Package 'predictsr'

July 24, 2025

Title Access the 'PREDICTS' Biodiversity Database

Version 0.1.1

Description Fetches the 'PREDICTS' database and relevant metadata from the Data
Portal at the Natural History Museum, London <https://data.nhm.ac.uk>. Data
were collated from over 400 existing spatial comparisons of local-scale
biodiversity exposed to different intensities and types of anthropogenic
pressures, from sites around the world. These data are described in Hudson
et al. (2013) <doi:10.1002/ece3.2579>.

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Encoding UTF-8

RoxygenNote 7.3.2

Imports glue, httr2, jsonlite, logger

Suggests dplyr, knitr, rmarkdown, testthat (>= 3.0.0)

Config/testthat/edition 3

Depends R (>= 4.1.0)

Config/testthat/parallel true

VignetteBuilder knitr

URL https://biodiversity-futures-lab.github.io/predictsr/

NeedsCompilation no

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Contents

GetColumnDescriptions *Get a dataframe describing the columns in the PREDICTS database extract.*

Description

This function returns a dataframe containing the column descriptions for the PREDICTS database extract.

Usage

```
GetColumnDescriptions(...)
```

Arguments

...   extra arguments passed to read.csv.

Details

The PREDICTS - Predicting Responses of Ecological Diversity In Changing Terrestrial Systems - database contains a large number of columns, each corresponding to a variable describing the site or the observation. This function accesses the column descriptions for the PREDICTS database extract.

The column descriptions are provided as a dataframe, with each row corresponding to a column in the PREDICTS database extract.

There are two releases of the PREDICTS database, an initial release in 2016, and an additional release in 2022. The user chooses whether to pull summary data for the 2016 and/or 2022 release.

The data are provided under a CC NC (non-commercial) license, which means that they cannot be used for commercial purposes. The 2016 release is available under a CC BY-NC-SA 4.0 license, and the 2022 release is available under a CC NC (any) license.

Value

The column descriptions in the format as a dataframe.

Examples

```
descriptions <- GetColumnDescriptions()
```

GetPredictsData   *Read the PREDICTS database into either a dataframe.*

Description

This returns the latest complete PREDICTS database extract as a dataframe.

Usage

```
GetPredictsData(extract = c(2016, 2022))
```

Arguments

extract   numeric, year/s corresponding to PREDICTS database releases to download.
                 Options are 2016 or 2022. Defaults to `c(2016, 2022)` - the whole dataset.

Details

The data were collected as part of the PREDICTS project - Projecting Responses of Ecological Diversity In Changing Terrestrial Systems, and comprise of two releases. The first was in 2016, and the second in 2022. This function accesses the 2016 and/or 2022 release.

The database is provided as a dataframe, with each row corresponding to a site-level observation, and each column corresponding to a variable describing the site or the observation. The data are provided in a standardised format, with column names that are consistent across the database.

The data are provided under a CC NC (non-commercial) license, which means that they cannot be used for commercial purposes. The 2016 release is available under a CC BY-NC-SA 4.0 license, and the 2022 release is available under a CC NC (any) license.

Value

A dataframe containing the v1.1 PREDICTS database extract/s.

Examples

```
predicts <- GetPredictsData()
predicts_2016 <- GetPredictsData(extract = 2016)
```

GetSitelevelSummaries   *Get the PREDICTS database site level summaries.*

Description

This acesses summary data for the relevant PREDICTS database extract.

Usage

```
GetSitelevelSummaries(extract = c(2016, 2022))
```

Arguments

extract   Numeric, year/s corresponding to PREDICTS database releases to download.
                   Options are 2016 or 2022. Defaults to c(2016, 2022) - the whole dataset.

Details

The PREDICTS database contains site-level summaries of the data collected as part of the PRE-
DICTS project - Projecting Responses of Ecological Diversity In Changing Terrestrial Systems.

The site-level summaries are provided as a dataframe, with each row corresponding to a site-level
observation, and each column corresponding to a variable describing the site or the observation.
The data are provided in a standardised format, with column names that are consistent across the
database.

There are two releases of the PREDICTS database, an initial release in 2016, and an additional
release in 2022. The user chooses whether to pull summary data for the 2016 and/or 2022 release.

The data are provided under a CC NC (non-commercial) license, which means that they cannot be
used for commercial purposes. The 2016 release is available under a CC BY-NC-SA 4.0 license,
and the 2022 release is available under a CC NC (any) license.

Value

The site-level summary data as a dataframe.

Examples

```
summaries <- GetSitelevelSummaries()
summaries_2016 <- GetSitelevelSummaries(extract = 2016)
```

Index