Package ‘rTRIPLEXCWFlux’

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Type Package
Title Carbon-Water Coupled Model
Version 0.2.0
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Description A carbon-water coupled model (TRIPLEX-CW-Flux) is based on two well-estab-
lished models, TRIPLEX-Flux model and Penman–Monteith model, integrates soil wa-
ter and water vapor pressure deficits into the stomata conductance submodule to esti-
mate net ecosystem production and evapotranspiration in forest ecosystems.<https://github.com/ShulanSun/rTRIPLEX_CW_Flux>.
License MIT + file LICENSE
Encoding UTF-8
LazyData true
RoxygenNote 7.2.1
Depends R (>= 2.10)
Suggests knitr, rmarkdown, testthat
VignetteBuilder knitr
URL https://github.com/ShulanSun/rTRIPLEX_CW_Flux
NeedsCompilation no
Repository CRAN
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R topics documented:

  Inputpara .................................................................  2
  Inputvariable ..............................................................  2
  onemonth_exam ............................................................  3
  TRIPLEX_CW_Flux .........................................................  3
### Inputvariable

<table>
<thead>
<tr>
<th>Index</th>
<th>5</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Inputpara</th>
<th>Inputpara</th>
</tr>
</thead>
</table>

#### Description

Just test dataframe(Description)

#### Usage

Inputpara

#### Format

An object of class data.frame with 1 rows and 31 columns.

#### Examples

```r
head(Inputpara)
```

<table>
<thead>
<tr>
<th>Inputvariable</th>
<th>Inputvariable</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Description

Just test dataframe(Description)

#### Usage

Inputvariable

#### Format

An object of class data.frame with 17520 rows and 18 columns.

#### Examples

```r
head(Inputvariable)
```
Description

Just test dataframe(Description)

Usage

TRIPLEX_CW_Flux

Format

An object of class data.frame with 1488 rows and 18 columns.

Examples

head(onemonth_exam)


table

TRIPLEX_CW_Flux

Runs a TRIPLEX-CW-Flux model simulation

Description

Runs the TRIPLEX-CW-Flux model. For more details on input variables and parameters and structure of input visit data.

Usage

TRIPLEX_CW_Flux(Input_variable, Input_parameter, overyear = FALSE)

Arguments

Input_variable
A table as described in Inputpara containing the information about input variables.

Input_parameter
A table as described in Inputvariable containing the information about input parameters.

overyear
If overyear is 'TRUE', this means that the input data is more than one year. The outputs of the TRIPLEX_CW_Flux function are a long format dataframe and charts of simulated result for net ecosystem productivity (NEP) and evapotranspiration (ET) at 30 min scale, and monthly variation of the input environmental factors.
Value

A list with class "result" containing the simulated results and charts for NEP and ET at 30 min scale, and monthly variation of the input environmental factors.

References


Examples

library(rTRIPLEX CW Flux)
TRIPLEX CW Flux (Input_variable=onemonth_exam, Input_parameter=Inputpara, overyear=FALSE)
Index

* datasets
  Inputpara, 2
  Inputvariable, 2
  onemonth_exam, 3

data, 3

Inputpara, 2, 3
Inputvariable, 2, 3

onemonth_exam, 3

TRIPLEX_CW_Flux, 3