Package: LandR.CS (via r-universe)

October 17, 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, raster, reproducible, stats

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

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

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

RemoteRef development

RemoteSha 9e95856cc289c71ec5ec7614c067ee315bd06a42

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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>

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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

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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

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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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