

Table S3. Posterior parameter estimates from G-PhoCS analyses. For details, see text.

Parameter	Median	Lower 95% HPD	Upper 95% HPD
N inornatus-S	217434	206579	228783
N mastigura	215954	204605	226645
T inornatus-S vs. mastigura	746053	676316	842105
M inornatus-S --> mastigura	3.16E-07	0.000000244	3.86E-07
M mastigura --> inornatus-S	2.41E-07	1.85E-07	2.98E-07
2NM inornatus-S --> mastigura	0.14	0.11	0.16
2NM mastigura --> inornatus-S	0.1	0.08	0.13
N inornatus-S	242434	228289	253783
N superciliaris-W	86349	82237	89803
T inornatus-S vs. superciliaris-W	648684	586842	734211
M inornatus-S --> superciliaris-W	6.33E-07	5.32E-07	7.37E-07
M superciliaris-W --> inornatus-S	1.26E-07	8.42E-08	1.69E-07
2NM inornatus-S --> superciliaris-W	0.11	0.09	0.12
2NM superciliaris-W --> inornatus-S	0.06	0.04	0.08
N inornatus-S	265461	248191	285362
N superciliaris-ES	41283	38651	43914
T inornatus-S vs. superciliaris-ES	557895	490789	634211
M inornatus-S --> superciliaris-ES	5.69E-07	4.40E-07	7.05E-07
M superciliaris-ES --> inornatus-S	0.000000058	0	0.000000098
2NM inornatus-S --> superciliaris-ES	0.05	0.04	0.06
2NM superciliaris-ES --> inornatus-S	0.03	0	0.05
N inornatus-S	250164	235855	264474
N superciliaris-EN	62336	59704	65132
T inornatus-S vs. superciliaris-EN	630263	572368	701316
M inornatus-S --> superciliaris-EN	2.48E-07	1.76E-07	3.20E-07
M superciliaris-EN --> inornatus-S	6.21E-08	2.39E-08	1.01E-07
2NM inornatus-S --> superciliaris-EN	0.03	0.02	0.04
2NM superciliaris-EN --> inornatus-S	0.03	0.01	0.05
N inornatus-N	141941	134211	149507
N mastigura	232895	216118	249013
T inornatus-N vs. mastigura	710526	610526	871053
M inornatus-N --> mastigura	0.000000352	2.57E-07	4.38E-07
M mastigura --> inornatus-N	4.74E-07	3.78E-07	5.83E-07
2NM inornatus-N --> mastigura	0.16	0.13	0.2
2NM mastigura --> inornatus-N	0.13	0.11	0.16
N inornatus-N	159211	150493	167270
N superciliaris-W	87993	83717	92763
T inornatus-N vs. superciliaris-W	638158	543421	771053
M inornatus-N --> superciliaris-W	7.32E-07	0.00000061	8.62E-07
M superciliaris-W --> inornatus-N	2.94E-07	2.04E-07	3.90E-07
2NM inornatus-N --> superciliaris-W	0.13	0.11	0.15
2NM superciliaris-W --> inornatus-N	0.09	0.07	0.12
N inornatus-N	167763	157730	177796
N superciliaris-ES	43092	39803	46382

T inornatus-N vs. superciliaris-ES	586842	480263	700000
M inornatus-N --> superciliaris-ES	6.32E-07	4.64E-07	8.36E-07
M superciliaris-ES --> inornatus-N	1.17E-07	0	0.00000018
2NM inornatus-N --> superciliaris-ES	0.05	0.04	0.07
2NM superciliaris-ES --> inornatus-N	0.04	0.01	0.07
N inornatus-N	161842	153618	170230
N superciliaris-EN	65625	62829	68914
T inornatus-N vs. superciliaris-EN	660526	575000	740789
M inornatus-N --> superciliaris-EN	2.40E-07	1.66E-07	3.14E-07
M superciliaris-EN --> inornatus-N	1.41E-07	8.48E-08	2.02E-07
2NM inornatus-N --> superciliaris-EN	0.03	0.02	0.04
2NM superciliaris-EN --> inornatus-N	0.05	0.03	0.06
N inornatus-N	151809	146382	156908
N robustus-NW	78947	75493	82730
T inornatus-N vs. robustus-NW	971053	877632	1069737
M inornatus-N --> robustus-NW	2.57E-08	0	4.82E-08
M robustus-NW --> inornatus-N	0.00000004	1.69E-08	6.65E-08
2NM inornatus-N --> robustus-NW	0	0	0.01
2NM robustus-NW --> inornatus-N	0.01	0.01	0.02
N inornatus-N	155921	148191	162500
N robustus-TE	18421	14967	21217
T inornatus-N vs. robustus-TE	940789	789474	1138158
M inornatus-N --> robustus-TE	2.12E-07	5.68E-08	4.79E-07
M robustus-TE --> inornatus-N	0.000000001	0	4.22E-08
2NM inornatus-N --> robustus-TE	0.01	0	0.02
2NM robustus-TE --> inornatus-N	0	0	0.01
N lateralis	113816	107895	119079
N spaldingi-S	83717	80592	87500
T lateralis vs. spaldingi-S	980263	807895	1210526
M lateralis --> spaldingi-S	6.28E-08	3.23E-08	9.68E-08
M spaldingi-S --> lateralis	2.86E-08	0.000000003	5.77E-08
2NM lateralis --> spaldingi-S	0.01	0.01	0.02
2NM spaldingi-S --> lateralis	0.01	0	0.01
N robustus-NW	80592	74342	87171
N superciliaris-W	101974	94901	108882
T robustus-NW vs. superciliaris-W	957895	822368	1150000
M robustus-NW --> superciliaris-W	6.48E-08	1.56E-08	1.40E-07
M superciliaris-W --> robustus-NW	2.00E-10	0	1.14E-08
2NM robustus-NW --> superciliaris-W	0.01	0	0.03
2NM superciliaris-W --> robustus-NW	0	0	0
N Pilbara1	250329	224013	286513
N Pilbara2	93257	81250	134211
T Pilbara1 vs. Pilbara2	405263	180263	571053
M Pilbara1 --> Pilbara2	2.08E-05	1.64E-05	2.32E-05
M Pilbara2 --> Pilbara1	0	0	6.00E-10
2NM Pilbara1 --> Pilbara2	3.9	3.65	4.51
2NM Pilbara2 --> Pilbara1	0	0	0

N Murchison1	64145	52303	75822
N Murchison2	255921	226645	284539
T Murchison1 vs. Murchison2	581579	351316	947368
M Murchison1 --> Murchison2	0	0	4.00E-10
M Murchison2 --> Murchison1	2.70E-05	2.20E-05	3.30E-05
2NM Murchison1 --> Murchison2	0	0	0
2NM Murchison2 --> Murchison1	3.48	3.27	3.7
N inornatus-N1	237500	184046	252138
N inornatus-N2	105592	97368	113487
T inornatus-N1 vs. inornatus-N2	773684	339474	6173684
M inornatus-N1 --> inornatus-N2	1.37E-05	0.000012646	1.48E-05
M inornatus-N2 --> inornatus-N1	0	0	7.00E-10
2NM inornatus-N1 --> inornatus-N2	2.89	2.73	3.07
2NM inornatus-N2 --> inornatus-N1	0	0	0
N Western shrublands	231743	209868	249178
N Pilbara	292599	279934	307237
T Western shrublands vs. Pilbara	463158	415789	521053
M Western shrublands --> Pilbara	3.85E-07	1.67E-07	5.81E-07
M Pilbara --> Western shrublands	2.01E-06	1.60E-06	2.52E-06
2NM Western shrublands --> Pilbara	0.23	0.1	0.33
2NM Pilbara --> Western shrublands	0.93	0.79	1.08
N Western shrublands	248849	236842	260033
N inornatus-N	297039	283224	309868
T Western shrublands vs. inornatus-N	602632	543421	661842
M Western shrublands --> inornatus-N	5.89E-07	4.49E-07	7.27E-07
M inornatus-N --> Western shrublands	6.83E-07	5.70E-07	0.000000803
2NM Western shrublands --> inornatus-N	0.35	0.28	0.42
2NM inornatus-N --> Western shrublands	0.34	0.29	0.39
N inornatus-N	298849	288158	309211
N Pilbara	261678	252467	269901
T inornatus-N vs. Pilbara	631579	590789	673684
M inornatus-N --> Pilbara	2.83E-07	0.000000225	3.41E-07
M Pilbara --> inornatus-N	3.76E-07	2.90E-07	0.000000466
2NM inornatus-N --> Pilbara	0.15	0.12	0.17
2NM Pilbara --> inornatus-N	0.22	0.18	0.27
N C. brachyonyx	14803	11020	18750
N Central deserts	423520	366612	486184
T C. brachyonyx vs. Central deserts	506579	415789	600000
M C. brachyonyx --> Central deserts	0	0	0.000000149
M Central deserts --> C. brachyonyx	7.20E-06	5.06E-06	9.52E-06
2NM C. brachyonyx --> Central deserts	0	0	0.12
2NM Central deserts --> C. brachyonyx	0.21	0.19	0.24
N C. brachyonyx	24671	20395	28783
N Western shrublands	294737	276809	311842
T C. brachyonyx vs. Western shrublands	580263	463158	714474
M C. brachyonyx --> Western shrublands	2.40E-09	0	7.61E-08
M Western shrublands --> C. brachyonyx	3.11E-06	0.000002388	3.98E-06

2NM C. brachyonyx --> Western shrublands	0	0	0.04
2NM Western shrublands --> C. brachyonyx	0.15	0.14	0.17
N C. fallens	56579	52796	60197
N Pilbara	305263	288980	321546
T C. fallens vs. Pilbara	440789	390789	500000
M C. fallens --> Pilbara	0.000000129	4.63E-08	0.000000228
M Pilbara --> C. fallens	1.39E-06	0.000001129	1.70E-06
2NM C. fallens --> Pilbara	0.08	0.03	0.14
2NM Pilbara --> C. fallens	0.16	0.13	0.18
N C. fallens	65132	61184	69572
N Western shrublands	286184	270230	304112
T C. fallens vs. Western shrublands	518421	439474	597368
M C. fallens --> Western shrublands	1.97E-07	0.000000098	3.03E-07
M Western shrublands --> C. fallens	7.38E-07	5.07E-07	9.78E-07
2NM C. fallens --> Western shrublands	0.11	0.06	0.17
2NM Western shrublands --> C. fallens	0.1	0.07	0.12
N Pilbara	282566	254934	314474
N C. severus	90789	83553	97204
T Pilbara vs. C. severus	375000	303947	451316
M Pilbara --> C. severus	2.00E-10	0	1.90E-07
M C. severus --> Pilbara	2.17E-06	1.51E-06	2.77E-06
2NM Pilbara --> C. severus	0	0	0.03
2NM C. severus --> Pilbara	1.23	0.95	1.49
N Western shrublands	275493	254605	301480
N C. severus	87664	78783	97204
T Western shrublands vs. C. severus	502632	396053	618421
M Western shrublands --> C. severus	1.60E-07	0	5.62E-07
M C. severus --> Western shrublands	6.23E-07	3.25E-07	8.98E-07
2NM Western shrublands --> C. severus	0.03	0	0.09
2NM C. severus --> Western shrublands	0.34	0.21	0.49
N inornatus-N	511184	489474	530428
N inornatus-S	271382	258059	283882
T inornatus-N vs. inornatus-S	602632	572368	636842
M inornatus-N --> inornatus-S	9.42E-07	7.92E-07	1.11E-06
M inornatus-S --> inornatus-N	5.63E-07	4.72E-07	6.46E-07
2NM inornatus-N --> inornatus-S	0.51	0.45	0.58
2NM inornatus-S --> inornatus-N	0.58	0.49	0.66
N inornatus-S	541283	519901	562993
N lateralis	197862	189967	205099
T inornatus-S vs. lateralis	650000	615789	684211
M inornatus-S --> lateralis	3.80E-07	3.06E-07	4.60E-07
M lateralis --> inornatus-S	7.93E-08	1.01E-08	1.31E-07
2NM inornatus-S --> lateralis	0.15	0.12	0.18
2NM lateralis --> inornatus-S	0.09	0.01	0.14
N eutaenius	72862	67434	79276
N lateralis	241283	226316	255428
T eutaenius vs. lateralis	622368	544737	734211

M eutaenius --> lateralis	5.98E-08	0	1.09E-07
M lateralis --> eutaenius	8.86E-08	0	2.41E-07
2NM eutaenius --> lateralis	0.03	0	0.05
2NM lateralis --> eutaenius	0.01	0	0.03
N mastigura	576316	557072	595888
N superciliaris-W	153289	148191	158882
T mastigura vs. superciliaris-W	957895	894737	1051316
M mastigura --> superciliaris-W	6.78E-07	6.14E-07	7.42E-07
M superciliaris-W --> mastigura	0.00000018	1.38E-07	2.16E-07
2NM mastigura --> superciliaris-W	0.21	0.19	0.22
2NM superciliaris-W --> mastigura	0.21	0.16	0.25
N superciliaris-ES	81414	77303	85197
N mastigura	589967	568092	611678
T superciliaris-ES vs. mastigura	951316	868421	1043421
M superciliaris-ES --> mastigura	8.67E-08	5.95E-08	1.15E-07
M mastigura --> superciliaris-ES	2.73E-07	0.000000202	3.41E-07
2NM superciliaris-ES --> mastigura	0.1	0.07	0.13
2NM mastigura --> superciliaris-ES	0.04	0.03	0.05
N superciliaris-ES	80428	76645	83882
N superciliaris-W	197368	190954	203783
T superciliaris-ES vs. superciliaris-W	522368	460526	589474
M superciliaris-ES --> superciliaris-W	1.76E-07	1.13E-07	2.44E-07
M superciliaris-W --> superciliaris-ES	2.76E-07	1.38E-07	4.15E-07
2NM superciliaris-ES --> superciliaris-W	0.07	0.05	0.1
2NM superciliaris-W --> superciliaris-ES	0.04	0.02	0.07
N superciliaris-EN	138980	135197	142928
N mastigura	561513	543586	577961
T superciliaris-EN vs. mastigura	1098684	1039474	1165789
M superciliaris-EN --> mastigura	1.07E-07	8.47E-08	1.28E-07
M mastigura --> superciliaris-EN	7.48E-08	5.16E-08	1.01E-07
2NM superciliaris-EN --> mastigura	0.12	0.1	0.14
2NM mastigura --> superciliaris-EN	0.02	0.01	0.03
N superciliaris-EN	147533	142928	151645
N superciliaris-W	195395	189638	201645
T superciliaris-EN vs. superciliaris-W	736842	690789	786842
M superciliaris-EN --> superciliaris-W	1.88E-07	0.000000142	2.33E-07
M superciliaris-W --> superciliaris-EN	5.93E-08	2.84E-08	9.25E-08
2NM superciliaris-EN --> superciliaris-W	0.07	0.06	0.09
2NM superciliaris-W --> superciliaris-EN	0.02	0.01	0.03
N superciliaris-EN	161513	155428	167599
N superciliaris-ES	86184	81579	90789
T superciliaris-EN vs. superciliaris-ES	527632	490789	567105
M superciliaris-EN --> superciliaris-ES	1.99E-07	7.97E-08	3.41E-07
M superciliaris-ES --> superciliaris-EN	8.00E-10	0	5.87E-08
2NM superciliaris-EN --> superciliaris-ES	0.03	0.01	0.06
2NM superciliaris-ES --> superciliaris-EN	0	0	0.02
N C. borealis	202961	168750	234046

N robustus-NW	147862	130099	166283
T C. borealis vs. robustus-NW	339474	256579	432895
M C. borealis --> robustus-NW	1.56E-06	9.06E-07	2.27E-06
M robustus-NW --> C. borealis	2.01E-06	1.13E-06	3.10E-06
2NM C. borealis --> robustus-NW	0.46	0.29	0.63
2NM robustus-NW --> C. borealis	0.82	0.51	1.13
N spaldingi-NE	163487	158388	167928
N spaldingi-S	171217	167599	175658
T spaldingi-NE vs. spaldingi-S	918421	857895	984211
M spaldingi-NE --> spaldingi-S	5.26E-08	3.52E-08	7.26E-08
M spaldingi-S --> spaldingi-NE	2.17E-07	1.84E-07	2.51E-07
2NM spaldingi-NE --> spaldingi-S	0.02	0.01	0.02
2NM spaldingi-S --> spaldingi-NE	0.07	0.06	0.08
N spaldingi-CY	88158	82401	93586
N spaldingi-NE	170888	163980	176974
T spaldingi-CY vs. spaldingi-NE	1134211	978947	1538158
M spaldingi-CY --> spaldingi-NE	9.86E-08	6.77E-08	1.29E-07
M spaldingi-NE --> spaldingi-CY	7.21E-08	1.08E-08	1.39E-07
2NM spaldingi-CY --> spaldingi-NE	0.03	0.02	0.04
2NM spaldingi-NE --> spaldingi-CY	0.01	0	0.02
N spaldingi-NE	166118	161678	170395
N robustus-NW	196875	191941	201645
T spaldingi-NE vs. robustus-NW	1256579	1184211	1323684
M spaldingi-NE --> robustus-NW	1.55E-08	0.000000006	2.52E-08
M robustus-NW --> spaldingi-NE	6.76E-08	5.24E-08	8.47E-08
2NM spaldingi-NE --> robustus-NW	0.01	0	0.01
2NM robustus-NW --> spaldingi-NE	0.02	0.02	0.03
N spaldingi-CY	85197	80428	90296
N spaldingi-S	170559	165789	175658
T spaldingi-CY vs. spaldingi-S	961842	857895	1076316
M spaldingi-CY --> spaldingi-S	0.00000002	0	3.65E-08
M spaldingi-S --> spaldingi-CY	7.07E-08	2.15E-08	1.34E-07
2NM spaldingi-CY --> spaldingi-S	0.01	0	0.01
2NM spaldingi-S --> spaldingi-CY	0.01	0	0.02
N robustus-NW	216612	207566	226645
N robustus-TE	28947	25658	32566
T robustus-NW vs. robustus-TE	815789	728947	919737
M robustus-NW --> robustus-TE	3.08E-07	1.57E-07	4.75E-07
M robustus-TE --> robustus-NW	1.00E-10	0	2.25E-08
2NM robustus-NW --> robustus-TE	0.02	0.01	0.03
2NM robustus-TE --> robustus-NW	0	0	0.01