Package: rgpdd (via r-universe)

November 20, 2024

Description R Interface to the Global Population Dynamics Database
(<<https://ecologicaldata.org/wiki/global-population-dynamics-database>>)

Title R Interface to the Global Population Dynamics Database

Version 0.1

License CC0

Date 2013

URL <https://docs.ropensci.org/rgpdd>, <https://github.com/ropensci/rgpdd>

BugReports <https://github.com/ropensci/rgpdd/issues>

Suggests testthat, knitr, covr, dplyr, ggplot2

VignetteBuilder knitr

LazyData TRUE

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

RemoteUrl https://github.com/ropensci/rgpdd

RemoteRef master

RemoteSha 7406de253d397e7fa7485ecd4b4816ede9a25a2e

Contents

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gpdd_biotope *The biotype table*

Description

The biotype table

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

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gpdd_data *The data table*

Description

stores the individual time series abundance records

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

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gpdd_datasource *The data source table*

Description

Information on where the data was obtained from, relating to the Main table through a unique DatasourceID. Sources of data include published journals, books and unpublished datasets and the references details are held here. The table also contains information regarding access restrictions, contact details and in what medium the data was obtained.

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

| gpdd_location | *Table of locations information for each timeseries* |

Description

Table of locations information for each timeseries

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

| gpdd_main | *main table: metadata for each time series* |

Description

A MAIN record is a 'time series' which is unique Taxon/Location/LifeCycle combination. Sequential data for multiple life stages (e.g. eggs, larve and adults) are split into different Main records and must be amalgamated to create a single time series. Where more than one adult generation occurs per year generation is identified in the generation column of the data table

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

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gpdd_restricted   *Restricted data sets table*

Description

Due to licensing restrictions 686 series from 6 sources cannot be distributed without the permission of the owner. These are data from the British Trust for Ornithology<e2><80><99>s Common Bird Census (97) and Constant Effort Recording Scheme (32), Rothamstead Experimental Station, UK (9), the National monitoring programme for wintering wildfowl in Norway 1980 <e2><80><93> 93 (T. Nygard, 23), Phalacrocorax carbo (Great cormorant) and Somateria mollissima (Common eider) series supplied by N. Rov (2) and data from insect light trapping supplied by H. Wolda (523).

Author(s)

GPDD Administrator `<cpb-gpdd-dl@imperial.ac.uk>`

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

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gpdd_taxon   *The taxon table*

Description

The taxon table stores the taxonomic names relating to Main records. It is links to the MAIN table with a unique TaxonID. Most series are for species. Some extra information regarding breeding habitats etc may be found in the notes column

Author(s)

GPDD Administrator `<cpb-gpdd-dl@imperial.ac.uk>`

References

<http://www3.imperial.ac.uk/cpb/databases/gpdd>

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gpdd_timeperiod *The time period table*

Description

TimePeriod is a look-up table that provides text descriptions of the temporal period the sample relates to such as 'January', 'Spring', 'Week 1' and 'Day 1'.

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

http://www3.imperial.ac.uk/cpb/databases/gpdd

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gpdd_version *GPDD version information*

Description

This is Version 2.0 (released 2010). Version 1.0 (released in 1999) has now been superseded by v2.0 which includes the following enhancements,

Details

- A consistent definition of a time-series. - Consistent metadata. - Units. - Sampling protocol. - Consistent temporal coding. - Addition of missing location information, the spatial bounds of study areas and a spatial accuracy index. - Abundance data are supplied <e2><80><98>retro-transformed<e2><80><99> as well as in the published source units. - Improved documentation. - 123 additional time-series are included, courtesy of Barry Brook (University of Adelaide). - Removal of un-cited associated data including body size and biotope information.

Author(s)

GPDD Administrator <cpb-gpdd-dl@imperial.ac.uk>

References

http://www3.imperial.ac.uk/cpb/databases/gpdd

rgpdd	*rgpdd: an R interface to the Global Population Dynamics Database*

Description

The GPDD was initially compiled by John Prendargast, Ellen Bazeley-White?, Owen Smith, John Lawton and Pablo Inchausti and released in 1999. Version 2.0 was released in 2010 following a substantial restructuring of the database and the addition of 123 new series by David Kidd and Sarah Knight.

Details

Understanding the way in which populations of wild plants and animals behave over long periods of time is crucial to unravelling the way in which communities are assembled and the way in which they respond to disturbance, control or harvesting. The implications for conservation and agriculture are legion. Aside from practicalities, population variation is also intrinsically interesting, and provides a wealth of opportunity for mathematical innovation or exploration, especially when populations have particular cyclic, outbreaking or chaotic properties. For most students of population behaviour, the limiting factor in investigating any of these phenomena, and the development of theory to explain them, is the availability of suitable data. Usually, where analyses are performed and published, authors work on data that they have collected themselves. By definition, the collection of population time series is a lengthy process, and many ecologists have committed themselves to a lifetime of work in order to accumulate detailed information on populations at certain sites over many years.

Studies of population behaviour tend to address a number of themes, each with a typical taxonomic flavour. Thus, students of the chaotic vs cyclic question tend to focus on small mammals, those with an interest in the effects of harvesting or culling generally study fisheries or large mammal data respectively and analyses of insect populations tend to dominate the literature on pest control.

Analysis and subsequent publication can only take place once time series of adequate length have been amassed, but frequently authors will continue to collect data after publication and may follow the first paper with an updated or extended version, or a book or book chapter at a later date. There are examples of data sets that have been assiduously collected but from which no publications have resulted, or from which internal, private or unpublished documents have been generated.

The result of all this fragmentary activity in population dynamics, where data sets are often analysed individually, or in line with certain taxonomic conventions, is that it has been difficult to a) formulate general theory and b) investigate large scale pattern, both spatially and taxonomically. The general unavailability of data has also led to the development of theory through the repeated analysis of the same data sets. The celebrated Canadian lynx/snowshoe hare cycle has been the subject of analyses and publications almost too numerous to count. There is an obvious danger that if individual data sets such as this happen not to be representative of the way in which most populations behave then theoretical understanding may suffer.

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