

Table S2. Temporal and Geospatial Data, Longitudinal Zone Codes, and Posterior Age Ranges.

Map ID	Fossil Taxon	Location	Longitude	Latitude	Zone	Geologic Age		68 HDI Age ^a		68 HDI Age ^b	
						Min	Max	Lower	Upper	Lower	Upper
1	<i>Anomotherium langewieschei</i>	Germany	9.4961	51.3189	3	25.36	28.94	25.360	27.342	25.360	27.359
2	<i>Ashokia antiqua</i>	India	68.7500	23.4806	4	39	41.03	39.446	40.816	39.003	40.363
3	<i>Bharatisiren indica</i>	India	68.9500	23.5436	4	23.55	26.9	23.550	24.422	23.550	24.352
4	<i>Bharatisiren kachchensis</i>	India	68.8000	23.4028	4	20.45	23.04	21.384	23.040	21.365	23.040
5	<i>Callistosiren boriquensis</i>	Puerto Rico	-66.9465	18.3329	2	24.7	27.17	25.732	27.170	25.645	27.170
6	<i>Caribosiren turneri</i>	Puerto Rico	-66.9167	18.2833	2	27.17	30.51	28.499	30.505	28.575	30.509
7	Chambi Sirenian CBI-1-542	Tunisia	8.6547	35.2119	3	45.4	48.07	46.551	48.070	46.585	48.070
8	<i>Corystosiren varguezii</i>	Florida	-81.8000	27.9000	2	4.9	5.3	4.901	5.170	4.901	5.171
9	<i>Corystosiren varguezii</i>	Mexico (Yucatan)	-87.8167	21.1833	2	3.5	5.33	4.210	5.330	4.256	5.330
10	<i>Crenatosiren olseni</i>	Florida	-82.7900	30.3300	2	23.4	24.9	23.983	24.900	24.002	24.900
11	<i>Crenatosiren olseni</i>	North Carolina	-77.2686	34.5703	2	26.5	27.5	26.504	27.168	26.500	27.165
12	<i>Crenatosiren olseni</i>	South Carolina	-80.1517	32.9672	2	28.75	29.5	28.750	29.201	28.750	29.185
13	<i>Culebratherium alemanni</i>	Panama	-79.6600	9.0500	2	19.12	21.24	19.120	20.470	19.120	20.470
14	<i>Dioplotherium allisoni</i>	California	-117.7522	33.5575	1	13.82	15.99	13.963	15.390	14.143	15.568
15	<i>Dioplotherium allisoni</i>	Mexico (Baja)	-112.0000	26.3500	1	13.82	18.22	13.821	15.943	13.829	15.833
16	<i>Dioplotherium</i> Cf. <i>D. allisoni</i> MPEG 63-V	Brazil	-47.2875	-0.5958	2	15.99	20.45	15.991	18.801	15.990	18.771
17	<i>Dioplotherium manigaulti</i>	Florida	-82.2600	29.3900	2	23.07	25.17	23.070	24.247	23.070	24.173
18	<i>Dioplotherium manigaulti</i>	South Carolina	-80.1069	32.8775	2	23.07	25.17	23.070	24.368	23.070	24.370
19	<i>Dioplotherium</i> sp. nov. ECOCHM-2491	Mexico (Yucatan)	-87.8167	21.1833	2	3.5	5.33	4.285	5.330	4.329	5.330
20	<i>Domningia sodhae</i>	India	68.9144	23.3722	4	20.45	23.04	20.507	22.189	20.451	22.122
21	<i>Dusisiren dewana</i>	California	-122.7250	37.9033	1	9	10	9.348	9.999	9.361	10.000
22	<i>Dusisiren dewana</i>	Japan	140.2111	38.3317	0	9	10.4	9.001	9.902	9.000	9.884
23	<i>Dusisiren jordani</i>	California	-122.0505	37.0715	1	11.95	13.6	12.063	13.098	12.017	13.030
24	<i>Dusisiren jordani</i>	California	-117.7122	33.5619	1	11.95	13.6	11.950	12.903	11.950	12.888
25	<i>Dusisiren reinharti</i>	Mexico (Baja)	-112.5000	26.2333	1	13.82	15.99	14.551	15.932	14.547	15.938
26	<i>Eosiren imenti</i>	Egypt	30.7004	29.6435	3	29.18	29.97	29.471	29.970	29.475	29.970
27	<i>Eosiren libyca</i>	Egypt	30.7004	29.6219	3	35.1	37.39	35.100	36.426	35.100	36.411
28	<i>Eotheroides aegyptiacum</i>	Egypt	31.2720	30.3600	3	44.7	46	44.700	45.552	44.700	45.529
29	<i>Eotheroides clavigerum</i>	Egypt	30.0566	29.3036	3	35.34	38.08	36.367	38.080	36.348	38.080
30	<i>Eotheroides lambondrano</i>	Madagascar	46.4206	-15.6339	3	33.9	48.07	33.903	38.858	33.900	38.438
31	<i>Eotheroides sandersi</i>	Egypt	30.0249	29.2709	3	35.34	38.08	35.351	37.120	35.423	37.195
32	<i>Halitherium taulannense</i>	France	6.4591	43.8765	3	33.9	36.5	35.146	36.500	35.197	36.500
33	<i>Hydrodamalis cuetae</i>	California	-120.7333	35.1667	1	3.6	7.25	5.529	7.250	5.660	7.250
34	<i>Hydrodamalis cuetae</i>	California	-117.7047	33.6353	1	3.6	7.25	5.529	7.250	5.660	7.250
35	<i>Hydrodamalis cuetae</i>	Mexico (Baja)	-115.7333	30.0667	1	3.6	7.25	5.529	7.250	5.660	7.250
36	<i>Hydrodamalis gigas</i>	Aleutian Islands	-176.6403	51.7844	0	0.00025	0.78	0.256	0.780	0.278	0.780
37	<i>Hydrodamalis gigas</i>	Aleutian Islands	178.9833	51.5422	0	0.00025	0.78	0.256	0.780	0.278	0.780
38	<i>Hydrodamalis gigas</i>	Aleutian Islands	172.9306	52.8922	0	0.00025	0.78	0.256	0.780	0.278	0.780
39	<i>Hydrodamalis gigas</i>	Aleutian Islands	175.9250	52.3556	0	0.00025	0.78	0.256	0.780	0.278	0.780
40	<i>Hydrodamalis gigas</i>	Aleutian Islands	177.4564	51.9689	0	0.00025	0.78	0.256	0.780	0.278	0.780
41	<i>Hydrodamalis gigas</i>	Aleutian Islands	-171.7000	63.7000	0	0.00025	0.78	0.256	0.780	0.278	0.780
42	<i>Hydrodamalis gigas</i>	California	-121.9900	36.9325	1	0.00025	0.78	0.256	0.780	0.278	0.780
43	<i>Hydrodamalis gigas</i>	Japan	141.5374	42.8056	0	0.78	1.8	1.127	1.800	1.100	1.789
44	<i>Hydrodamalis gigas</i>	Japan	140.1478	35.3439	0	0.78	1.8	1.127	1.800	1.100	1.789
45	<i>Hydrodamalis gigas</i>	Bering Island	166.2500	55.0000	0	0.00025	0.78	0.256	0.780	0.278	0.780
46	<i>Hydrodamalis spissa</i>	Japan	144.0897	43.1789	0	1.8	5.33	1.800	3.292	1.800	3.107
47	<i>Kaupitherium bronni</i>	Belgium	4.4000	51.1000	3	27.29	33.9	29.674	33.468	30.489	33.889
48	<i>Kaupitherium bronni</i>	Germany	8.3000	50.0000	3	27.29	33.9	29.674	33.468	30.489	33.889
49	<i>Kaupitherium bronni</i>	Germany	12.5000	51.2000	3	27.29	33.9	29.674	33.468	30.489	33.889
50	<i>Kaupitherium bronni</i>	Germany	6.9000	51.6000	3	27.29	33.9	29.674	33.468	30.489	33.889
51	<i>Kaupitherium gruelli</i>	Belgium	4.4000	51.1000	3	27.29	33.9	30.166	33.900	30.702	33.900
52	<i>Kaupitherium gruelli</i>	France	1.6000	48.6000	3	27.29	33.9	30.166	33.900	30.702	33.900
53	<i>Kaupitherium gruelli</i>	Germany	8.3000	50.0000	3	27.29	33.9	30.166	33.900	30.702	33.900

Notes:

^a 68% posterior highest density interval from analysis of the total evidence supermatrix^b 68% posterior highest density interval from analysis of the morphology [+ biogeographic character] supermatrix

Ages reported in millions of years

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Table S2. (continued)

Map ID	Fossil Taxon	Location	Longitude	Latitude	Zone	Geologic Age		68 HDI Age ^a		68 HDI Age ^b	
						Min	Max	Lower	Upper	Lower	Upper
54	<i>Kaupitherium gruelli</i>	Germany	6.9000	51.6000	3	27.29	33.9	30.166	33.900	30.702	33.900
55	<i>Kutchisiren cylindrica</i>	India	68.9125	23.4833	4	20.45	23.04	20.793	22.499	20.613	22.312
56	<i>Lentianerium cristolii</i>	Austria	14.2861	48.3061	3	23.04	25.17	23.991	25.170	24.047	25.170
57	<i>Libysiren sickenbergi</i>	Libya	18.5000	28.2500	3	45.4	48.07	45.400	46.559	45.400	46.449
58	<i>Metaxytherium albifontanum</i>	Florida	-82.7350	30.3290	2	23.07	25.17	23.343	24.685	23.172	24.477
59	<i>Metaxytherium albifontanum</i>	South Carolina	-80.0575	33.0082	2	23.07	25.17	23.071	24.353	23.071	24.286
60	<i>Metaxytherium arctodites</i>	California	-117.6244	33.6933	1	13.6	16.3	14.206	15.949	14.357	16.066
61	<i>Metaxytherium arctodites</i>	Mexico (Baja)	-116.8000	32.1167	1	13.6	16.3	14.002	15.750	14.365	16.089
62	<i>Metaxytherium crataegense</i>	Florida	-84.6000	30.6000	2	15	16.3	15.493	16.297	15.507	16.300
63	<i>Metaxytherium crataegense</i>	Maryland	-76.5200	38.6000	2	15.5	16.25	15.500	15.991	15.500	15.988
64	<i>Metaxytherium floridanum</i>	Florida	-82.3900	29.6600	2	9.3	11.95	10.796	11.950	10.853	11.950
65	<i>Metaxytherium floridanum</i>	Florida	-82.1300	27.6700	2	11.95	14.6	11.950	13.585	11.950	13.659
66	<i>Metaxytherium krahuletz</i>	Austria	15.8177	48.6397	3	18.2	19.8	17.790	18.949	17.863	19.000
67	<i>Metaxytherium krahuletz</i>	Austria	15.6720	48.7979	3	17.2	19	18.200	19.094	18.200	19.050
68	<i>Metaxytherium krahuletz</i>	Slovakia	19.3327	48.2780	3	17.2	19	17.790	18.949	17.863	19.000
69	<i>Metaxytherium krahuletz</i>	Switzerland	8.2286	47.4092	3	17.7	19.8	17.700	18.921	17.700	18.909
70	<i>Metaxytherium medium</i>	Austria	15.6000	46.7000	3	13.82	16	13.965	15.421	13.820	15.228
71	<i>Metaxytherium medium</i>	France	-0.0560	47.5380	3	13.82	16	13.965	15.421	13.820	15.228
72	<i>Metaxytherium medium</i>	Greece (Crete)	26.2000	35.2000	3	7.7	11.65	9.660	11.650	9.838	11.650
73	<i>Metaxytherium medium</i>	Hungary	19.7000	48.0000	3	7.7	11.65	9.660	11.650	9.838	11.650
74	<i>Metaxytherium medium</i>	Italy	10.9000	43.4000	3	7.7	11.1	9.660	11.650	9.838	11.650
75	<i>Metaxytherium medium</i>	Italy (Calabria)	15.9200	38.6700	3	7.7	11.65	9.660	11.650	9.838	11.650
76	<i>Metaxytherium medium</i>	Netherlands	6.6000	52.1000	3	11.65	13.82	11.867	13.325	11.868	13.333
77	<i>Metaxytherium medium</i>	Spain (Balearic Isles)	3.1000	39.7000	3	7.7	11.65	9.660	11.650	9.838	11.650
78	<i>Metaxytherium medium</i>	Spain	1.7000	41.3000	3	12.5	16	12.500	14.488	12.500	14.498
79	<i>Metaxytherium serresii</i>	France	3.8792	43.6086	3	4	4.75	4.264	4.750	4.269	4.750
80	<i>Metaxytherium serresii</i>	Italy	15.9306	38.6658	3	7.3	7.6	7.301	7.503	7.300	7.502
81	<i>Metaxytherium serresii</i>	Libya	20.7494	30.1392	3	4.83	5.83	4.830	5.503	4.836	5.513
82	<i>Metaxytherium subapenninum</i>	Italy (Tuscany)	11.2519	42.8006	3	3.6	5.33	4.116	5.285	3.601	4.763
83	<i>Metaxytherium subapenninum</i>	Italy	7.8544	44.6978	3	2.58	3.8	3.024	3.800	3.053	3.800
84	<i>Metaxytherium subapenninum</i>	Spain	-1.3136	37.5992	3	3.6	5.33	4.116	5.285	3.601	4.763
85	<i>Miosiren kocki</i>	Belgium	4.3636	51.0861	3	21.12	22.94	21.816	22.940	21.813	22.940
86	<i>Nanosiren garciae</i>	Florida	-82.1100	27.6200	2	4.9	5.3	5.039	5.300	5.041	5.300
87	<i>Nanosiren sanchezi</i>	Venezuela	-70.2772	11.2492	2	8	10	8.000	8.918	8.000	9.050
88	<i>Pezosiren portelli</i>	Jamaica	-77.9167	18.3333	2	41.95	44	42.621	43.990	42.323	43.702
89	<i>Potamosiren magdalenensis</i>	Colombia	-75.1667	3.3333	2	15.5	16.3	15.734	16.275	15.759	16.300
90	<i>Priscosiren atlantica</i>	Puerto Rico	-67.0050	18.3383	2	29.17	29.78	29.171	29.560	29.170	29.557
91	<i>Priscosiren atlantica</i>	South Carolina	-80.0575	33.0082	2	28.75	29.5	29.002	29.500	29.010	29.500
92	<i>Prorastomus sirenoides</i>	Jamaica	-77.5000	18.1833	2	43.65	46.25	43.650	45.225	43.650	45.254
93	<i>Protosiren fraasi</i>	Egypt	31.2720	30.3600	3	44.7	46	44.700	45.415	44.700	45.390
94	<i>Protosiren smithae</i>	Egypt	30.0570	29.3030	3	35.34	38.08	36.574	38.080	36.580	38.080
95	<i>Prototherium ausetanum</i>	Spain	2.2159	41.8413	3	37.41	41.03	39.180	41.030	39.242	41.030
96	<i>Prototherium intermedium</i>	Italy	11.8667	45.8500	3	35.81	37.71	36.584	37.710	36.611	37.710
97	<i>Prototherium intermedium</i>	Spain	2.2333	41.8500	3	37.71	39.37	37.710	38.625	37.710	38.596
98	<i>Prototherium veronense</i>	Italy	11.3742	45.6339	3	33.9	37.71	35.783	37.710	35.823	37.710
99	<i>Ribodon limbatus</i>	Argentina	-59.2500	-33.7167	2	6.8	9	6.802	8.251	6.800	8.248
100	<i>Ribodon limbatus</i>	Brazil	-66.8794	-10.1164	2	6.8	9	6.802	8.251	6.800	8.248
101	<i>Rytiodus capgrandi</i>	France	0.4608	44.3681	3	20.45	23.04	21.342	23.040	21.332	23.040
102	<i>Rytiodus heali</i>	Libya	19.7300	28.7600	3	13.82	20.45	17.679	20.450	17.738	20.450
103	<i>Rytiodus heali</i>	Madagascar	45.9026	-15.7153	3	13.82	20.45	17.679	20.450	17.738	20.450
104	Senegalese Prorastomid SN102	Senegal	-16.8749	15.0437	3	41.03	41.85	41.317	41.850	41.323	41.850
105	<i>Sobrarbesiren cardieli</i>	Spain	0.1305	42.3234	3	41.8	42.2	41.815	42.085	41.808	42.080
106	<i>Xenosiren yucateca</i>	Mexico (Yucatan)	-89.7167	21.0667	2	4.9	10.3	6.538	10.095	6.938	10.300

Notes:^a 68% posterior highest density interval from analysis of the total evidence supermatrix^b 68% posterior highest density interval from analysis of the morphology [+ biogeographic character] supermatrix

Ages reported in millions of years