the **palaeoverse** package : : cheat sheet

a community-driven R package to support palaeobiological analysis, developed by palaeobiologists, for palaeobiologists.

more info on our website!
palaeoverse.org

Generally handy functions

axis_geo()
add the geological time scale to a plot

look_up(data)
look up interval names and assign international geological stages and ages

group_apply(occdf, group, fun)
apply functions over grouping(s) of data

Produce an occurrence dataset from range data

tax_expand_time(taxdf, max_ma, min_ma)
generate pseudo-occurrences from temporal range data

tax_expand_lat(taxdf, bins)
generate pseudo-occurrences from latitudinal range data

Prepare for temporal analyses

time_bins(interval, rank)
generate time bins for a given study interval

bin_time(occdf, bins, method)
assign fossil occurrences to time bins using different approaches

Prepare for spatial analyses

palaeorotate(occdf, lng, lat, age)
reconstruct the distribution of occurrences at time of deposition

lat_bins(size)
generate latitudinal bins

bin_lat(occdf, bins)
assign fossil occurrences to latitudinal bins

bin_space(occdf, spacing)
assign fossil occurrences to equal-area hexagonal bins

Explore your dataset

phylo_check(tree, list)
check phylogeny tip names from a name list

tax_check(taxdf)
check the potential misspelling of taxonomic names

tax_range_space(occdf, name, method)
calculate the geographical range of fossil taxa using different approaches

tax_range_time(occdf, name)
calculate the temporal range of fossil taxa

tax_unique(occdf, resolution)
filter occurrences to unique taxa of a predefined resolution

Example datasets (to play around with)

reefs
a dataset of Phanerozoic reefs from the PaleoReefs Database

tetrapods
a dataset of Carboniferous to Early Triassic tetrapod occurrences from the Paleobiology Database

Handy dataframes

GTS2012 and GTS2020
dataframes of the Geological Time Scale 2012 and 2020

interval_key
example interval key for use with the look_up() function