Body size trends in fossil tortoises

paleoTS Plot with the following bins (for fossil taxa):

```
## Warning in bind_rows_(x, .id): binding character and factor vector,
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```

bin	n
(0,1e-06]	234
(1e-06,0.0117]	10
(0.0117,0.126]	12
(0.126,0.781]	4
(0.781,2.59]	25
(2.59,3.6]	13
(3.6,5.33]	16
(5.33,11.6]	16

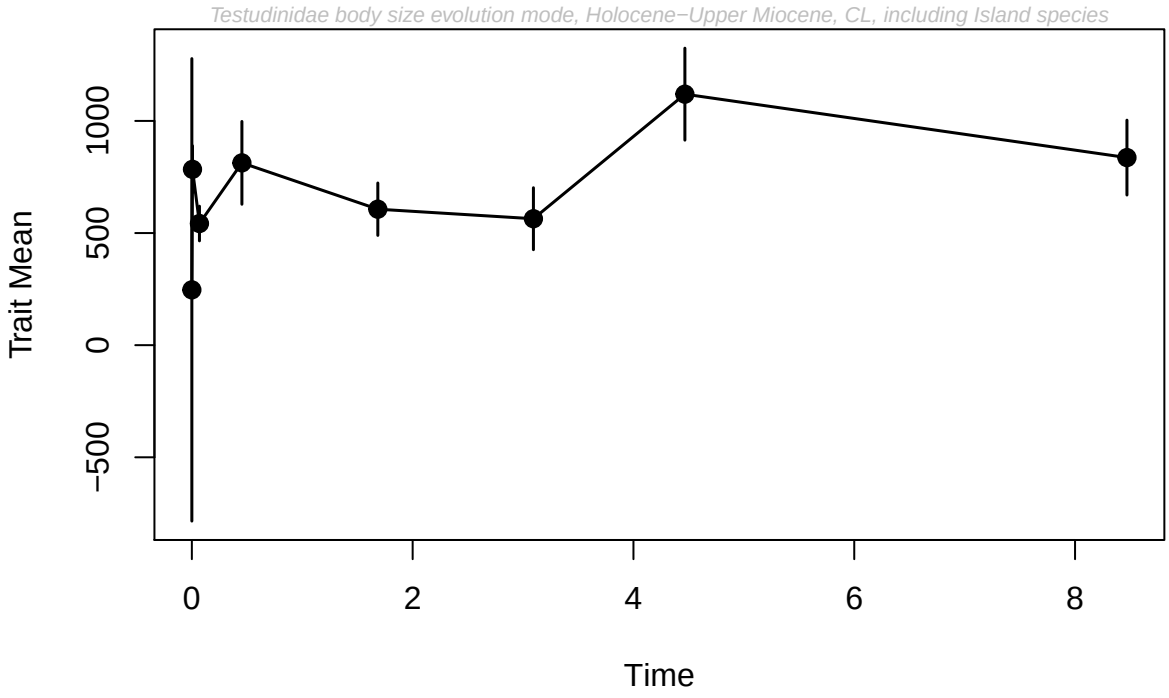
bin	EpochBins	MeanBins
(0,1e-06]	Modern	0.0000005
(1e-06,0.0117]	Holocene	0.0058500
(0.0117,0.126]	Upper Pleistocene	0.0688500
(0.126,0.781]	Middle Pleistocene	0.4535000
(0.781,2.59]	Lower Pleistocene	1.6845000
(2.59,3.6]	Upper Pliocene	3.0940000
(3.6,5.33]	Lower Pliocene	4.4660000
(5.33,11.6]	Upper Miocene	8.4700000

including Island species (n=2053)

paleoTS object (mm= mean CL, nn = sample size, vv = variance (CL), tt = Age):

mm	nn	vv	tt
246.7213	1962	2.085874e+09	0.0000005
784.0000	9	9.923200e+04	0.0058500
542.4800	12	7.186028e+04	0.0688500
813.0000	3	1.022070e+05	0.4535000
606.3696	23	3.138774e+05	1.6845000
563.8583	12	2.288335e+05	3.0940000
1119.3125	16	6.725900e+05	4.4660000

mm	nn	vv	tt
836.4312	16	4.459653e+05	8.4700000



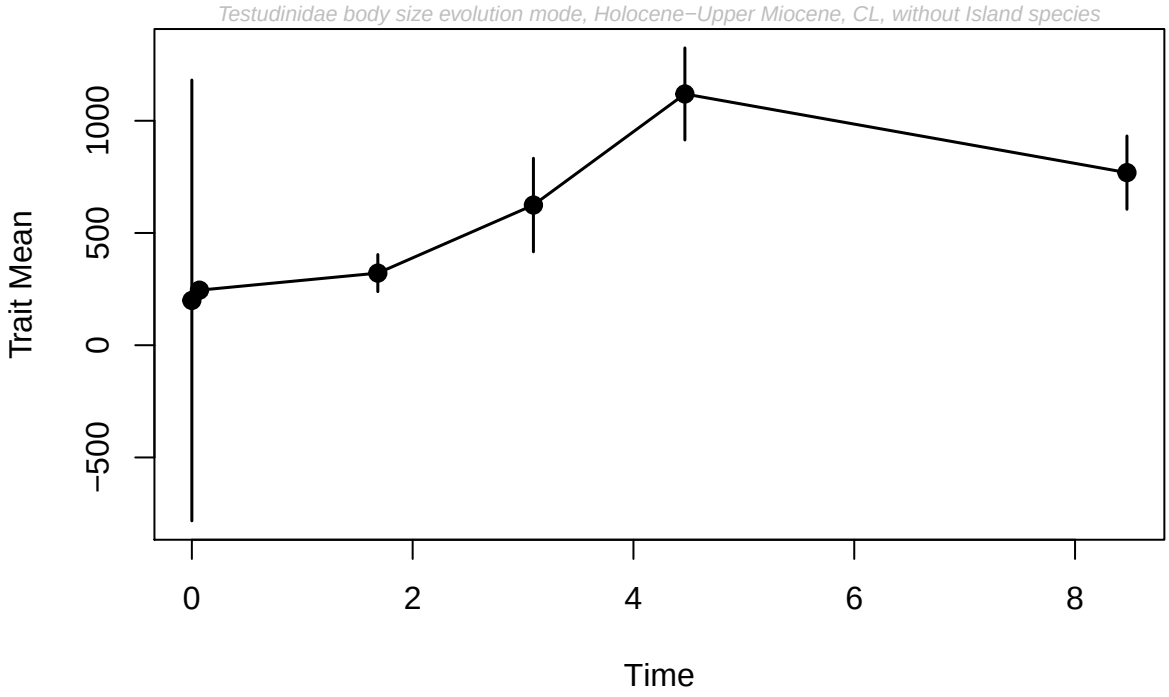

```
##
## Comparing 3 models [n = 7, method = AD]
##
##             logL K      AICc Akaike.wt
## GRW    -51.43359 2 109.86718     0.006
## URW    -51.55193 1 105.90386     0.044
## Stasis -46.37180 2  99.74359     0.950
```

	logL	K	AICc	Akaike.wt
GRW	-51.43359	2	109.86718	0.006
URW	-51.55193	1	105.90386	0.044
Stasis	-46.37180	2	99.74359	0.950

Excluding Island species (n= 1823)

mm	nn	vv	tt
199.4961	1765	1.701509e+09	0.0000005
245.1900	4	2.445378e+03	0.0688500
321.2333	15	1.023536e+05	1.6845000

mm	nn	vv	tt
624.4125	8	3.468501e+05	3.0940000
1119.3125	16	6.725900e+05	4.4660000
768.8600	15	3.995478e+05	8.4700000



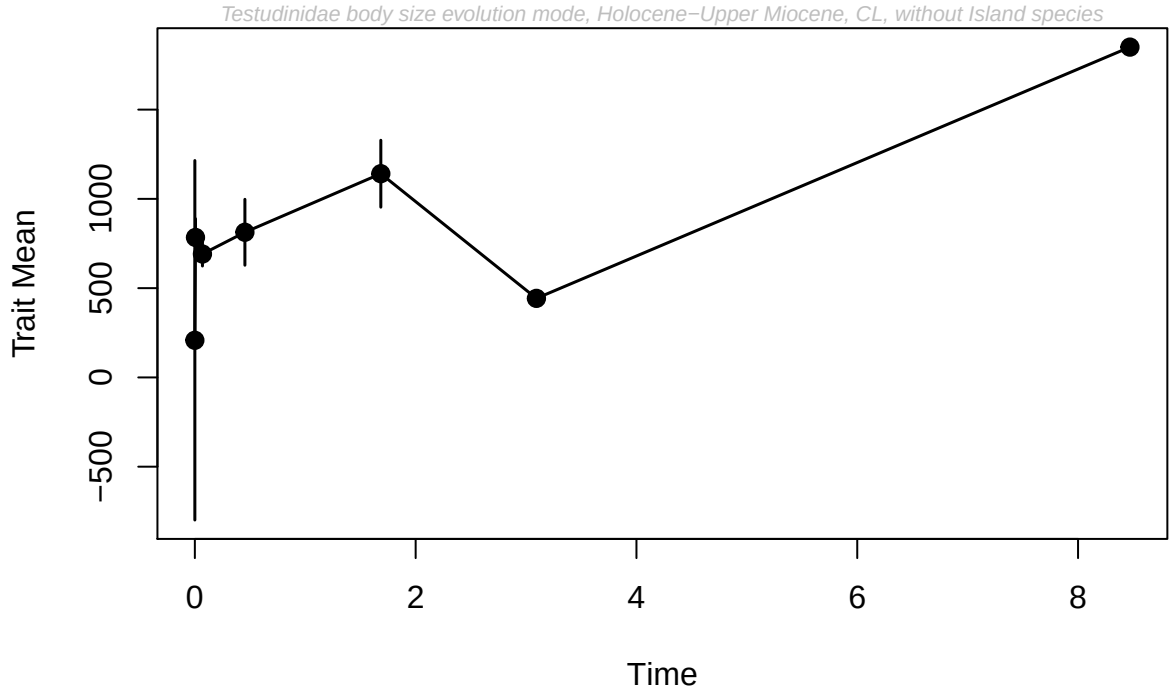

```
##
## Comparing 3 models [n = 5, method = AD]
##
##             logL K     AICc Akaike.wt
## GRW    -36.11123 2 82.22245     0.039
## URW    -36.23334 1 75.80000     0.956
## Stasis -38.13961 2 86.27921     0.005
```

	logL	K	AICc	Akaike.wt
GRW	-36.11123	2	82.22245	0.039
URW	-36.23334	1	75.80000	0.956
Stasis	-38.13961	2	86.27921	0.005

Only Island species

mm	nn	vv	tt

mm	nn	vv	tt
208.0755	1703	1.725832e+09	0.0000005
784.0000	9	9.923200e+04	0.0058500
691.1250	8	3.611984e+04	0.0688500
813.0000	3	1.022070e+05	0.4535000
1141.0000	8	2.808823e+05	1.6845000
442.7500	4	4.049167e+02	3.0940000
1850.0000	1	0.000000e+00	8.4700000

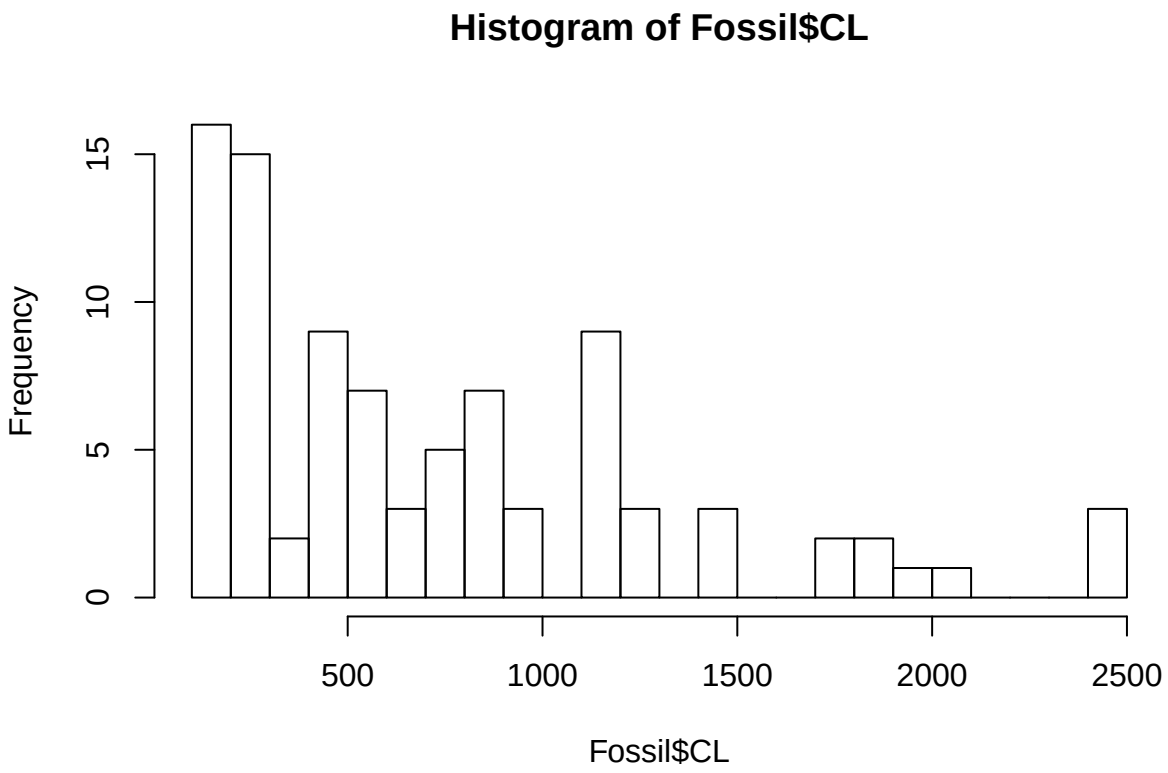


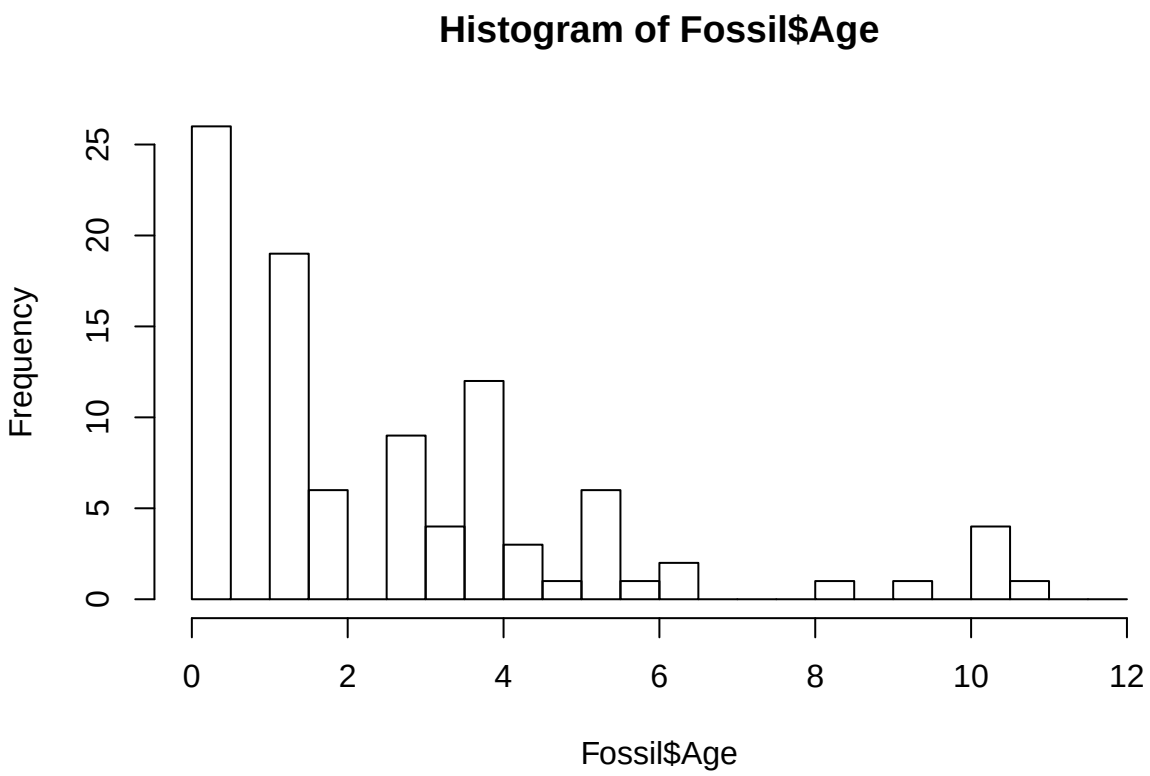

```
##
## Comparing 3 models [n = 6, method = AD]
##
##             logL K     AICc Akaike.wt
## GRW    -52.37629 2 112.7526     0.003
## URW    -50.23445 1 103.4689     0.266
## Stasis -46.72431 2 101.4486     0.731
```

	logL	K	AICc	Akaike.wt
GRW	-52.37629	2	112.7526	0.003
URW	-50.23445	1	103.4689	0.266
Stasis	-46.72431	2	101.4486	0.731

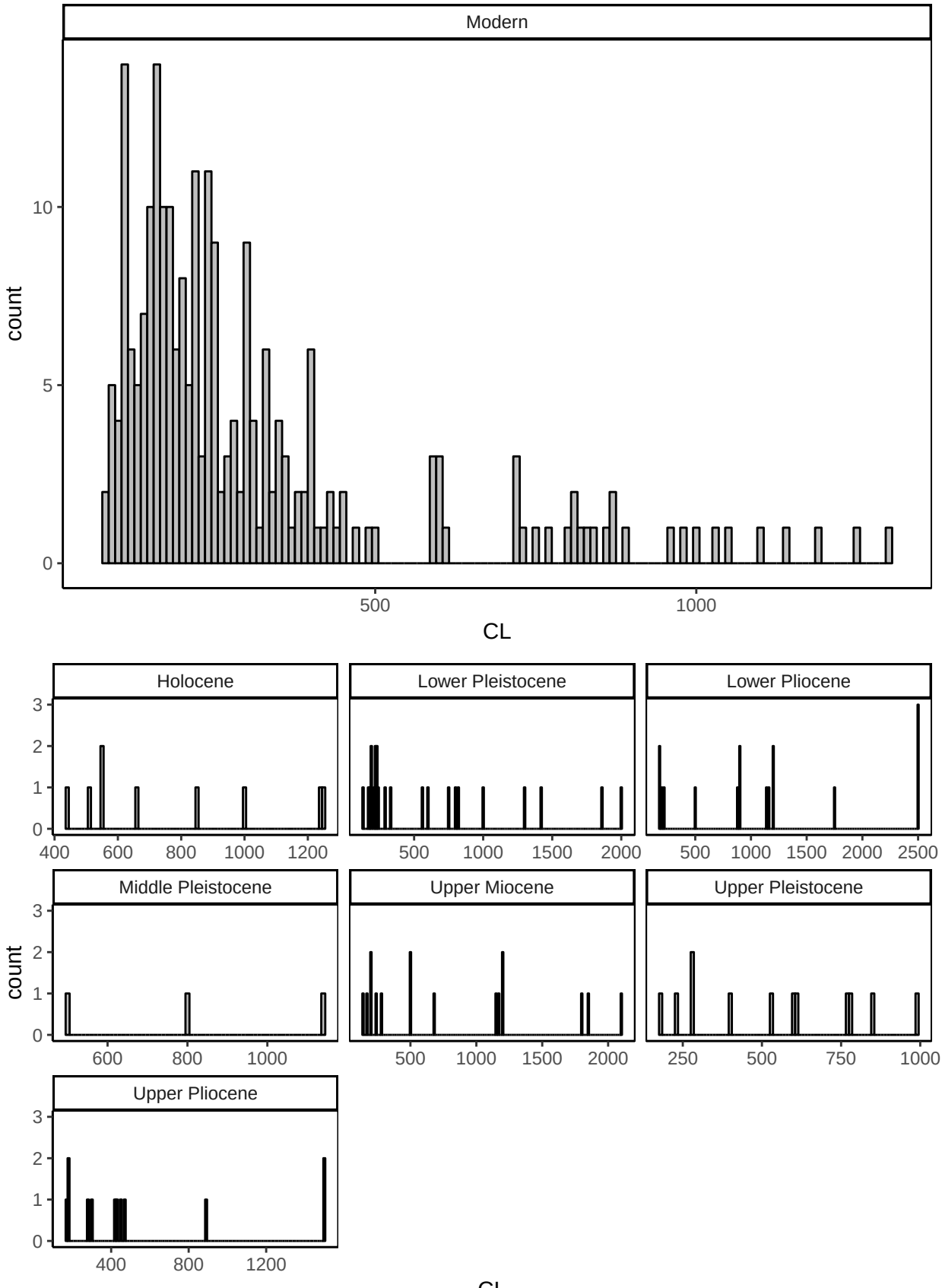
Histograms

Frequency of body size data and distribution over time

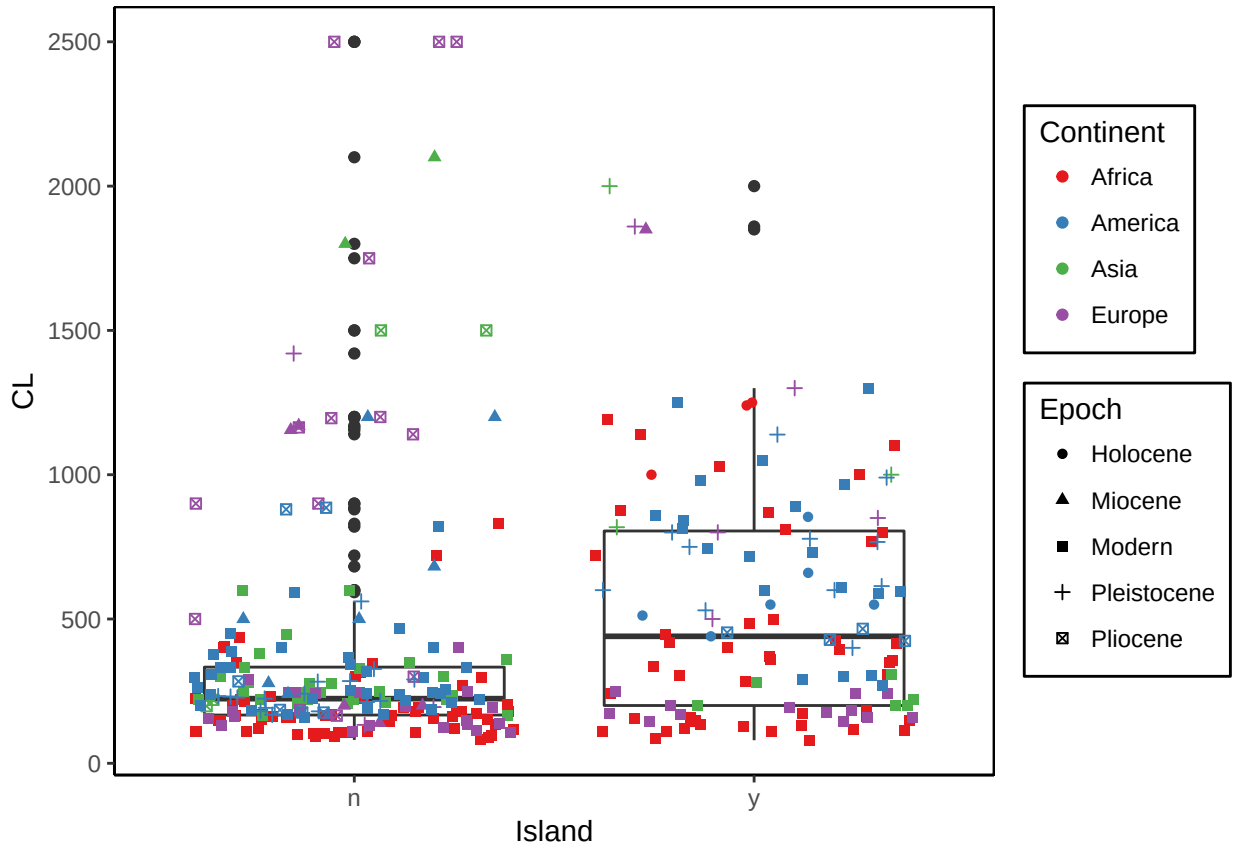


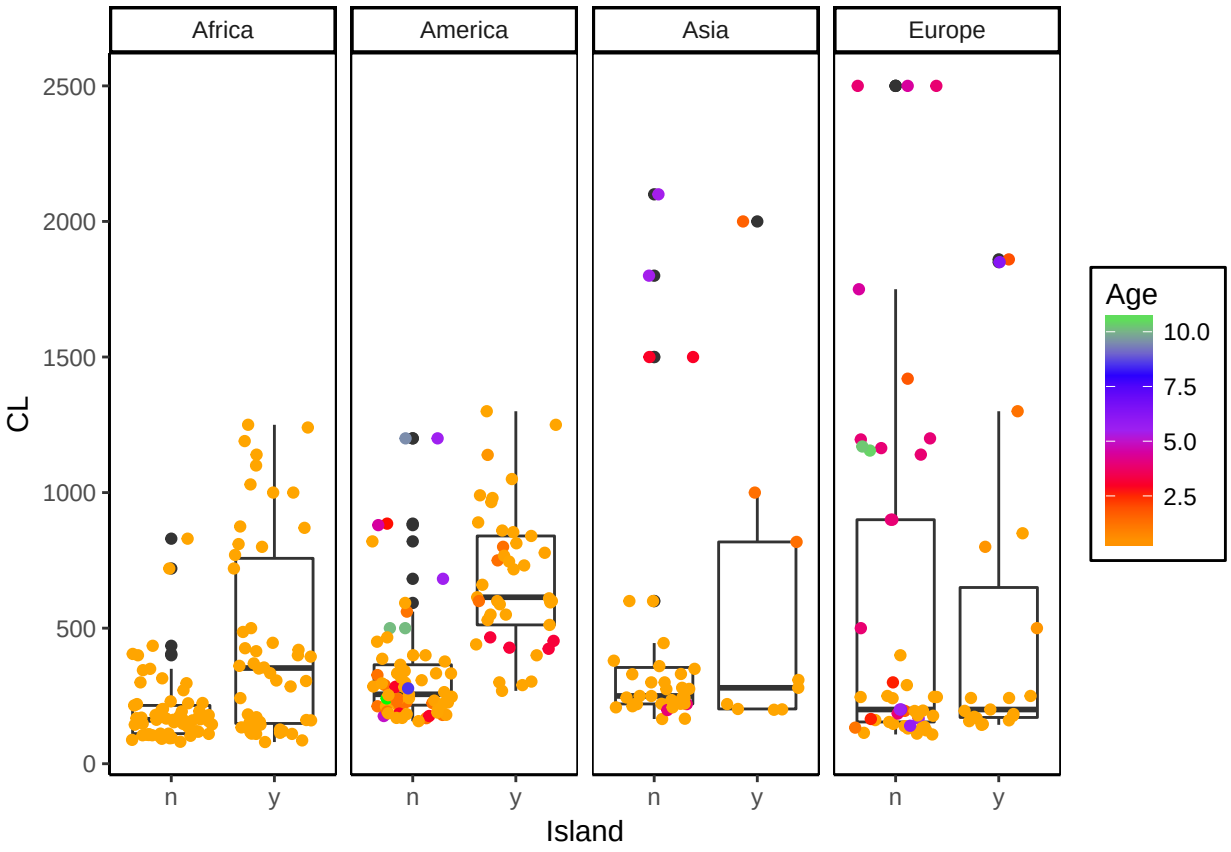

Histogram of Fossil$Age
Frequency
0
5
10
15
20
25
0
2
4
6
8
10
12
Fossil$Age

CL histogram per bin

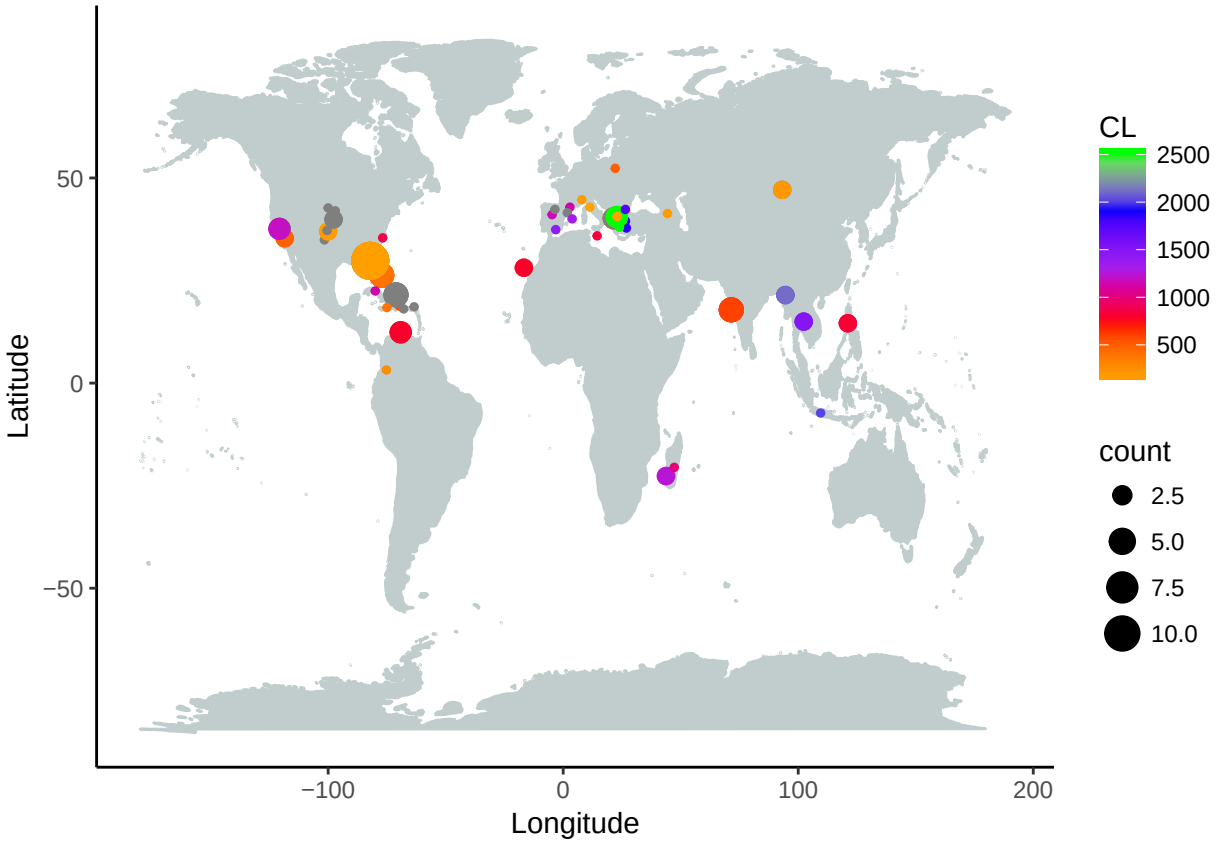


Boxplots (continental (n) vs. Island (y) species)



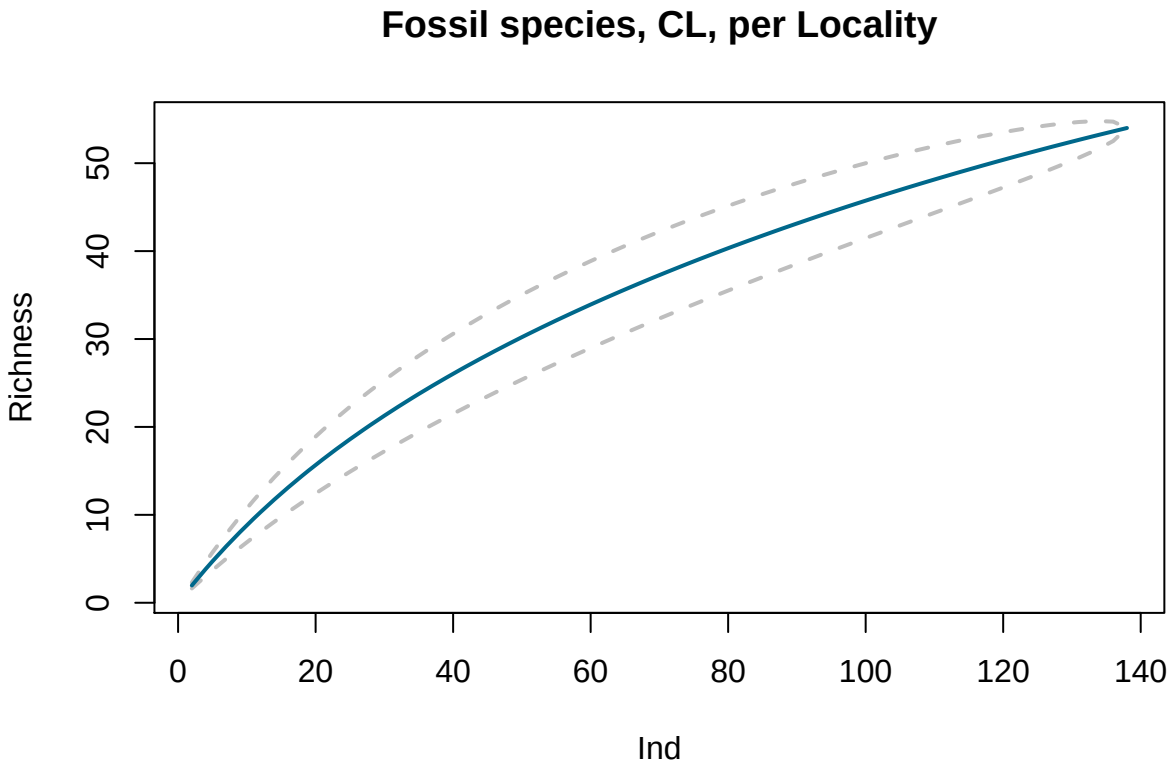

Africa
America
Asia
Europe
CL
2500
2000
1500
1000
500
0
n
y
Island
Age
10.0
7.5
5.0
2.5

Map

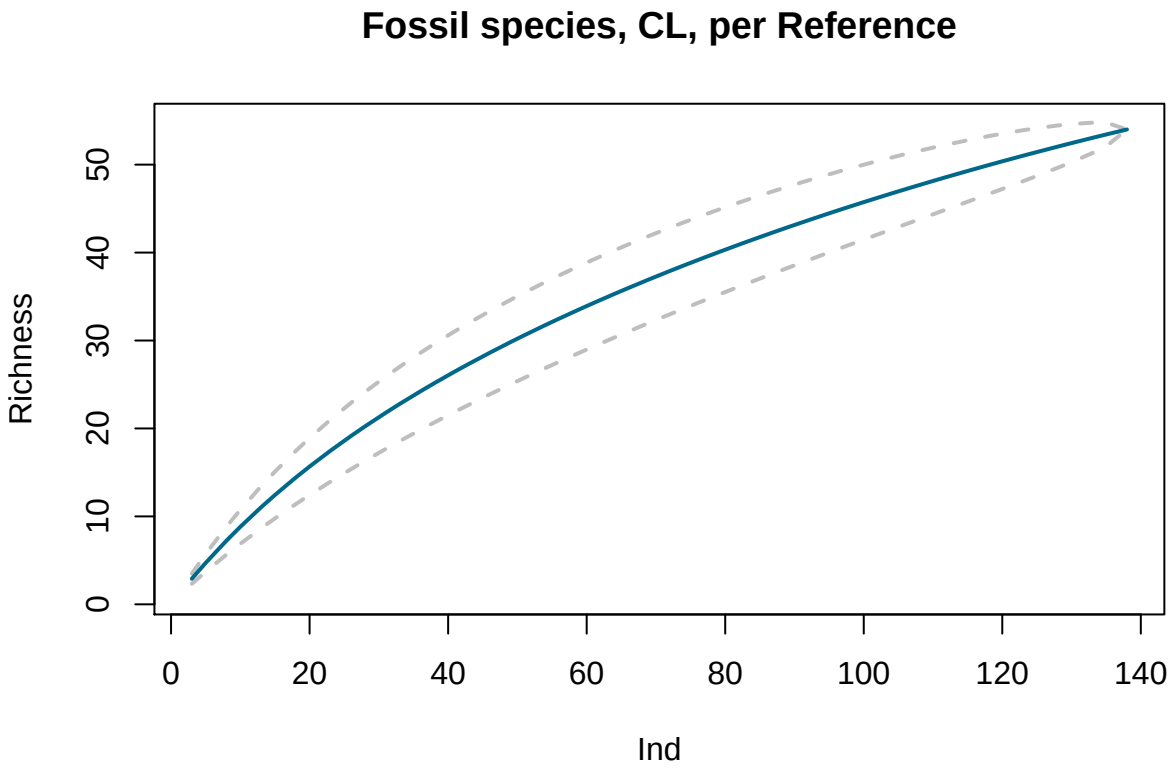

Latitude
50
0
−50
−100
0
100
200
Longitude
CL
2500
2000
1500
1000
500
count
2.5
5.0
7.5
10.0

Species Accumulation Curve

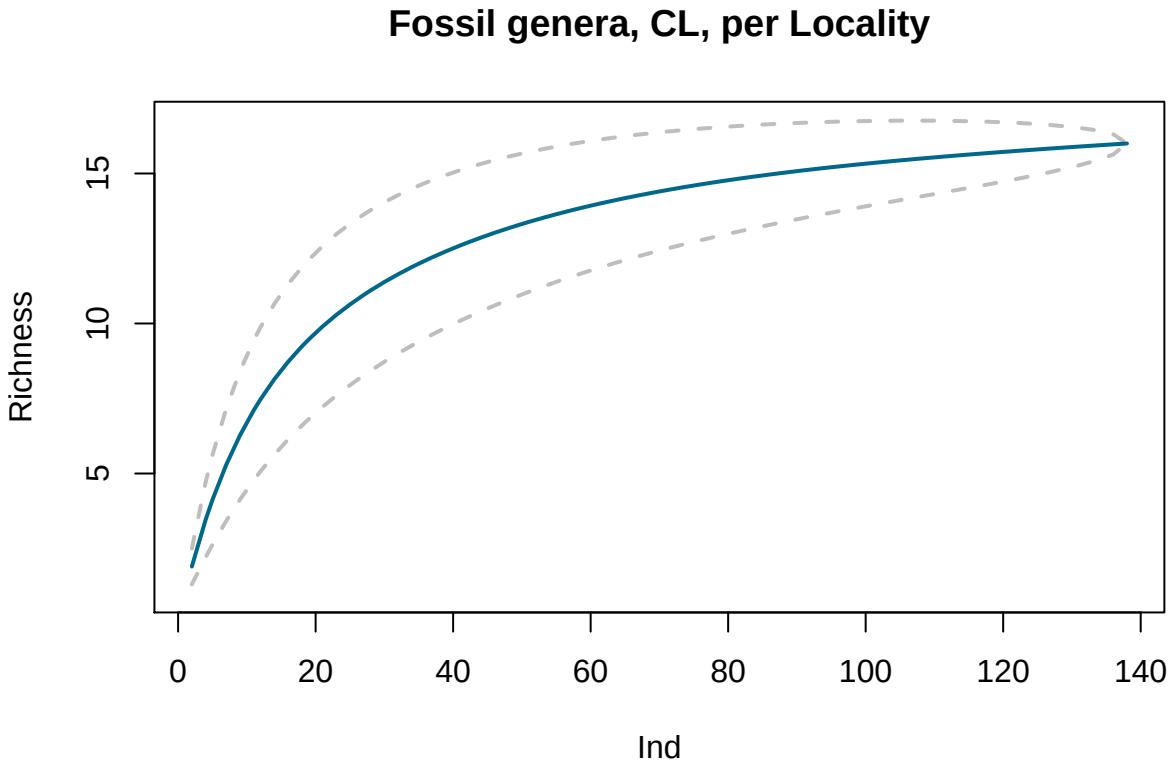
Fossil species (per Locality)



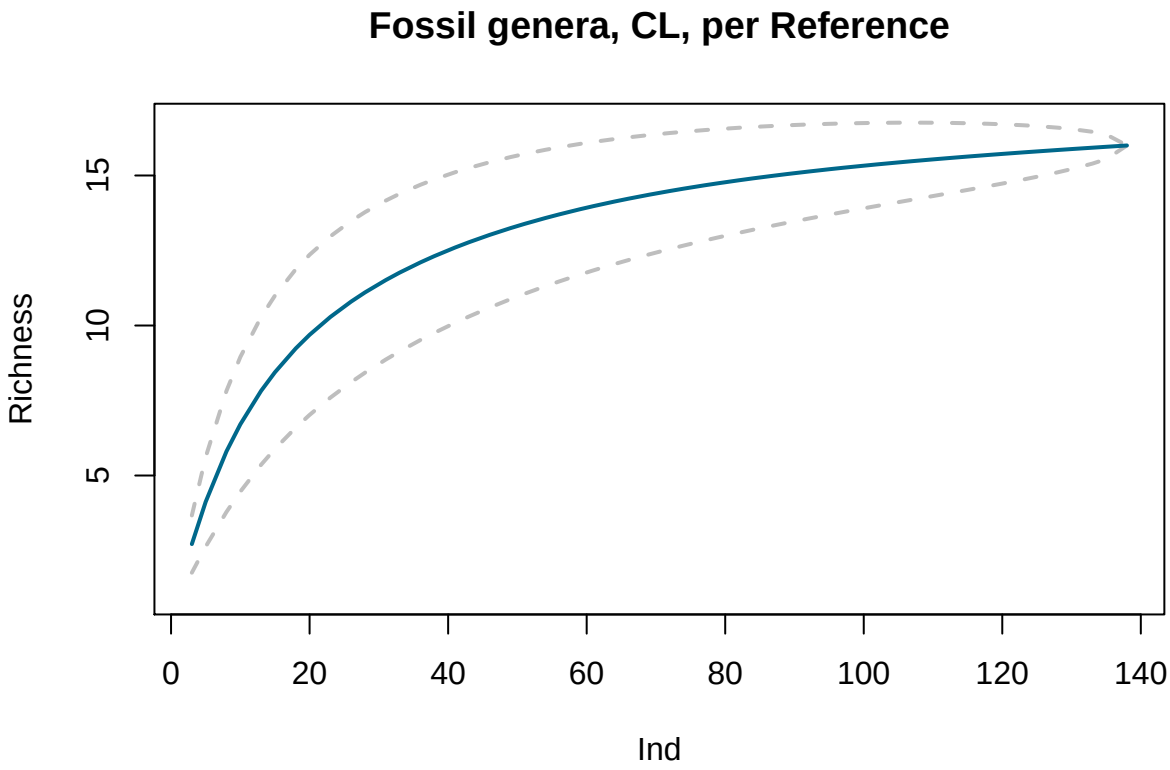
Fossil species (per Reference)



Fossil genera (per Locality)



Fossil genera (per Reference)



Fossil and extant species (per Reference)

```
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## coercing into character vector
```
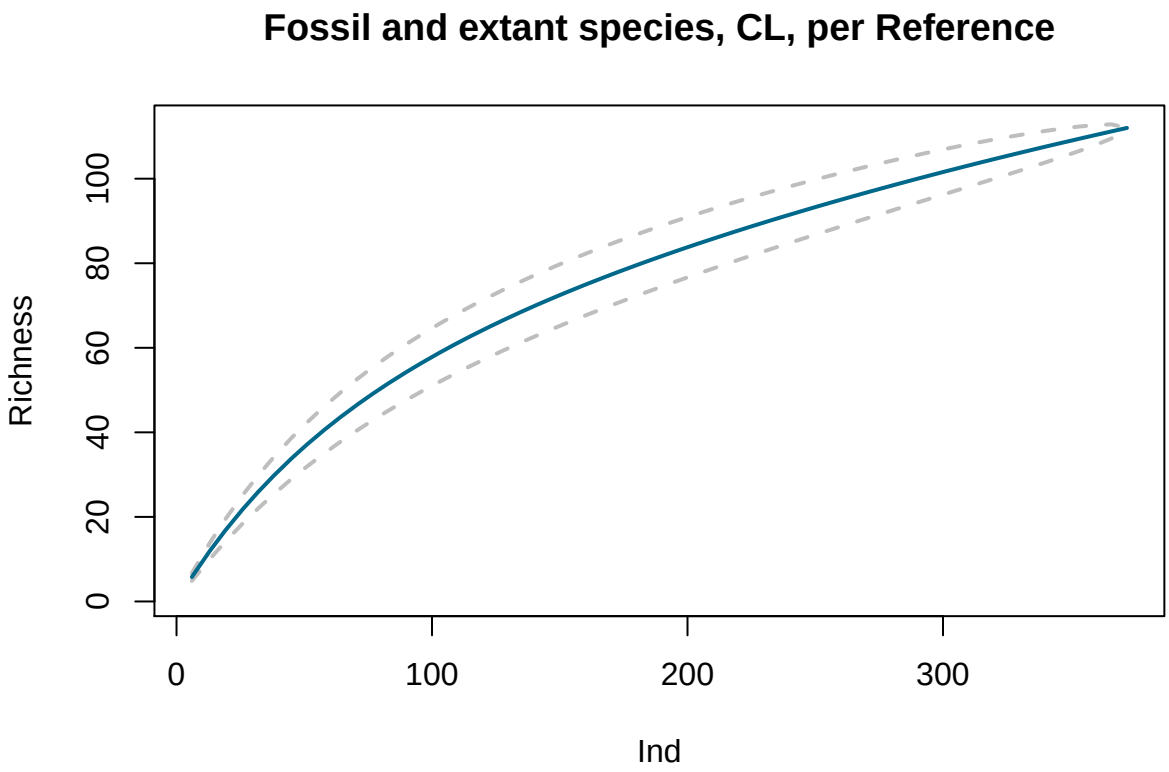
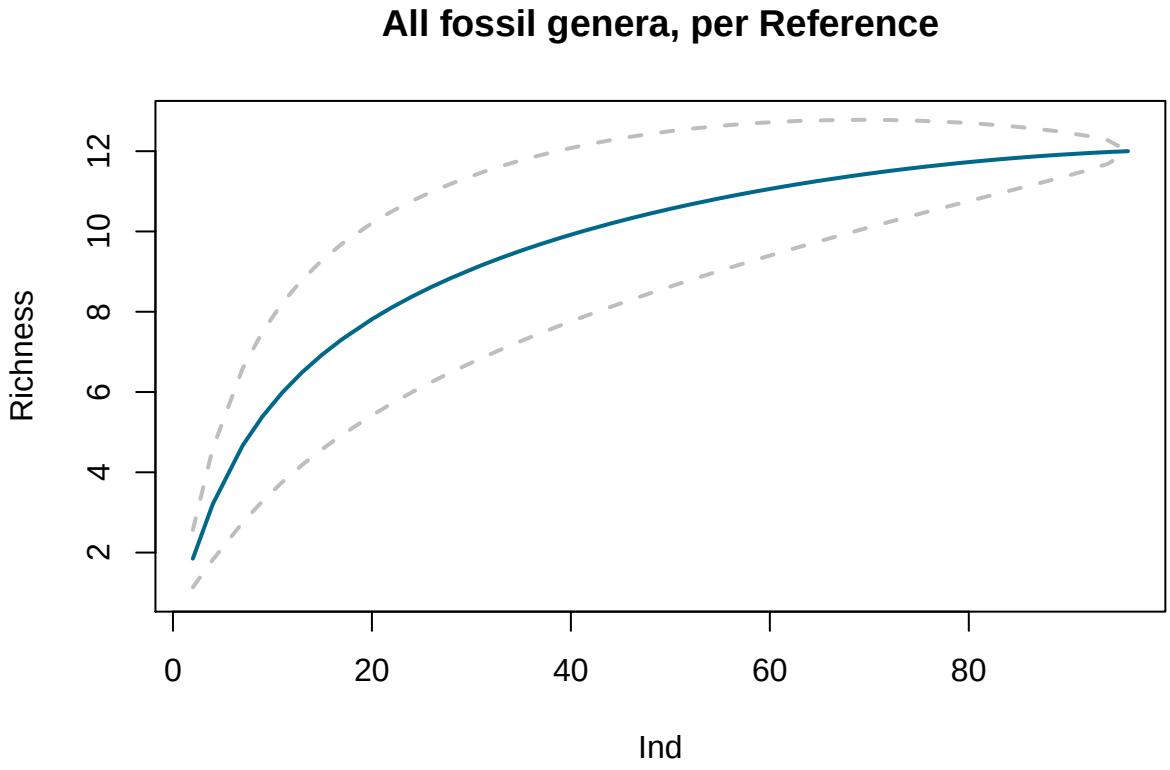


Fossil and extant species, CL, per Reference
Richness
0
20
40
60
80
100
0
100
200
300
Ind

Occurences from FosFarBase per Reference (all known occurences, disregarding availability of CL-data)



Occurences from FosFarBase per Locality (all known occurences, disregarding availability of CL-data)