Body size trends in fossil tortoises

```
## Warning in evalq(((as.numeric(as.character(MAmin))) +
## (as.numeric(as.character(Mamax))))/2, : NAs durch Umwandlung erzeugt
```

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]	11
(0.0117,0.126]	39
(0.126,0.781]	42
(0.781,2.59]	61
(2.59,3.6]	18
(3.6,5.33]	20
(5.33,11.6]	36

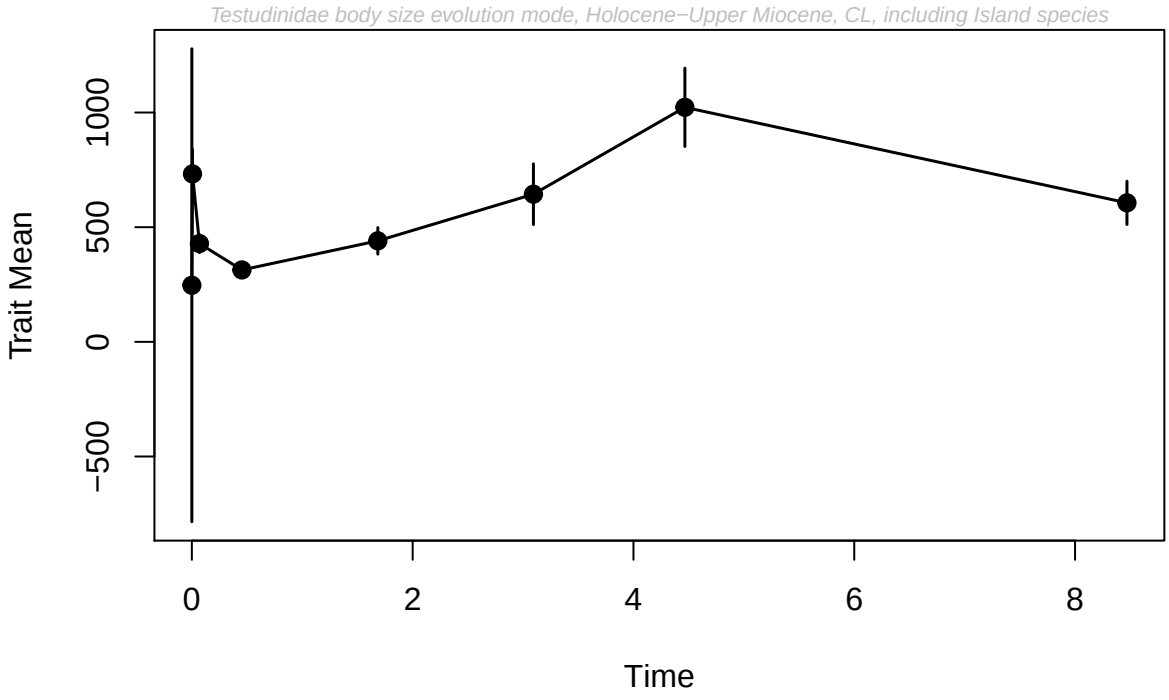
bin	EpochBins	MeanBins
(0,1e-06]	Modern	0.0000005
(1e-06,0.0117]	Holocene	0.0058500
(0.0117,0.126]	Upper Pleistocene	0.0688500
(0.126,0.781]	Middle Pleistocene	0.4535000
(0.781,2.59]	Lower Pleistocene	1.6845000
(2.59,3.6]	Upper Pliocene	3.0940000
(3.6,5.33]	Lower Pliocene	4.4660000
(5.33,11.6]	Upper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

including Island species (n=2183)

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
732.4000	10	1.148318e+05	0.0058500
428.6195	39	6.140037e+04	0.0688500
313.5898	41	2.731759e+04	0.4535000

mm	nn	vv	tt
440.5119	59	1.983172e+05	1.6845000
643.9000	17	2.987707e+05	3.0940000
1022.7400	20	5.841050e+05	4.4660000
606.1971	35	3.116496e+05	8.4700000

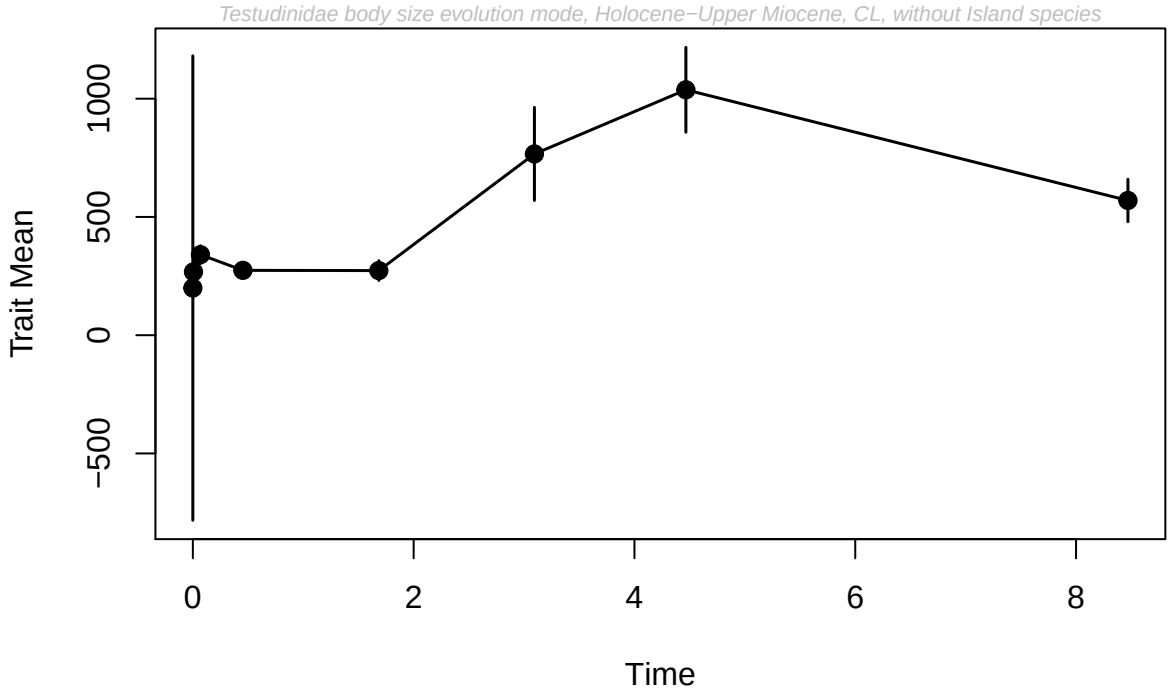



```
##
## Comparing 3 models [n = 7, method = AD]
##
##             logL K     AICc Akaike.wt
## GRW    -51.05314 2 109.1063     0.025
## URW    -51.15958 1 105.1192     0.183
## Stasis -47.59413 2 102.1883     0.792
```

	logL	K	AICc	Akaike.wt
GRW	-51.05314	2	109.1063	0.025
URW	-51.15958	1	105.1192	0.183
Stasis	-47.59413	2	102.1883	0.792

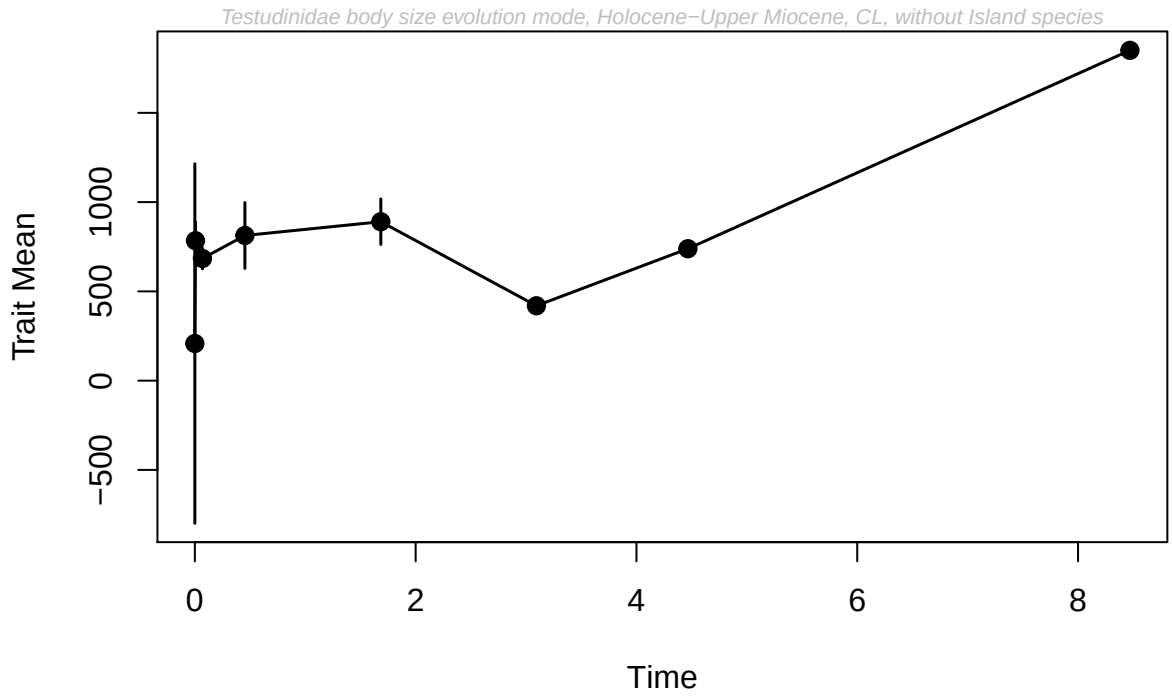
Excluding Island species (n= 1940)

mm	nn	vv	tt
199.4961	1765	1.701509e+09	0.0000005
268.0000	1	0.000000e+00	0.0058500
340.4883	29	4.110758e+04	0.0688500
274.1626	38	2.188837e+03	0.4535000
273.2140	43	7.516785e+04	1.6845000
766.3909	11	4.261398e+05	3.0940000
1037.6737	19	6.118472e+05	4.4660000
569.6147	34	2.728345e+05	8.4700000



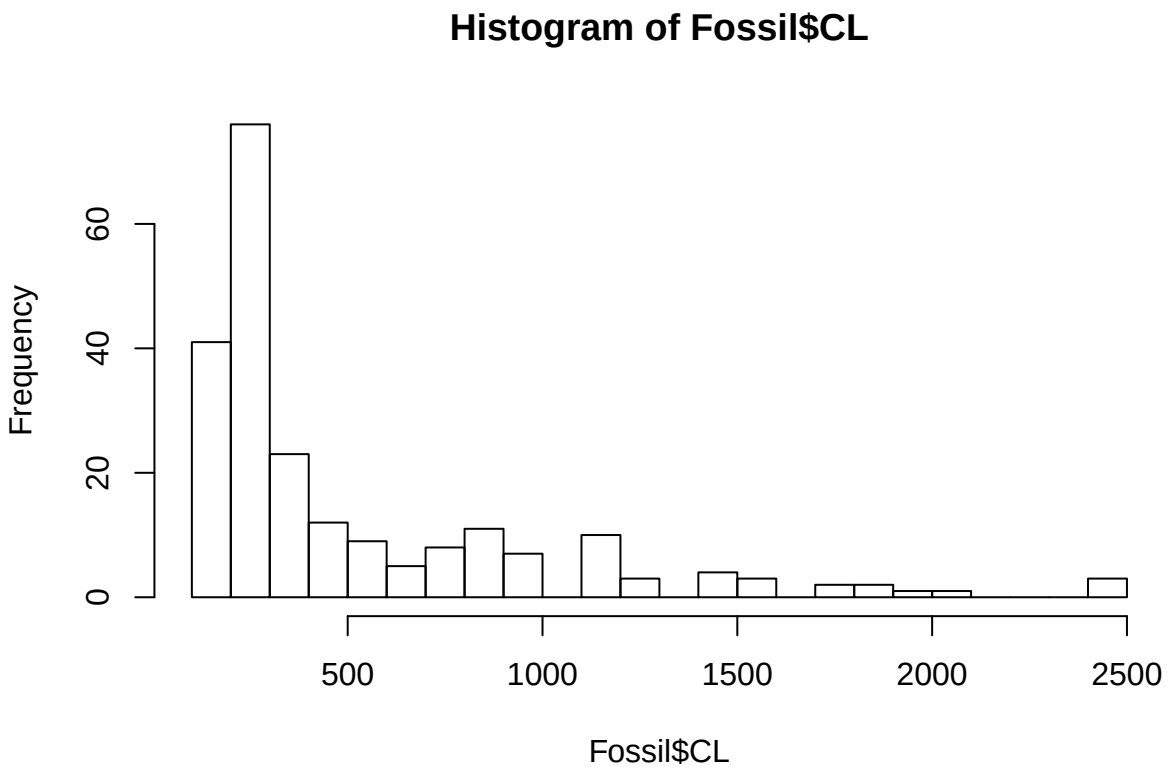
Only Island species

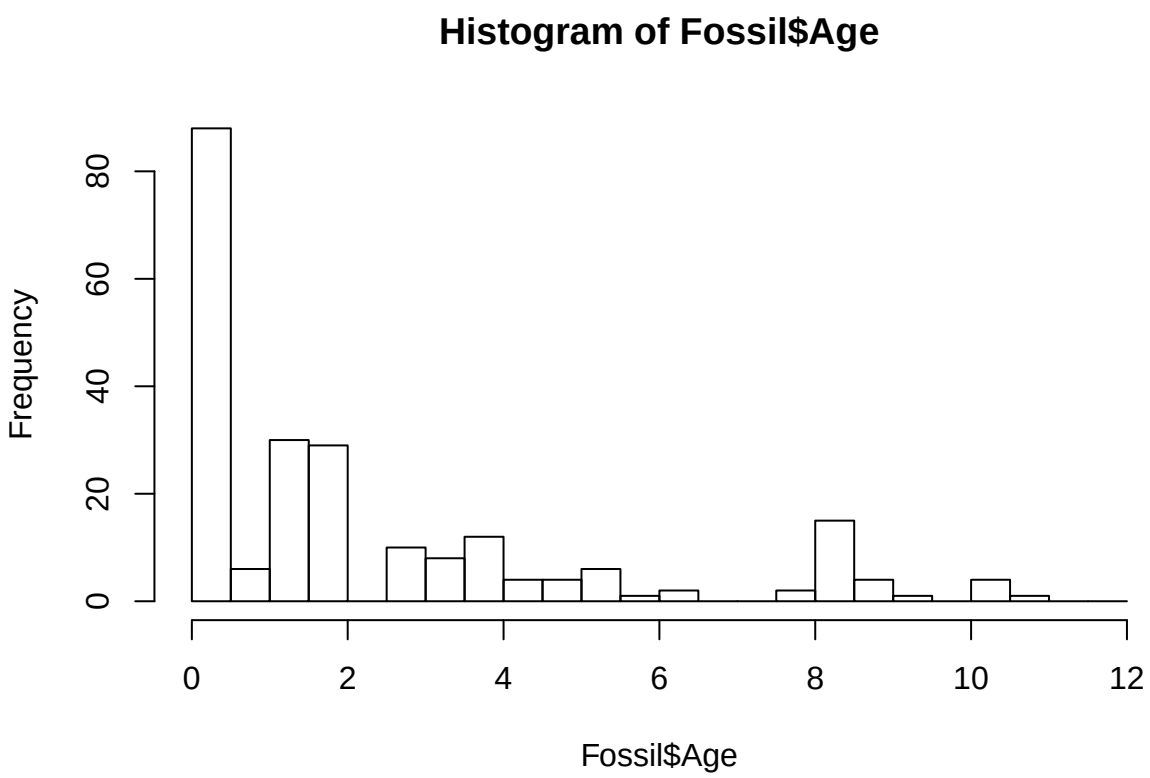
mm	nn	vv	tt
208.0755	1703	1.725832e+09	0.0000005
784.0000	9	9.923200e+04	0.0058500
684.2000	10	3.374907e+04	0.0688500
813.0000	3	1.022070e+05	0.4535000
890.1250	16	2.604940e+05	1.6845000
419.3333	6	1.026147e+04	3.0940000
739.0000	1	0.000000e+00	4.4660000
1850.0000	1	0.000000e+00	8.4700000



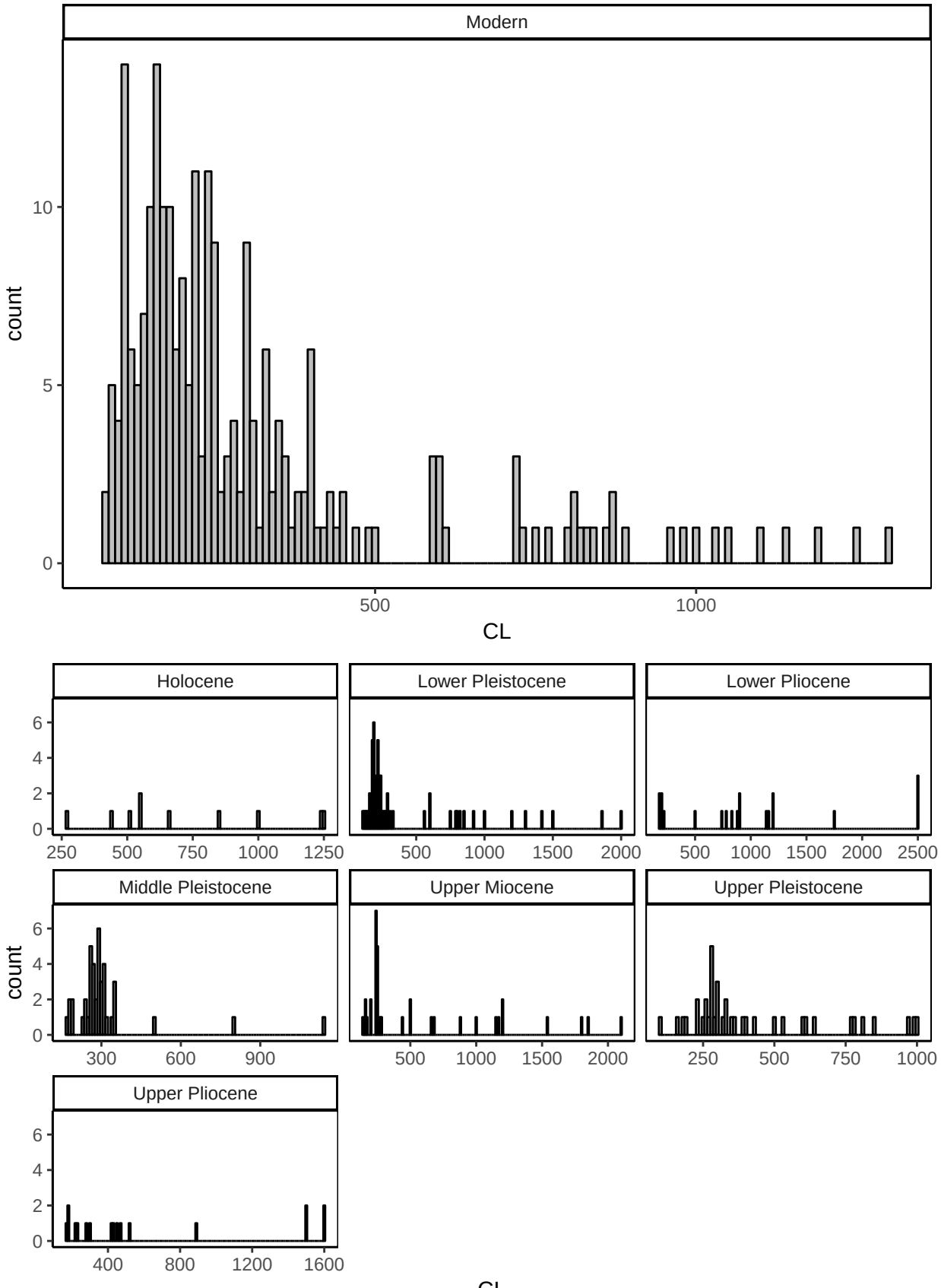
Histograms

Frequency of body size data and distribution over time

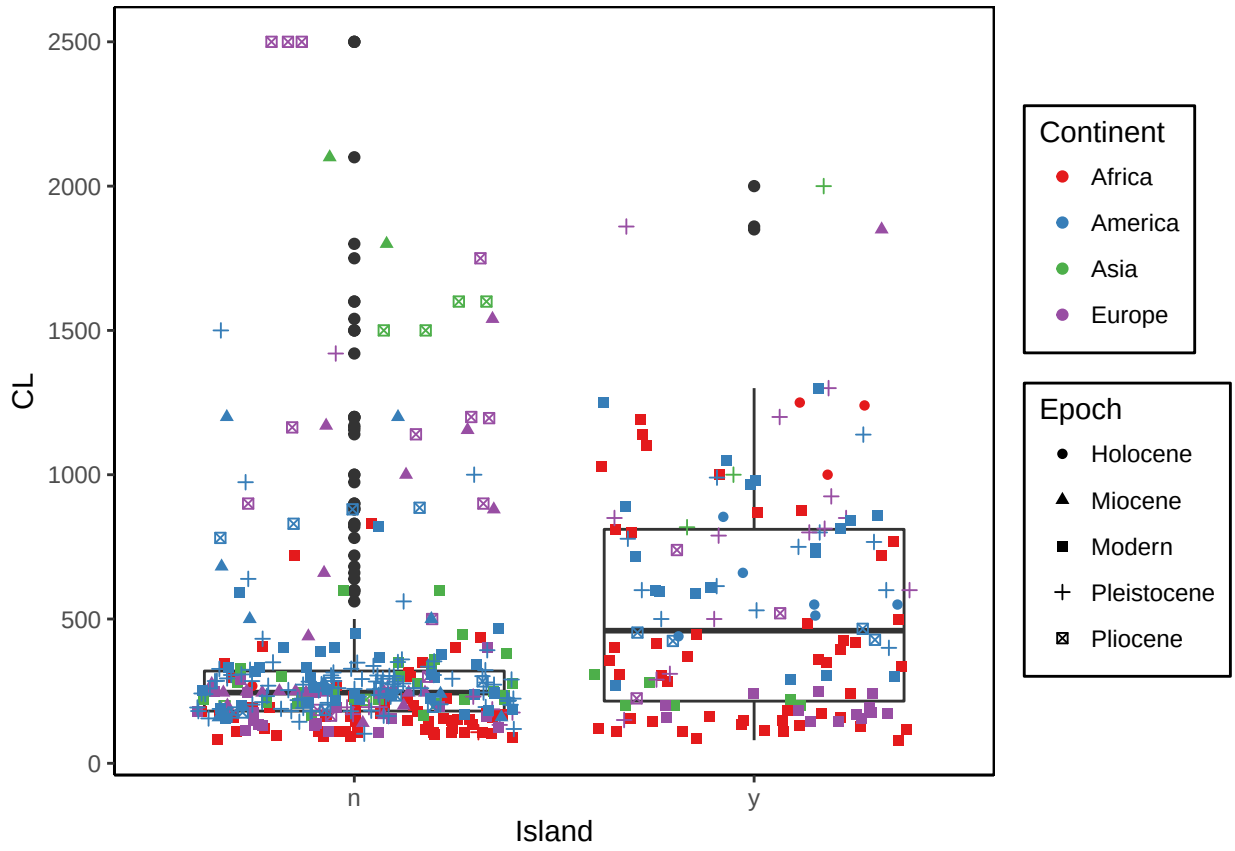

Histogram of Fossil$CL
Frequency
0
20
40
60
500
1000
1500
2000
2500
Fossil$CL

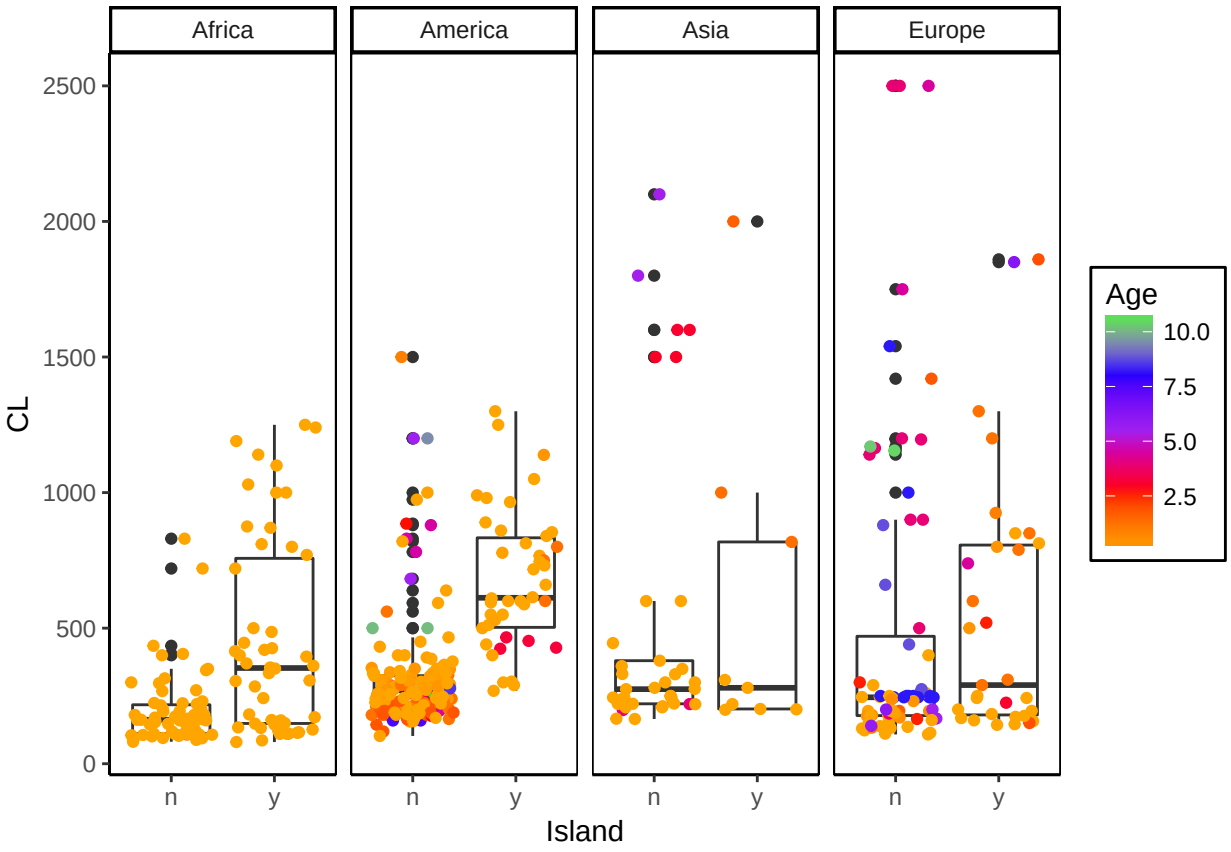

Histogram of Fossil$Age
Frequency
0
20
40
60
80
0
2
4
6
8
10
12
Fossil$Age

CL histogram per bin



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

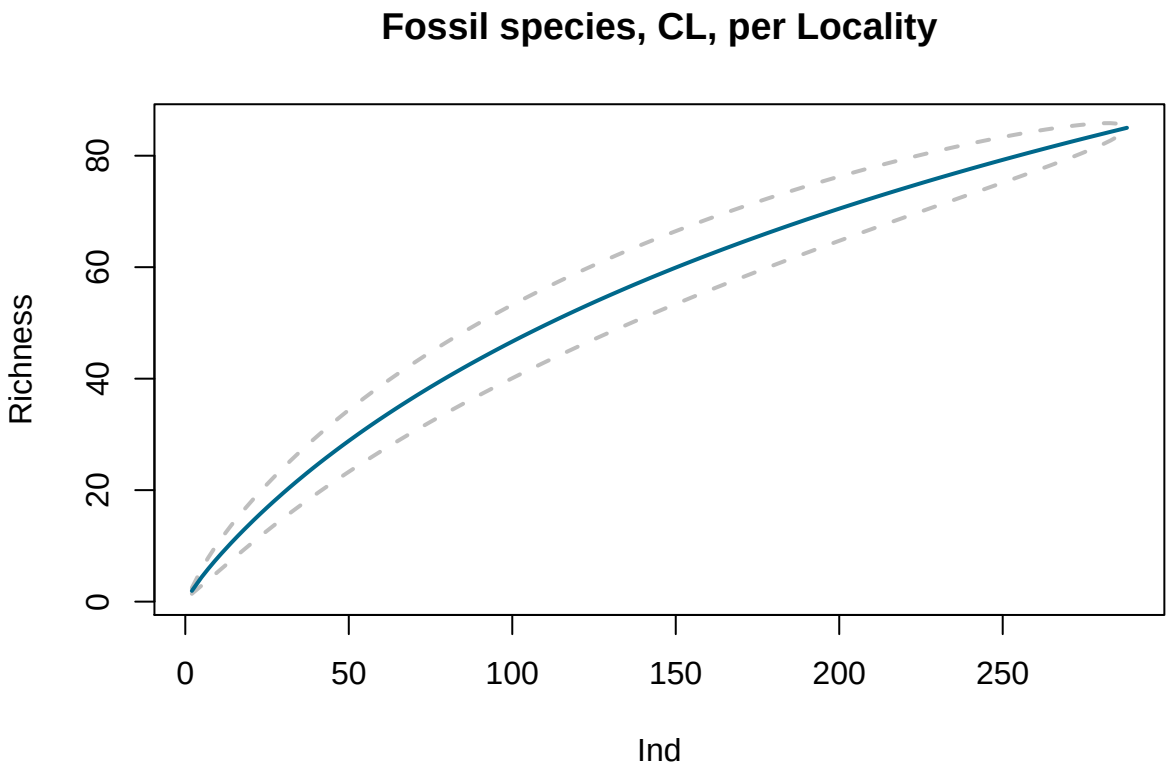



Africa
America
Asia
Europe
CL
2500
2000
1500
1000
500
0
n
y
Island
Age
10.0
7.5
5.0
2.5

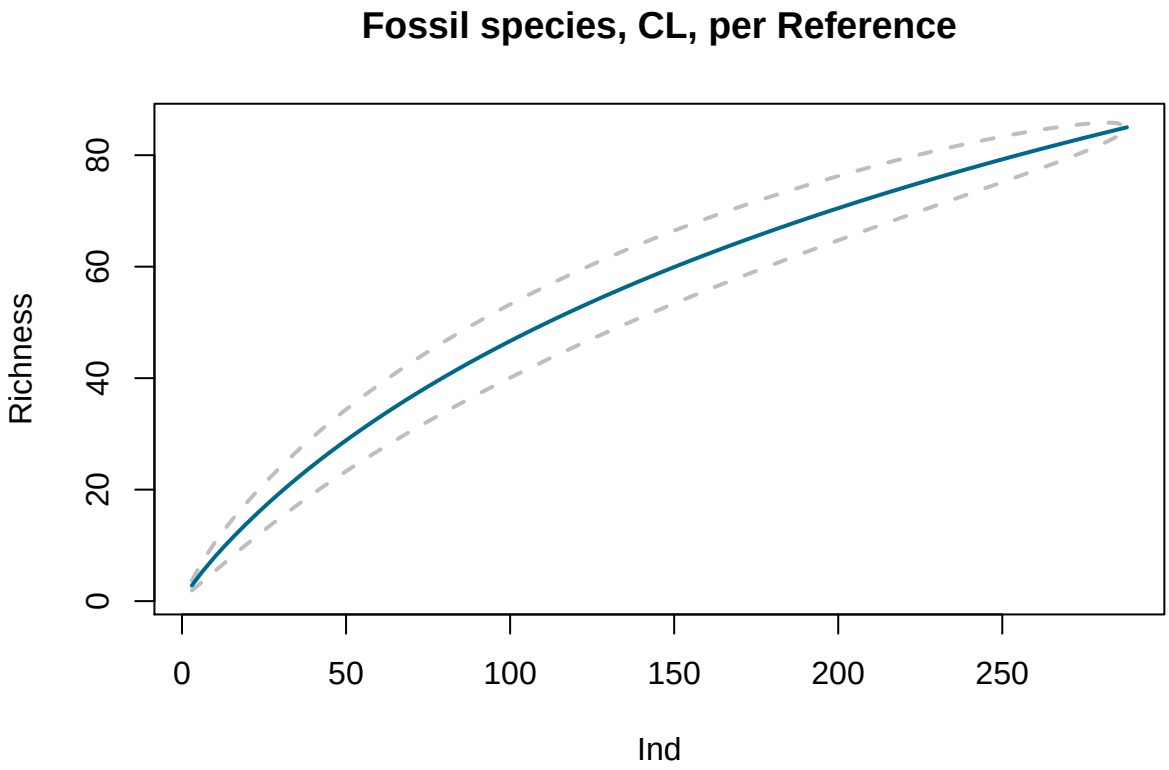
Map

Species Accumulation Curve

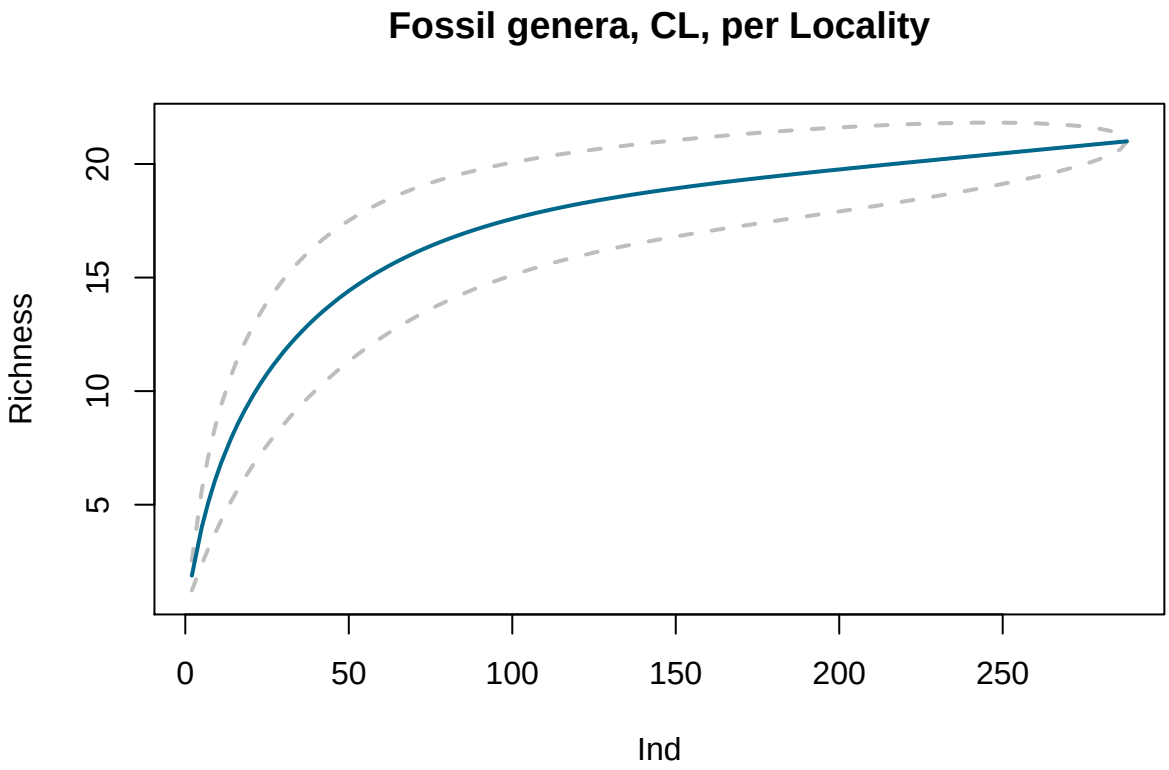
Fossil species (per Locality)



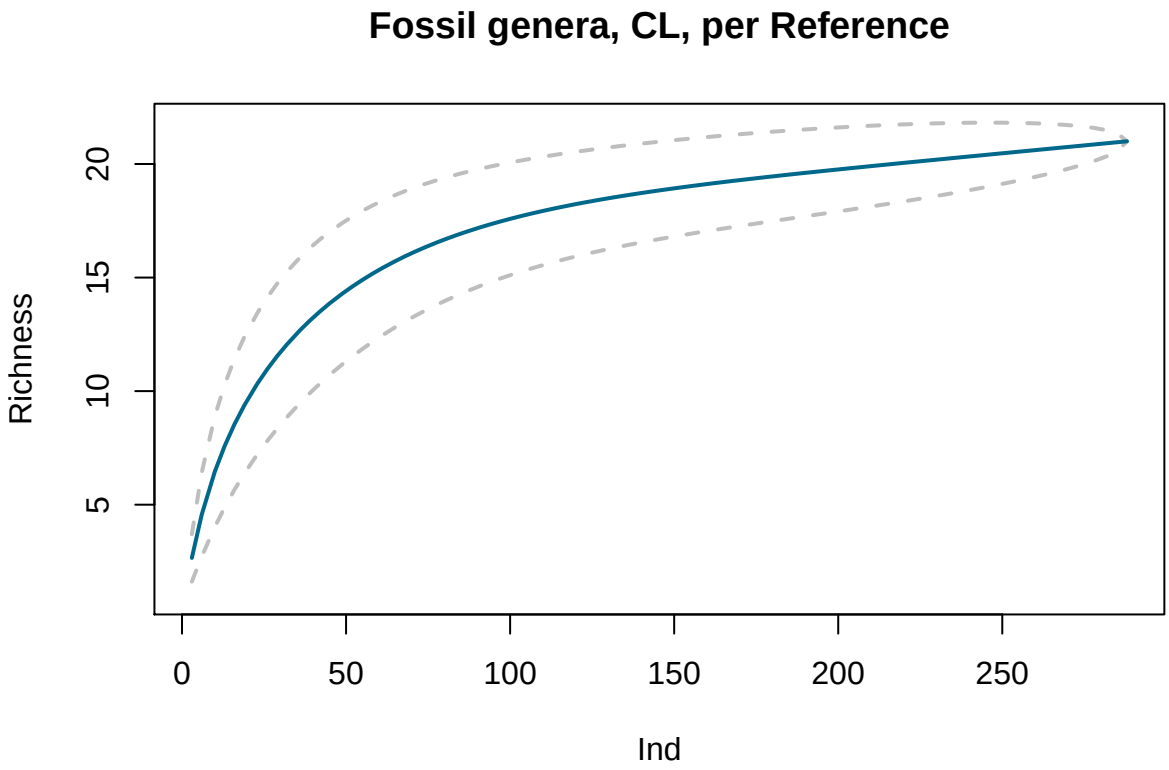
Fossil species (per Reference)



Fossil genera (per Locality)



Fossil genera (per Reference)



Fossil and extant species (per Reference)

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

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```
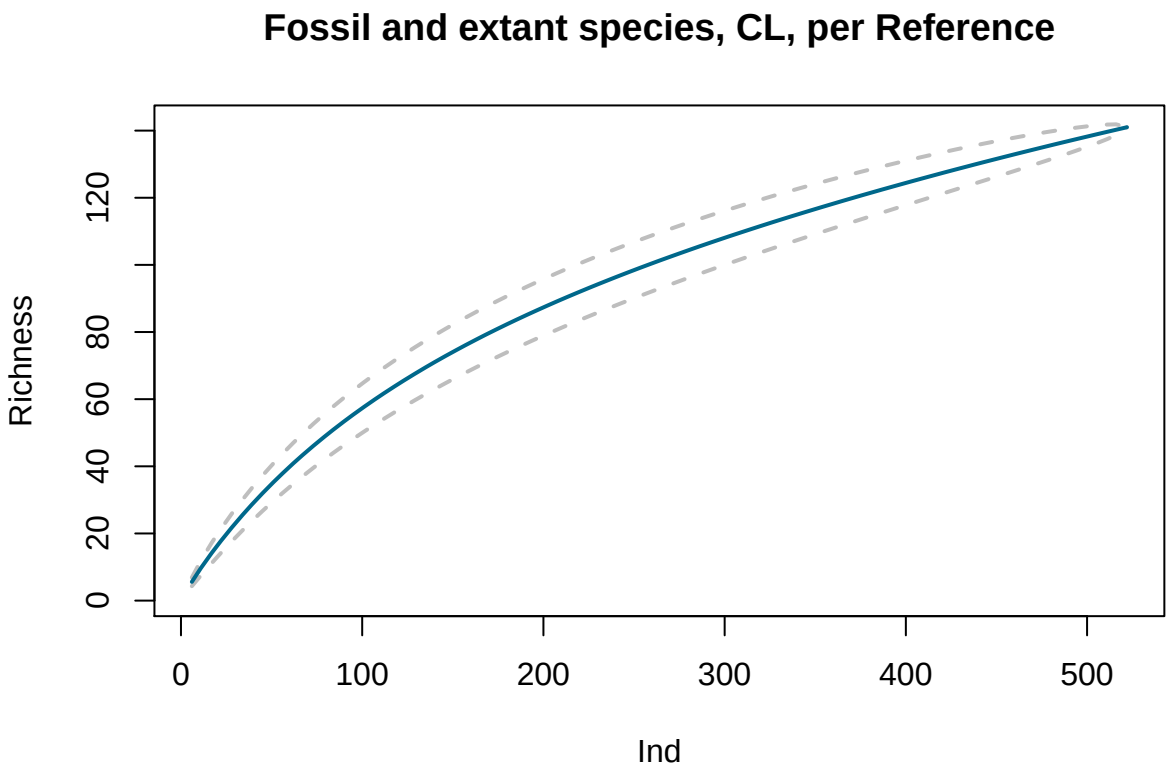
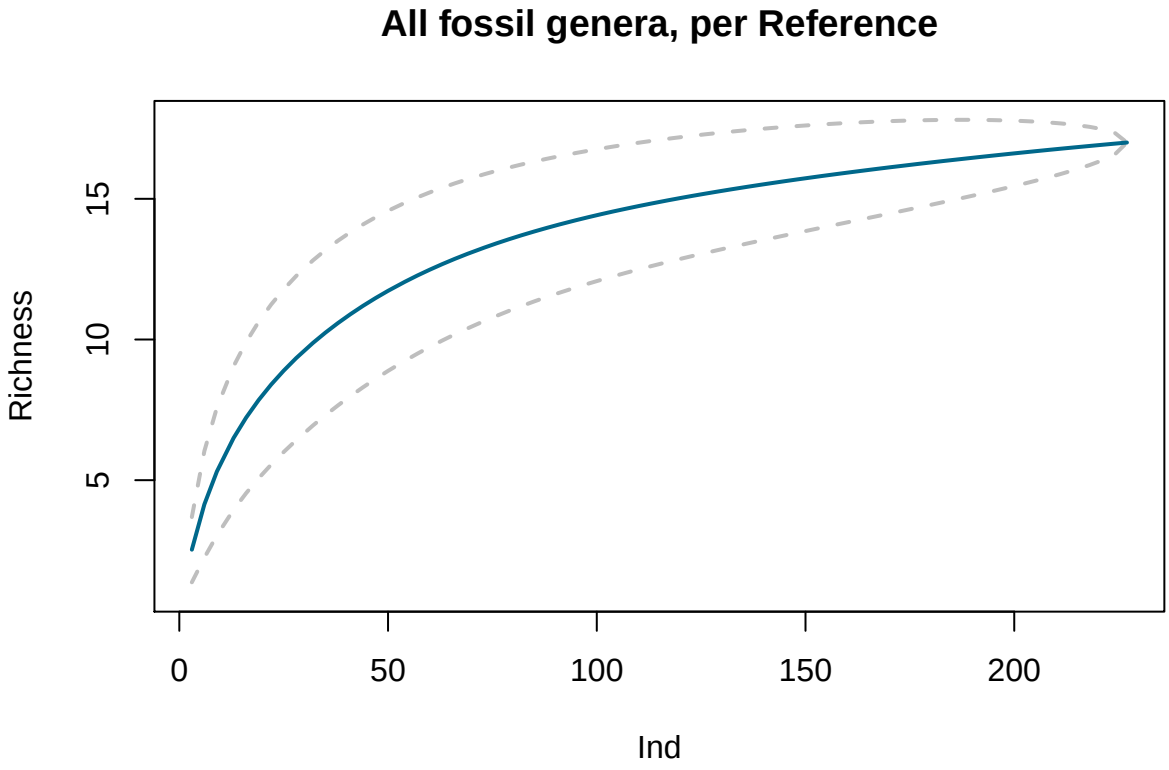


Fossil and extant species, CL, per Reference
Richness
0
20
40
60
80
120
0
100
200
300
400
500
Ind

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)