Package ‘analogueExtra’

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Type Package
Title Additional Functions for Use with the Analogue Package
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Depends vegan3d (>= 0.65-0), analogue (>= 0.16-0)
Imports rgl
Suggests testthat
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BugReports https://github.com/gavinsimpson/analogueExtra/issues

Description Provides additional functionality for the analogue package that is not required by all users of the main package.

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ByteCompile true

URL https://github.com/gavinsimpson/analogueExtra
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plot3d.prcurve

Interactive 3D plot of a principal curve in principal coordinate space

Description

Draws a 3D plot of the principal curve in principal coordinate space using the rgl package and functions from vegan3d.

Usage

```r
## S3 method for class 'prcurve'
plot3d(x, choices = 1:3, display = "sites", scaling = 0,
       lcol = "darkorange", lwd = 2, decorate = TRUE, xlab = NULL,
       ylab = NULL, zlab = NULL, main = NULL, ...)
```

Arguments

- `x`: an object of class "prcurve" resulting from a call to `prcurve`
- `choices`: numeric vector of length 3; the ordination axes to plot.
- `display`: character; which scores to display. See `scores.rda`.
- `scaling`: numeric; the scaling to use for the scores. Default is no scaling.
- `lcol`, `lwd`: The colour and width, respectively, for the principal curve.
- `decorate`: logical; should the plot be decorated with bounding box, axes and labels?
- `xlab`, `ylab`, `zlab`, `main`: Labels for the plot.
- `...`: Arguments passed to other functions. In particular, arguments are passed to `ordirgl`, `lines3d`, and `decorate3d`.

Value

A plot is drawn on the active RGL device. If there is no active RGL device, one is opened upon plotting.

Author(s)

Gavin L. Simpson

See Also

`ordirgl`, `prcurve`
Examples

```r
## Only works if the analogue package is available
if (require("analogue")) {
  ## Load the Abernethy Forest late glacial pollen sequence
  data(abernethy)

  ## Remove the Depth and Age variables
  abernethy2 <- abernethy[, -(37:38)]

  ## Fit the principal curve using the median complexity over
  ## all species
  aber.pc <- prcurve(abernethy2, method = "ca", trace = TRUE,
                     vary = FALSE, penalty = 1.4)

  ## 3D plot of data with curve superimposed
  plot3d.prcurve(aber.pc) # now deprecated, instead use
  plot3d(aber.pc)
}
```
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