai_present_extract_amazon_mean_amazon<-extract(tmax_mai_present,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mai_present_extract_amazon_sd_amazon<-extract(tmax_mai_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_mai_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_mai_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_mai_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_mai_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_mai_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_mai_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_mai_present_extract_amazon_mean_amazon<-extract(tmin_mai_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_mai_present_extract_amazon_sd_amazon<-extract(tmin_mai_present,ucs[1], fun=sd, na.rm=TRUE)
```

```
tmin_mai_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_mai_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_mai_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_mai_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_mai_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_mai_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_mai_present_extract_amazon_mean_amazon<-extract(prec_mai_present,ucs[1], fun=mean, na.rm=TRUE)
prec_mai_present_extract_amazon_sd_amazon<-extract(prec_mai_present,ucs[1], fun=sd, na.rm=TRUE)
prec_mai_he_2050_85_extract_amazon_mean_amazon<-extract(prec_mai_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2050_85_extract_amazon_sd_amazon<-extract(prec_mai_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_mai_he_2070_85_extract_amazon_mean_amazon<-extract(prec_mai_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2070_85_extract_amazon_sd_amazon<-extract(prec_mai_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#mai
```

```
tmax_mai_present_extract_amazon_mean_amazon<-extract(tmax_mai_present,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mai_present_extract_amazon_sd_amazon<-extract(tmax_mai_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_mai_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_mai_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_mai_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_mai_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_mai_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_mai_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_mai_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_mai_present_extract_amazon_mean_amazon<-extract(tmin_mai_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_mai_present_extract_amazon_sd_amazon<-extract(tmin_mai_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_mai_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_mai_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_mai_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_mai_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_mai_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_mai_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_mai_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_mai_present_extract_amazon_mean_amazon<-extract(prec_mai_present,ucs[1], fun=mean, na.rm=TRUE)
prec_mai_present_extract_amazon_sd_amazon<-extract(prec_mai_present,ucs[1], fun=sd, na.rm=TRUE)
prec_mai_he_2050_45_extract_amazon_mean_amazon<-extract(prec_mai_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2050_45_extract_amazon_sd_amazon<-extract(prec_mai_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_mai_he_2070_45_extract_amazon_mean_amazon<-extract(prec_mai_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_mai_he_2070_45_extract_amazon_sd_amazon<-extract(prec_mai_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
extractions_amazon_tmax_mai<-
data.frame(tmax_mai_present_extract_amazon_mean_amazon,tmax_mai_present_extract_amazon_sd_amazon,t
max_mai_he_2050_85_extract_amazon_mean_amazon,tmax_mai_he_2050_85_extract_amazon_sd_amazon,tm
ax_mai_he_2070_85_extract_amazon_mean_amazon,tmax_mai_he_2070_85_extract_amazon_sd_amazon,
```

```
tmin_mai_present_extract_amazon_mean_amazon,tmin_mai_present_extract_amazon_sd_amazon,tmin_mai_he_
_2050_85_extract_amazon_mean_amazon,tmin_mai_he_2050_85_extract_amazon_sd_amazon,
tmin_mai_he_2070_85_extract_amazon_mean_amazon,tmin_mai_he_2070_85_extract_amazon_sd_amazon,
prec_mai_present_extract_amazon_mean_amazon,prec_mai_present_extract_amazon_sd_amazon,prec_mai_he_
2050_85_extract_amazon_mean_amazon,prec_mai_he_2050_85_extract_amazon_sd_amazon,
prec_mai_he_2070_85_extract_amazon_mean_amazon,prec_mai_he_2070_85_extract_amazon_sd_amazon,
tmax_mai_he_2050_45_extract_amazon_mean_amazon,tmax_mai_he_2050_45_extract_amazon_sd_amazon,
tmax_mai_he_2070_45_extract_amazon_mean_amazon,tmax_mai_he_2070_45_extract_amazon_sd_amazon,
tmin_mai_present_extract_amazon_mean_amazon,tmin_mai_present_extract_amazon_sd_amazon,tmin_mai_he_
_2050_45_extract_amazon_mean_amazon,tmin_mai_he_2050_45_extract_amazon_sd_amazon,
tmin_mai_he_2070_45_extract_amazon_mean_amazon,tmin_mai_he_2070_45_extract_amazon_sd_amazon,
prec_mai_present_extract_amazon_mean_amazon,prec_mai_present_extract_amazon_sd_amazon,prec_mai_he_
2050_45_extract_amazon_mean_amazon,prec_mai_he_2050_45_extract_amazon_sd_amazon,
prec_mai_he_2070_45_extract_amazon_mean_amazon,prec_mai_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_mai, file="extractions_amazon_tmax_mai.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#jun
```

```
tmax_jun_present_extract_amazon_mean_amazon<-extract(tmax_jun_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_jun_present_extract_amazon_sd_amazon<-extract(tmax_jun_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_jun_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_jun_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jun_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_jun_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_jun_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_jun_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jun_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_jun_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_jun_present_extract_amazon_mean_amazon<-extract(tmin_jun_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_jun_present_extract_amazon_sd_amazon<-extract(tmin_jun_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_jun_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_jun_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_jun_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jun_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_jun_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_jun_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_jun_present_extract_amazon_mean_amazon<-extract(prec_jun_present,ucs[1], fun=mean, na.rm=TRUE)
prec_jun_present_extract_amazon_sd_amazon<-extract(prec_jun_present,ucs[1], fun=sd, na.rm=TRUE)
prec_jun_he_2050_85_extract_amazon_mean_amazon<-extract(prec_jun_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2050_85_extract_amazon_sd_amazon<-extract(prec_jun_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_jun_he_2070_85_extract_amazon_mean_amazon<-extract(prec_jun_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2070_85_extract_amazon_sd_amazon<-extract(prec_jun_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
#jun
```

```
tmax_jun_present_extract_amazon_mean_amazon<-extract(tmax_jun_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_jun_present_extract_amazon_sd_amazon<-extract(tmax_jun_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_jun_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_jun_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
```



```

tmax_jun_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_jun_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_jun_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_jun_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jun_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_jun_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jun_present_extract_amazon_mean_amazon<-extract(tmin_jun_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_jun_present_extract_amazon_sd_amazon<-extract(tmin_jun_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_jun_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_jun_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_jun_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jun_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_jun_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jun_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_jun_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

```

```

prec_jun_present_extract_amazon_mean_amazon<-extract(prec_jun_present,ucs[1], fun=mean, na.rm=TRUE)
prec_jun_present_extract_amazon_sd_amazon<-extract(prec_jun_present,ucs[1], fun=sd, na.rm=TRUE)
prec_jun_he_2050_45_extract_amazon_mean_amazon<-extract(prec_jun_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2050_45_extract_amazon_sd_amazon<-extract(prec_jun_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_jun_he_2070_45_extract_amazon_mean_amazon<-extract(prec_jun_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_jun_he_2070_45_extract_amazon_sd_amazon<-extract(prec_jun_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

```

```

extractions_amazon_tmax_jun<-
data.frame(tmax_jun_present_extract_amazon_mean_amazon,tmax_jun_present_extract_amazon_sd_amazon,t
max_jun_he_2050_85_extract_amazon_mean_amazon,tmax_jun_he_2050_85_extract_amazon_sd_amazon,tmax
x_jun_he_2070_85_extract_amazon_mean_amazon,tmax_jun_he_2070_85_extract_amazon_sd_amazon,
tmin_jun_present_extract_amazon_mean_amazon,tmin_jun_present_extract_amazon_sd_amazon,tmin_jun_he_
2050_85_extract_amazon_mean_amazon,tmin_jun_he_2050_85_extract_amazon_sd_amazon,
tmin_jun_he_2070_85_extract_amazon_mean_amazon,tmin_jun_he_2070_85_extract_amazon_sd_amazon,
prec_jun_present_extract_amazon_mean_amazon,prec_jun_present_extract_amazon_sd_amazon,prec_jun_he_2
050_85_extract_amazon_mean_amazon,prec_jun_he_2050_85_extract_amazon_sd_amazon,
prec_jun_he_2070_85_extract_amazon_mean_amazon,prec_jun_he_2070_85_extract_amazon_sd_amazon,
tmax_jun_he_2050_45_extract_amazon_mean_amazon,tmax_jun_he_2050_45_extract_amazon_sd_amazon,
tmax_jun_he_2070_45_extract_amazon_mean_amazon,tmax_jun_he_2070_45_extract_amazon_sd_amazon,
tmin_jun_present_extract_amazon_mean_amazon,tmin_jun_present_extract_amazon_sd_amazon,tmin_jun_he_
2050_45_extract_amazon_mean_amazon,tmin_jun_he_2050_45_extract_amazon_sd_amazon,
tmin_jun_he_2070_45_extract_amazon_mean_amazon,tmin_jun_he_2070_45_extract_amazon_sd_amazon,
prec_jun_present_extract_amazon_mean_amazon,prec_jun_present_extract_amazon_sd_amazon,prec_jun_he_2
050_45_extract_amazon_mean_amazon,prec_jun_he_2050_45_extract_amazon_sd_amazon,
prec_jun_he_2070_45_extract_amazon_mean_amazon,prec_jun_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_jun, file="extractions_amazon_tmax_jun.txt", append=FALSE,
quote=TRUE, sep=";")

```

```

#jul

```

```

tmax_jul_present_extract_amazon_mean_amazon<-extract(tmax_jul_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_jul_present_extract_amazon_sd_amazon<-extract(tmax_jul_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_jul_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_jul_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_jul_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)

```

```
tmax_jul_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_jul_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_jul_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_jul_present_extract_amazon_mean_amazon<-extract(tmin_jul_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_jul_present_extract_amazon_sd_amazon<-extract(tmin_jul_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_jul_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_jul_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_jul_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jul_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_jul_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_jul_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_jul_present_extract_amazon_mean_amazon<-extract(prec_jul_present,ucs[1], fun=mean, na.rm=TRUE)
prec_jul_present_extract_amazon_sd_amazon<-extract(prec_jul_present,ucs[1], fun=sd, na.rm=TRUE)
prec_jul_he_2050_85_extract_amazon_mean_amazon<-extract(prec_jul_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2050_85_extract_amazon_sd_amazon<-extract(prec_jul_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_jul_he_2070_85_extract_amazon_mean_amazon<-extract(prec_jul_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2070_85_extract_amazon_sd_amazon<-extract(prec_jul_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#jul
```

```
tmax_jul_present_extract_amazon_mean_amazon<-extract(tmax_jul_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_jul_present_extract_amazon_sd_amazon<-extract(tmax_jul_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_jul_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_jul_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_jul_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_jul_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_jul_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_jul_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_jul_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jul_present_extract_amazon_mean_amazon<-extract(tmin_jul_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_jul_present_extract_amazon_sd_amazon<-extract(tmin_jul_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_jul_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_jul_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_jul_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_jul_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_jul_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_jul_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_jul_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_jul_present_extract_amazon_mean_amazon<-extract(prec_jul_present,ucs[1], fun=mean, na.rm=TRUE)
prec_jul_present_extract_amazon_sd_amazon<-extract(prec_jul_present,ucs[1], fun=sd, na.rm=TRUE)
prec_jul_he_2050_45_extract_amazon_mean_amazon<-extract(prec_jul_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_jul_he_2050_45_extract_amazon_sd_amazon<-extract(prec_jul_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_jul_he_2070_45_extract_amazon_mean_amazon<-extract(prec_jul_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
```

```
prec_jul_he_2070_45_extract_amazon_sd_amazon<-extract(prec_jul_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
extractions_amazon_tmax_jul<-
```

```
data.frame(tmax_jul_present_extract_amazon_mean_amazon,tmax_jul_present_extract_amazon_sd_amazon,tmax_jul_he_2050_85_extract_amazon_mean_amazon,tmax_jul_he_2050_85_extract_amazon_sd_amazon,tmax_jul_he_2070_85_extract_amazon_mean_amazon,tmax_jul_he_2070_85_extract_amazon_sd_amazon,
tmin_jul_present_extract_amazon_mean_amazon,tmin_jul_present_extract_amazon_sd_amazon,tmin_jul_he_2050_85_extract_amazon_mean_amazon,tmin_jul_he_2050_85_extract_amazon_sd_amazon,
tmin_jul_he_2070_85_extract_amazon_mean_amazon,tmin_jul_he_2070_85_extract_amazon_sd_amazon,
prec_jul_present_extract_amazon_mean_amazon,prec_jul_present_extract_amazon_sd_amazon,prec_jul_he_2050_85_extract_amazon_mean_amazon,prec_jul_he_2050_85_extract_amazon_sd_amazon,
prec_jul_he_2070_85_extract_amazon_mean_amazon,prec_jul_he_2070_85_extract_amazon_sd_amazon,
tmax_jul_he_2050_45_extract_amazon_mean_amazon,tmax_jul_he_2050_45_extract_amazon_sd_amazon,
tmax_jul_he_2070_45_extract_amazon_mean_amazon,tmax_jul_he_2070_45_extract_amazon_sd_amazon,
tmin_jul_present_extract_amazon_mean_amazon,tmin_jul_present_extract_amazon_sd_amazon,tmin_jul_he_2050_45_extract_amazon_mean_amazon,tmin_jul_he_2050_45_extract_amazon_sd_amazon,
tmin_jul_he_2070_45_extract_amazon_mean_amazon,tmin_jul_he_2070_45_extract_amazon_sd_amazon,
prec_jul_present_extract_amazon_mean_amazon,prec_jul_present_extract_amazon_sd_amazon,prec_jul_he_2050_45_extract_amazon_mean_amazon,prec_jul_he_2050_45_extract_amazon_sd_amazon,
prec_jul_he_2070_45_extract_amazon_mean_amazon,prec_jul_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_jul, file="extractions_amazon_tmax_jul.txt", append=FALSE,
quote=TRUE, sep=";")
```

```
#ago
```

```
tmax_ago_present_extract_amazon_mean_amazon<-extract(tmax_ago_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_ago_present_extract_amazon_sd_amazon<-extract(tmax_ago_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_ago_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_ago_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_ago_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_ago_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_ago_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_ago_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_ago_present_extract_amazon_mean_amazon<-extract(tmin_ago_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_ago_present_extract_amazon_sd_amazon<-extract(tmin_ago_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_ago_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_ago_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_ago_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_ago_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_ago_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_ago_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_ago_present_extract_amazon_mean_amazon<-extract(prec_ago_present,ucs[1], fun=mean, na.rm=TRUE)
prec_ago_present_extract_amazon_sd_amazon<-extract(prec_ago_present,ucs[1], fun=sd, na.rm=TRUE)
prec_ago_he_2050_85_extract_amazon_mean_amazon<-extract(prec_ago_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2050_85_extract_amazon_sd_amazon<-extract(prec_ago_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_ago_he_2070_85_extract_amazon_mean_amazon<-extract(prec_ago_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
```

```

prec_ago_he_2070_85_extract_amazon_sd_amazon<-extract(prec_ago_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#ago

tmax_ago_present_extract_amazon_mean_amazon<-extract(tmax_ago_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_ago_present_extract_amazon_sd_amazon<-extract(tmax_ago_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_ago_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_ago_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_ago_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_ago_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_ago_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_ago_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_ago_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_ago_present_extract_amazon_mean_amazon<-extract(tmin_ago_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_ago_present_extract_amazon_sd_amazon<-extract(tmin_ago_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_ago_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_ago_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_ago_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_ago_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_ago_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_ago_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_ago_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

prec_ago_present_extract_amazon_mean_amazon<-extract(prec_ago_present,ucs[1], fun=mean, na.rm=TRUE)
prec_ago_present_extract_amazon_sd_amazon<-extract(prec_ago_present,ucs[1], fun=sd, na.rm=TRUE)
prec_ago_he_2050_45_extract_amazon_mean_amazon<-extract(prec_ago_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2050_45_extract_amazon_sd_amazon<-extract(prec_ago_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_ago_he_2070_45_extract_amazon_mean_amazon<-extract(prec_ago_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_ago_he_2070_45_extract_amazon_sd_amazon<-extract(prec_ago_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_ago<-
data.frame(tmax_ago_present_extract_amazon_mean_amazon,tmax_ago_present_extract_amazon_sd_amazon,t
max_ago_he_2050_85_extract_amazon_mean_amazon,tmax_ago_he_2050_85_extract_amazon_sd_amazon,tm
ax_ago_he_2070_85_extract_amazon_mean_amazon,tmax_ago_he_2070_85_extract_amazon_sd_amazon,
tmin_ago_present_extract_amazon_mean_amazon,tmin_ago_present_extract_amazon_sd_amazon,tmin_ago_he
_2050_85_extract_amazon_mean_amazon,tmin_ago_he_2050_85_extract_amazon_sd_amazon,
tmin_ago_he_2070_85_extract_amazon_mean_amazon,tmin_ago_he_2070_85_extract_amazon_sd_amazon,
prec_ago_present_extract_amazon_mean_amazon,prec_ago_present_extract_amazon_sd_amazon,prec_ago_he
_2050_85_extract_amazon_mean_amazon,prec_ago_he_2050_85_extract_amazon_sd_amazon,
prec_ago_he_2070_85_extract_amazon_mean_amazon,prec_ago_he_2070_85_extract_amazon_sd_amazon,
tmax_ago_he_2050_45_extract_amazon_mean_amazon,tmax_ago_he_2050_45_extract_amazon_sd_amazon,
tmax_ago_he_2070_45_extract_amazon_mean_amazon,tmax_ago_he_2070_45_extract_amazon_sd_amazon,
tmin_ago_present_extract_amazon_mean_amazon,tmin_ago_present_extract_amazon_sd_amazon,tmin_ago_he
_2050_45_extract_amazon_mean_amazon,tmin_ago_he_2050_45_extract_amazon_sd_amazon,
tmin_ago_he_2070_45_extract_amazon_mean_amazon,tmin_ago_he_2070_45_extract_amazon_sd_amazon,
prec_ago_present_extract_amazon_mean_amazon,prec_ago_present_extract_amazon_sd_amazon,prec_ago_he
_2050_45_extract_amazon_mean_amazon,prec_ago_he_2050_45_extract_amazon_sd_amazon,
prec_ago_he_2070_45_extract_amazon_mean_amazon,prec_ago_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_ago, file="extractions_amazon_tmax_ago.txt", append=FALSE,
quote=TRUE, sep=";")

#sep

```



```

prec_sep_present_extract_amazon_sd_amazon<-extract(prec_sep_present,ucs[1], fun=sd, na.rm=TRUE)
prec_sep_he_2050_45_extract_amazon_mean_amazon<-extract(prec_sep_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_sep_he_2050_45_extract_amazon_sd_amazon<-extract(prec_sep_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_sep_he_2070_45_extract_amazon_mean_amazon<-extract(prec_sep_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_sep_he_2070_45_extract_amazon_sd_amazon<-extract(prec_sep_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

```

```

extractions_amazon_tmax_sep<-
data.frame(tmax_sep_present_extract_amazon_mean_amazon,tmax_sep_present_extract_amazon_sd_amazon,t
max_sep_he_2050_85_extract_amazon_mean_amazon,tmax_sep_he_2050_85_extract_amazon_sd_amazon,tma
x_sep_he_2070_85_extract_amazon_mean_amazon,tmax_sep_he_2070_85_extract_amazon_sd_amazon,
tmin_sep_present_extract_amazon_mean_amazon,tmin_sep_present_extract_amazon_sd_amazon,tmin_sep_he_
2050_85_extract_amazon_mean_amazon,tmin_sep_he_2050_85_extract_amazon_sd_amazon,
tmin_sep_he_2070_85_extract_amazon_mean_amazon,tmin_sep_he_2070_85_extract_amazon_sd_amazon,
prec_sep_present_extract_amazon_mean_amazon,prec_sep_present_extract_amazon_sd_amazon,prec_sep_he_2
050_85_extract_amazon_mean_amazon,prec_sep_he_2050_85_extract_amazon_sd_amazon,
prec_sep_he_2070_85_extract_amazon_mean_amazon,prec_sep_he_2070_85_extract_amazon_sd_amazon,
tmax_sep_he_2050_45_extract_amazon_mean_amazon,tmax_sep_he_2050_45_extract_amazon_sd_amazon,
tmax_sep_he_2070_45_extract_amazon_mean_amazon,tmax_sep_he_2070_45_extract_amazon_sd_amazon,
tmin_sep_present_extract_amazon_mean_amazon,tmin_sep_present_extract_amazon_sd_amazon,tmin_sep_he_
2050_45_extract_amazon_mean_amazon,tmin_sep_he_2050_45_extract_amazon_sd_amazon,
tmin_sep_he_2070_45_extract_amazon_mean_amazon,tmin_sep_he_2070_45_extract_amazon_sd_amazon,
prec_sep_present_extract_amazon_mean_amazon,prec_sep_present_extract_amazon_sd_amazon,prec_sep_he_2
050_45_extract_amazon_mean_amazon,prec_sep_he_2050_45_extract_amazon_sd_amazon,
prec_sep_he_2070_45_extract_amazon_mean_amazon,prec_sep_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_sep, file="extractions_amazon_tmax_sep.txt", append=FALSE,
quote=TRUE, sep=";")

```

```

tmax_sep_present_extract_tis_mean_amazon<-extract(tmax_sep_present,tis[1], fun=mean, na.rm=TRUE)
tmax_sep_present_extract_tis_sd_amazon<-extract(tmax_sep_present,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_he_2050_45_extract_tis_mean_amazon<-extract(tmax_sep_he_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2050_45_extract_tis_sd_amazon<-extract(tmax_sep_he_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_he_2070_45_extract_tis_mean_amazon<-extract(tmax_sep_he_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_he_2070_45_extract_tis_sd_amazon<-extract(tmax_sep_he_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mr_2050_45_extract_tis_mean_amazon<-extract(tmax_sep_mr_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mr_2050_45_extract_tis_sd_amazon<-extract(tmax_sep_mr_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mr_2070_45_extract_tis_mean_amazon<-extract(tmax_sep_mr_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mr_2070_45_extract_tis_sd_amazon<-extract(tmax_sep_mr_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mp_2050_45_extract_tis_mean_amazon<-extract(tmax_sep_mp_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mp_2050_45_extract_tis_sd_amazon<-extract(tmax_sep_mp_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmax_sep_mp_2070_45_extract_tis_mean_amazon<-extract(tmax_sep_mp_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmax_sep_mp_2070_45_extract_tis_sd_amazon<-extract(tmax_sep_mp_2070_45,tis[1], fun=sd, na.rm=TRUE)

```

```

tmin_sep_present_extract_tis_mean_amazon<-extract(tmin_sep_present,tis[1], fun=mean, na.rm=TRUE)
tmin_sep_present_extract_tis_sd_amazon<-extract(tmin_sep_present,tis[1], fun=sd, na.rm=TRUE)

```

```

tmin_sep_he_2050_45_extract_tis_mean_amazon<-extract(tmin_sep_he_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2050_45_extract_tis_sd_amazon<-extract(tmin_sep_he_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_he_2070_45_extract_tis_mean_amazon<-extract(tmin_sep_he_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_he_2070_45_extract_tis_sd_amazon<-extract(tmin_sep_he_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mr_2050_45_extract_tis_mean_amazon<-extract(tmin_sep_mr_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mr_2050_45_extract_tis_sd_amazon<-extract(tmin_sep_mr_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mr_2070_45_extract_tis_mean_amazon<-extract(tmin_sep_mr_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mr_2070_45_extract_tis_sd_amazon<-extract(tmin_sep_mr_2070_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mp_2050_45_extract_tis_mean_amazon<-extract(tmin_sep_mp_2050_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mp_2050_45_extract_tis_sd_amazon<-extract(tmin_sep_mp_2050_45,tis[1], fun=sd, na.rm=TRUE)
tmin_sep_mp_2070_45_extract_tis_mean_amazon<-extract(tmin_sep_mp_2070_45,tis[1], fun=mean,
na.rm=TRUE)
tmin_sep_mp_2070_45_extract_tis_sd_amazon<-extract(tmin_sep_mp_2070_45,tis[1], fun=sd, na.rm=TRUE)

#out

tmax_out_present_extract_amazon_mean_amazon<-extract(tmax_out_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_out_present_extract_amazon_sd_amazon<-extract(tmax_out_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_out_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_out_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_out_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_out_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_out_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_out_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

tmin_out_present_extract_amazon_mean_amazon<-extract(tmin_out_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_out_present_extract_amazon_sd_amazon<-extract(tmin_out_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_out_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_out_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_out_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_out_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_out_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_out_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

prec_out_present_extract_amazon_mean_amazon<-extract(prec_out_present,ucs[1], fun=mean, na.rm=TRUE)
prec_out_present_extract_amazon_sd_amazon<-extract(prec_out_present,ucs[1], fun=sd, na.rm=TRUE)
prec_out_he_2050_85_extract_amazon_mean_amazon<-extract(prec_out_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_out_he_2050_85_extract_amazon_sd_amazon<-extract(prec_out_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_out_he_2070_85_extract_amazon_mean_amazon<-extract(prec_out_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_out_he_2070_85_extract_amazon_sd_amazon<-extract(prec_out_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#out

tmax_out_present_extract_amazon_mean_amazon<-extract(tmax_out_present,ucs[1], fun=mean, na.rm=TRUE)

```

```

tmax_out_present_extract_amazon_sd_amazon<-extract(tmax_out_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_out_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_out_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_out_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_out_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_out_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_out_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_out_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_out_present_extract_amazon_mean_amazon<-extract(tmin_out_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_out_present_extract_amazon_sd_amazon<-extract(tmin_out_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_out_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_out_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_out_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_out_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_out_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_out_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_out_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

prec_out_present_extract_amazon_mean_amazon<-extract(prec_out_present,ucs[1], fun=mean, na.rm=TRUE)
prec_out_present_extract_amazon_sd_amazon<-extract(prec_out_present,ucs[1], fun=sd, na.rm=TRUE)
prec_out_he_2050_45_extract_amazon_mean_amazon<-extract(prec_out_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_out_he_2050_45_extract_amazon_sd_amazon<-extract(prec_out_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_out_he_2070_45_extract_amazon_mean_amazon<-extract(prec_out_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_out_he_2070_45_extract_amazon_sd_amazon<-extract(prec_out_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_out<-
data.frame(tmax_out_present_extract_amazon_mean_amazon,tmax_out_present_extract_amazon_sd_amazon,t
max_out_he_2050_85_extract_amazon_mean_amazon,tmax_out_he_2050_85_extract_amazon_sd_amazon,tma
x_out_he_2070_85_extract_amazon_mean_amazon,tmax_out_he_2070_85_extract_amazon_sd_amazon,
tmin_out_present_extract_amazon_mean_amazon,tmin_out_present_extract_amazon_sd_amazon,tmin_out_he_
2050_85_extract_amazon_mean_amazon,tmin_out_he_2050_85_extract_amazon_sd_amazon,
tmin_out_he_2070_85_extract_amazon_mean_amazon,tmin_out_he_2070_85_extract_amazon_sd_amazon,
prec_out_present_extract_amazon_mean_amazon,prec_out_present_extract_amazon_sd_amazon,prec_out_he_2
050_85_extract_amazon_mean_amazon,prec_out_he_2050_85_extract_amazon_sd_amazon,
prec_out_he_2070_85_extract_amazon_mean_amazon,prec_out_he_2070_85_extract_amazon_sd_amazon,
tmax_out_he_2050_45_extract_amazon_mean_amazon,tmax_out_he_2050_45_extract_amazon_sd_amazon,
tmax_out_he_2070_45_extract_amazon_mean_amazon,tmax_out_he_2070_45_extract_amazon_sd_amazon,
tmin_out_present_extract_amazon_mean_amazon,tmin_out_present_extract_amazon_sd_amazon,tmin_out_he_
2050_45_extract_amazon_mean_amazon,tmin_out_he_2050_45_extract_amazon_sd_amazon,
tmin_out_he_2070_45_extract_amazon_mean_amazon,tmin_out_he_2070_45_extract_amazon_sd_amazon,
prec_out_present_extract_amazon_mean_amazon,prec_out_present_extract_amazon_sd_amazon,prec_out_he_2
050_45_extract_amazon_mean_amazon,prec_out_he_2050_45_extract_amazon_sd_amazon,
prec_out_he_2070_45_extract_amazon_mean_amazon,prec_out_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_out, file="extractions_amazon_tmax_out.txt", append=FALSE,
quote=TRUE, sep=";")

#nov

tmax_nov_present_extract_amazon_mean_amazon<-extract(tmax_nov_present,ucs[1], fun=mean,
na.rm=TRUE)
tmax_nov_present_extract_amazon_sd_amazon<-extract(tmax_nov_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_nov_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_nov_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)

```



```
tmax_nov_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_nov_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_nov_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_nov_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_nov_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
tmin_nov_present_extract_amazon_mean_amazon<-extract(tmin_nov_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_nov_present_extract_amazon_sd_amazon<-extract(tmin_nov_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_nov_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_nov_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_nov_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_nov_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_nov_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_nov_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_nov_present_extract_amazon_mean_amazon<-extract(prec_nov_present,ucs[1], fun=mean, na.rm=TRUE)
prec_nov_present_extract_amazon_sd_amazon<-extract(prec_nov_present,ucs[1], fun=sd, na.rm=TRUE)
prec_nov_he_2050_85_extract_amazon_mean_amazon<-extract(prec_nov_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2050_85_extract_amazon_sd_amazon<-extract(prec_nov_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_nov_he_2070_85_extract_amazon_mean_amazon<-extract(prec_nov_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2070_85_extract_amazon_sd_amazon<-extract(prec_nov_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#nov
```

```
tmax_nov_present_extract_amazon_mean_amazon<-extract(tmax_nov_present,ucs[1], fun=mean,
na.rm=TRUE)
tmax_nov_present_extract_amazon_sd_amazon<-extract(tmax_nov_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_nov_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_nov_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_nov_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_nov_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_nov_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_nov_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_nov_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_nov_present_extract_amazon_mean_amazon<-extract(tmin_nov_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_nov_present_extract_amazon_sd_amazon<-extract(tmin_nov_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_nov_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_nov_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_nov_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_nov_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_nov_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_nov_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_nov_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
```

```
prec_nov_present_extract_amazon_mean_amazon<-extract(prec_nov_present,ucs[1], fun=mean, na.rm=TRUE)
prec_nov_present_extract_amazon_sd_amazon<-extract(prec_nov_present,ucs[1], fun=sd, na.rm=TRUE)
prec_nov_he_2050_45_extract_amazon_mean_amazon<-extract(prec_nov_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
```

```

prec_nov_he_2050_45_extract_amazon_sd_amazon<-extract(prec_nov_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_nov_he_2070_45_extract_amazon_mean_amazon<-extract(prec_nov_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_nov_he_2070_45_extract_amazon_sd_amazon<-extract(prec_nov_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_nov<-
data.frame(tmax_nov_present_extract_amazon_mean_amazon,tmax_nov_present_extract_amazon_sd_amazon,t
max_nov_he_2050_85_extract_amazon_mean_amazon,tmax_nov_he_2050_85_extract_amazon_sd_amazon,tm
ax_nov_he_2070_85_extract_amazon_mean_amazon,tmax_nov_he_2070_85_extract_amazon_sd_amazon,
tmin_nov_present_extract_amazon_mean_amazon,tmin_nov_present_extract_amazon_sd_amazon,tmin_nov_he
_2050_85_extract_amazon_mean_amazon,tmin_nov_he_2050_85_extract_amazon_sd_amazon,
tmin_nov_he_2070_85_extract_amazon_mean_amazon,tmin_nov_he_2070_85_extract_amazon_sd_amazon,
prec_nov_present_extract_amazon_mean_amazon,prec_nov_present_extract_amazon_sd_amazon,prec_nov_he
_2050_85_extract_amazon_mean_amazon,prec_nov_he_2050_85_extract_amazon_sd_amazon,
prec_nov_he_2070_85_extract_amazon_mean_amazon,prec_nov_he_2070_85_extract_amazon_sd_amazon,
tmax_nov_he_2050_45_extract_amazon_mean_amazon,tmax_nov_he_2050_45_extract_amazon_sd_amazon,
tmax_nov_he_2070_45_extract_amazon_mean_amazon,tmax_nov_he_2070_45_extract_amazon_sd_amazon,
tmin_nov_present_extract_amazon_mean_amazon,tmin_nov_present_extract_amazon_sd_amazon,tmin_nov_he
_2050_45_extract_amazon_mean_amazon,tmin_nov_he_2050_45_extract_amazon_sd_amazon,
tmin_nov_he_2070_45_extract_amazon_mean_amazon,tmin_nov_he_2070_45_extract_amazon_sd_amazon,
prec_nov_present_extract_amazon_mean_amazon,prec_nov_present_extract_amazon_sd_amazon,prec_nov_he
_2050_45_extract_amazon_mean_amazon,prec_nov_he_2050_45_extract_amazon_sd_amazon,
prec_nov_he_2070_45_extract_amazon_mean_amazon,prec_nov_he_2070_45_extract_amazon_sd_amazon)
write.table(extractions_amazon_tmax_nov, file="extractions_amazon_tmax_nov.txt", append=FALSE,
quote=TRUE, sep=";")

#dez

tmax_dez_present_extract_amazon_mean_amazon<-extract(tmax_dez_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_dez_present_extract_amazon_sd_amazon<-extract(tmax_dez_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_dez_he_2050_85_extract_amazon_mean_amazon<-extract(tmax_dez_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2050_85_extract_amazon_sd_amazon<-extract(tmax_dez_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmax_dez_he_2070_85_extract_amazon_mean_amazon<-extract(tmax_dez_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2070_85_extract_amazon_sd_amazon<-extract(tmax_dez_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

tmin_dez_present_extract_amazon_mean_amazon<-extract(tmin_dez_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_dez_present_extract_amazon_sd_amazon<-extract(tmin_dez_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_dez_he_2050_85_extract_amazon_mean_amazon<-extract(tmin_dez_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2050_85_extract_amazon_sd_amazon<-extract(tmin_dez_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
tmin_dez_he_2070_85_extract_amazon_mean_amazon<-extract(tmin_dez_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2070_85_extract_amazon_sd_amazon<-extract(tmin_dez_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)

prec_dez_present_extract_amazon_mean_amazon<-extract(prec_dez_present,ucs[1], fun=mean, na.rm=TRUE)
prec_dez_present_extract_amazon_sd_amazon<-extract(prec_dez_present,ucs[1], fun=sd, na.rm=TRUE)
prec_dez_he_2050_85_extract_amazon_mean_amazon<-extract(prec_dez_he_2050_85,ucs[1], fun=mean,
na.rm=TRUE)

```

```

prec_dez_he_2050_85_extract_amazon_sd_amazon<-extract(prec_dez_he_2050_85,ucs[1], fun=sd,
na.rm=TRUE)
prec_dez_he_2070_85_extract_amazon_mean_amazon<-extract(prec_dez_he_2070_85,ucs[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2070_85_extract_amazon_sd_amazon<-extract(prec_dez_he_2070_85,ucs[1], fun=sd,
na.rm=TRUE)
#dez

tmax_dez_present_extract_amazon_mean_amazon<-extract(tmax_dez_present,ucs[1], fun=mean, na.rm=TRUE)
tmax_dez_present_extract_amazon_sd_amazon<-extract(tmax_dez_present,ucs[1], fun=sd, na.rm=TRUE)
tmax_dez_he_2050_45_extract_amazon_mean_amazon<-extract(tmax_dez_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2050_45_extract_amazon_sd_amazon<-extract(tmax_dez_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmax_dez_he_2070_45_extract_amazon_mean_amazon<-extract(tmax_dez_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmax_dez_he_2070_45_extract_amazon_sd_amazon<-extract(tmax_dez_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_dez_present_extract_amazon_mean_amazon<-extract(tmin_dez_present,ucs[1], fun=mean, na.rm=TRUE)
tmin_dez_present_extract_amazon_sd_amazon<-extract(tmin_dez_present,ucs[1], fun=sd, na.rm=TRUE)
tmin_dez_he_2050_45_extract_amazon_mean_amazon<-extract(tmin_dez_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2050_45_extract_amazon_sd_amazon<-extract(tmin_dez_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
tmin_dez_he_2070_45_extract_amazon_mean_amazon<-extract(tmin_dez_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
tmin_dez_he_2070_45_extract_amazon_sd_amazon<-extract(tmin_dez_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

prec_dez_present_extract_amazon_mean_amazon<-extract(prec_dez_present,ucs[1], fun=mean, na.rm=TRUE)
prec_dez_present_extract_amazon_sd_amazon<-extract(prec_dez_present,ucs[1], fun=sd, na.rm=TRUE)
prec_dez_he_2050_45_extract_amazon_mean_amazon<-extract(prec_dez_he_2050_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2050_45_extract_amazon_sd_amazon<-extract(prec_dez_he_2050_45,ucs[1], fun=sd,
na.rm=TRUE)
prec_dez_he_2070_45_extract_amazon_mean_amazon<-extract(prec_dez_he_2070_45,ucs[1], fun=mean,
na.rm=TRUE)
prec_dez_he_2070_45_extract_amazon_sd_amazon<-extract(prec_dez_he_2070_45,ucs[1], fun=sd,
na.rm=TRUE)

extractions_amazon_tmax_dez<-
data.frame(tmax_dez_present_extract_amazon_mean_amazon,tmax_dez_present_extract_amazon_sd_amazon,t
max_dez_he_2050_85_extract_amazon_mean_amazon,tmax_dez_he_2050_85_extract_amazon_sd_amazon,tma
x_dez_he_2070_85_extract_amazon_mean_amazon,tmax_dez_he_2070_85_extract_amazon_sd_amazon,
tmin_dez_present_extract_amazon_mean_amazon,tmin_dez_present_extract_amazon_sd_amazon,tmin_dez_he_
2050_85_extract_amazon_mean_amazon,tmin_dez_he_2050_85_extract_amazon_sd_amazon,
tmin_dez_he_2070_85_extract_amazon_mean_amazon,tmin_dez_he_2070_85_extract_amazon_sd_amazon,
prec_dez_present_extract_amazon_mean_amazon,prec_dez_present_extract_amazon_sd_amazon,prec_dez_he_
2050_85_extract_amazon_mean_amazon,prec_dez_he_2050_85_extract_amazon_sd_amazon,
prec_dez_he_2070_85_extract_amazon_mean_amazon,prec_dez_he_2070_85_extract_amazon_sd_amazon,
tmax_dez_he_2050_45_extract_amazon_mean_amazon,tmax_dez_he_2050_45_extract_amazon_sd_amazon,
tmax_dez_he_2070_45_extract_amazon_mean_amazon,tmax_dez_he_2070_45_extract_amazon_sd_amazon,
tmin_dez_present_extract_amazon_mean_amazon,tmin_dez_present_extract_amazon_sd_amazon,tmin_dez_he_
2050_45_extract_amazon_mean_amazon,tmin_dez_he_2050_45_extract_amazon_sd_amazon,
tmin_dez_he_2070_45_extract_amazon_mean_amazon,tmin_dez_he_2070_45_extract_amazon_sd_amazon,
prec_dez_present_extract_amazon_mean_amazon,prec_dez_present_extract_amazon_sd_amazon,prec_dez_he_
2050_45_extract_amazon_mean_amazon,prec_dez_he_2050_45_extract_amazon_sd_amazon,
prec_dez_he_2070_45_extract_amazon_mean_amazon,prec_dez_he_2070_45_extract_amazon_sd_amazon)

```

```

write.table(extractions_amazon_tmax_dez, file="extractions_amazon_tmax_dez.txt", append=FALSE,
quote=TRUE, sep=";")

#compare the results
gcm_results<-read.csv("gcm_results.csv", header=T)
attach(gcm_results)

# comparison between gcms

# PR
#jan
aov_prjan<-aov(pr_jan~model)
summary(aov_prjan)

tukey_prjan<-TukeyHSD(aov(pr_jan~model))
tukey_prjan

#feb

aov_prfeb<-aov(pr_feb~model)
summary(aov_prfeb)
tukey_prfeb<-TukeyHSD(aov(pr_feb~model))
tukey_prfeb
#mar
aov_prmar<-aov(pr_mar~model)
summary(aov_prmar)
tukey_prmar<-TukeyHSD(aov(pr_mar~model))
tukey_prmar
#apr
aov_prapr<-aov(pr_apr~model)
summary(aov_prapr)
tukey_prapr<-TukeyHSD(aov(pr_apr~model))
tukey_prapr
#may
aov_prmay<-aov(pr_may~model)
summary(aov_prmay)
tukey_prmay<-TukeyHSD(aov(pr_may~model))
tukey_prmay

#jun
aov_prjun<-aov(pr_jun~model)
summary(aov_prjun)
tukey_prjun<-TukeyHSD(aov(pr_jun~model))
tukey_prjun
#jul
aov_prjul<-aov(pr_jul~model)
summary(aov_prjul)
tukey_prjul<-TukeyHSD(aov(pr_jul~model))
tukey_prjul
#aug
aov_praug<-aov(pr_aug~model)
summary(aov_praug)
tukey_praug<-TukeyHSD(aov(pr_aug~model))
tukey_praug
#sep
aov_prsep<-aov(pr_sep~model)
summary(aov_prsep)
tukey_prsep<-TukeyHSD(aov(pr_sep~model))
tukey_prsep

```

```
#oct
aov_proct<-aov(pr_oct~model)
summary(aov_proct)
tukey_proct<-TukeyHSD(aov(pr_oct~model))
tukey_proct
#nov
aov_prnov<-aov(pr_nov~model)
summary(aov_prnov)
tukey_prnov<-TukeyHSD(aov(pr_nov~model))
tukey_prnov
#dec
aov_prdec<-aov(pr_dec~model)
summary(aov_prdec)
tukey_prdec<-TukeyHSD(aov(pr_dec~model))
tukey_prdec

# TN
#jan
aov_tnjan<-aov(tn_jan~model)
summary(aov_tnjan)

tukey_tnjan<-TukeyHSD(aov(tn_jan~model))
tukey_tnjan

#feb

aov_tnfeb<-aov(tn_feb~model)
summary(aov_tnfeb)
tukey_tnfeb<-TukeyHSD(aov(tn_feb~model))
tukey_tnfeb
#mar
aov_tnmar<-aov(tn_mar~model)
summary(aov_tnmar)
tukey_tnmar<-TukeyHSD(aov(tn_mar~model))
tukey_tnmar
#apr
aov_tnapr<-aov(tn_apr~model)
summary(aov_tnapr)
tukey_tnapr<-TukeyHSD(aov(tn_apr~model))
tukey_tnapr
#may
aov_tnmay<-aov(tn_may~model)
summary(aov_tnmay)
tukey_tnmay<-TukeyHSD(aov(tn_may~model))
tukey_tnmay

#jun
aov_tnjun<-aov(tn_jun~model)
summary(aov_tnjun)
tukey_tnjun<-TukeyHSD(aov(tn_jun~model))
tukey_tnjun
#jul
aov_tnjul<-aov(tn_jul~model)
summary(aov_tnjul)
tukey_tnjul<-TukeyHSD(aov(tn_jul~model))
tukey_tnjul
#aug
aov_tnaug<-aov(tn_aug~model)
```

```

summary(aov_tnaug)
tukey_tnaug<-TukeyHSD(aov(tn_aug~model))
tukey_tnaug
#sep
aov_tnsep<-aov(tn_sep~model)
summary(aov_tnsep)
tukey_tnsep<-TukeyHSD(aov(tn_sep~model))
tukey_tnsep
#oct
aov_tnoct<-aov(tn_oct~model)
summary(aov_tnoct)
tukey_tnoct<-TukeyHSD(aov(tn_oct~model))
tukey_tnoct
#nov
aov_tnnov<-aov(tn_nov~model)
summary(aov_tnnov)
tukey_tnnov<-TukeyHSD(aov(tn_nov~model))
tukey_tnnov
#dec
aov_tndec<-aov(tn_dec~model)
summary(aov_tndec)
tukey_tndec<-TukeyHSD(aov(tn_dec~model))
tukey_tndec

# PR
#jan
aov_prjan<-aov(pr_jan~model)
summary(aov_prjan)

tukey_prjan<-TukeyHSD(aov(pr_jan~model))
tukey_prjan

#feb

aov_prfeb<-aov(pr_feb~model)
summary(aov_prfeb)
tukey_prfeb<-TukeyHSD(aov(pr_feb~model))
tukey_prfeb
#mar
aov_prmar<-aov(pr_mar~model)
summary(aov_prmar)
tukey_prmar<-TukeyHSD(aov(pr_mar~model))
tukey_prmar
#apr
aov_prapr<-aov(pr_apr~model)
summary(aov_prapr)
tukey_prapr<-TukeyHSD(aov(pr_apr~model))
tukey_prapr
#may
aov_prmay<-aov(pr_may~model)
summary(aov_prmay)
tukey_prmay<-TukeyHSD(aov(pr_may~model))
tukey_prmay

#jun
aov_prjun<-aov(pr_jun~model)
summary(aov_prjun)
tukey_prjun<-TukeyHSD(aov(pr_jun~model))
tukey_prjun
#jul

```

```

aov_prjul<-aov(pr_jul~model)
summary(aov_prjul)
tukey_prjul<-TukeyHSD(aov(pr_jul~model))
tukey_prjul
#aug
aov_praug<-aov(pr_aug~model)
summary(aov_praug)
tukey_praug<-TukeyHSD(aov(pr_aug~model))
tukey_praug
#sep
aov_prsep<-aov(pr_sep~model)
summary(aov_prsep)
tukey_prsep<-TukeyHSD(aov(pr_sep~model))
tukey_prsep
#oct
aov_proct<-aov(pr_oct~model)
summary(aov_proct)
tukey_proct<-TukeyHSD(aov(pr_oct~model))
tukey_proct
#nov
aov_prnov<-aov(pr_nov~model)
summary(aov_prnov)
tukey_prnov<-TukeyHSD(aov(pr_nov~model))
tukey_prnov
#dec
aov_prdec<-aov(pr_dec~model)
summary(aov_prdec)
tukey_prdec<-TukeyHSD(aov(pr_dec~model))
tukey_prdec

# Bioclim
#Bio1
aov_bio1<-aov(Bio1_mean~model)
summary(aov_bio1)
tukey_bio1<-TukeyHSD(aov(Bio1_mean~model))
tukey_bio1
#Bio2
aov_bio2<-aov(Bio2_mean~model)
summary(aov_bio2)
tukey_bio2<-TukeyHSD(aov(Bio2_mean~model))
tukey_bio2
#Bio3
aov_bio3<-aov(Bio3_mean~model)
summary(aov_bio3)
tukey_bio3<-TukeyHSD(aov(Bio3_mean~model))
tukey_bio3
#Bio4
aov_bio4<-aov(Bio4_mean~model)
summary(aov_bio4)
tukey_bio4<-TukeyHSD(aov(Bio4_mean~model))
tukey_bio4
#Bio5
aov_bio5<-aov(Bio5_mean~model)
summary(aov_bio5)
tukey_bio5<-TukeyHSD(aov(Bio5_mean~model))
tukey_bio5
#Bio6
aov_bio6<-aov(Bio6_mean~model)
summary(aov_bio6)
tukey_bio6<-TukeyHSD(aov(Bio6_mean~model))

```

```
tukey_bio6
  #Bio7
aov_bio7<-aov(Bio7_mean~model)
summary(aov_bio7)
tukey_bio7<-TukeyHSD(aov(Bio7_mean~model))
tukey_bio7
  #Bio8
aov_bio8<-aov(Bio8_mean~model)
summary(aov_bio8)
tukey_bio8<-TukeyHSD(aov(Bio8_mean~model))
tukey_bio8
  #Bio9
aov_bio9<-aov(Bio9_mean~model)
summary(aov_bio9)
tukey_bio9<-TukeyHSD(aov(Bio9_mean~model))
tukey_bio9
  #Bio10
aov_bio10<-aov(Bio10_mean~model)
summary(aov_bio10)
tukey_bio10<-TukeyHSD(aov(Bio10_mean~model))
tukey_bio10
  #Bio11
aov_bio11<-aov(Bio11_mean~model)
summary(aov_bio11)
tukey_bio11<-TukeyHSD(aov(Bio11_mean~model))
tukey_bio11
  #Bio12
aov_bio12<-aov(Bio12_mean~model)
summary(aov_bio12)
tukey_bio12<-TukeyHSD(aov(Bio12_mean~model))
tukey_bio12
  #Bio13
aov_bio13<-aov(Bio13_mean~model)
summary(aov_bio13)
tukey_bio13<-TukeyHSD(aov(Bio13_mean~model))
tukey_bio13
  #Bio14
aov_bio14<-aov(Bio14_mean~model)
summary(aov_bio14)
tukey_bio14<-TukeyHSD(aov(Bio14_mean~model))
tukey_bio14
  #Bio15
aov_bio15<-aov(Bio15_mean~model)
summary(aov_bio15)
tukey_bio15<-TukeyHSD(aov(Bio15_mean~model))
tukey_bio15
  #Bio16
aov_bio16<-aov(Bio16_mean~model)
summary(aov_bio16)
tukey_bio16<-TukeyHSD(aov(Bio16_mean~model))
tukey_bio16
  #Bio17
aov_bio17<-aov(Bio17_mean~model)
summary(aov_bio17)
tukey_bio17<-TukeyHSD(aov(Bio17_mean~model))
tukey_bio17
  #Bio18
aov_bio18<-aov(Bio18_mean~model)
summary(aov_bio18)
tukey_bio18<-TukeyHSD(aov(Bio18_mean~model))
```



```

tukey_bio18
  #Bio19
aov_bio19<-aov(Bio19_mean~model)
summary(aov_bio19)
tukey_bio19<-TukeyHSD(aov(Bio19_mean~model))
tukey_bio19

  # plots

  #coord<-c(-78, -48, -14, 8)
  coord<-c(-80, -40, -20, 10)
  crs(ucs)<-crs(bio1_present)

  # bio1
  bio1_present_crop<-crop(bio1_present, coord)

  tiff("bio1_present.tif")
  plot(bio1_present_crop, col=rev(rainbow(37)), breaks=c(-2,-
1,0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35))
  dev.off()
  bi_1_he_2070_45_crop<-crop(bi_1_he_2070_45, coord)
  tiff("bi_1_he_2070_45.tif")
  plot(bi_1_he_2070_45_crop/10, col=rev(rainbow(37)), breaks=c(-2,-
1,0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35))
  dev.off()
  bi_1_he_2070_85_crop<-crop(bi_1_he_2070_85/10, coord)
  tiff("bi_1_he_2070_85_difference.tif")
  plot((bi_1_he_2070_85_crop)-(bio1_present_crop), col=rev(rainbow(11)), breaks=c(-
1,0,1,2,3,4,5,6,7,8,9))
  dev.off()
  # bio12
  library(RColorBrewer)
  dat <- data.frame(x = rnorm(0, 8000, .2))
  bio12_present_crop<-crop(bio12_present, coord)
  tiff("bio12_present.tif")
  plot(bio12_present_crop, col=brewer.pal(n = 11, name = "RdBu"),
breaks=c(0,500,1000,2000,3000,4000,5000,6000,7000,8000,9000,10000))
  dev.off()
  bi_12_he_2070_45_crop<-crop(bi_12_he_2070_45, coord)
  tiff("bi_12_he_2070_45.tif")
  plot((bi_12_he_2070_45_crop)-(bio12_present_crop), col=brewer.pal(n = 8, name =
"RdBu"), breaks=c(-1000,-500,0,500,1000,2000,3000,4000))
  dev.off()
  bi_12_he_2070_85_crop<-crop(bi_12_he_2070_85, coord)
  tiff("bi_12_he_2070_85.tif")
  plot((bi_12_he_2070_85_crop)-(bio12_present_crop), col=brewer.pal(n = 10, name =
"RdBu"), breaks=c(-2000,-1000,-500,0,500,1000,2000,3000,4000,5000))
  dev.off()

# Sensibilidade
## Sensibilidade ##

setwd("C:/Users/Luisa Viegas Becerra/Desktop/#amazon/sensibilidade")
library(raster)
library(rgdal)
library(gttools)

sensitivity1<-'Figure1.tif'

```

```

sensitivity<-readGDAL("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/Cap 2 Exposure
Noronha/SEDDON2016/Fig1/Figure1.tif")
sensitivity<-raster(sensitivity)

library(RColorBrewer)
  coord<-c(-80, -40, -20, 10)
  sensitivity_crop<-crop(sensitivity, coord)
  tiff("sensitivity.tif")
plot(sensitivity_crop, col=rev(brewer.pal(n = 11, name = "RdYlGn")))
  dev.off()
amazon_biome <- readOGR("C:/Users/Luisa Viegas Becerra/Desktop/shapes/Amazon Biome
WWF/Amazon_Biome.shp", "Amazon_Biome")
amazon_ucs <- readOGR("C:/Users/Luisa Viegas Becerra/Desktop/shapes/Protection Areas Panamazonia
WWF/PAs_Panamazonia_NoTopo.shp", "PAs_Panamazonia_NoTopo")

write.table(amazon_biome@data,"amazon_biome.txt",quote=TRUE,row.names=F,sep=";")
write.table(amazon_ucs@data,"amazon_ucs.txt",quote=TRUE,row.names=F,sep=";")
#### testar o extract após o extend

crs <- crs("+proj=longlat +datum=WGS84 +no_defs +ellps=WGS84 +towgs84=0,0,0")
sensitivity<-spTransform(sensitivity,crs)
amazon_biome<-spTransform(amazon_biome,crs)
amazon_ucs<-spTransform(amazon_ucs,crs)
  ##UC amazonia
  extract_sensitivity_uc<-extract(sensitivity,amazon_ucs[1], fun=median, na.rm=TRUE)
  extract_sensitivity_uc1<-extract(sensitivity,amazon_ucs[1], fun=max, na.rm=TRUE)
  extract_sensitivity_uc2<-extract(sensitivity,amazon_ucs[1], fun=mean, na.rm=TRUE)
  extract_sensitivity_uc3<-extract(sensitivity,amazon_ucs[1], fun=min, na.rm=TRUE)
  write.table(extract_sensitivity_uc, file="extract_sensitivity_uc_median.txt", append=FALSE,
quote=TRUE, sep=";")
  write.table(extract_sensitivity_uc1, file="extract_sensitivity_uc_max.txt", append=FALSE, quote=TRUE,
sep=";")
  write.table(extract_sensitivity_uc2, file="extract_sensitivity_uc_mean.txt", append=FALSE,
quote=TRUE, sep=";")
  write.table(extract_sensitivity_uc3, file="extract_sensitivity_uc_min.txt", append=FALSE, quote=TRUE,
sep=";")

  ##Bioma
  extract_sensitivity_biome<-extract(sensitivity,amazon_biome[1], fun=median, na.rm=TRUE)
  extract_sensitivity_biome1<-extract(sensitivity,amazon_biome[1], fun=max, na.rm=TRUE)
  extract_sensitivity_biome2<-extract(sensitivity,amazon_biome[1], fun=mean, na.rm=TRUE)
  extract_sensitivity_biome3<-extract(sensitivity,amazon_biome[1], fun=min, na.rm=TRUE)
  write.table(extract_sensitivity_biome, file="extract_sensitivity_biome_median.txt", append=FALSE,
quote=TRUE, sep=";")
  write.table(extract_sensitivity_biome1, file="extract_sensitivity_biome_max.txt", append=FALSE,
quote=TRUE, sep=";")
  write.table(extract_sensitivity_biome2, file="extract_sensitivity_biome_mean.txt", append=FALSE,
quote=TRUE, sep=";")
  write.table(extract_sensitivity_biome3, file="extract_sensitivity_uc_biome.txt", append=FALSE,
quote=TRUE, sep=";")

```

Seção 5

```

# Community analysis
# metacomunidade

library(metacom)
com_amazon<-read.csv("D:/Analysis_Mapinguari/Metacom/community_data1.csv", header=T)

# Plotting of site-by-species interaction matrices
# 'Imagine' produces an image plot, grid of small rectangles representing species occurrences in sites, of a given
interaction matrix.

imagine_amazonlizards<-Imagine(com_amazon, col = c(0, 1), order = TRUE, scores = 1, fill = TRUE,
                               xlab = "Species", ylab = "Site", yline = 2, xline = 2,
                               sitenames = rownames(com_amazon), speciesnames =
colnames(com_amazon),
                               binary = TRUE)

#Null community matrices are produced with the NullMaker() function,
# which combines methods of community simulation from functions commsimulator()
#and permatfull() in the R package vegan (Oksanen et al. 2012) with an additional
#argument that either allows row (site) or column (species) totals to contain no occurrences.
# Biologically, this is an important consideration, as the null expectation of a site containing
#no species or a species occurring in none of observed sites may be unrealistic,
#depending on the endemism of species and the suitability of sites to occupancy

NullMaker(com_amazon, sims = 1000, method = "r1", ordinate = FALSE,
scores = 1, allowEmpty = FALSE, verbose = FALSE, seed = 1)

##### betapart = to examine the patterns of turnover.

library(betapart)
com_amazon<-read.csv("D:/Analysis_Mapinguari/Metacom/community_data1.csv", header=T)

betapart_amazonlizards<-betapart.core(com_amazon)
summary(betapart_amazonlizards)

# Core calculations of betapart for abundance-based dissimilarity measures
betapart_coreabund_amazonlizards<-betapart.core.abund(com_amazon)
summary(betapart_coreabund_amazonlizards)

beta.multi(betapart_amazonlizards, index.family="sorensen")

# Modelagem de distribuição: Baseado em Sinervo et al. 2018
AmazonLizards <- read.csv("D:/Analysis_Mapinguari/LMDV_SDM/analyses_izpaperscript/dist_all.csv",
header=T)
library(raster)
e <- extent(c(-80,-40,-20,14))

#step 0
# function 1 - DOES a surface layer of the soilprofile microclim scenario
AmazonLizardsExtractMatrix.R <- function(pathToSoilRaster){
resolution <- 0.1666667 # ~18x18 km cells require(raster)
# global surface will be read into workspace; values extracted at Lat,Lon of:
# requires AmazonLizards <- read.csv("AmazonLizards.csv") file
AmazonLizardsMatrixSurf <- array(0,dim=c(length(AmazonLizards$Lat),24))
for(h in 1:24){
for(n in 1: length(AmazonLizards$Lat)) { #[Lat,Lon] => [r,c]

```

```

r <- as.integer((e[4] - AmazonLizards$Lat[n])/resolution)
c <- as.integer((AmazonLizards$Lon[n] - e[1])/resolution + 1)
soil_0_surf <- raster(pathToSoilRaster,band=h)
soil_0_surf <- crop(soil_0_surf,e)
soil_0_surf <- as.matrix(soil_0_surf)
AmazonLizardsMatrixSurf[n,h]<-soil_0_surf[r,c] }
cat('\n')
}
return(AmazonLizardsMatrixSurf) # return a matrix of dim(N_occurrence,24h)
}

# function 2 - DOES a microclim scenario that is a simple surface air 1cm
AmazonLizardsExtract_microclimByMonth.R <- function(pathToSoilRaster,month){
resolution <- 0.1666667
require(raster)
AmazonLizardsMatrixSurf <- array(0,dim=c(length(AmazonLizards$Lat),24))
for(h in 1:24){
soil_0_surf <- raster(pathToSoilRaster,band=h)
soil_0_surf <- crop(soil_0_surf,e)
soil_0_surf <- as.matrix(soil_0_surf)
for(n in 1: length(AmazonLizards$Lat)) {
r <- as.integer((e[4] - AmazonLizards$Lat[n])/resolution)
c <- as.integer((AmazonLizards$Lon[n] - e[1])/resolution+1)
AmazonLizardsMatrixSurf[n,h]<-soil_0_surf[r,c]
}
}
return(AmazonLizardsMatrixSurf)
}
ls(pattern="AmazonLizardsMatrixSurf") #after Step_0, ls() yields the output
ListofAmazonLizards_microclim <- ls(pattern="AmazonLizardsMatrixSurf")

#AmazonLizardsMatrixSurf_0cm_25shd_01 <-
AmazonLizardsExtractMatrix.R("25_shade_substrate/D0cm_sand_25_1.nc")
# step 1
AmazonLizards[["Tmax_03"]] <- as.vector(matrix(0,nrow=length(AmazonLizards$Lat)))
Step_1_BuildTmax_SineCalculator.R <- function(){
resolution <- 0.1666667
e <- extent(c(-80,-40,-20,14))
# and then the usual parameters for hr, hr, prec
tmax_01 <- raster("D:/Rasters/Amazon/wc2-5/tmax1.bil")
tmax_02 <- raster("D:/Rasters/Amazon/wc2-5/tmax2.bil")
tmax_03 <- raster("D:/Rasters/Amazon/wc2-5/tmax3.bil")
tmax_04 <- raster("D:/Rasters/Amazon/wc2-5/tmax4.bil")
tmax_05 <- raster("D:/Rasters/Amazon/wc2-5/tmax5.bil")
tmax_06 <- raster("D:/Rasters/Amazon/wc2-5/tmax6.bil")
tmax_07 <- raster("D:/Rasters/Amazon/wc2-5/tmax7.bil")
tmax_08 <- raster("D:/Rasters/Amazon/wc2-5/tmax8.bil")
tmax_09 <- raster("D:/Rasters/Amazon/wc2-5/tmax9.bil")
tmax_010 <- raster("D:/Rasters/Amazon/wc2-5/tmax10.bil")
tmax_011 <- raster("D:/Rasters/Amazon/wc2-5/tmax11.bil")
tmax_012 <- raster("D:/Rasters/Amazon/wc2-5/tmax12.bil")
tmax_01.crop <- crop(tmax_01,e)
tmax_02.crop <- crop(tmax_02,e)
tmax_04.crop <- crop(tmax_04,e)
tmax_04.crop <- crop(tmax_04,e)
tmax_05.crop <- crop(tmax_05,e)
tmax_06.crop <- crop(tmax_06,e)
tmax_07.crop <- crop(tmax_07,e)
tmax_08.crop <- crop(tmax_08,e)
tmax_09.crop <- crop(tmax_09,e)

```

```

tmax_10.crop <- crop(tmax_10,e)
tmax_11.crop <- crop(tmax_11,e)
tmax_12.crop <- crop(tmax_12,e)
tmax_01 <- aggregate(tmax_01,fun=mean,fact=20)
tmax_02 <- aggregate(tmax_02,fun=mean,fact=20)
tmax_03 <- aggregate(tmax_03,fun=mean,fact=20)
tmax_04 <- aggregate(tmax_04,fun=mean,fact=20)
tmax_05 <- aggregate(tmax_05,fun=mean,fact=20)
tmax_06 <- aggregate(tmax_06,fun=mean,fact=20)
tmax_07 <- aggregate(tmax_07,fun=mean,fact=20)
tmax_08 <- aggregate(tmax_08,fun=mean,fact=20)
tmax_09 <- aggregate(tmax_09,fun=mean,fact=20)
tmax_10 <- aggregate(tmax_10,fun=mean,fact=20)
tmax_11 <- aggregate(tmax_11,fun=mean,fact=20)
tmax_12 <- aggregate(tmax_12,fun=mean,fact=20)
tmax_01 <- as.matrix(tmax_01)/10
tmax_02 <- as.matrix(tmax_02)/10
tmax_03 <- as.matrix(tmax_03)/10
tmax_04 <- as.matrix(tmax_04)/10
tmax_05 <- as.matrix(tmax_05)/10
tmax_06 <- as.matrix(tmax_06)/10
tmax_07 <- as.matrix(tmax_07)/10
tmax_08 <- as.matrix(tmax_08)/10
tmax_09 <- as.matrix(tmax_09)/10
tmax_10 <- as.matrix(tmax_10)/10
tmax_11 <- as.matrix(tmax_11)/10
tmax_12 <- as.matrix(tmax_12)/10

for(n in 1:length(AmazonLizards$Lat)){#extract Tmax at [Lat,Lon]=>[r,c]
r <- as.integer((e[4] - AmazonLizards$Lat[n])/resolution)
c <- as.integer((AmazonLizards$Lon[n] - e[1])/resolution + 1)
AmazonLizards$Tmax_01[n]<<-tmax_01[r,c]
AmazonLizards$Tmax_02[n]<<-tmax_02[r,c]
AmazonLizards$Tmax_03[n]<<-tmax_03[r,c] # [r,c] index extent e
AmazonLizards$Tmax_04[n]<<-tmax_04[r,c]
AmazonLizards$Tmax_05[n]<<-tmax_05[r,c]
AmazonLizards$Tmax_06[n]<<-tmax_06[r,c]
AmazonLizards$Tmax_07[n]<<-tmax_07[r,c]
AmazonLizards$Tmax_08[n]<<-tmax_08[r,c]
AmazonLizards$Tmax_09[n]<<-tmax_09[r,c]
AmazonLizards$Tmax_10[n]<<-tmax_10[r,c]
AmazonLizards$Tmax_11[n]<<-tmax_11[r,c]
AmazonLizards$Tmax_12[n]<<-tmax_12[r,c]
}
h_r_Te <- as.vector(matrix(0,nrow=length(AmazonLizards$Lat)))
for(TeName in ListofAmazonLizards_microclim){
#TeName - Te scenarios/month
#then get the headerTe names in AmazonLizards.csv
headerTe <- substr(TeName,start=24,stop=nchar(TeName))
#columns added to the data matrix AmazonLizards for results from numerical integration
headerTe <- sub("f_", "Te", headerTe) # headers in AmazonLizards.csv
#Takes AmazonLizardsMatrix=get(TeName), converts to h_r header scenarios
AmazonLizardsMatrix <- get(TeName)
for(n in 1:length(AmazonLizards$Lat)){
up <- FALSE # set up/down registers for T_e > Tb (UP CROSSING)
down <- FALSE # and last T_e < Tb (DOWN CROSSING)
h_r <- 0
h_r_subtract <- 0
for(h in 1:24){ #The 24-hours of microclim T_e scenarios
if(!is.na(AmazonLizardsMatrix[n,h])){ # [n,h] == [site h,over 24-h]

```

```

if(AmazonLizardsMatrix[n,h] > AmazonLizards$Tb[n]){
h_r <- h_r + 1 # an integer counter used below
if(!up){ # compute fractional h threshold, up crossing
# must be 1st upcrossing: do once
up <- TRUE
cat("U")
# just indicating the user an UP-CROSSING
# solve slope, a, and intercept, b, useful relations:
# y=ax+b; b=y-ax; x=(y-b)/a; for linear interpolation
a <- (AmazonLizardsMatrix[n,h]
-AmazonLizardsMatrix[n,(h-1)]) # denominator is simply 1 hr
# b, the intercept for a down-crossing:
b <- AmazonLizardsMatrix[n,h]-a*h
h_r_subtract <- ((AmazonLizards$Tb[n]- b)/a)-h
h_r <- h_r - h_r_subtract
}
}
else{ # compute fractional h, for the downcrossing
if(up && !down){ # h threshold, down crossing
# must be the 1st downcrossing: do once
down <- TRUE
cat("D") # just indicating the user an DOWN-CROSSING
# solve slope, a, and intercept, b, useful relations:
# y=ax+b; b=y-ax; x=(y-b)/a; for linear interpolation
a <- (AmazonLizardsMatrix[n,h]
-AmazonLizardsMatrix[n,(h-1)]) # denominator is simply 1 hr
# b, the intercept for a down-crossing
b <- AmazonLizardsMatrix[n,h]-a*h
h_r_subtract <- ((AmazonLizards$Tb[n]- b)/a)-h
h_r <- h_r - h_r_subtract
}
}
} # is.na else cat("MISSING",n,h)
# to handle is.na()=TRUE: likely in ocean
}
# end for loop h= hours of day
h_r_Te[n] <- h_r #assign output of numerical integration for site n
}
# end for loop n=populations (e.g., occurrence records)
AmazonLizards[[headerTe]] <<- h_r_Te # create a new column vector
}
}

# step 2 #####

Step_2_AssembleTeDownScaling_hr_TmaxTpref.R <- function(){
  average_hr_03_09 <<-
array(0,dim=c(5*length(AmazonLizards$Lat),7))
ctr <- 0
for(i in 1:length(AmazonLizards$Lat)){
  average_hr_03_09[i+ctr,1] <<- AmazonLizards$Tb[i]
  average_hr_03_09[i+ctr,2] <<- AmazonLizards$Lon[i]
  average_hr_03_09[i+ctr,3] <<- AmazonLizards$Lat[i]
  average_hr_03_09[i+ctr,4] <<- 5
  average_hr_03_09[i+ctr,5] <<- AmazonLizards$Tmax_05[i]
  average_hr_03_09[i+ctr,6] <<- AmazonLizards$Tmax_05[i]- AmazonLizards$Tb[i]
  average_hr_03_09[i+ctr,7] <<- (AmazonLizards$Te0cm_100shd_05[i]
+AmazonLizards$Te0cm_25shd_05[i]
+AmazonLizards$Te0cm_50shd_05[i]

```

```

+AmazonLizards$Te0cm_75shd_05[i]
+AmazonLizards$Te1cm_0shd_05[i]
+AmazonLizards$Te1cm_0shd_rk_05[i]
+AmazonLizards$Te1cm_100shd_05[i]
+AmazonLizards$Te1cm_100shd_rk_05[i]
+AmazonLizards$Te1cm_25shd_05[i]
+AmazonLizards$Te1cm_25shd_rk_05[i]
+AmazonLizards$Te1cm_50shd_05[i]
+AmazonLizards$Te1cm_50shd_rk_05[i]
+AmazonLizards$Te1cm_75shd_05[i]
+AmazonLizards$Te1cm_75shd_rk_05[i])/14
}

```

```
#6
```

```

ctr <- length(AmazonLizards$Lat)
for(i in 1:length(AmazonLizards$Lat)){
average_hr_03_09[i+ctr,1] <<- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,2] <<- AmazonLizards$Lon[i]
average_hr_03_09[i+ctr,3] <<- AmazonLizards$Lat[i]
average_hr_03_09[i+ctr,4] <<- 6
average_hr_03_09[i+ctr,5] <<- AmazonLizards$Tmax_06[i]
average_hr_03_09[i+ctr,6] <<- AmazonLizards$Tmax_06[i]- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,7] <<- (AmazonLizards$Te0cm_100shd_06[i]
+AmazonLizards$Te0cm_25shd_06[i]
+AmazonLizards$Te0cm_50shd_06[i]
+AmazonLizards$Te0cm_75shd_06[i]
+AmazonLizards$Te1cm_0shd_06[i]
+AmazonLizards$Te1cm_0shd_rk_06[i]
+AmazonLizards$Te1cm_100shd_06[i]
+AmazonLizards$Te1cm_100shd_rk_06[i]
+AmazonLizards$Te1cm_25shd_06[i]
+AmazonLizards$Te1cm_25shd_rk_06[i]
+AmazonLizards$Te1cm_50shd_06[i]
+AmazonLizards$Te1cm_50shd_rk_06[i]
+AmazonLizards$Te1cm_75shd_06[i]
+AmazonLizards$Te1cm_75shd_rk_06[i])/14
}

```

```
#7
```

```

ctr <- 2*length(AmazonLizards$Lat)
for(i in 1:length(AmazonLizards$Lat)){
average_hr_03_09[i+ctr,1] <<- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,2] <<- AmazonLizards$Lon[i]
average_hr_03_09[i+ctr,3] <<- AmazonLizards$Lat[i]
average_hr_03_09[i+ctr,4] <<- 7
average_hr_03_09[i+ctr,5] <<- AmazonLizards$Tmax_07[i]
average_hr_03_09[i+ctr,6] <<- AmazonLizards$Tmax_07[i]- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,7] <<-
(AmazonLizards$Te0cm_100shd_07[i]
+AmazonLizards$Te0cm_25shd_07[i]
+AmazonLizards$Te0cm_50shd_07[i]
+AmazonLizards$Te0cm_75shd_07[i]
+AmazonLizards$Te1cm_0shd_07[i]
+AmazonLizards$Te1cm_0shd_rk_07[i]
+AmazonLizards$Te1cm_100shd_07[i]
+AmazonLizards$Te1cm_100shd_rk_07[i]
+AmazonLizards$Te1cm_25shd_07[i]
+AmazonLizards$Te1cm_25shd_rk_07[i]
+AmazonLizards$Te1cm_50shd_07[i]
+AmazonLizards$Te1cm_50shd_rk_07[i]
+AmazonLizards$Te1cm_75shd_07[i]

```

```

+AmazonLizards$Te1cm_75shd_rk_07[i])/14
}

#8
ctr <- 3*length(AmazonLizards$Lat)
for(i in 1:length(AmazonLizards$Lat)){
average_hr_03_09[i+ctr,1] <<- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,2] <<- AmazonLizards$Lon[i]
average_hr_03_09[i+ctr,3] <<- AmazonLizards$Lat[i]
average_hr_03_09[i+ctr,4] <<- 8
average_hr_03_09[i+ctr,5] <<- AmazonLizards$Tmax_08[i]
average_hr_03_09[i+ctr,6] <<- AmazonLizards$Tmax_08[i]- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,7] <<- (AmazonLizards$Te0cm_100shd_08[i]
+AmazonLizards$Te0cm_25shd_08[i]
+AmazonLizards$Te0cm_50shd_08[i]
+AmazonLizards$Te0cm_75shd_08[i]
+AmazonLizards$Te1cm_0shd_08[i]
+AmazonLizards$Te1cm_0shd_rk_08[i]
+AmazonLizards$Te1cm_100shd_08[i]
+AmazonLizards$Te1cm_100shd_rk_08[i]
+AmazonLizards$Te1cm_25shd_08[i]
+AmazonLizards$Te1cm_25shd_rk_08[i]
+AmazonLizards$Te1cm_50shd_08[i]
+AmazonLizards$Te1cm_50shd_rk_08[i]
+AmazonLizards$Te1cm_75shd_08[i]
+AmazonLizards$Te1cm_75shd_rk_08[i])/14
}
}
#9
ctr <- 4*length(AmazonLizards$Lat)
for(i in 1:length(AmazonLizards$Lat)){
average_hr_03_09[i+ctr,1] <<- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,2] <<- AmazonLizards$Lon[i]
average_hr_03_09[i+ctr,3] <<- AmazonLizards$Lat[i]
average_hr_03_09[i+ctr,4] <<- 9
average_hr_03_09[i+ctr,5] <<- AmazonLizards$Tmax_09[i]
average_hr_03_09[i+ctr,6] <<- AmazonLizards$Tmax_09[i]- AmazonLizards$Tb[i]
average_hr_03_09[i+ctr,7] <<- (AmazonLizards$Te0cm_100shd_09[i]
+AmazonLizards$Te0cm_25shd_09[i]
+AmazonLizards$Te0cm_50shd_09[i]
+AmazonLizards$Te0cm_75shd_09[i]
+AmazonLizards$Te1cm_0shd_09[i]
+AmazonLizards$Te1cm_0shd_rk_09[i]
+AmazonLizards$Te1cm_100shd_09[i]
+AmazonLizards$Te1cm_100shd_rk_09[i]
+AmazonLizards$Te1cm_25shd_09[i]
+AmazonLizards$Te1cm_25shd_rk_09[i]
+AmazonLizards$Te1cm_50shd_09[i]
+AmazonLizards$Te1cm_50shd_rk_09[i]
+AmazonLizards$Te1cm_75shd_09[i]
+AmazonLizards$Te1cm_75shd_rk_09[i])/14
}
}

#step 3
Step_3_Downscaling_h_r_by_Tmax3_PROOFED.R <- function(){
# before running this function... read in the tmax rasters:
# tmax_03-tmax_09, convert to spatial extent given by e and at 1x1 km
# then convert them into matrices, tmax_03 <- as.matrix(tmax_03), ...
resolution <- 0.00833333
Theta1 <- 10.831930877 # fitted theta (Eqn.1) from the data of Step_2

```



```

Theta2 <- 5.1079937093
Theta3 <- 0.4068101337
Theta4 <- 2.6905722504 # compute all the raster layers of Tmax-Tpref into hours of activity
# register for computed h_r by month
h_r_downscale <-<- array(0,dim=c(length(AmazonLizards$Tb),7))
for(n in 1:length(AmazonLizardsSppTb$Tb)){

  r <- as.integer((e[4] -
AmazonLizardsSppTb$Lat[n])/resolution) # matrix 0 to 1
c <- as.integer((AmazonLizardsSppTb$Lon[n] - e[1])/resolution + 1)
# To get maternal plasticity from this same function ...
# add 1 C to Tpref (based on Paranjpe et al. 2013)
Tpref <- AmazonLizards$Tb[i]
# +1 # for maternal plasticity # or not for base model #03 month
Tmax <- tmax_03[r,c]
h_r_downscale[n,1] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4) # 04 month
Tmax <- tmax_04[r,c]
h_r_downscale[n,2] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4) # 05 month
Tmax <- tmax_05[r,c]
h_r_downscale[n,3] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4) # 06 month
Tmax <- tmax_06[r,c]
h_r_downscale[n,4] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4) # 07 month
Tmax <- tmax_07[r,c]
h_r_downscale[n,5] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4)
# cat(" ",tmax_03[r,c],h_r_downscale[i,5]) # 08 month
Tmax <- tmax_08[r,c]
h_r_downscale[n,6] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4) # 09 month
Tmax <- tmax_09[r,c]
h_r_downscale[n,7] <-<- Theta1/(1+Theta2*exp(-Theta3*(Tmax- Tpref)))^(1/Theta4)
}
}

Step_4_Assemble_quantiles_Extinction.R <- function(){
for(n in 1:length(AmazonLizardsSppTb$Lat)){
AmazonLizards$h_r_05to08[n] <-<- mean(h_r_downscale_1975[n,3:6])
# this uses the matrix outside of the list (but you could use the matrix inside the list AmazonLizardsSppTb)
AmazonLizardsSppTb$h_r_05to08_2070RCP85[n] <-<- mean(h_r_downscale_2070_RCP85[n,3:6])
AmazonLizardsSppTb$h_r_05to08_2070RCP45[n] <-<- mean(h_r_downscale_2070_RCP45[n,3:6])
}
h_r_upper_quantile <-<- as.vector(array(0,dim=c(length(AmazonLizardsSpeciesList),1)))
species <- as.character(AmazonLizardsSppTb$Species)
for(i in 1:length(AmazonLizardsSpeciesList)){
h_r_upper_quantile[i] <-<- quantile(AmazonLizardsSppTb$h_r_05to08[species==AmazonLizardsSpeciesList[i]
],probs=c(0.95))
cat(i, AmazonLizardsSpeciesList[i],h_r_upper_quantile[i],"n")
}
for(n in 1:length(AmazonLizardsSppTb$Lat)){
i <- 1
while(species[n] != AmazonLizardsSpeciesList[i]){
i <- i + 1
}
AmazonLizardsSppTb$h_r_upper_quantile[n] <-<- h_r_upper_quantile[i]
if(AmazonLizardsSppTb$h_r_05to08_2070RCP85[n] > h_r_upper_quantile[i]){
AmazonLizardsSppTb$Extinct2070RCP85[n] <-<- 0
cat("0 ") }
else{
AmazonLizardsSppTb$Extinct2070RCP85[n] <-<- 1
cat("1 ")
}
}
}
}

```

```

for(n in 1:length(AmazonLizardsSppTb$Lat)){
i <- 1
while(species[n] != AmazonLizardsSpeciesList[i]){
i <- i + 1
}
AmazonLizards$h_r_upper_quantile[n] <<- h_r_upper_quantile[i]
if(AmazonLizardsSppTb$h_r_05to08_2070RCP45[n] > h_r_upper_quantile[i]){
AmazonLizardsSppTb$Extinct2070RCP45[n] <<- 0
cat("0 ") # just lets you know it worked
}
else{
AmazonLizardsSppTb$Extinct2070RCP45[n] <<- 1
cat("1 ") # just lets you know it worked
}
}
}
}
library(dismo)
library(maps)
library(Hmisc)
library(biomod2)
# It the uses the routines in biomod2 to fit a species distribution model
# then it takes the fits from that model to predict the future distribution
# in 2080
setwd("C:/Users/Luisa Diele-Viegas/Google Drive/PhD/TESE/Parte 2 - Amazonia/Capítulo 5 - em
andamento/step4_SDM")
e <- extent(-105,-30,-55,20)

r1 <- raster("D:/Rasters/Amazon/wc2-5/tmax1.bil")
dataType(r1) <- "INT2S"
r2 <- raster("D:/Rasters/Amazon/wc2-5/tmax2.bil")
dataType(r2) <- "INT2S"
r3 <- raster("D:/Rasters/Amazon/wc2-5/tmax3.bil")
dataType(r3) <- "INT2S"
r4 <- raster("D:/Rasters/Amazon/wc2-5/tmax4.bil")
dataType(r4) <- "INT2S"
r5 <- raster("D:/Rasters/Amazon/wc2-5/tmax5.bil")
dataType(r5) <- "INT2S"
r6 <- raster("D:/Rasters/Amazon/wc2-5/tmax6.bil")
dataType(r6) <- "INT2S"
r7 <- raster("D:/Rasters/Amazon/wc2-5/tmax7.bil")
dataType(r7) <- "INT2S"
r8 <- raster("D:/Rasters/Amazon/wc2-5/tmax8.bil")
dataType(r8) <- "INT2S"
r9 <- raster("D:/Rasters/Amazon/wc2-5/tmax9.bil")
dataType(r9) <- "INT2S"
r10 <- raster("D:/Rasters/Amazon/wc2-5/tmax10.bil")
dataType(r10) <- "INT2S"
r11 <- raster("D:/Rasters/Amazon/wc2-5/tmax11.bil")
dataType(r11) <- "INT2S"
r12 <- raster("D:/Rasters/Amazon/wc2-5/tmax12.bil")
dataType(r12) <- "INT2S"

r1.crop <- aggregate(crop(r1,e),fun=mean,fact=6)/10
r2.crop <- aggregate(crop(r2,e),fun=mean,fact=6)/10
r3.crop <- aggregate(crop(r3,e),fun=mean,fact=6)/10
r4.crop <- aggregate(crop(r4,e),fun=mean,fact=6)/10
r5.crop <- aggregate(crop(r5,e),fun=mean,fact=6)/10
r6.crop <- aggregate(crop(r6,e),fun=mean,fact=6)/10
r7.crop <- aggregate(crop(r7,e),fun=mean,fact=6)/10
r8.crop <- aggregate(crop(r8,e),fun=mean,fact=6)/10

```

```

r9.crop <- aggregate(crop(r9,e),fun=mean,fact=6)/10
r10.crop <- aggregate(crop(r10,e),fun=mean,fact=6)/10
r11.crop <- aggregate(crop(r11,e),fun=mean,fact=6)/10
r12.crop <- aggregate(crop(r12,e),fun=mean,fact=6)/10

G_poly = read.csv("D:/Analysis_Mapinguari/LMDV_SDM/analyses_izpaperscript/dist_all.csv", header=T)
coordinates(G_poly) = ~ Lon + Lat
#force the western soil extent
#e <- extent(silt.10m)
# get the original data in G_poly for species occurances and extend it by 5 degrees using extend() a command in
raster.pdf
#e = extend(extent(G_poly),5)

# crop the world's data at 10 arc minutes to the region around G_poly points
# store these tmax values for 1975 in r1.crop - r12.crop

# fit I ran in JMP (using the data in the Zimmermann et al. 1994 for G. agassizii

Tpref=29.57

# h_a function
Theta1 <- 24 # constrain asymptote to h_a value
Theta2 <- -0.128057505449547
Theta3 <- 0.17711852809626
Theta4 <- -0.355746571402321

# compute all the raster layers of Tmax-Tpref into hours of activity
#
r_ha1.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1.crop-Tpref)))^(1/Theta4)
r_ha2.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2.crop-Tpref)))^(1/Theta4)
r_ha3.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3.crop-Tpref)))^(1/Theta4)
r_ha4.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4.crop-Tpref)))^(1/Theta4)
r_ha5.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5.crop-Tpref)))^(1/Theta4)
r_ha6.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6.crop-Tpref)))^(1/Theta4)
r_ha7.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7.crop-Tpref)))^(1/Theta4)
r_ha8.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8.crop-Tpref)))^(1/Theta4)
r_ha9.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9.crop-Tpref)))^(1/Theta4)
r_ha10.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10.crop-Tpref)))^(1/Theta4)
r_ha11.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11.crop-Tpref)))^(1/Theta4)
r_ha12.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12.crop-Tpref)))^(1/Theta4)

r_ha1.crop[r1.crop < 20] <- 0
r_ha2.crop[r2.crop < 20] <- 0
r_ha3.crop[r3.crop < 20] <- 0
r_ha4.crop[r4.crop < 20] <- 0
r_ha5.crop[r5.crop < 20] <- 0
r_ha6.crop[r6.crop < 20] <- 0
r_ha7.crop[r7.crop < 20] <- 0
r_ha8.crop[r8.crop < 20] <- 0
r_ha9.crop[r9.crop < 20] <- 0
r_ha10.crop[r10.crop < 20] <- 0
r_ha11.crop[r11.crop < 20] <- 0
r_ha12.crop[r12.crop < 20] <- 0

Tpref<-29.57 # Tpref derived

#parameters for the 4-parameter Richards growth equation -- sigmoidal curve
# fitted to data for hours of restriction regressed on Tmax-Tpref:

Theta1 <- 12 # constrain asymptote to h_a value

```

```

Theta2 <- 4.12878578037074
Theta3 <- 0.293500741987643
Theta4 <- 1.6159356896977

#compute hours of restriction during the breeding season:
r_hr1.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1.crop-Tpref)))^(1/Theta4)
r_hr1.crop[r1.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr2.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2.crop-Tpref)))^(1/Theta4)
r_hr2.crop[r2.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)
r_hr3.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3.crop-Tpref)))^(1/Theta4)
r_hr3.crop[r3.crop < 20] <- 0

r_hr4.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4.crop-Tpref)))^(1/Theta4)
r_hr4.crop[r4.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr5.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5.crop-Tpref)))^(1/Theta4)
r_hr5.crop[r5.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)
r_hr6.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6.crop-Tpref)))^(1/Theta4)
r_hr6.crop[r6.crop < 20] <- 0
r_hr7.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7.crop-Tpref)))^(1/Theta4)
r_hr7.crop[r7.crop < 20] <- 0 #we ran out of memory to calculate that, were it was below of that it comes to zero.
Always have to be careful for this things, use Excel.

r_hr8.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8.crop-Tpref)))^(1/Theta4)
r_hr8.crop[r8.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr9.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9.crop-Tpref)))^(1/Theta4)
r_hr9.crop[r9.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)
r_hr10.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10.crop-Tpref)))^(1/Theta4)
r_hr10.crop[r10.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr11.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11.crop-Tpref)))^(1/Theta4)
r_hr11.crop[r11.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr12.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12.crop-Tpref)))^(1/Theta4)
r_hr12.crop[r12.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)

# sum the hours of activity for the entire year -- activity ellipse

rsum_ha.crop <- (r_ha1.crop+r_ha2.crop+r_ha3.crop+r_ha4.crop+r_ha5.crop+r_ha6.crop+r_ha7.crop+
r_ha8.crop+r_ha9.crop+r_ha10.crop+r_ha11.crop+r_ha12.crop)
rsum_hr.crop <- (r_hr1.crop+r_hr2.crop+r_hr3.crop+r_hr4.crop+r_hr5.crop+r_hr6.crop+r_hr7.crop+
r_hr8.crop+r_hr9.crop+r_hr10.crop+r_hr11.crop+r_hr12.crop)

r1_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx701.tif")
r2_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx702.tif")
r3_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx703.tif")
r4_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx704.tif")
r5_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx705.tif")
r6_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx706.tif")
r7_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx707.tif")
r8_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx708.tif")
r9_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx709.tif")
r10_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx7010.tif")
r11_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx7011.tif")
r12_45 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp45tx7012.tif")

r1_45.crop = aggregate(crop(r1_45,e),fun=mean,fact=6)/10

```

```

r2_45.crop = aggregate(crop(r2_45,e),fun=mean,fact=6)/10
r3_45.crop = aggregate(crop(r3_45,e),fun=mean,fact=6)/10
r4_45.crop = aggregate(crop(r4_45,e),fun=mean,fact=6)/10
r5_45.crop = aggregate(crop(r5_45,e),fun=mean,fact=6)/10
r6_45.crop = aggregate(crop(r6_45,e),fun=mean,fact=6)/10
r7_45.crop = aggregate(crop(r7_45,e),fun=mean,fact=6)/10
r8_45.crop = aggregate(crop(r8_45,e),fun=mean,fact=6)/10
r9_45.crop = aggregate(crop(r9_45,e),fun=mean,fact=6)/10
r10_45.crop = aggregate(crop(r10_45,e),fun=mean,fact=6)/10
r11_45.crop = aggregate(crop(r11_45,e),fun=mean,fact=6)/10
r12_45.crop = aggregate(crop(r12_45,e),fun=mean,fact=6)/10

```

```

#do the same calculations for the 2080 Tmax - Tpref
# for hours of activity

```

```

# h_a function

```

```

Theta1 <- 24 # constrain asymptote to h_a value
Theta2 <- -0.128057505449547
Theta3 <- 0.17711852809626
Theta4 <- -0.355746571402321

```

```

Tpref <- 29.57

```

```

r_ha1_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1_45.crop-Tpref)))^(1/Theta4)
r_ha2_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2_45.crop-Tpref)))^(1/Theta4)
r_ha3_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3_45.crop-Tpref)))^(1/Theta4)
r_ha4_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4_45.crop-Tpref)))^(1/Theta4)
r_ha5_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5_45.crop-Tpref)))^(1/Theta4)
r_ha6_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6_45.crop-Tpref)))^(1/Theta4)
r_ha7_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7_45.crop-Tpref)))^(1/Theta4)
r_ha8_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8_45.crop-Tpref)))^(1/Theta4)
r_ha9_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9_45.crop-Tpref)))^(1/Theta4)
r_ha10_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10_45.crop-Tpref)))^(1/Theta4)
r_ha11_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11_45.crop-Tpref)))^(1/Theta4)
r_ha12_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12_45.crop-Tpref)))^(1/Theta4)
r_ha1_45.crop[r1_45.crop<20]<- 0
r_ha2_45.crop[r2_45.crop<20]<- 0
r_ha3_45.crop[r3_45.crop<20]<- 0
r_ha4_45.crop[r4_45.crop<20]<- 0
r_ha5_45.crop[r5_45.crop<20]<- 0
r_ha6_45.crop[r6_45.crop<20]<- 0
r_ha7_45.crop[r7_45.crop<20]<- 0
r_ha8_45.crop[r8_45.crop<20]<- 0
r_ha9_45.crop[r9_45.crop<20]<- 0
r_ha10_45.crop[r10_45.crop<20]<- 0
r_ha11_45.crop[r11_45.crop<20]<- 0
r_ha12_45.crop[r12_45.crop<20]<- 0

```

```

#do the same calculations for the 2080 Tmax - Tpref
# for hours of restriction

```

```

Tpref <- 29.57 #UCT

```

```

Theta1 <- 12 # constrain asymptote to h_a value
Theta2 <- 4.12878578037074
Theta3 <- 0.293500741987643
Theta4 <- 1.6159356896977

```

```

r_hr1_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1_45.crop-Tpref)))^(1/Theta4)
r_hr1_45.crop[r1_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr2_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2_45.crop-Tpref)))^(1/Theta4)
r_hr2_45.crop[r2_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)

```

```

r_hr3_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3_45.crop-Tpref)))^(1/Theta4)
r_hr3_45.crop[r3_45.crop < 20] <- 0
r_hr4_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4_45.crop-Tpref)))^(1/Theta4)
r_hr4_45.crop[r4_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr5_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5_45.crop-Tpref)))^(1/Theta4)
r_hr5_45.crop[r5_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr6_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6_45.crop-Tpref)))^(1/Theta4)
r_hr6_45.crop[r6_45.crop < 20] <- 0
r_hr7_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7_45.crop-Tpref)))^(1/Theta4)
r_hr7_45.crop[r7_45.crop < 20] <- 0 #we ran out of memory to calculate that, were it was below of that it comes
to zero. Always have to be careful for this things, use Excel.
r_hr8_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8_45.crop-Tpref)))^(1/Theta4)
r_hr8_45.crop[r8_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr9_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9_45.crop-Tpref)))^(1/Theta4)
r_hr9_45.crop[r8_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr10_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10_45.crop-Tpref)))^(1/Theta4)
r_hr10_45.crop[r10_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr11_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11_45.crop-Tpref)))^(1/Theta4)
r_hr11_45.crop[r11_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr12_45.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12_45.crop-Tpref)))^(1/Theta4)
r_hr12_45.crop[r12_45.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined
(due to rounding error
rsum_ha_45.crop <- (r_ha1_45.crop+ r_ha2_45.crop+ r_ha3_45.crop+ r_ha4_45.crop+ r_ha5_45.crop+
r_ha6_45.crop+ r_ha7_45.crop+ r_ha8_45.crop+ r_ha9_45.crop+ r_ha10_45.crop+ r_ha11_45.crop+
r_ha12_45.crop)
rsum_hr_45.crop <- (r_hr1_45.crop+ r_hr2_45.crop+ r_hr3_45.crop+ r_hr4_45.crop+ r_hr5_45.crop+
r_hr6_45.crop+ r_hr7_45.crop+ r_hr8_45.crop+ r_hr9_45.crop+ r_hr10_45.crop+ r_hr11_45.crop+
r_hr12_45.crop)
#plot(rsum_ha_45.crop )
#plot(ravg_hr_MayJul_45.crop)

```

how get the 1975 data for precipitation

```

prec5 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec5.tif"),e),fun=mean,fact=6)
prec6 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec6.tif"),e),fun=mean,fact=6)
prec7 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec7.tif"),e),fun=mean,fact=6)
prec8 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec8.tif"),e),fun=mean,fact=6)
prec9 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec9.tif"),e),fun=mean,fact=6)
r_sum05to09.crop = prec5 + prec6 + prec7 + prec8 + prec9
prec5_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr705.tif"),e),fun=mean,fact=6)
prec6_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr706.tif"),e),fun=mean,fact=6)
prec7_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr707.tif"),e),fun=mean,fact=6)
prec8_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr708.tif"),e),fun=mean,fact=6)
prec9_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr709.tif"),e),fun=mean,fact=6)
r_sum05to09_45.crop = prec5_45 + prec6_45 + prec7_45 + prec8_45 + prec9_45
prec10 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec10.tif"),e),fun=mean,fact=6)
prec11 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec11.tif"),e),fun=mean,fact=6)
prec12 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec12.tif"),e),fun=mean,fact=6)
prec01 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec1.tif"),e),fun=mean,fact=6)
prec02 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec2.tif"),e),fun=mean,fact=6)
prec03 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec3.tif"),e),fun=mean,fact=6)
prec04 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec4.tif"),e),fun=mean,fact=6)
r_sum10to04.crop = prec10 + prec11 + prec12 + prec01 + prec02+ prec03 + prec04
prec10_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr7010.tif"),e),fun=mean,fact=6)
prec11_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr7011.tif"),e),fun=mean,fact=6)
prec12_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr7012.tif"),e),fun=mean,fact=6)
prec01_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr701.tif"),e),fun=mean,fact=6)
prec02_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr702.tif"),e),fun=mean,fact=6)

```

```

prec03_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr703.tif"),e),fun=mean,fact=6)
prec04_45 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp45pr704.tif"),e),fun=mean,fact=6)
r_sum10to04_45.crop = prec10_45 + prec11_45 + prec12_45 + prec01_45 + prec02_45+ prec03_45 +
prec04_45
prec_sum_all.crop = (prec01 + prec02+ prec03 + prec04 + prec5 + prec6 + prec7 + prec8 + prec9 + prec10 +
prec11 + prec12)
prec_sum_all_45.crop = prec10_45 + prec11_45 + prec12_45 + prec01_45 + prec02_45+ prec03_45 +
prec04_45 + prec5_45 + prec6_45 + prec7_45 + prec8_45 + prec9_45

#NOTE ravg_hr_sum_45.crop_10m is really across the year -- see above
r_obj4.crop <- stack(rsum_hr.crop, rsum_ha.crop, prec_sum_all.crop)
names(r_obj4.crop) = c("H-r","H-a","Prec")

#OR now build 7 layers including soil
myExpl <- r_obj4.crop
myRespXY <- data.frame(Lon = G_poly@coords[,1], Lat = G_poly@coords[,2])
myResp <- rep(1,nrow(G_poly)) # this column needs to be in the data for
# the species distribuion Amazonian spp loaded above
myRespName <- 'Amazonian spp'
myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))
myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
                                expl.var=myExpl,
                                resp.xy = myRespXY,
                                resp.name = myRespName,
                                PA.nb.rep = 1,
                                PA.nb.absences = 1000,
                                PA.strategy = 'disk',
                                PA.dist.min = 50000,
                                PA.dist.max = 20000000,
                                PA.sre.quant = 0.025,
                                PA.table = NULL,
                                na.rm = TRUE)
# plot(myBiomodData, cex=2)
myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

#myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
#myGLMs_linear <- myGLMs
myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
myGLMs_quad <- myGLMs
get_formal_model(get(myGLMs))
myBiomodProj <- BIOMOD_Projection(
  modeling.output = myBiomodModelOut,
  new.env = myExpl,
  proj.name = 'current',
  selected.models = 'all',
  binary.meth = 'ROC',
  compress = 'xz',
  clamping.mask = F,
  output.format = 'grd')
pred= get_predictions(myBiomodProj)[[1]]
pred_quad = get_predictions(myBiomodProj)[[1]]
windows() # delete this command on WINDOWS machines -- use windows()
#PLOT PRESENT
tiff('Amazonian spp 1975 contemporary sem pontos.tif')
plot(pred/100,col=rainbow(100)[1:70], axes = F, xlab = NA, ylab = NA, main="Amazonian spp 1975
contemporary")

```

```

map("world",add=T)
map("state",add=T)
  dev.off()

writeRaster(pred, file="pred.grd")

#Future climate
#RCP 4.5
r_obj4_45.crop <- stack(rsum_hr_45.crop, rsum_ha_45.crop, prec_sum_all_45.crop)
names(r_obj4_45.crop) = c("H-r", "H-a", "Prec")

future.climate = r_obj4_45.crop
myBiomodProj_45 <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred_45 = get_predictions(myBiomodProj_45)[[1]]
windows()
# PLOT 4.5
tiff('Amazonian spp 2070 RCP 4.5 sem pontos.tif')
plot(pred_45/1000,col=rainbow(100)[1:70], axes = F, xlab = NA, ylab = NA,main="Amazonian spp 2070 RCP
4.5")
  map("world", add=T)
map("state",add=T)
dev.off()

writeRaster(pred_45, file="pred_45.grd")
#RCP 8.5
r1_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx701.tif")
r2_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx702.tif")
r3_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx703.tif")
r4_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx704.tif")
r5_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx705.tif")
r6_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx706.tif")
r7_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx707.tif")
r8_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx708.tif")
r9_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx709.tif")
r10_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx7010.tif")
r11_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx7011.tif")
r12_85 <- raster("D:/Rasters/Amazon/cmip5/2_5m/mp85tx7012.tif")
r1_85.crop = aggregate(crop(r1_85,e),fun=mean,fact=6)/10
r2_85.crop = aggregate(crop(r2_85,e),fun=mean,fact=6)/10
r3_85.crop = aggregate(crop(r3_85,e),fun=mean,fact=6)/10
r4_85.crop = aggregate(crop(r4_85,e),fun=mean,fact=6)/10
r5_85.crop = aggregate(crop(r5_85,e),fun=mean,fact=6)/10
r6_85.crop = aggregate(crop(r6_85,e),fun=mean,fact=6)/10
r7_85.crop = aggregate(crop(r7_85,e),fun=mean,fact=6)/10
r8_85.crop = aggregate(crop(r8_85,e),fun=mean,fact=6)/10
r9_85.crop = aggregate(crop(r9_85,e),fun=mean,fact=6)/10
r10_85.crop = aggregate(crop(r10_85,e),fun=mean,fact=6)/10
r11_85.crop = aggregate(crop(r11_85,e),fun=mean,fact=6)/10
r12_85.crop = aggregate(crop(r12_85,e),fun=mean,fact=6)/10
#do the same calculations for the 2080 Tmax - Tpref
# for hours of activity

```



```

# h_a function
Theta1 <- 24 # constrain asymptote to h_a value
Theta2 <- -0.128057505449547
Theta3 <- 0.17711852809626
Theta4 <- -0.355746571402321

Tpref <- -29.57
r_ha1_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1_85.crop-Tpref)))^(1/Theta4)
r_ha2_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2_85.crop-Tpref)))^(1/Theta4)
r_ha3_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3_85.crop-Tpref)))^(1/Theta4)
r_ha4_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4_85.crop-Tpref)))^(1/Theta4)
r_ha5_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5_85.crop-Tpref)))^(1/Theta4)
r_ha6_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6_85.crop-Tpref)))^(1/Theta4)
r_ha7_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7_85.crop-Tpref)))^(1/Theta4)
r_ha8_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8_85.crop-Tpref)))^(1/Theta4)
r_ha9_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9_85.crop-Tpref)))^(1/Theta4)
r_ha10_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10_85.crop-Tpref)))^(1/Theta4)
r_ha11_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11_85.crop-Tpref)))^(1/Theta4)
r_ha12_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12_85.crop-Tpref)))^(1/Theta4)
r_ha1_85.crop[r1_85.crop<20]<- 0
r_ha2_85.crop[r2_85.crop<20]<- 0
r_ha3_85.crop[r3_85.crop<20]<- 0
r_ha4_85.crop[r4_85.crop<20]<- 0
r_ha5_85.crop[r5_85.crop<20]<- 0
r_ha6_85.crop[r6_85.crop<20]<- 0
r_ha7_85.crop[r7_85.crop<20]<- 0
r_ha8_85.crop[r8_85.crop<20]<- 0
r_ha9_85.crop[r9_85.crop<20]<- 0
r_ha10_85.crop[r10_85.crop<20]<- 0
r_ha11_85.crop[r11_85.crop<20]<- 0
r_ha12_85.crop[r12_85.crop<20]<- 0
#do the same calculations for the 2080 Tmax - Tpref
# for hours of restriction

Tpref <- -29.57 #UCT
Theta1 <- 12 # constrain asymptote to h_a value
Theta2 <- 4.12878578037074
Theta3 <- 0.293500741987643
Theta4 <- 1.6159356896977

r_hr1_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1_85.crop-Tpref)))^(1/Theta4)
r_hr1_85.crop[r1_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr2_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2_85.crop-Tpref)))^(1/Theta4)
r_hr2_85.crop[r2_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr3_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3_85.crop-Tpref)))^(1/Theta4)
r_hr3_85.crop[r3_85.crop < 20] <- 0

r_hr4_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4_85.crop-Tpref)))^(1/Theta4)
r_hr4_85.crop[r4_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr5_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5_85.crop-Tpref)))^(1/Theta4)
r_hr5_85.crop[r5_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr6_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6_85.crop-Tpref)))^(1/Theta4)
r_hr6_85.crop[r6_85.crop < 20] <- 0
r_hr7_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7_85.crop-Tpref)))^(1/Theta4)
r_hr7_85.crop[r7_85.crop < 20] <- 0 #we ran out of memory to calculate that, were it was below of that it comes
to zero. Always have to be careful for this things, use Excel.
r_hr8_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8_85.crop-Tpref)))^(1/Theta4)

```

```

r_hr8_85.crop[r8_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr9_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9_85.crop-Tpref)))^(1/Theta4)
r_hr9_85.crop[r8_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr10_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10_85.crop-Tpref)))^(1/Theta4)
r_hr10_85.crop[r10_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr11_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11_85.crop-Tpref)))^(1/Theta4)
r_hr11_85.crop[r11_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr12_85.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12_85.crop-Tpref)))^(1/Theta4)
r_hr12_85.crop[r12_85.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined
(due to rounding error)

rsum_ha_85.crop <- (r_ha1_85.crop+r_ha2_85.crop+r_ha3_85.crop+ r_ha4_85.crop+ r_ha5_85.crop+
r_ha6_85.crop+r_ha7_85.crop+ r_ha8_85.crop+ r_ha9_85.crop+ r_ha10_85.crop+ r_ha11_85.crop+
r_ha12_85.crop)
rsum_hr_85.crop <- (r_hr1_85.crop+ r_hr2_85.crop+ r_hr3_85.crop+ r_hr4_85.crop+ r_hr5_85.crop+
r_hr6_85.crop+ r_hr7_85.crop+ r_hr8_85.crop+ r_hr9_85.crop+ r_hr10_85.crop+ r_hr11_85.crop+
r_hr12_85.crop)

#plot(rsum_ha_85.crop )
#plot(ravg_hr_MayJul_85.crop)

# how get the 1975 data for precipitation
prec5 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec5.bil"),e),fun=mean,fact=6)
prec6 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec6.bil"),e),fun=mean,fact=6)
prec7 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec7.bil"),e),fun=mean,fact=6)
prec8 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec8.bil"),e),fun=mean,fact=6)
prec9 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec9.bil"),e),fun=mean,fact=6)
r_sum05to09.crop = prec5 + prec6 + prec7 + prec8 + prec9
prec5_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr705.tif"),e),fun=mean,fact=6)
prec6_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr706.tif"),e),fun=mean,fact=6)
prec7_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr707.tif"),e),fun=mean,fact=6)
prec8_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr708.tif"),e),fun=mean,fact=6)
prec9_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr709.tif"),e),fun=mean,fact=6)
r_sum05to09_85.crop = prec5_85 + prec6_85 + prec7_85 + prec8_85 + prec9_85
prec10 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec10.bil"),e),fun=mean,fact=6)
prec11 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec11.bil"),e),fun=mean,fact=6)
prec12 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec12.bil"),e),fun=mean,fact=6)
prec01 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec1.bil"),e),fun=mean,fact=6)
prec02 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec2.bil"),e),fun=mean,fact=6)
prec03 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec3.bil"),e),fun=mean,fact=6)
prec04 <- aggregate(crop(raster("D:/Rasters/Amazon/wc2-5/prec4.bil"),e),fun=mean,fact=6)
r_sum10to04.crop = prec10 + prec11 + prec12 + prec01 + prec02+ prec03 + prec04
prec10_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr7010.tif"),e),fun=mean,fact=6)
prec11_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr7011.tif"),e),fun=mean,fact=6)
prec12_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr7012.tif"),e),fun=mean,fact=6)
prec01_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr701.tif"),e),fun=mean,fact=6)
prec02_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr702.tif"),e),fun=mean,fact=6)
prec03_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr703.tif"),e),fun=mean,fact=6)
prec04_85 <- aggregate(crop(raster("D:/Rasters/Amazon/cmip5/2_5m/mp85pr704.tif"),e),fun=mean,fact=6)

r_sum10to04_85.crop = prec10_85 + prec11_85 + prec12_85 + prec01_85 + prec02_85+ prec03_85 +
prec04_85
prec_sum_all.crop = (prec01 + prec02+ prec03 + prec04 + prec5 + prec6 + prec7 + prec8 + prec9 + prec10 +
prec11 + prec12)
prec_sum_all_85.crop = prec10_85 + prec11_85 + prec12_85 + prec01_85 + prec02_85+ prec03_85 +
prec04_85 + prec5_85 + prec6_85 + prec7_85 + prec8_85 + prec9_85
#NOTE ravg_hr_sum_85.crop_10m is really across the year -- see above
r_obj4.crop <- stack(rsum_hr.crop, rsum_ha.crop, prec_sum_all.crop)

```

```

names(r_obj4.crop) = c("H-r","H-a","Prec")

#OR now build 7 layers including soil

myExpl <- r_obj4.crop
myRespXY <- data.frame(Lon = G_poly@coords[,1], Lat = G_poly@coords[,2])
myResp <- rep(1,nrow(G_poly)) # this column needs to be in the data for
# the species distribtuion Amazonian spp loaded above
myRespName <- 'Amazonian spp'
myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))
myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,
resp.xy = myRespXY,
resp.name = myRespName,
PA.nb.rep = 1,
PA.nb.absences = 1000,
PA.strategy = 'disk',
PA.dist.min = 50000,
PA.dist.max = 20000000,
PA.sre.quant = 0.025,
PA.table = NULL,
na.rm = TRUE)

# plot(myBiomodData, cex=2)
myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

#myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
#myGLMs_linear <- myGLMs

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
myGLMs_quad <- myGLMs

get_formal_model(get(myGLMs))
r_obj4_85.crop <- stack(rsum_hr_85.crop, rsum_ha_85.crop, prec_sum_all_85.crop)
names(r_obj4_85.crop) = c("H-r","H-a","Prec")
future.climate = r_obj4_85.crop
myBiomodProj_85 <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred_85 = get_predictions(myBiomodProj_85)[[1]]
windows()
tiff('Amazonian spp 2070 RCP 8.5.tif')
plot(pred_85/1000,col=rainbow(100)[1:70], axes = F, xlab = NA, ylab = NA,main="Amazonian spp 2070 RCP
8.5 sem pontos")
map("world", add=T)
map("state",add=T)
dev.off()
writeRaster(pred_85, file="pred_85.grd")

```

```

##
library(rgdal)
amazon <- readOGR("C:/Users/Luisa Diele-Viegas/Google Drive/Shapes/Amazon Biome
WWF/Amazon_Biome.shp", "Amazon_Biome")
shape_uc_amazonia <- readOGR("C:/Users/Luisa Diele-Viegas/Google Drive/Shapes/Protection Areas
Panamazonia WWF/PAs_Panamazonia_NoTopo.shp", "PAs_Panamazonia_NoTopo")

### FUNÇÃO DE SELEÇÃO DE UCs e TIs (de acordo com a distribuição)
intersect_points_shapes <- function(coord, circle_size, shapes, key) {
  circulos <- dismo::circles(coord, d = circle_size, lonlat = TRUE)
  circulos_intersecao <- rgeos::gUnaryUnion(circulos@polygons)
  circulos_intersecao2 <- sp::spTransform(circulos_intersecao, raster::crs(shape_uc_amazonia))
  uc_proximas <- sp::over(circulos_intersecao2, shapes, minDimension = -1, returnList = TRUE)
  uc_selecionadas <- shapes[shapes[[key]] %in% uc_proximas[[1]][[key]], ]
  uc_selecionadas
}

#### SELEÇÃO DE UCs próximas dos pontos de ocorrência ####
dist_all<-read.csv("D:/Analysis_Mapinguari/LMDV_SDM/analyses_izpaperscript/dist_all.csv", header=T)
uc_selecionadas_all<- intersect_points_shapes(dist_all[2:3], 15000, shape_uc_amazonia, 1)
tiff('uc_selecionadas.tif')
raster::plot(uc_selecionadas_all)
  dev.off()
crs(uc_selecionadas_all)<-crs(amazon)
extract_mean_45_all_bioclim_uc<-extract(pred_45,uc_selecionadas_all, fun=mean)
write.table(extract_mean_45_all_bioclim_uc, file="extract_mean_45_all.csv", append=FALSE, quote=TRUE,
sep=";")
extract_mean_85_all_bioclim_uc<-extract(pred_85,uc_selecionadas_all, fun=mean)
write.table(extract_mean_85_all_bioclim_uc, file="extract_mean_85__all.csv", append=FALSE, quote=TRUE,
sep=";")
extract_mean_present_all_bioclim_uc<-extract(pred,uc_selecionadas_all, fun=mean)
write.table(extract_mean_present_all_bioclim_uc, file="extract_mean_present__all.csv", append=FALSE,
quote=TRUE, sep=";")
write.table(uc_selecionadas_all, file="uc_selecionadas_all.csv", append=FALSE, quote=TRUE, sep=";")
extract_mean_45_all_bioclim_uc<-extract(pred_45,amazon, fun=mean)
write.table(extract_mean_45_all_bioclim_uc, file="extract_mean_45_all_biome.csv", append=FALSE,
quote=TRUE, sep=";")
extract_mean_85_all_bioclim_uc<-extract(pred_85,amazon, fun=mean)
write.table(extract_mean_85_all_bioclim_uc, file="extract_mean_85_all_biome.csv", append=FALSE,
quote=TRUE, sep=";")
extract_mean_present_all_bioclim_uc<-extract(pred,amazon, fun=mean)
write.table(extract_mean_present_all_bioclim_uc, file="extract_mean_present_all_biome.csv", append=FALSE,
quote=TRUE, sep=";")

```

Seção 7

```

### New Mapinguari ###

library(Mapinguari)

#Cleanpoints

setwd("D:/Analysis_Mapinguari/LMDV_SDM/")
chortulanus_points <- cleanpoints_expanded (spcoord_value =
"D:/Analysis_Mapinguari/LMDV_SDM/distribution_sheets/dist_chortulanus.csv",
      altpath_guide_value = "C:/Users/Luisa Diele-
Viegas/Dropbox/mapinguari/dendrobatidae_2_5_min_master_raster_dir/altguide_dendrobatidae_master_res_30
_sec.gri",
      km_merge = 2,
      minimum_number_entries_value = 1,
      alt_range_in_meters_lower_value = NULL,
      alt_range_in_meters_higher_value = NULL,
      IUCN_range_raster_map_value = NULL,
      guide_variable_to_keep_value = NULL,
      plot_clean_data_value = TRUE,
      out_dir_value = "D:/Analysis_Mapinguari/LMDV_SDM/chortulanus")

##### EXTRAÇÃO DOS VALORES DE ÁREA DE OCORRENCIA EM UCs - NÃO AJUSTADO

##### Extrair valores médios de presença-ausência para as Unidades de Conservação do país
#####
## ler a planilha de shape UCs

library(rgdal)
shape_uc_amazonia <- readOGR("C:/Users/Luisa Diele-Viegas/Google Drive/Shapes/Protection Areas
Panamazonia WWF/PAs_Panamazonia_NoTopo.shp", "PAs_Panamazonia_NoTopo")

### FUNÇÃO DE SELEÇÃO DE UCs e TIs (de acordo com a distribuição)
intersect_points_shapes <- function(coord, circle_size, shapes, key) {

  circulos <- dismo::circles(coord, d = circle_size, lonlat = TRUE)

  circulos_intersecao <- rgeos::gUnaryUnion(circulos@polygons)

  circulos_intersecao2 <- sp::spTransform(circulos_intersecao, raster::crs(shape_uc_amazonia))

  uc_proximas <- sp::over(circulos_intersecao2, shapes, minDimension = -1, returnList = TRUE)

  uc_selecionadas <- shapes[shapes[[key]] %in% uc_proximas[[1]][[key]], ]

  uc_selecionadas

}

##### SELEÇÃO DE UCs e TIs próximas dos pontos de ocorrência ###
uc_selecionadas <- intersect_points_shapes(chortulanus_points[1:2], 15000, shape_uc_amazonia, 1)
tiff("uc_selecionadas.tif")
raster::plot(uc_selecionadas)

```

```
dev.off()
```

```
#modelagem baseada no artigo de Sinervo et al. 2018
```

```
library(dismo)
library(maps)
library(Hmisc)
library(biomod2)
# It the uses the routines in biomod2 to fit a species distribution model
# then it takes the fits from that model to predict the future distribution
# in 2080
e <- extent(-105,-30,-55,20)
```

```
G_poly = chortulanus
coordinates(G_poly) = ~ Lon + Lat
```

```
setwd("../worldclim/global_grids_30_seconds/")
```

```
r1 <- raster("tmax_01.bil")
```

```
dataType(r1) <- "INT2S"
```

```
r2 <- raster("tmax_02.bil")
```

```
dataType(r2) <- "INT2S"
```

```
r3 <- raster("tmax_03.bil")
```

```
dataType(r3) <- "INT2S"
```

```
r4 <- raster("tmax_04.bil")
```

```
dataType(r4) <- "INT2S"
```

```
r5 <- raster("tmax_05.bil")
```

```
dataType(r5) <- "INT2S"
```

```
r6 <- raster("tmax_06.bil")
```

```
dataType(r6) <- "INT2S"
```

```
r7 <- raster("tmax_07.bil")
```

```
dataType(r7) <- "INT2S"
```

```
r8 <- raster("tmax_08.bil")
```

```
dataType(r8) <- "INT2S"
```

```
r9 <- raster("tmax_09.bil")
```

```
dataType(r9) <- "INT2S"
```

```
r10 <- raster("tmax_10.bil")
```

```
dataType(r10) <- "INT2S"
```

```
r11 <- raster("tmax_11.bil")
```

```
dataType(r11) <- "INT2S"
```

```
r12 <- raster("tmax_12.bil")
```

```
dataType(r12) <- "INT2S"
```

```
r1.crop <- aggregate(crop(r1,e),fun=mean,fact=6)/10
```

```
r2.crop <- aggregate(crop(r2,e),fun=mean,fact=6)/10
```

```
r3.crop <- aggregate(crop(r3,e),fun=mean,fact=6)/10
```

```
r4.crop <- aggregate(crop(r4,e),fun=mean,fact=6)/10
```

```
r5.crop <- aggregate(crop(r5,e),fun=mean,fact=6)/10
```

```
r6.crop <- aggregate(crop(r6,e),fun=mean,fact=6)/10
```

```
r7.crop <- aggregate(crop(r7,e),fun=mean,fact=6)/10
```

```
r8.crop <- aggregate(crop(r8,e),fun=mean,fact=6)/10
```

```
r9.crop <- aggregate(crop(r9,e),fun=mean,fact=6)/10
```

```
r10.crop <- aggregate(crop(r10,e),fun=mean,fact=6)/10
```

```
r11.crop <- aggregate(crop(r11,e),fun=mean,fact=6)/10
```

```
r12.crop <- aggregate(crop(r12,e),fun=mean,fact=6)/10
```

```
#compute h_restriction using March/April average tmax from the sigmoidal
```

```
# fit I ran in JMP (using the data in the Zimmermann et al. 1994 for G. agassizii
```

```

Tpref = 22.67
#parameters for the 4-parameter Richards growth equation -- sigmoidal curve
# fitted to data for hours of activity regressed on Tmax-Tpref:

# h_a function
Theta1 <- 24 # constrain asymptote to h_a value
Theta2 <- -0.128057505449547
Theta3 <- 0.17711452809626
Theta4 <- -0.355746571402321

# compute all the raster layers of Tmax-Tpref into hours of activity
#
r_ha1.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1.crop-Tpref)))^(1/Theta4)
r_ha2.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2.crop-Tpref)))^(1/Theta4)
r_ha3.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3.crop-Tpref)))^(1/Theta4)
r_ha4.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4.crop-Tpref)))^(1/Theta4)
r_ha5.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5.crop-Tpref)))^(1/Theta4)
r_ha6.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6.crop-Tpref)))^(1/Theta4)
r_ha7.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7.crop-Tpref)))^(1/Theta4)
r_ha8.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8.crop-Tpref)))^(1/Theta4)
r_ha9.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9.crop-Tpref)))^(1/Theta4)
r_ha10.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10.crop-Tpref)))^(1/Theta4)
r_ha11.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11.crop-Tpref)))^(1/Theta4)
r_ha12.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12.crop-Tpref)))^(1/Theta4)

r_ha1.crop[r1.crop < 20] <- 0
r_ha2.crop[r2.crop < 20] <- 0
r_ha3.crop[r3.crop < 20] <- 0
r_ha4.crop[r4.crop < 20] <- 0
r_ha5.crop[r5.crop < 20] <- 0
r_ha6.crop[r6.crop < 20] <- 0
r_ha7.crop[r7.crop < 20] <- 0
r_ha8.crop[r8.crop < 20] <- 0
r_ha9.crop[r9.crop < 20] <- 0
r_ha10.crop[r10.crop < 20] <- 0
r_ha11.crop[r11.crop < 20] <- 0
r_ha12.crop[r12.crop < 20] <- 0

Tpref <- 30 # Tpref derived
#parameters for the 4-parameter Richards growth equation -- sigmoidal curve
# fitted to data for hours of restriction regressed on Tmax-Tpref:

Theta1 <- 12 # constrain asymptote to h_a value
Theta2 <- 4.12874578037074
Theta3 <- 0.293500741987643
Theta4 <- 1.6159356896977

#compute hours of restriction during the breeding season:
r_hr1.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1.crop-Tpref)))^(1/Theta4)
r_hr1.crop[r1.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr2.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2.crop-Tpref)))^(1/Theta4)
r_hr2.crop[r2.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)
r_hr3.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3.crop-Tpref)))^(1/Theta4)
r_hr3.crop[r3.crop < 20] <- 0

r_hr4.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4.crop-Tpref)))^(1/Theta4)
r_hr4.crop[r4.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not

```

```

r_hr5.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5.crop-Tpref)))^(1/Theta4)
r_hr5.crop[r5.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)
r_hr6.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6.crop-Tpref)))^(1/Theta4)
r_hr6.crop[r6.crop < 20] <- 0
r_hr7.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7.crop-Tpref)))^(1/Theta4)
r_hr7.crop[r7.crop < 20] <- 0 #we ran out of memory to calculate that, were it was below of that it comes to zero.
Always have to be careful for this things, use Excel.

r_hr8.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8.crop-Tpref)))^(1/Theta4)
r_hr8.crop[r8.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr9.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9.crop-Tpref)))^(1/Theta4)
r_hr9.crop[r8.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)
r_hr10.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10.crop-Tpref)))^(1/Theta4)
r_hr10.crop[r10.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr11.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11.crop-Tpref)))^(1/Theta4)
r_hr11.crop[r11.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr12.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12.crop-Tpref)))^(1/Theta4)
r_hr12.crop[r12.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to
rounding error in sigmoidal equation)

# sum the hours of activity for the entire year -- activity ellipse

rsum_ha.crop <- (r_ha1.crop+ r_ha2.crop+ r_ha3.crop+ r_ha4.crop+ r_ha5.crop+ r_ha6.crop+ r_ha7.crop+
r_ha8.crop+ r_ha9.crop+ r_ha10.crop+ r_ha11.crop+ r_ha12.crop)
rsum_hr.crop <- (r_hr1.crop+ r_hr2.crop+ r_hr3.crop+ r_hr4.crop+ r_hr5.crop+ r_hr6.crop+ r_hr7.crop+
r_hr8.crop+ r_hr9.crop+ r_hr10.crop+ r_hr11.crop+ r_hr12.crop)

r1_af <- raster("tmax_01_2070_rpc85.tif")
r2_af <- raster("tmax_02_2070_rpc85.tif")
r3_af <- raster("tmax_03_2070_rpc85.tif")
r4_af <- raster("tmax_04_2070_rpc85.tif")
r5_af <- raster("tmax_06_2070_rpc85.tif")
r6_af <- raster("tmax_05_2070_rpc85.tif")
r7_af <- raster("tmax_07_2070_rpc85.tif")
r8_af <- raster("tmax_08_2070_rpc85.tif")
r9_af <- raster("tmax_09_2070_rpc85.tif")
r10_af <- raster("tmax_10_2070_rpc85.tif")
r11_af <- raster("tmax_11_2070_rpc85.tif")
r12_af <- raster("tmax_12_2070_rpc85.tif")

r1_af.crop = aggregate(crop(r1_af,e),fun=mean,fact=6)/10
r2_af.crop = aggregate(crop(r2_af,e),fun=mean,fact=6)/10
r3_af.crop = aggregate(crop(r3_af,e),fun=mean,fact=6)/10
r4_af.crop = aggregate(crop(r4_af,e),fun=mean,fact=6)/10
r5_af.crop = aggregate(crop(r5_af,e),fun=mean,fact=6)/10
r6_af.crop = aggregate(crop(r6_af,e),fun=mean,fact=6)/10
r7_af.crop = aggregate(crop(r7_af,e),fun=mean,fact=6)/10
r8_af.crop = aggregate(crop(r8_af,e),fun=mean,fact=6)/10
r9_af.crop = aggregate(crop(r9_af,e),fun=mean,fact=6)/10
r10_af.crop = aggregate(crop(r10_af,e),fun=mean,fact=6)/10
r11_af.crop = aggregate(crop(r11_af,e),fun=mean,fact=6)/10
r12_af.crop = aggregate(crop(r12_af,e),fun=mean,fact=6)/10

#do the same calculations for the 2080 Tmax - Tpref
# for hours of activity
# h_a function
Theta1 <- 24 # constrain asymptote to h_a value
Theta2 <- -0.128057505449547

```



```
Theta3 <- 0.17711452809626
Theta4 <- -0.355746571402321
```

```
Tpref <- 22.67
```

```
r_ha1_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1_af.crop-Tpref)))^(1/Theta4)
r_ha2_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2_af.crop-Tpref)))^(1/Theta4)
r_ha3_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3_af.crop-Tpref)))^(1/Theta4)
r_ha4_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4_af.crop-Tpref)))^(1/Theta4)
r_ha5_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5_af.crop-Tpref)))^(1/Theta4)
r_ha6_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6_af.crop-Tpref)))^(1/Theta4)
r_ha7_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7_af.crop-Tpref)))^(1/Theta4)
r_ha8_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8_af.crop-Tpref)))^(1/Theta4)
r_ha9_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9_af.crop-Tpref)))^(1/Theta4)
r_ha10_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10_af.crop-Tpref)))^(1/Theta4)
r_ha11_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11_af.crop-Tpref)))^(1/Theta4)
r_ha12_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12_af.crop-Tpref)))^(1/Theta4)
```

```
r_ha1_af.crop[r1_af.crop<20]<- 0
```

```
r_ha2_af.crop[r2_af.crop<20]<- 0
```

```
r_ha3_af.crop[r3_af.crop<20]<- 0
```

```
r_ha4_af.crop[r4_af.crop<20]<- 0
```

```
r_ha5_af.crop[r5_af.crop<20]<- 0
```

```
r_ha6_af.crop[r6_af.crop<20]<- 0
```

```
r_ha7_af.crop[r7_af.crop<20]<- 0
```

```
r_ha8_af.crop[r8_af.crop<20]<- 0
```

```
r_ha9_af.crop[r9_af.crop<20]<- 0
```

```
r_ha10_af.crop[r10_af.crop<20]<- 0
```

```
r_ha11_af.crop[r11_af.crop<20]<- 0
```

```
r_ha12_af.crop[r12_af.crop<20]<- 0
```

```
#do the same calculations for the 2080 Tmax - Tpref
```

```
# for hours of restriction
```

```
Tpref <- 30 #UCT
```

```
Theta1 <- 12 # constrain asymptote to h_a value
```

```
Theta2 <- 4.12874578037074
```

```
Theta3 <- 0.293500741987643
```

```
Theta4 <- 1.6159356896977
```

```
r_hr1_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r1_af.crop-Tpref)))^(1/Theta4)
```

```
r_hr1_af.crop[r1_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
```

```
r_hr2_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r2_af.crop-Tpref)))^(1/Theta4)
```

```
r_hr2_af.crop[r2_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due to rounding error in sigmoidal equation)
```

```
r_hr3_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r3_af.crop-Tpref)))^(1/Theta4)
```

```
r_hr3_af.crop[r3_af.crop < 20] <- 0
```

```
r_hr4_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r4_af.crop-Tpref)))^(1/Theta4)
```

```

r_hr4_af.crop[r4_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr5_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r5_af.crop-Tpref)))^(1/Theta4)
r_hr5_af.crop[r5_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr6_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r6_af.crop-Tpref)))^(1/Theta4)
r_hr6_af.crop[r6_af.crop < 20] <- 0
r_hr7_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r7_af.crop-Tpref)))^(1/Theta4)
r_hr7_af.crop[r7_af.crop < 20] <- 0 #we ran out of memory to calculate that, were it was below of that it comes
to zero. Always have to be careful for this things, use Excel.

r_hr8_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r8_af.crop-Tpref)))^(1/Theta4)
r_hr8_af.crop[r8_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr9_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r9_af.crop-Tpref)))^(1/Theta4)
r_hr9_af.crop[r8_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined (due
to rounding error in sigmoidal equation)
r_hr10_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r10_af.crop-Tpref)))^(1/Theta4)
r_hr10_af.crop[r10_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr11_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r11_af.crop-Tpref)))^(1/Theta4)
r_hr11_af.crop[r11_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not
r_hr12_af.crop <- Theta1/(1+Theta2*exp(-Theta3*(r12_af.crop-Tpref)))^(1/Theta4)
r_hr12_af.crop[r12_af.crop < 20] <- 0 # necessary for very low values of Tmax so that the are not undefined
(due to rounding error)

rsum_ha_af.crop <- (r_ha1_af.crop+ r_ha2_af.crop+ r_ha3_af.crop+ r_ha4_af.crop+ r_ha5_af.crop+
r_ha6_af.crop+ r_ha7_af.crop+ r_ha8_af.crop+ r_ha9_af.crop+ r_ha10_af.crop+ r_ha11_af.crop+
r_ha12_af.crop)
rsum_hr_af.crop <- (r_hr1_af.crop+ r_hr2_af.crop+ r_hr3_af.crop+ r_hr4_af.crop+ r_hr5_af.crop+
r_hr6_af.crop+ r_hr7_af.crop+ r_hr8_af.crop+ r_hr9_af.crop+ r_hr10_af.crop+ r_hr11_af.crop+ r_hr12_af.crop)

#plot(rsum_ha_af.crop )
#plot(ravg_hr_MayJul_af.crop)

# how get the 1975 data for precipitation
prec5 <- aggregate(crop(raster("prec_05.bil"),e),fun=mean,fact=6)
prec6 <- aggregate(crop(raster("prec_06.bil"),e),fun=mean,fact=6)
prec7 <- aggregate(crop(raster("prec_07.bil"),e),fun=mean,fact=6)
prec8 <- aggregate(crop(raster("prec_08.bil"),e),fun=mean,fact=6)
prec9 <- aggregate(crop(raster("prec_09.bil"),e),fun=mean,fact=6)
r_sum05to09.crop = prec5 + prec6 + prec7 + prec8 + prec9

prec5_af <- aggregate(crop(raster("prec_05_2070_rpc85.tif"),e),fun=mean,fact=6)
prec6_af <- aggregate(crop(raster("prec_06_2070_rpc85.tif"),e),fun=mean,fact=6)
prec7_af <- aggregate(crop(raster("prec_07_2070_rpc85.tif"),e),fun=mean,fact=6)
prec8_af <- aggregate(crop(raster("prec_08_2070_rpc85.tif"),e),fun=mean,fact=6)
prec9_af <- aggregate(crop(raster("prec_09_2070_rpc85.tif"),e),fun=mean,fact=6)

r_sum05to09_af.crop = prec5_af + prec6_af + prec7_af + prec8_af + prec9_af

prec10 <- aggregate(crop(raster("prec_10.bil"),e),fun=mean,fact=6)
prec11 <- aggregate(crop(raster("prec_11.bil"),e),fun=mean,fact=6)
prec12 <- aggregate(crop(raster("prec_12.bil"),e),fun=mean,fact=6)
prec01 <- aggregate(crop(raster("prec_01.bil"),e),fun=mean,fact=6)
prec02 <- aggregate(crop(raster("prec_02.bil"),e),fun=mean,fact=6)
prec03 <- aggregate(crop(raster("prec_03.bil"),e),fun=mean,fact=6)
prec04 <- aggregate(crop(raster("prec_04.bil"),e),fun=mean,fact=6)
r_sum10to04.crop = prec10 + prec11 + prec12 + prec01 + prec02+ prec03 + prec04

prec10_af <- aggregate(crop(raster("prec_10_2070_rpc85.tif"),e),fun=mean,fact=6)
prec11_af <- aggregate(crop(raster("prec_11_2070_rpc85.tif"),e),fun=mean,fact=6)

```

```

prec12_af <- aggregate(crop(raster("prec_12_2070_rpc85.tif"),e),fun=mean,fact=6)
prec01_af <- aggregate(crop(raster("prec_01_2070_rpc85.tif"),e),fun=mean,fact=6)
prec02_af <- aggregate(crop(raster("prec_02_2070_rpc85.tif"),e),fun=mean,fact=6)
prec03_af <- aggregate(crop(raster("prec_03_2070_rpc85.tif"),e),fun=mean,fact=6)
prec04_af <- aggregate(crop(raster("prec_04_2070_rpc85.tif"),e),fun=mean,fact=6)

r_sum10to04_af.crop = prec10_af + prec11_af + prec12_af + prec01_af + prec02_af + prec03_af + prec04_af

prec_sum_all.crop = prec10 + prec11 + prec12 + prec01 + prec02 + prec03 + prec04 + prec5 + prec6 + prec7 +
prec8 + prec9
prec_sum_all_af.crop = prec10_af + prec11_af + prec12_af + prec01_af + prec02_af + prec03_af + prec04_af +
prec5_af + prec6_af + prec7_af + prec8_af + prec9_af

# now build a four layer brick
# with what will become our predictor variables
# ravg_hr_MayJul.crop_10m <- aggregate(ravg_hr_MayJul.crop,fun=mean,fact=20)
# rsum_ha.crop_10m <- aggregate(rsum_ha.crop,fun=mean,fact=20)
# r_sum10to04.crop_10m <- aggregate(r_sum10to04.crop,fun=mean,fact=20)
# r_sum05to09.crop_10m <- aggregate(r_sum05to09.crop,fun=mean,fact=20)

#NOTE ravg_hr_sum_af.crop_10m is really across the year -- see above
r_obj4.crop <- stack(rsum_hr.crop, rsum_ha.crop, prec_sum_all.crop)

#r_obj4.crop <- stack(ravg_hr_MayJul.crop_10m, rsum_ha.crop_10m, r_sum10to04.crop_10m,
r_sum05to09.crop_10m)
#r_obj4.crop <- stack(ravg_hr_MayJul.crop, rsum_ha.crop, r_sum10to04.crop, r_sum05to09.crop)
names(r_obj4.crop) = c("H-r","H-a","Prec")

#OR now build 7 layers including soil

myExpl <- r_obj4.crop

#plot(ravg_hr_MayJul.crop)
#points(G_poly)
#str(G_poly)

# this code is excerpted directly out of the package biomod2.pdf
# vignettes for fitting SDM
# instead of bioclim variables we use ecophysiology

myRespXY <- data.frame(Lon = G_poly@coords[,1], Lat = G_poly@coords[,2])
myResp <- rep(1,nrow(G_poly)) # this column needs to be in the data for
# the species distribtuion Corallus hortulanus loaded above

myRespName <- 'Corallus hortulanus'

# set up the proper test in this case GLM with interactions at level 1 or what I think is things like r_hr x
prec09to02, etc. and quadratic terms
myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'quadratic',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

# myBiomodOptions<- BIOMOD_ModelingOptions(GLM = list( type = 'simple',interaction.level =
1,myFormula = NULL,test = 'BIC',family = 'binomial',control = glm.control(epsilon = 1e-08,maxit = 1000,trace
= FALSE) ))

myBiomodData <-BIOMOD_FormatingData(resp.var=myResp,
expl.var=myExpl,
resp.xy = myRespXY,
resp.name = myRespName,

```

```

        PA.nb.rep = 1,
        PA.nb.absences = 1000,
        PA.strategy = 'disk',
        PA.dist.min = 50000,
        PA.dist.max = 20000000,
        PA.sre.quant = 0.025,
        PA.table = NULL,
        na.rm = TRUE)

#       plot(myBiomodData, cex=2)

        myBiomodModelOut <- BIOMOD_Modeling(myBiomodData,models = c('GLM'),models.options =
myBiomodOptions,NbRunEval=1,DataSplit=100,models.eval.meth = c('ROC'),
do.full.models=FALSE,modeling.id="test")

#myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
#myGLMs_linear <- myGLMs

myGLMs <- BIOMOD_LoadModels(myBiomodModelOut, models=c('GLM'))
myGLMs_quad <- myGLMs

get_formal_model(get(myGLMs))

myBiomodProj <- BIOMOD_Projection(
  modeling.output = myBiomodModelOut,
  new.env = myExpl,
  proj.name = 'current',
  selected.models = 'all',
  binary.meth = 'ROC',
  compress = 'xz',
  clamping.mask = F,
  output.format = '.grd')
pred = get_predictions(myBiomodProj)[[1]]
pred_quad = get_predictions(myBiomodProj)[[1]]

quartz() # delete this command on WINDOWS machines -- use windows()

#       plot(pred/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA)
#       plot(pred_quad/1000,col=rainbow(100)[1:70] , axes = F, xlab = NA, ylab = NA, main="Corallus
hortulanus 1975 contemporary")

map("world",add=T)
map("state",add=T)
points(G_poly,pch=21,cex=1, bg="black",col="white")

#Future climate

# do the same kind of object for future climate
# first reduce the resolution -- as before
# ravg_hr_MayJul_af.crop_10m <- aggregate(ravg_hr_MayJul_af.crop,fun=mean,fact=20)
# rsum_ha_af.crop_10m <- aggregate(rsum_ha_af.crop,fun=mean,fact=20)
# r_sum10to04_af.crop_10m <- aggregate(r_sum10to04_af.crop,fun=mean,fact=20)
# r_sum05to09_af.crop_10m <- aggregate(r_sum05to09_af.crop,fun=mean,fact=20)
r_obj4_af.crop <- stack(rsum_hr_af.crop, rsum_ha_af.crop, prec_sum_all_af.crop)

```

```

#r_obj4_af.crop <- stack(ravg_hr_MayJul_af.crop, rsum_ha_af.crop, r_sum10to04_af.crop,
r_sum05to09_af.crop)

# must have exactly the same names!! as used in the 1975 SDM

#names(r_obj4_af.crop) = c("Hours Restriction", "Hours Activity", "Winter Precip", "Summer Precip")
#names(r_obj4_af.crop) = c("Hours Restriction", "Hours Activity", "Winter Precip", "Summer Precip")
names(r_obj4_af.crop) = c("H-r", "H-a", "Prec")

#Do future climate with soils
# hr_af <- ravg_hr_MayJul_af.crop
# ha_af <- rsum_ha_af.crop
# precW_af <- r_sum10to04_af.crop
# precS_af <- r_sum05to09_af.crop
# hr2_af <- hr_af*hr_af
# ha2_af <- ha_af*ha_af
# precW2_af <- precW_af*precW_af
# precS2_af <- precS_af*precS_af
# hrxprecW_af <- hr_af*precW_af
# hrxprecS_af <- hr_af*precS_af
# haxprecW_af <- ha_af*precW_af
# haxprecS_af <- ha_af*precS_af
# r_obj4_af.crop <- stack(hr_af,ha_af,precW_af,precS_af,hr2_af,ha2_af,precW2_af,precS2_af,hrxprecW_af,
hrxprecS_af, haxprecW_af, haxprecW_af,clay.10m,silt.10m,sand.10m)
# names(r_obj4_af.crop) = c("hr", "ha", "precW", "precS", "hr2", "ha2", "precW2", "precS2", "hrxprecW",
"hrxprecS", "haxprecW", "haxprecW", "clay", "silt", "sand")

future.climate = r_obj4_af.crop

myBiomodProj <- BIOMOD_Projection(
modeling.output = myBiomodModelOut,
new.env = future.climate,
proj.name = 'current',
selected.models = 'all',
binary.meth = 'ROC',
compress = 'xz',
clamping.mask = F,
output.format = '.grd')
pred_af = get_predictions(myBiomodProj)[[1]]

quartz() # delete this command on WINDOWS machines

plot(pred_af/1000,col=rainbow(100)[1:70], axes = F, xlab = NA, ylab = NA,main="Corallus hortulanus 2070
RCP 8.5")

map("world",add=T)
map("state",add=T)
points(G_poly,pch=21,cex=1, bg="black",col="white")

```