Table DR1. Radiocarbon ages from reworked marine bivalves, western Greenland

Shell ID	Amino Acid Lab Number	Radiocarbon Lab Number	Radiocarbon Age (14C yr BP)	Calibrated Age (cal yr BP ± 2σ)	Asp D/L
Whale Bone Site, Melville Bugt (74° 43.841' N, 56° 54.756' W)					
11WBS-23	UAL 9272	OS-99348	8460±40	9100±120	0.228
11WBS-26	UAL 9275	OS-99349	8590±30	9250±120	0.214
11WBS-30	UAL 9279	OS-99351	3810±25	3760±90	0.188
11WBS-36	UAL 9285	OS-99350	1300±20	840±70	0.149
11WBS-37	UAL 9286	OS-99403	1700±25	1250±60	0.168
Previously published (Bennike, 2008)					
-	-	LuS-6443	8525±50	9150±150	ND
Upernavik Isfjord site 11GRO-1 (72° 49.537' N, 54° 31.983' W)					
11GRO-1-53	UAL 9166	OS-99343	920±25	540±60	0.152
11GRO-1-55	UAL 9168	OS-99344	7180±30	7640±70	0.231
11GRO-1-42	UAL 9155	OS-99345	4060±25	4090±110	0.194
11GRO-1-44	UAL 9157	OS-99346	5000±30	5360±80	0.212
11GRO-1-60	UAL 9173	OS-99347	2070±20	1630±80	0.167
Upernavik Isfjord site 11GRO-9 (72° 58.559' N, 72° 58.559' N)					
11GRO-9-7	UAL 8808	OS-92693	3810±30	3760±100	0.188
11GRO-9-10	UAL 8819	OS-92694	2050±25	1620±80	0.172
11GRO-9-12	UAL 8816	OS-92695	915±25	530±60	0.148
11GRO-9-13	UAL 8803	OS-92696	3990±25	3990±100	0.173
11GRO-9-48	UAL 8810	OS-92697	4230±25	4370±40	0.193
11GRO-9-54	UAL 8820	OS-92698	4770±25	5050±140	0.196
Jakobshavn Isfjord site (69° 7.500' N, 50° 3.525' W)					
09GRO-Shells-3-10	UAL 7649 H	UCIAMS-70131	3780±15	3730±80	0.200
09GRO-Shells-3-12	UAL 7649 I	UCIAMS-70132	4965±15	5330±70	0.191
09GRO-Shells-3-17	UAL 7617 D	UCIAMS-70133	4050±15	4060±80	ND
09GRO-Shells-3-24	UAL 7617 H	UCIAMS-70134	4000±15	4000±80	0.184
09GRO-Shells-3-40	UAL 7617 T	UCIAMS-70135	4940±20	5280±50	0.202
09GRO-Shells-3-44	UAL 7617 W	UCIAMS-70136	5375±15	5750±90	ND
Previously published (Weidick and Bennike, 2007)					
-	-	Ua-4581	3590±65	3490±160	ND
-	-	Ua-4582	3940±65	3930±190	ND
-	-	Ua-4580	3945±70	3930±200	ND
-	-	Ua-4583	4075±70	4120±210	ND
-	-	Ua-2350	4290±100	4440±320	ND
-	-	Ua-4579	5240±75	5610±180	ND
-	-	Ua-4578	5710±55	6120±140	ND

Table DR2. Amino acid data from reworked *Mya* bivalves from western Greenland

Lab Number (UAL)	Shell Number	Site	Asp D/L	Model Age (Cal. yr B.P.) 2.5%	Best Estimate	97.5%
8803 D	13	11GRO-9	0.1627	708	1878	3669
8803 E	13	11GRO-9	0.1733	1115	2672	4874
8804 D	21	11GRO-9	0.1766	1290	2923	5198
8805 D	45	11GRO-9	0.1679	893	2277	4324
8806 D	42	11GRO-9	0.1773	1319	2990	5353
8807 D	19	11GRO-9	0.1967	2547	4838	7849
8809 D	15	11GRO-9	0.1808	1503	3287	5813
8811 D	44	11GRO-9	0.1956	2500	4725	7780
8812 D	22	11GRO-9	0.1883	1938	3964	6653
8813 D	58	11GRO-9	0.1863	1789	3762	6363
8814 D	16	11GRO-9	0.1760	1264	2879	5160
8815 D	57	11GRO-9	0.1862	1814	3780	6479
8817 D	18	11GRO-9	0.1871	1895	3873	6598
8818 D	46	11GRO-9	0.1787	1355	3078	5479
8821 D	59	11GRO-9	0.1879	1892	3936	6620
8822 D	32	11GRO-9	0.1941	2344	4544	7483
9069 B	37	11GRO-9	0.1976	2600	4928	7968
9070 B	11	11GRO-9	0.2055	3279	5897	9461
9071 B	53	11GRO-9	0.1924	2256	4402	7408
9072 B	9	11GRO-9	0.1820	1573	3392	5917
9073 B	52	11GRO-9	0.1686	926	2297	4306
9074 B	63	11GRO-9	0.1914	2199	4285	7223
9075 B	33	11GRO-9	0.1619	656	1850	3663
9076 B	40	11GRO-9	0.2104	3750	6503	10424
9077 B	20	11GRO-9	0.1930	2256	4437	7230
9078 B	1	11GRO-9	0.1917	2161	4310	7123
9079 B	3	11GRO-9	0.1859	1792	3750	6528
9080 B	6	11GRO-9	0.2338	5861	10270	17426
9081 B	35	11GRO-9	0.2043	3163	5717	9036
9082 B	61	11GRO-9	0.2124	3905	6781	10651
9083 B	38	11GRO-9	0.1748	1160	2772	5020
9084 B	23	11GRO-9	0.1605	605	1749	3475
9085 B	55	11GRO-9	0.1956	2483	4727	7751
9086 B	8	11GRO-9	0.1940	2350	4576	7575
9087 B	26	11GRO-9	0.1918	2143	4322	7216
9088 B	25	11GRO-9	0.1892	1992	4066	6817
9089 B	24	11GRO-9	0.1878	1875	3910	6613
9090 B	17	11GRO-9	0.1951	2387	4647	7622
9091 B	65	11GRO-9	0.2071	3433	6071	9671
9092 B	4	11GRO-9	0.1560	511	1465	3014
9093 B	56	11GRO-9	0.1959	2491	4744	7774
9094 B	47	11GRO-9	0.1792	1433	3157	5636
9095 B	2	11GRO-9	0.1970	2547	4888	7972
9096 B	27	11GRO-9	0.1794	1399	3160	5696
9097 B	5	11GRO-9	0.1786	1385	3107	5430
9098 B	62	11GRO-9	0.1726	1125	2622	4856
9099 B	14	11GRO-9	0.1927	2261	4416	7342
9100 B	49	11GRO-9	0.1952	2430	4666	7659
9101 B	28	11GRO-9	0.1781	1360	3049	5498
9102 B	30	11GRO-9	0.1791	1418	3165	5662
9103 B	34	11GRO-9	0.1635	736	1965	3821
9104 B	39	11GRO-9	0.1996	2774	5172	8327
9105 B	36	11GRO-9	0.1884	1935	3962	6719
9106 B	50	11GRO-9	0.1766	1261	2936	5238
9107 B	64	11GRO-9	0.1860	1798	3756	6419
9108 B	41	11GRO-9	0.1459	163	858	2166
9109 B	29	11GRO-9	0.1904	2093	4184	6969
9110 B	43	11GRO-9	0.2011	2931	5346	8533
9111 B	31	11GRO-9	0.1996	2757	5134	8262
9112 B	43	11GRO-9	0.1926	2240	4381	7194

9113 B	60	11GRO-9	0.1892	2013	4047	6812
9114 B	1	11GRO-1	0.1899	2062	4135	6860
9115 B	2	11GRO-1	0.2006	2891	5293	8436
9116 B	3	11GRO-1	0.1763	1268	2907	5318
9117 B	4	11GRO-1	0.1720	1032	2564	4762
9118 B	5	11GRO-1	0.1687	938	2324	4375
9119 B	6	11GRO-1	0.2032	3077	5613	8908
9120 B	7	11GRO-1	0.1665	842	2156	4147
9121 B	8	11GRO-1	0.1878	1891	3938	6609
9122 B	9	11GRO-1	0.1867	1882	3859	6632
9123 B	10	11GRO-1	0.1953	2432	4661	7615
9124 B	11	11GRO-1	0.1707	975	2464	4557
9125 B	12	11GRO-1	0.1666	820	2159	4167
9126 B	13	11GRO-1	0.1987	2611	5041	8167
9127 B	14	11GRO-1	0.1793	1380	3149	5530
9128 B	15	11GRO-1	0.1954	2417	4675	7619
9129 B	16	11GRO-1	0.1598	599	1681	3368
9130 B	17	11GRO-1	0.1952	2393	4669	7657
9131 B	18	11GRO-1	0.1858	1818	3727	6429
9132 B	19	11GRO-1	0.1897	2001	4091	6803
9133 B	20	11GRO-1	0.1983	2691	4998	8020
9134 B	21	11GRO-1	0.1818	1504	3350	5838
9135 B	22	11GRO-1	0.1890	1949	4041	6904
9136 B	23	11GRO-1	0.1960	2488	4749	7722
9137 B	24	11GRO-1	0.1762	1264	2895	5249
9138 B	25	11GRO-1	0.1980	2646	4988	8080
9139 B	26	11GRO-1	0.1787	1374	3101	5413
9140 B	27	11GRO-1	0.1871	1874	3850	6572
9141 B	28	11GRO-1	0.1991	2750	5102	8178
9142 B	29	11GRO-1	0.1630	695	1900	3745
9143 B	30	11GRO-1	0.2126	3962	6757	10635
9144 B	31	11GRO-1	0.1757	1210	2858	5157
9145 B	32	11GRO-1	0.1915	2199	4294	7153
9146 B	33	11GRO-1	0.2061	3400	5915	9336
9147 B	34	11GRO-1	0.1899	2063	4115	6821
9148 B	35	11GRO-1	0.1883	1968	4002	6749
9149 B	36	11GRO-1	0.1954	2470	4733	7635
9150 B	37	11GRO-1	0.2093	3616	6359	10068
9151 B	38	11GRO-1	0.1776	1306	3009	5435
9152 B	39	11GRO-1	0.2109	3796	6561	10318
9153 B	40	11GRO-1	0.1879	1946	3942	6692
9154 B	41	11GRO-1	0.1656	789	2114	4040
9156 B	43	11GRO-1	0.1935	2293	4519	7391
9158 B	45	11GRO-1	0.1971	2590	4887	7846
9159 B	46	11GRO-1	0.1761	1238	2901	5269
9160 B	47	11GRO-1	0.1982	2613	5009	8141
9161 B	48	11GRO-1	0.1760	1242	2911	5273
9162 B	49	11GRO-1	0.2000	2785	5204	8274
9163 B	50	11GRO-1	0.1708	1020	2462	4592
9164 B	51	11GRO-1	0.1695	942	2385	4422
9165 B	52	11GRO-1	0.1841	1670	3565	6219
9167 B	54	11GRO-1	0.2037	3088	5634	9138
9169 B	56	11GRO-1	0.2000	2829	5223	8453
9170 B	57	11GRO-1	0.1945	2412	4626	7686
9171 B	58	11GRO-1	0.1591	561	1654	3327
9172 B	59	11GRO-1	0.1967	2500	4814	7841
9174 B	61	11GRO-1	0.1824	1573	3439	6018
9175 B	62	11GRO-1	0.1853	1765	3689	6327
9176 B	63	11GRO-1	0.1707	977	2479	4627
9177 B	64	11GRO-1	0.1642	723	1991	3898
9178 B	65	11GRO-1	0.1730	1113	2627	4836
9179 B	66	11GRO-1	0.1846	1725	3602	6204
9180 B	67	11GRO-1	0.1986	2612	5045	8114
9181 B	68	11GRO-1	0.1737	1130	2706	4987
9182 B	69	11GRO-1	0.2000	2836	5199	8329

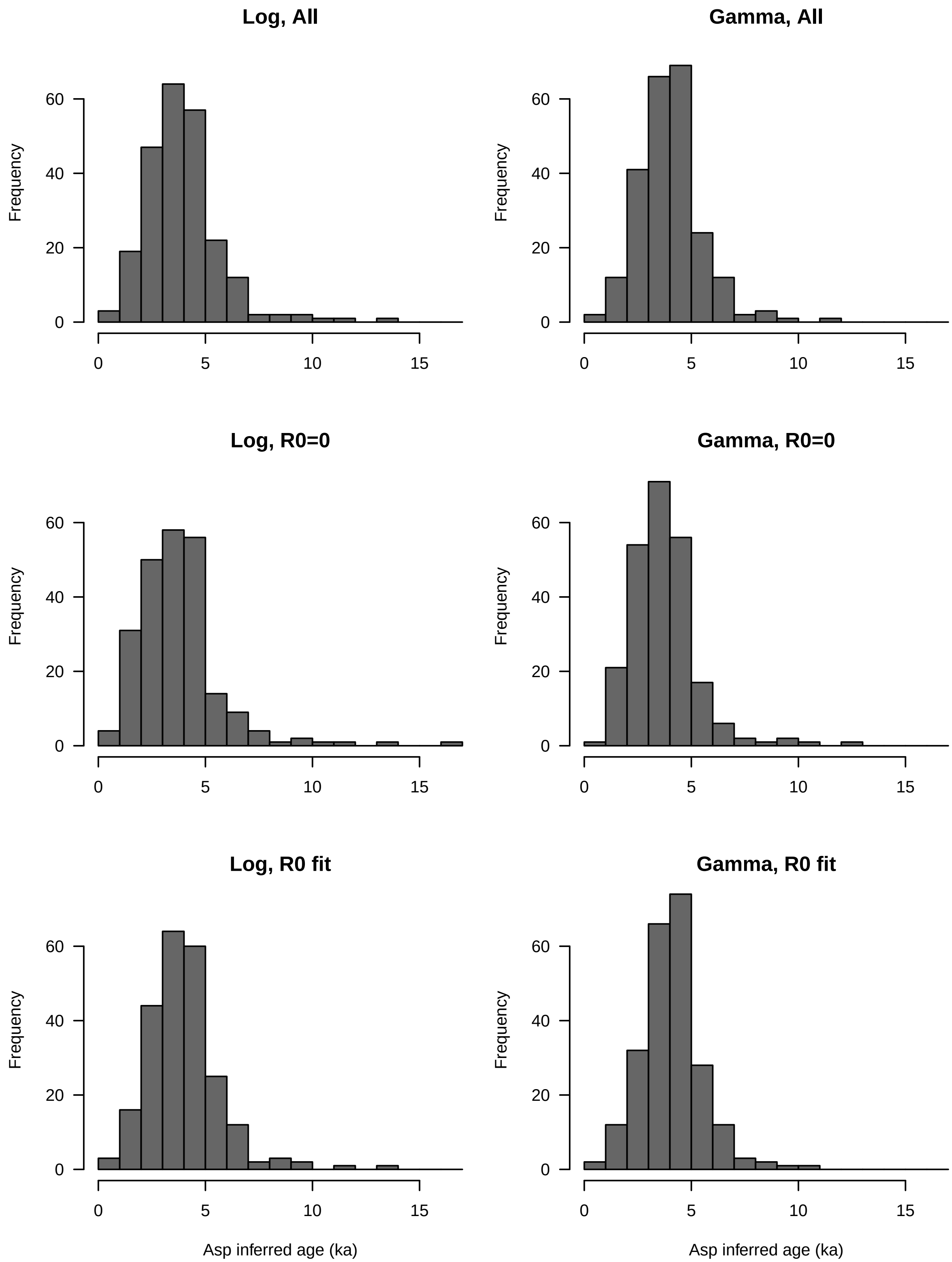
9183 B	70	11GRO-1	0.1939	2336	4544	7429
9184 B	71	11GRO-1	0.1814	1497	3325	5838
9185 B	72	11GRO-1	0.1749	1162	2758	4995
9186 B	73	11GRO-1	0.1761	1217	2898	5293
9187 B	74	11GRO-1	0.1963	2521	4807	7876
9250A	1	Whale Bone	0.1889	2013	4032	6644
9251A	2	Whale Bone	0.2118	3845	6689	10454
9252A	3	Whale Bone	0.1518	367	1202	2601
9253A	4	Whale Bone	0.1883	1941	3961	6680
9254A	5	Whale Bone	0.1868	1835	3827	6533
9255A	6	Whale Bone	0.1870	1818	3848	6589
9256A	7	Whale Bone	0.2409	6460	11663	20552
9257A	8	Whale Bone	0.1854	1748	3704	6338
9258A	9	Whale Bone	0.2033	3069	5585	8935
9259A	10	Whale Bone	0.2014	2927	5401	8681
9260A	11	Whale Bone	0.1778	1343	3014	5412
9261A	12	Whale Bone	0.2277	5300	9129	14911
9262A	13	Whale Bone	0.1926	2247	4421	7321
9263A	14	Whale Bone	0.1566	505	1488	3027
9264A	15	Whale Bone	0.1966	2581	4828	7833
9265A	16	Whale Bone	0.1868	1789	3822	6523
9266A	17	Whale Bone	0.1713	1023	2504	4627
9267A	18	Whale Bone	0.1774	1301	2994	5350
9268A	19	Whale Bone	0.1579	551	1566	3164
9269A	20	Whale Bone	0.1877	1885	3926	6605
9270A	21	Whale Bone	0.1860	1762	3741	6496
9271A	22	Whale Bone	0.1765	1243	2915	5211
9273A	24	Whale Bone	0.2267	5233	8951	14665
9274A	25	Whale Bone	0.1946	2437	4623	7610
9276A	27	Whale Bone	0.1644	769	2014	3877
9277A	28	Whale Bone	0.1711	1001	2497	4667
9278A	29	Whale Bone	0.1691	896	2333	4502
9280A	31	Whale Bone	0.1867	1792	3827	6540
9281A	32	Whale Bone	0.1915	2209	4323	7242
9282A	33	Whale Bone	0.1823	1537	3429	6038
9283A	34	Whale Bone	0.1662	783	2141	4017
9284A	35	Whale Bone	0.1935	2267	4475	7415
9293A	44	Whale Bone	0.1843	1661	3572	6145
9294A	45	Whale Bone	0.1906	2099	4189	6981
9309A	60	Whale Bone	0.1689	914	2350	4424
9310A	61	Whale Bone	0.1943	2339	4572	7593
9287B	38	Whale Bone	0.1489	261	1031	2324
9288B	39	Whale Bone	0.1874	1860	3879	6496
9289B	40	Whale Bone	0.1937	2290	4546	7472
9290B	41	Whale Bone	0.1902	2054	4172	6947
9291B	42	Whale Bone	0.1928	2210	4414	7330
9292B	43	Whale Bone	0.1973	2610	4907	7907
9295B	46	Whale Bone	0.1742	1137	2717	4935
9296B	47	Whale Bone	0.2182	4514	7609	11950
9297B	48	Whale Bone	0.1826	1574	3446	6110
9298B	49	Whale Bone	0.1823	1553	3407	5852
9299B	50	Whale Bone	0.2049	3230	5776	9174
9300B	51	Whale Bone	0.1946	2432	4583	7374
9301B	52	Whale Bone	0.1850	1703	3653	6315
9302B	53	Whale Bone	0.2223	4811	8232	13308
9303B	54	Whale Bone	0.2082	3480	6225	9793
9304B	55	Whale Bone	0.1890	1982	4014	6814
9305B	56	Whale Bone	0.1989	2763	5118	8317
9306B	57	Whale Bone	0.1703	989	2451	4646
9307B	58	Whale Bone	0.2210	4666	8052	13050
9308B	59	Whale Bone	0.1932	2302	4486	7442
7617A-2	13	09-GRO-Shell3	0.1954	2503	4698	7625
7617B-2	14	09-GRO-Shell3	0.1980	2678	4980	8006
7617C-2	15	09-GRO-Shell3	0.2024	3007	5503	8764
7.62E+01	18	09-GRO-Shell3	0.1833	1641	3512	6151

7617F-2	19	09-GRO-Shell3	0.1893	2024	4080	6889
7617DDD-2	22	09-GRO-Shell3	0.1991	2715	5095	8228
7617G-2	23	09-GRO-Shell3	0.1912	2127	4279	7061
7617EEE-2	25	09-GRO-Shell3	0.1970	2622	4875	7912
7617I-2	26	09-GRO-Shell3	0.1837	1684	3544	6239
7617K-2	28	09-GRO-Shell3	0.1829	1615	3459	5949
7617M-2	30	09-GRO-Shell3	0.1852	1759	3695	6296
7617O-2	34	09-GRO-Shell3	0.1878	1923	3932	6699
7617P-2	36	09-GRO-Shell3	0.1954	2397	4681	7667
7617Q-2	37	09-GRO-Shell3	0.1916	2191	4327	7302
7617R-2	38	09-GRO-Shell3	0.1974	2581	4890	7952
7617S-2	39	09-GRO-Shell3	0.1955	2466	4713	7702
7617U-2	41	09-GRO-Shell3	0.1844	1702	3613	6296
7617X-2	49	09-GRO-Shell3	0.1803	1417	3244	5697
7617Y-2	50	09-GRO-Shell3	0.1855	1739	3721	6371
7617Z-2	51	09-GRO-Shell3	0.1793	1414	3167	5621
7617AA-2	53	09-GRO-Shell3	0.1936	2299	4499	7394
7617BB-2	55	09-GRO-Shell3	0.1703	994	2435	4518
7617DD-2	57	09-GRO-Shell3	0.1737	1102	2682	4927
7617FF-2	59	09-GRO-Shell3	0.1783	1355	3067	5532
7617GG-2	60	09-GRO-Shell3	0.1797	1425	3203	5719
7617JJ-2	64	09-GRO-Shell3	0.1990	2741	5084	8183
7617NN-2	68	09-GRO-Shell3	0.2077	3473	6147	9654
7617OO-2	70	09-GRO-Shell3	0.1861	1810	3770	6434
7617RR-2	75	09-GRO-Shell3	0.1432	69	713	1933
7617SS-2	77	09-GRO-Shell3	0.1828	1617	3476	6058
7617VV-2	85	09-GRO-Shell3	0.1890	1947	4049	6752
7617CCC-2	56	09-GRO-Shell3	0.2079	3492	6155	9720
7617GGG-2	60	09-GRO-Shell3	0.1837	1641	3531	6071
7617HHH-2	61	09-GRO-Shell3	0.1574	518	1548	3191
7617III-2	48	09-GRO-Shell3	0.1779	1323	3006	5368
7617J-2	27	09-GRO-Shell3	0.1933	2243	4475	7276
7617LLL-2	72	09-GRO-Shell3	0.2023	2920	5457	8663
7617UU-2	80	09-GRO-Shell3	0.1888	1945	4004	6676
7617WW-2	86	09-GRO-Shell3	0.1669	812	2186	4215
7649A-3	1	09-GRO-Shell3	0.1945	2353	4596	7563
7649B-3	2	09-GRO-Shell3	0.1820	1563	3401	5896
7649C-3	3	09-GRO-Shell3	0.1811	1518	3326	5784
7649D-3	4	09-GRO-Shell3	0.1764	1228	2927	5234
7.65E+00	5	09-GRO-Shell3	0.2084	3567	6220	9769
7649F-3	6	09-GRO-Shell3	0.1882	1944	3984	6675
7649G-3	9	09-GRO-Shell3	0.1837	1679	3548	6131
7649J-3	16	09-GRO-Shell3	0.2082	3446	6220	9937
8803 avg	13	11GRO-9	0.1676	3280	3390	3500
8808 D	7	11GRO-9	0.1877	3660	3760	3860
8810 D	48	11GRO-9	0.1928	4330	4370	4410
8816 D	12	11GRO-9	0.1483	470	530	590
8819 D	10	11GRO-9	0.1719	1540	1620	1700
8820 D	54	11GRO-9	0.1957	4910	5050	5190
9155 B	42	11GRO-1	0.1942	3980	4090	4200
9157 B	44	11GRO-1	0.2117	5280	5360	5440
9166 B	53	11GRO-1	0.1516	480	540	600
9168 B	55	11GRO-1	0.2306	7570	7640	7710
9173 B	60	11GRO-1	0.1673	1550	1630	1710
9272A	23	Whale Bone	0.2280	8980	9100	9220
9275A	26	Whale Bone	0.2138	9130	9250	9370
9279A	30	Whale Bone	0.1883	3670	3760	3850
9285B	36	Whale Bone	0.1487	770	840	910
9286B	37	Whale Bone	0.1682	1190	1250	1310
7617 H3	24	09-GRO-Shell3	0.1843	3920	4000	4080
7617 T3	40	09-GRO-Shell3	0.2020	5230	5280	5330
7649 H3	10	09-GRO-Shell3	0.2000	3650	3730	3810
7649 I3	12	09-GRO-Shell3	0.1914	5260	5330	5400

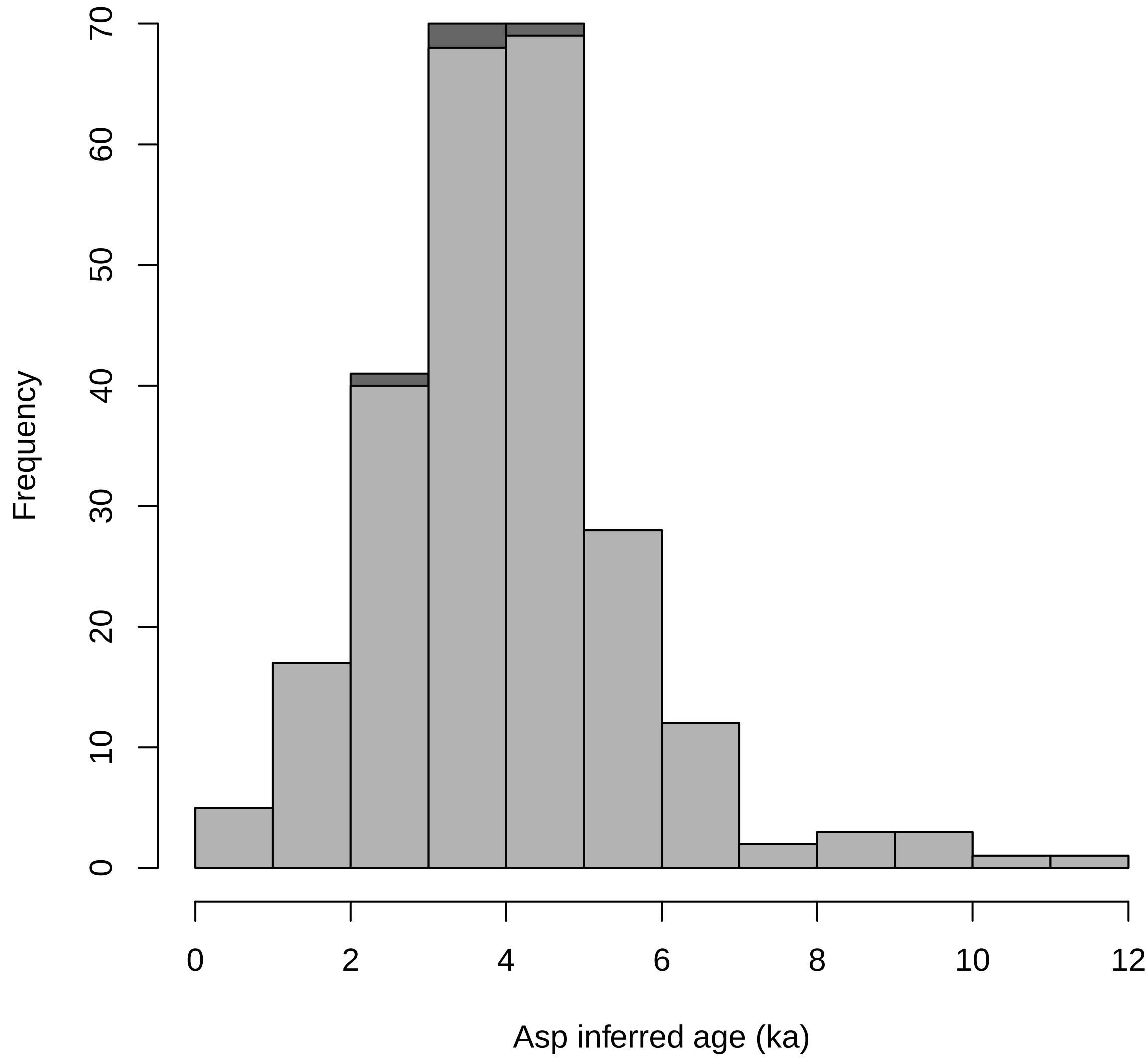
DR Table 3 – Calibration model fits for Greenland *Mya* specimens. Model parameters as explained in detail by Allen et al. (2013). Columns: “model number” used in DR Figures 3 & 4; “amino acid” is the amino acid used to fit the model; “distribution” is the statistical distribution used to quantify the model uncertainty; “function” is the function used to relate amino acid D/L and radiocarbon age; “ln(a), ln(b), c, ln(R0), ln(d)” are model specific parameters a value of “NA” means that the model in question does not contain that parameter; “n” is the number of specimens used when fitting the model; “k” is the number of parameters in the model; “deviance” is a measure of model fit; “BIC” is Bayes Information Criteria; “ BIC” is the difference between the model and the best fit model.

model number	amino acid	distribution	function	ln(a)	ln(b)	c	ln(R0)	ln(d)	DIC	n	k	deviance	BIC
1	Asp	gamma	CPK0	3.4214	2.5196	NA	NA	5.7091	337.1	20	3	330.38	339.37
2	Asp	gamma	TDK0	16.3137	1.5917	NA	NA	5.5218	333.9	20	3	326.82	335.81
3	Asp	gamma	SPK0	16.6265	1.6205	NA	NA	5.5219	332.8	20	3	326.65	335.64
4	Asp	gamma	CPK1	7.3249	1.5900	1.5065	-1.9770	5.1508	330.2	20	4	321.70	333.68
5	**Asp**	**gamma**	**TDK1**	**12.4462**	**0.3862**	**1.1998**	**-2.0310**	**5.1008**	**333.7**	**20**	**4**	**321.35**	**333.33**
6	Asp	gamma	SPK1	13.7541	1.0972	1.4926	-1.9789	5.2072	333.7	20	4	321.52	333.51
7	Asp	lognormal	CPK0	1.9896	2.7667	NA	NA	-2.2160	339.4	20	3	333.25	342.24
8	Asp	lognormal	TDK0	18.0897	1.7948	NA	NA	-2.4765	335.9	20	3	328.98	337.96
9	Asp	lognormal	SPK0	18.4793	1.8267	NA	NA	-2.4568	335.6	20	3	328.76	337.75
10	Asp	lognormal	CPK1	6.9628	1.6967	1.4836	-1.9802	-2.7650	334.2	20	4	323.15	335.13
11	Asp	lognormal	TDK1	14.5711	0.9402	0.6289	-2.2162	-2.5401	336.1	20	4	325.30	337.28
12	Asp	lognormal	SPK1	14.0673	1.1732	1.4656	-1.9828	-2.7283	337	20	4	322.82	334.80
13	Glu	gamma	CPK0	4.5006	3.0244	NA	NA	7.0073	364.6	20	3	355.09	364.08
14	Glu	gamma	TDK0	17.8690	1.3884	NA	NA	6.9355	362	20	3	354.62	363.61
15	Glu	gamma	SPK0	17.5248	1.3501	NA	NA	6.9420	363.4	20	3	354.63	363.62
16	Glu	gamma	CPK1	42.7916	-31.4601	1.3535	-2.7135	6.5704	367.5	20	4	351.37	363.36
17	Glu	gamma	TDK1	14.0287	0.5721	0.5711	-2.9555	6.9909	361	20	4	354.28	366.27
18	Glu	gamma	SPK1	14.0939	0.7752	1.0552	-2.7789	7.0003	362.1	20	4	354.27	366.26
19	Glu	lognormal	CPK0	3.2409	3.2740	NA	NA	-0.9769	374.7	20	3	359.17	368.16
20	Glu	lognormal	TDK0	20.1065	1.6127	NA	NA	-0.9833	365.8	20	3	358.88	367.87
21	Glu	lognormal	SPK0	19.5033	1.5615	NA	NA	-0.9447	366	20	3	358.90	367.89
22	Glu	lognormal	CPK1	3.2105	3.2845	-18.0119	-168.6487	-0.9477	371.2	20	4	359.15	371.13
23	Glu	lognormal	TDK1	16.9291	1.1588	-0.2876	-3.5712	-0.9688	365.9	20	4	358.88	370.86
24	Glu	lognormal	SPK1	19.9632	1.6020	-2.8806	-8.8439	-0.9731	366.7	20	4	358.91	370.89

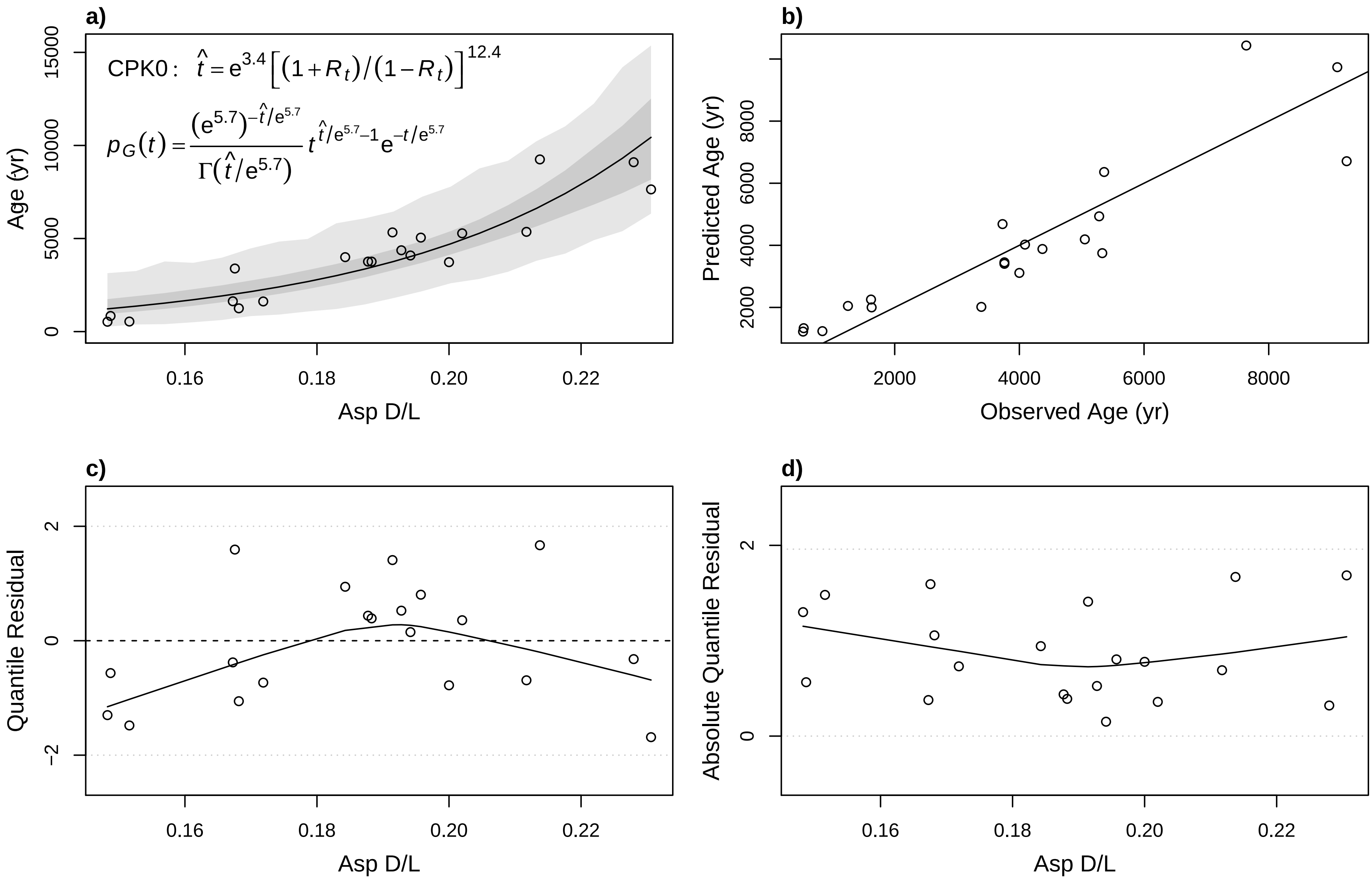
DR Figure 1. Histograms of shell ages using various Asp D/L calibrations.



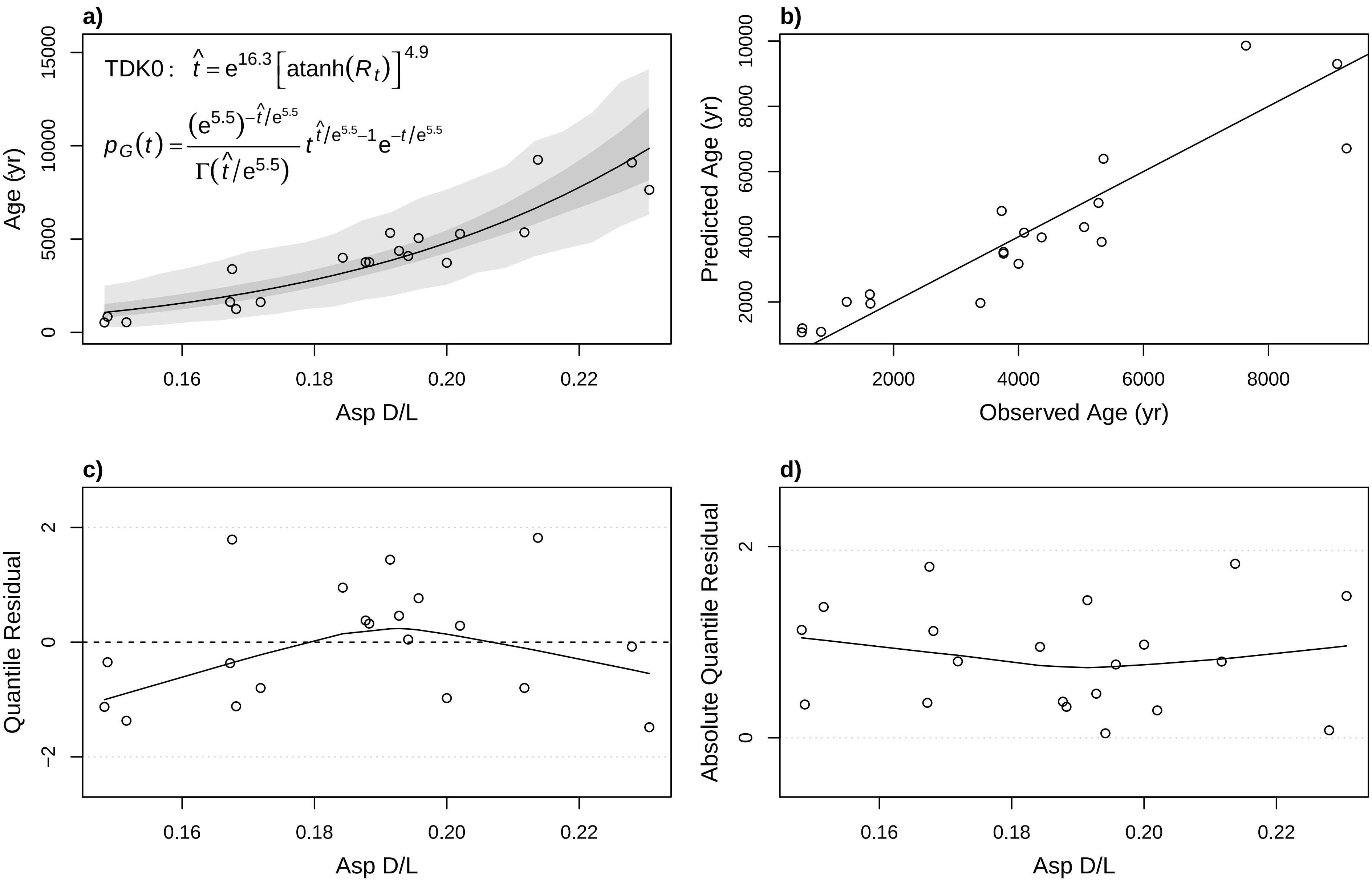
DR Figure 2. Histogram of shell ages indicating specimens removed from analysis based on suspect Asp concentrations. Dark shaded areas indicate ages of specimens removed from the analyses presented in the paper.



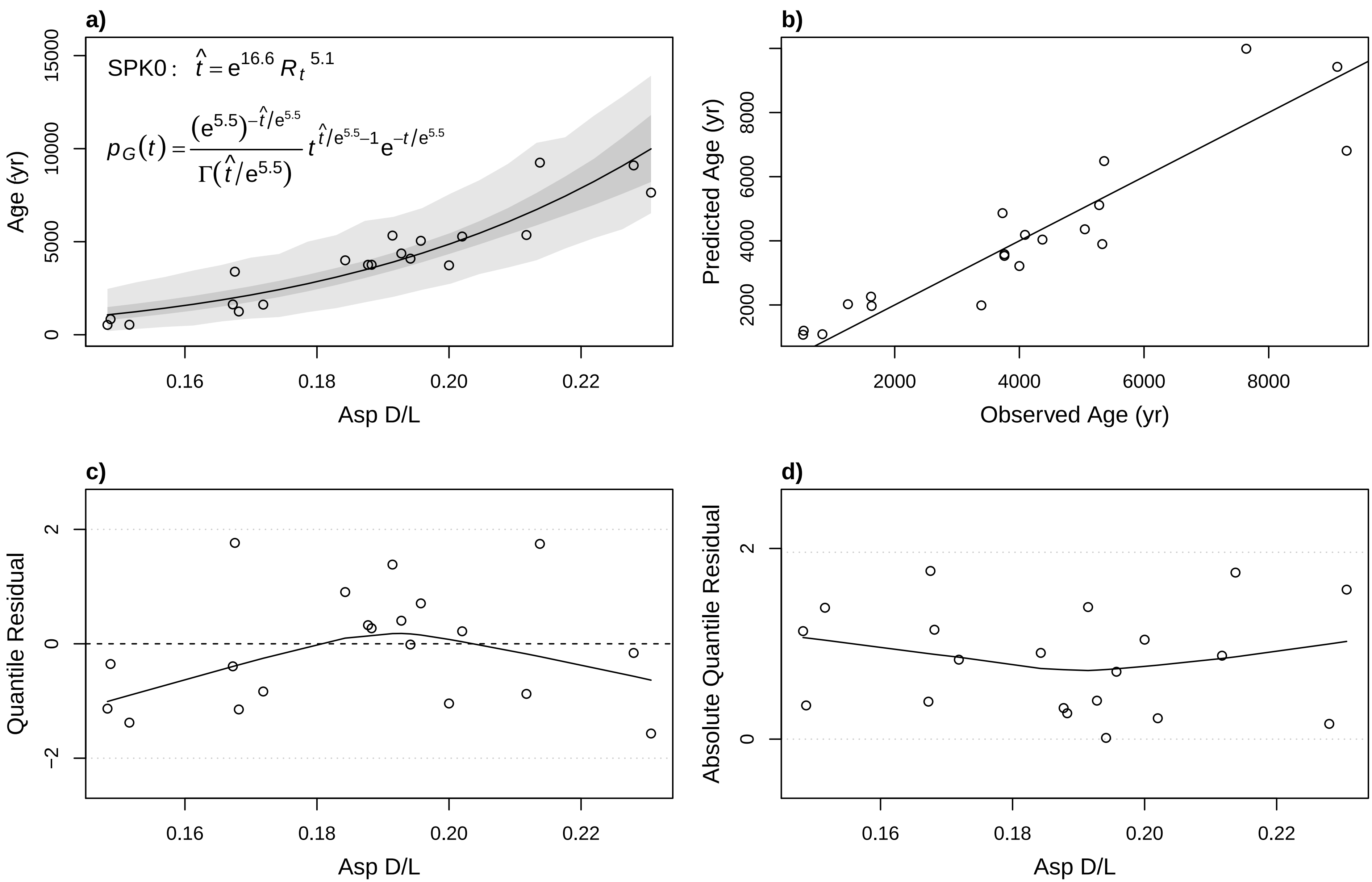
DR Figure 3. Plots of: (a) fitted model with maximum−likelihood parameter estimates (see DR Table 3), (b) relationship of observed to predicted age with one−to−one line, (c) quantile residuals of the fitted model plotted as a function of the D/L, and (d) absolute values of quantile residuals plotted as a function of D/L. Lines depicted in the figures were fitted by lowess with a smoother span of 0.9 (Model 1 from DR Table 3).



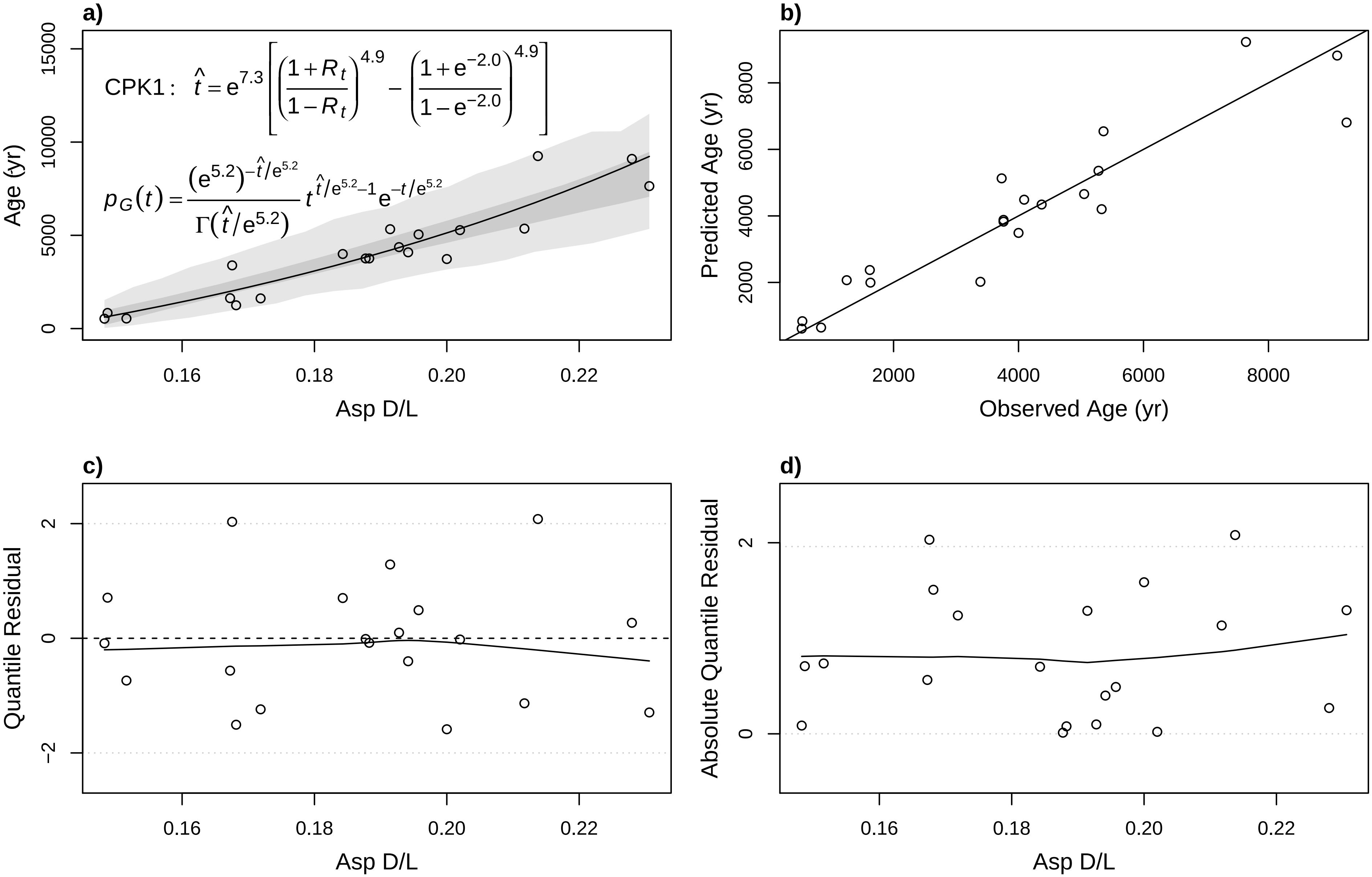
DR Figure 3. Continued: Model 2 (see DR Table 3); Taxon: Mya



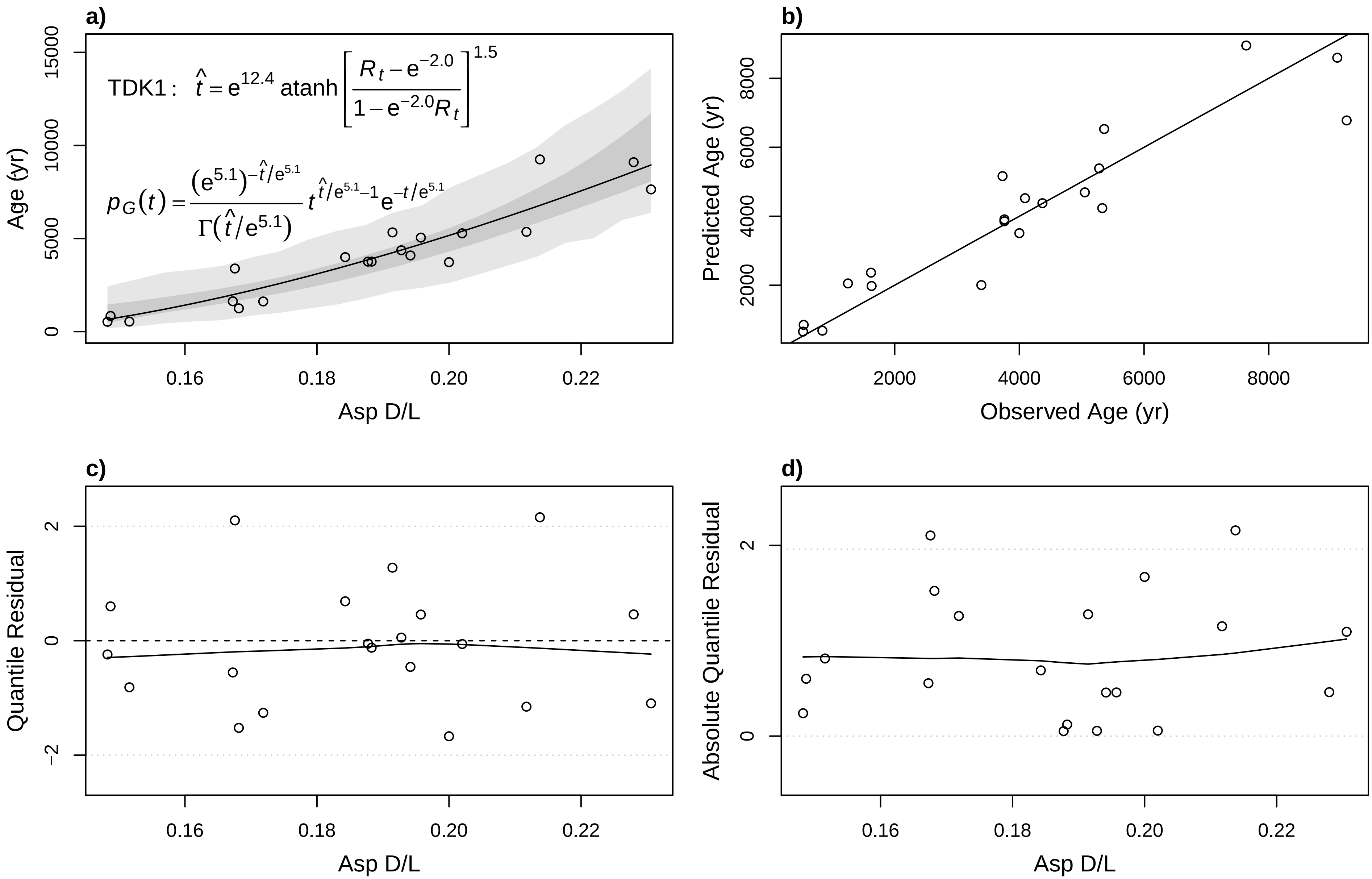
DR Figure 3. Continued: Model 3 (see DR Table 3); Taxon: Mya



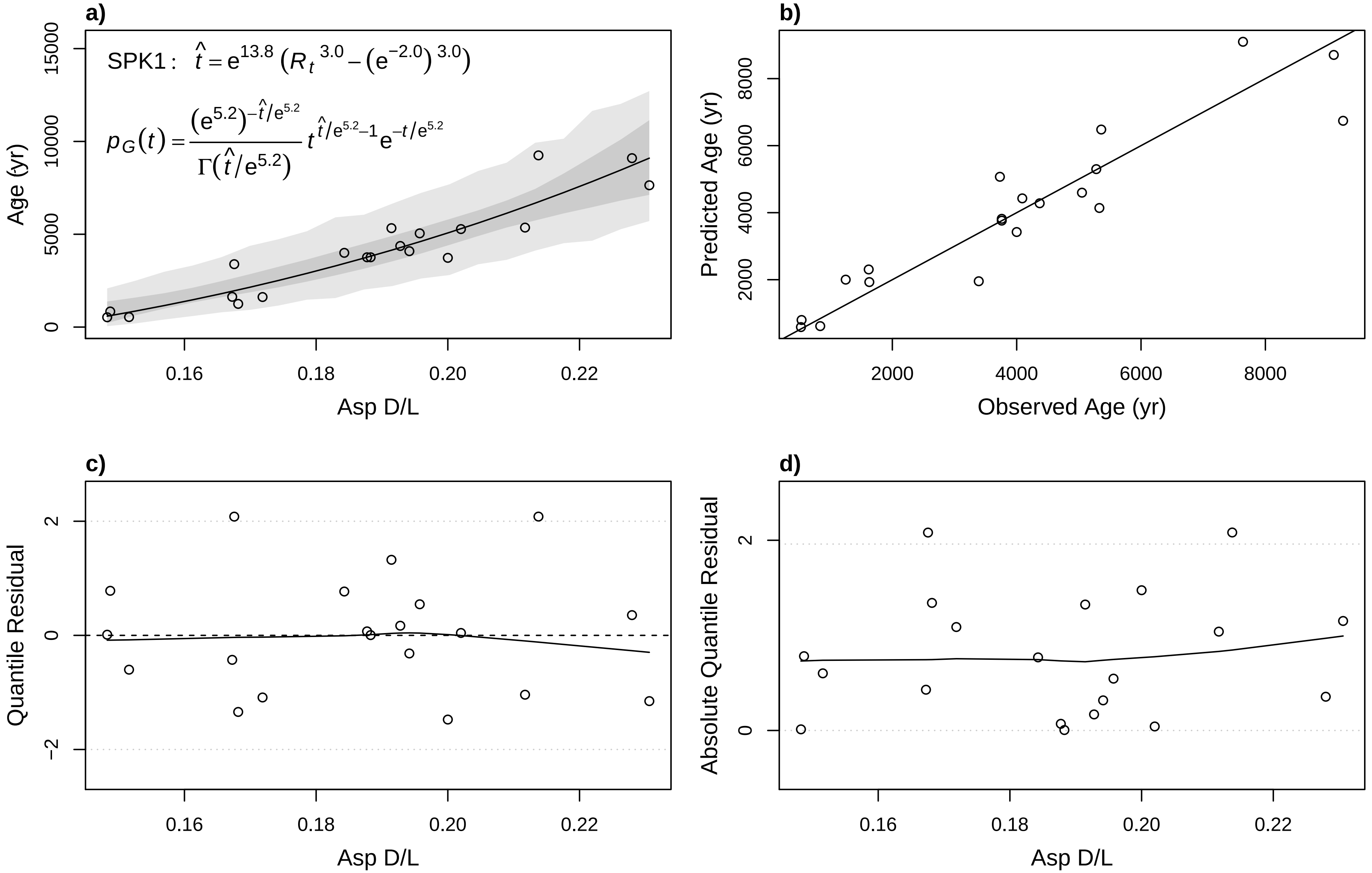
DR Figure 3. Continued: Model 4 (see DR Table 3); Taxon: Mya



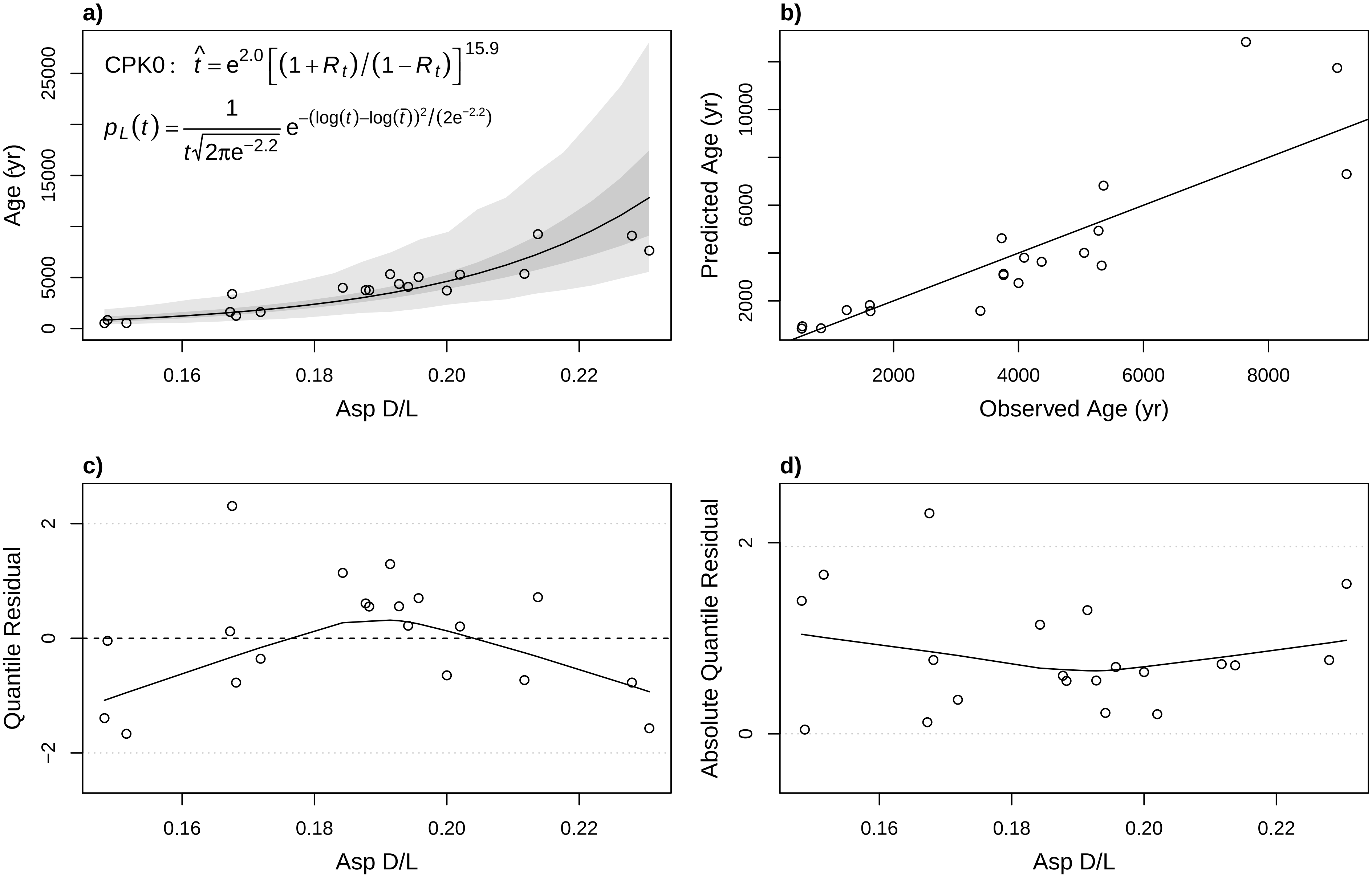
DR Figure 3. Continued: Model 5 (see DR Table 3); Taxon: Mya



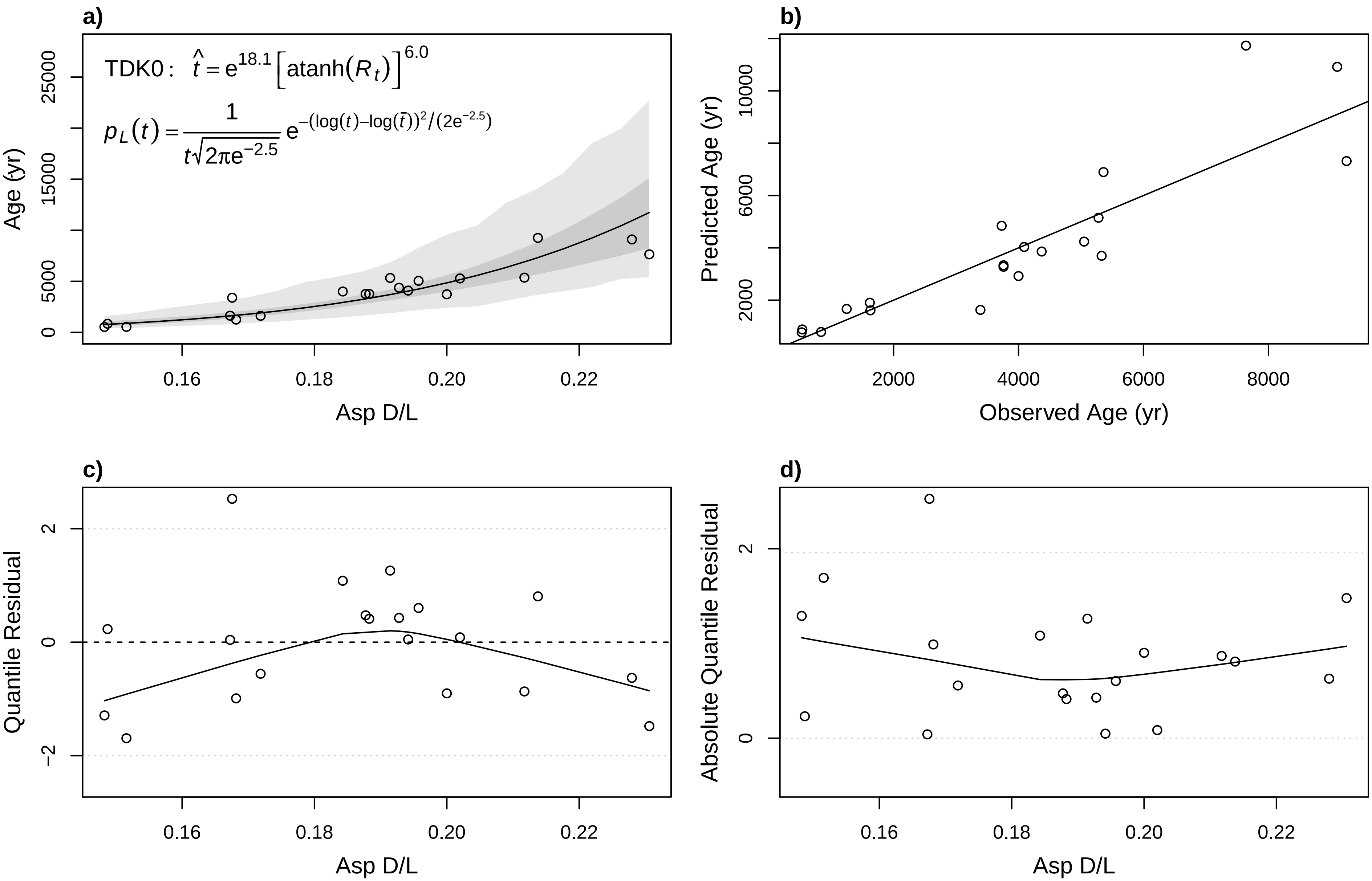
DR Figure 3. Continued: Model 6 (see DR Table 3); Taxon: Mya



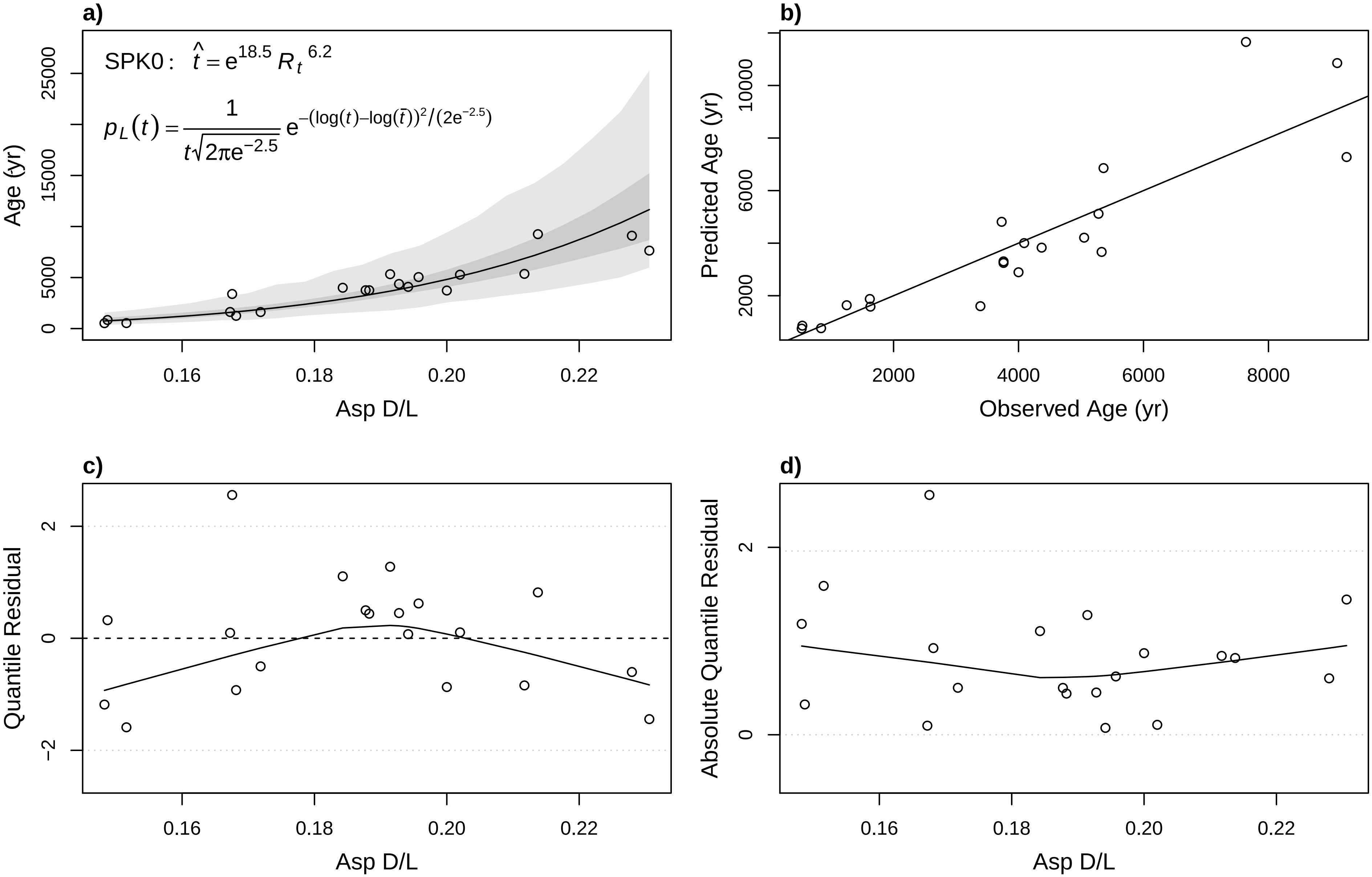
DR Figure 3. Continued: Model 7 (see DR Table 3); Taxon: Mya



DR Figure 3. Continued: Model 8 (see DR Table 3); Taxon: Mya



DR Figure 3. Continued: Model 9 (see DR Table 3); Taxon: Mya



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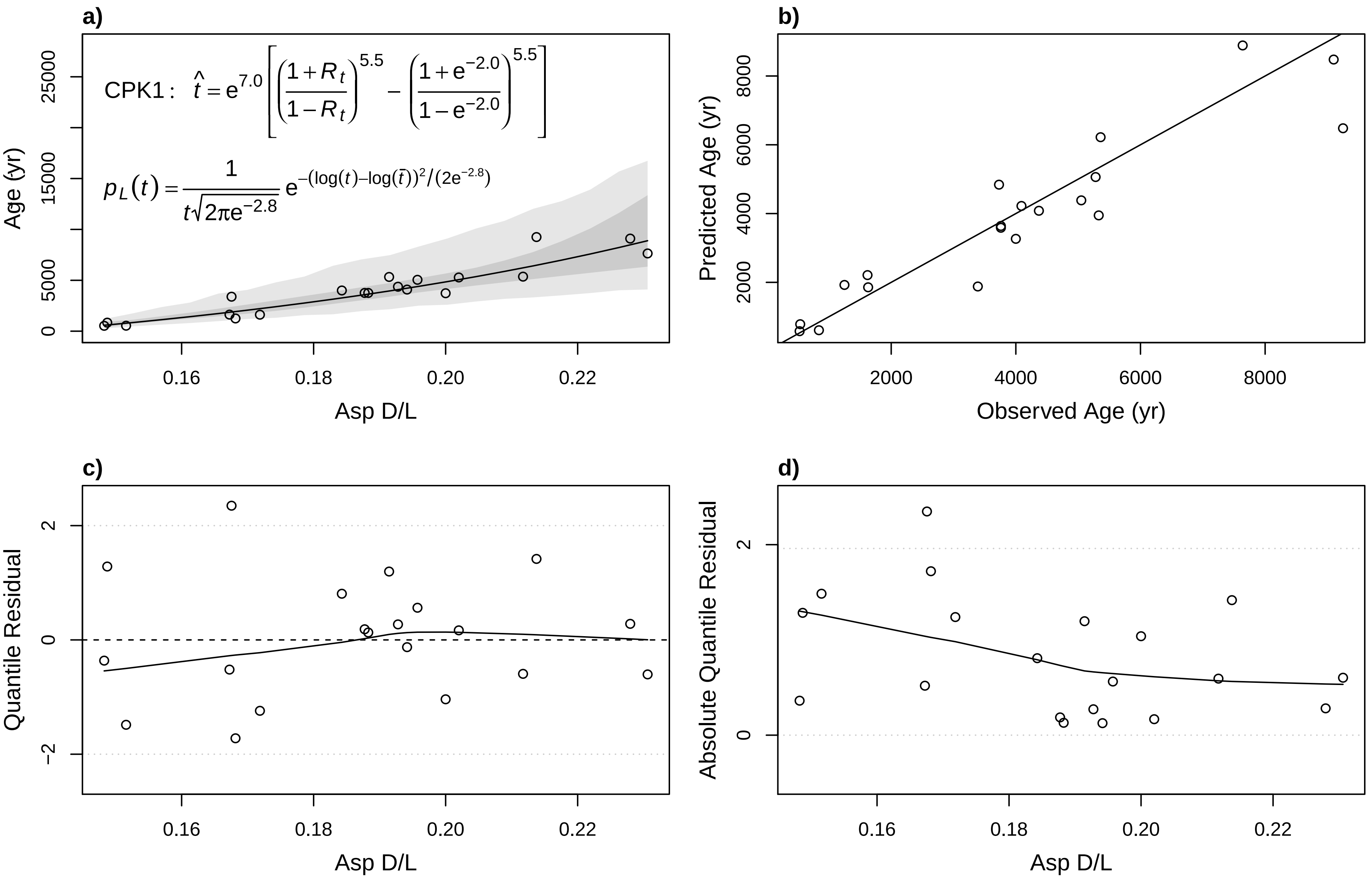
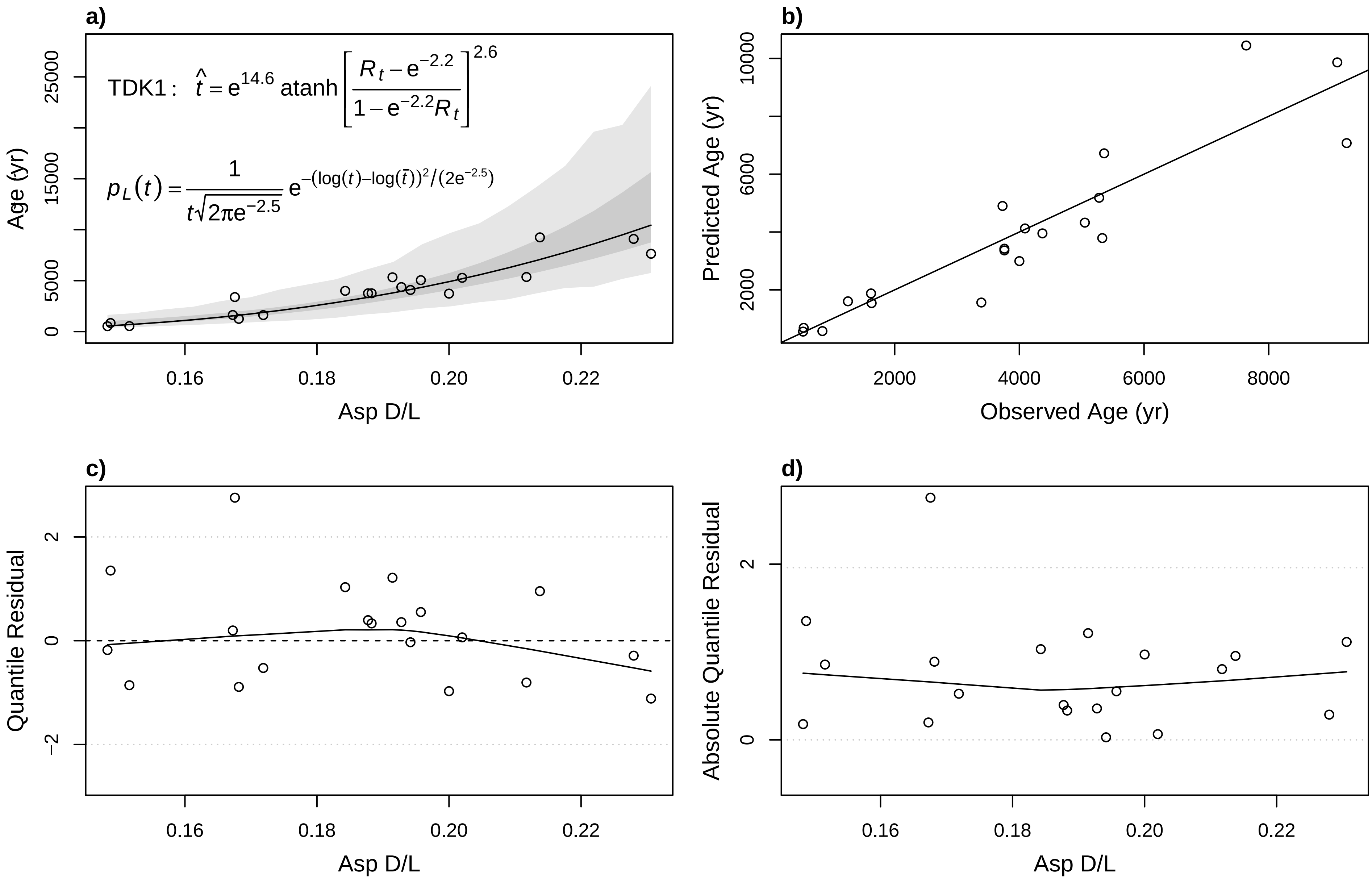
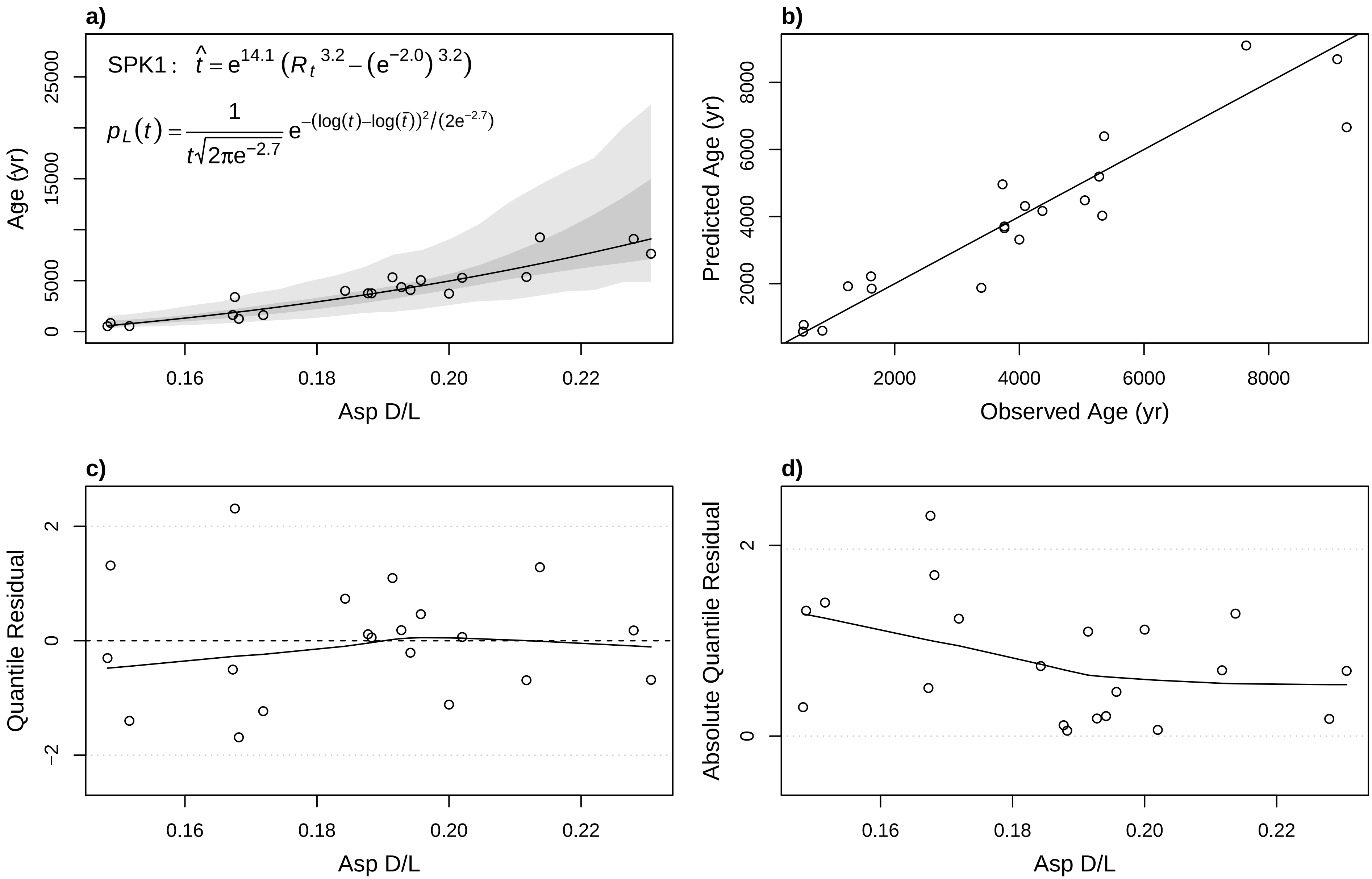


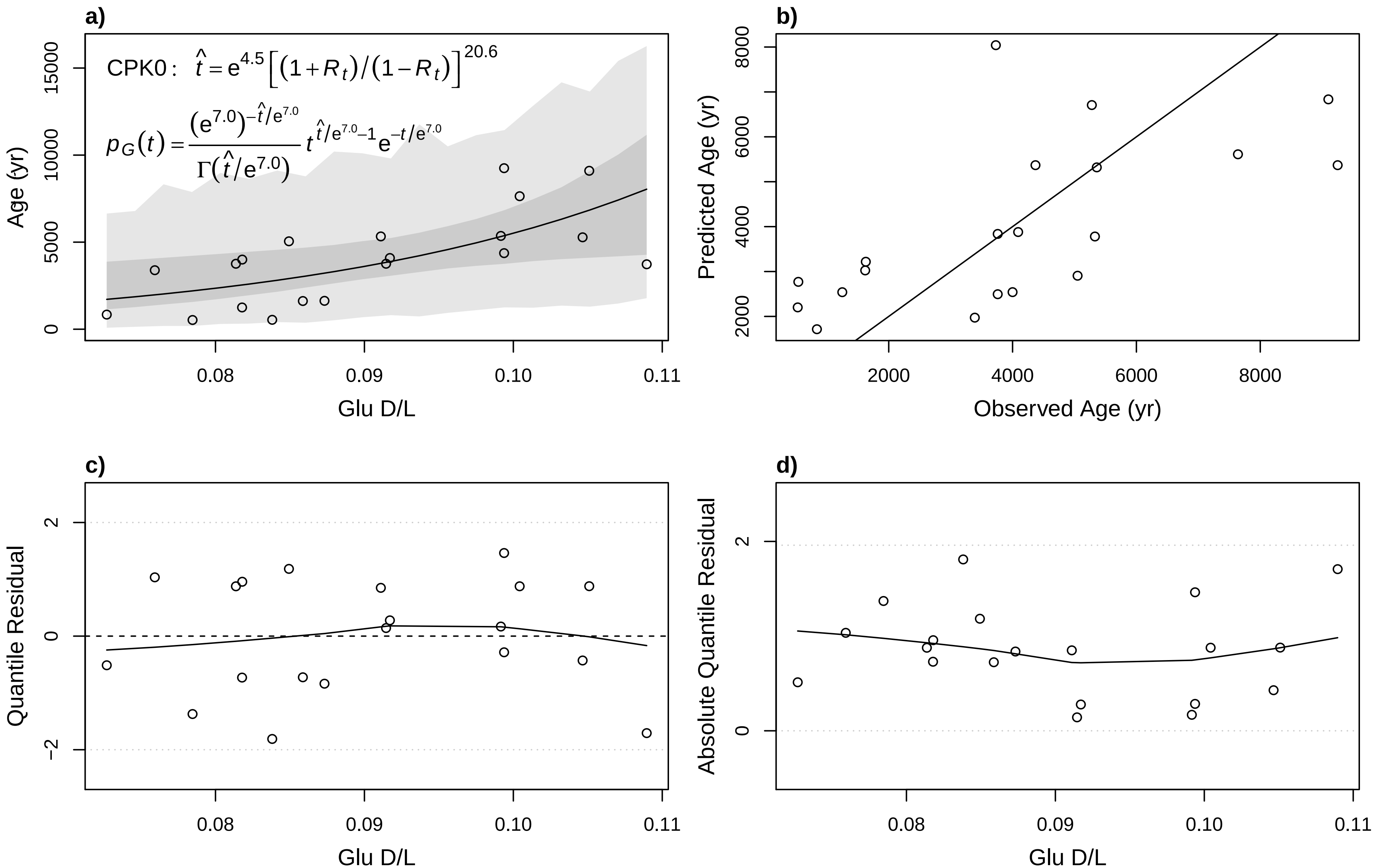
DR Figure 3. Continued: Model 11 (see DR Table 3); Taxon: Mya



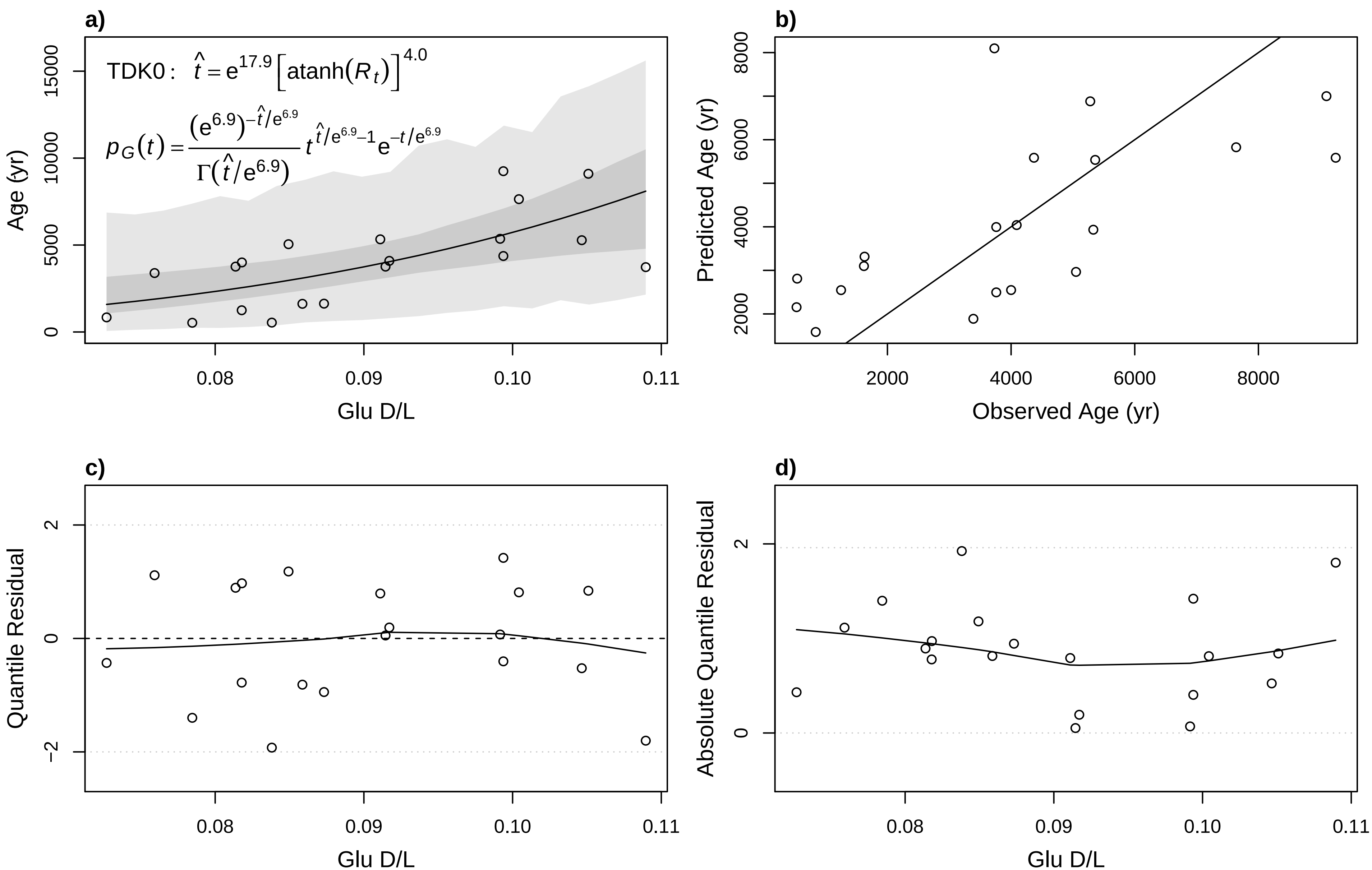
DR Figure 3. Continued: Model 12 (see DR Table 3); Taxon: Mya



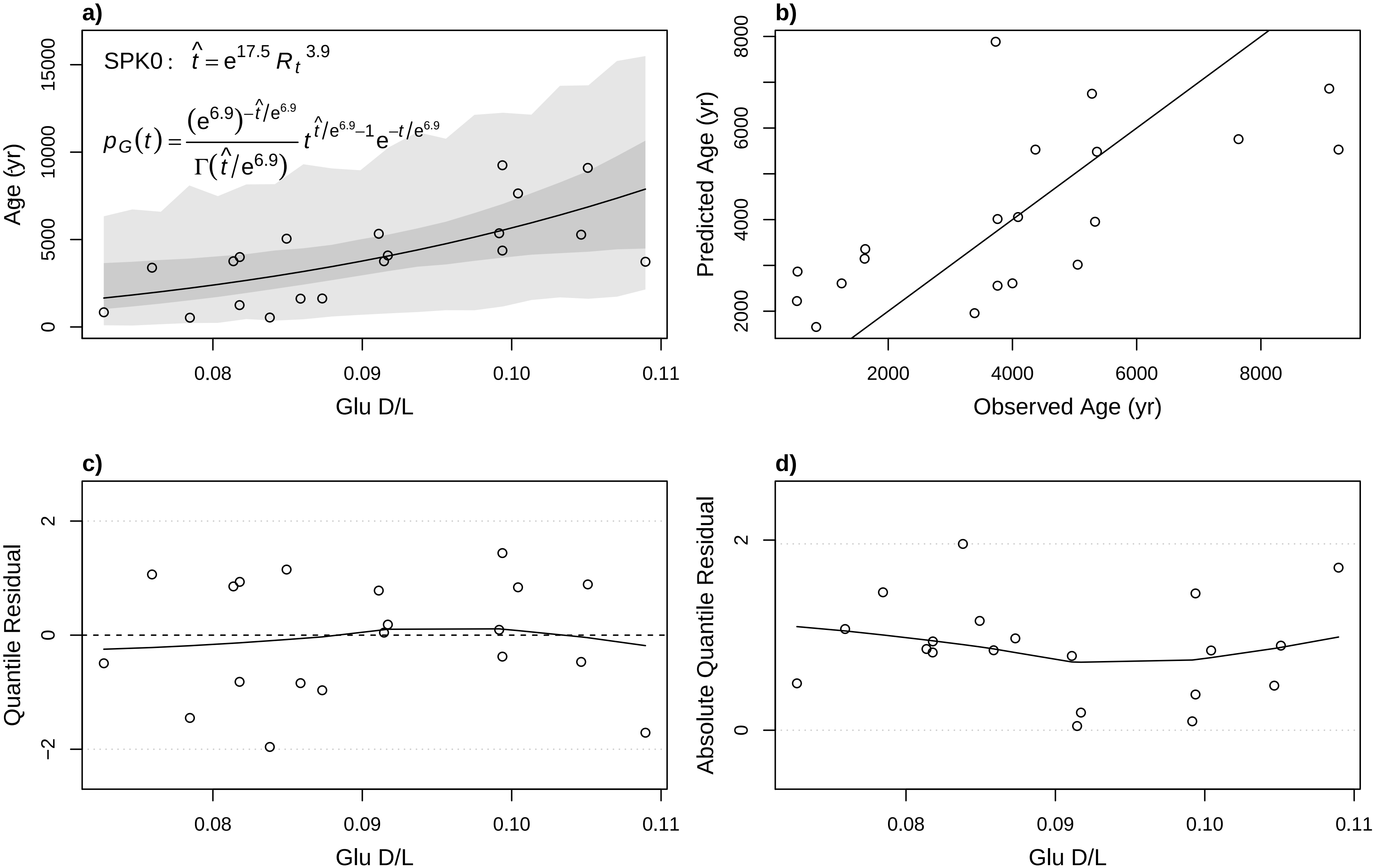
DR Figure 3. Continued: Model 13 (see DR Table 3); Taxon: Mya



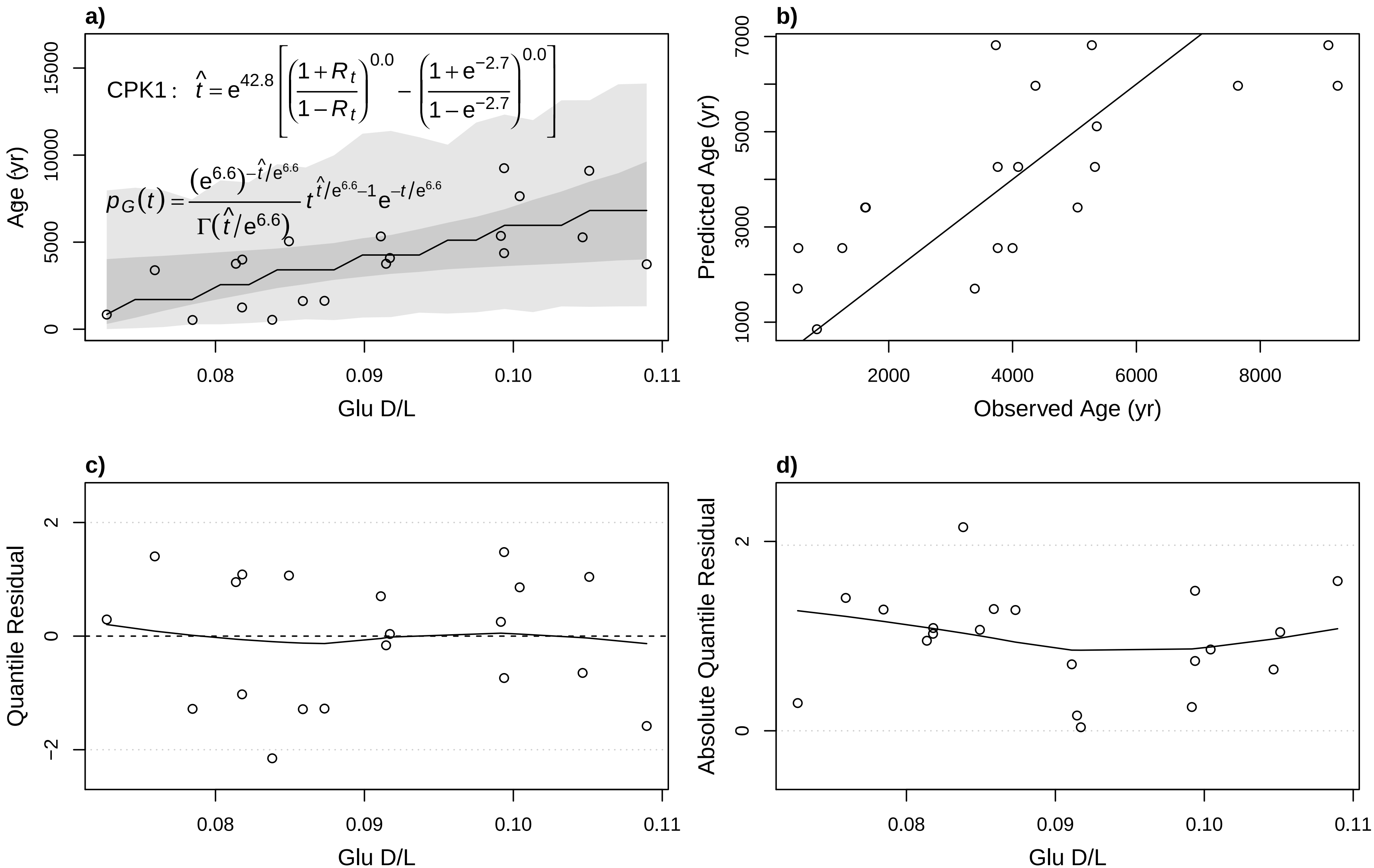
DR Figure 3. Continued: Model 14 (see DR Table 3); Taxon: Mya



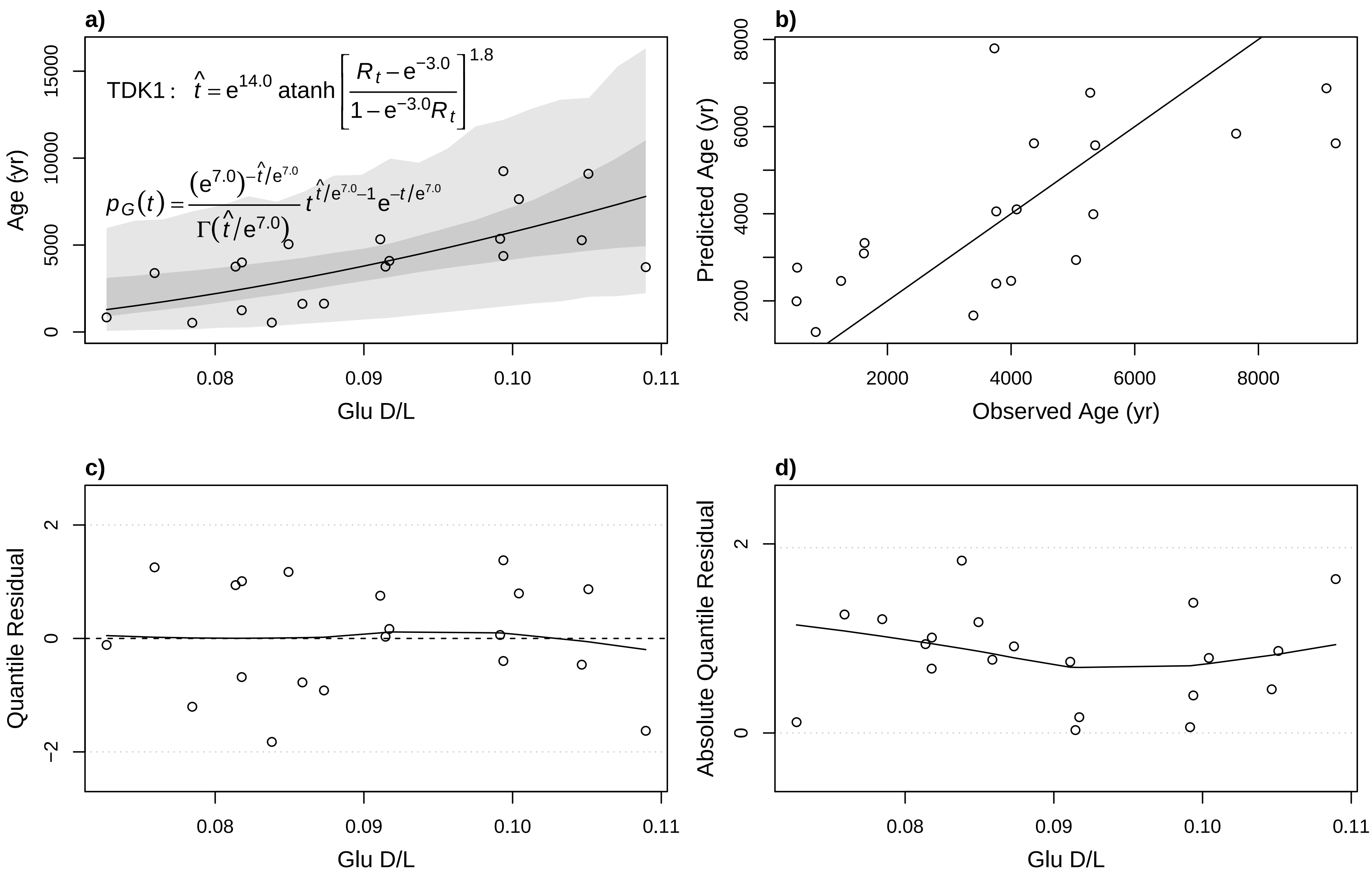
DR Figure 3. Continued: Model 15 (see DR Table 3); Taxon: Mya



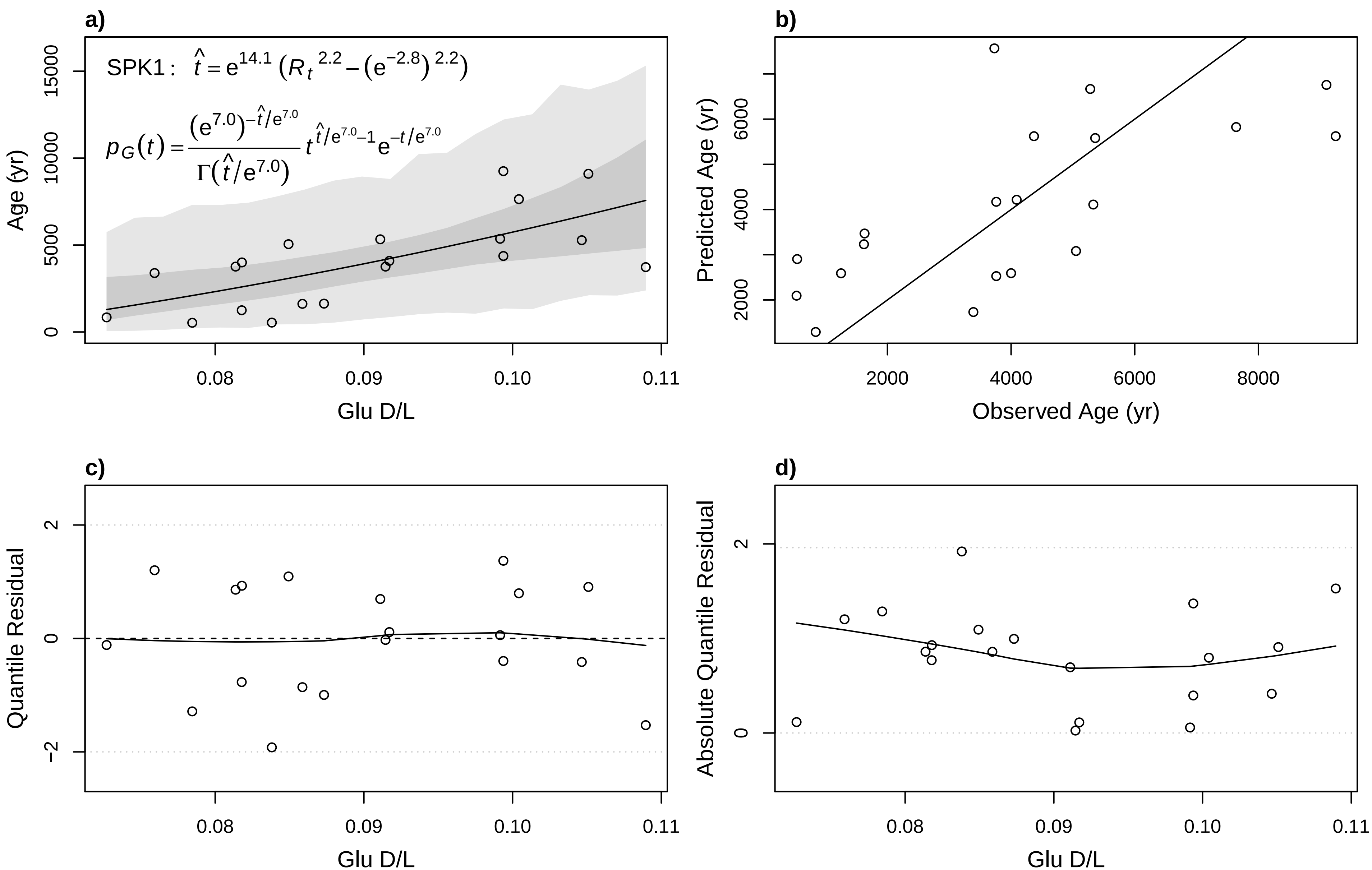
DR Figure 3. Continued: Model 16 (see DR Table 3); Taxon: Mya



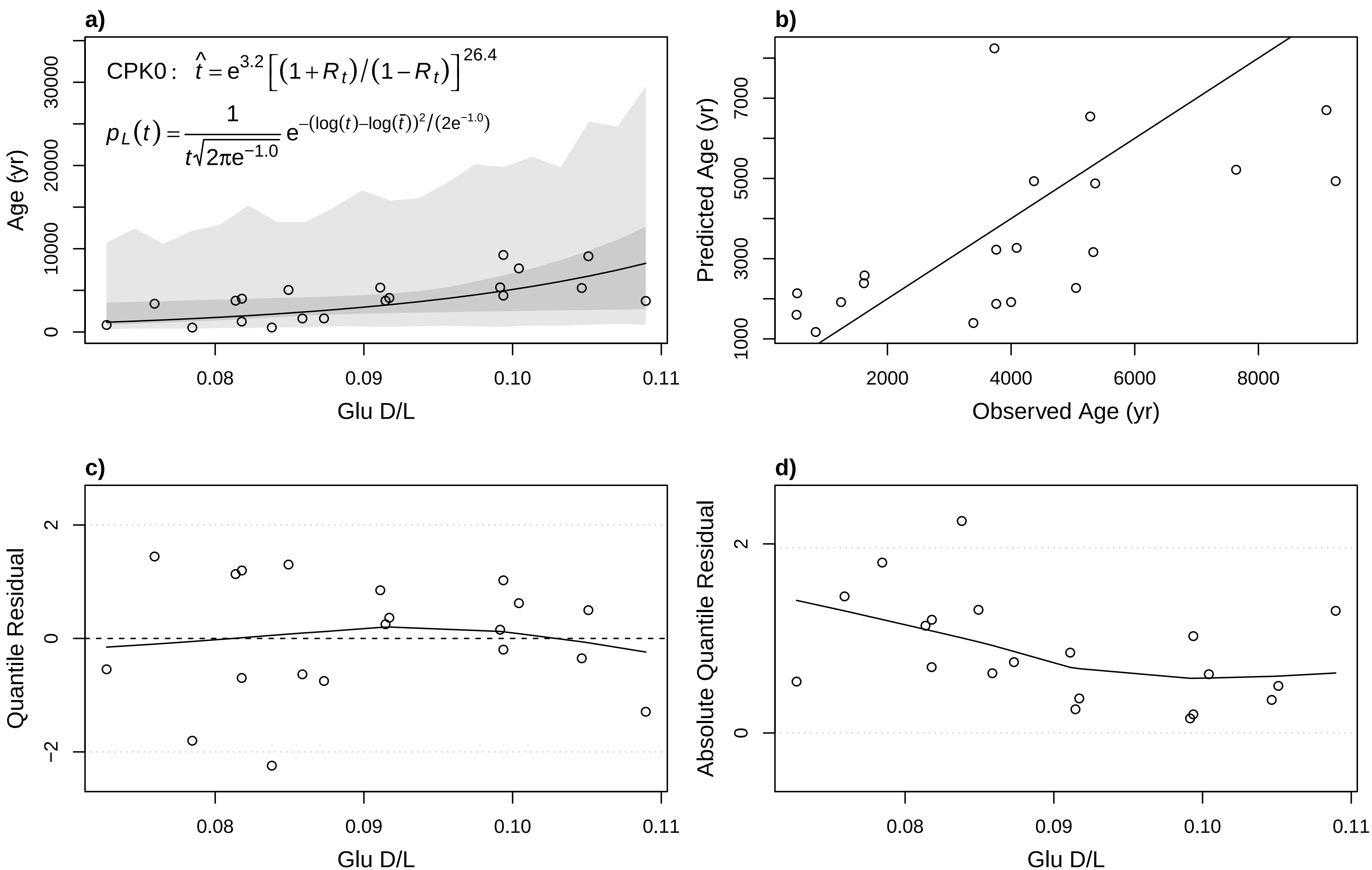
DR Figure 3. Continued: Model 17 (see DR Table 3); Taxon: Mya



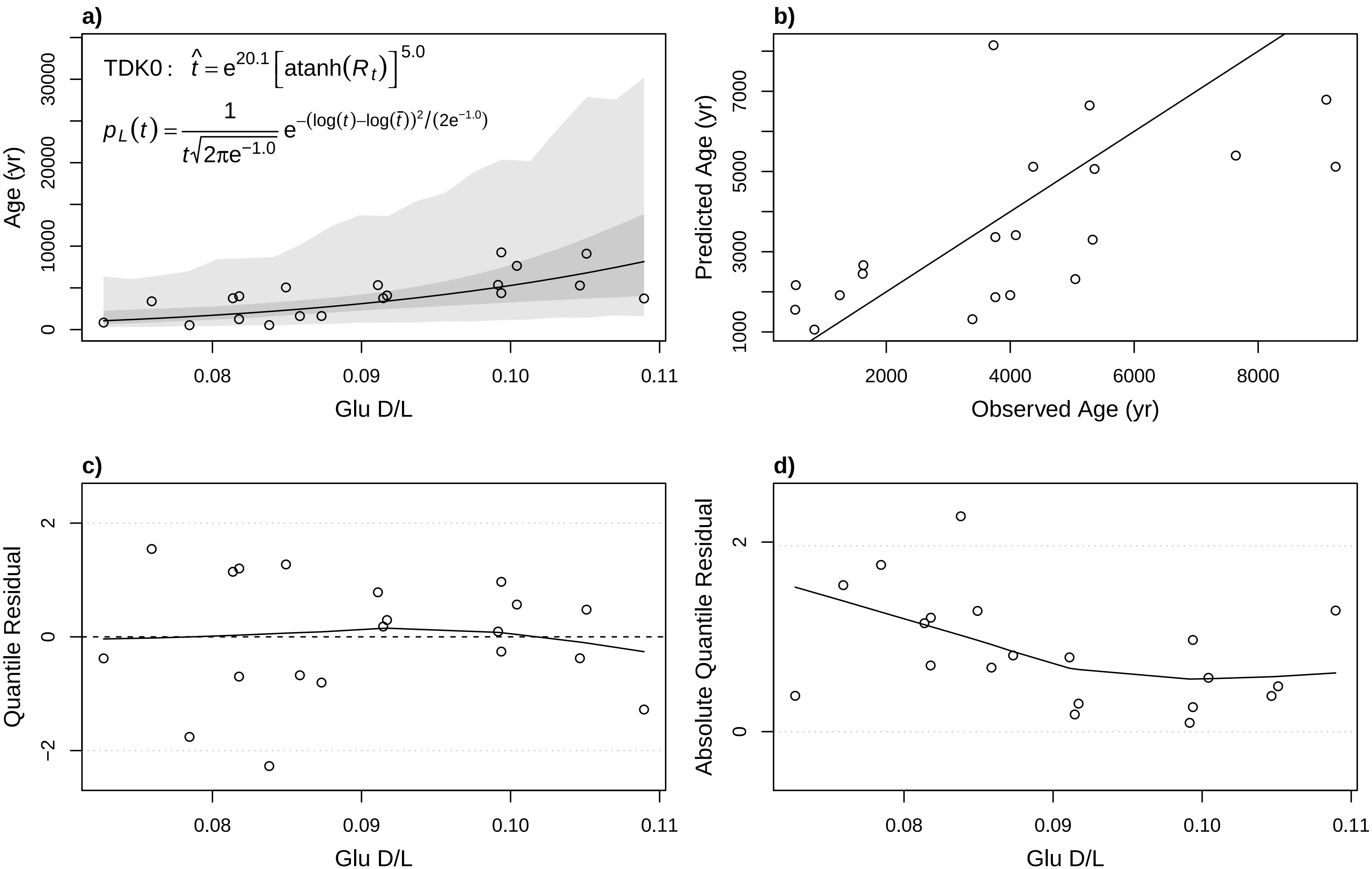
DR Figure 3. Continued: Model 18 (see DR Table 3); Taxon: Mya



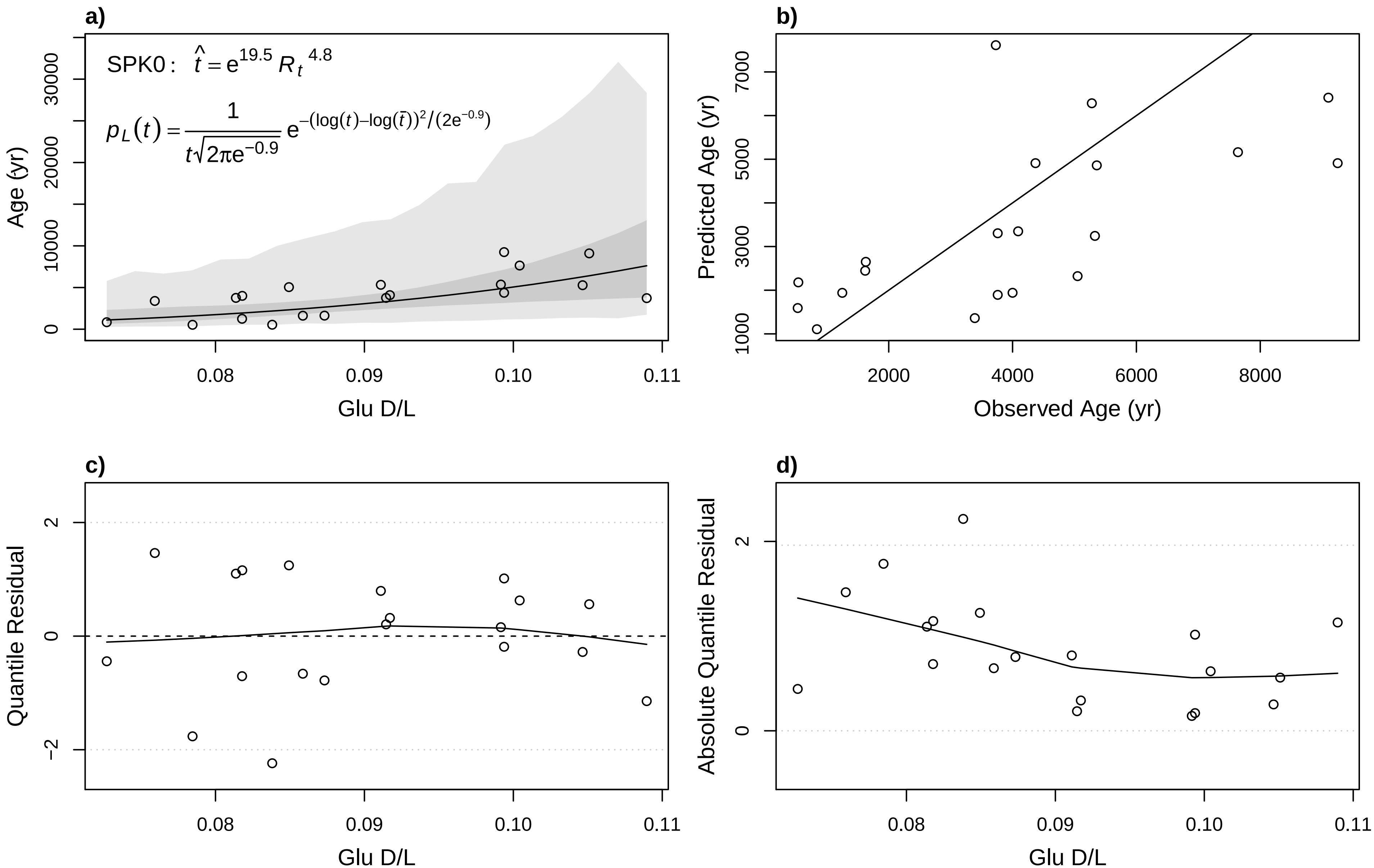
DR Figure 3. Continued: Model 19 (see DR Table 3); Taxon: Mya



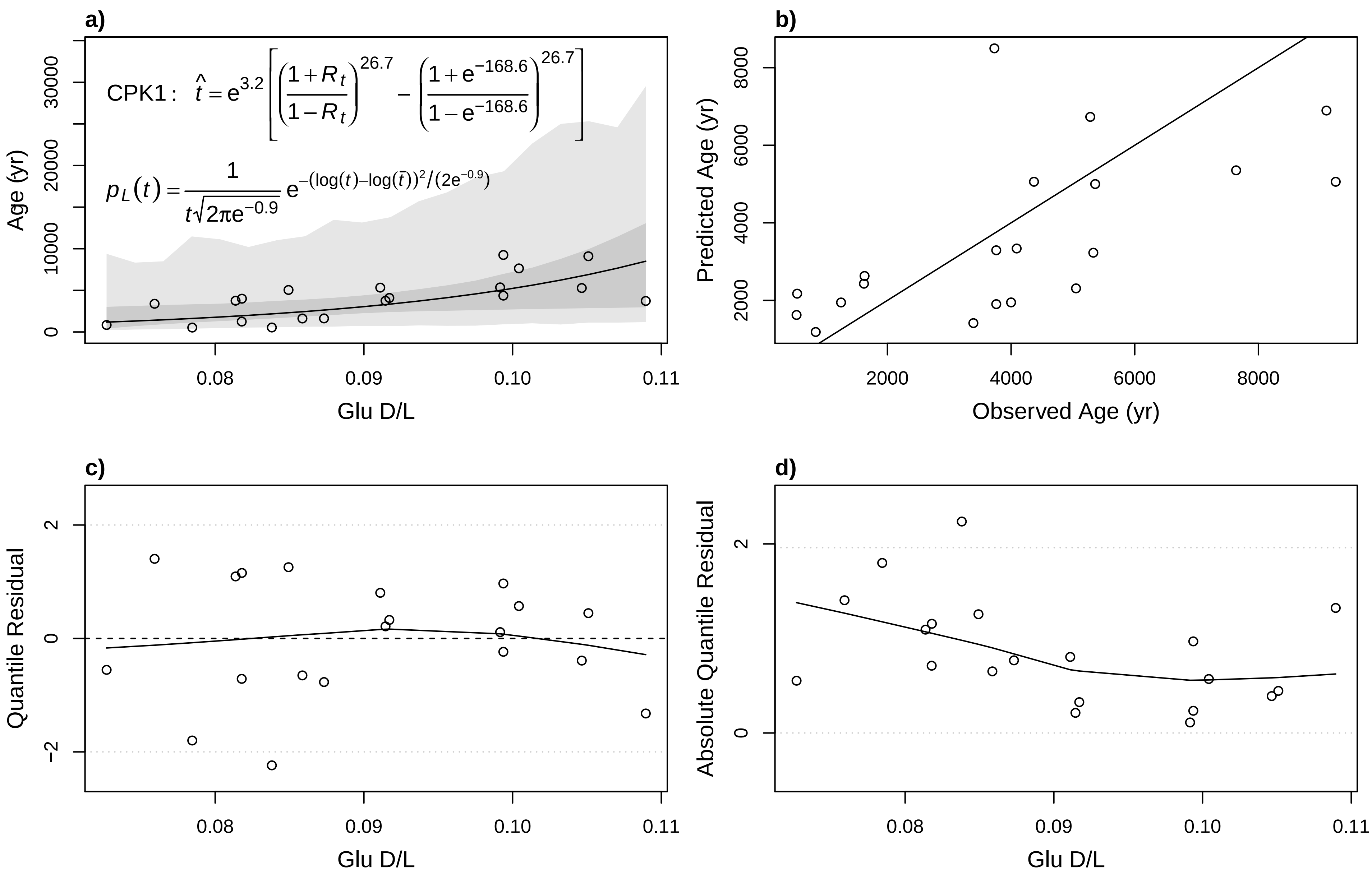
DR Figure 3. Continued: Model 20 (see DR Table 3); Taxon: Mya



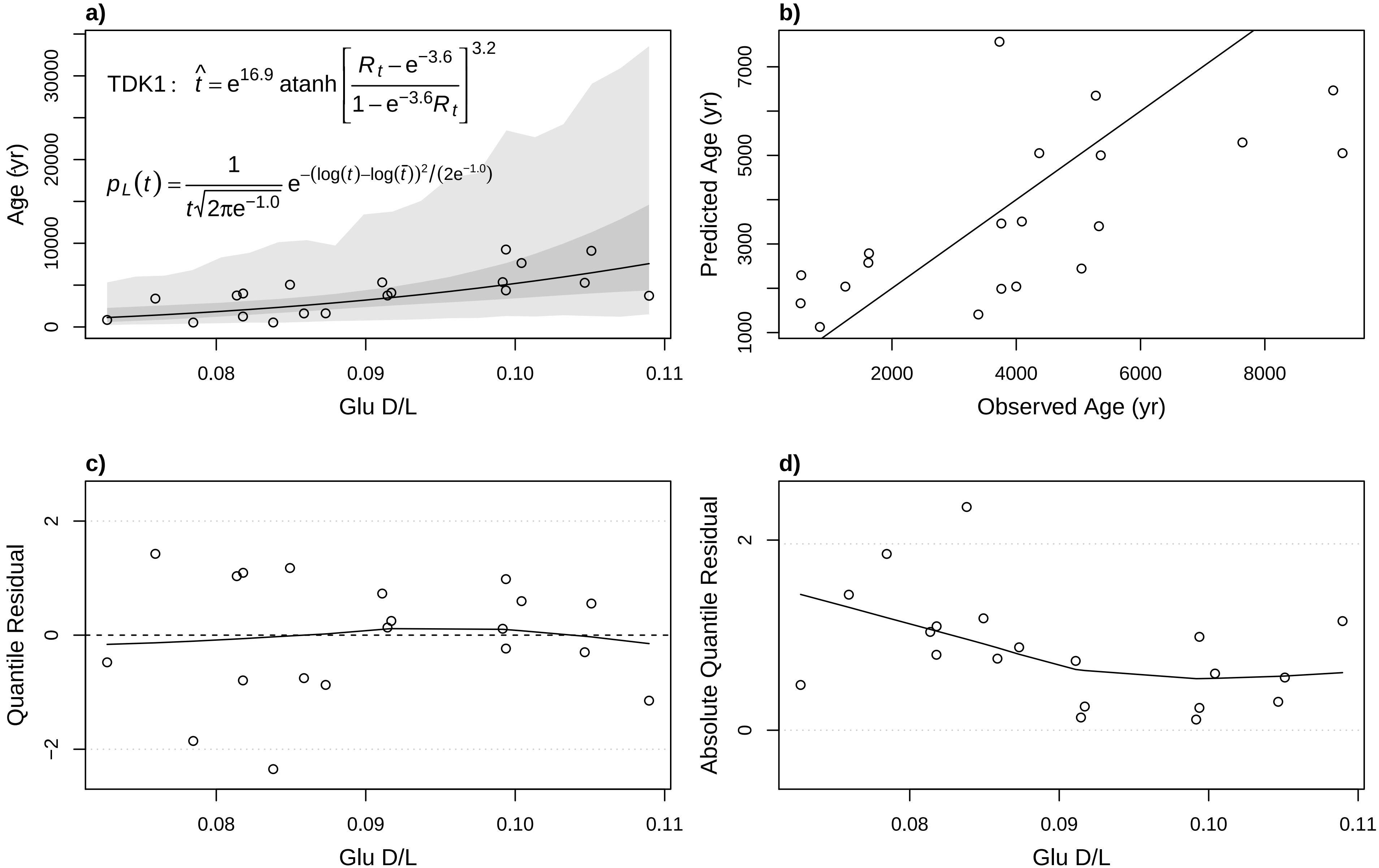
DR Figure 3. Continued: Model 21 (see DR Table 3); Taxon: Mya



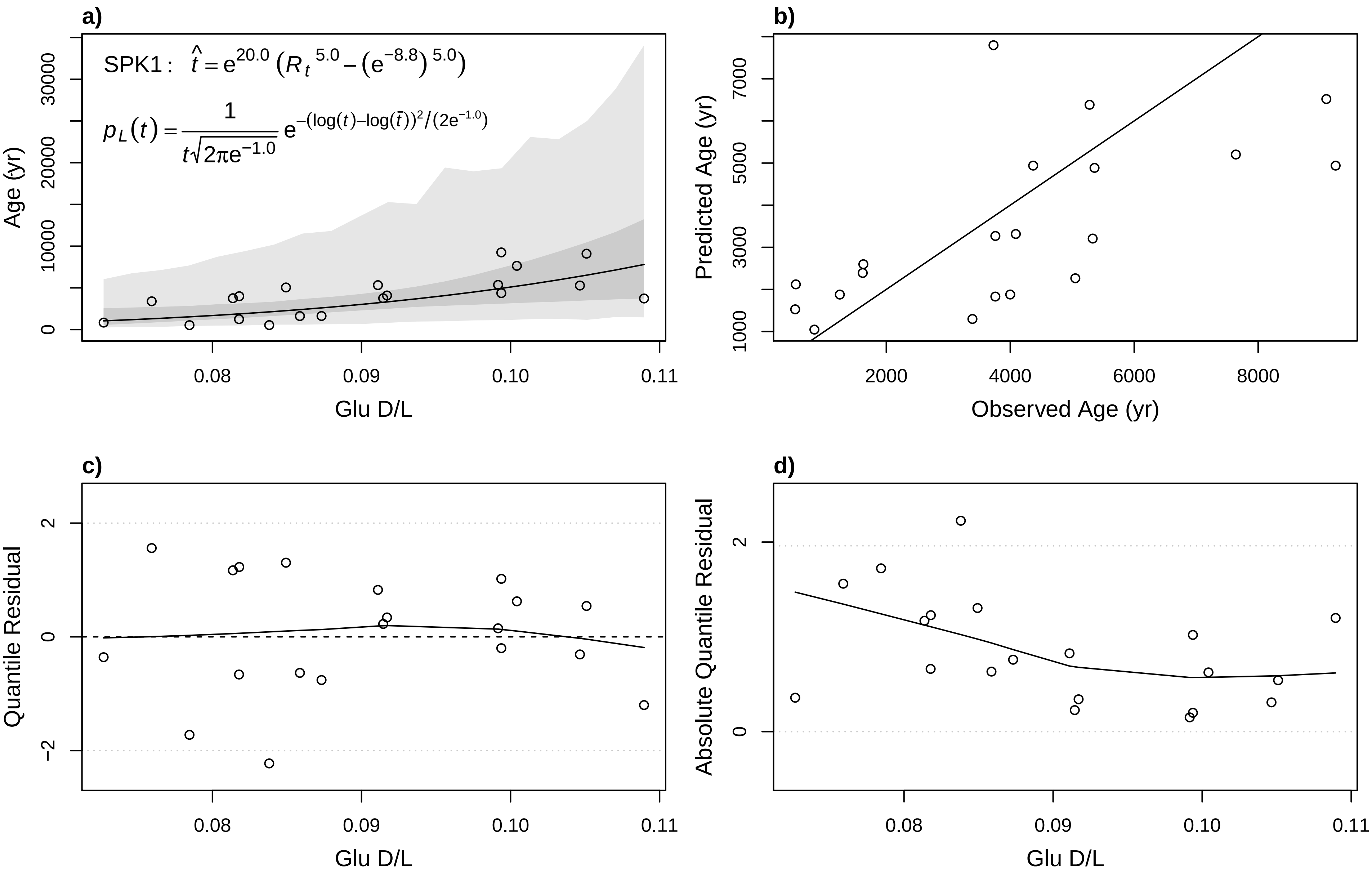
DR Figure 3. Continued: Model 22 (see DR Table 3); Taxon: Mya



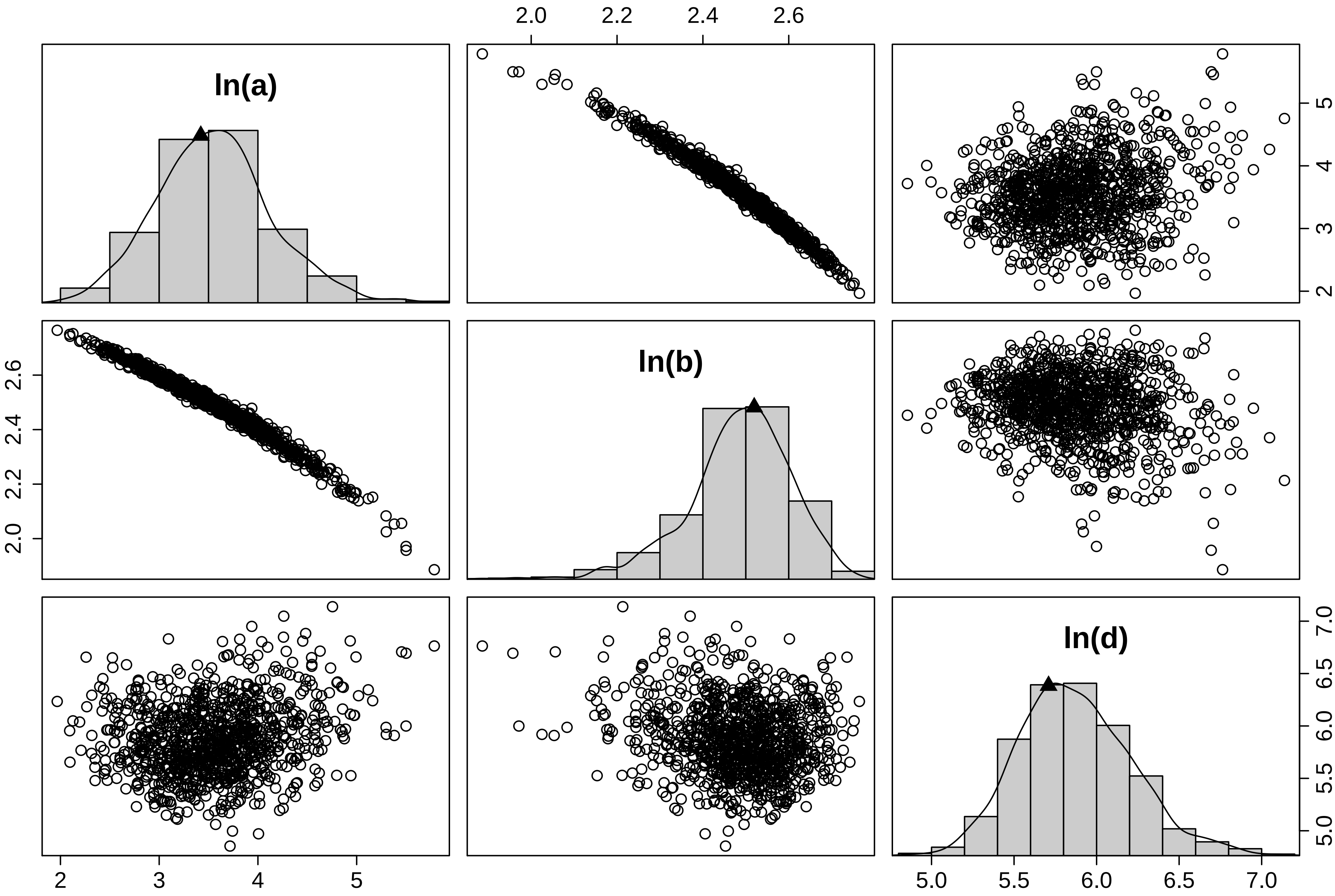
DR Figure 3. Continued: Model 23 (see DR Table 3); Taxon: Mya



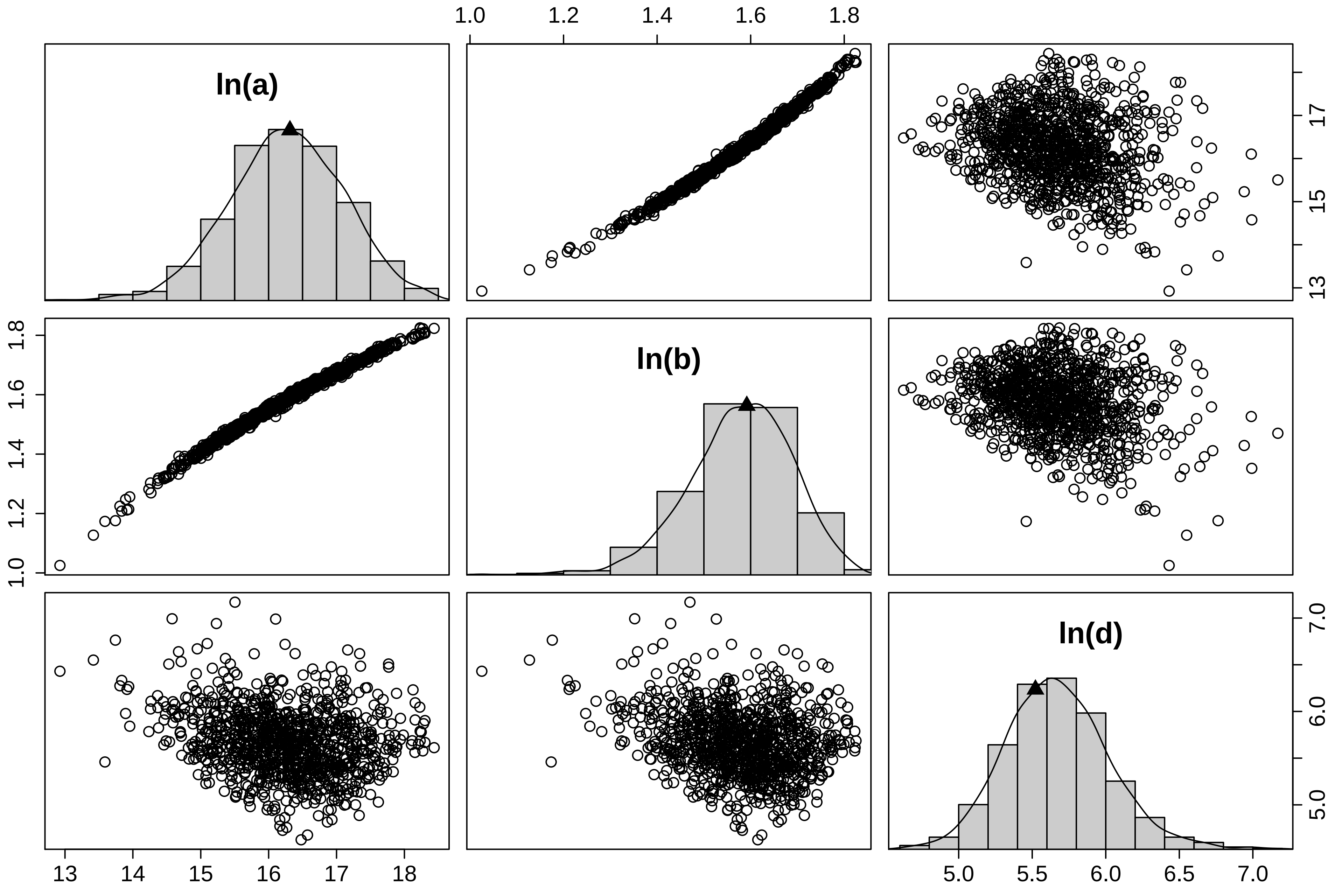
DR Figure 3. Continued: Model 24 (see DR Table 3); Taxon: Mya



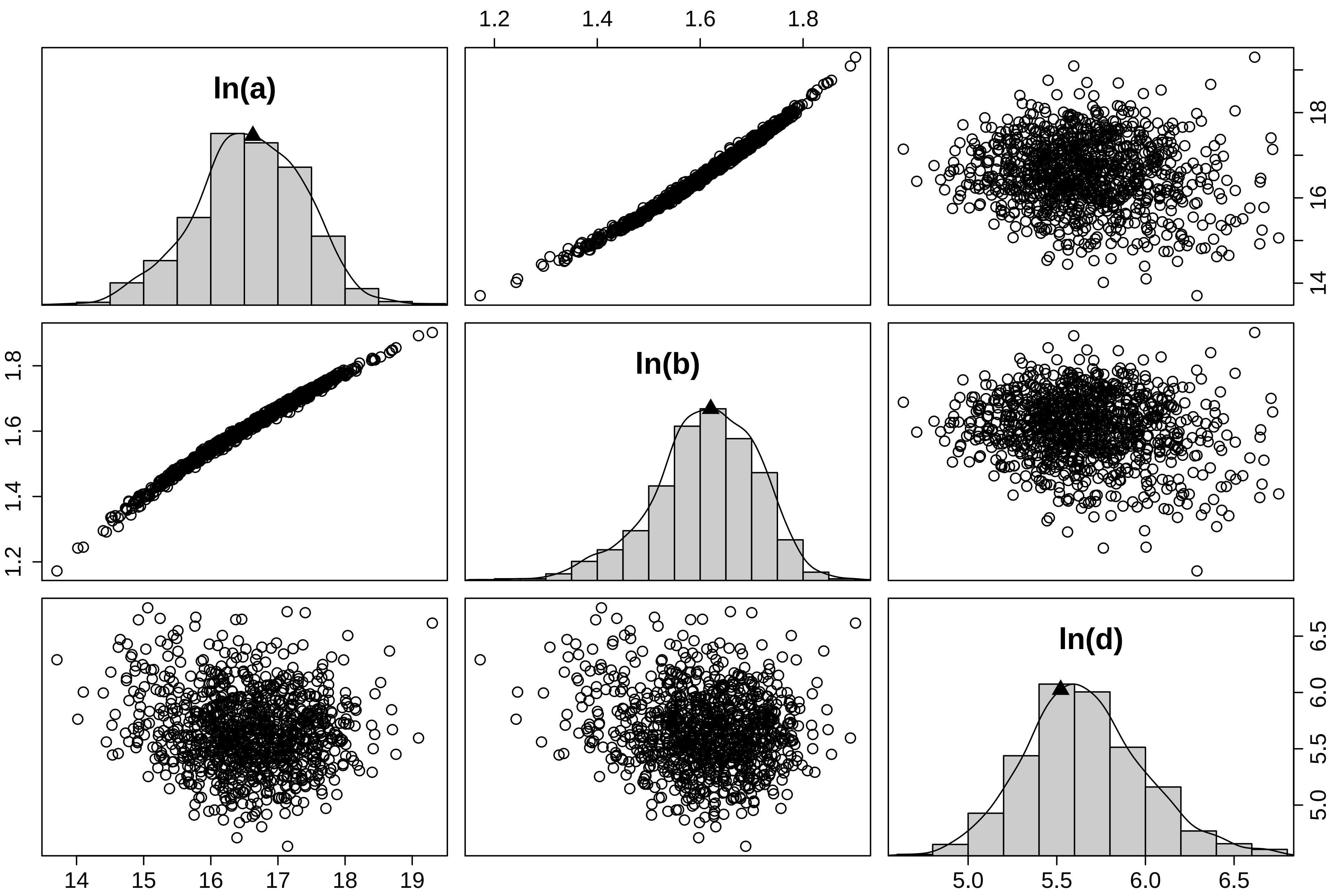
DR Figure 4. Plots of posterior distributions of the parameters for the models listed in DR Table 3. Filled triangles correspond to maximum−likelihood estimates for the parameters. Model 1 (from DR Table 3); Taxon: Mya.



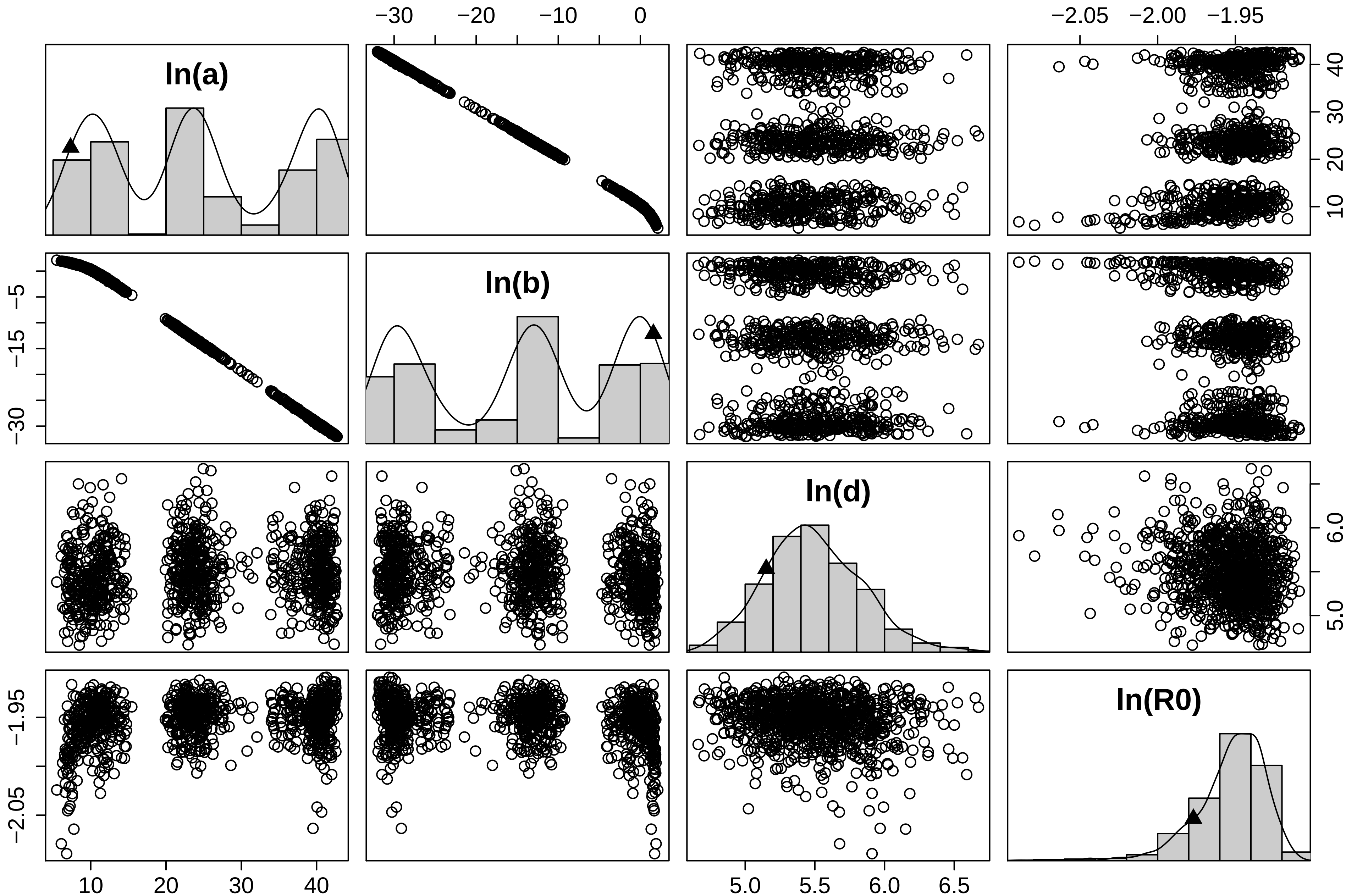
DR Figure 4. Continued: Model 2 (from DR Table 3); Taxon: Mya.



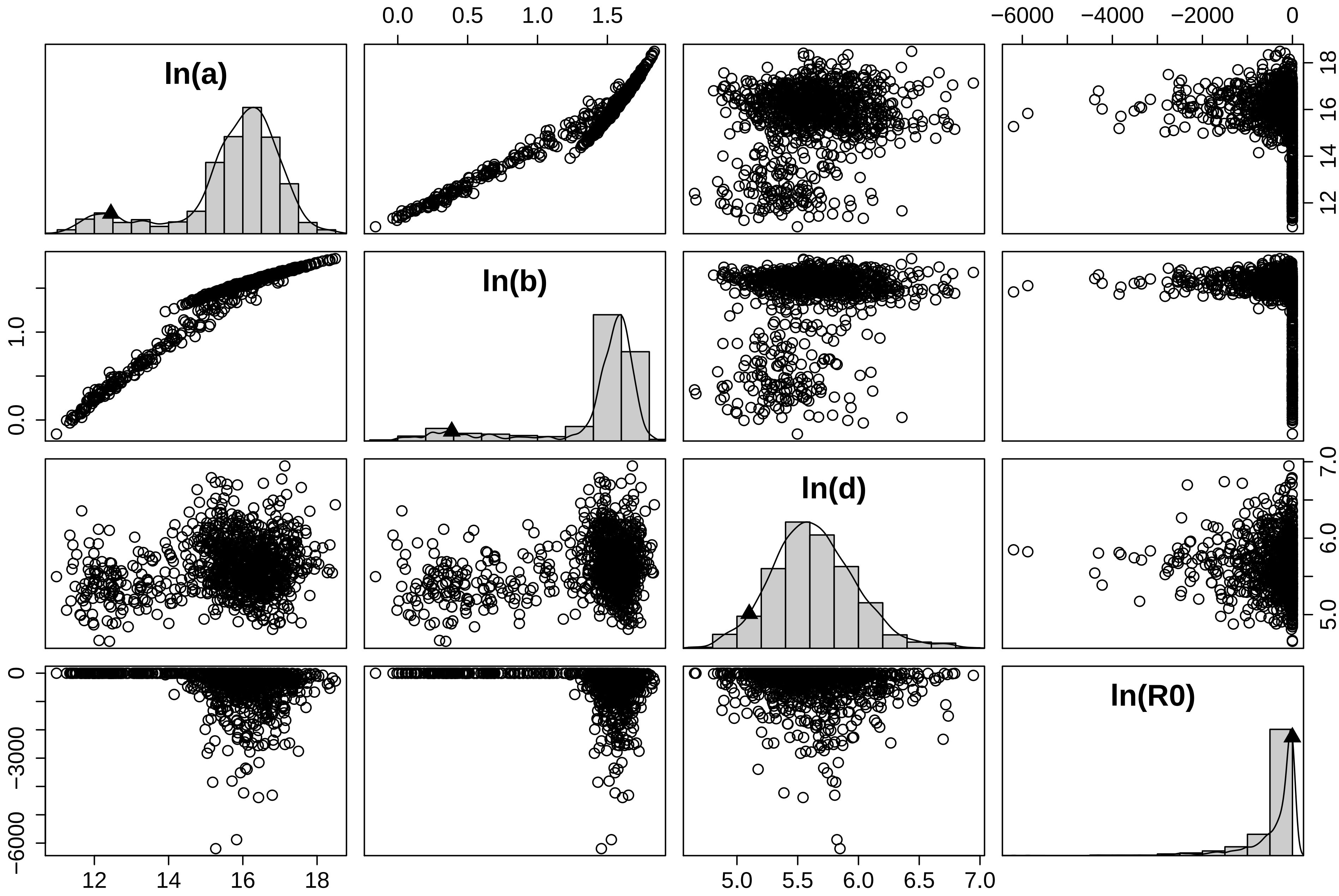
DR Figure 4. Continued: Model 3 (from DR Table 3); Taxon: Mya.



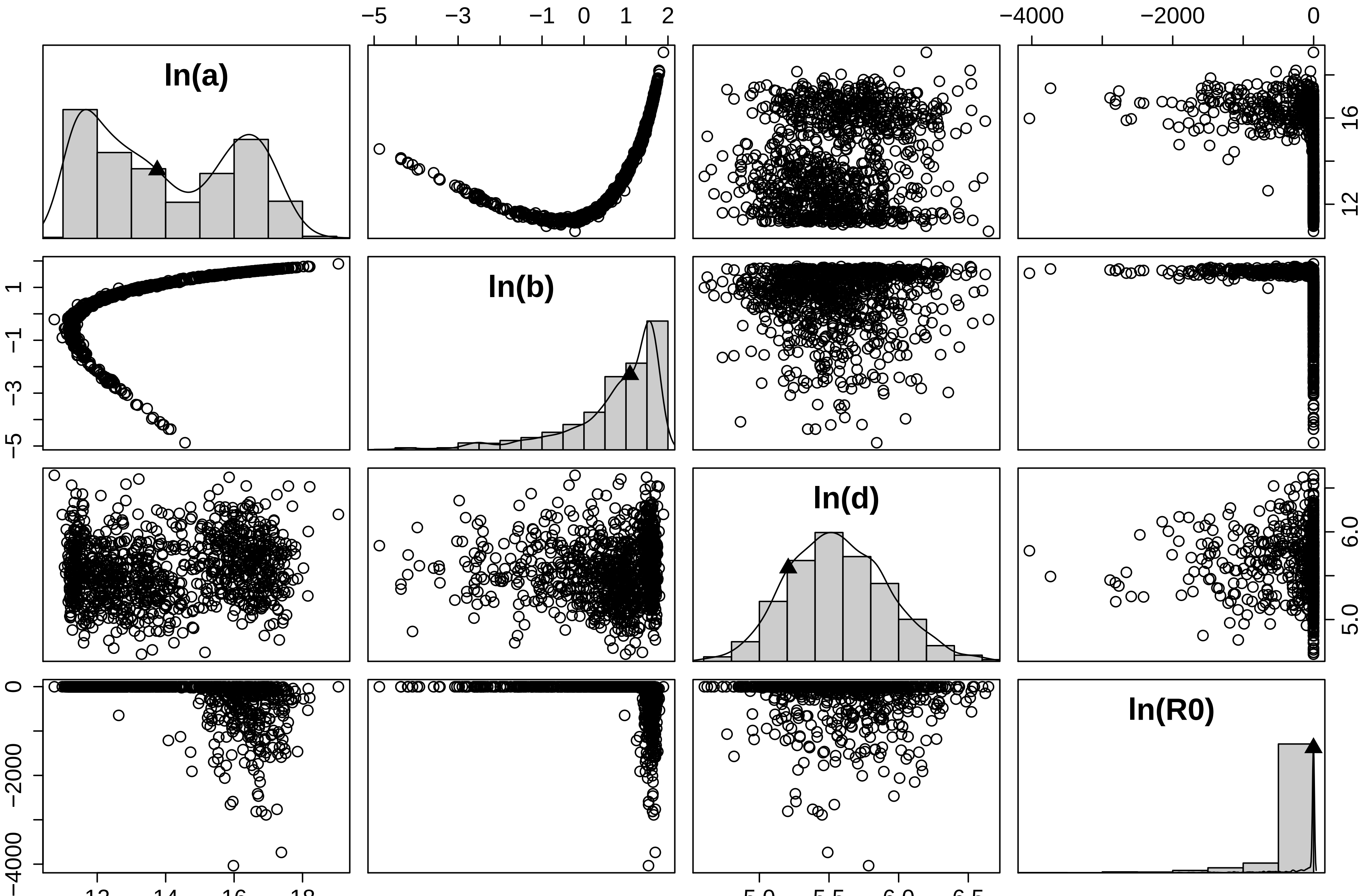
DR Figure 4. Continued: Model 4 (from DR Table 3); Taxon: Mya.



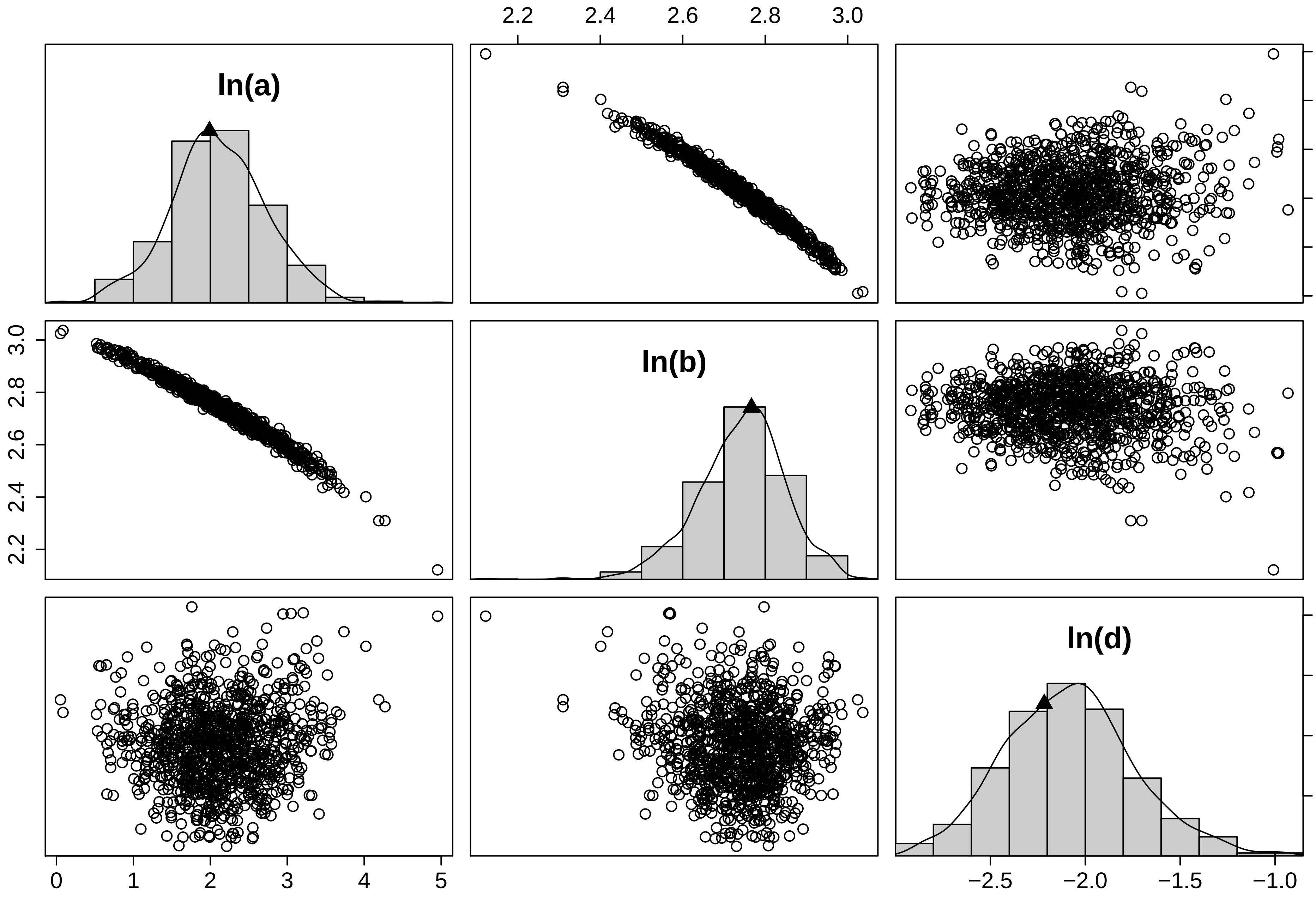
DR Figure 4. Continued: Model 5 (from DR Table 3); Taxon: Mya.



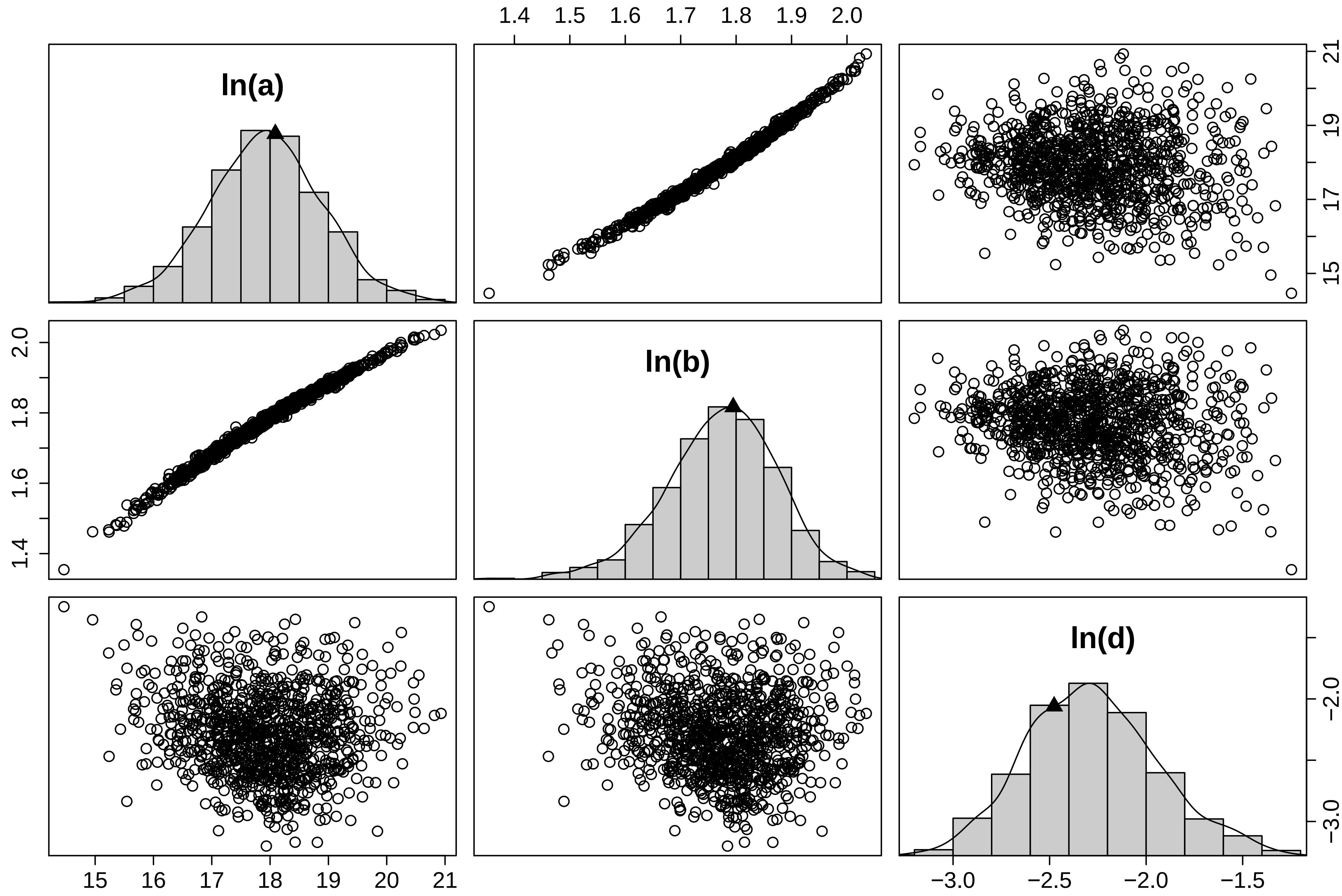
DR Figure 4. Continued: Model 6 (from DR Table 3); Taxon: Mya.



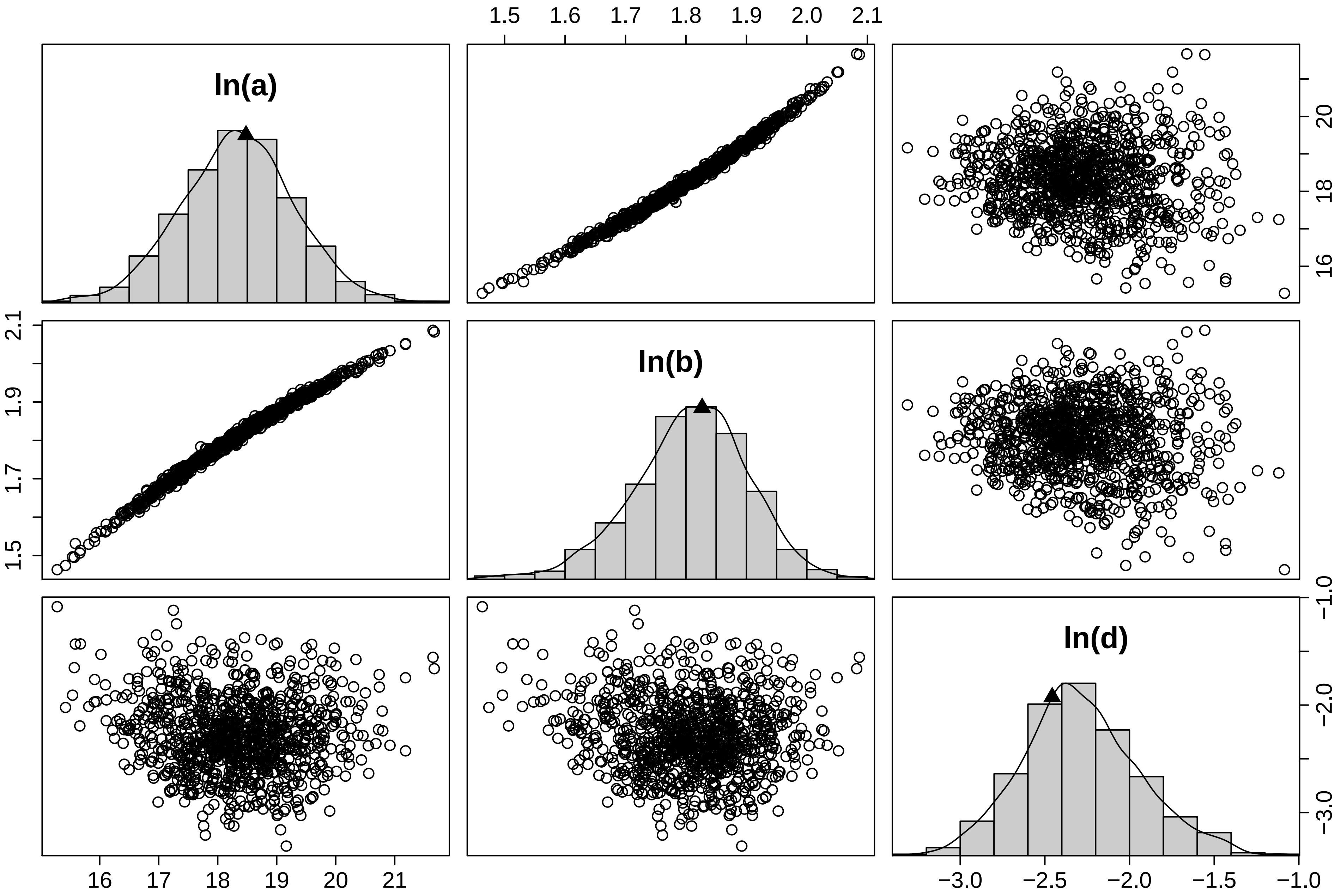
DR Figure 4. Continued: Model 7 (from DR Table 3); Taxon: Mya.



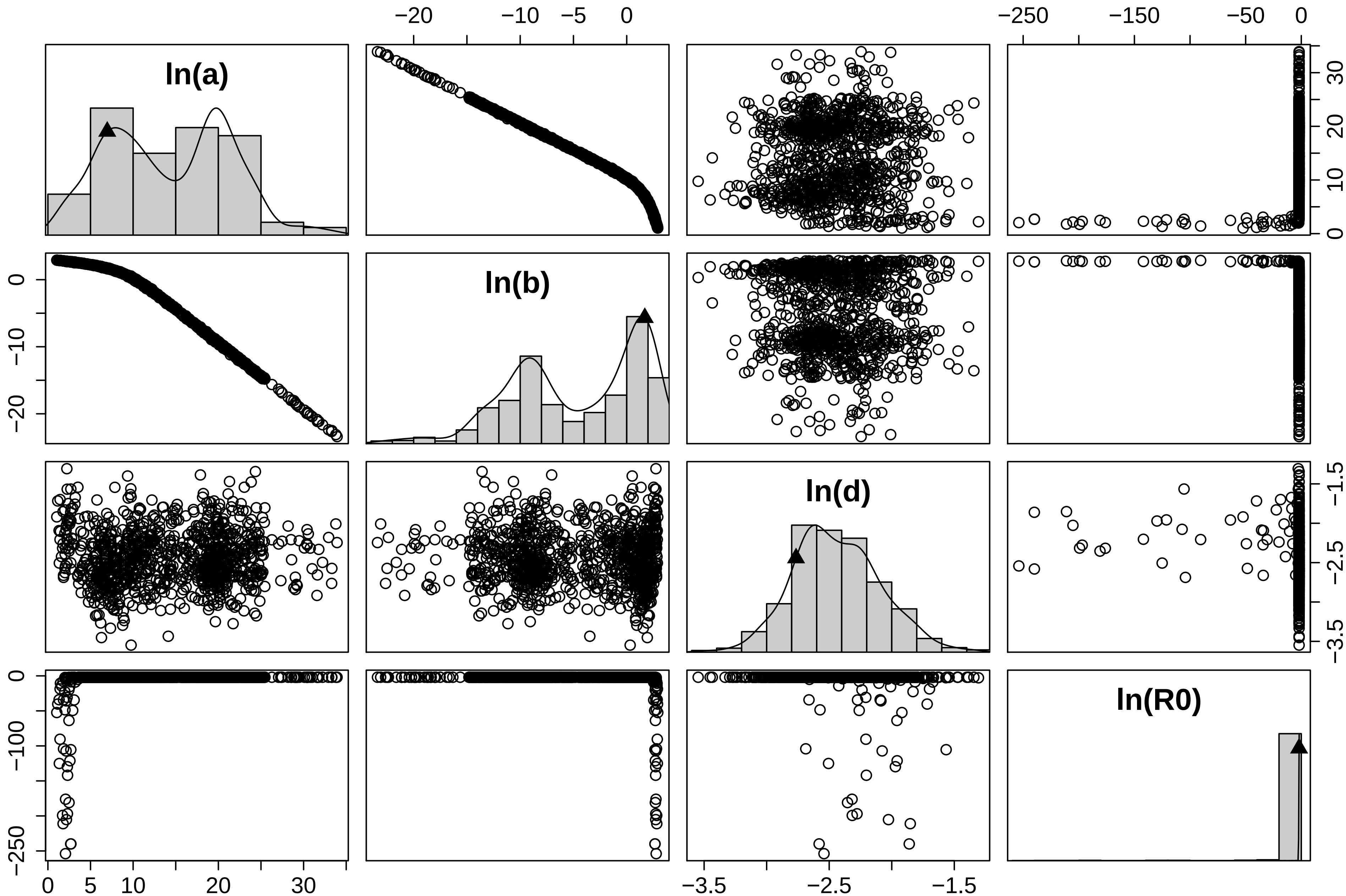
DR Figure 4. Continued: Model 8 (from DR Table 3); Taxon: Mya.



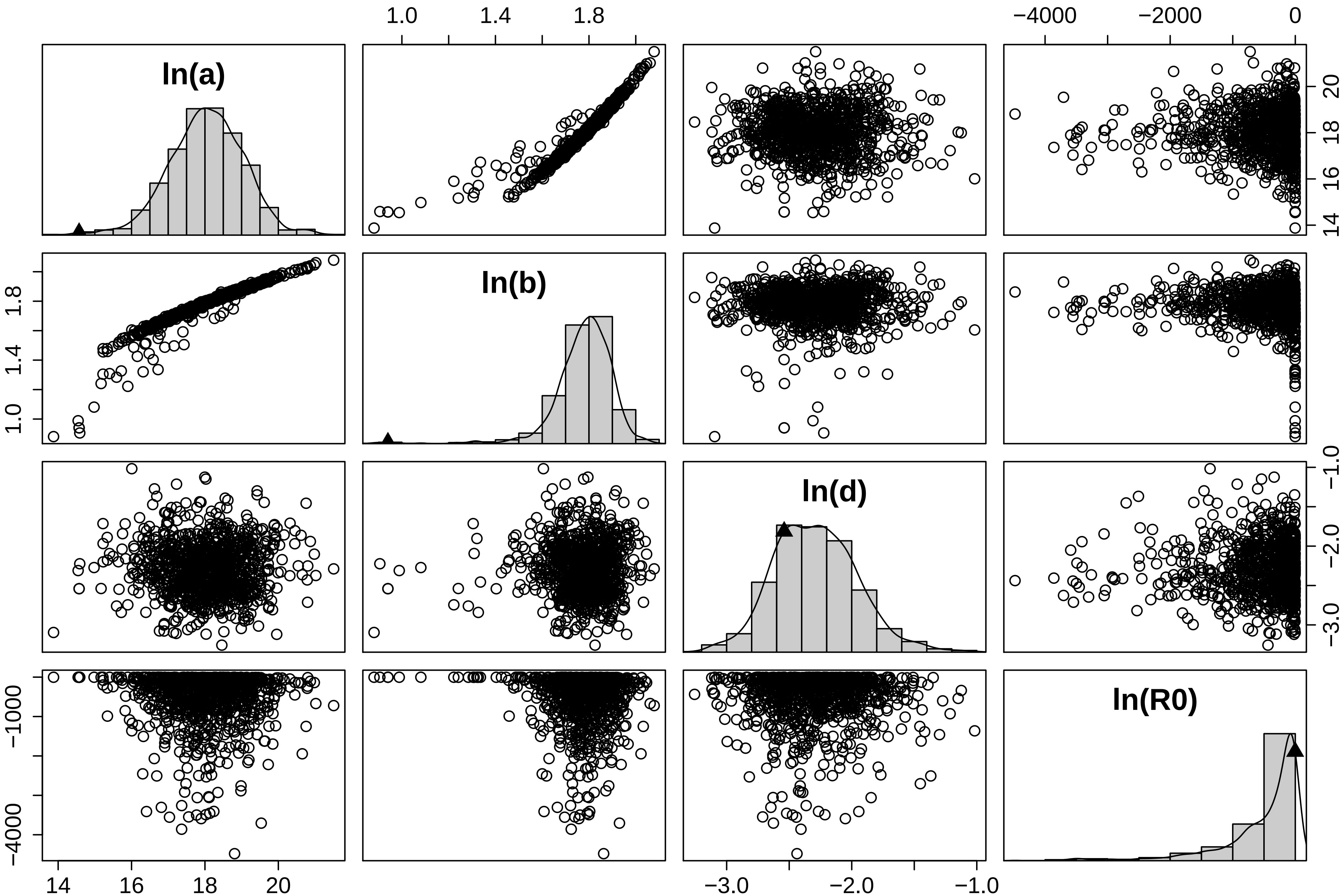
DR Figure 4. Continued: Model 9 (from DR Table 3); Taxon: Mya.



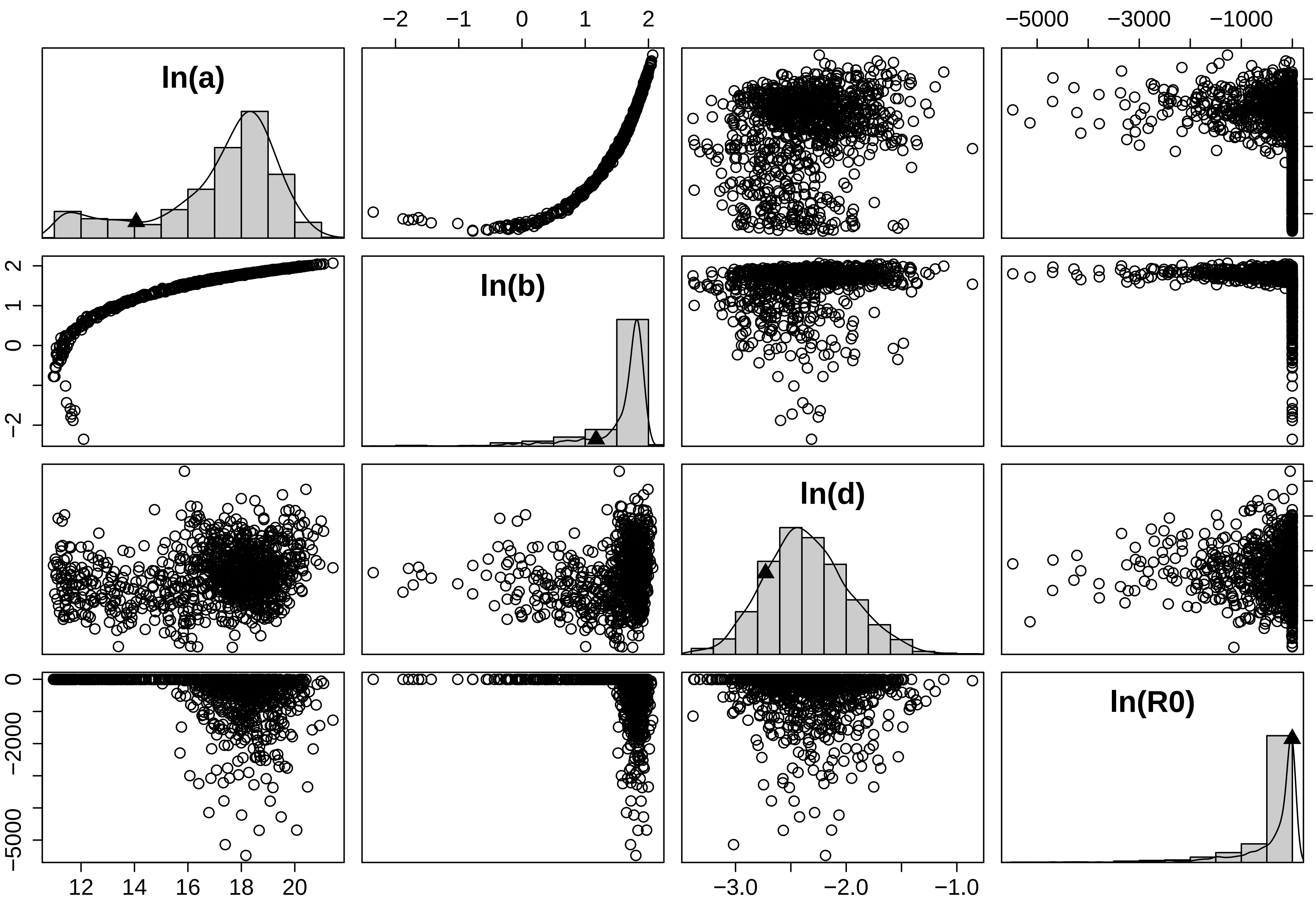
DR Figure 4. Continued: Model 10 (from DR Table 3); Taxon: Mya.



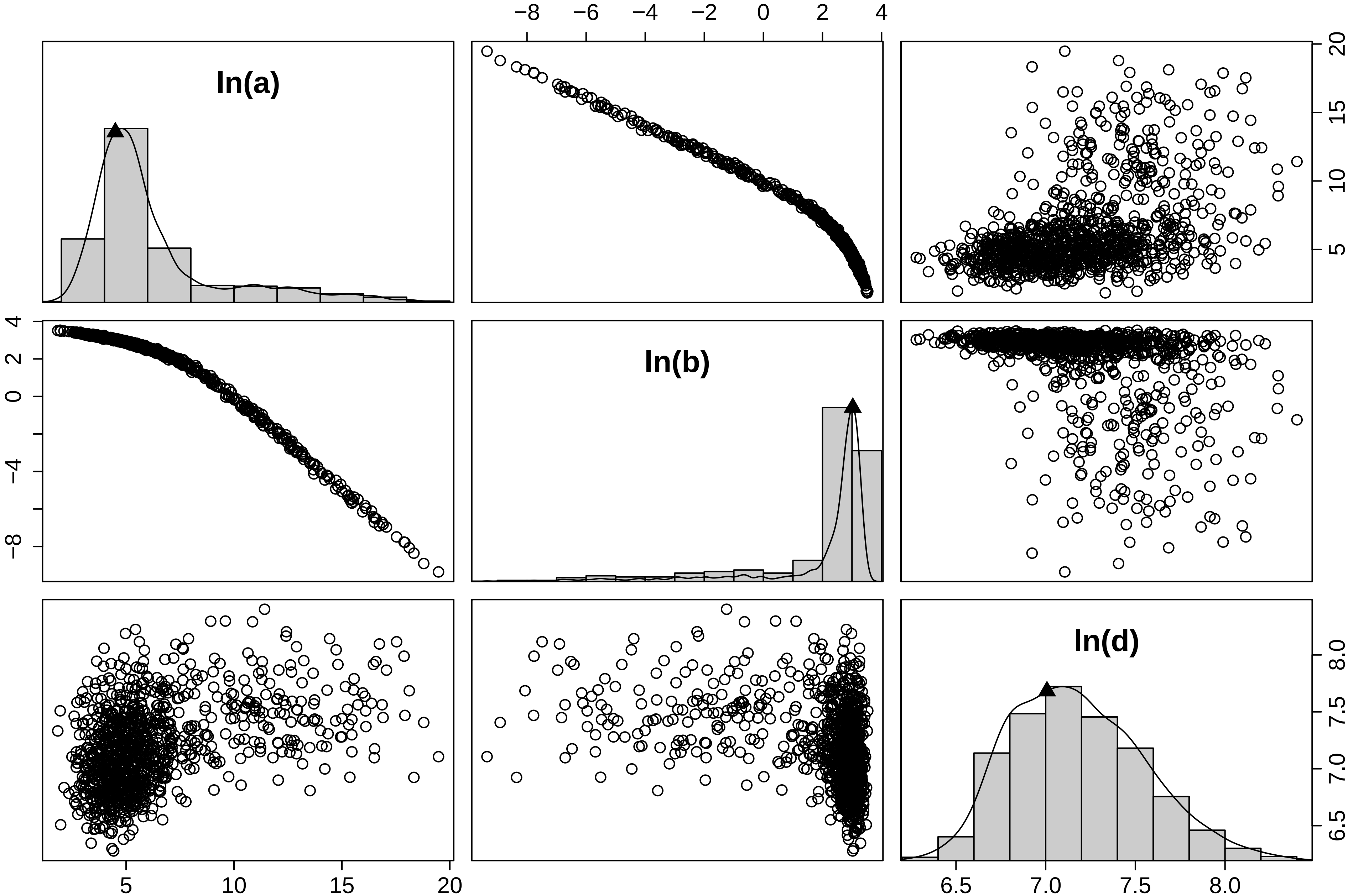
DR Figure 4. Continued: Model 11 (from DR Table 3); Taxon: Mya.



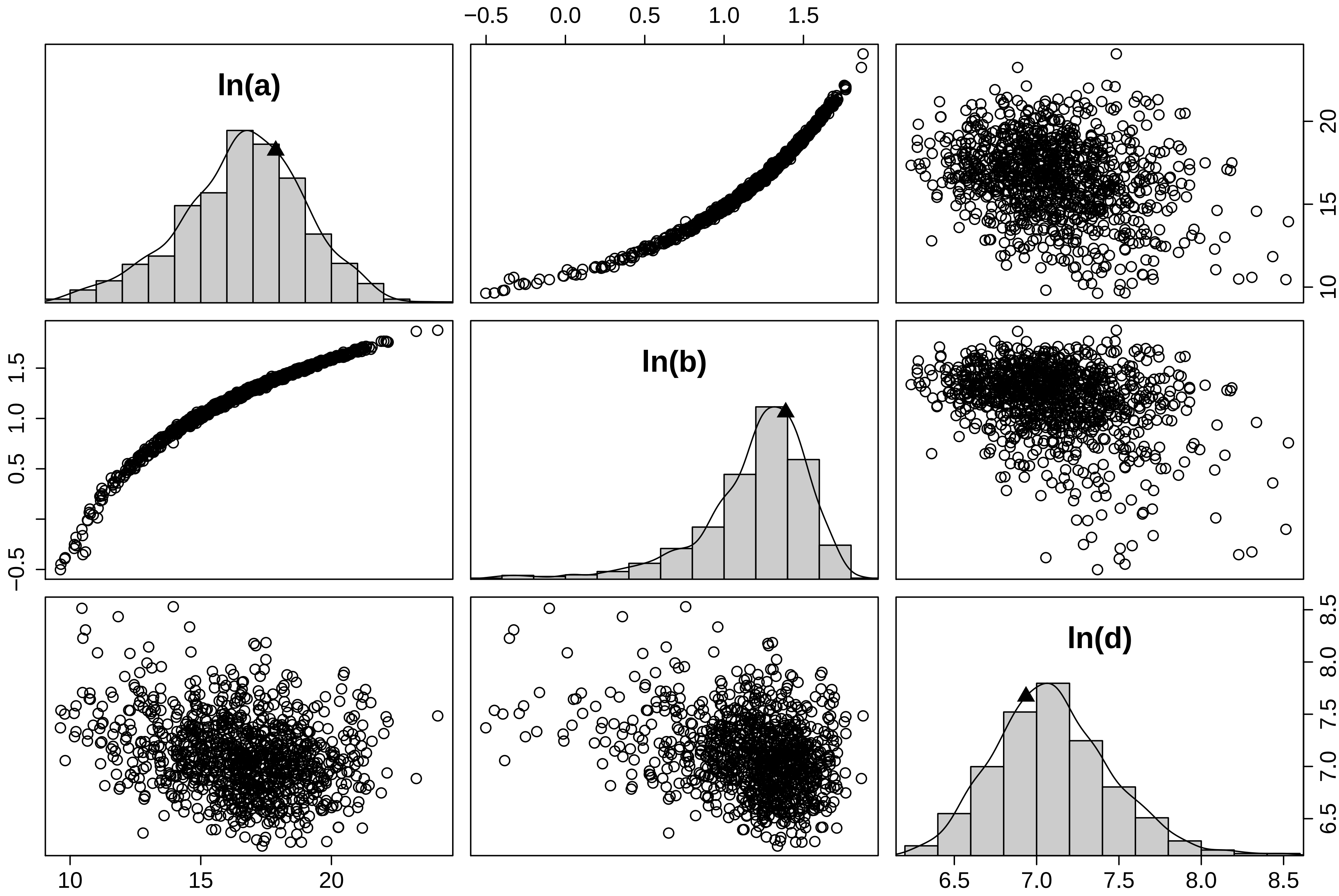
DR Figure 4. Continued: Model 12 (from DR Table 3); Taxon: Mya.



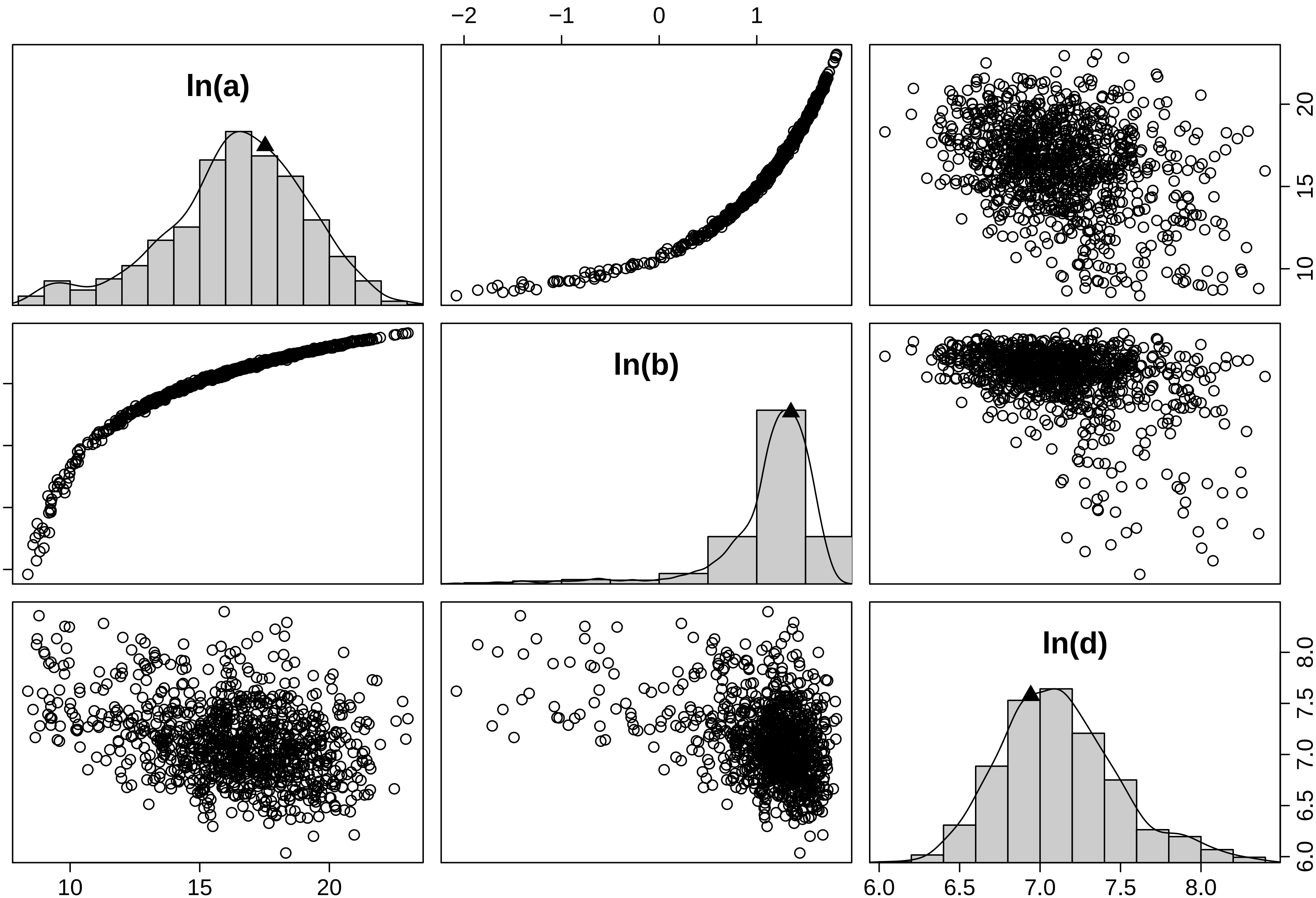
DR Figure 4. Continued: Model 13 (from DR Table 3); Taxon: Mya.



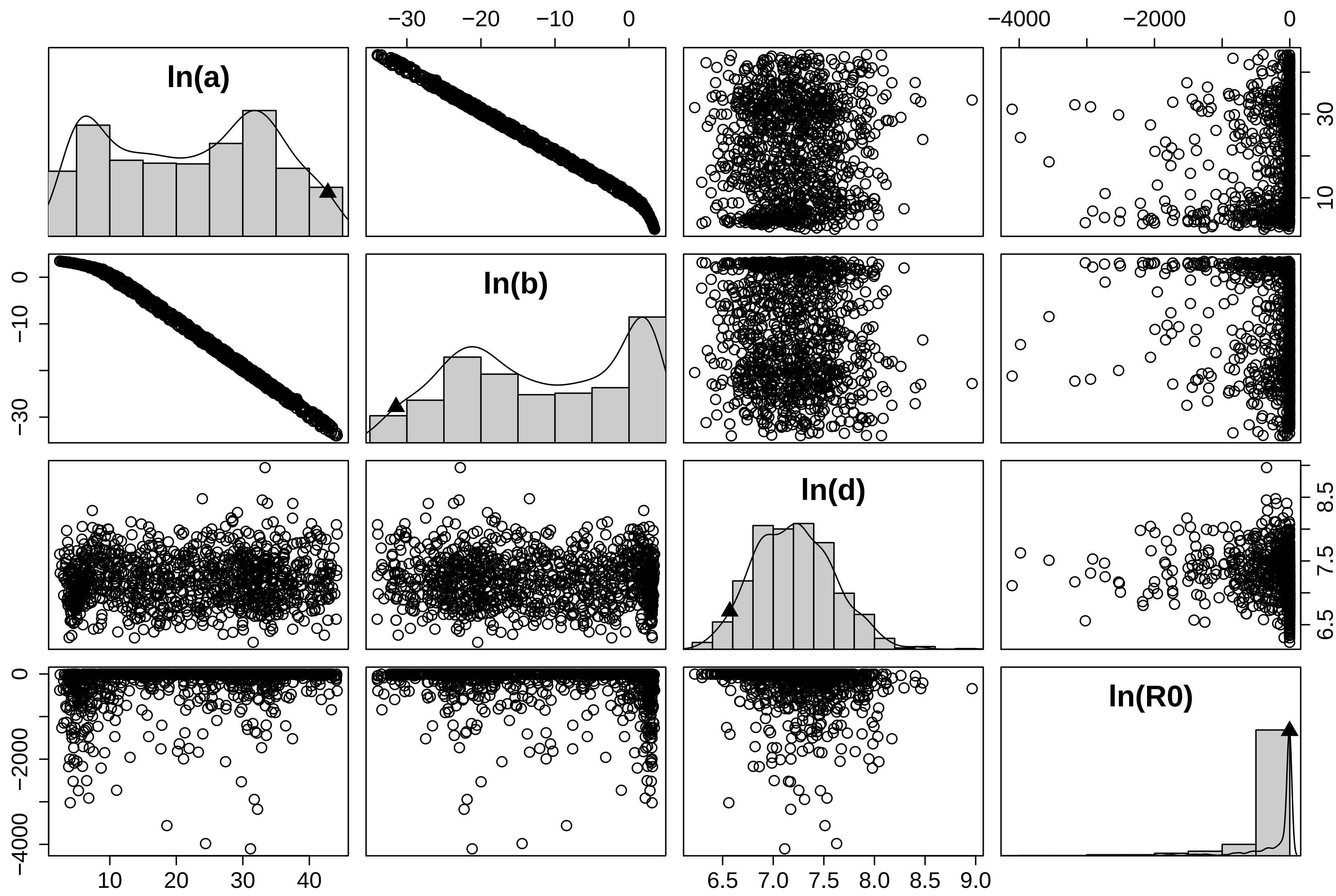
DR Figure 4. Continued: Model 14 (from DR Table 3); Taxon: Mya.



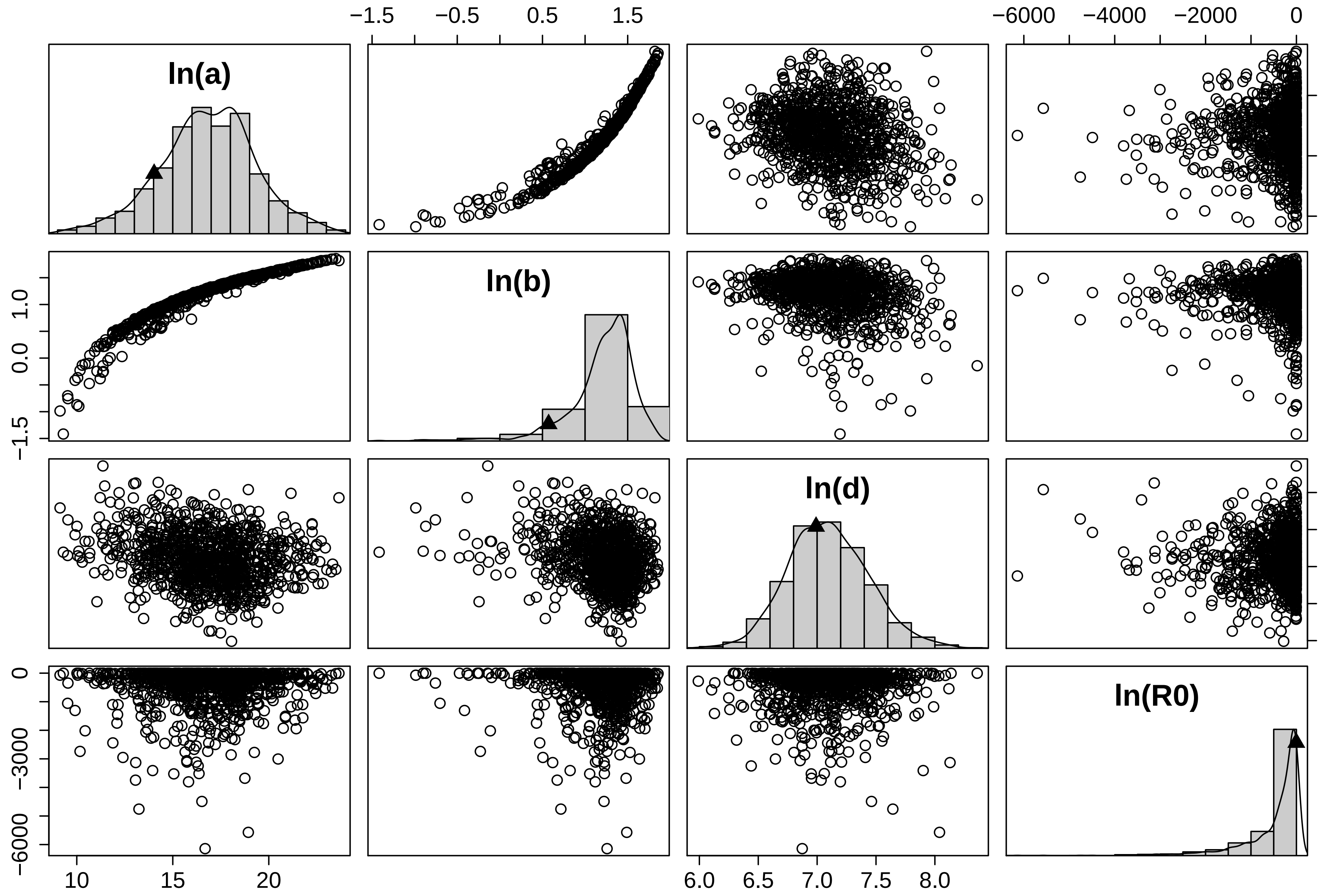
DR Figure 4. Continued: Model 15 (from DR Table 3); Taxon: Mya.



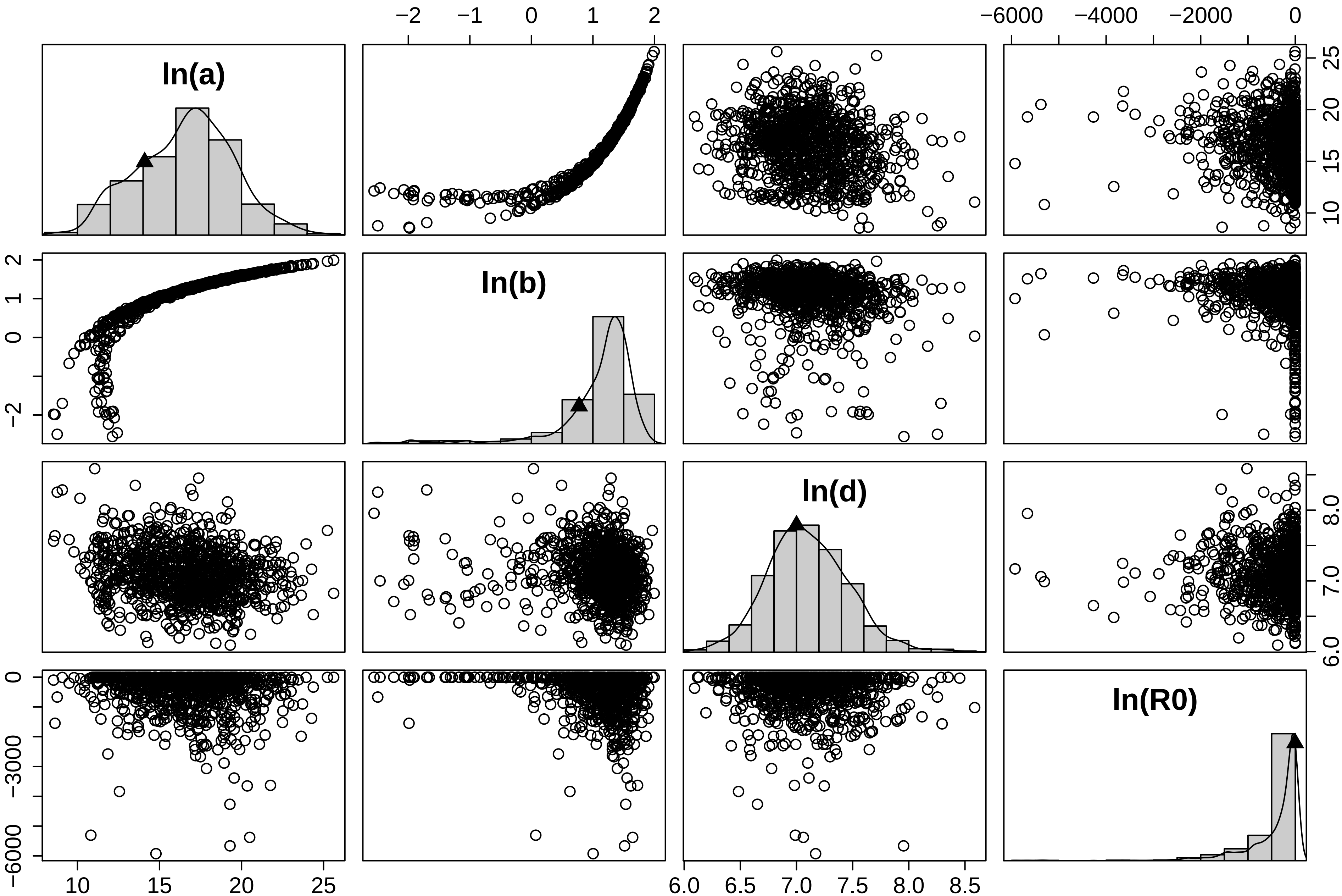
DR Figure 4. Continued: Model 16 (from DR Table 3); Taxon: Mya.



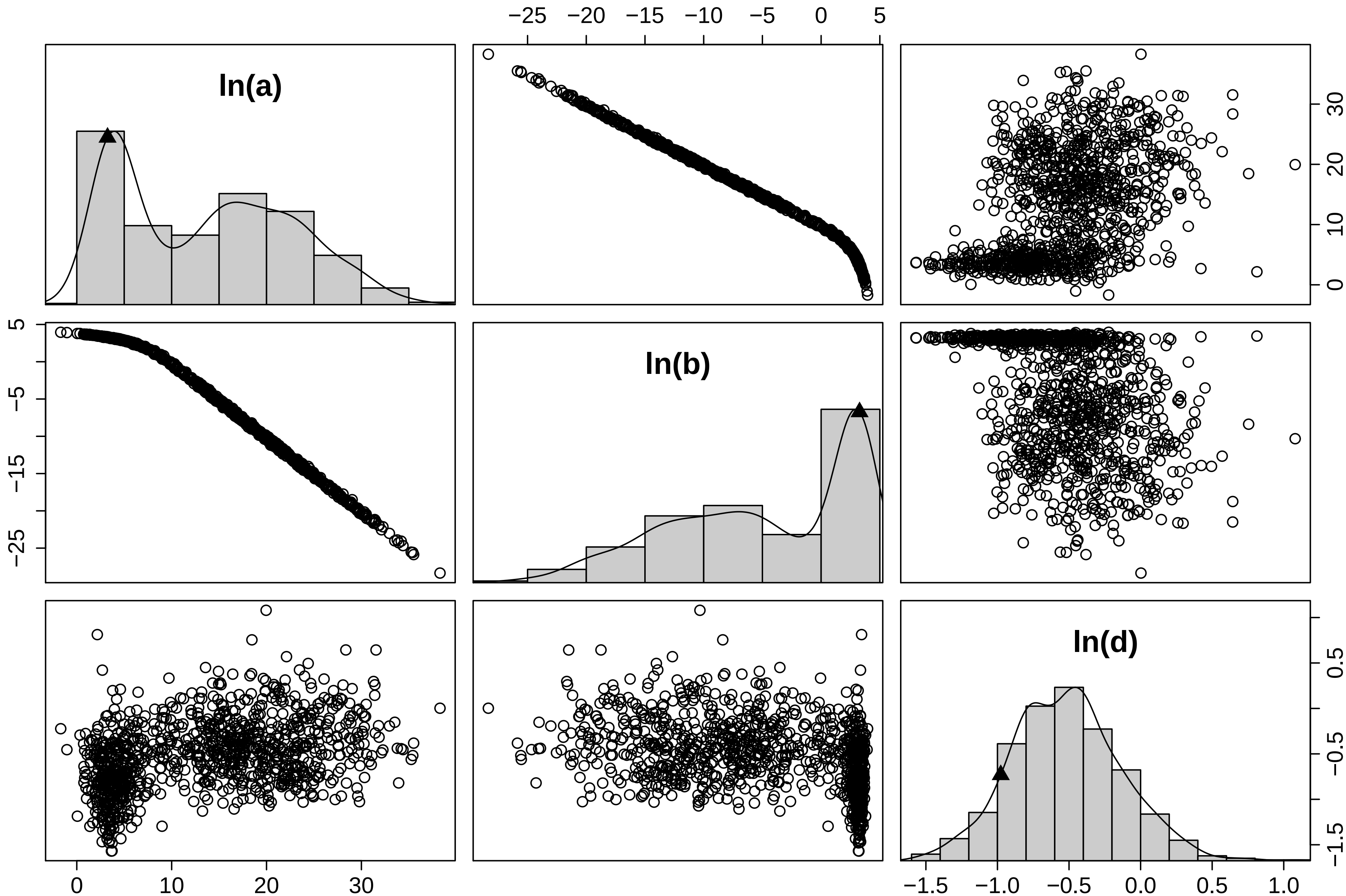
DR Figure 4. Continued: Model 17 (from DR Table 3); Taxon: Mya.



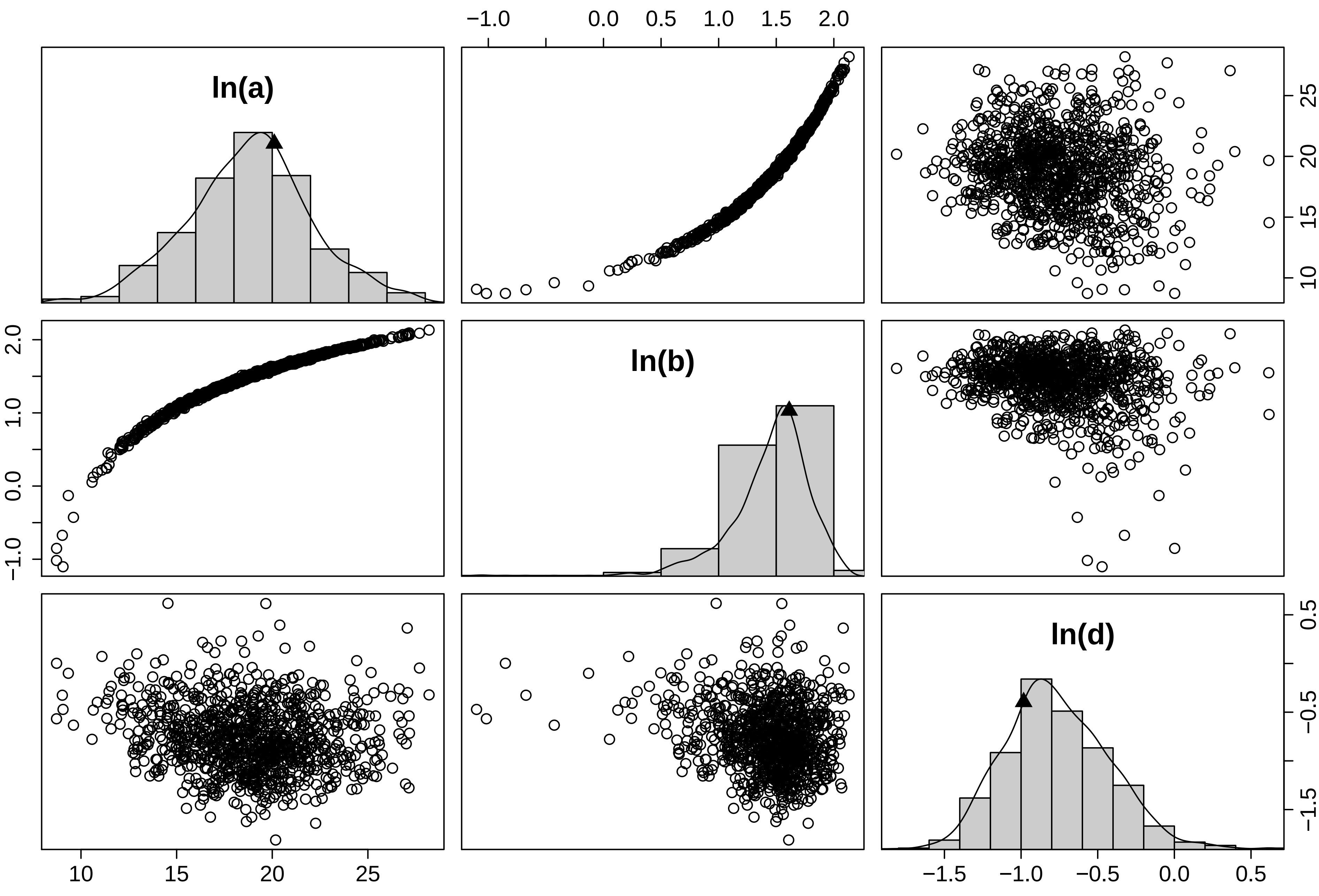
DR Figure 4. Continued: Model 18 (from DR Table 3); Taxon: Mya.



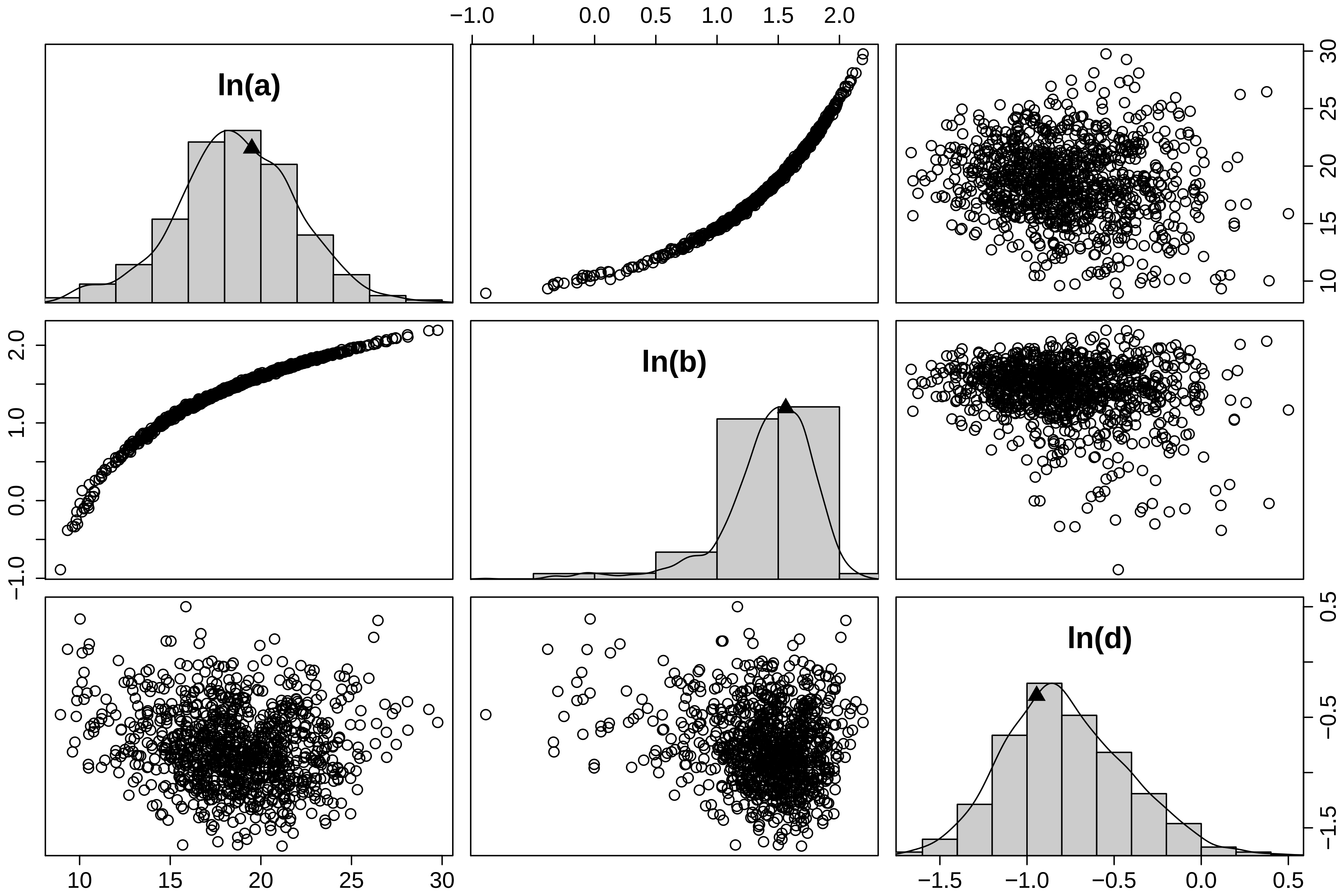
DR Figure 4. Continued: Model 19 (from DR Table 3); Taxon: Mya.



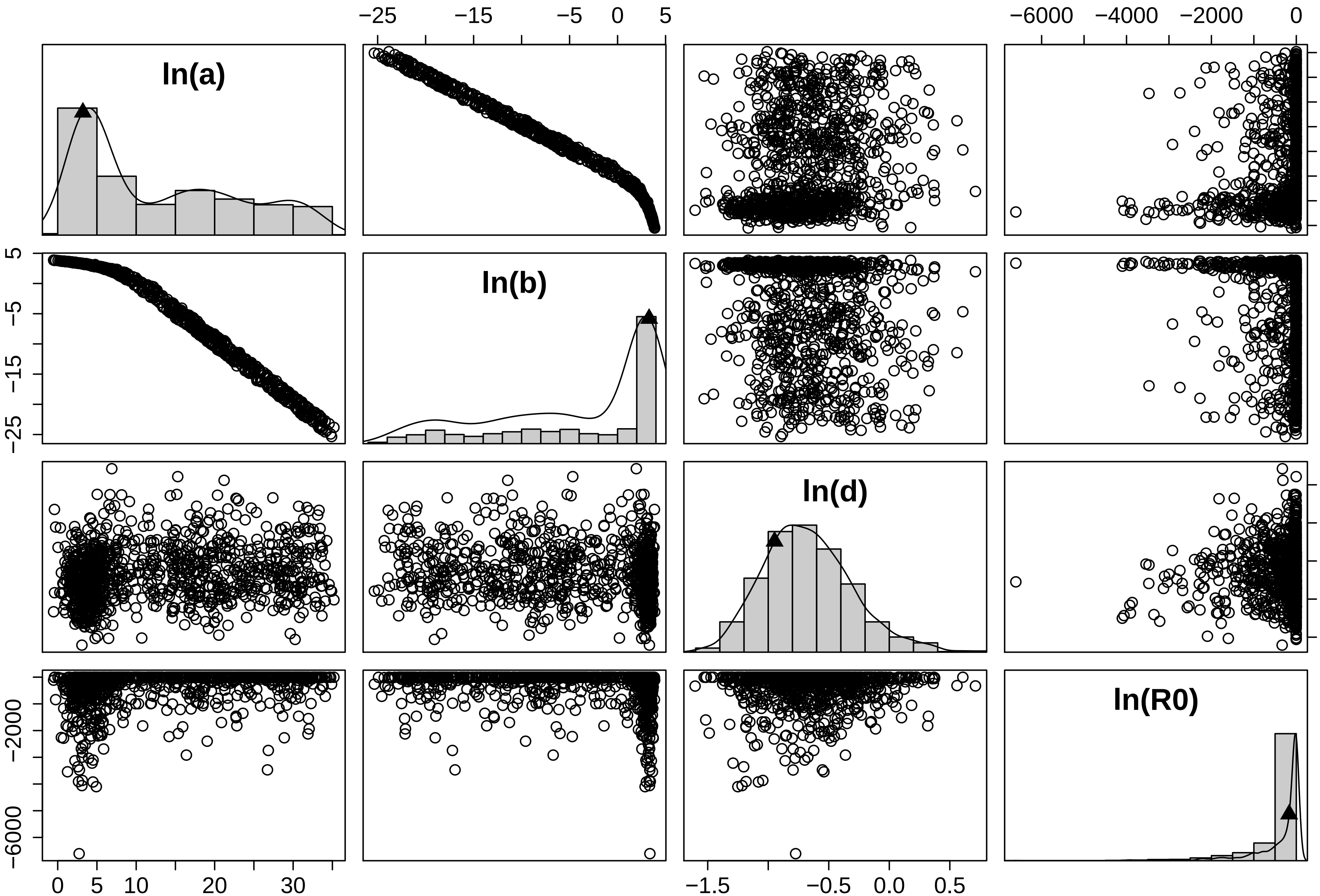
DR Figure 4. Continued: Model 20 (from DR Table 3); Taxon: Mya.



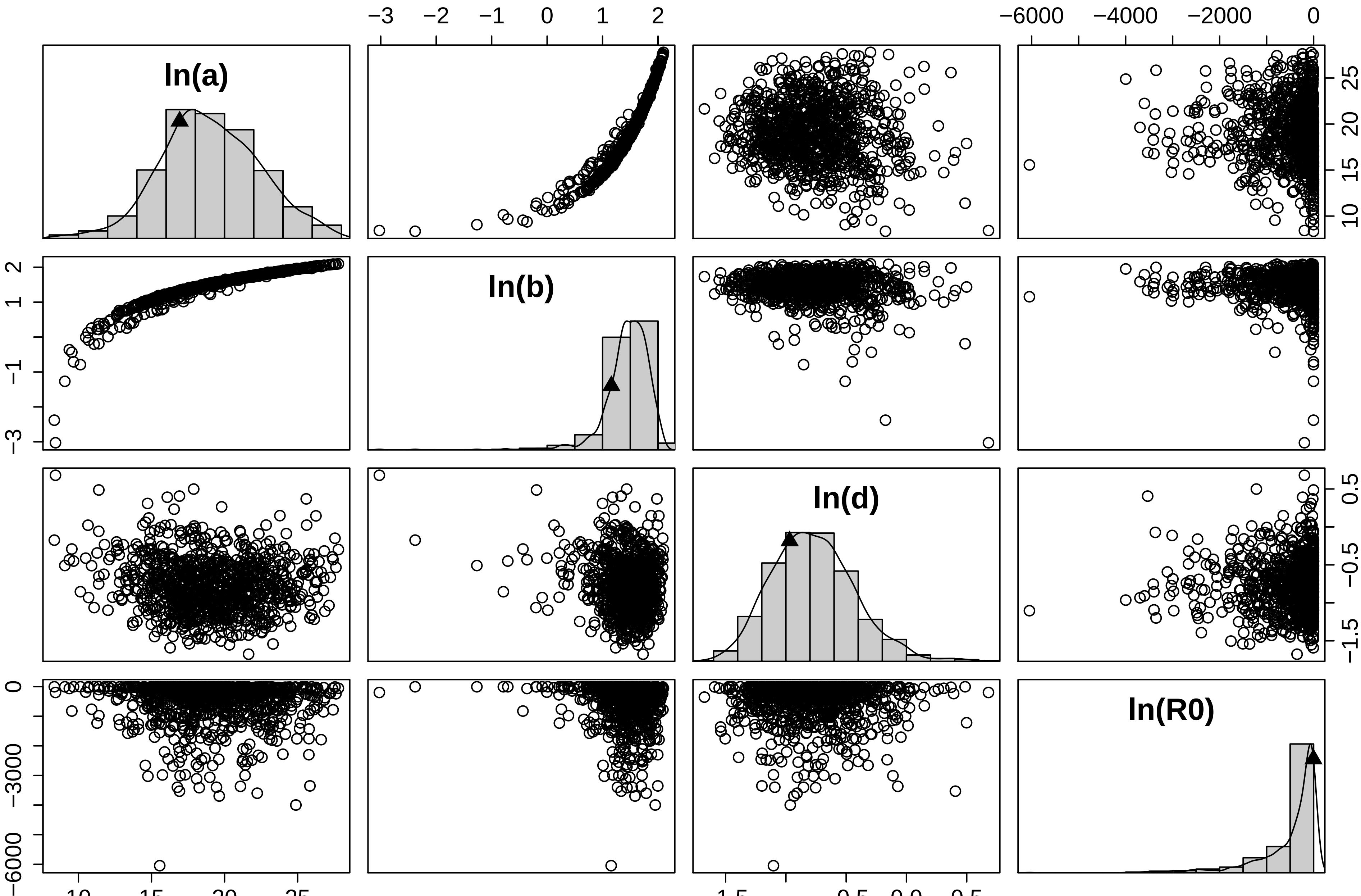
DR Figure 4. Continued: Model 21 (from DR Table 3); Taxon: Mya.



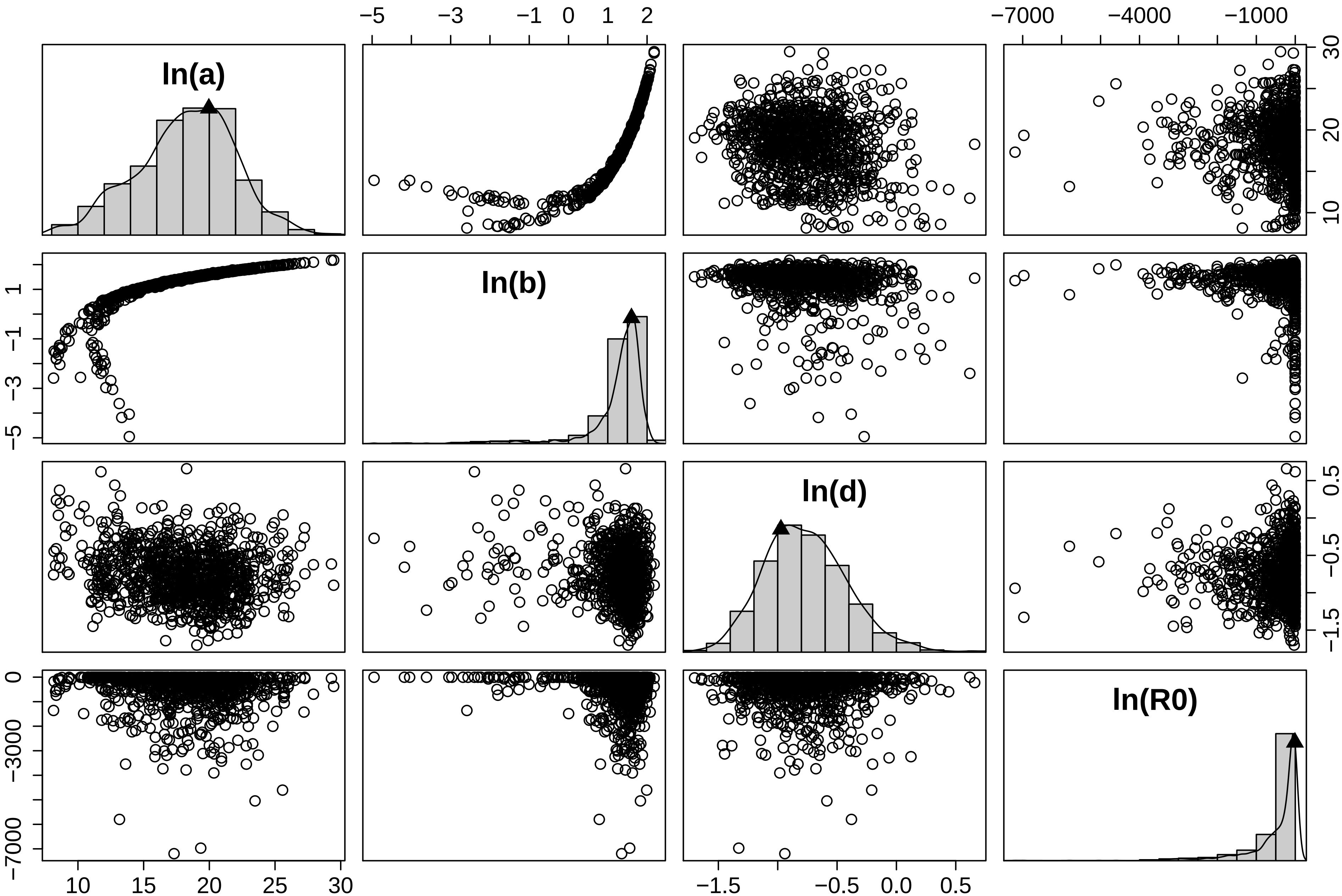
DR Figure 4. Continued: Model 22 (from DR Table 3); Taxon: Mya.



DR Figure 4. Continued: Model 23 (from DR Table 3); Taxon: Mya.



DR Figure 4. Continued: Model 24 (from DR Table 3); Taxon: Mya.



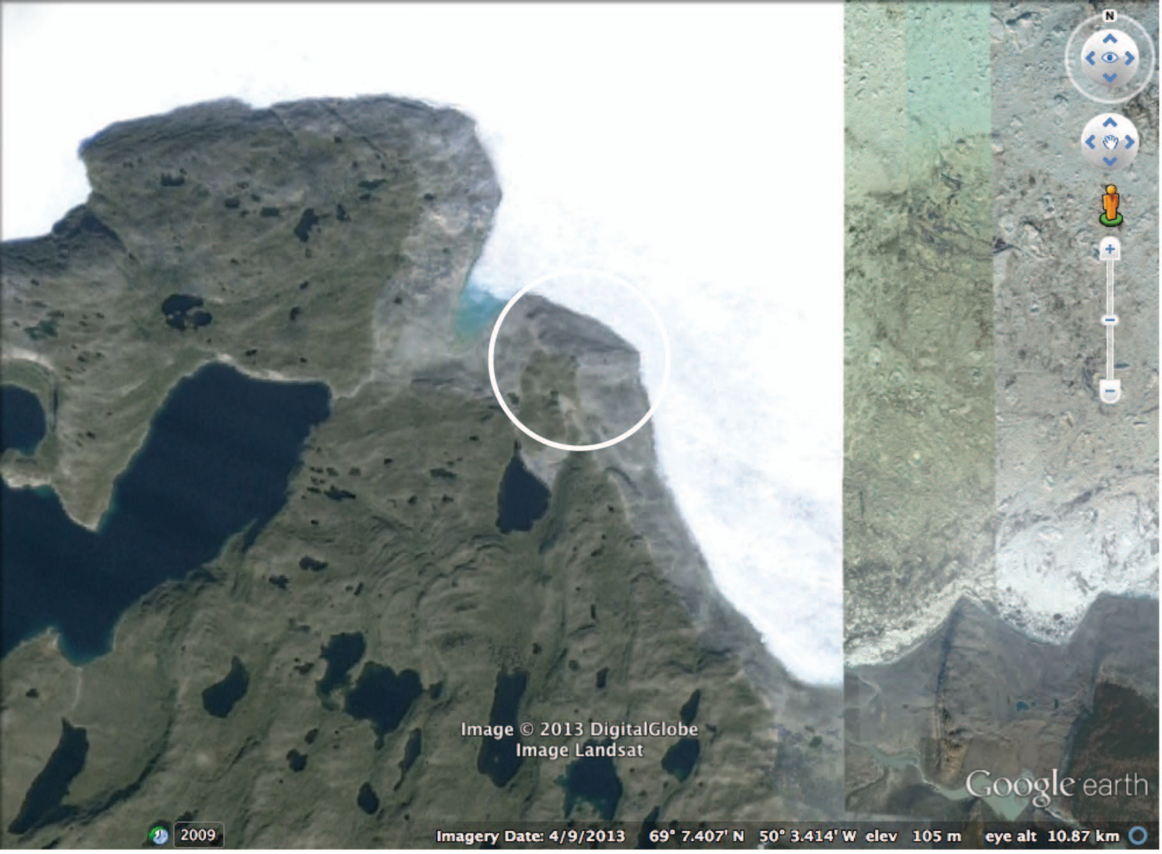
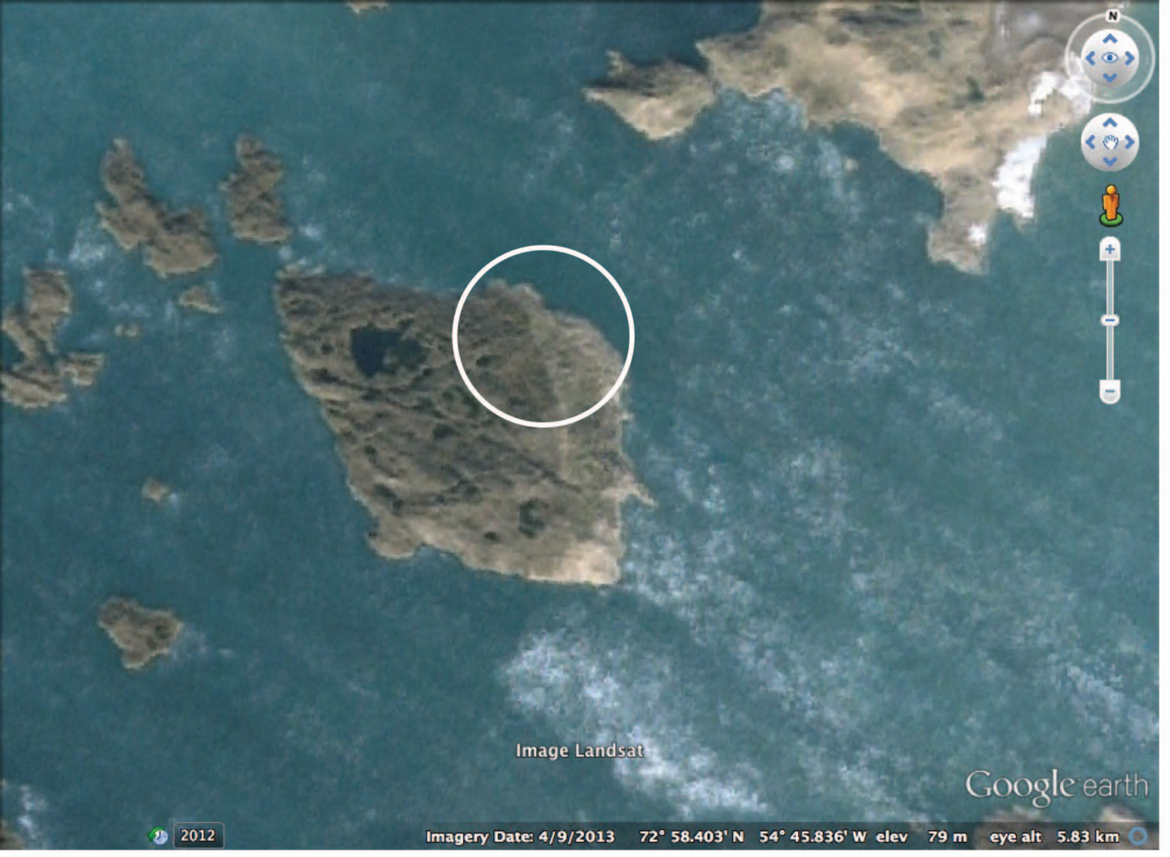


Figure DR5. Google Earth maps of moraine sampling locations. Top: 09GRO-Shells-3; Bottom:11WBS.



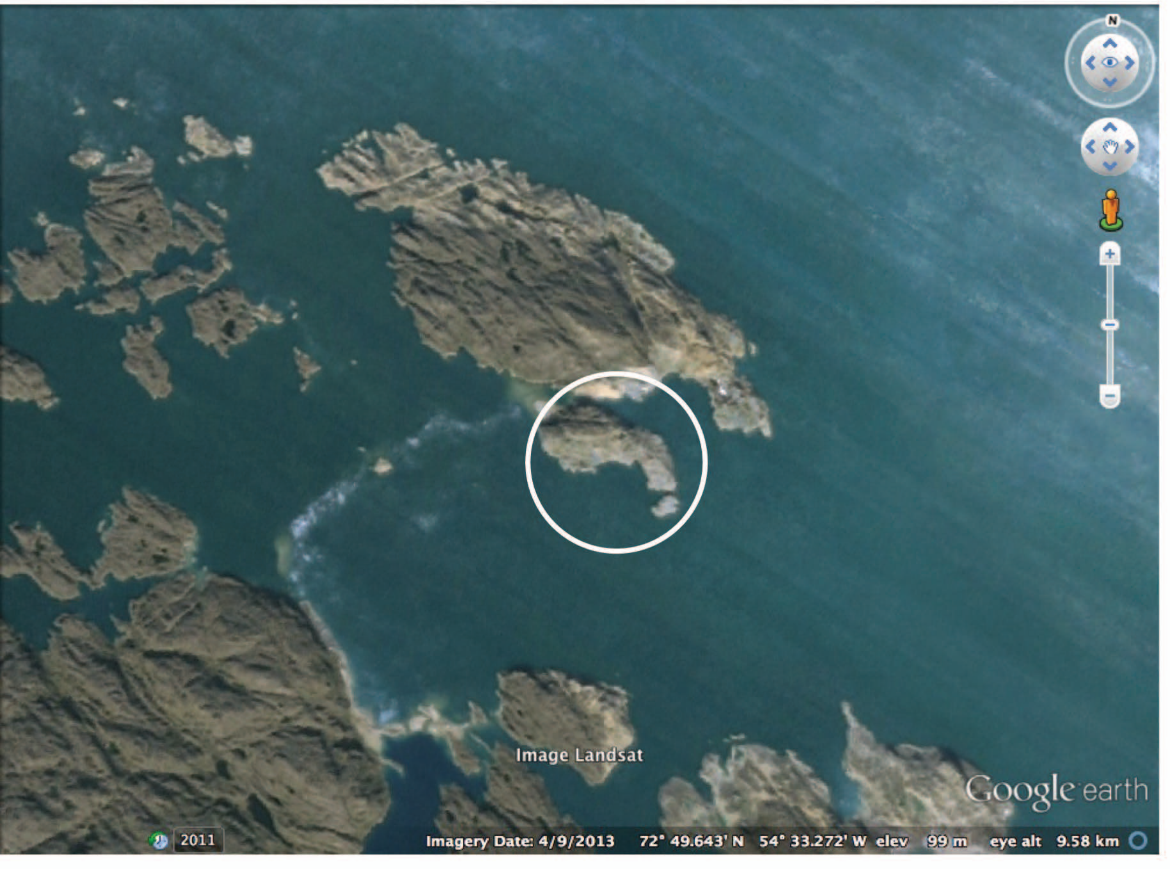


Figure DR6. Google Earth maps of moraine sampling locations. Top: 11GRO-9; Bottom:11GRO-1