# Fossil Tortoises

## paleoTS Plot with the following bins:

| bin | n |
|---|---|
| (0,0.0117] | 3 |
| (0.0117,0.126] | 2 |
| (0.126,0.781] | 1 |
| (0.781,2.59] | 7 |
| (2.59,3.6] | 9 |
| (3.6,5.33] | 14 |
| (5.33,11.6] | 13 |

| bin | EpochBins | MeanBins |
|---|---|---|
| (0,0.0117] | Holocene | 0.00585 |
| (0.0117,0.126] | Upper Pleistocene | 0.06885 |
| (0.126,0.781] | Middle Pleistocene | 0.45350 |
| (0.781,2.59] | Lower Pleistocene | 1.68450 |
| (2.59,3.6] | Upper Pliocene | 3.09400 |
| (3.6,5.33] | Lower Pliocene | 4.46600 |
| (5.33,11.6] | Upper Miocene | 8.47000 |

paleoTS object:

```
kable(PPCL)
```

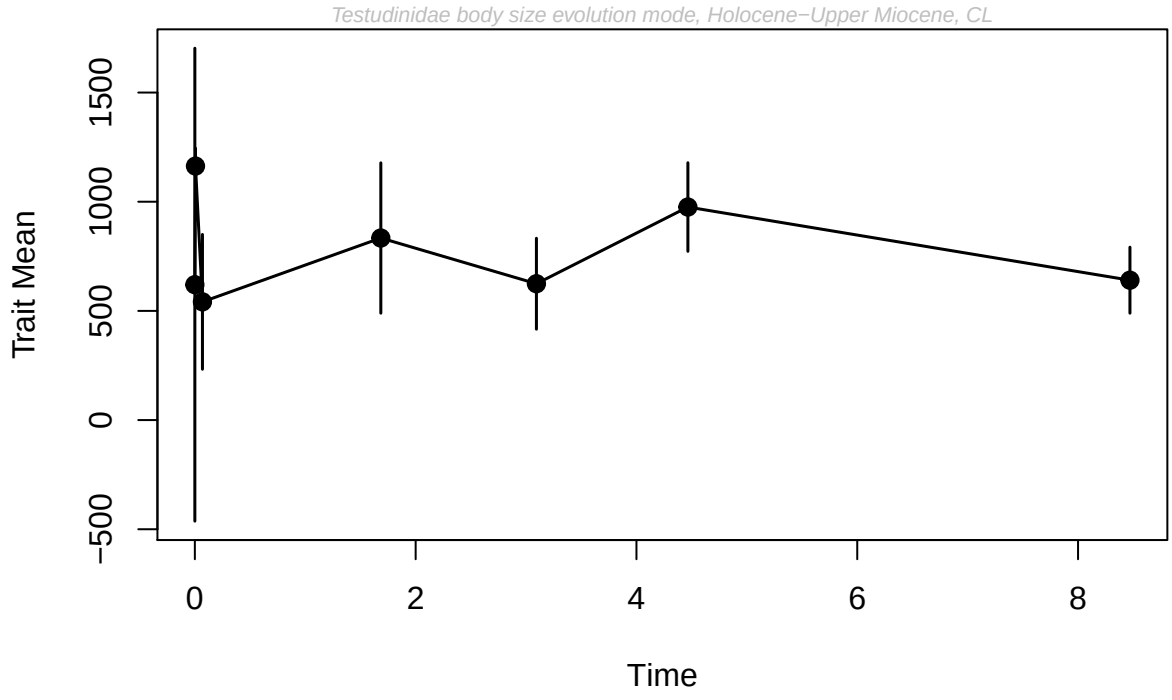
| mm | nn | vv | tt |
|---|---|---|---|
| 620.0618 | 178 | 208721440.31 | 0.00000 |
| 1163.3333 | 3 | 20033.33 | 0.00585 |
| 541.3800 | 2 | 190492.61 | 0.06885 |
| 833.8200 | 5 | 592545.66 | 1.68450 |
| 624.4125 | 8 | 346850.13 | 3.09400 |
| 975.6429 | 14 | 576600.86 | 4.46600 |
| 640.6077 | 13 | 297034.42 | 8.47000 |

```
library(paleoTS)
paleoPPCL <-as.paleoTS(PPCL$mm, PPCL$vv, PPCL$nn, PPCL$tt, MM = NULL, genpars = NULL, label = "Testudini
paleoPPCL
```

```
## $mm
## [1]  620.0618 1163.3333  541.3800  833.8200  624.4125  975.6429  640.6077
##
## $vv
## [1] 208721440.31     20033.33    190492.61    592545.66    346850.13
## [6]    576600.86    297034.42
##
## $nn
```

```
## [1] 178   3   2   5   8  14  13
##
## $tt
## [1] 0.00000 0.00585 0.06885 1.68450 3.09400 4.46600 8.47000
##
## $MM
## NULL
##
## $genpars
## NULL
##
## $label
## [1] "Testudinidae body size evolution mode, Holocene-Upper Miocene, CL"
##
## $start.age
## NULL
##
## $timeDir
## [1] "increasing"
##
## attr(,"class")
## [1] "paleoTS"
```

```
plot(paleoPPCL)
```



```
fit3models(paleoPPCL, silent=FALSE, method="AD", pool=FALSE)
```

```
##
## Comparing 3 models [n = 6, method = AD]
##
##             logL K     AICc Akaike.wt
## GRW    -45.18277 2 98.36555     0.066
## URW    -45.57379 1 94.14758     0.543
## Stasis -43.40326 2 94.80652     0.391
```