the palaeoverse package::cheat sheet

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

Generally handy functions



axis_geo()

add the geological time scale to a plot



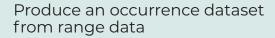
look_up(data)

look up interval names and assign international geological stages and ages



group_apply(occdf, group, fun)

apply functions over grouping(s) of data





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