

Package: LandR.CS (via r-universe)

November 25, 2024

Title Climate-sensitive Growth and Mortality in LandR

Description This package contains climate-sensitive growth and mortality function for LandR. Some flexibility exists in how climate-sensitivity is derived, however the simplest and most robust method is to use the SpaDES module 'gmcsDataPrep' and R package 'PSPclean'.

URL <https://github.com/ianmseddy/LandR.CS>

Version 0.0.3.9003

Depends R (>= 4.2)

Imports data.table, LandR, nlme, methods, reproducible, stats, terra

Remotes PredictiveEcology/LandR@development

Encoding UTF-8

Language en-CA

License GPL-3

BugReports <https://github.com/ianmseddy/LandR.CS/issues>

RoxygenNote 7.3.1

Config/pak/sysreqs cmake libgdal-dev gdal-bin libgeos-dev make default-jdk libicu-dev libjpeg-dev libpng-dev libssl-dev libproj-dev libsqlite3-dev libudunits2-dev

Repository <https://predictiveecology.r-universe.dev>

RemoteUrl <https://github.com/ianmseddy/LandR.CS>

RemoteRef development

RemoteSha 7da9ed97db6be7eb92b1747a56d8899daee9b918

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LandR.CS-package

LandR.CS *package*

Description

Utilities for 'LandR.CS' suite of landscape simulation models. These functions incorporate climate sensitivity into LandR processes.

Details

Package options

LandR.CS packages use the following [options](#) to configure behaviour:

- LandR.assertions: If TRUE, additional code checks are run during function calls. Default FALSE.

Author(s)

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See Also

Useful links:

- <https://github.com/ianmseddy/LandR.CS>
- Report bugs at <https://github.com/ianmseddy/LandR.CS/issues>

 calculateClimateEffect

Calculate climate effect

Description

Predict biomass change with climate variables

Usage

```
calculateClimateEffect(
  cohortData,
  pixelGroupMap,
  cceArgs,
  year,
  gmcsGrowthLimits,
  gmcsMortLimits,
  gmcsMinAge,
  cohortDefinitionCols = c("age", "speciesCode", "pixelGroup")
)
```

Arguments

cohortData	The LandR cohortData object
pixelGroupMap	the pixelGroupMap needed to match cohorts with raster values
cceArgs	a list of datasets used by the climate function
year	time of simulation - used to select from list of projected climate rasters
gmcsGrowthLimits	lower and upper limits to the effect of climate on growth
gmcsMortLimits	lower and upper limits to the effect of climate on mortality
gmcsMinAge	minimum age for which to predict full effect of growth/mortality - younger ages are weighted toward a null effect with decreasing age
cohortDefinitionCols	cohortData columns that determine individual cohorts

 gamlss.own

gamlss.own

Description

the definition of the backfitting additive function

Usage

```
gamlss.own(x, y, w, xeval = NULL)
```

Arguments

x	description missing
y	description missing
w	description missing
xeval	description missing

Author(s)

Mikis Stasinopoulos and Marco Enea

own

own

Description

for predicting from gamlss with no random effect

Usage

```
own(
  fixed = ~1,
  random = NULL,
  correlation = NULL,
  method = "ML",
  level = NULL,
  ...
)
```

Arguments

fixed	the fixed terms
random	the random terms
correlation	this is the correlation structure?
method	TODO: Description needed
level	the marginal or conditional predictor
...	additional arguments passed to lmeCcontrol

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