

Package ‘eddi’

May 22, 2019

Title Get Evaporative Demand Drought Index Raster Data

Version 0.0.1

Description Finds and downloads raw Evaporative Demand Drought Index (EDDI) data, then reads the data into 'R' using the 'raster' package. The EDDI product detects drought at multiple time scales, from weekly ``flash droughts'' to long-term droughts. More information about the EDDI data product can be found at <<https://www.esrl.noaa.gov/psd/eddi/>>.

License GPL-3

URL <https://github.com/earthlab/eddi>

BugReports <https://github.com/earthlab/eddi/issues>

Imports raster, rgdal, utils

Suggests covr, knitr, rmarkdown, sf, sp, testthat

VignetteBuilder knitr

Encoding UTF-8

LazyData true

RoxygenNote 6.1.1

NeedsCompilation no

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Repository CRAN

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`get_eddi`*Get EDDI data*

Description

This function searches for EDDI data on a specific date, returning a Raster* object.

Usage

```
get_eddi(date, timescale, dir = tempdir(), overwrite = FALSE)
```

Arguments

<code>date</code>	An object of class <code>Date</code> or a character string formatted as are to be acquired. To specify a time interval or date range, <code>date</code> can be a vector of class <code>Date</code> such as produced by <code>seq.Date</code> .
<code>timescale</code>	A string that specifies the timescale for EDDI, e.g., "1 week", "12 month". The <code>get_eddi</code> function assumes that a space separates the number for the timescale (e.g., "1", "12") from the units (e.g., "week", "month"). Fractional timescales are not supported, and will be rounded to the nearest integer (e.g., "1.1 week" will be converted to "1 week").
<code>dir</code>	Directory to for downloaded EDDI data. By default this will be a temporary directory. This should be a file path specified as a string.
<code>overwrite</code>	Boolean to indicate whether to overwrite EDDI data that already exist locally in <code>dir</code> . Defaults to <code>FALSE</code> .

Details

The Evaporative Demand Drought Index is available for each day from 1980 to present, usually with a ~5 day lag to the current date. It is available at multiple timescales, including the 1 to 12 week and 1 to 12 months scales. For more information see <https://www.esrl.noaa.gov/psd/eddi/>

Value

A Raster* object containing EDDI data. Each layer in this object corresponds to data for one date.

Examples

```
# note that downloads may take a while, depending on internet connection
get_eddi(date = "2018-01-01", timescale = "1 month")
```

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