Package ‘lingtypology’

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Description Provides R with the Glottolog database <https://glottolog.org/> and some more abilities for purposes of linguistic mapping. The Glottolog database contains the catalogue of languages of the world. This package helps researchers to make a linguistic maps, using philosophy of the Cross-Linguistic Linked Data project <https://clld.org/>, which allows for while at the same time facilitating uniform access to the data across publications. A tutorial for this package is available on GitHub pages <https://docs.ropensci.org/lingtypology/> and package vignette. Maps created by this package can be used both for the investigation and linguistic teaching. In addition, package provides an ability to download data from typological databases such as WALS, AUTOTYP and some others and to create your own database website.
License GPL (>= 2)
URL https://CRAN.R-project.org/package=lingtypology,
    https://github.com/ropensci/lingtypology/,
    https://ropensci.github.io/lingtypology/
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**Description**

Language identifiers from ABVD (https://abvd.shh.mpg.de/austronesian/). This dataset is created for `abvd.feature` function.

**Usage**

```
abvd
```

**Format**

A data frame with 1468 rows and 2 variables:

- **id** language identifier
- **glottocode** Glottocode

**Description**

This function downloads data from ABVD (https://abvd.shh.mpg.de/austronesian/) and changes language names to the names from lingtypology database. You need the internet connection.

**Usage**

```
abvd.feature(feature)
```
afbo.feature

Arguments

feature  A character vector that define a language id from ABVD (e. g. "1", "292").

Author(s)

George Moroz <agricolamz@gmail.com>

See Also


Examples

# abvd.feature(c(292, 7))

afbo.feature  Download AfBo data

Description

This function downloads data from AfBo (https://afbo.info/) and changes language names to the names from lingtypology database. You need the internet connection.

Usage

afbo.feature(features = "all", na.rm = TRUE)

Arguments

features  A character vector that define with an affix functions from AfBo (e. g. "all", "adjectivizer", "focus").

na.rm  Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

See Also


Examples

# afbo.feature()
# afbo.feature(c("adjectivizer", "adverbializer"))
aff.lang

Get affiliation by language

Description
Takes any vector of languages and returns affiliation.

Usage
aff.lang(x)

Arguments
x A character vector of the languages (can be written in lower case)

Author(s)
George Moroz <agricolamz@gmail.com>

See Also
area.lang, country.lang, gltc.lang, iso.lang, lat.lang, long.lang, subc.lang, url.lang

Examples
aff.lang('Korean')
aff.lang(c('Korean', 'Polish'))

amap

Atlantic center template for ggmap.feature() function

Description

Usage
amap

Format
A list with 9 variables.
area.lang  

Get macro area by language

Description

Takes any vector of languages and returns macro area.

Usage

area.lang(x)

Arguments

x  
character vector of the languages (can be written in lower case)

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

aff.lang, country.lang, gltc.lang, iso.lang, lat.lang, long.lang, subc.lang, url.lang

Examples

area.lang('Adyghe')
area.lang(c('Adyghe', 'Aduge'))

database  

Create an atlas

Description

This function creates an rmarkdown based atlas from data provided by users. This function creates
the template, after it should be rendered by rmarkdown package. The DT package is required during
the rendering.

Usage

atlas.database(
  languages,
  latitude,
  longitude,
  features,
  atlas.name = "",
  author = ""
)
Arguments

- `languages`: character vector of languages (can be written in lower case)
- `latitude`: numeric vector of latitudes (optional)
- `longitude`: numeric vector of longitudes (optional)
- `features`: dataframe where each column is a feature set
- `atlas.name`: string with an atlas name
- `author`: string with the authors list

---

**autotyp**

*AUTOTYP's Language identifiers*

**Description**

Language identifiers from AUTOTYP v. 0.1.4 ([https://github.com/autotyp/autotyp-data/](https://github.com/autotyp/autotyp-data/)).

This dataset is created for `autotyp.feature` function.

**Usage**

`autotyp`

**Format**

An object of class `data.frame` with 2853 rows and 2 columns.

**Details**

````
#' @format A data frame with 2853 rows and 2 variables:

  LID  language identifier
  Glottocode  Glottocode
```

---

**autotyp.feature**

*Download AUTOTYP data*

**Description**

This function downloads data from AUTOTYP ([https://github.com/autotyp/autotyp-data#the-autotyp-database](https://github.com/autotyp/autotyp-data#the-autotyp-database)) and changes language names to the names from lingtypology database. You need the internet connection.

**Usage**

`autotyp.feature(features, na.rm = TRUE)`
Arguments

features A character vector that define with a feature names from AUTOTYP.

na.rm Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

See Also


abvd.feature, afbo.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, uralex.feature, valpal.feature, wals.feature

Examples

# autotyp.feature(c('Gender', 'Numeral classifiers'))

---

bantu

BANTU's Language identifiers

Description

Language identifiers from BANTU (https://abvd.shh.mpg.de/bantu/index.php). This dataset is created for bantu.feature function.

Usage

bantu

Format

A data frame with 430 rows and 2 variables:

<table>
<thead>
<tr>
<th>id</th>
<th>BANTU word id</th>
</tr>
</thead>
<tbody>
<tr>
<td>word</td>
<td>word</td>
</tr>
</tbody>
</table>
**bantu.feature**

*Download BANTU data*

**Description**

This function downloads data from Bantu Basic Vocabulary Database ([https://abvd.shh.mpg.de/bantu/index.php](https://abvd.shh.mpg.de/bantu/index.php)) and changes language names to the names from lingtypology database. You need the internet connection.

**Usage**

```r
bantu.feature(features)
```

**Arguments**

- `features` A character vector that define with a feature ids from BANTU (‘house’, ’cat’).

**Author(s)**

Anna Smirnova <annedadaa@gmail.com>

**See Also**

`abvd.feature`, `afbo.feature`, `autotyp.feature`, `oto_mangueanIC.feature`, `phoible.feature`, `sails.feature`, `uralex.feature`, `valpal.feature`

**Examples**

```r
# bantu.feature(c('house', 'cat'))
```

---

**bivaltyp.feature**

*Download BivalTyp data*

**Description**

This function downloads data from BivalTyp ([https://www.bivaltyp.info/](https://www.bivaltyp.info/)) and changes language names to the names from lingtypology database. You need the internet connection.

**Usage**

```r
bivaltyp.feature()
```

**Author(s)**

George Moroz <agricolamz@gmail.com>
See Also

country.lang

abvd.feature, afbo.feature, autotyp.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, valpal.feature, wals.feature

circassian

Circassian villages in Russia

Description

A dataset contains the list of the Circassian villages in Russia with genealogical affiliation, coordinates and district names. Most data collected during the fieldworks (2011–2018).

Usage

circassian

Format

A data frame with 158 rows and 6 variables:

- longitude  longitude
- latitude   latitude
- village    name of the village
- dialect    names of the Circassian dialects
- language   according standard Circassian division there are Adyghe and Kabardian languages

country.lang

Get country by language

Description

Takes any vector of languages and returns countries where those languages are used as ISO 3166-1 alpha-2 codes.

Usage

country.lang(x)
Arguments

x A character vector of the languages (can be written in lower case)

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

aff.lang, area.lang, gltc.lang, iso.lang, lat.lang, long.lang, subc.lang, url.lang

Examples

country.lang('Korean')
country.lang(c('Korean', 'Polish'))

dataset eurasianphonology

dataset Eurasianphonology data

Description

Data from The database of Eurasian phonological inventories (https://eurphon.info). This dataset is created for eurasianphonology.feature function.

Usage

eurasianphonology

Format

A data frame with 19825 rows and 19 variables:

id Language id
iso ISO code
name Another language name
type Language or dialect
language Language name
latitude latitude
longitude longitude
gen1 Language Family
gen2 Language Family
tones Inventory of tones
syllab Syllab structure
cluster Cluster
eurasianphonology.feature

finals Finals
source Source
comment Comment
contr Contributor
segment_type Vowels or consonants
segments Segments
glottocode Glottocode

---

eurasianphonology.feature

*Opens data from the database of Eurasian phonological inventories*

---

Description

This function opens downloaded data from the database of Eurasian phonological inventories ([https://eurphon.info](https://eurphon.info)).

Usage

eurasianphonology.feature()

Author(s)

Kirill Koncha <majortomblog@gmail.com>

See Also


Examples

eurasianphonology.feature()
ggmap.feature

Create a map with ggplot2

Description
Map a set of languages and color them by feature.

Usage

```r
ggmap.feature(
  languages,
  features = "",
  latitude = NA,
  longitude = NA,
  color = NULL,
  title = NULL,
  legend = TRUE,
  width = 2,
  opacity = 1,
  map.orientation = "Atlantic"
)
```

Arguments

- **languages**: character vector of languages (can be written in lower case).
- **features**: character vector of features.
- **latitude**: numeric vector of latitudes.
- **longitude**: numeric vector of longitudes.
- **color**: vector of colors or palette. The color argument can be (1) a character vector of RGM or named colors; (2) the name of an RColorBrewer palette; (3) the full name of a viridis palette; (4) a function that receives a single value between 0 and 1 and returns a color. For more examples see `colorNumeric`.
- **title**: title of a legend.
- **legend**: logical. If TRUE, function show legend. By default is TRUE.
- **width**: a numeric vector of radius for circles or width for barcharts in minicharts.
- **opacity**: a numeric vector of marker opacity.
- **map.orientation**: a character vector with values "Pacific" and "Atlantic". It distinguishes Pacific-centered and Atlantic-centered maps. By default is "Atlantic".

Author(s)
George Moroz <agricolamz@gmail.com>
Examples

```r
ggmap.feature(c("Adyghe", "Russian"))
```

---

**glottolog**

*Catalogue of languages of the world*

Description

A dataset contains the original catalogue of languages of the world involving genealogical affiliation, macro-area, country, iso code, and coordinates.

Usage

```
glottolog
```

Format

A data frame with 25900 rows and 10 variables:

- `glottocode`: languoid code from Glottolog 4.4
- `language`: name of the language
- `level`: languoid type: dialect or language (possible values are dialect, language, family, bookkeeping, pseudo family, sign language, unclassifiable, pidgin, unattested, artificial language, speech register, mixed language)
- `area`: have six values Africa, Australia, Eurasia, North America, Papunesia, South America
- `latitude`: latitude
- `longitude`: longitude
- `countries`: list of countries, where the language is spoken
- `affiliation`: genealogical affiliation
- `subclassication`: subclassification in a Newick format

Details


Source

[https://glottolog.org/](https://glottolog.org/)
gltc.iso  
*Get Glottocode by ISO 639–3 code*

**Description**


**Usage**

```r
gltc.iso(x)
```

**Arguments**

- `x`  
  A character vector of the Glottocodes.

**Author(s)**

George Moroz <agricolamz@gmail.com>

**See Also**

`aff.lang`, `area.lang`, `lat.lang`, `long.lang`

**Examples**

```r
gltc.iso('ady')
gltc.iso(c('ady', 'rus'))
```

---

gltc.lang  
*Get Glottocode by language*

**Description**

Takes any vector of languages and returns Glottocode.

**Usage**

```r
gltc.lang(x)
```

**Arguments**

- `x`  
  A character vector of the languages (can be written in lower case)

**Author(s)**

George Moroz <agricolamz@gmail.com>
See Also

`aff.lang`, `area.lang`, `country.lang`, `iso.lang`, `lat.lang`, `long.lang`, `subc.lang`, `url.lang`

Examples

gltc.lang('Adyghe')
gltc.lang(c('Adyghe', 'Udi'))

---

**is.glottolog**

*Are these languages in glottolog?*

**Description**

Takes any vector of languages or ISO codes and returns a logical vector.

**Usage**

```r
is.glottolog(x, response = FALSE)
```

**Arguments**

- `x` A character vector of languages (can be written in lower case) or ISO codes
- `response` logical. If TRUE, when language is absent, return warnings with a possible candidates.

**Author(s)**

George Moroz <agricolamz@gmail.com>
iso.gltc

Examples

is.glottolog(c('Adyghe', 'Russian'))
is.glottolog('Buyaka')

# Add warning message with sugestions
is.glottolog(c('Adygey', 'Russian'), response = TRUE)
# > FALSE TRUE
# Warning message:
# In is.glottolog(c('Adyge', 'Russian'), response = TRUE) :
# Language Adyge is absent in our version of the Glottolog database. Did you mean Aduge, Adyghe?

iso.gltc(x)

Arguments

x

A character vector of Glottocodes.

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

aff.lang, area.lang, lat.lang, long.lang

Examples

iso.gltc('adyg1241')
iso.gltc(c('adyg1241', 'udii1243'))

Description

Takes any vector of Glotocodes and returns ISO code.

Usage

iso.gltc(x)

Get ISO 639–3 code by Glottocode

Get ISO 639–3 code by Glottocode
**iso.lang**  
*Get ISO 639–3 code by language*

Description  
Takes any vector of languages and returns ISO code.

Usage  
```r
iso.lang(x)
```

Arguments  
- `x`  
  A character vector of the languages (can be written in lower case)

Author(s)  
George Moroz <agricolamz@gmail.com>

See Also  
- `aff.lang`, `area.lang`, `country.lang`, `gltc.lang`, `lat.lang`, `long.lang`, `subc.lang`, `url.lang`

Examples  
```r
iso.lang('Adyghe')
iso.lang(c('Adyghe', 'Udi'))
```

---

**lang.aff**  
*Get languages by affiliation*

Description  
Takes any vector of affiliations and returns languages.

Usage  
```r
lang.aff(x, include.dialects = FALSE, list = FALSE)
```

Arguments  
- `x`  
  A character vector of the affiliations (can be written in lower case)
- `include.dialects`  
  logical. If TRUE, it returns all languages and dialects, if FALSE it returns only languages.
- `list`  
  logical. If TRUE, it returns a list of languages, if FALSE it returns a named vector.
**lang.country**

**Author(s)**
George Moroz <agricolamz@gmail.com>

**See Also**
lang.iso

**Examples**

```r
lang.aff('Slavic')
lang.aff(c('Slavic', 'Celtic'))
lang.aff(c('Slavic', 'Celtic'), list = TRUE)
```

---

**Description**

Takes any vector of countries and returns languages.

**Usage**

```r
lang.country(x)
```

**Arguments**

- `x` character vector of the countries (in alpha-2 ISO codes)

**Author(s)**
George Moroz <agricolamz@gmail.com>

**See Also**

aff.lang, country.lang, gltc.lang, iso.lang, lat.lang, long.lang, subc.lang, url.lang

**Examples**

```r
lang.country('AD')
lang.country(c('AD', 'AE'))
```
---

**lang.gltc**  
*Get language by Glottocode*

**Description**

Takes any vector of Glottocodes and returns languages.

**Usage**

```r
lang.gltc(x)
```

**Arguments**

- `x` A character vector of the Glottocodes.

**Author(s)**

George Moroz <agricolamz@gmail.com>

**See Also**

- `lang.aff`

**Examples**

```r
lang.gltc('adyg1241')
lang.gltc(c('adyg1241', 'udii1243'))
```

---

**lang.iso**  
*Get language by ISO 639-3 code*

**Description**

Takes any vector of ISO codes and returns languages.

**Usage**

```r
lang.iso(x)
```

**Arguments**

- `x` A character vector of the ISO codes.

**Author(s)**

George Moroz <agricolamz@gmail.com>
lat.lang

See Also

lang.aff

Examples

lang.iso('ady')
lang.iso(c('ady', 'rus'))

lat.lang Get latitude by language

Description

Takes any vector of languages and returns latitude.

Usage

lat.lang(x)

Arguments

x A character vector of the languages (can be written in lower case)

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

aff.lang, area.lang, country.lang, gltc.lang, iso.lang, long.lang, subc.lang, url.lang

Examples

lat.lang('Adyghe')
long.lang('Adyghe')
lat.lang(c('Adyghe', 'Russian'))
long.lang(c('Adyghe', 'Russian'))
long.lang

*Get longitude by language*

**Description**

Takes any vector of languages and returns longitude.

**Usage**

```r
long.lang(x, map.orientation = "Pacific")
```

**Arguments**

- `x` A character vector of the languages (can be written in lower case)
- `map.orientation` A character vector with values "Pacific" and "Atlantic". It distinguishes Pacific-centered and Atlantic-centered maps. By default is "Pacific".

**Author(s)**

George Moroz <agricolamz@gmail.com>

**See Also**

`aff.lang`, `area.lang`, `country.lang`, `gltc.lang`, `iso.lang`, `lat.lang`, `subc.lang`, `url.lang`

**Examples**

```r
lat.lang("Adyghe")
long.lang("Adyghe")
l.x <- c("Adyghe", "Russian")
lat.lang(l.x)
long.lang(l.x)
long.lang(l.x, map.orientation = "Pacific")
```

---

map.feature

*Create a map*

**Description**

Map a set of languages and color them by feature or two sets of features.
map.feature

Usage

map.feature(
  languages,
  features = "",
  label = "",
  popup = "",
  latitude = NA,
  longitude = NA,
  label.hide = TRUE,
  label.fsize = 15,
  label.font = "sans-serif",
  label.position = "right",
  label.emphasize = list(NULL, "black"),
  shape = NULL,
  shape.size = 20,
  pipe.data = NULL,
  shape.color = "black",
  stroke.features = NULL,
  point.cluster = FALSE,
  density.estimation = NULL,
  density.method = "fixed distance",
  density.estimation.color = NULL,
  density.estimation.opacity = 0.6,
  density.points = TRUE,
  density.width = NULL,
  density.legend = TRUE,
  density.legend.opacity = 1,
  density.legend.position = "bottomleft",
  density.title = "",
  density.control = FALSE,
  isogloss = NULL,
  isogloss.color = "black",
  isogloss.opacity = 0.2,
  isogloss.line.width = 3,
  isogloss.width = NULL,
  color = NULL,
  stroke.color = NULL,
  image.url = NULL,
  image.width = 100,
  image.height = 100,
  image.X.shift = 0,
  image.Y.shift = 0,
  title = NULL,
  stroke.title = NULL,
  control = "",
  legend = TRUE,
  legend.opacity = 1,
  legend.position = "topright",}
stroke.legend = TRUE,
stroke.legend.opacity = 1,
stroke.legend.position = "bottomleft",
width = 5,
stroke.radius = 9.5,
opacity = 1,
stroke.opacity = 1,
scale.bar = TRUE,
scale.bar.position = "bottomleft",
minimap = FALSE,
minimap.position = "bottomright",
minimap.width = 150,
minimap.height = 150,
facet = NULL,
tile = "OpenStreetMap.Mapnik",
tile.name = NULL,
tile.opacity = 1,
zoom.control = FALSE,
zoom.level = NULL,
rectangle.lng = NULL,
rectangle.lat = NULL,
rectangle.color = "black",
line.lng = NULL,
line.lat = NULL,
line.type = "standard",
line.color = "black",
line.opacity = 0.8,
line.label = NULL,
line.width = 3,
graticule = NULL,
minichart = "bar",
minichart.data = NULL,
minichart.time = NULL,
minichart.labels = FALSE,
map.orientation = "Pacific",
radius = NULL
)

Arguments

languages character vector of languages (can be written in lower case)
features character vector of features
label character vector of strings that will appear near points
popup character vector of strings that will appear in pop-up window
latitude numeric vector of latitudes
longitude numeric vector of longitudes
label.hide logical. If FALSE, labels are displayed allways. If TRUE, labels are displayed on mouse over. By default is TRUE.
map.feature

label.fsize numeric value of the label font size. By default is 14.

label.font string with values of generic family: "serif", "sans-serif", "monospace", or font name e.g. "Times New Roman"

label.position the position of labels: "left", "right", "top", "bottom"

label.emphasize is the list. First argument is a vector of points in dataframe that should be emphasized. Second argument is a string with a color for emphasis.

shape

1. if TRUE, creates icons (up to five categories) for values in the features variable;
2. it also could be a vector of any strings that represents the levels of the features variable;
3. it also could be a string vector that represents the number of observations in dataset.

shape.size size of the shape icons

pipe.data this variable is important, when you use map.feature with dplyr pipes. Expected usage: pipe.data = .

shape.color color of the shape icons

stroke.features additional independent stroke features

point.cluster logical. If TRUE, points will be united into clusters.

density.estimation additional independent features, used for density estimation

density.method string with one of the two methods: "kernal density estimation" or "fixed distance" (default)

density.estimation.color vector of density polygons' colors

density.estimation.opacity a numeric vector of density polygons opacity.

density.points logical. If FALSE, it doesn’t show points in polygones.

density.width for density.method = "fixed distance" it is a numeric measure (1 is 1km). For density.method = "kernal density estimation" it is a vector with two measures (first is latitude, second is longitude). Defaults are normal reference bandwidth (see bandwidth.nrd).

density.legend logical. If TRUE, function show legend for density features. By default is FALSE.

density.legend.opacity a numeric vector of density-legend opacity.

density.legend.position the position of the legend: "topright", "bottomright", "bottomleft", "topleft"

density.title title of a density-feature legend

density.control logical. If TRUE, function show layer control buttons for density plot. By default is FALSE.
isogloss data frame with corresponding features
isogloss.color vector of isoglosses' colors
isogloss.opacity a numeric vector of density polygons opacity.
isogloss.line.width a numeric value for line width
isogloss.width for density.method = "fixed distance" it is a numeric measure (1 is 1km). For
density.method = "kernel density estimation" it is a vector with two measures
(first is latitude, second is longitude). Defaults are normal reference bandwidth
(see bandwidth.nrd).
color vector of colors or palette. The color argument can be (1) a character vector of
RGM or named colors; (2) the name of an RColorBrewer palette; (3) the full
name of a viridis palette; (4) a function that receives a single value between 0
and 1 and returns a color. For more examples see colorNumeric
stroke.color vector of stroke colors
image.url character vector of URLs with an images
image.width numeric vector of image widths
image.height numeric vector of image heights
image.X.shift numeric vector of image's X axis shift relative to the latitude-longitude point
image.Y.shift numeric vector of image's Y axis shift relative to the latitude-longitude point
title title of a legend.
stroke.title title of a stroke-feature legend.
control vector of grouping values that make it possible to create control panel that can
turn off/on some points on the map.
legend logical. If TRUE, function show legend. By default is TRUE.
legend.opacity a numeric vector of legend opacity.
legend.position the position of the legend: "topright", "bottomright", "bottomleft","topleft"
stroke.legend logical. If TRUE, function show stroke.legend. By default is FALSE.
stroke.legend.opacity a numeric vector of stroke.legend opacity.
stroke.legend.position the position of the stroke.legend: "topright", "bottomright", "bottomleft","topleft"
width a numeric vector of radius for circles or width for barcharts in minicharts.
stroke.radius a numeric vector of stroke radii for the circles.
opacity a numeric vector of marker opacity.
stroke.opacity a numeric vector of stroke opacity.
scale.bar logical. If TRUE, function shows scale-bar. By default is TRUE.
scale.bar.position the position of the scale-bar: "topright", "bottomright", "bottomleft","topleft"
minimap logical. If TRUE, function shows mini map. By default is FALSE.
**minimap.position**
the position of the minimap: "topright", "bottomright", "bottomleft", "topleft"

**minimap.width**
The width of the minimap in pixels.

**minimap.height**
The height of the minimap in pixels.

**facet**
character vector that provide a grouping variable. If it is no NULL, then as a result a list of leaflets for sync or latticeView functions from mapview package is returned.

**tile**
a character vector with a map tiles, popularized by Google Maps. See here for the complete set.

**tile.name**
a character vector with a user’s map tiles’ names.

**tile.opacity**
numeric value from 0 to 1 denoting opacity of the tile.

**zoom.control**
logical. If TRUE, function shows zoom controls. By default is FALSE.

**zoom.level**
a numeric value of the zoom level.

**rectangle.lng**
vector of two longitude values for rectangle.

**rectangle.lat**
vector of two latitude values for rectangle.

**rectangle.color**
vector of rectangle border color.

**line.lng**
vector of two (or more) longitude values for line.

**line.lat**
vector of two (or more) latitude values for line.

**line.type**
a character string indicating which type of line is to be computed. One of "standard" (default), or "logit". The first one should be combined with the arguments line.lat and line.lng and provide simple lines. Other variant "logit" is the decision boundary of the logistic regression made using longitude and latitude coordinates (works only if feature argument have two levels).

**line.color**
vector of line color.

**line.opacity**
a numeric vector of line opacity.

**line.label**
character vector that will appear near the line.

**line.width**
a numeric vector of line width.

**graticule**
a numeric vector for graticule spacing in map units between horizontal and vertical lines.

**minichart**
citation from leaflet.minicharts package: "Possible values are "bar" for bar charts, "pie" for pie charts, "polar-area" and "polar-radius"."

**minichart.data**
citation from leaflet.minicharts package: "A numeric matrix with number of rows equal to the number of elements in lng or lat and number of column equal to the number of variables to represent. If parameter time is set, the number of rows must be equal to the length of lng times the number of unique time steps in the data."

**minichart.time**
citation from leaflet.minicharts package: "A vector with length equal to the number of rows in chartdata and containing either numbers representing time indices or dates or datetimes. Each unique value must appear as many times as the others. This parameter can be used when one wants to represent the evolution of some variables on a map."
oto_mangueanIC

minichart.labels
citation from leaflet.minicharts package: "Should values be displayed above chart elements."

map.orientation
a character vector with values "Pacific" and "Atlantic". It distinguishes Pacific-centered and Atlantic-centered maps. By default is "Pacific".

radius
deprecated argument

Author(s)
George Moroz <agricolamz@gmail.com>

Examples
map.feature(c("Adyghe", "Russian"))

<table>
<thead>
<tr>
<th>oto_mangueanIC</th>
<th>Oto-Manguean Inflectional Class Database Language identifiers</th>
</tr>
</thead>
</table>

Description
Language identifiers from Oto-Manguean Inflectional Class Database (https://oto-manguean.surrey.ac.uk/). This dataset is created for oto_mangueanIC.feature function.

Usage
oto_mangueanIC

Format
An object of class tbl_df (inherits from tbl, data.frame) with 20 rows and 2 columns.

Details
```r
# @format A data frame with 20 rows and 2 variables:

Language.name  Language names from Oto-Manguean Inflectional Class Database
language        Language names from Glottolog database```
oto_mangueanIC.feature

**Download Oto-Manguean Inflectional Class Database data**

**Description**

This function downloads data from Oto-Manguean Inflectional Class Database ([https://oto-manguean.surrey.ac.uk/](https://oto-manguean.surrey.ac.uk/)) and creates a language column with the names from lingtypology database. You need the internet connection.

**Usage**

`oto_mangueanIC.feature()`

**Author(s)**

George Moroz <agricolamz@gmail.com>

**See Also**

abvd.feature, afbo.feature, autotyp.feature, phoible.feature, sails.feature, uralex.feature, valpal.feature, wals.feature


---

**phoible**

**Phoible glottolog - language correspondencies**

**Description**

Language correspondencies for Phoible ([https://phoible.org/](https://phoible.org/)). This dataset is created for phoible.feature function.

**Usage**

`phoible`

**Format**

A data frame with 2185 rows and 2 variables:

- **language** language
- **Glottocode** Glottocode
**Description**

This function downloads data from PHOIBLE (https://phoible.org/) and changes language names to the names from lingtypology database. You need the internet connection.

**Usage**

```r
phoible.feature(source = "all", na.rm = TRUE)
```

**Arguments**

- `source` A character vector that define with a source names from PHOIBLE (possible values: "all", "aa", "gm", "ph", "ra", "saphon", "spa", "upsid").
- `na.rm` Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

**See Also**


abvd.feature, afbo.feature, autotyp.feature, oto_mangueanIC.feature, sails.feature, uralex.feature, valpal.feature, wals.feature

**Examples**

```r
# phoible.feature()
# phoible.feature(c('consonants', 'vowels'), source = "UPSID")
```

---

**phonological_profiles**

*Number of consonants and presence of ejectives*

**Description**

Number of consonants and presence of ejectives

**Usage**

```r
phonological_profiles
```
**Format**

A data frame with 19 rows and 4 variables:

- **language** language name
- **consonants** number of consonants. Based on UPSID database.
- **vowels** number of vowels. Based on UPSID database.
- **ejectives** presence of ejective sounds.
- **tone** presence of tone.
- **stress** presence of stress.
- **long_vowels** presence of long vowels.

---

**polygon.points_fd**

*Get polygons from fixed distance circles around coordinates*

**Description**

This function is based on this answer: https://www.r-bloggers.com/merging-spatial-buffers-in-r/

**Usage**

```r
polygon.points_fd(latitude, longitude, width)
```

**Arguments**

- **latitude** numeric vector of latitudes
- **longitude** numeric vector of longitudes
- **width** radius for creating poligons around points

---

**polygon.points_kde**

*Get kernel density estimation poligon from coordinates*

**Description**

This function is based on this answer: https://gis.stackexchange.com/a/203623/

**Usage**

```r
polygon.points_kde(latitude, longitude, latitude.width, longitude.width)
```
**Arguments**

- **latitude** numeric vector of latitudes
- **longitude** numeric vector of longitudes
- **latitude.width** bandwidths for latitude values. Defaults to normal reference bandwidth (see `bandwidth.nrd`).
- **longitude.width** bandwidths for longitude values. Defaults to normal reference bandwidth (see `bandwidth.nrd`).

<table>
<thead>
<tr>
<th>providers</th>
<th>Providers</th>
</tr>
</thead>
</table>

**Description**

List of all providers with their variations taken from leaflet package

**Usage**

```r
providers
```

**Format**

A list of characters

**Source**


**Description**

This function downloads data from SAILS ([https://sails.clld.org/](https://sails.clld.org/)) and changes language names to the names from lingtypology database. You need the internet connection.

**Usage**

```r
sails.feature(features, na.rm = TRUE)
```
Arguments

features  A character vector that define with a feature ids from SAILS (e. g. "and1", "argex4-1-3").
na.rm    Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

See Also


Examples

# sails.feature(c("and1", "and11"))

<table>
<thead>
<tr>
<th>soundcomparisons</th>
<th>SOUNDCOMPARISONS’s Language identifiers</th>
</tr>
</thead>
</table>

Description

Language identifiers from SOUNDCOMPARISONS (https://soundcomparisons.com/). This dataset is created for soundcomparisons.feature function.

Usage

soundcomparisons

Format

An object of class data.frame with 556 rows and 3 columns.

Details

# @format A data frame with 556 rows and 2 variables:

LanguageName  SOUNDCOMPARISONS language identifier
LanguageId    Language Id
soundcomparisons.feature

Description

This function downloads data from SOUNDCOMPARISONS (https://soundcomparisons.com/) and changes language names to the names from lingtypology database. You need the internet connection.

Usage

```r
soundcomparisons.feature(word)
```

Arguments

- `word` A character vector that define with a feature ids from SOUNDCOMPARISONS (e.g. "one", "sharp_fem", "near_neut", "on_the_left", "I_will_give", "write_ipv_sg", "your_pl_pl").

Author(s)

Anna Smirnova

See Also


Examples

```r
# soundcomparisons.feature(c("sun", "house"))
```
subc.lang  Get subclassification by language

Description
Takes any vector of languoids and returns subclassification in the Newick tree format.

Usage
subc.lang(x)

Arguments
x  A character vector of the languoids (can be written in lower case)

Author(s)
George Moroz <agricolamz@gmail.com>

See Also
aff.lang, area.lang, country.lang, gltc.lang, iso.lang, lat.lang, long.lang

Examples
subc.lang('Korean')
subc.lang(c('Korean', 'Lechitic'))

uralex  UraLex's Language identifiers

Description
Language identifiers from UraLex (https://github.com/lexibank/uralex/). This dataset is created for uralex.feature function.

Usage
uralex

Format
A data frame with 27 rows and 3 variables:

language  language name from database
Glottocode  Glottocodes
language2  language from lingtypology
uralex.feature  Download UraLex data

Description
This function downloads data from UraLex (https://github.com/lexibank/uralex/) and changes language names to the names from lingtypology database. You need the internet connection.

Usage
uralex.feature(na.rm = TRUE)

Arguments
na.rm Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

Author(s)
George Moroz <agricolamz@gmail.com>

See Also

Examples
# uralex.feature()

url.lang  Make a url-link to glottolog page for a language

Description
Takes any vector of languages and returns links to glottolog pages.

Usage
url.lang(x, popup = "")

Arguments
x A character vector of languages (can be written in lower case)
popup character vector of strings that will appear in pop-up window of the function map.feature
valpal.feature

Author(s)
George Moroz <agricolamz@gmail.com>

See Also
aff.lang, area.lang, country.lang, gltc.lang, iso.lang, lat.lang, long.lang, subc.lang

Examples
url.lang("Korean")
url.lang(c("Gangou", "Hachijo", "Adyghe", "Ganai"))

Description
This function downloads data from ValPal (www.valpal.info/) and changes language names to the names from lingtypology database. You need the internet connection.

Usage
valpal.feature(na.rm = FALSE)

Arguments

na.rm Logical. If TRUE function removes all languages not available in lingtypology database. By default is FALSE.

Author(s)
George Moroz <agricolamz@gmail.com>

See Also

Examples
# valpal.feature()
vanuatu.feature  Download Vanuatu Voices data

Description
This function downloads data from Vanuatu Voices ([https://vanuatuvoices.clld.org/](https://vanuatuvoices.clld.org/)). You need the internet connection.

Usage
vanuatu.feature(features, na.rm = TRUE)

Arguments
features  A vector with parameters from Concepts ([https://vanuatuvoices.clld.org/parameters](https://vanuatuvoices.clld.org/parameters))
na.rm     Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

Author(s)
Mikhail Leonov

See Also

wals  WALS's Language identifiers

Description
Language identifiers from WALS ([https://wals.info/](https://wals.info/)). This dataset is created for wals.feature function.

Usage
wals

Format
A data frame with 2950 rows and 2 variables:
wals.code  WALS language identifier
glottocode  Glottocode
wals.feature

Description
This function downloads data from WALS (https://wals.info/) and changes language names to the names from lingtypology database. You need the internet connection.

Usage
wals.feature(features, na.rm = TRUE)

Arguments
features A character vector that define with a feature ids from WALS (e.g. "1a", "21b").
na.rm Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

Author(s)
George Moroz <agricolamz@gmail.com>

See Also

Examples
# wals.feature(c("1a", "20a"))
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