

Extracting data from the Youtheria database into R

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1 Introduction

YouTHERIA is an online dataset containing data on the life history, ecology, taxonomy and geography of mammals.

This package provides methods to retrieve data from this resource

2 Installation

The package can be installed directly from GitHub like this

```
# Install devtools
install.packages("devtools")

# Load devtools
library(devtools)

# Install rYoutheria from github
install_github("rYoutheria", username = "BiologicalRecordsCentre")

# Load rYoutheria
library(rYoutheria)
```

3 Choosing search terms

When searching Youtheria it is likely that you have a measurement type in mind, such as body mass or diet. To look up what measurement types are available use the `getMeasurementTypes()` function:

```
> # Load rYoutheria
> library(rYoutheria)
> # Get a list of all measurement types
> MTs <- getMeasurementTypes()
> head(MTs)
```

	Id	Name
1	18	Activity Cycle
2	9	Age at Eye Opening
3	13	Age at First Birth
4	14	Average Lifespan
5	1	Body Mass
6	21	Diet

```
> # Look up a specific measurement type
> getMeasurementTypes(measurementType='Body Mass')
```

```
  Id      Name
1  1 Body Mass
```

Species names in *Youtheria* are linked to definitions given in the Mammals Species of the World and when it comes to searching you can search under either the 1993 definitions or the 2005 definitions.

Youtheria also allows searching by country or study site ID. You can get a list of countries by using the `getCountries()` function. This takes no arguments and simply gives you a list of all countries available

```
> # Get a list of countries
> Cs <- getCountries()
> head(Cs)
```

```
      countryName countryId
1      Afganistan      2
2 Åland Islands      5
3      Albania      6
4      Algeria      65
5 American Samoa     12
6      Andorra      7
```

4 Choosing search terms

Once we have decided what our search terms are going to be we can use the `getMeasurementData()` function.

```
# Get measurement data for body mass
dispAge <- getMeasurementData(measurementType = 'Dispersal Age')

# Get measurement data for body mass of Daubenton's bats
bodyMassDaub <- getMeasurementData(measurementType = 'Body Mass',
                                     MSW05Binomial = 'Myotis daubentonii',
                                     silent = TRUE)

# Get measurement data for age of maturity of Swiss Lynx
LynxSwiss <- getMeasurementData(measurementType = 'Sexual Maturity Age',
                                 MSW05Binomial = 'Lynx lynx',
                                 country = 'Switzerland',
                                 silent = TRUE)
```