MAthesis

Contents

Time Bins with sample sizes

Table 1: Time bins with age range, epoch name, mean age and corresponding sample sizes (on individual, species and genus level)

bin	EpochBins	MeanBins	nIndividuals	nSpecies	nGenera
(0,0.0117]	Modern	0.00585	252	64	18
(0.0117,0.126]	Upper Pleistocene	0.06885	47	16	8
(0.126,0.781]	Middle Pleistocene	0.45350	48	11	6
(0.781,2.59]	Lower Pleistocene	1.68450	73	27	11
(2.59,3.6]	Upper Pliocene	3.09400	23	15	9
(3.6,5.33]	Lower Pliocene	4.46600	29	17	8
(5.33,11.6]	Upper Miocene	8.47000	52	23	9
(11.6,16]	Middle Miocene	13.78900	38	17	11
(16,23]	Lower Miocene	19.50000	25	13	9
(23,50]	Oligocene and Eocene	36.51500	7	5	5

```
## [1] 0
```

Smaller time bins

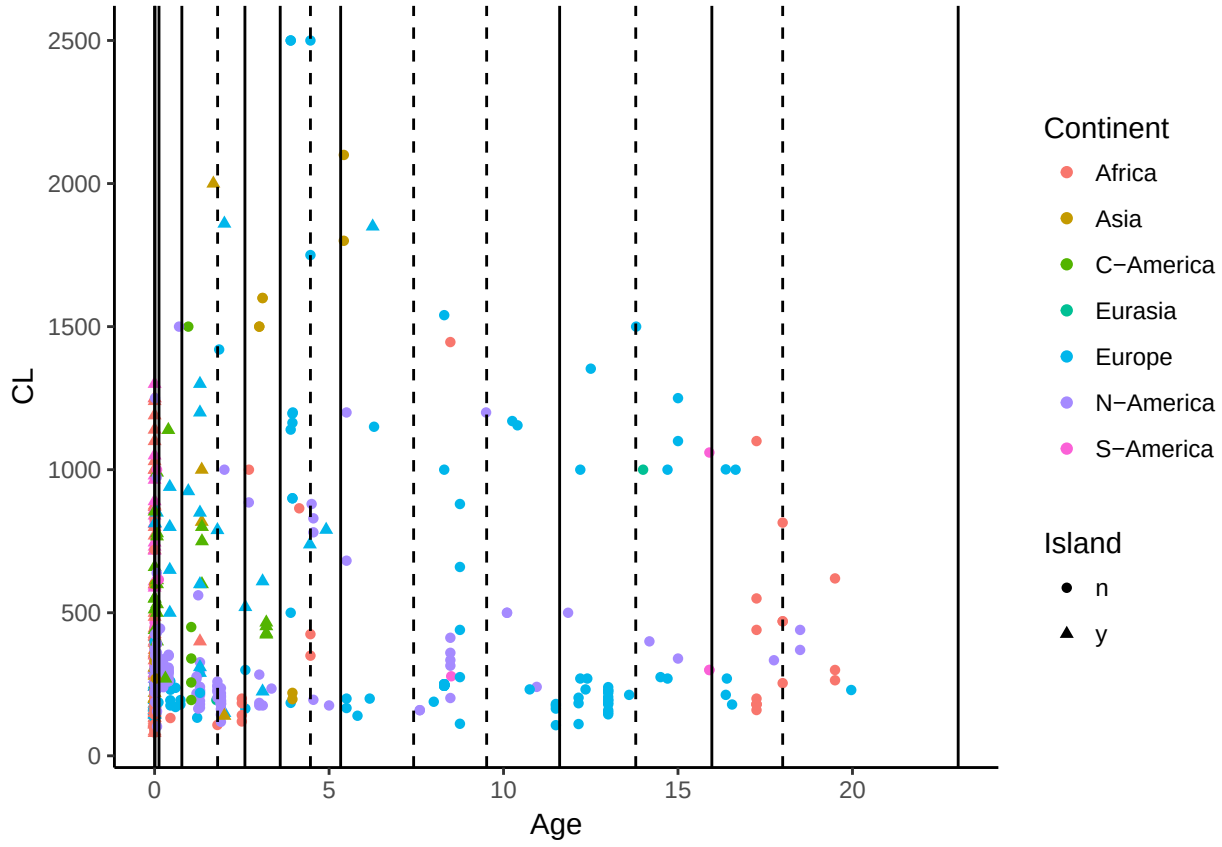


Figure 1: Scatterplot of CL over time, indicating insular (triangle) and continental (circles) and colour indicating continents.

Table 2: Smaller time bins with age range, epoch name, mean age and corresponding sample sizes (on individual, species and genus level)

bin	EpochBins	MeanBins	nIndividuals	nSpecies	nGenera
(0,0.0117]	Modern	0.00585	252	64	18
(0.0117,0.126]	Upper Pleistocene	0.06885	47	16	8
(0.126,0.781]	Middle Pleistocene	0.45350	48	11	6
(0.781,1.81]	Lower Pleistocene	1.29350	47	19	11
(1.81,2.59]	Gelasian(LowPleio2)	2.19700	26	10	7
(2.59,3.6]	Upper Pliocene	3.09400	23	15	9
(3.6,4.47]	Lower Pliocene 1	4.02300	19	11	5
(4.47,5.33]	Lower Pliocene 2	4.88900	10	7	4
(5.33,7.42]	Upper Miocene 1	6.37800	12	9	6
(7.42,9.52]	Upper Miocene 2	8.47000	30	13	7
(9.52,11.6]	Upper Miocene 3	10.56200	10	7	5
(11.6,13.8]	Middle Miocene 1	12.69850	22	8	6
(13.8,16]	Middle Miocene 2	14.87950	16	13	10
(16,18]	Lower Miocene 1	16.98500	19	10	8
(18,23]	Lower Miocene 2	20.51500	6	4	4

Maps

fossil occurences of testudinidae

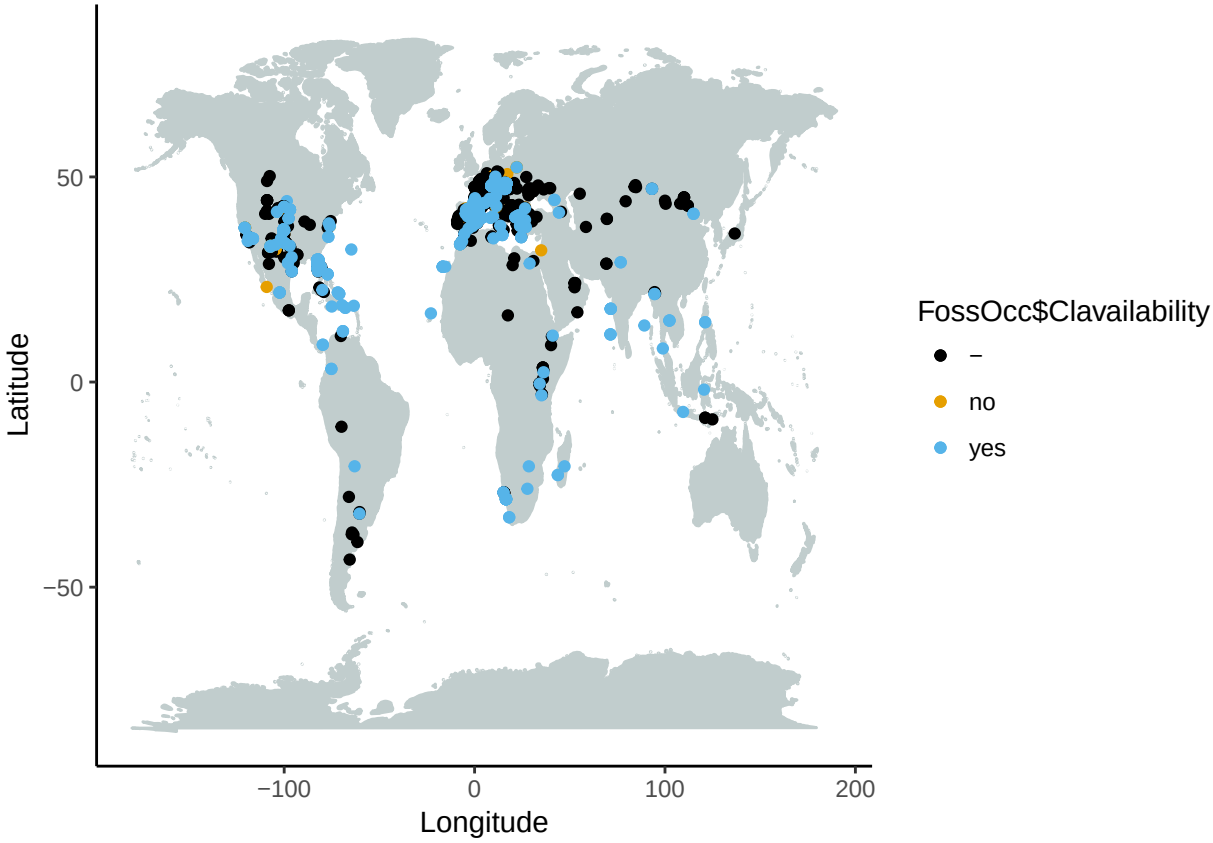


Figure 2: Map displaying all fossil occurrences of testudinids, with color indicating whether relevant literature was available (black if not) and if it was, whether body size data was available or not (yes and no, respectively).

body size of testudinidae

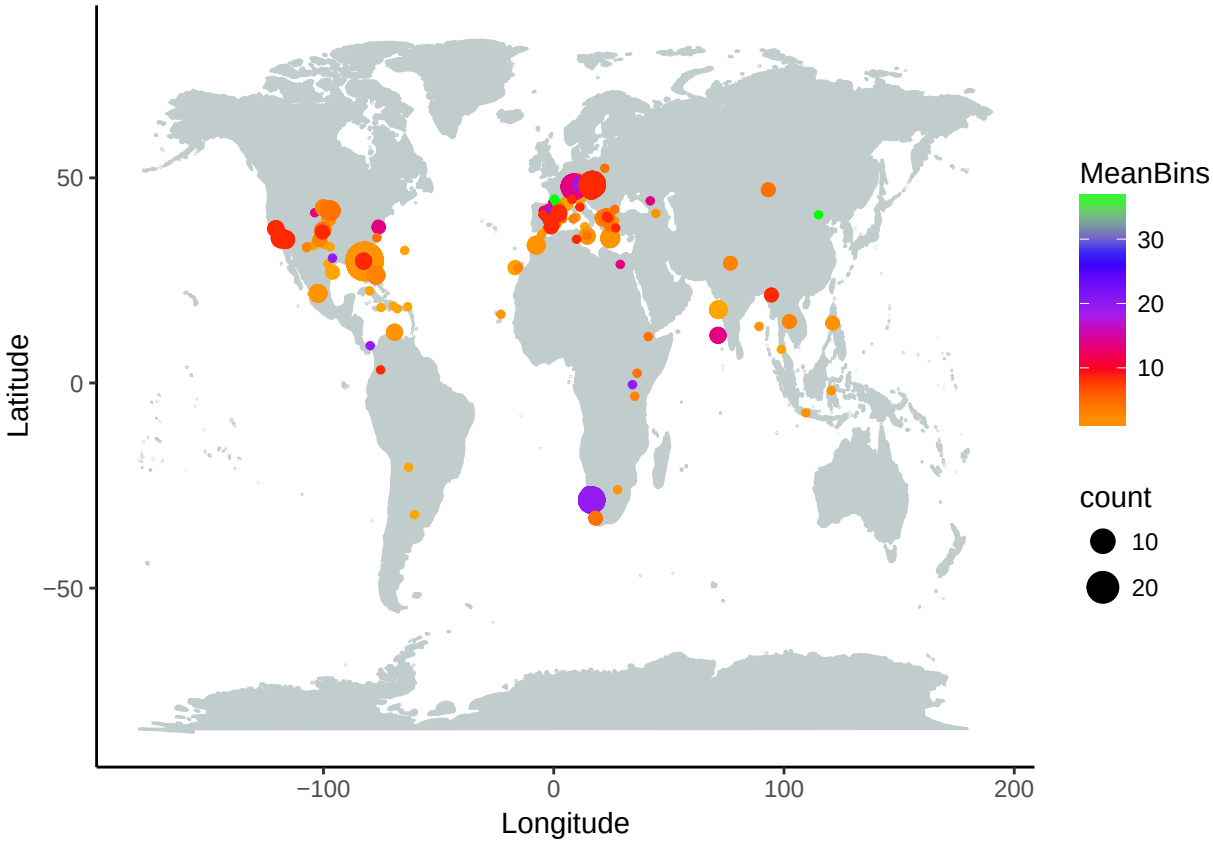


Figure 3: Map displaying all localities for which body size data for testudinids was available in the literature. Size of points denotes sample size, color denotes approximate age.

Sampling Accumulation Curve

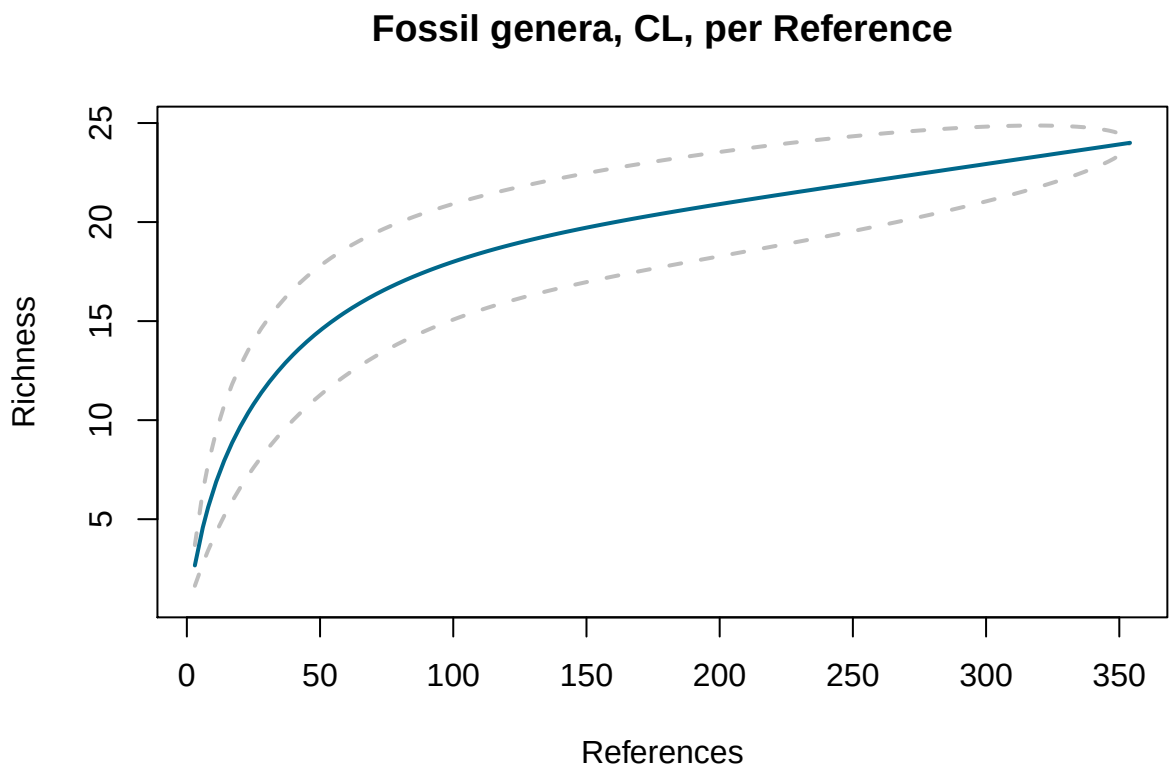


Figure 4: Sampling Accumulation Curve of fossil genera per reference

Eurasia

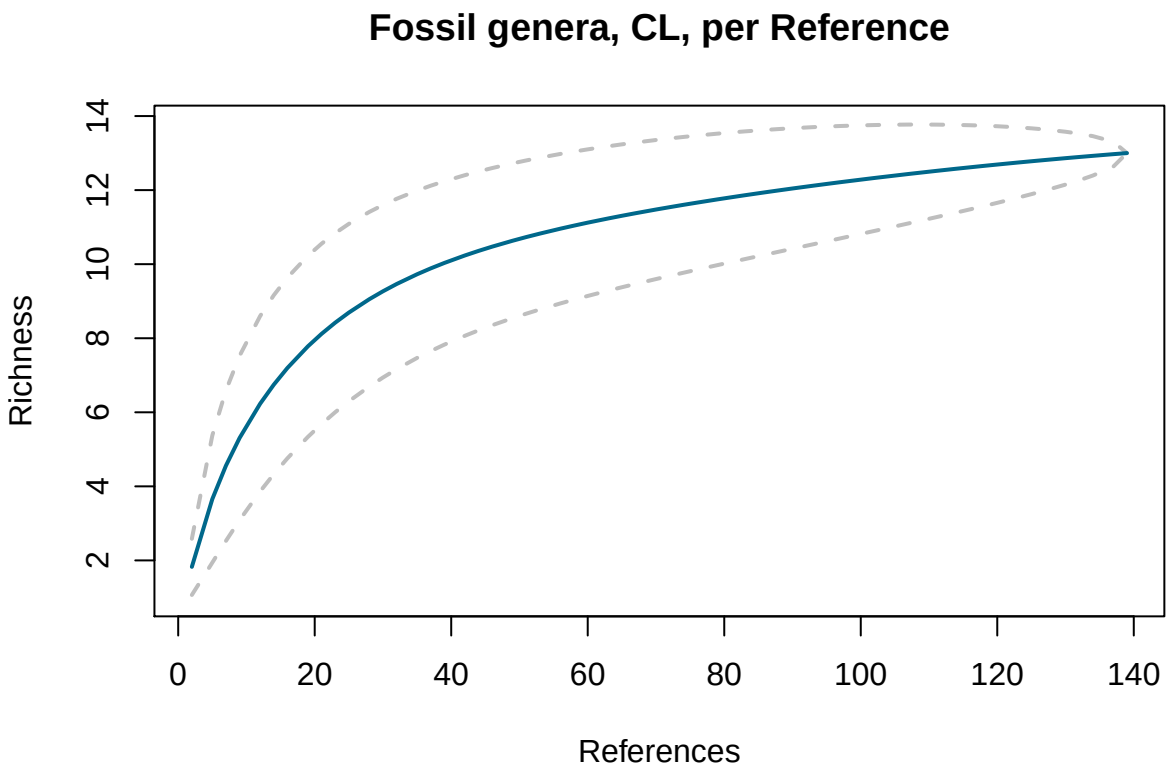


Figure 5: Sampling Accumulation Curve of fossil genera per reference, Eurasia

Histograms

all

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

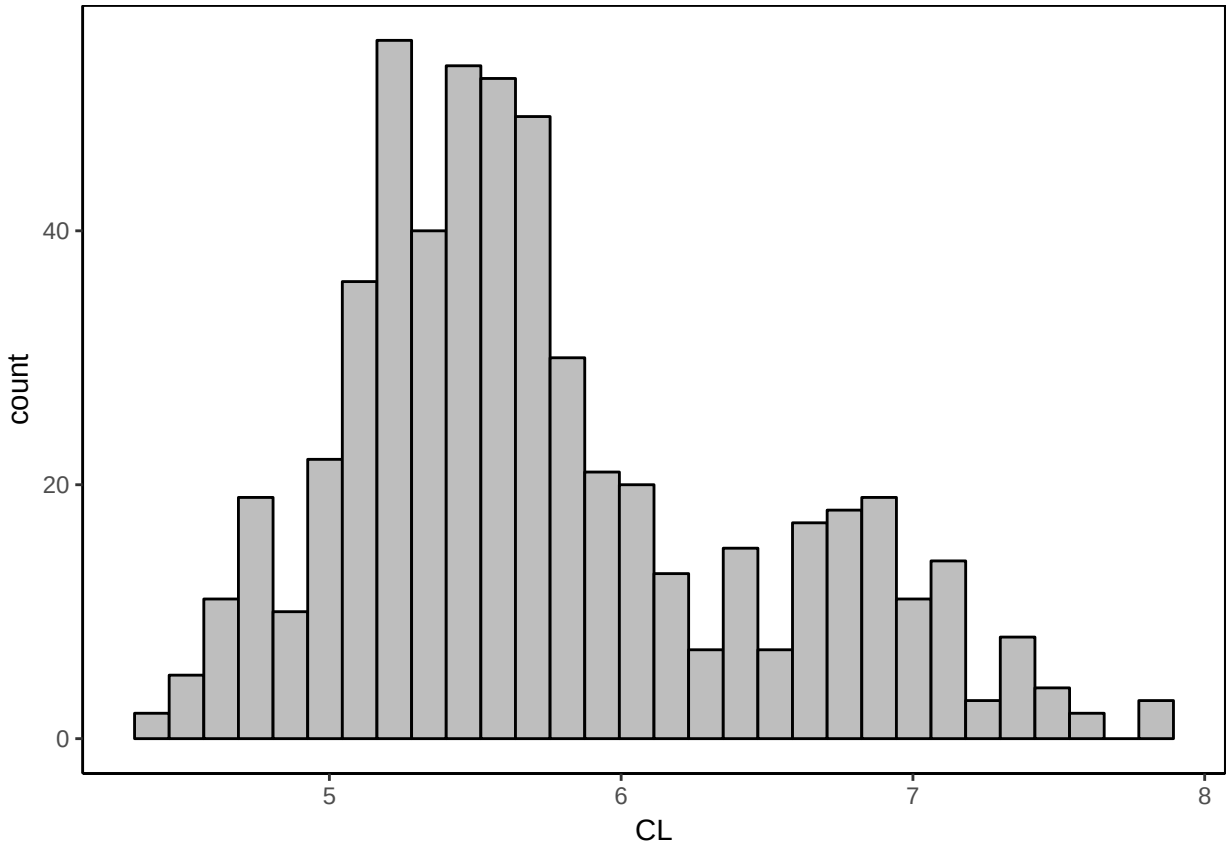


Figure 6: Distribution of body size data, logtransformed, all data.

per time bin

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

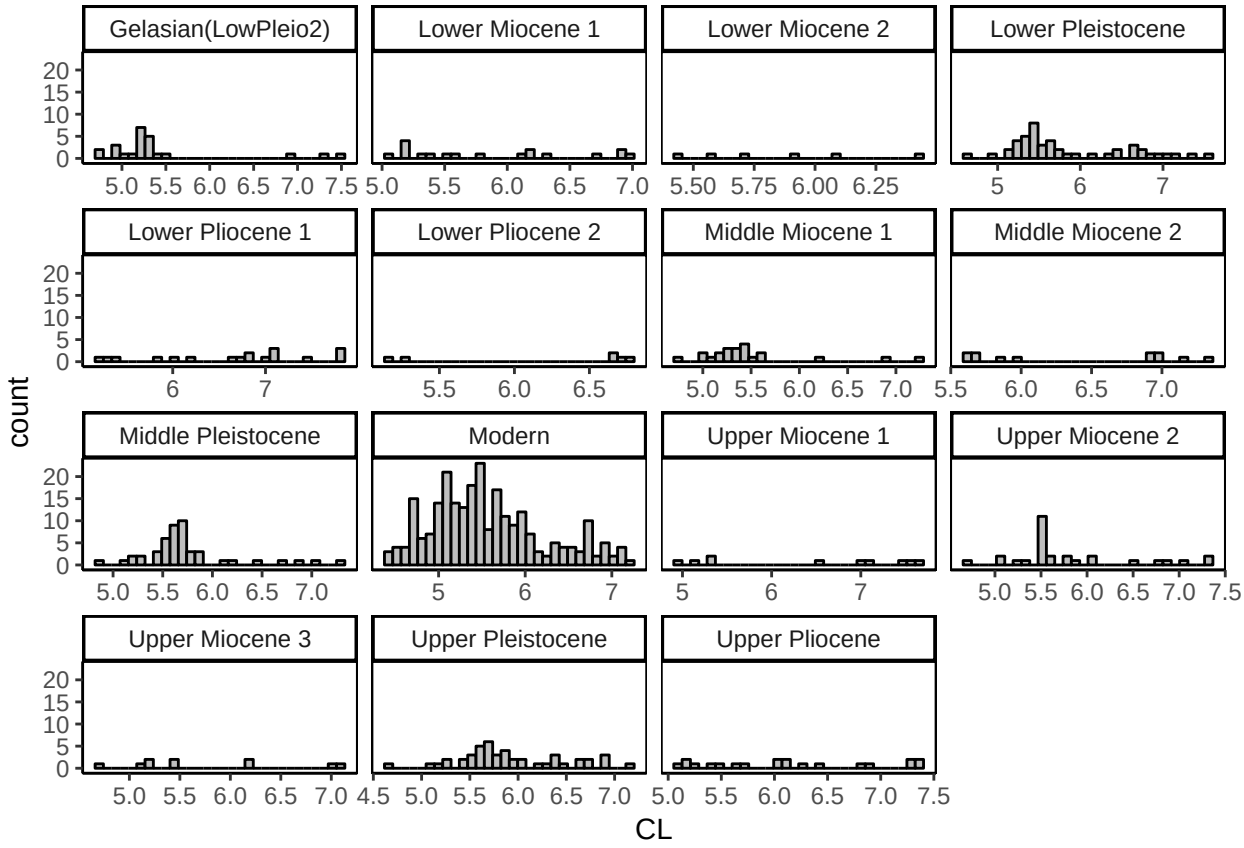


Figure 7: Distribution of body size data per time bin, logtransformed.

modern vs. fossil

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

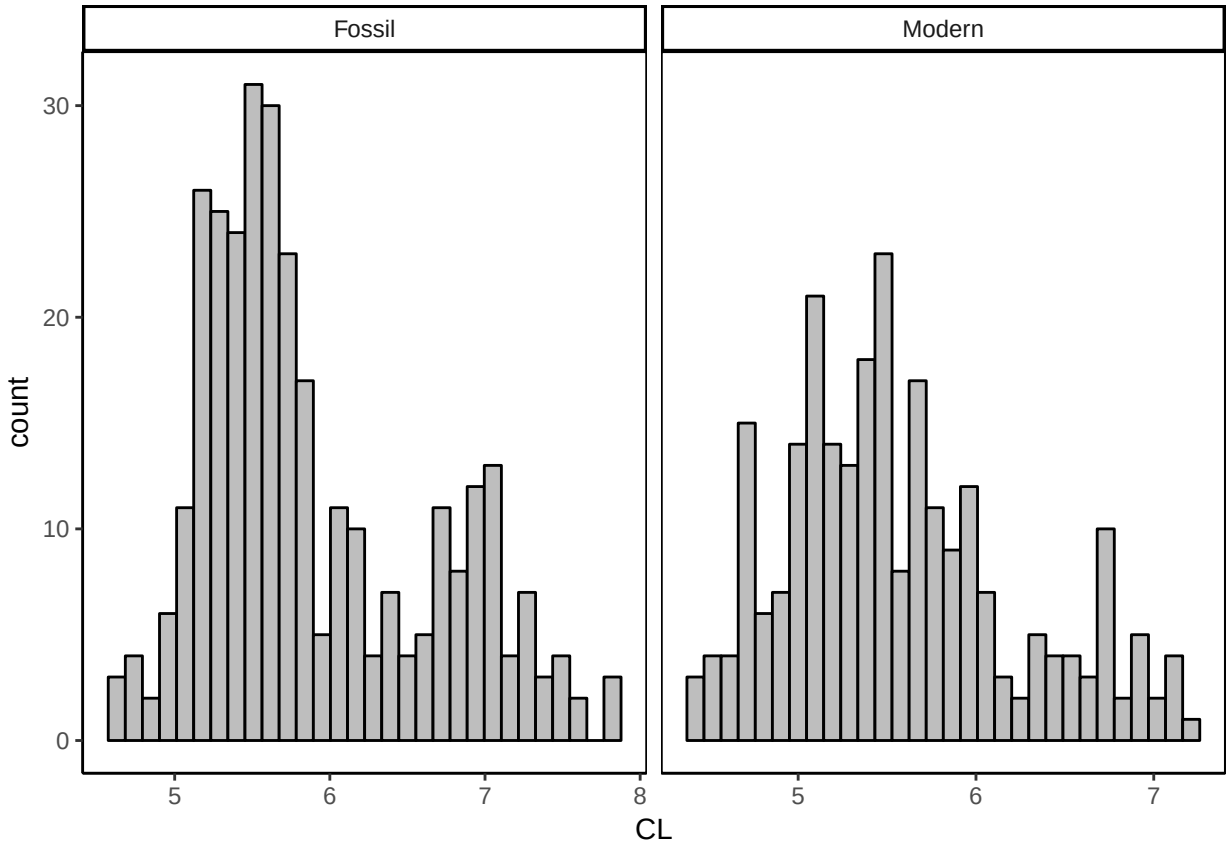


Figure 8: Distribution of body size data modern vs. fossil, logtransformed.

modern vs. fossil, continental vs. insular

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

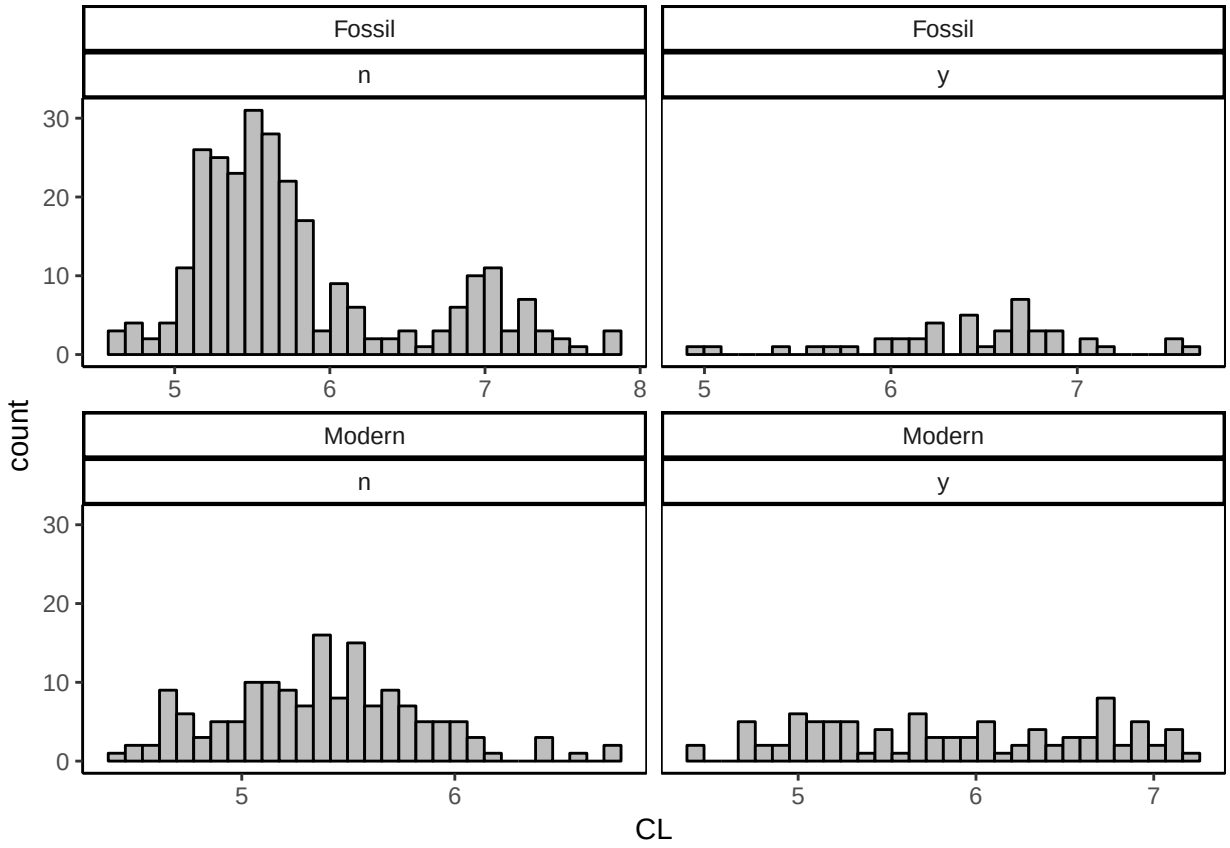


Figure 9: Distribution of body size data modern vs. fossil, continental vs. insular logtransformed.

continental vs. insular

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

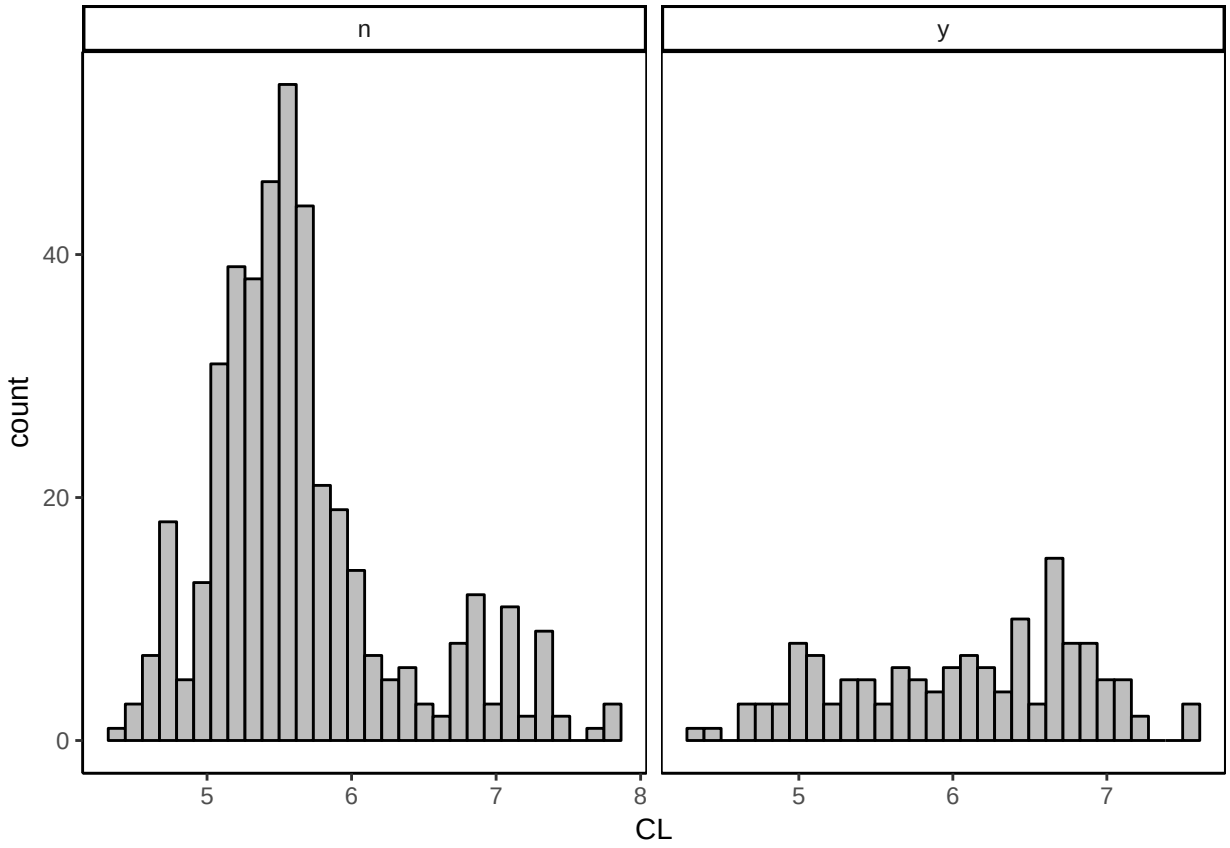


Figure 10: Distribution of body site data of continental (n) and insular(y) species, logtransformed.

continents

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

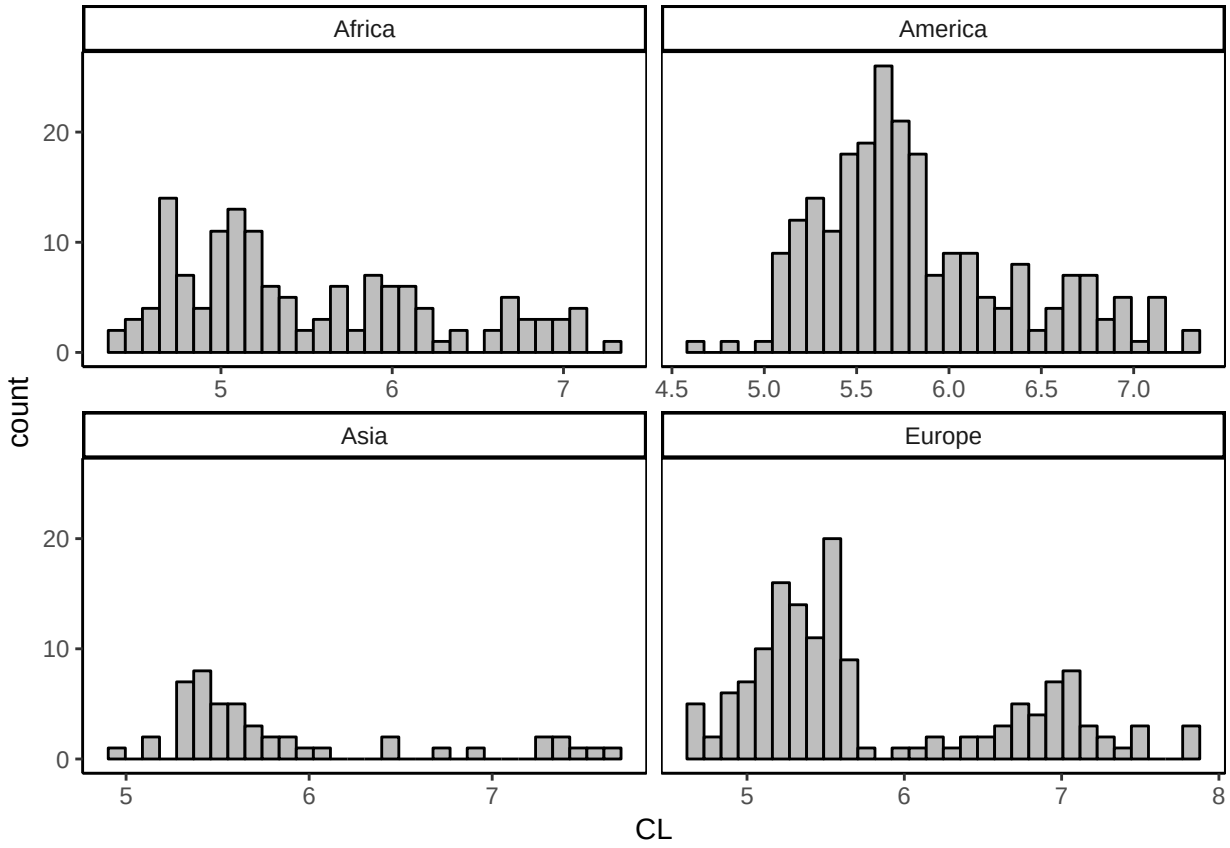


Figure 11: Distribution of body site data per continent, logtransformed.

Genera

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

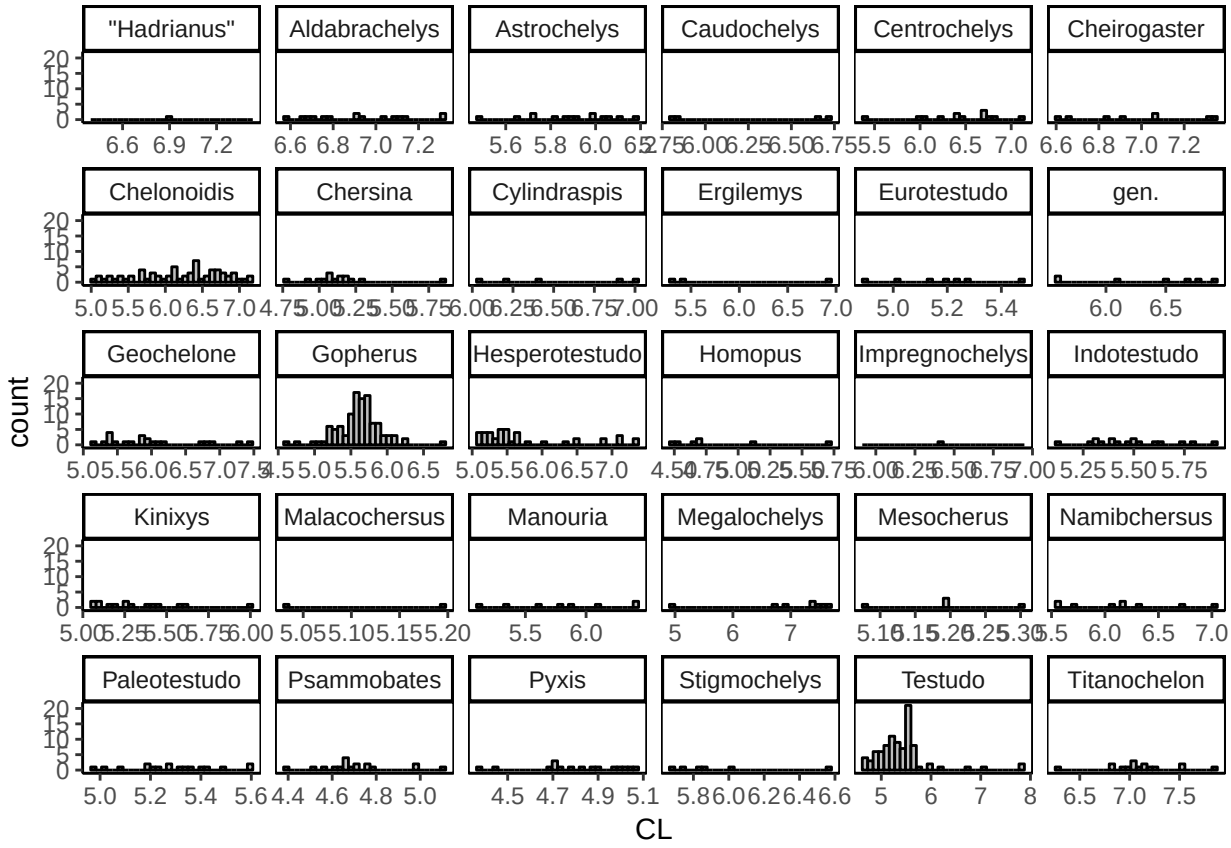


Figure 12: Distribution of body size, genera, logtransformed.

Genus	nCL	min	max	var	mean	logm	med	logmed	skew	logsk	kurt	logku
“Hadrianus”	1	1000.00	1000.0	NA	1000.0	3.0	1000.0	3.0	NaN	NaN	NaN	NaN
Aldabrachelys	15	720.00	1500.0	63173.0952	1046.3	3.0	1000.0	3.0	0.52	0.22	2.19	1.91
Astrochelys	14	242.00	486.0	4547.8736	366.2	2.6	365.5	2.6	-0.08	-0.44	2.31	2.53
Caudochelys	4	334.00	830.0	73585.6692	571.2	2.7	560.5	2.7	0.02	0.01	1.02	1.01
Centrochelys	13	215.00	1200.0	67926.6026	678.5	2.8	650.0	2.8	0.14	-0.91	2.68	3.57
Cheirogaster	8	739.00	1540.0	89878.7857	1102.2	3.0	1077.5	3.0	0.35	0.07	1.82	1.76
Chelonoidis	66	157.00	1300.0	85851.3910	567.2	2.7	540.0	2.7	0.52	-0.32	2.45	2.10
Chersina	15	120.00	351.0	2729.4638	176.3	2.2	166.4	2.2	2.62	1.78	9.72	7.14
Cylindraspis	5	420.00	1100.0	93880.0000	724.0	2.8	600.0	2.8	0.32	0.17	1.31	1.34
Ergilemys	3	198.00	1000.0	208681.3333	472.7	2.5	220.0	2.3	0.71	0.70	1.50	1.50

Genus	nCL	min	max	var	mean	logm	med	logmed	skew	logsk	kurt	logku
Eurotestudo	7	133.10	237.6	1127.4181	178.9	2.2	179.3	2.3	0.41	0.04	2.61	2.40
gen.	7	270.00	1000.0	88040.3333	619.0	2.7	660.0	2.8	-0.07	-0.37	1.45	1.50
Geochelone	22	176.00	1750.0	178594.8333	508.5	2.6	350.0	2.5	1.77	0.89	5.16	2.75
Gopherus	109	102.44	885.5	8655.0160	286.1	2.4	278.0	2.4	2.61	0.02	17.50	5.58
Hesperotestudo	41	159.50	1500.0	156795.5624	427.7	2.5	235.0	2.4	1.64	1.12	4.26	2.78
Homopus	7	88.00	300.0	5702.9048	139.3	2.1	109.0	2.0	1.61	1.28	4.08	3.26
Impregnochelys	1	620.00	620.0	NA	620.0	2.8	620.0	2.8	NaN	NaN	NaN	NaN
Indotestudo	17	166.00	360.0	2606.8682	244.6	2.4	235.0	2.4	0.81	0.39	2.97	2.67
Kinixys	15	157.00	400.0	4020.2095	213.1	2.3	194.0	2.3	1.80	1.17	6.04	4.00
Malacochersus	2	153.00	180.0	364.5000	166.5	2.2	166.5	2.2	0.00	0.00	1.00	1.00
Manouria	8	165.00	600.0	27057.5536	372.1	2.5	340.0	2.5	0.35	-0.16	1.79	1.89
Megalochelys	8	140.00	2100.0	453400.5000	1382.2	3.0	1600.0	3.2	-0.73	-1.72	2.34	4.67
Mesocherus	5	160.00	200.0	200.0000	180.0	2.3	180.0	2.3	0.00	-0.16	2.50	2.51
Namibchersus	9	254.00	1100.0	77548.1111	518.1	2.7	470.0	2.7	1.09	0.40	3.13	2.17
Paleotestudo	17	145.00	270.0	1322.1988	201.5	2.3	195.0	2.3	0.43	0.07	2.54	2.40
Psammobates	18	81.00	165.0	424.8153	113.1	2.0	107.4	2.0	1.10	0.65	3.80	3.37
Pyxis	16	80.00	160.0	555.2292	124.2	2.1	123.0	2.1	-0.23	-0.58	2.19	2.63
Stigmochelys	6	297.00	720.0	25122.6667	405.3	2.6	347.5	2.5	1.58	1.39	3.81	3.47
Testudo	91	107.00	2500.0	131647.6479	278.4	2.3	200.0	2.3	5.34	2.51	32.13	11.74
Titanochelon	16	520.00	2500.0	213908.0667	1287.8	3.1	1180.0	3.1	1.07	-0.22	4.30	3.96

General statistics

Table 4: General statistics of body size data: all, per time bin, insular and continental, per continent (all referring to CL: min, max, variance, mean, logmean, median, logmedian, skewness, logskewness, kurosis, logkurtosis

nCL	min	max	var	mean	logm	med	logmed	skew	logsk	kurt	logku	EpochBins
566	80.00	2500	148432.33	418.8	2.5	269.4	2.4	2.29	0.72	9.17	2.84	NA
24	118.90	1860	195107.42	333.4	2.4	186.2	2.3	2.60	2.07	8.39	5.95	Gelasian(LowPleio2)
18	160.00	1100	103008.71	444.2	2.5	302.0	2.5	0.99	0.44	2.53	1.77	Lower Miocene 1
6	230.00	620	20626.67	370.7	2.5	335.0	2.5	0.85	0.45	2.50	2.02	Lower Miocene 2
47	107.80	2000	165103.07	460.3	2.5	259.5	2.4	1.90	0.78	6.44	2.55	Lower Pleistocene
18	185.00	2500	610493.44	1068.4	2.9	900.0	3.0	0.80	-0.35	2.52	2.09	Lower Pliocene 1
6	176.00	880	108570.00	608.8	2.7	785.5	2.9	-0.67	-0.70	1.51	1.52	Lower Pliocene 2
22	111.00	1353	88365.91	303.2	2.4	209.5	2.3	2.73	1.83	9.30	5.83	Middle Miocene 1
12	270.00	1500	209481.96	732.9	2.8	700.0	2.8	0.25	0.02	1.48	1.18	Middle Miocene 2
47	132.00	1500	64523.61	357.3	2.5	285.6	2.5	2.99	1.58	12.00	5.93	Middle Pleistocene
251	80.00	1300	67716.64	328.9	2.4	242.0	2.4	1.85	0.60	5.91	2.73	Modern
10	140.00	2100	602611.21	948.9	2.8	916.0	2.9	0.26	-0.22	1.49	1.29	Upper Miocene 1
29	112.00	1540	151273.27	437.3	2.5	250.0	2.4	1.79	0.99	4.91	3.08	Upper Miocene 2
10	107.00	1170	161993.40	442.6	2.5	236.5	2.4	1.14	0.51	2.68	1.95	Upper Miocene 3
46	102.44	1250	69637.75	438.4	2.6	331.1	2.5	1.30	0.29	3.89	2.69	Upper Pleistocene
20	165.00	1600	269797.71	636.6	2.7	440.5	2.6	0.96	0.29	2.38	1.78	Upper Pliocene
315	102.44	2500	201552.14	490.5	2.6	284.9	2.5	2.00	0.75	7.16	2.58	NA
251	80.00	1300	67716.64	328.9	2.4	242.0	2.4	1.85	0.60	5.91	2.73	NA
427	81.00	2500	139760.69	374.3	2.5	247.0	2.4	2.89	1.11	12.51	4.01	NA
139	80.00	2000	151260.27	555.7	2.6	466.0	2.7	1.08	-0.24	4.33	2.01	NA
271	102.44	2500	195154.86	450.4	2.5	270.0	2.4	2.27	1.04	8.36	3.17	NA
44	140.00	2000	174122.42	737.0	2.8	694.5	2.8	1.34	-0.48	4.99	3.50	NA
156	81.00	830	16385.92	241.9	2.3	220.5	2.3	1.97	0.29	8.59	3.02	NA
95	80.00	1300	119898.26	471.7	2.6	351.0	2.5	0.82	0.02	2.44	1.75	NA
140	80.00	1446	92601.87	337.4	2.4	193.5	2.3	1.69	0.64	5.04	2.35	NA

nCL	min	max	var	mean	logm	med	logmed	skew	logsk	kurt	logku	EpochBins
229	102.44	1500	73371.22	402.5	2.5	300.0	2.5	1.85	0.77	6.08	2.97	NA
48	140.00	2100	290958.22	510.7	2.6	272.5	2.4	1.84	1.25	4.90	3.21	NA
149	107.00	2500	259601.48	490.8	2.5	245.0	2.4	1.92	0.80	6.66	2.33	NA

Boxplots

genera per time bins

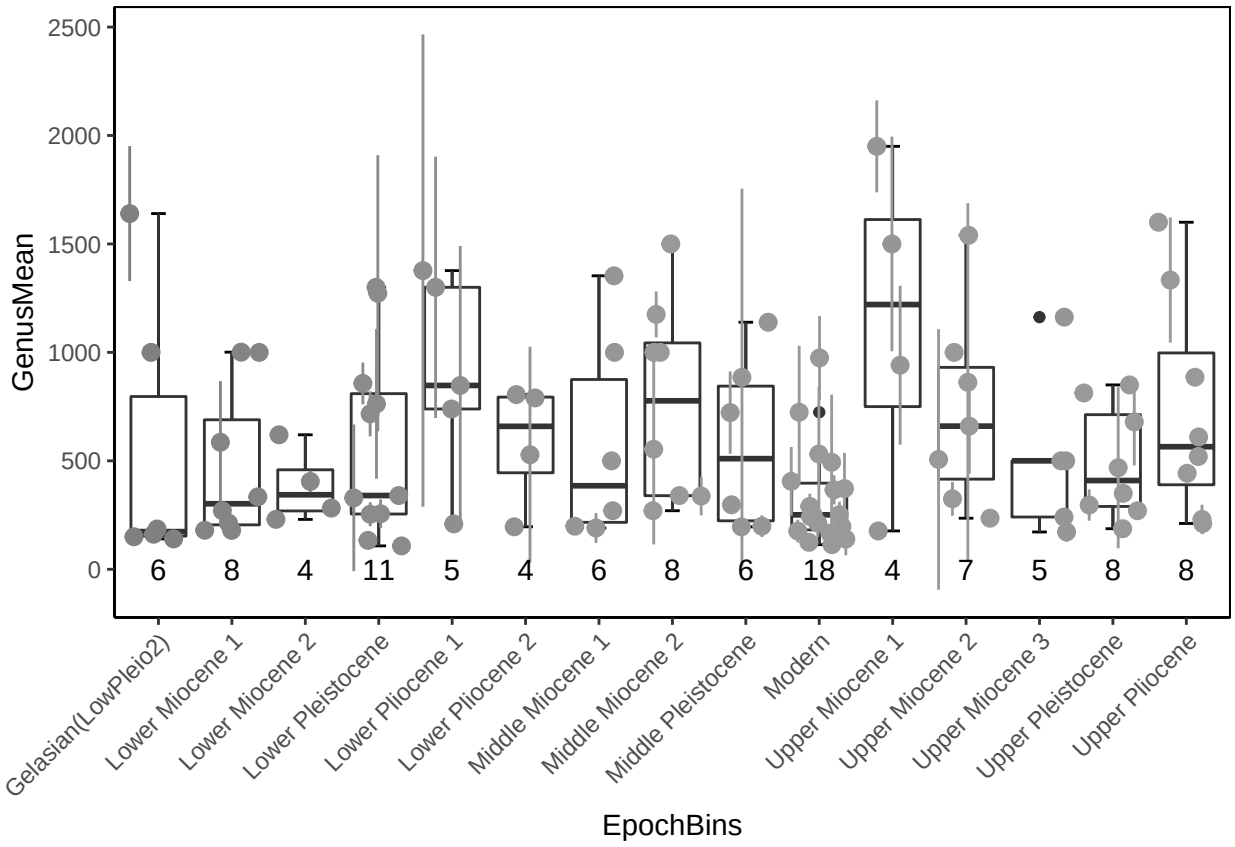


Figure 13: Boxplots of mean CL per time bin, including mean and sd CL for each genus (as pointrange).

continental vs. insular per time bin

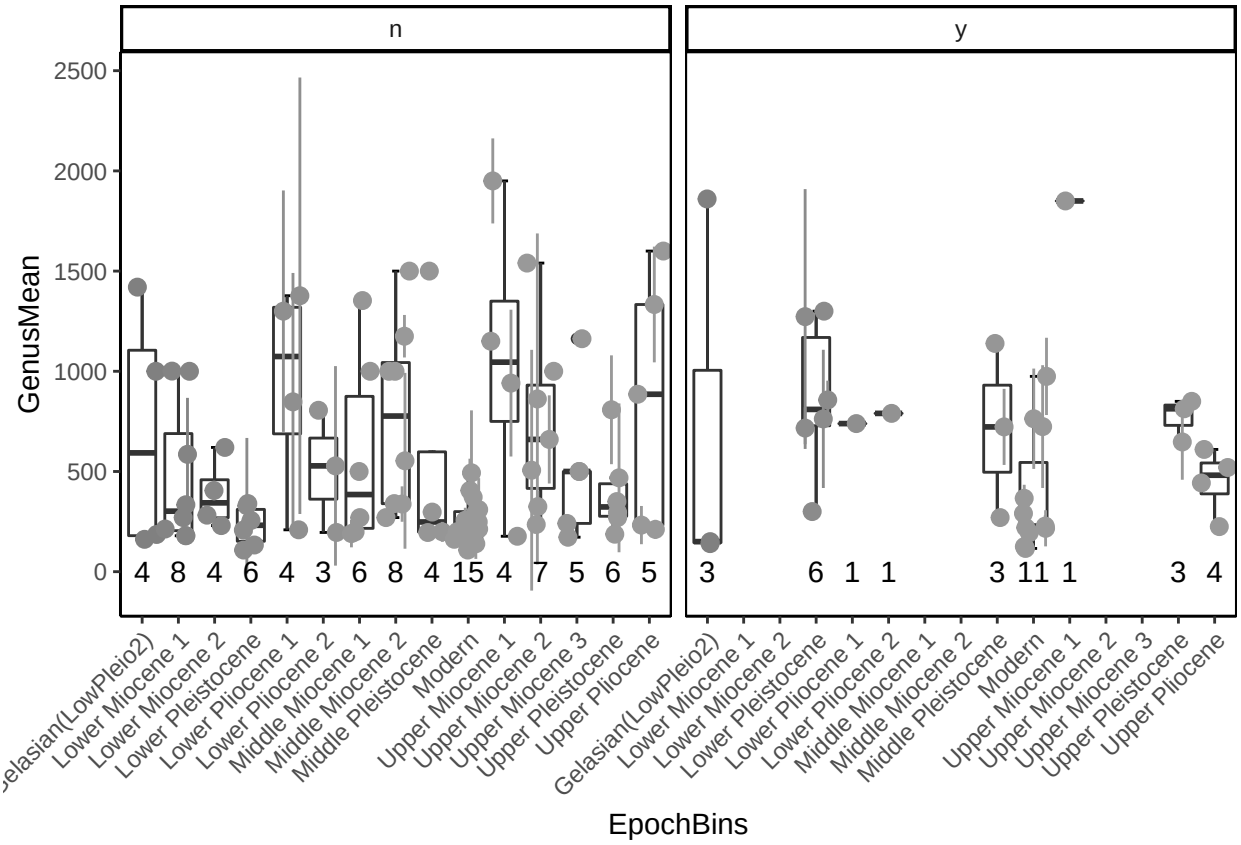


Figure 14: Boxplots of each genus per time bin, continental vs. insular species.

fossil vs. modern

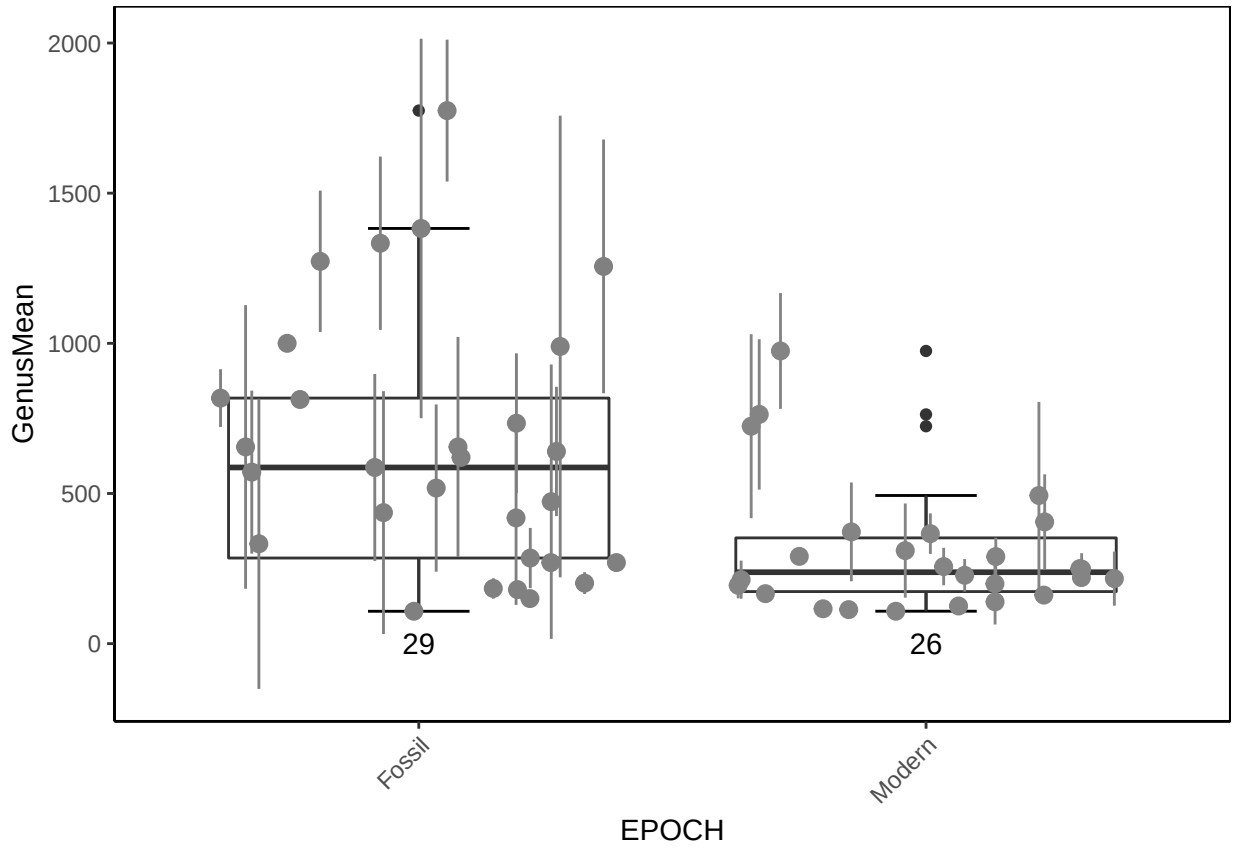


Figure 15: Boxplots fossil vs. modern.

fossil vs. modern, continental vs. insular

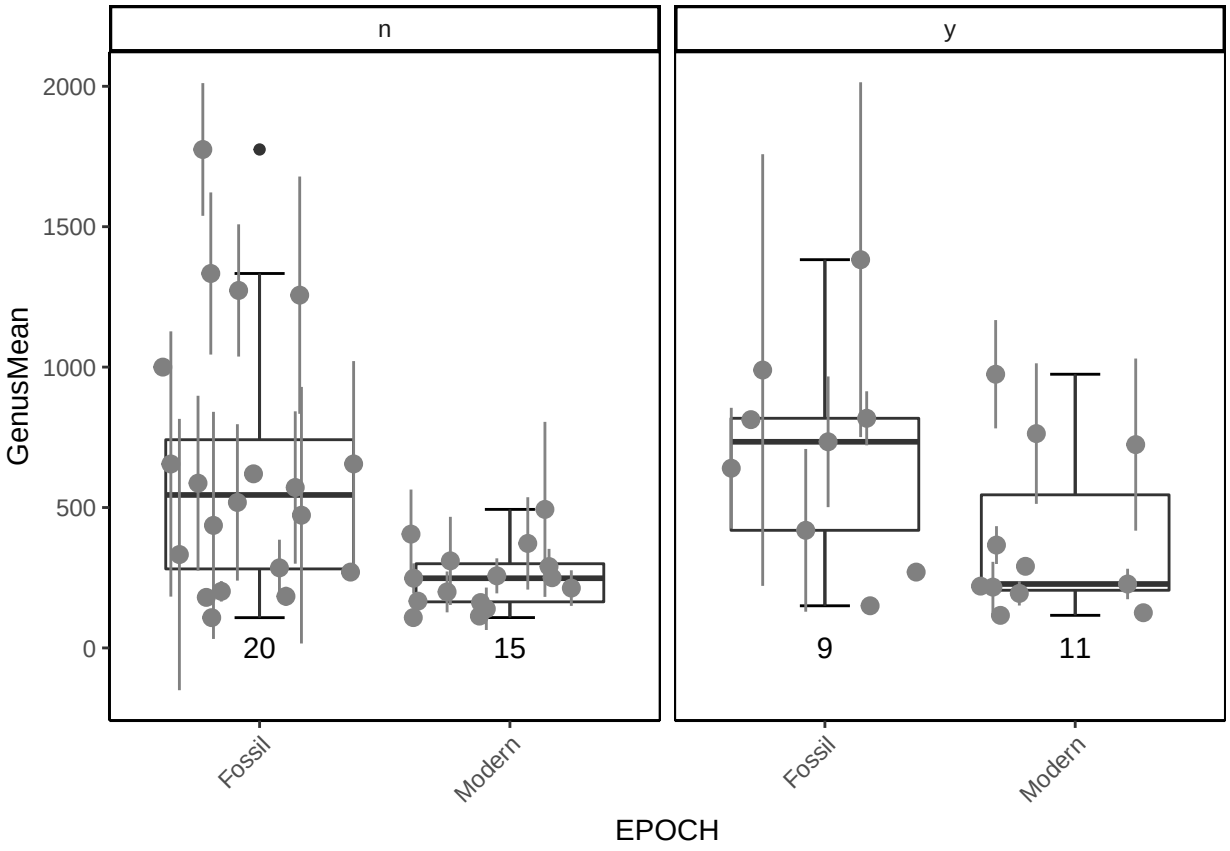


Figure 16: Boxplots fossil vs. modern, continental vs. insular species.

continental vs. insular

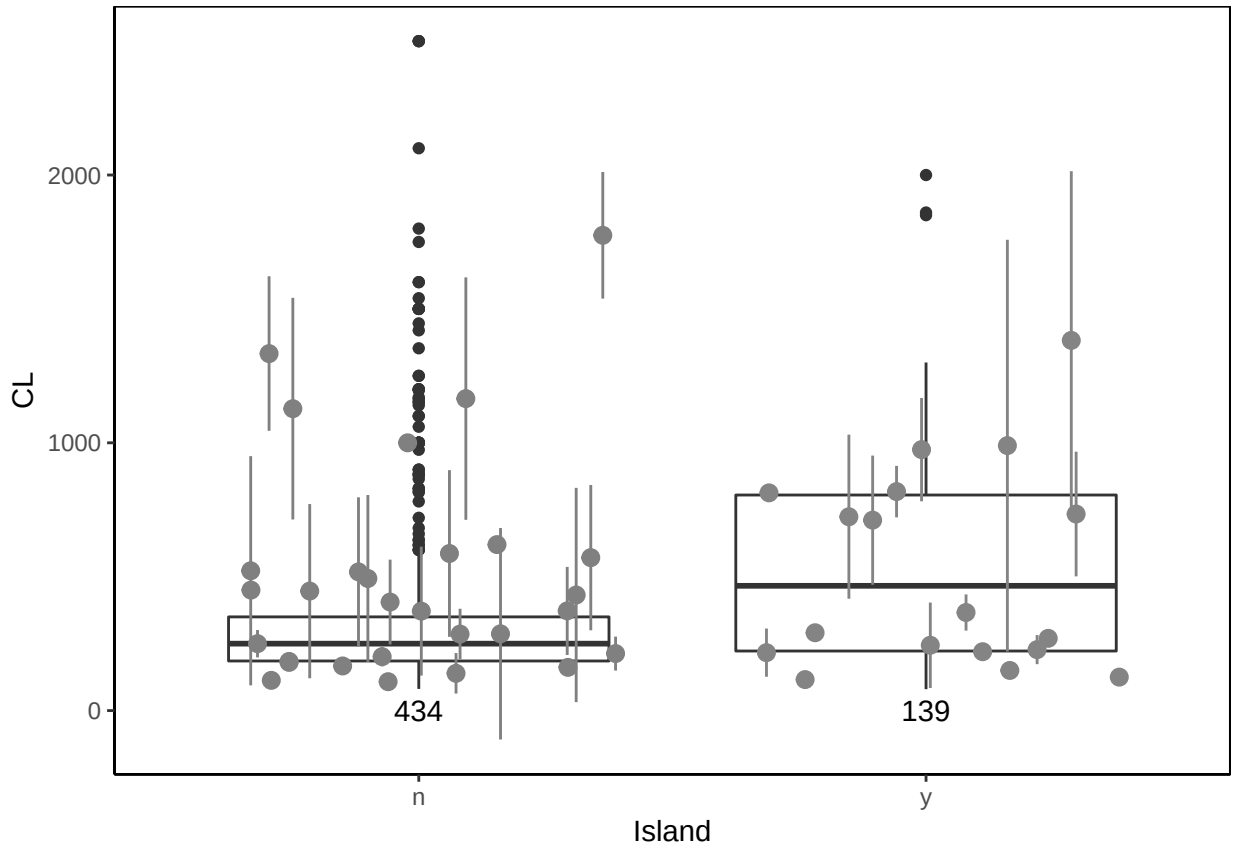


Figure 17: Boxplot continental vs. insular, genera summarised

continental vs. insular per time bin

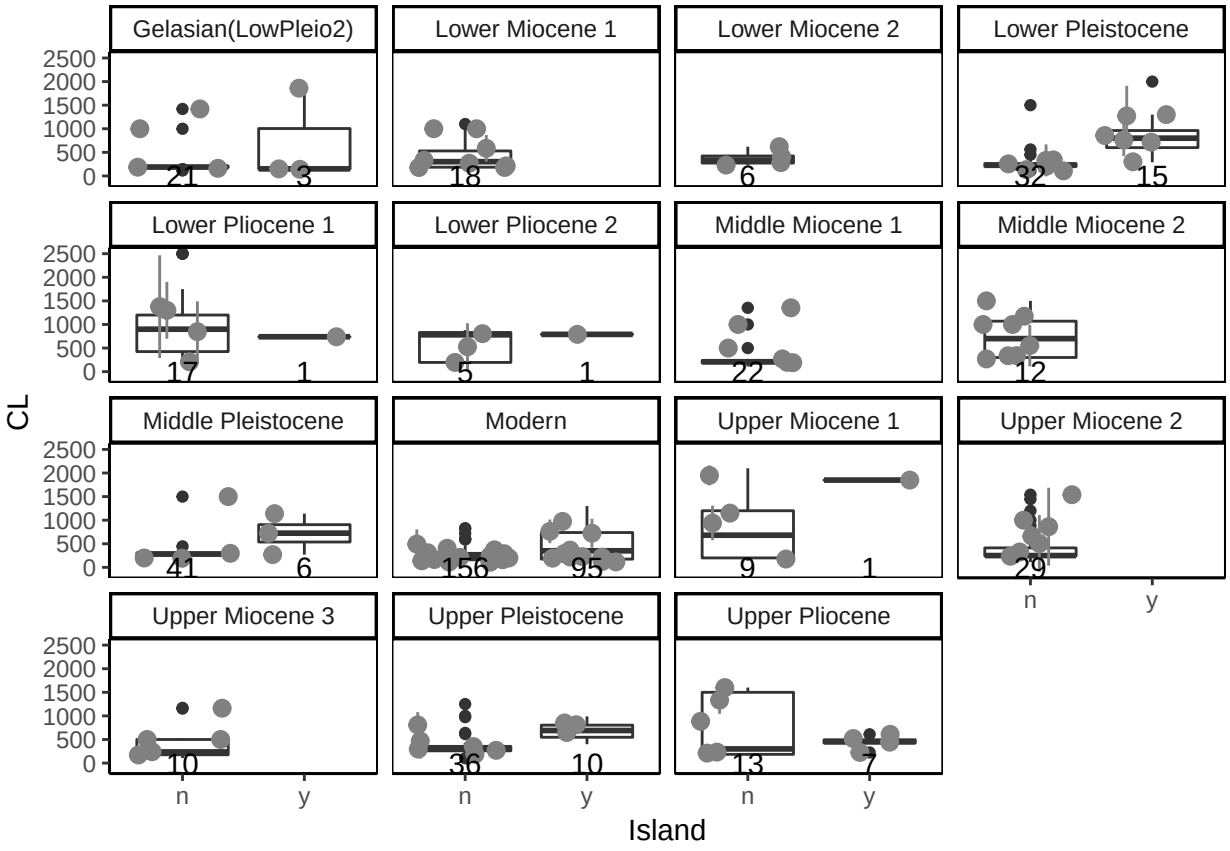


Figure 18: Boxplot continental vs. insular, genera summarised

continents

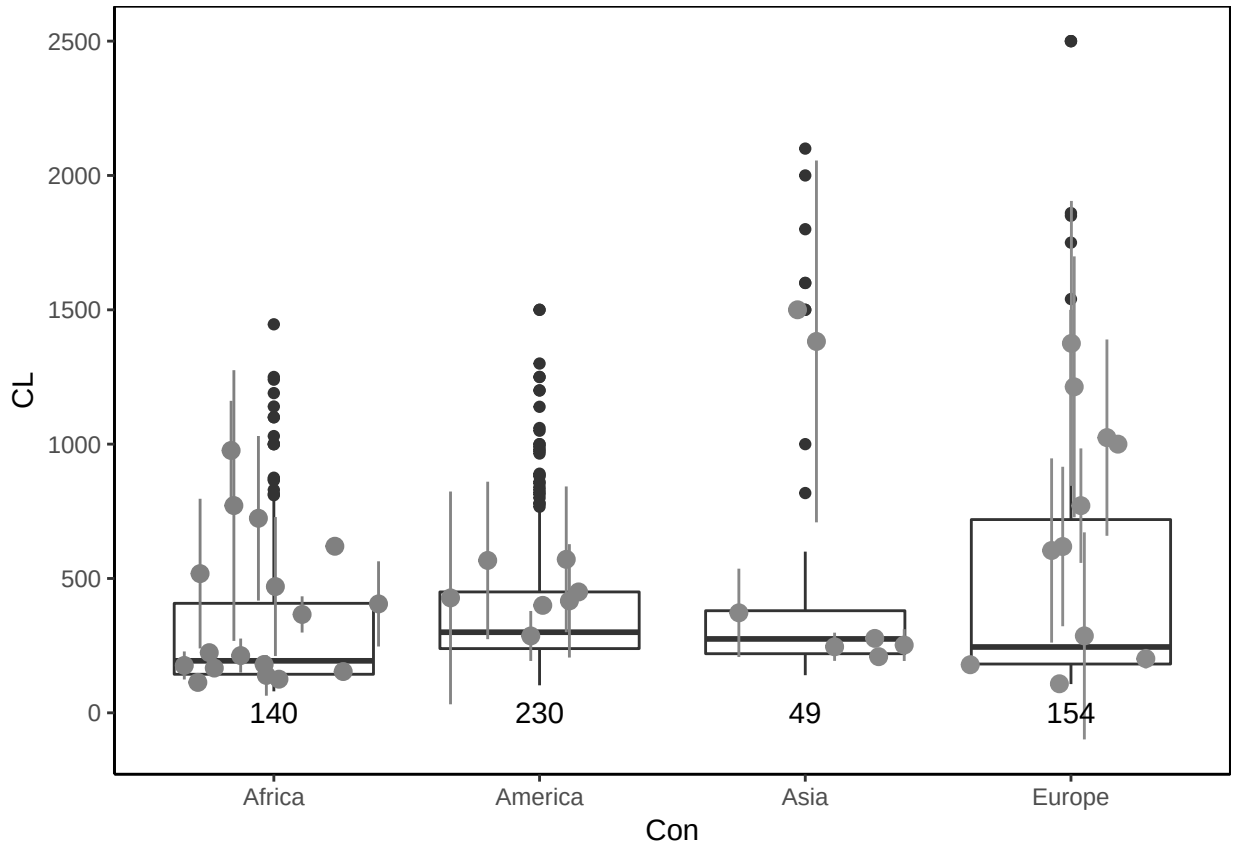


Figure 19: Boxplot: body size on different continents, genera summarised

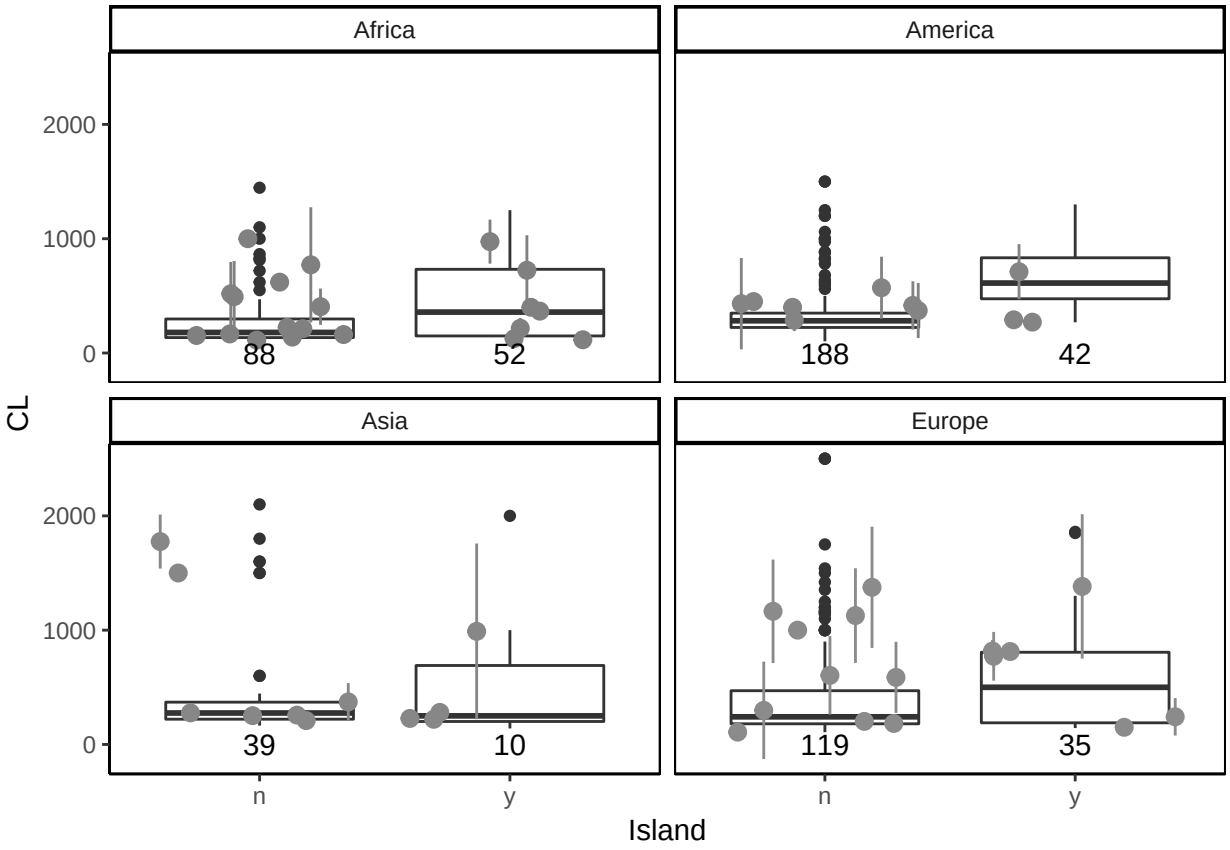


Figure 20: Boxplot: body size on different continents, genera summarised

paleoTS analysis

all (continental and insular)

individuals (all)

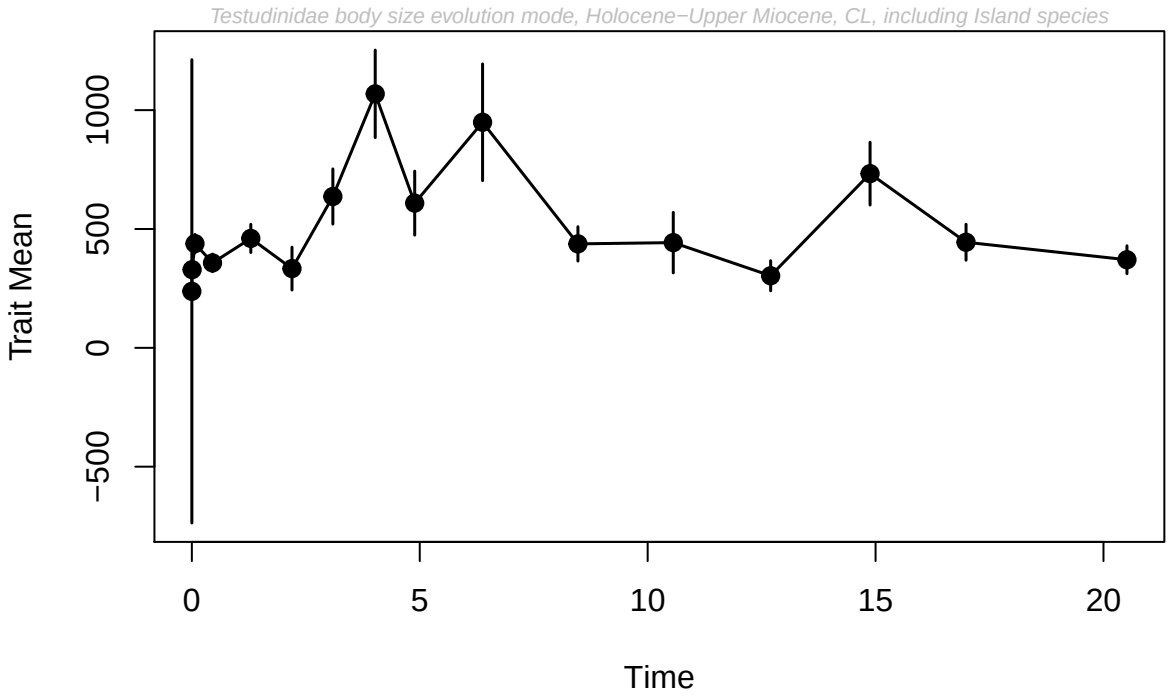


Figure 21: individuals, including island species

Table 5: Model-fitting results for testudinidae, individuals, including island species

	logL	K	AICc	Akaike.wt
GRW	-108.0611	2	221.1221	0
URW	-110.0929	1	222.4935	0
Stasis	-99.3981	2	203.7962	1

Table 6: Model-fitting results for testudinidae (4 models), individuals, including island species

	logL	K	AICc	Akaike.wt
GRW	-108.0611	2	221.1221	0.000
URW	-110.0929	1	222.4935	0.000
Stasis	-99.3981	2	203.7962	0.985
StrictStasis	-104.9433	1	212.1943	0.015

species (all)

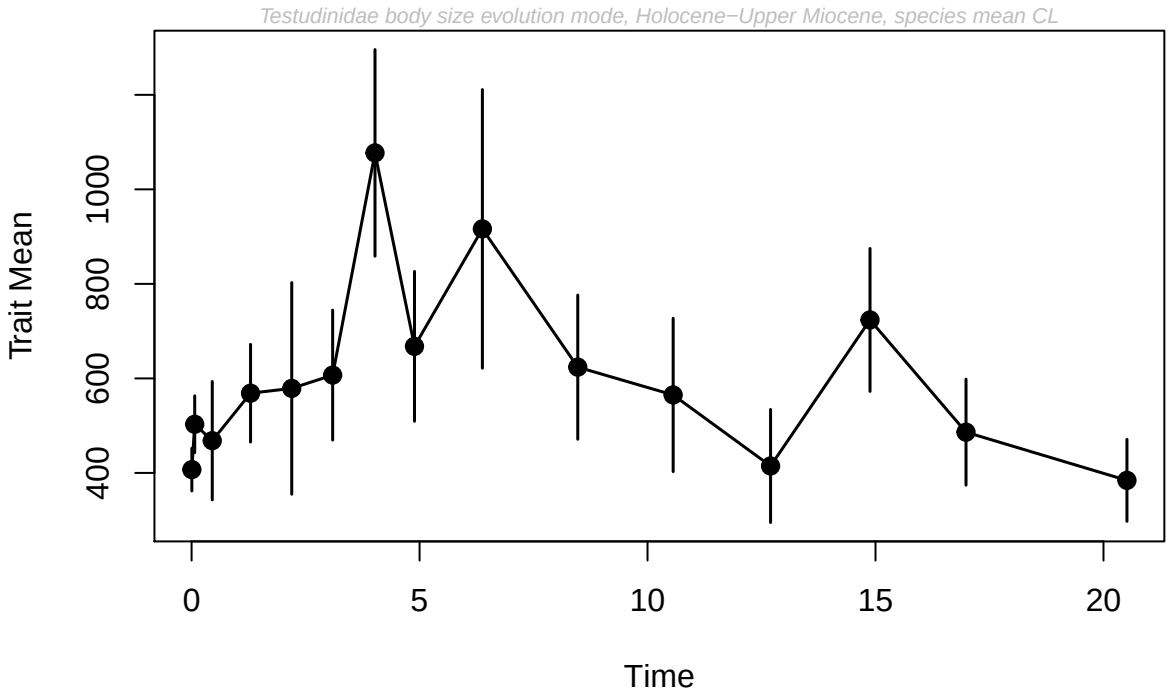


Figure 22: paleoTS plot with species mean, including island species

Table 7: Model-fitting results for testudinidae, species, including island species

	logL	K	AICc	Akaike.wt
GRW	-94.21080	2	193.5125	0.012
URW	-94.88189	1	192.0971	0.025
Stasis	-89.83548	2	184.7619	0.963

Table 8: Model-fitting results for testudinidae (4 models), species, including island species

	logL	K	AICc	Akaike.wt
GRW	-94.21080	2	193.5125	0.003
URW	-94.88189	1	192.0971	0.005
Stasis	-89.83548	2	184.7619	0.200
StrictStasis	-89.83548	1	182.0043	0.793

genera (all)

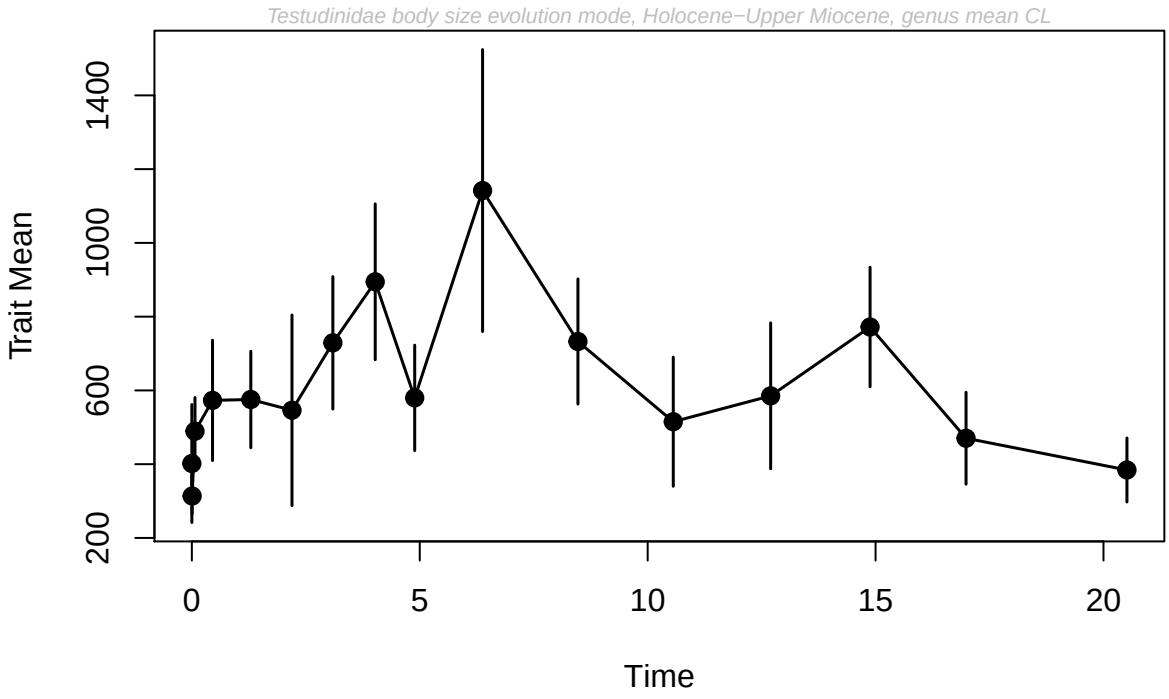


Figure 23: paleoTS plot with genus mean, including island species

Table 9: Model-fitting results for testudinidae, genera, including island species

	logL	K	AICc	Akaike.wt
GRW	-101.51384	2	208.0277	0.087
URW	-101.95549	1	206.2187	0.215
Stasis	-99.43342	2	203.8668	0.698

Table 10: Model-fitting results for testudinidae (4 models), genera, including island species

	logL	K	AICc	Akaike.wt
GRW	-101.51384	2	208.0277	0.083
URW	-101.95549	1	206.2187	0.204
Stasis	-99.43342	2	203.8668	0.662
StrictStasis	-103.34048	1	208.9887	0.051

continental (excluding insular species)

individuals (continental)

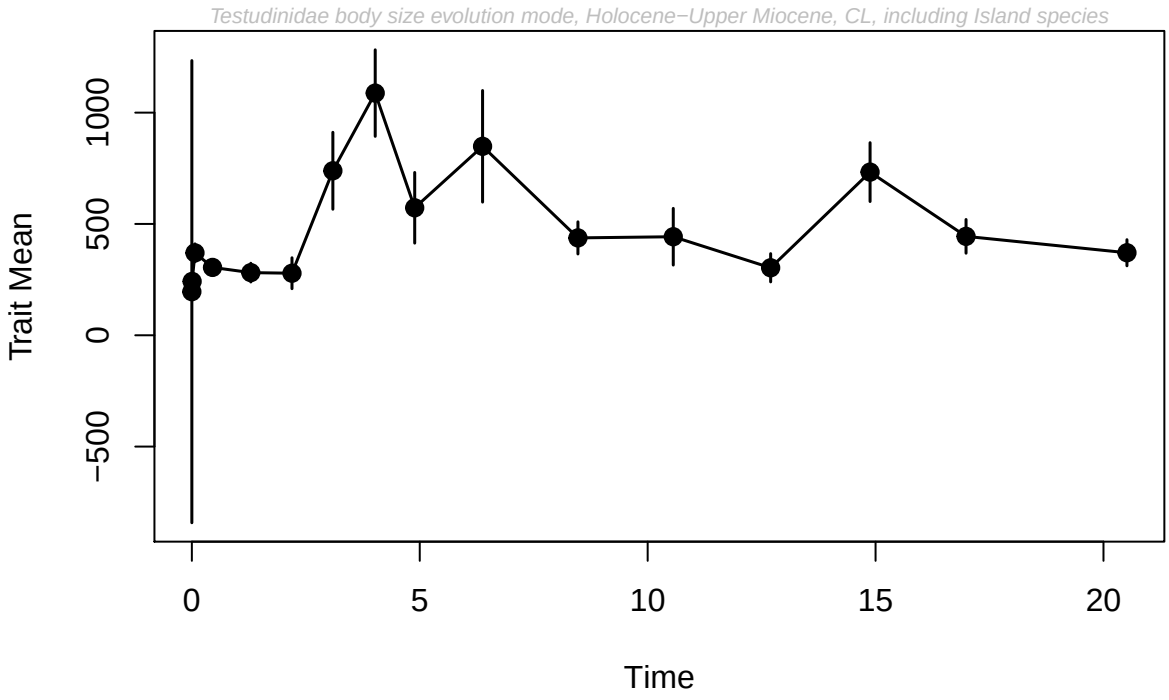


Figure 24: individuals, excluding island species

Table 11: Model-fitting results for testudinidae, individuals, excluding island species

	logL	K	AICc	Akaike.wt
GRW	-108.8712	2	222.7424	0.001
URW	-109.1051	1	220.5179	0.004
Stasis	-102.2252	2	209.4504	0.995

Table 12: Model-fitting results for testudinidae (4 models), individuals, excluding island species

	logL	K	AICc	Akaike.wt
GRW	-108.8712	2	222.7424	0.001
URW	-109.1051	1	220.5179	0.004
Stasis	-102.2252	2	209.4504	0.995
StrictStasis	-117.2903	1	236.8882	0.000

species (continental)

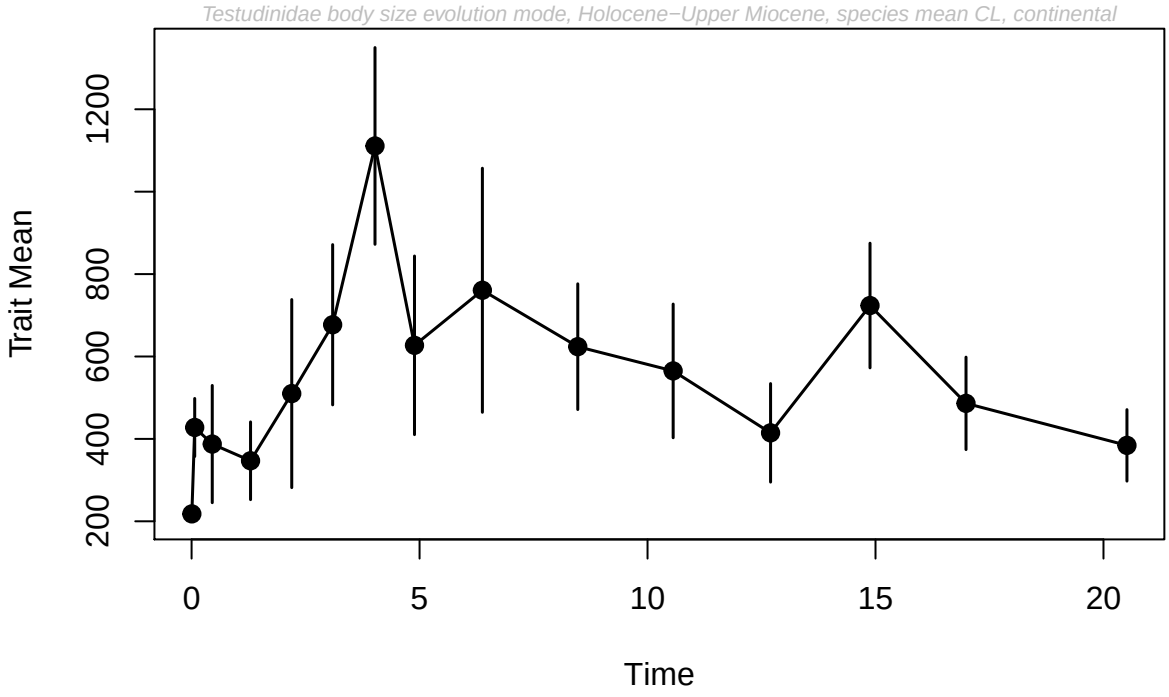


Figure 25: paleoTS plot with species mean, excluding island species

Table 13: Model-fitting results for testudinidae, species, excluding island species

	logL	K	AICc	Akaike.wt
GRW	-97.35309	2	199.7971	0.004
URW	-97.72768	1	197.7887	0.010
Stasis	-91.78052	2	188.6519	0.986

Table 14: Model-fitting results for testudinidae, species, excluding island species

	logL	K	AICc	Akaike.wt
GRW	-97.35309	2	199.7971	0.001
URW	-97.72768	1	197.7887	0.002
Stasis	-91.78052	2	188.6519	0.201
StrictStasis	-91.78052	1	185.8944	0.797

genera (continental)

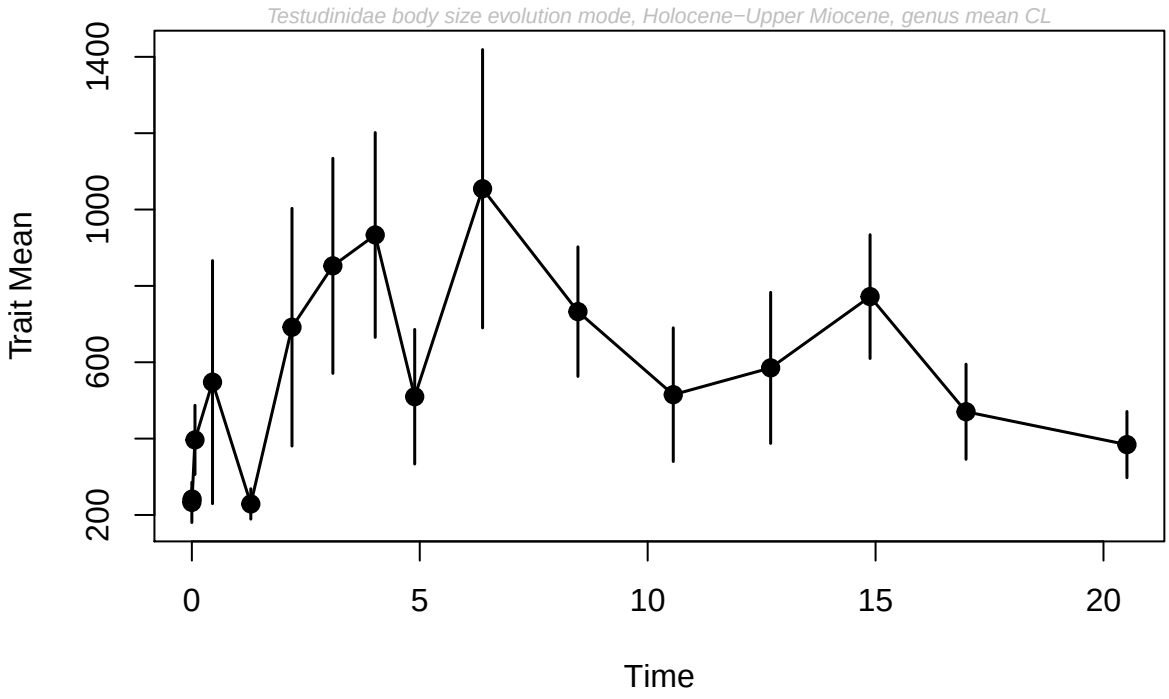


Figure 26: paleoTS plot with genus mean, excluding island species

Table 15: Model-fitting results for testudinidae, genera, excluding insular species

	logL	K	AICc	Akaike.wt
GRW	-103.2958	2	211.5916	0.251
URW	-103.9853	1	210.2784	0.484
Stasis	-103.2385	2	211.4769	0.266

Table 16: Model-fitting results for testudinidae, genera, excluding insular species

	logL	K	AICc	Akaike.wt
GRW	-103.2958	2	211.5916	0.251
URW	-103.9853	1	210.2784	0.484
Stasis	-103.2385	2	211.4769	0.266
StrictStasis	-112.5911	1	227.4899	0.000

insular (excluding continental)

individuals (insular)

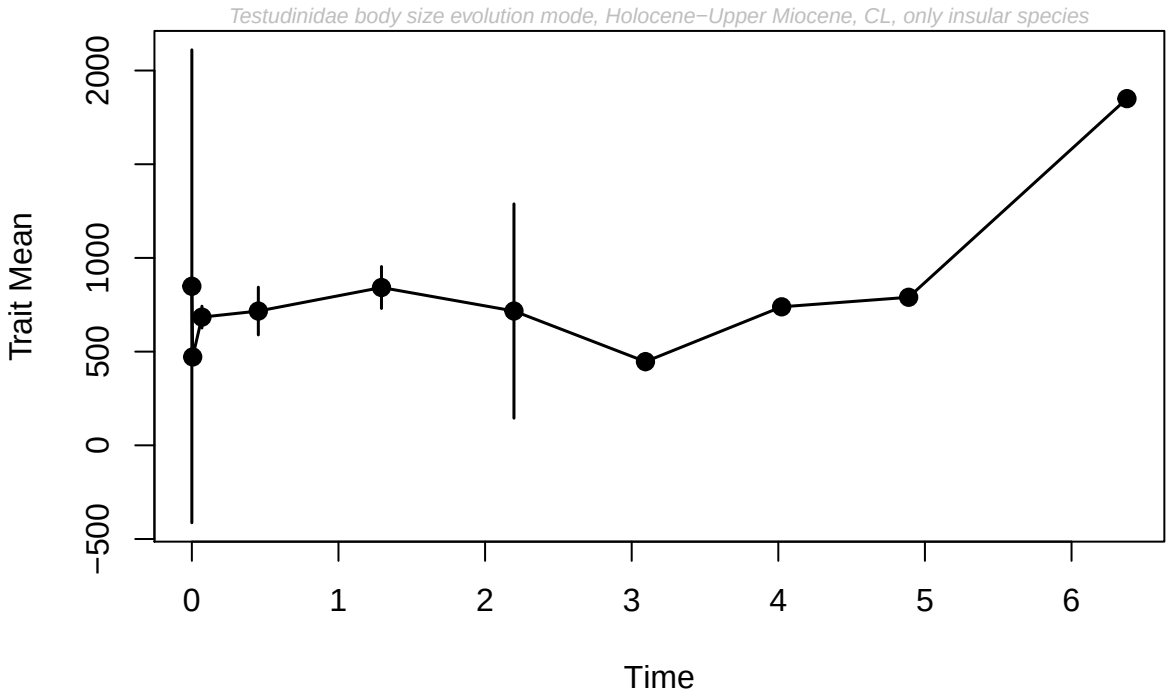


Figure 27: individuals, excluding continental species

Table 17: Model-fitting results for testudinidae, individuals, only insular species

	logL	K	AICc	Akaike.wt
GRW	-70.13930	2	146.2786	0.044
URW	-71.84375	1	146.2589	0.044
Stasis	-67.09727	2	140.1945	0.912

species (insular)

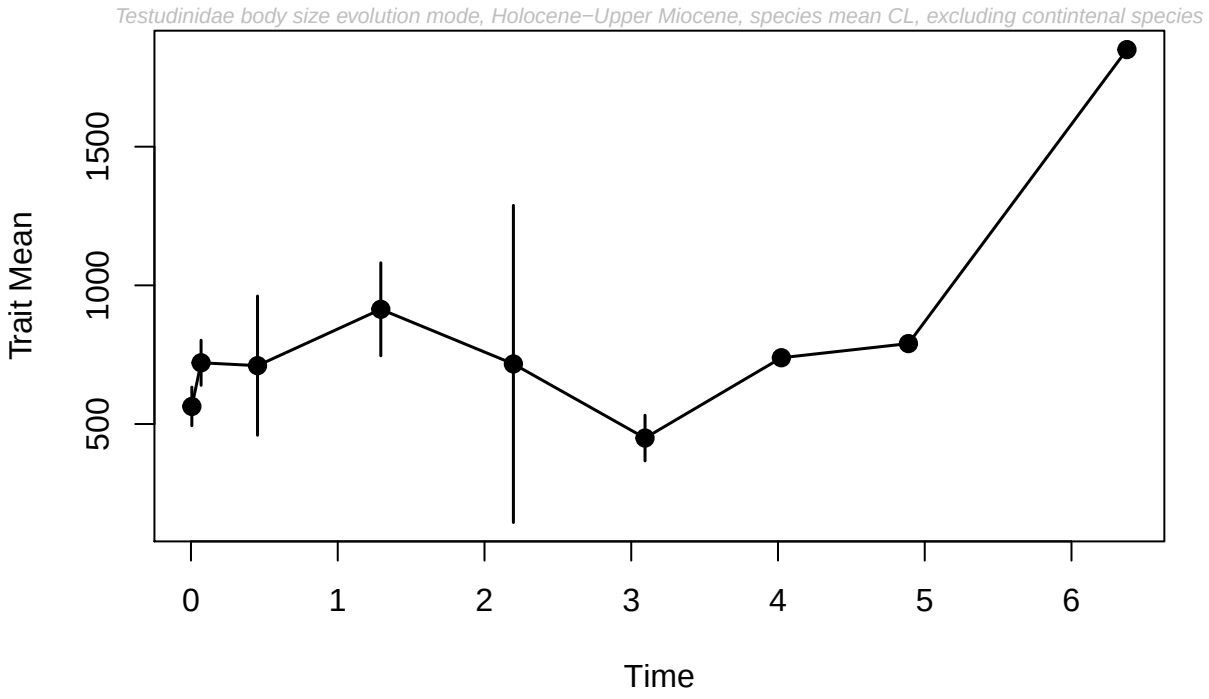


Figure 28: paleoTS plot with species mean, only insular species

Table 18: Model-fitting results for testudinidae, species, only insular species

	logL	K	AICc	Akaike.wt
GRW	-57.04948	2	120.4990	0.84
URW	-60.94771	1	124.5621	0.11
Stasis	-59.87110	2	126.1422	0.05

genera (insular)

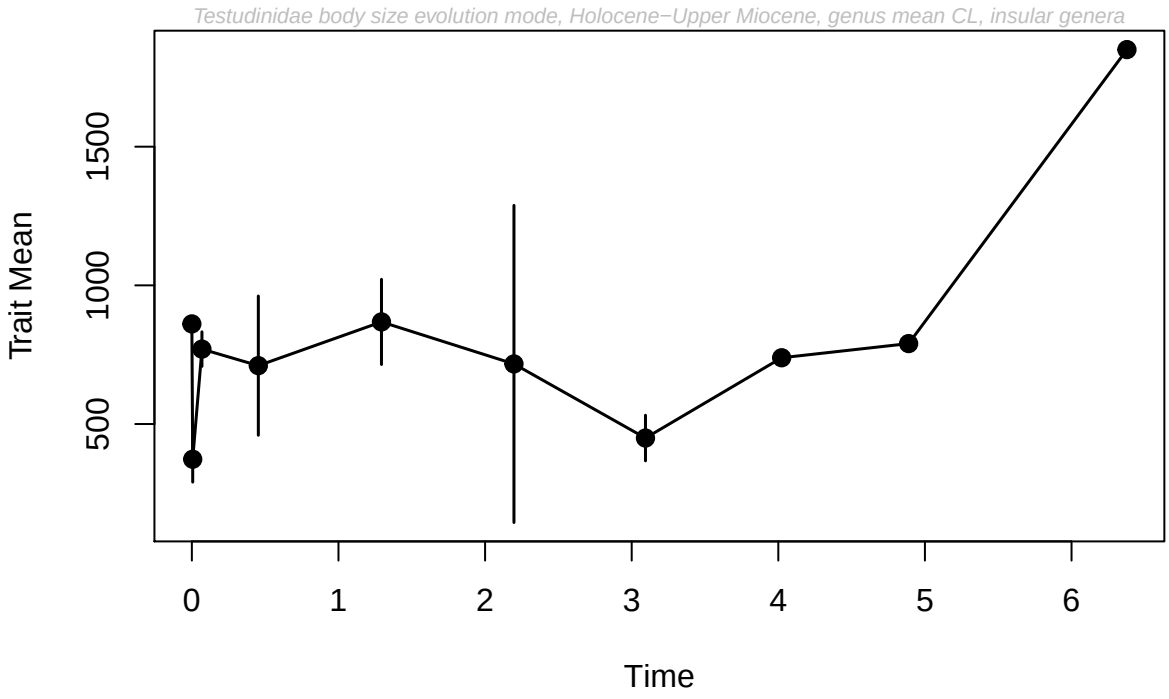


Figure 29: paleoTS plot with genus mean, only insular species

Table 19: Model-fitting results for testudinidae, genera, only insular species

	logL	K	AICc	Akaike.wt
GRW	-76.60847	2	159.2169	0
URW	-84.13413	1	170.8397	0
Stasis	-67.41721	2	140.8344	1

play with time bins: no bins (mean age of each sample == tt)

all

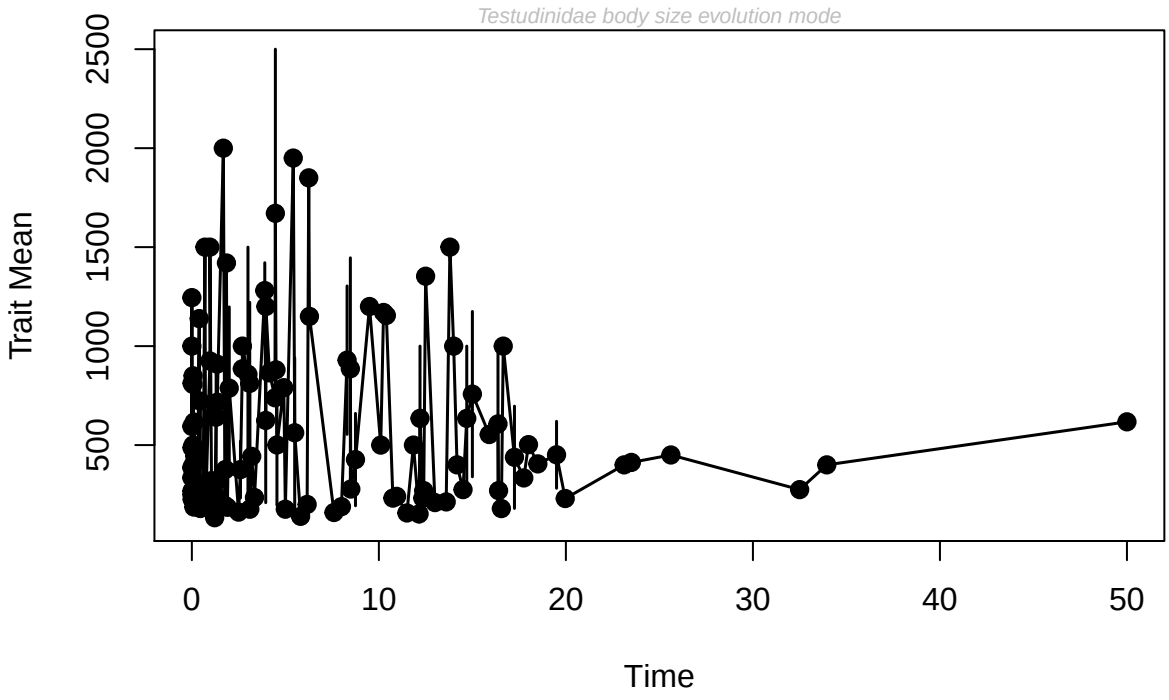


Figure 30: Mean age of each sample as time bin, genera

Table 20: Model-fitting results for testudinidae, no bins, genera

	logL	K	AICc	Akaike.wt
GRW	-6948.0075	2	13900.126	0
URW	-8243.1398	1	16488.316	0
Stasis	-885.7773	2	1775.666	1

continental (no bins)

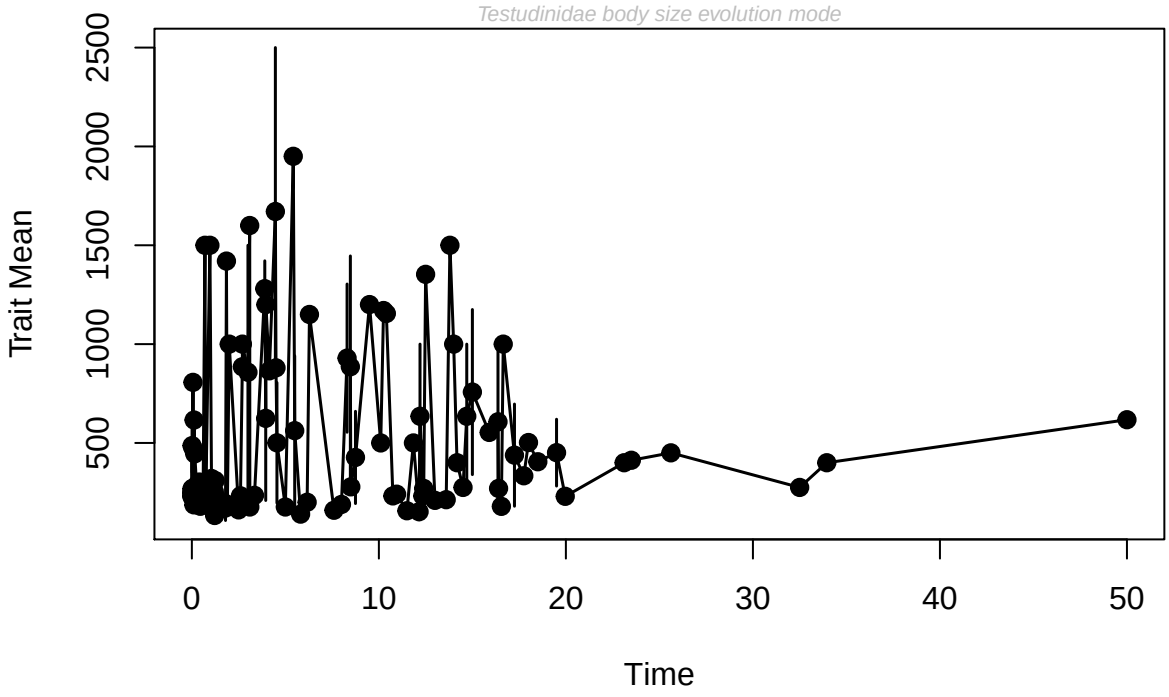


Figure 31: Mean age of each sample as time bin, genera, continental

Table 21: Model-fitting results for testudinidae, no bins, genera, continental

	logL	K	AICc	Akaike.wt
GRW	-782.8522	2	1569.836	0
URW	-782.8541	1	1567.752	0
Stasis	-704.9241	2	1413.980	1

insular (no bins)

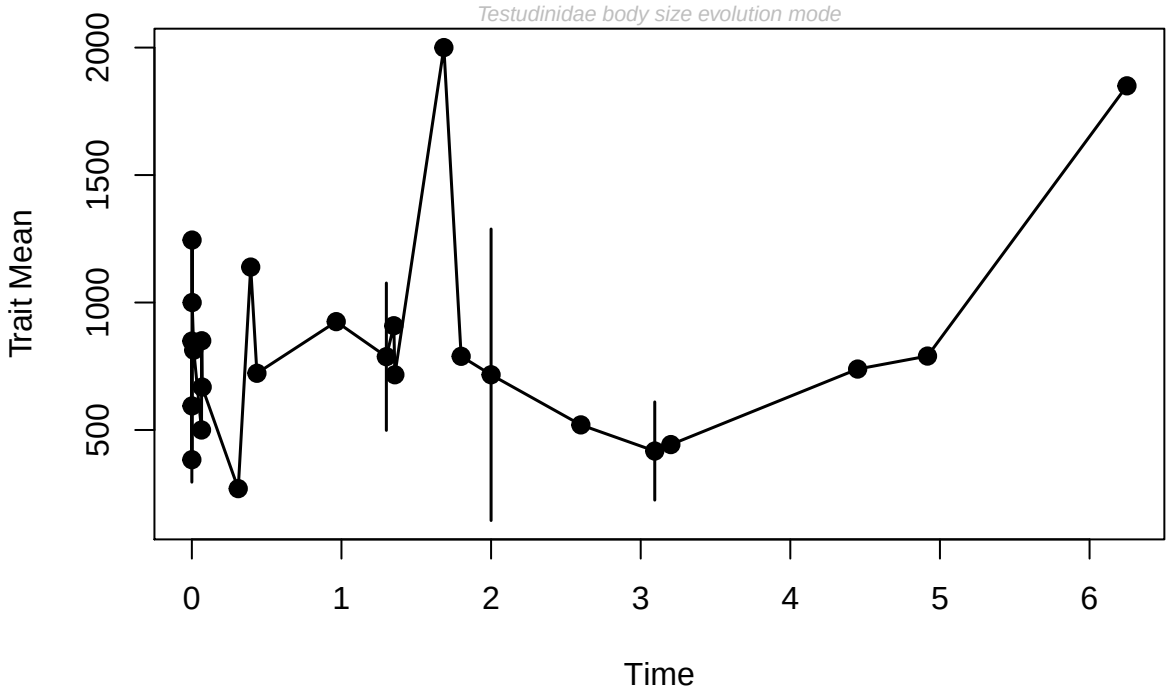


Figure 32: Mean age of each sample as time bin, genera, insular

Table 22: Model-fitting results for testudinidae, no bins, genera, insular

	logL	K	AICc	Akaike.wt
GRW	-3723.151	2	7450.8734	0
URW	-11230.978	1	22464.1373	0
Stasis	-187.450	2	379.4714	1

Equal time bins

individuals (equal bins)

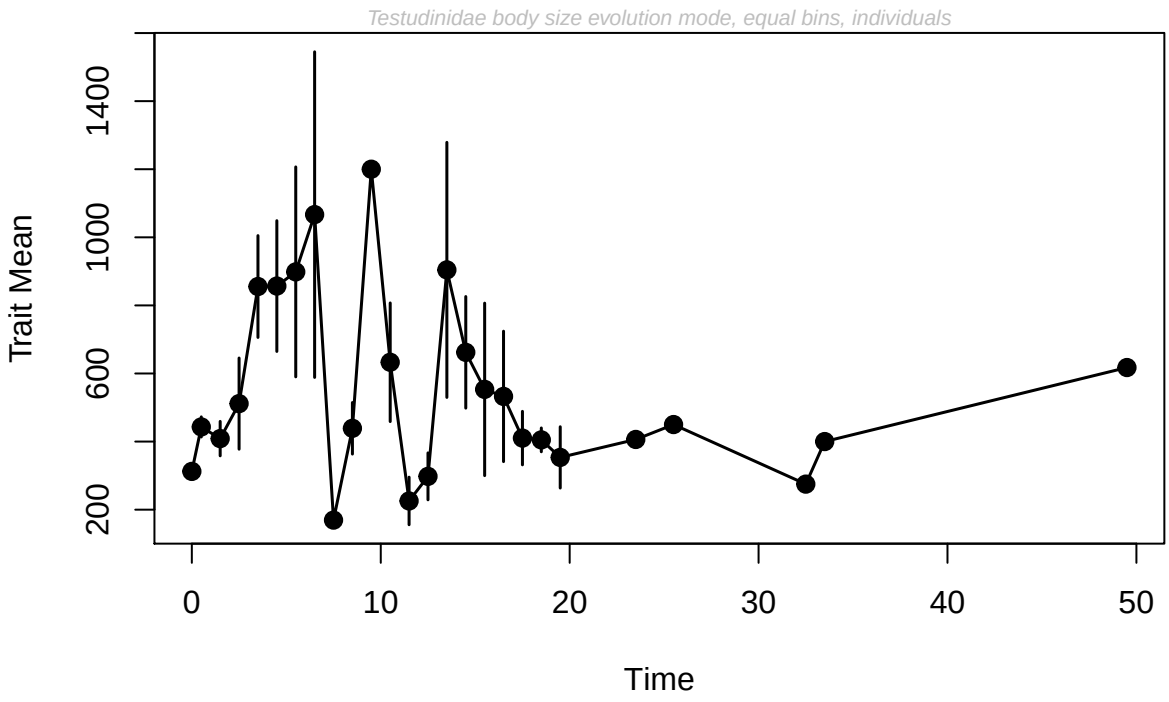


Figure 33: Equal bins, individuals

Table 23: Model-fitting results for testudinidae, equal time bins, individuals

	logL	K	AICc	Akaike.wt
GRW	-181.0860	2	366.7174	0.001
URW	-182.5837	1	367.3413	0.001
Stasis	-174.2101	2	352.9656	0.998

species (equal bins)

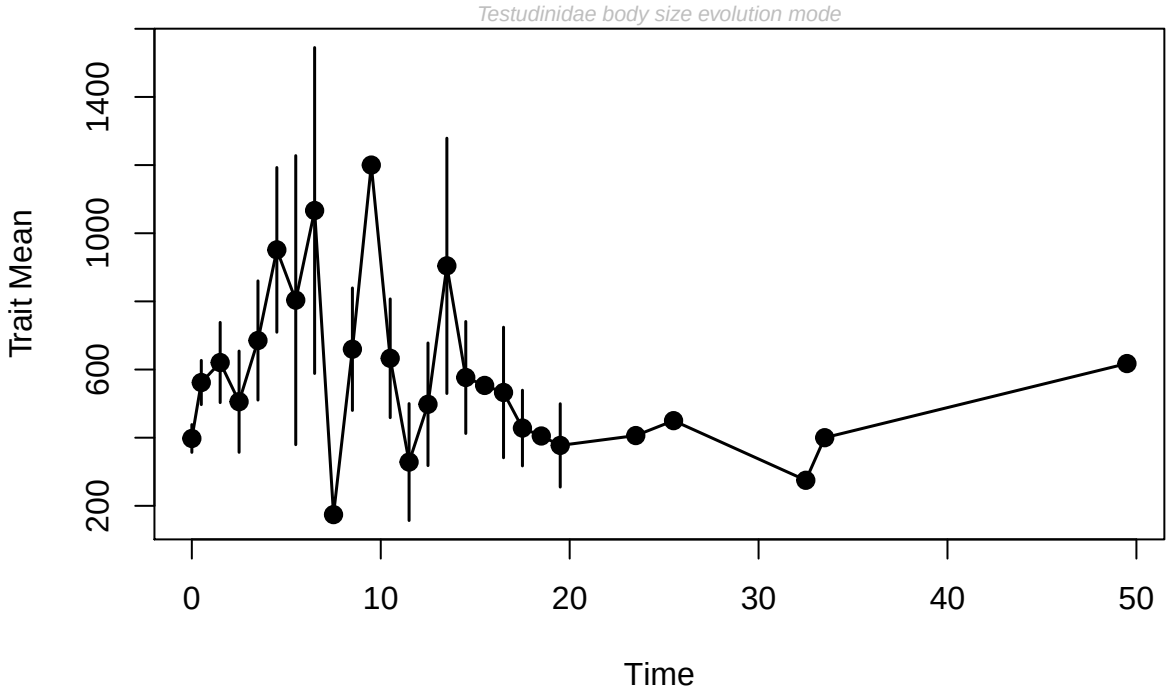


Figure 34: Equal bins, species

Table 24: Model-fitting results for testudinidae, equal time bins, species

	logL	K	AICc	Akaike.wt
GRW	-177.3909	2	359.3272	0.011
URW	-178.7626	1	359.6991	0.010
Stasis	-172.9454	2	350.4363	0.979

genera (equal bins)

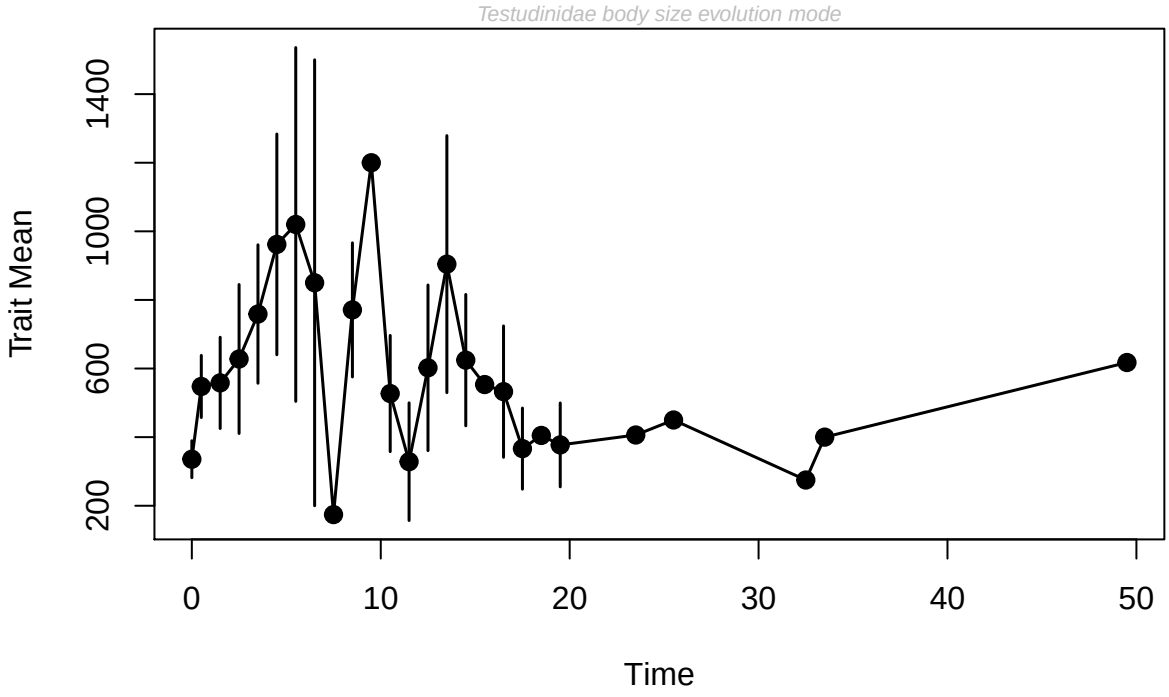


Figure 35: Equal bins, genera

Table 25: Model-fitting results for testudinidae, equal time bins, genera

	logL	K	AICc	Akaike.wt
GRW	-179.4504	2	363.4462	0.008
URW	-178.8180	1	359.8099	0.051
Stasis	-174.7233	2	353.9921	0.940

larger equal bins

genera (larger equal bins)

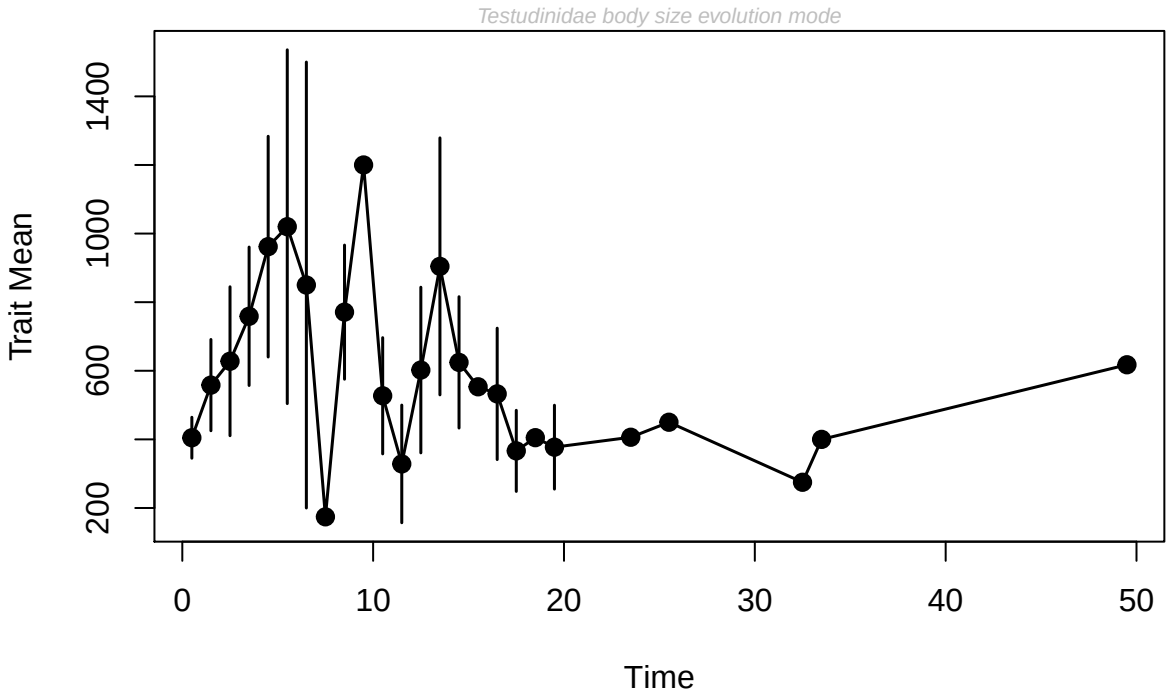


Figure 36: Larger equal bins, genera

Table 26: Model-fitting results for testudinidae, larger equal time bins, genera

	logL	K	AICc	Akaike.wt
GRW	-172.6279	2	349.8272	0.036
URW	-172.9972	1	348.1763	0.082
Stasis	-169.4260	2	343.4234	0.882

per continent

Africa, individuals

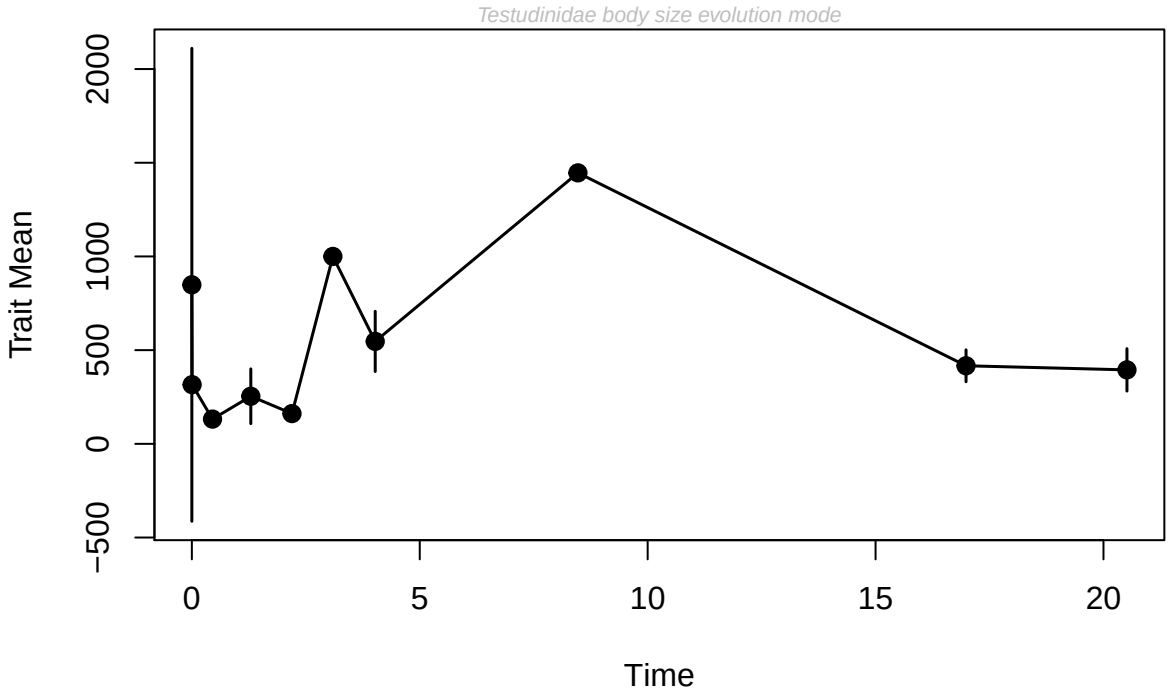


Figure 37: Africa, individuals

Table 27: Model-fitting results for testudinidae, individuals, Africa

	logL	K	AICc	Akaike.wt
GRW	-78.43610	2	162.8722	0
URW	-81.12817	1	164.8278	0
Stasis	-67.24042	2	140.4808	1

Africa, no bins, individuals

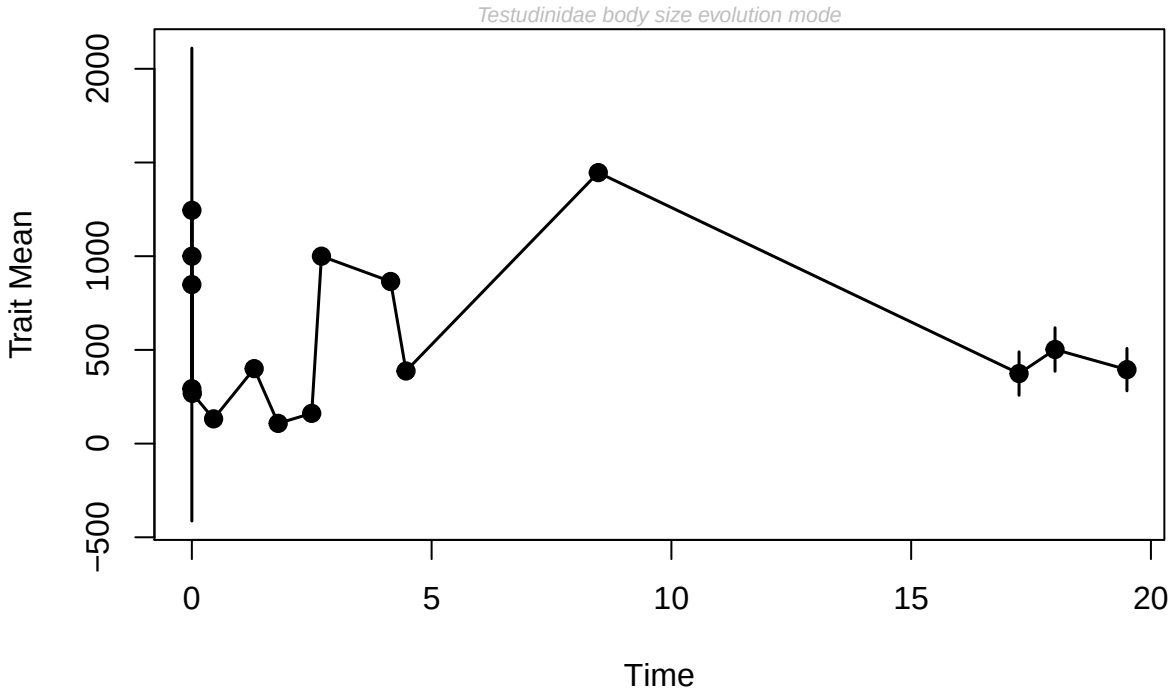


Figure 38: Africa, individuals, no bins

Table 28: Model-fitting results for testudinidae, individuals, no bins, Africa

	logL	K	AICc	Akaike.wt
GRW	-1025.9662	2	2056.9323	0
URW	-2572.3987	1	5147.1052	0
Stasis	-130.7568	2	266.5135	1

Africa, no bins, genera

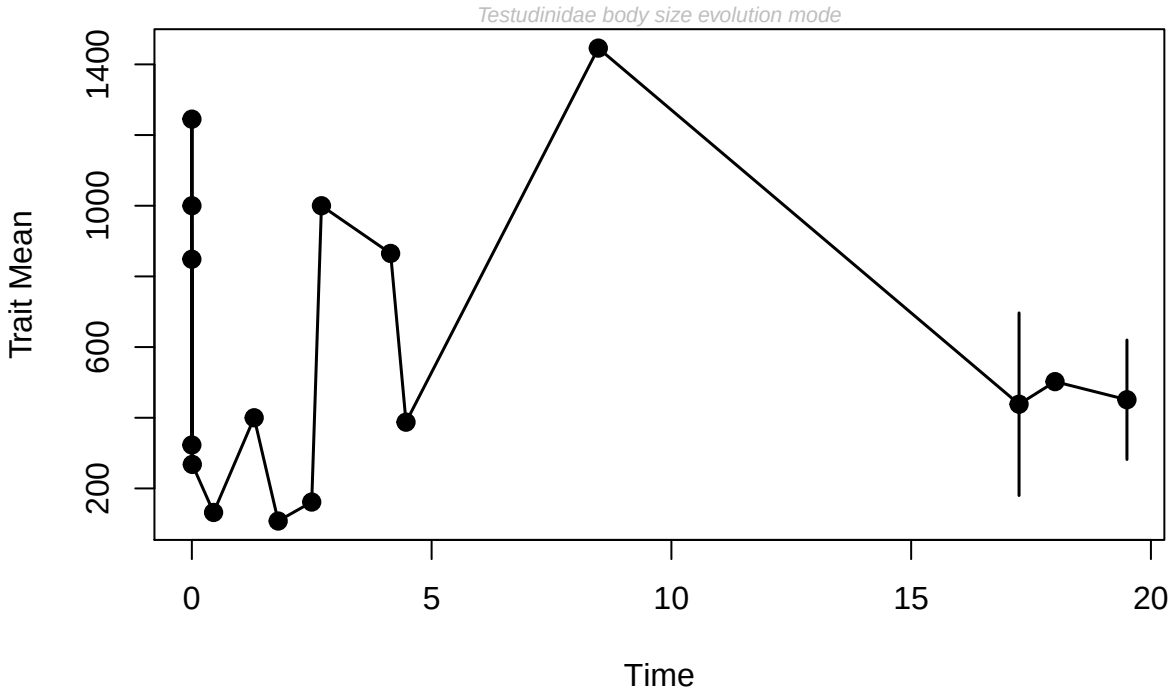


Figure 39: Mean age of each sample as time bin, genera, Africa

Table 29: Model-fitting results for testudinidae, no bins, genera

	logL	K	AICc	Akaike.wt
GRW	-221.6685	2	448.3369	0
URW	-167.7116	1	337.7309	0
Stasis	-111.6921	2	228.3842	1

Europe, individuals

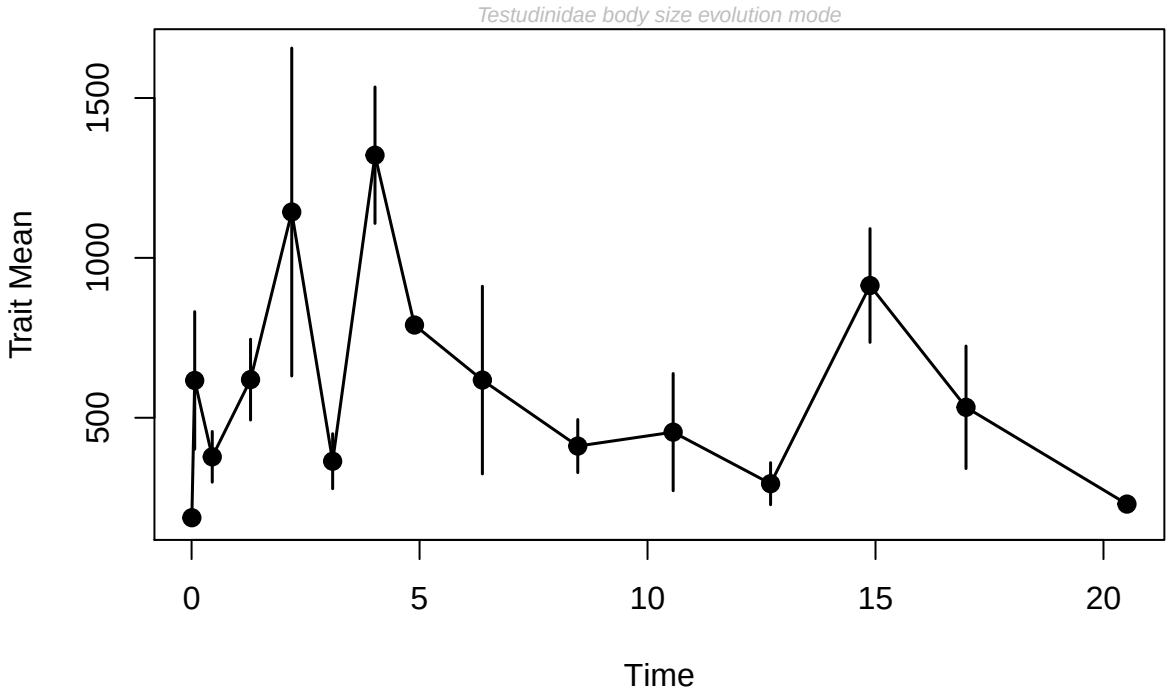


Figure 40: Europe, individuals

Table 30: Model-fitting results for testudinidae, individuals, Europe

	logL	K	AICc	Akaike.wt
GRW	-107.36295	2	219.8168	0.000
URW	-107.36369	1	217.0607	0.001
Stasis	-99.36654	2	203.8240	0.998

Europe, no bins, individuals

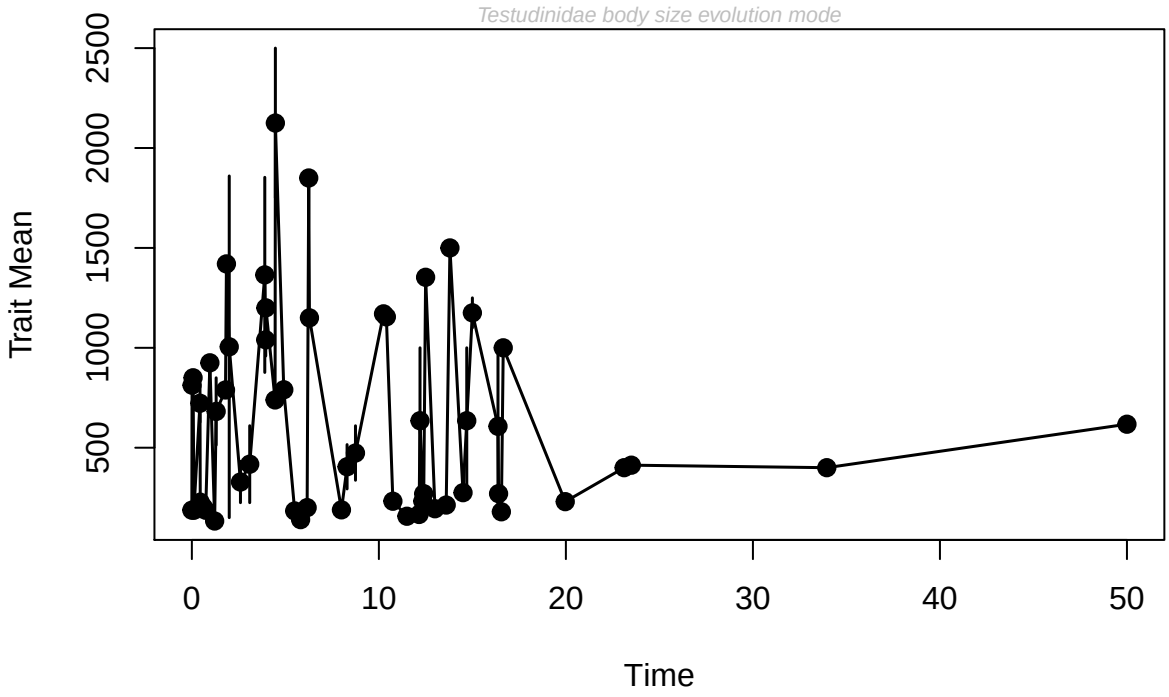


Figure 41: Europe, individuals, no bins

Table 31: Model-fitting results for testudinidae, individuals, no bins, Europe

	logL	K	AICc	Akaike.wt
GRW	-447.9212	2	900.0777	0
URW	-447.9212	1	897.9194	0
Stasis	-409.6032	2	823.4417	1

Europe, no bins, genera

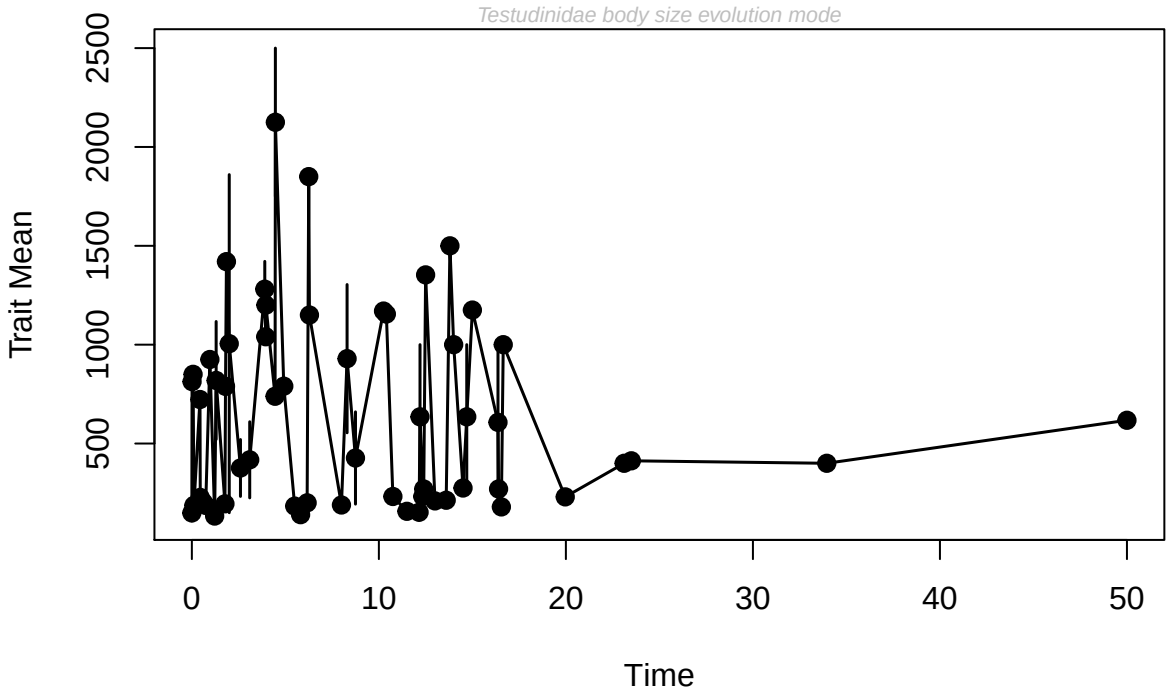
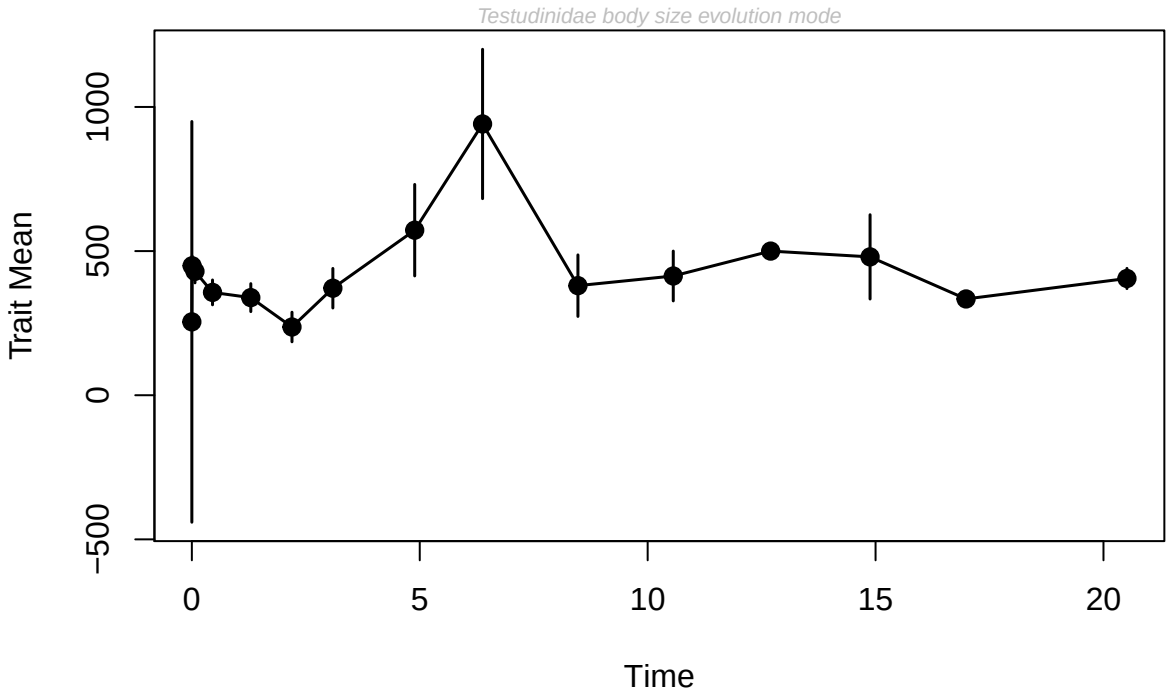


Figure 42: Mean age of each sample as time bin, genera,Europe

Table 32: Model-fitting results for testudinidae, no bins, genera

	logL	K	AICc	Akaike.wt
GRW	-872.4874	2	1749.2013	0
URW	-767.6493	1	1537.3727	0
Stasis	-457.9671	2	920.1606	1

America, individuals (2nd try)



fits don't work, no idea why

America, no bins, individuals

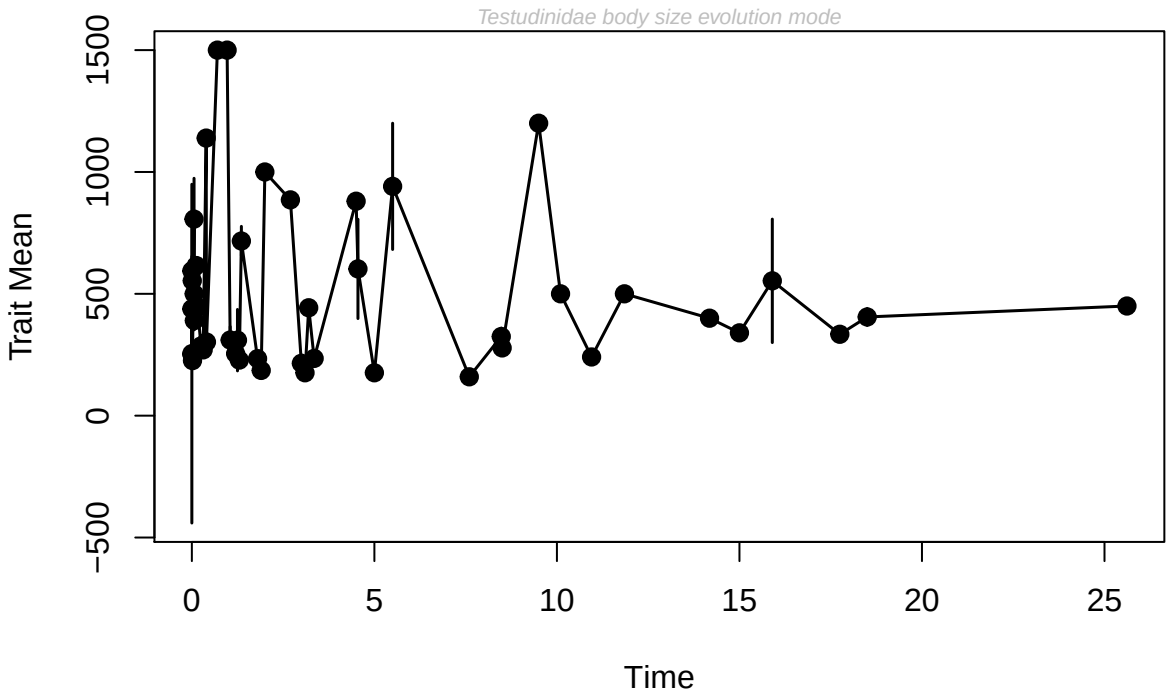


Figure 43: America, individuals, no bins

Table 33: Model-fitting results for testudinidae, individuals, no bins, America

	logL	K	AICc	Akaike.wt
GRW	-849.0212	2	1702.3215	0
URW	-765.5466	1	1533.1840	0
Stasis	-334.8158	2	673.9107	1

America, no bins, genera

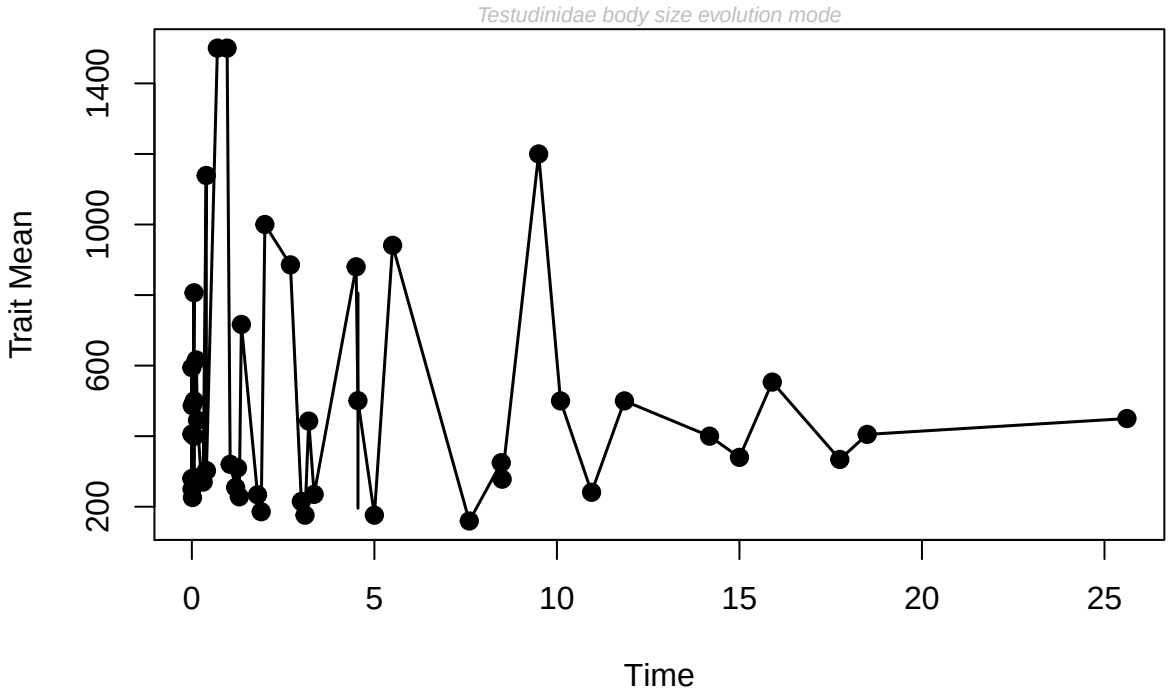


Figure 44: Mean age of each sample as time bin, genera, America

Table 34: Model-fitting results for testudinidae, no bins, genera

	logL	K	AICc	Akaike.wt
GRW	-374.4593	2	753.1977	0
URW	-374.4593	1	751.0095	0
Stasis	-336.1186	2	676.5163	1

Asia, individuals

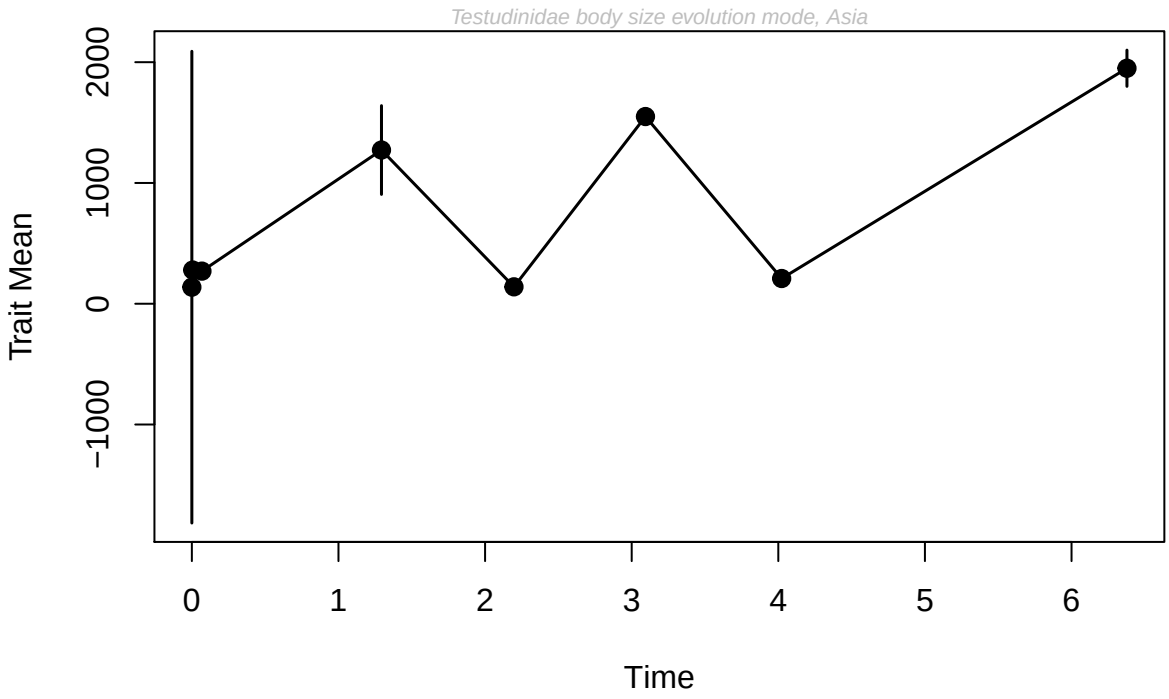


Figure 45: individuals, Asia

Table 35: Model-fitting results for testudinidae, individuals, Asia

	logL	K	AICc	Akaike.wt
GRW	-70.79148	2	148.5830	0
URW	-62.48583	1	127.7717	1
Stasis	-82.36624	2	171.7325	0

Asia, no bins, individuals

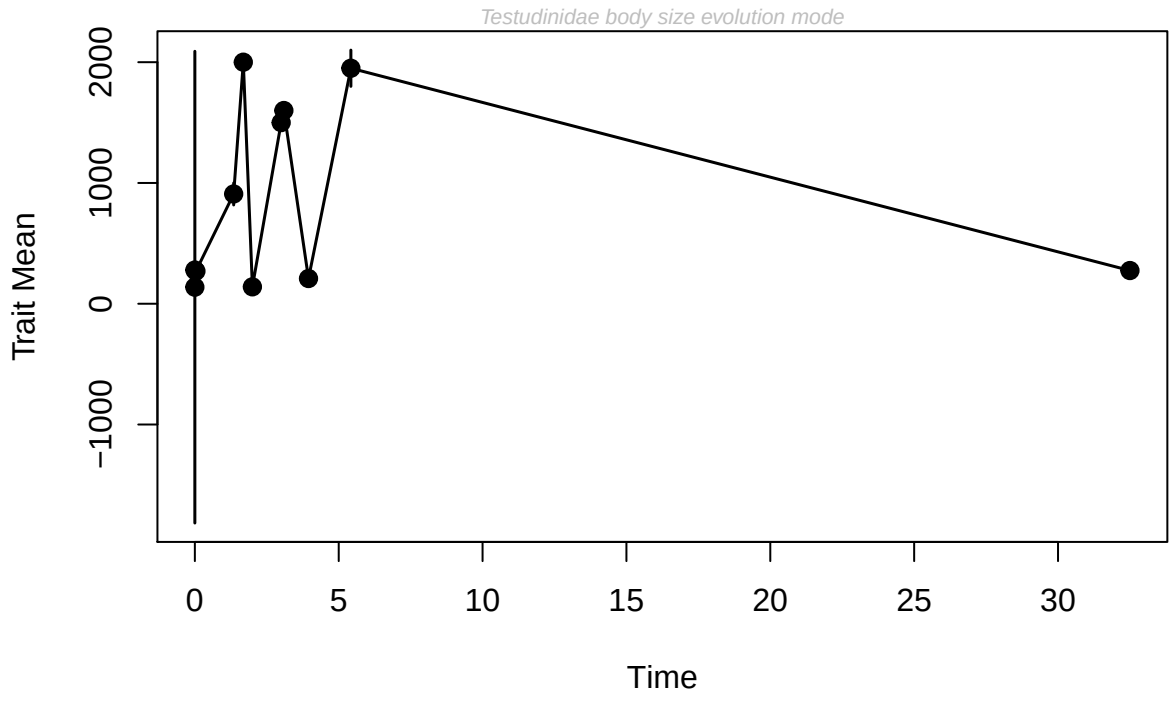


Figure 46: Asia, individuals, no bins

Table 36: Model-fitting results for testudinidae, individuals, no bins, Asia

	logL	K	AICc	Akaike.wt
GRW	-131.87801	2	269.4703	0
URW	-132.23396	1	266.9679	0
Stasis	-87.44222	2	180.5987	1

Asia, no bins, genera

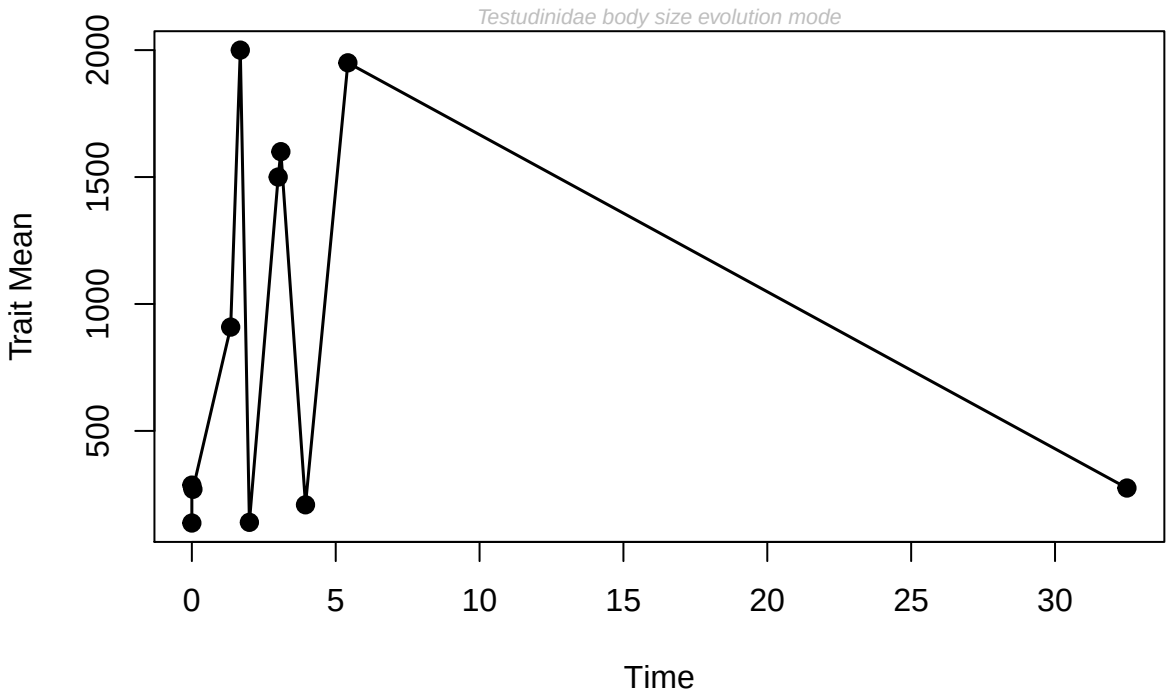


Figure 47: Mean age of each sample as time bin, genera, Asia

Table 37: Model-fitting results for testudinidae, no bins, genera

	logL	K	AICc	Akaike.wt
GRW	-105.54806	2	216.8104	0
URW	-105.54484	1	213.5897	0
Stasis	-80.19133	2	166.0969	1

Eurasia, individuals

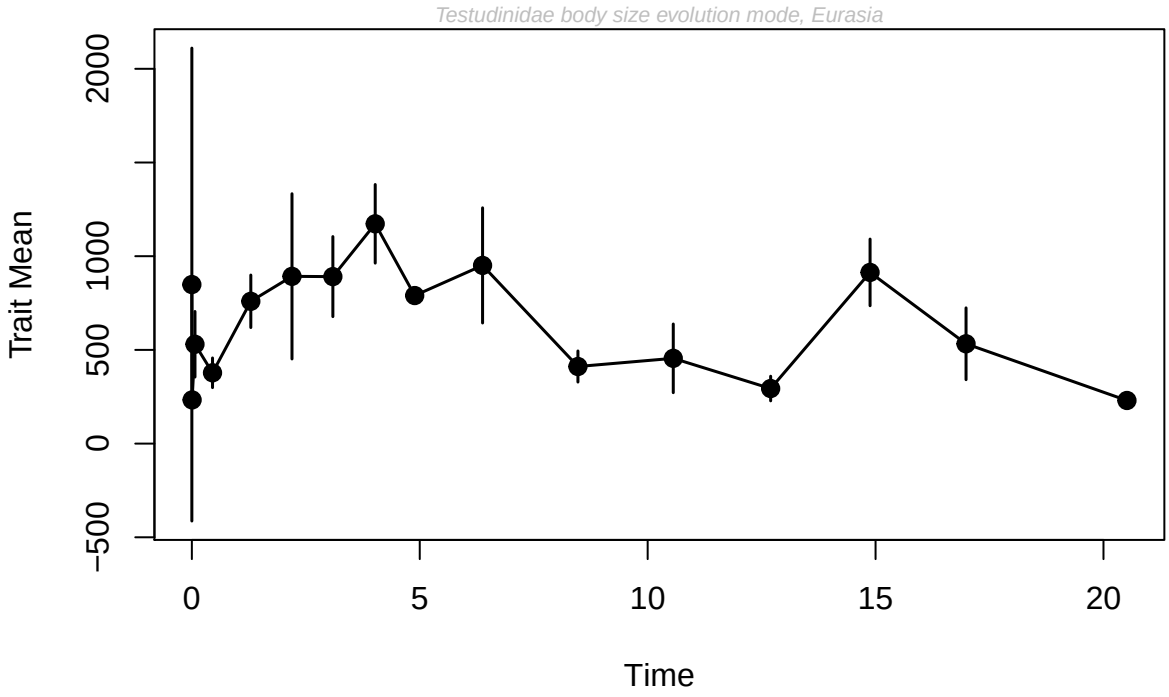


Figure 48: individuals, Eurasia

Table 38: Model-fitting results for testudinidae, individuals, Asia

	logL	K	AICc	Akaike.wt
GRW	-114.2808	2	233.5616	0.023
URW	-114.3535	1	231.0147	0.081
Stasis	-110.6028	2	226.2055	0.896

Eurasia, no bins, individuals

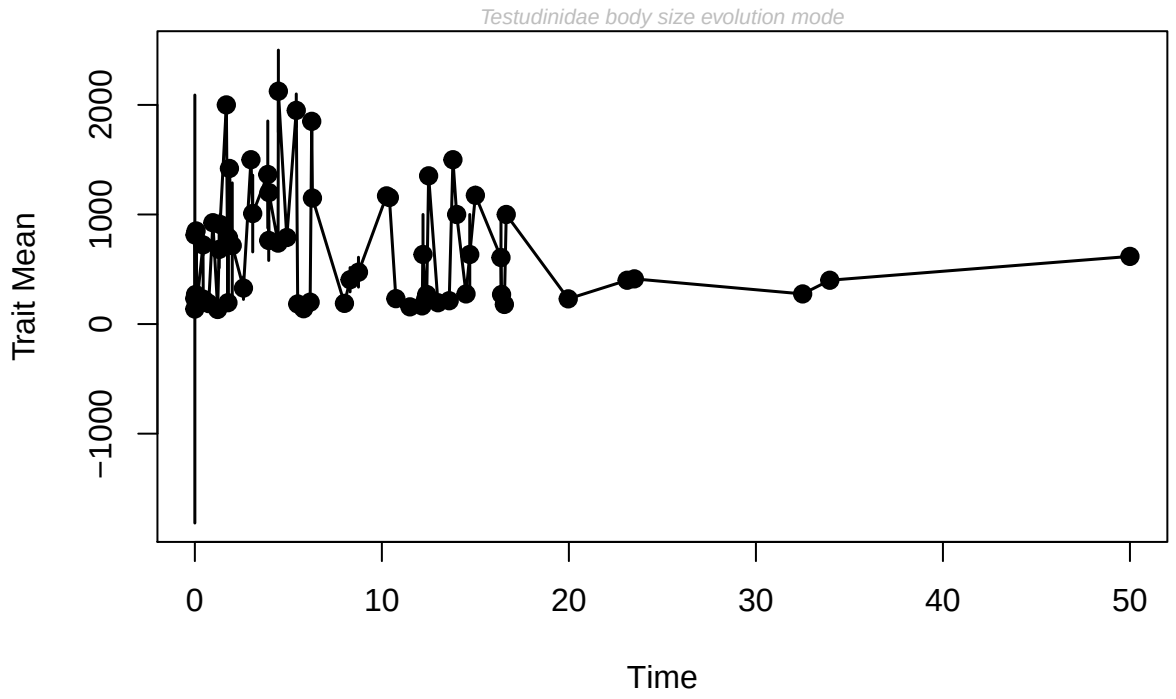


Figure 49: Eurasia, individuals, no bins

Table 39: Model-fitting results for testudinidae, individuals, no bins, Eurasia

	logL	K	AICc	Akaike.wt
GRW	-1254.0121	2	2512.224	0
URW	-1193.3477	1	2388.761	0
Stasis	-600.6003	2	1205.401	1

Eurasia, no bins, genera

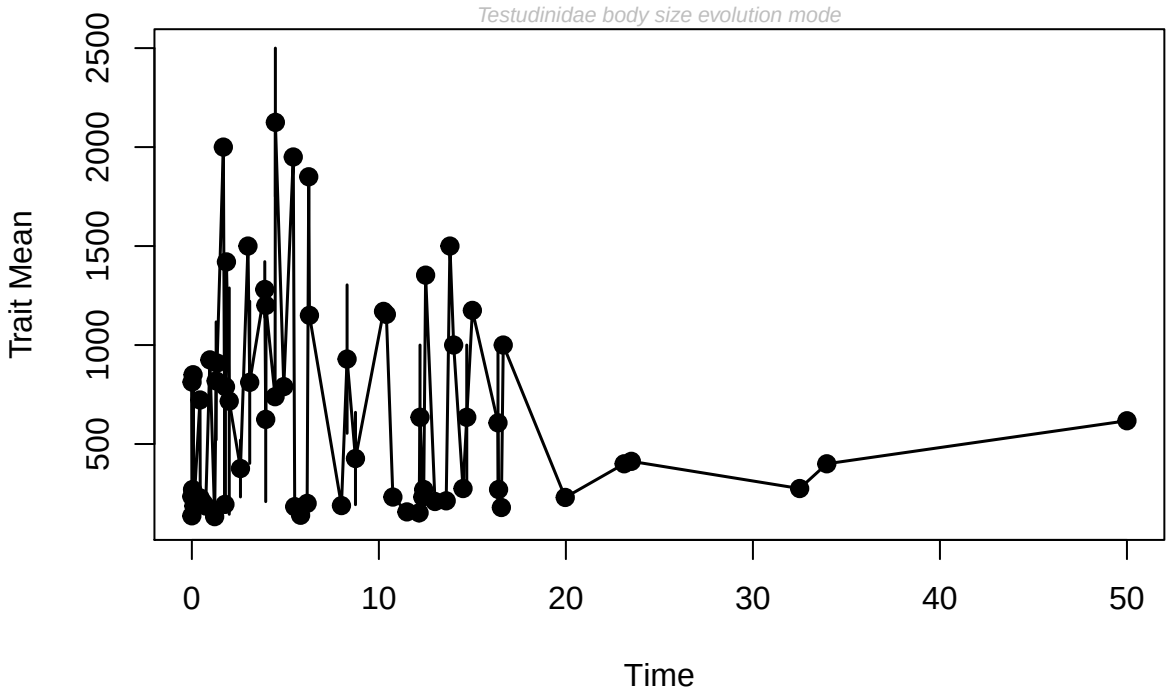


Figure 50: Mean age of each sample as time bin, genera, Eurasia

Table 40: Model-fitting results for testudinidae, no bins, genera

	logL	K	AICc	Akaike.wt
GRW	-2350.1503	2	4704.5006	0
URW	-1237.0573	1	2476.1801	0
Stasis	-484.4122	2	973.0243	1