MAthesis

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	241	59	17
(0.0117,0.126]	Upper Pleistocene	0.06885	4	4	3
(0.126,0.781]	Middle Pleistocene	0.45350	2	2	2
(0.781,2.59]	Lower Pleistocene	1.68450	16	7	5
(2.59,3.6]	Upper Pliocene	3.09400	8	4	3
(3.6,5.33]	Lower Pliocene	4.46600	9	7	5
(5.33,11.6]	Upper Miocene	8.47000	30	15	7
(11.6,16]	Middle Miocene	13.78900	9	5	4
(16,23]	Lower Miocene	19.50000	10	6	5
(23,50]	Oligocene and Eocene	36.51500	3	3	3

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

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

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

1 Boxplots (continental (n) vs. Island (y) species)

```
## Warning: Removed 10 rows containing missing values (geom_pointrange).
```

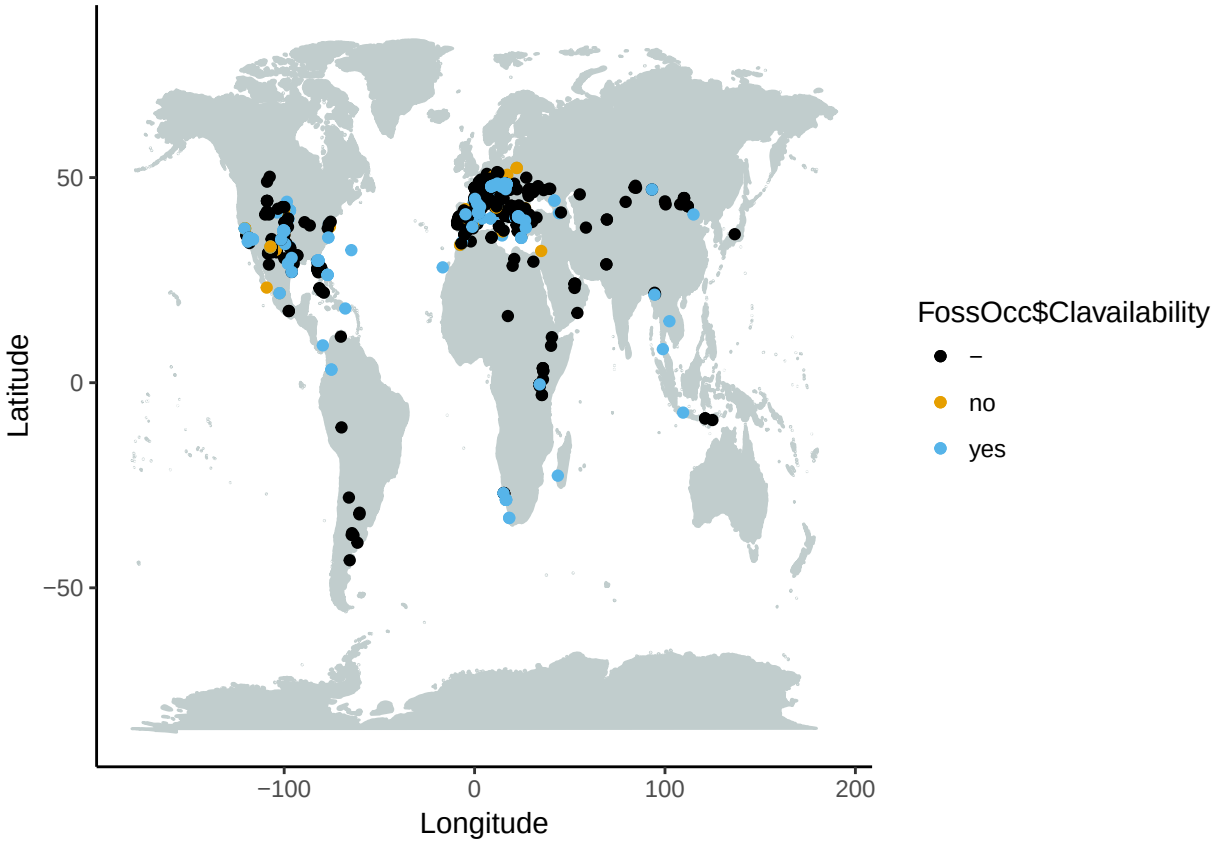

Figure 1: Map displaying all fossil occurrences of testudinids, with color indicating whether relevant literature was available (black if not) and if it was, whether body size data was available or not (yes and no, respectively).

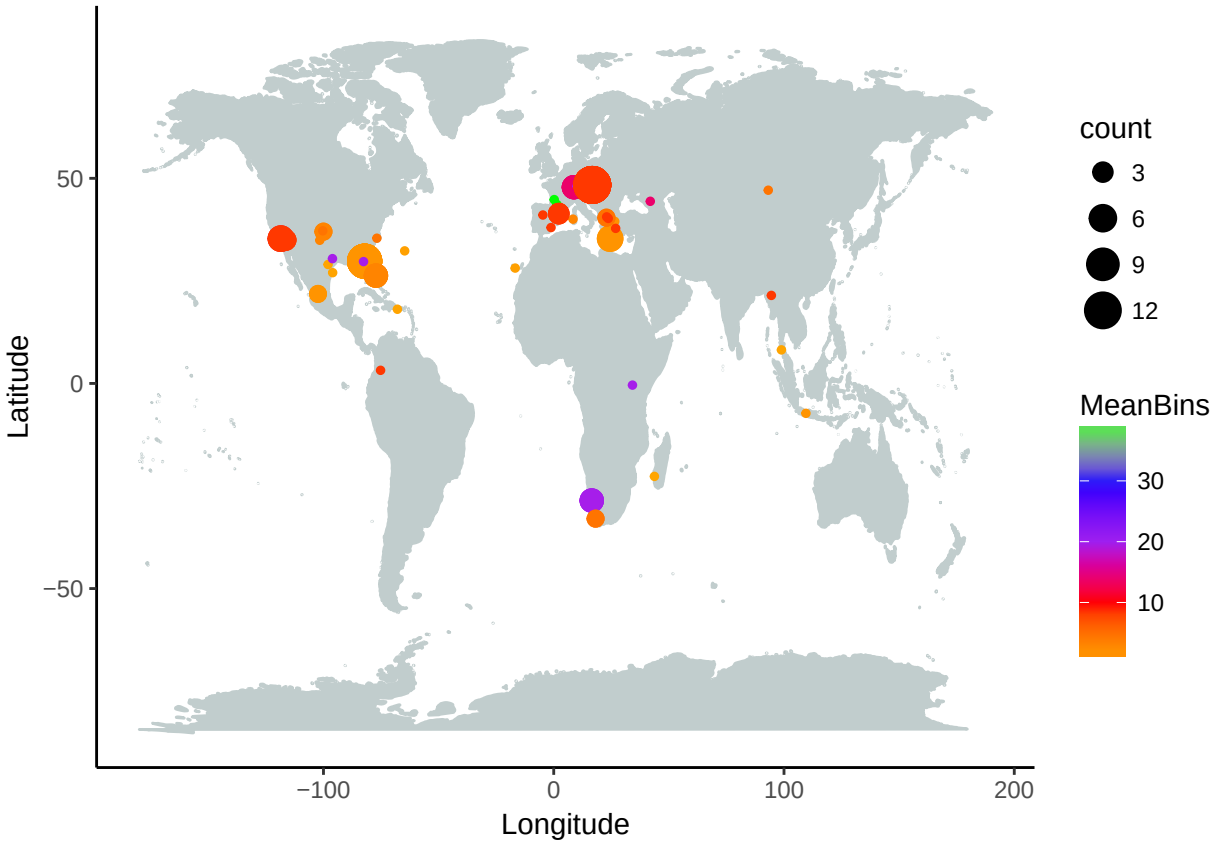

Figure 2: Map displaying all localities for which body size data for testudinids was available in the literature. Size of points denotes sample size, color denotes approximate age.

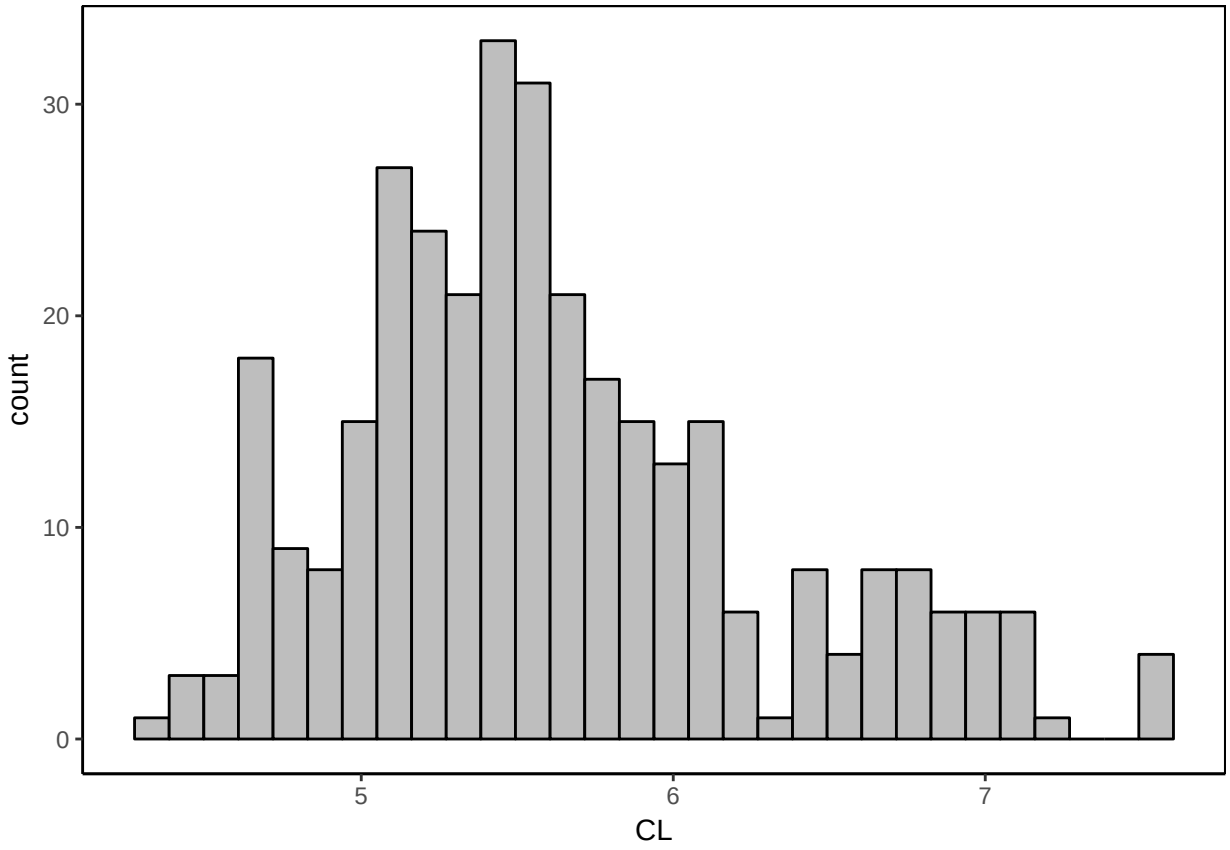

Figure 3: Distribution of body size data, logtransformed, all data.

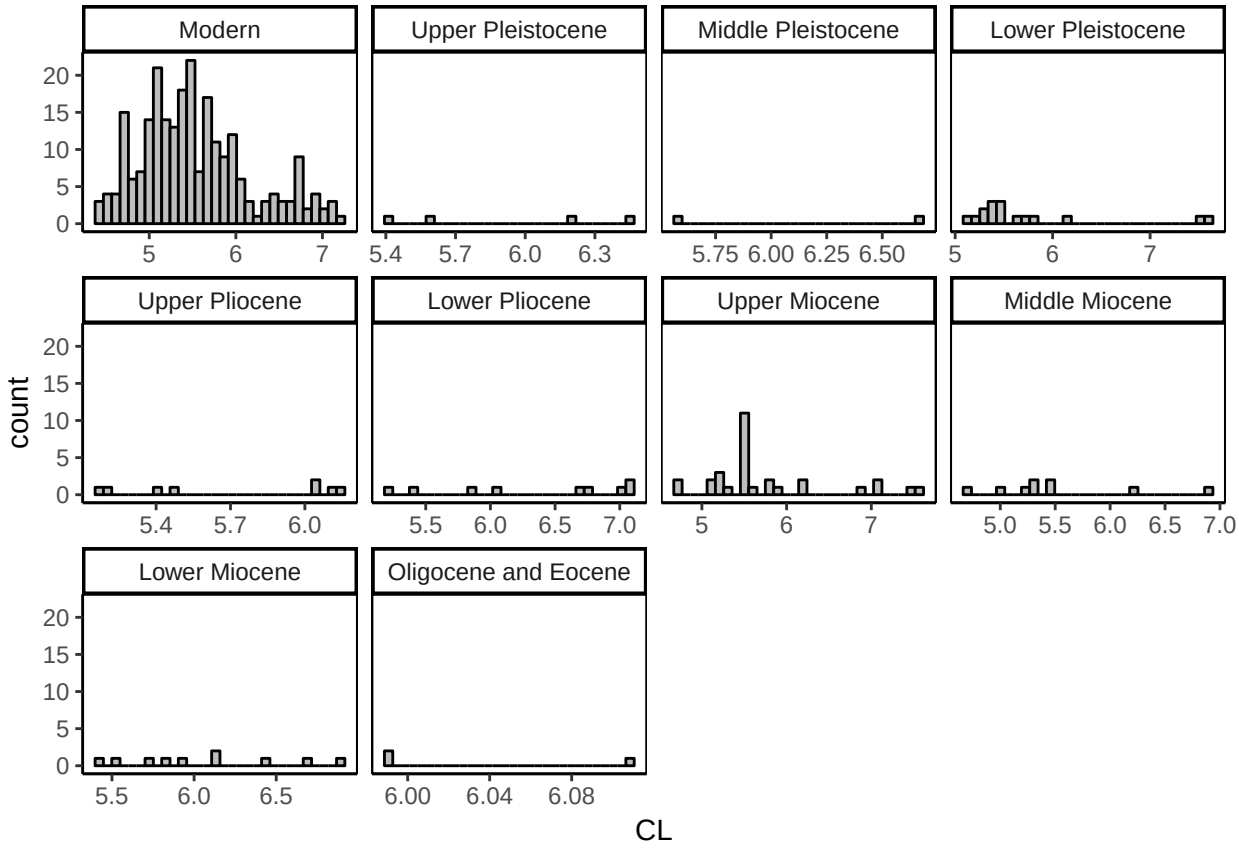

Figure 4: Distribution of body size data per time bin, logtransformed.

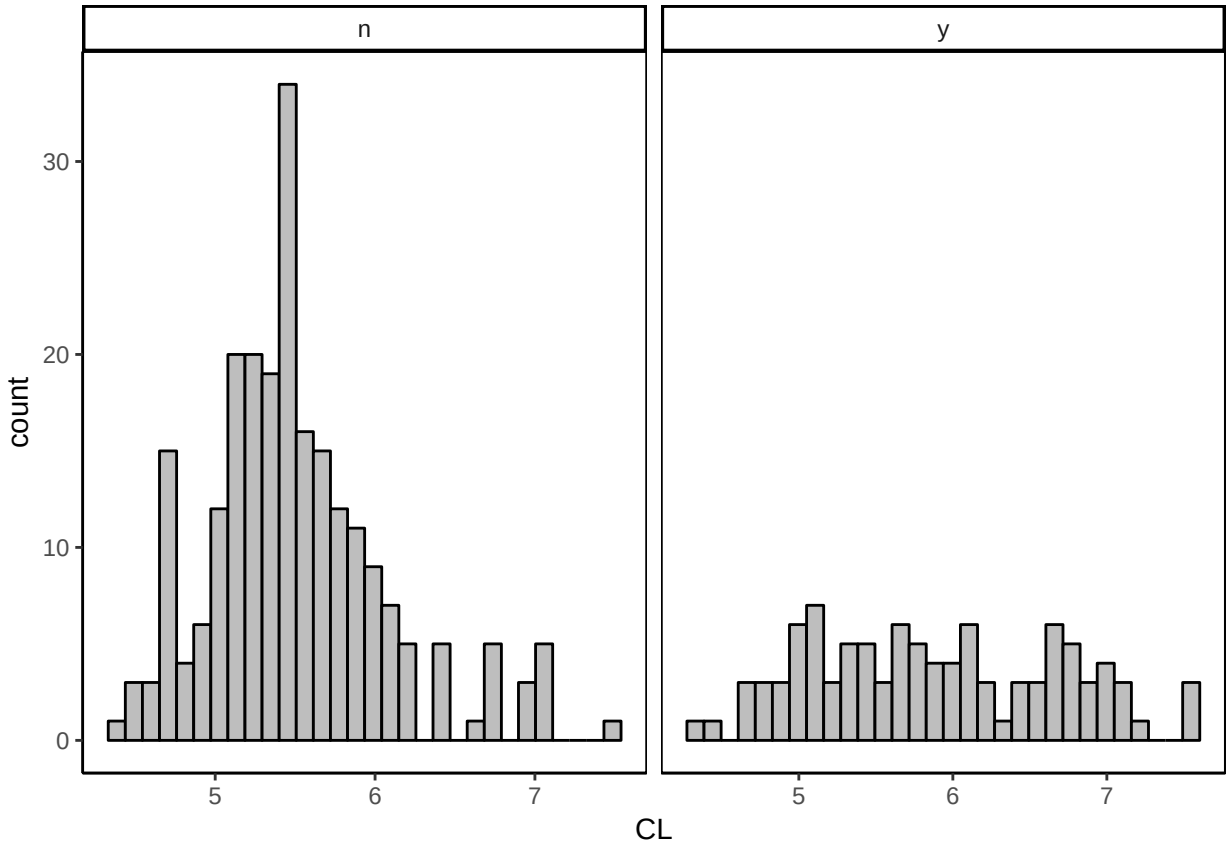

Figure 5: Distribution of body site data of continental (n) and insular(y) species, logtransformed.

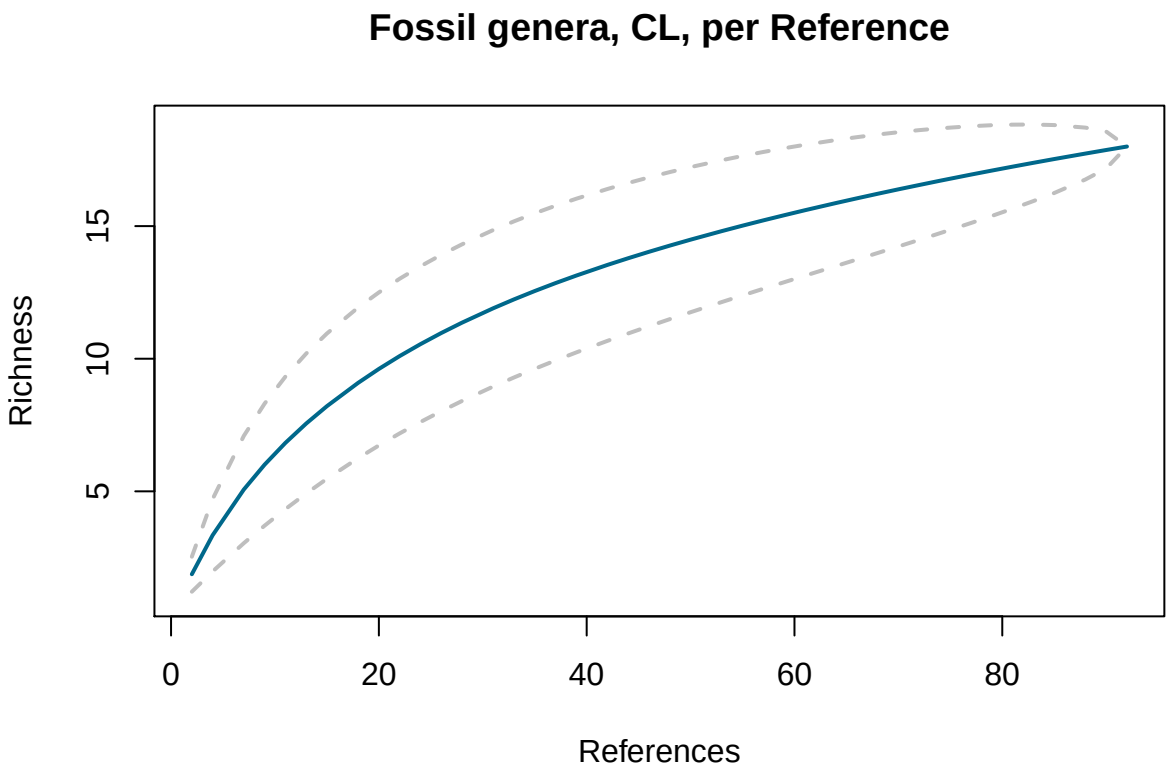

Figure 6: Sampling Accumulation Curve of fossil genera per reference

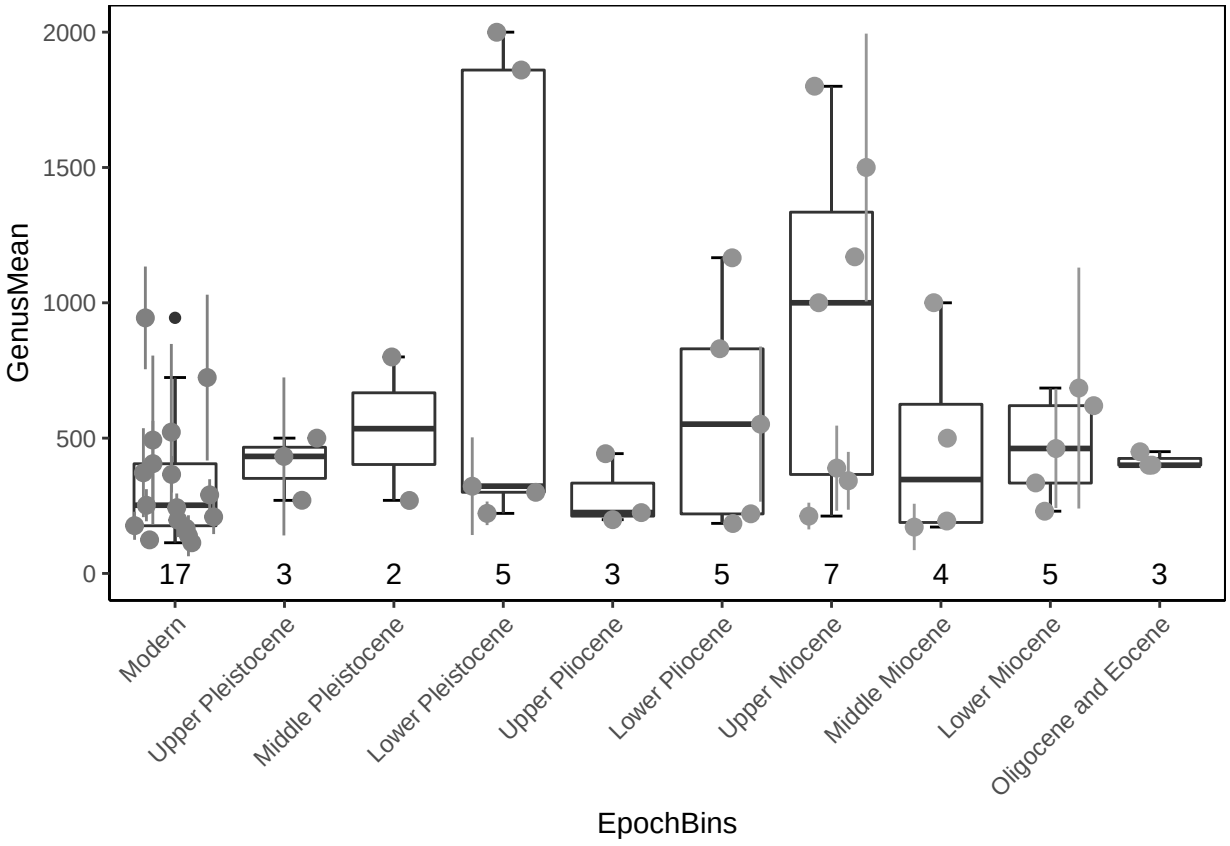

Figure 7: Boxplots of generic mean CL per time bin, including mean and sd CL for each genus (as pointrange).

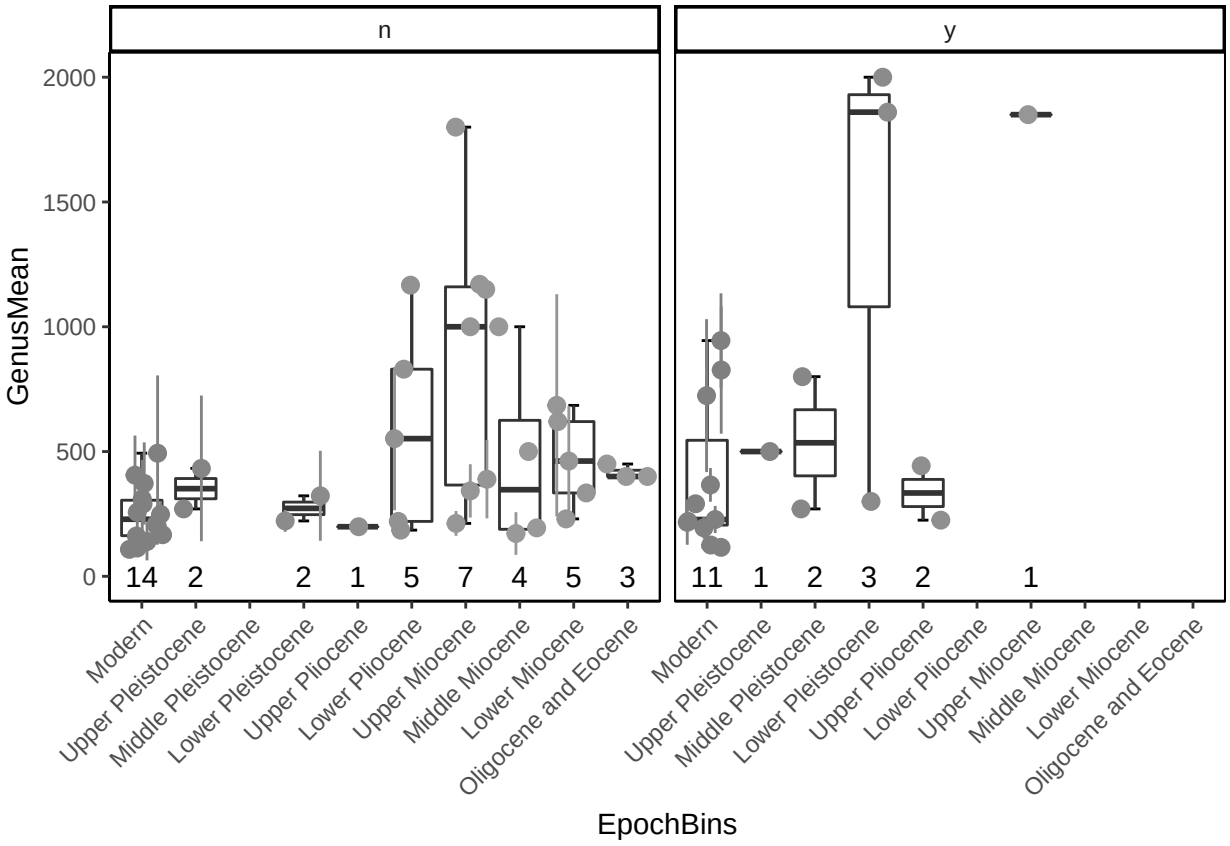

Figure 8: Boxplots of each genus per time bin, continental vs. insular species.

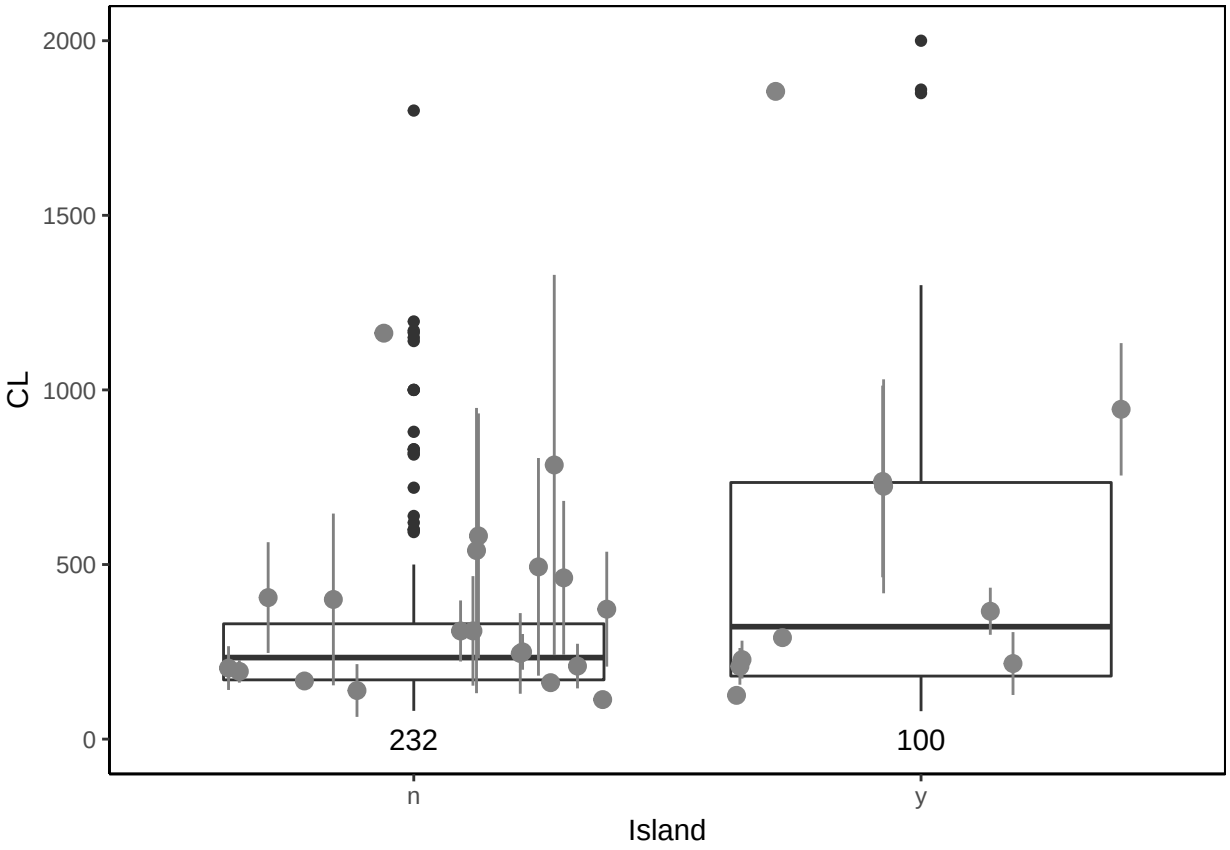

Figure 9: Boxplot continental vs. insular, genera summarised

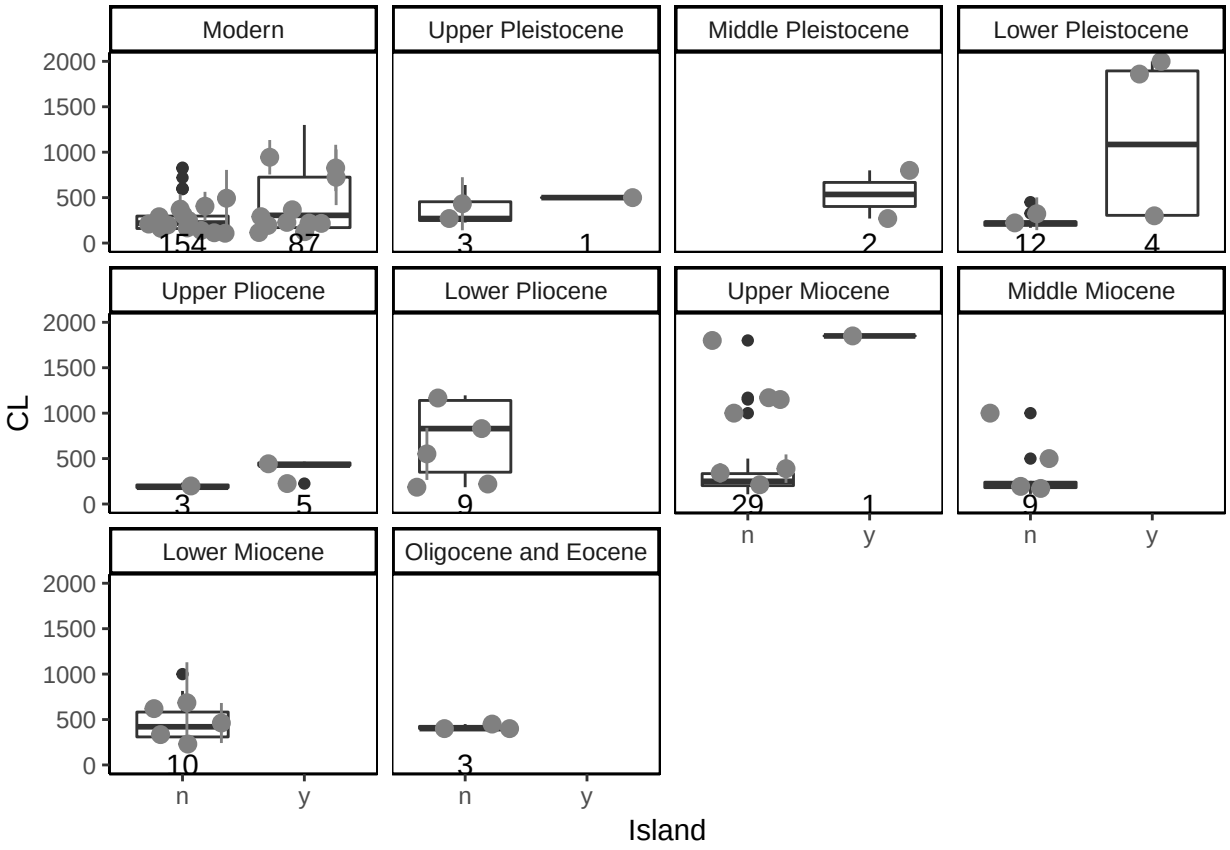

Figure 10: Boxplot continental vs. insular, genera summarised

2 paleoTS analysis

2.1 all (continental and insular)

2.1.1 individuals (all)

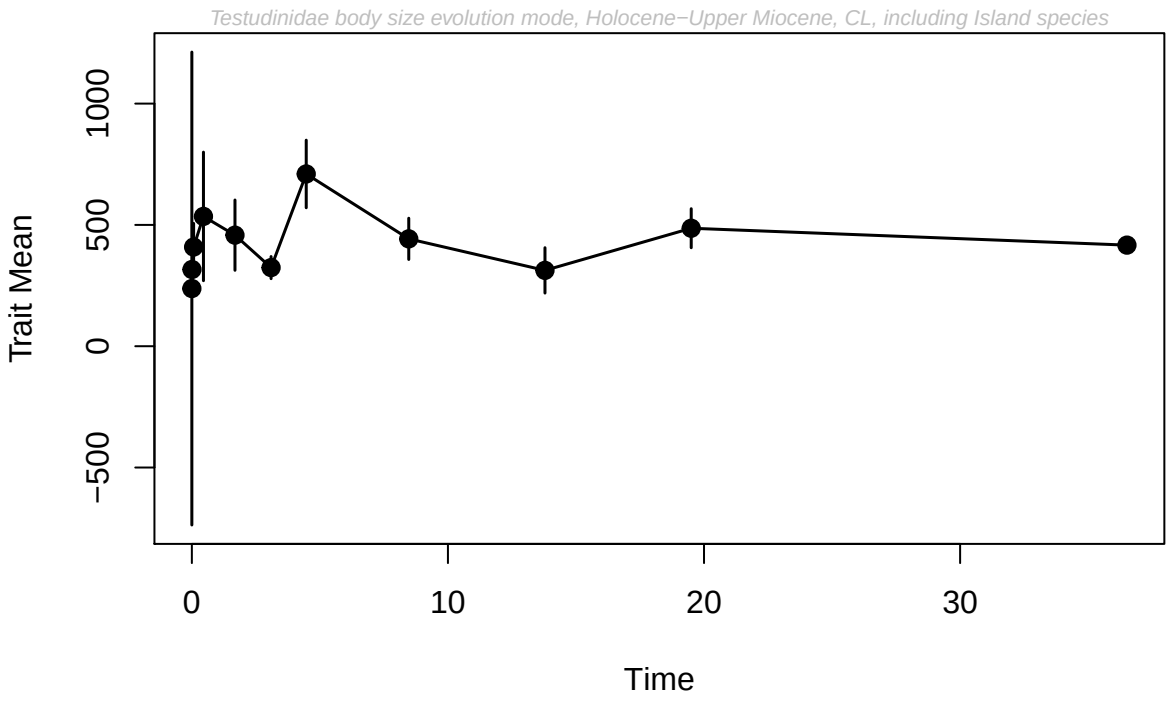

Figure 11: individuals, including island species

Table 2: Model-fitting results for testudinidae, individuals, including island species

	logL	K	AICc	Akaike.wt
GRW	-68.50956	2	142.7334	0.000
URW	-68.83967	1	140.1793	0.001
Stasis	-60.69505	2	127.1044	0.998

2.1.2 species (all)

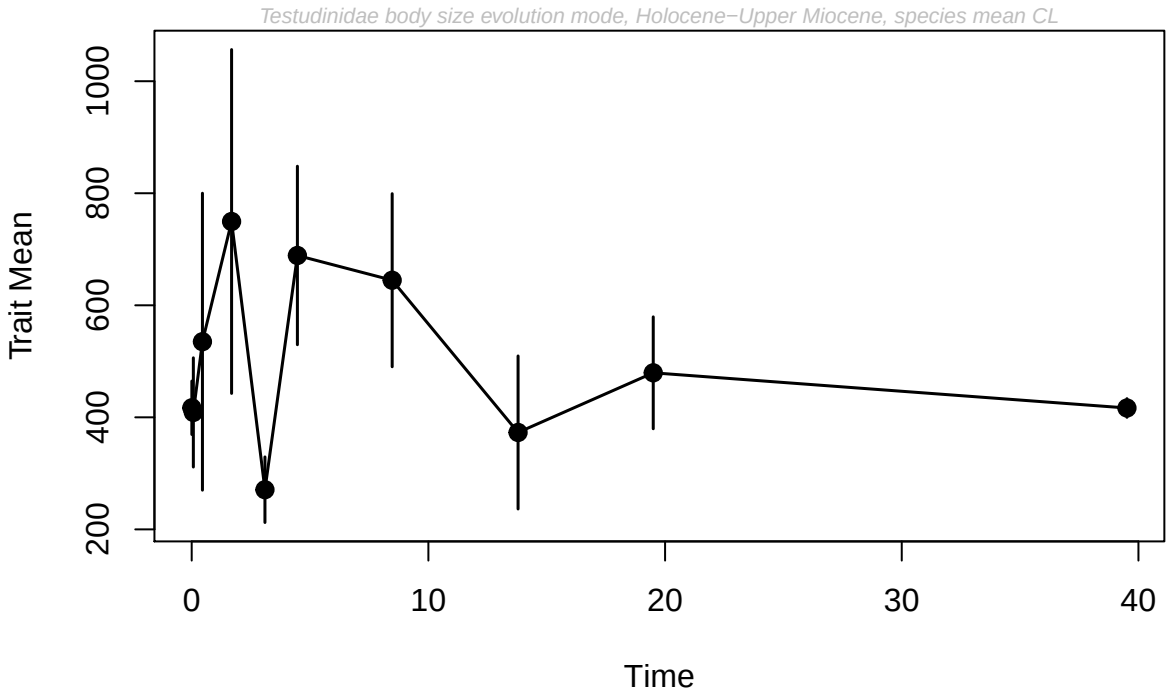

Figure 12: paleoTS plot with species mean, including island species

Table 3: Model-fitting results for testudinidae, species, including island species

	logL	K	AICc	Akaike.wt
GRW	-61.50928	2	129.0186	0.013
URW	-61.93131	1	126.4340	0.048
Stasis	-57.24389	2	120.4878	0.939

2.1.3 genera (all)

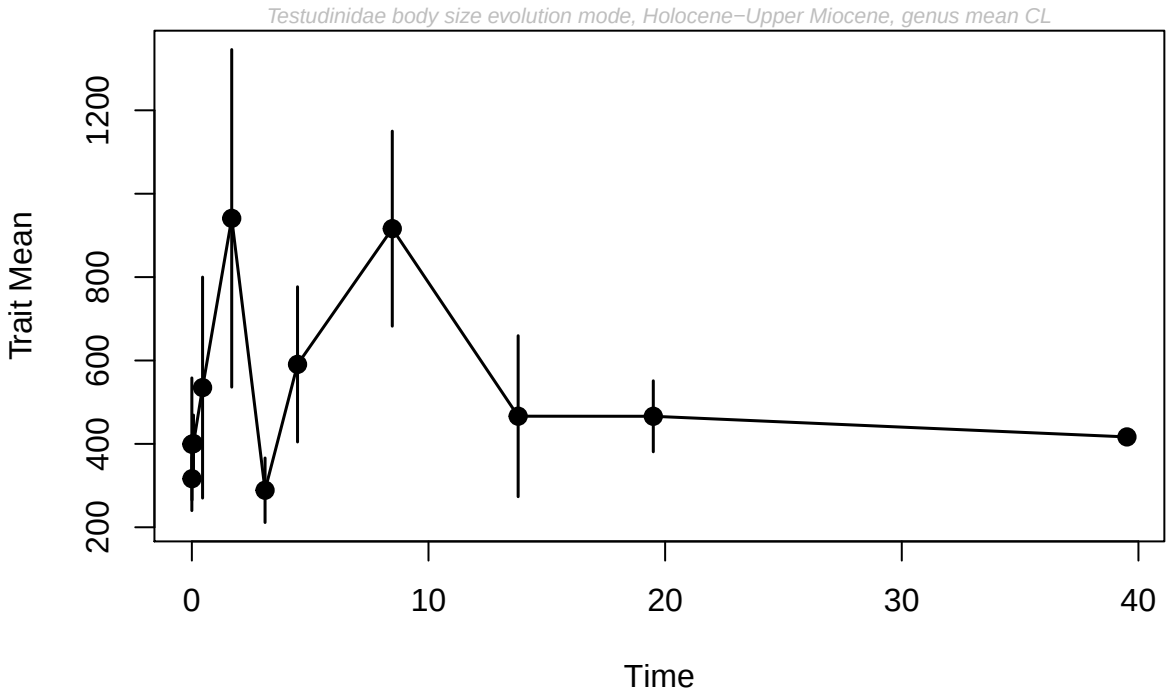

Figure 13: paleoTS plot with genus mean, including island species

Table 4: Model-fitting results for testudinidae, genera, including island species

	logL	K	AICc	Akaike.wt
GRW	-68.24930	2	142.2129	0.009
URW	-69.52663	1	141.5533	0.012
Stasis	-63.50390	2	132.7221	0.980

2.2 continental (excluding insular species)

2.2.1 individuals (continental)

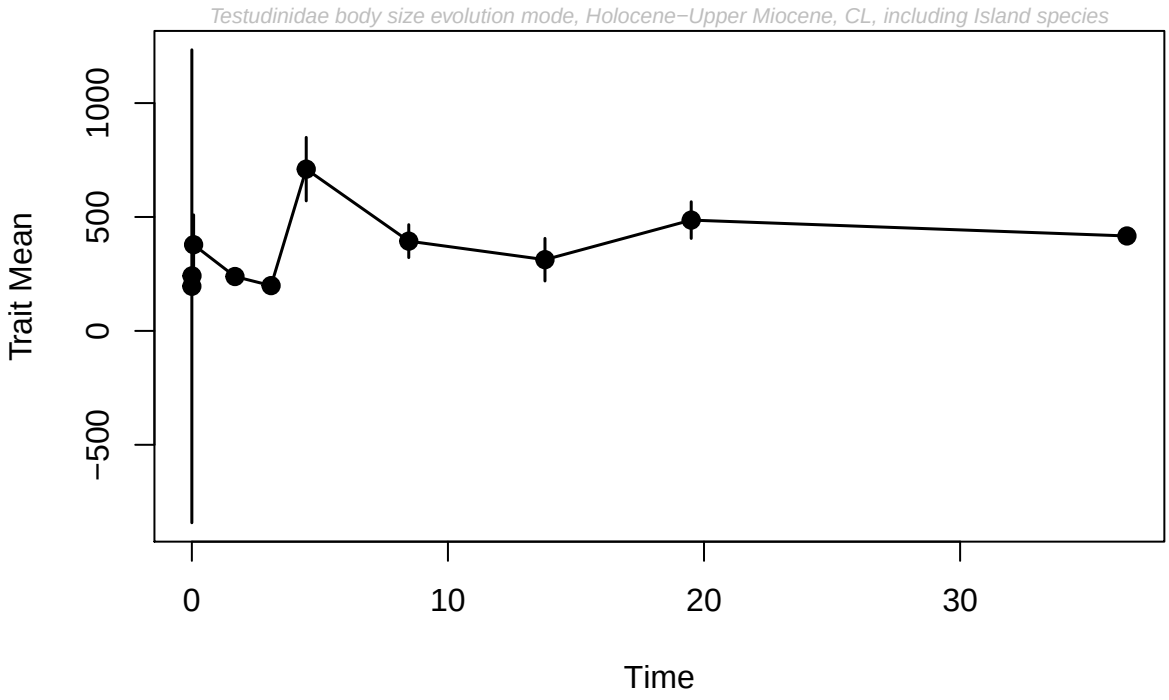

Figure 14: individuals, excluding island species

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

	logL	K	AICc	Akaike.wt
GRW	-64.07555	2	134.1511	0.001
URW	-64.32741	1	131.2263	0.006
Stasis	-57.43476	2	120.8695	0.993

2.2.2 species (continental)

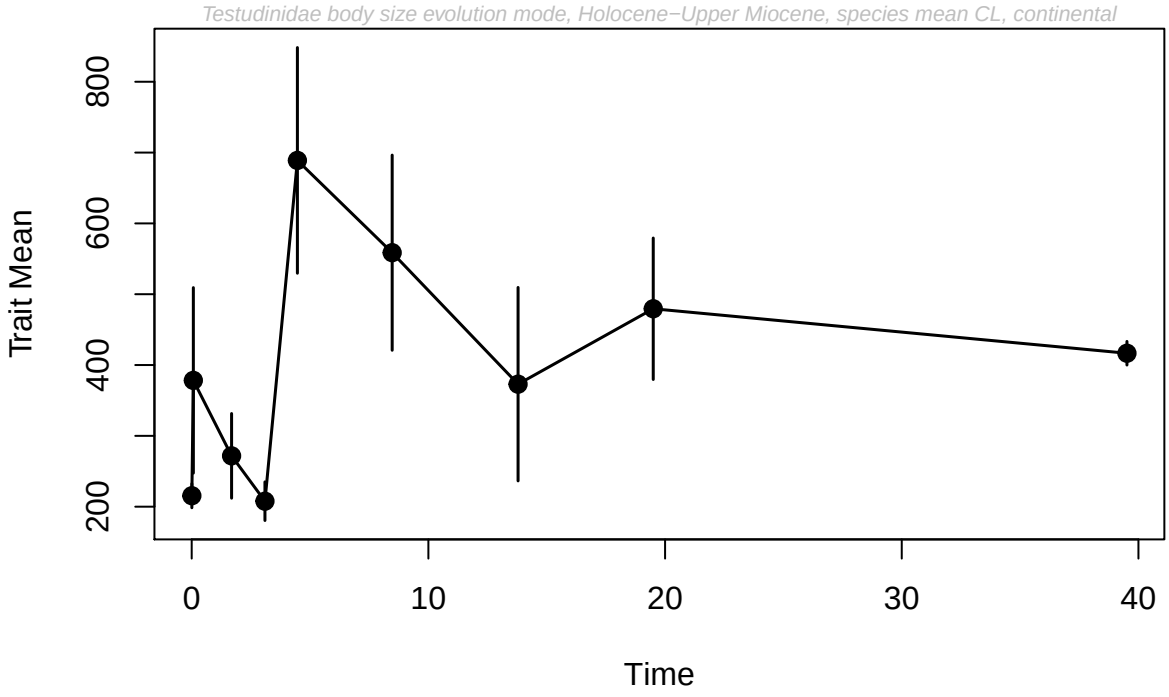

Figure 15: paleoTS plot with species mean, excluding island species

Table 6: Model-fitting results for testudinidae, species, excluding island species

	logL	K	AICc	Akaike.wt
GRW	-53.58018	2	113.5604	0.057
URW	-54.50168	1	111.6700	0.148
Stasis	-50.95229	2	108.3046	0.795

2.2.3 genera (continental)

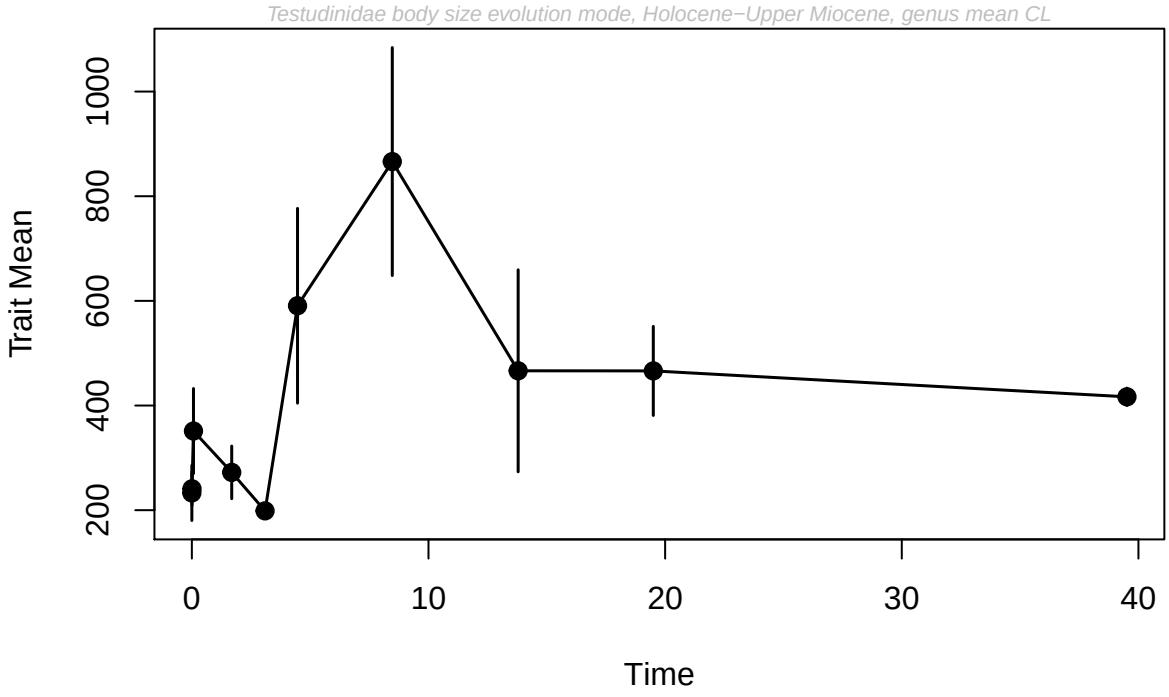

Figure 16: paleoTS plot with genus mean, excluding island species

Table 7: Model-fitting results for testudinidae, genera, excluding insular species

	logL	K	AICc	Akaike.wt
GRW	-57.41665	2	120.8333	0.183
URW	-57.71397	1	117.9994	0.753
Stasis	-58.45897	2	122.9179	0.064

2.3 insular (excluding continental)

2.3.1 individuals (insular)

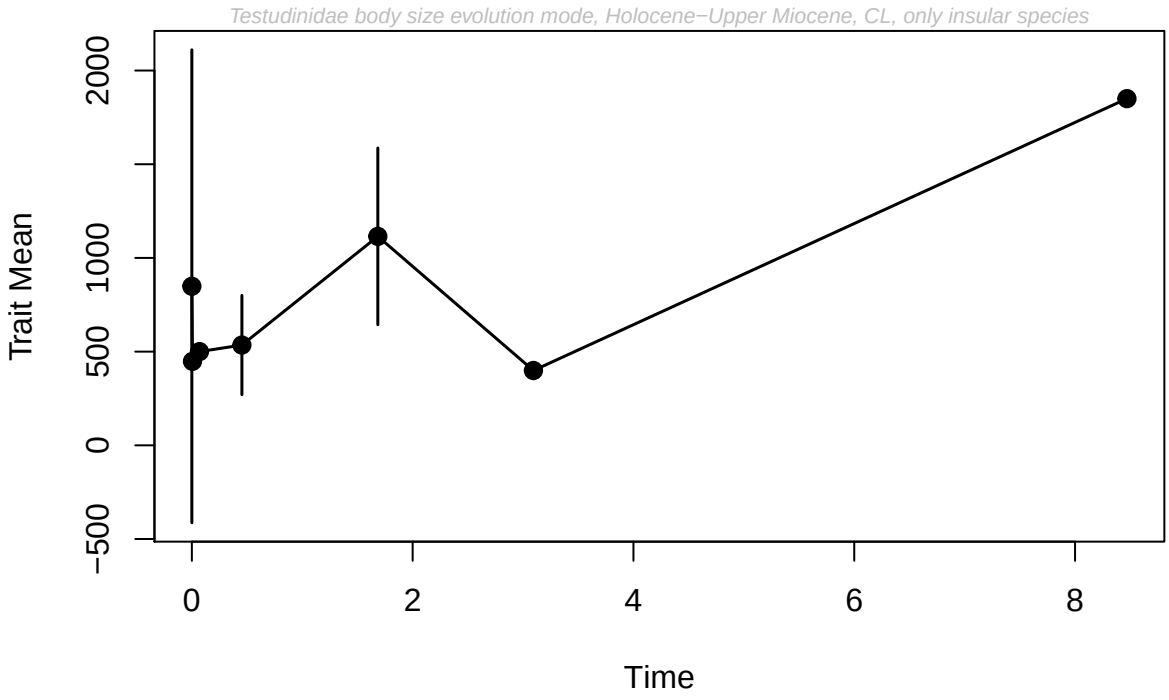

Figure 17: individuals, excluding continental species

Table 8: Model-fitting results for testudinidae, individuals, only insular species

	logL	K	AICc	Akaike.wt
GRW	-41.39668	2	90.79337	0.917
URW	-46.30387	1	95.60775	0.083
Stasis	-58.58695	2	125.17390	0.000

2.3.2 species (insular)

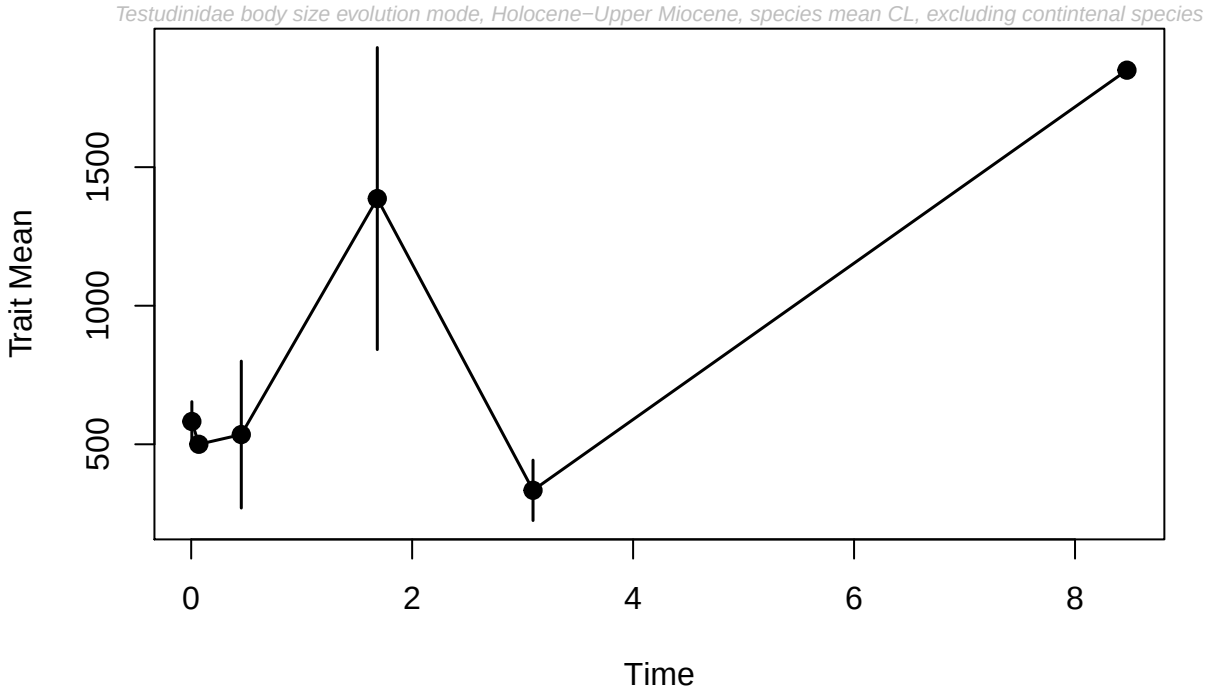

Figure 18: paleoTS plot with species mean, only insular species

Table 9: Model-fitting results for testudinidae, species, only insular species

	logL	K	AICc	Akaike.wt
GRW	-53.58018	2	113.5604	0.057
URW	-54.50168	1	111.6700	0.148
Stasis	-50.95229	2	108.3046	0.795

2.3.3 genera (insular)

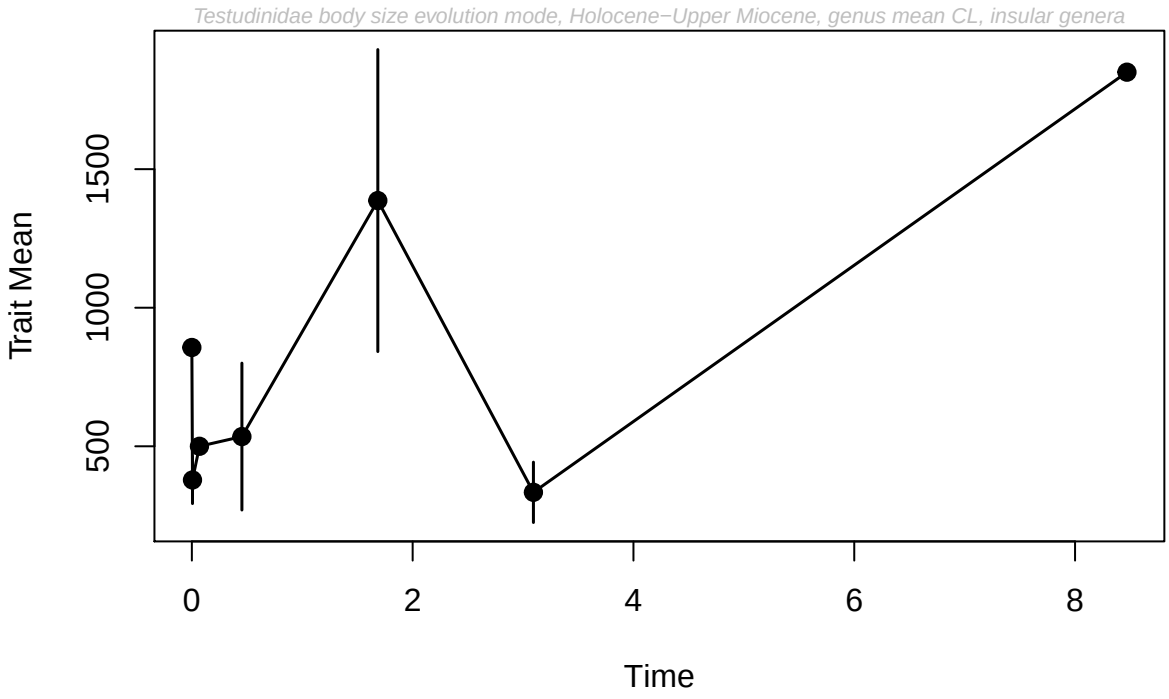

Figure 19: paleoTS plot with genus mean, only insular species

Table 10: Model-fitting results for testudinidae, genera, only insular species

	logL	K	AICc	Akaike.wt
GRW	-51.97340	2	111.9468	0.006
URW	-56.27963	1	115.5593	0.001
Stasis	-46.82940	2	101.6588	0.993

2.4 play with time bins

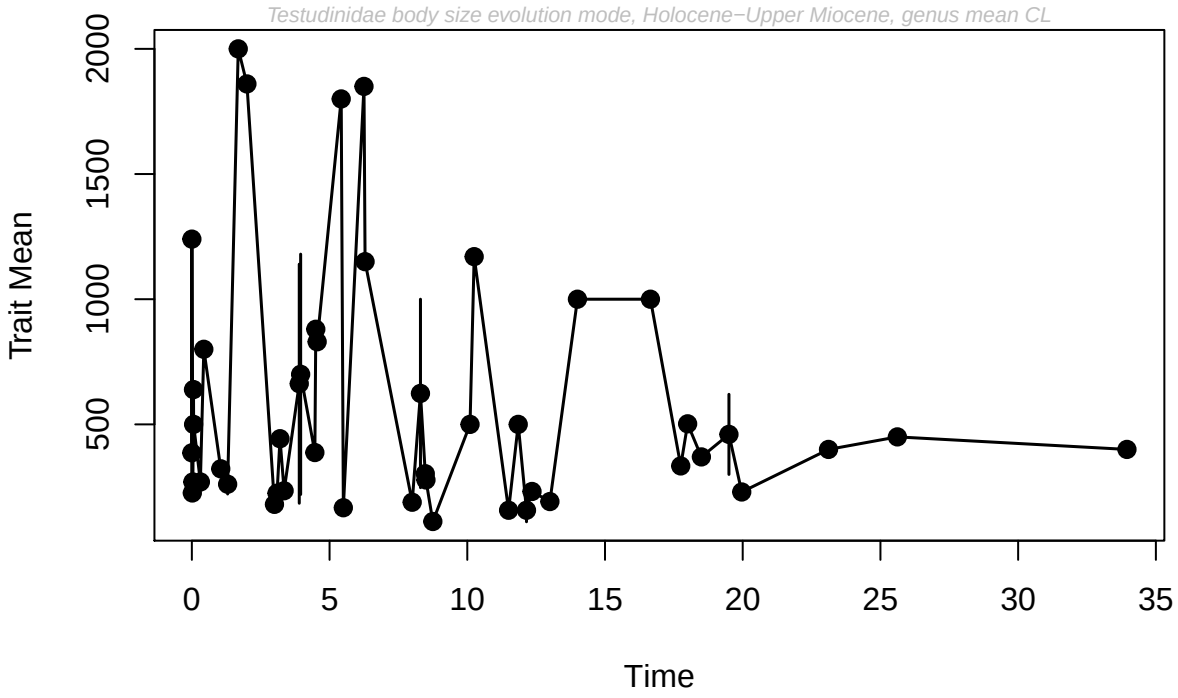

Table 11: Model-fitting results for testudinidae, genera, only insular species

	logL	K	AICc	Akaike.wt
GRW	-396.8342	2	797.9476	0
URW	-391.9004	1	785.8917	0
Stasis	-351.1835	2	706.6461	1