Package 'lingtypology'

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Type Package

Title Linguistic Typology and Mapping

Version 1.1.19

Depends R (>= 3.5.0)

Imports leaflet, leaflet.minicharts, stats, utils, stringdist, grDevices, jsonlite

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/

BugReports https://github.com/ropensci/lingtypology/issues

LazyData TRUE

RoxygenNote 7.3.2

Encoding UTF-8

Suggests knitr, rmarkdown, testthat, MASS, sp, sf, ape

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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Contents

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abvd *ABVD's Language identifiers*

Description

Language identifiers from ABVD (https://abvd.eva.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

abvd.feature *Download ABVD data*

Description

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

Usage

```
abvd.feature(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

afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

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

abvd.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

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

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'))
```

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('Kabardian')
area.lang(c('Kabardian', 'Aduge'))
```

atlas.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. 1.1.1 (https://github.com/autotyp/autotyp-data/). This dataset is created for autotyp.feature function.

Usage

```
autotyp
```

Format

An object of class data.frame with 1342 rows and 3 columns.

Details

#' @format A data frame with 1342 rows and 3 variables:

path path to the dataset in autotyp repo

variable variable name

file topic name

autotyp.feature *Download AUTOTYP data*

Description

This function downloads data from AUTOTYP (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, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

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

Examples

```
# autotyp.feature(c('Has Gender', 'Has Numeral Classifiers'))
```

bantu *BANTU's Language identifiers*

Description

Language identifiers from BANTU (https://abvd.eva.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:

id BANTU word id

word word

`bantu.feature` *Download BANTU data*

Description

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

Usage

```
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

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

bivaltyp.feature *Download BivalTyp data*

Description

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

Usage

```
bivaltyp.feature()
```

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

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

abvd.feature, afbo.feature, autotyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature # bivaltyp.feature()

circassian *Circassian villages in Russia*

Description

A dataset containes 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

district names of the subjects of the Russian Federation: kbr — Kabardino–Balkar Republic, kch — Karachay–Cherkess Republic, kk — Krasnodar Krai, ra — Republic of Adygea, stv — Stavropol Krai

dialect names of the Circassian dialects

language according standard Circassian devision there are West Circassian and Kabardian languages

---

`countries` *Catalogue of countries*

Description

Catalogue of countries, ISO-codes and official languages

Usage

```
countries
```

Format

A data frame with 189 rows and 5 variables:

alpha3 ISO 3166-3 code of the country

alpha2 ISO 3166-2 code of the country

country_name Country name

additional_names Additional names of the country

official_languages Official 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, full_name = TRUE)
```

Arguments

`x`	A character vector of the languages (can be written in lower case)
`full_name`	A logical value, whether return ISO 3166-2 codes or full names.

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'))
```

---

eurasianphonology *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

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).

Usage

```
eurasianphonology.feature()
```

Author(s)

Kirill Koncha <majortomblog@gmail.com>

See Also

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

Examples

```
eurasianphonology.feature()
```

`frequency_list.feature` *Download frequency list*

Description

This function downloads frequency list from OpenSubtitles2018 (https://opus.nlpl.eu/). You need the internet connection.

Usage

```
frequency_list.feature(languages, list_type = "full")
```

Arguments

languages	ISO 639-1 language code and some others ('ze_en', 'ze_zh', 'zh_cn', 'zh_tw', 'pt_br'). Possible values: 'af', 'ar', 'bg', 'bn', 'br', 'bs', 'ca', 'cs', 'da', 'de', 'el', 'en', 'eo', 'es', 'et', 'eu', 'fa', 'fi', 'fr', 'gl', 'he', 'hi', 'hr', 'hu', 'hy', 'id', 'is', 'it', 'ja', 'ka', 'kk', 'ko', 'lt', 'lv', 'mk', 'ml', 'ms', 'nl', 'no', 'pl', 'pt', 'pt_br', 'ro', 'ru', 'si', 'sk', 'sl', 'sq', 'sr', 'sv', 'ta', 'te', 'tl', 'tr', 'uk', 'ur', 'vi', 'ze_en', 'ze_zh', 'zh_cn', 'zh_tw'.
list_type	Type of frequency list. Possible values: 'full', '50k', 'ignored'. By default is full.

Author(s)

Ekaterina Zalivina <zalivina01@mail.ru>

See Also

abvd.feature, afbo.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

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

Examples

```
# frequency_list.feature('ro')
# frequency_list.feature('en', '50k')
# frequency_list.feature(c('en', 'ru'), '50k')
```

---

glottolog *Catalogue of languages of the world*

Description

A dataset containes 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 26879 rows and 10 variables:

glottocode languoid code from Glottolog 5.0

language name of the language

iso code based on ISO 639–3 https://iso639-3.sil.org/

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

subclassification subclassification in a Newick format

Details

Hammarstrom, Harald and Forkel, Robert and Haspelmath, Martin and Bank, Sebastian. 2023. Glottolog 5.0. Leipzig: Max Planck Institute for Evolutionary Anthropology. https://doi.org/10.5281/zenodo.10804357 (Available online at http://glottolog.org, Accessed on 2024-03-12.)

Source

https://glottolog.org/

`gltc.iso` *Get Glottocode by ISO 639–3 code*

Description

Takes any vector of ISO 639–3 codes and returns Glottocodes.

Usage

```
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

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

gltc.lang *Get Glottocode by language*

Description

Takes any vector of languages and returns Glottocode.

Usage

```
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('Kabardian')
gltc.lang(c('Kabardian', 'Udi'))
```

grambank.feature *Download Grambank data*

Description

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

Usage

```
grambank.feature(features, na.rm = TRUE)
```

Arguments

features	A character vector that define with a feature ids from Grambank (e. g. "gb026", "gb042").
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

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

Examples

```
# grambank.feature(c("gb026", "gb042"))
```

---

imports *Objects imported from other packages*

Description

These objects are imported from other packages. Follow the links to their documentation.

magrittr %>%

---

is.glottolog *Are these languages in glottolog?*

Description

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

Usage

```
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>

Examples

```
is.glottolog(c('Kabardian', 'Russian'))
is.glottolog('Buyaka')

## Not run:
# Add warning message with sugestions
is.glottolog(c('Adyge', 'Russian'), response = TRUE)
# > FALSE TRUE
# Warning message:
# In is.glottolog(c('Kabardia', 'Russian'), response = TRUE) :
# Language Kabardia is absent in our version of the Glottolog database.
# Did you mean Kabardian, Greater Kabardian?

## End(Not run)
```

---

iso.gltc *Get ISO 639–3 code by Glottocode*

Description

Takes any vector of Glotocodes and returns ISO code.

Usage

```
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'))
```

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

Description

Takes any vector of languages and returns ISO code.

Usage

```
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

```
iso.lang('Kabardian')
iso.lang(c('Kabardian', 'Udi'))
```

iso3.iso1 *Get ISO 639-3 code from ISO 639-1*

Description

Takes any vector of ISO 639-1 codes and returns ISO 639-3 code.

Usage

```
iso3.iso1(x)
```

Arguments

x	A character vector of ISO 639-3 codes.

Author(s)

Ekaterina Zalivina <zalivina01@mail.ru>

See Also

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

Examples

```
iso3.iso1('bs')
iso3.iso1(c('co', 'it', 'ar'))
```

`iso_639` *ISO 639-3 is a set of codes that defines three-letter identifiers for all known human languages.*

Description

ISO 639 provides three language code sets: one is a two-letter code (ISO 639-1) and two others are three-letter codes (ISO 639-2 and ISO 639-3) for the representation of names of languages. ISO 639-1 was devised primarily for use in terminology, lexicography and linguistics. ISO 639-2 was devised primarily for use in terminology and bibliography. ISO 639-3 was devised to provide a comprehensive set of identifiers for all languages for use in a wide range of applications, including linguistics, lexicography and internationalization of information systems. It attempts to represent all known full languages.

Usage

```
iso_639
```

Format

A data frame with 188 rows and 5 variables:

ISO_639_3 The three-letter 639-3 identifier

ISO_639_2_B Equivalent 639-2 identifier of the bibliographic applications code set

ISO_639_2_T Equivalent 639-2 identifier of the terminology applications code set

ISO_639_1 Equivalent 639-1 identifier

Ref_Name Reference language name

Details

(Available online at https://iso639-3.sil.org/, Accessed on 2022-05-23.)

Source

https://iso639-3.sil.org/

lang.aff *Get languages by affiliation*

Description

Takes any vector of affiliations and returns languages.

Usage

```
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 langauges 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.

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

lang.iso

Examples

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

lang.country *Get language by country*

Description

Takes any vector of countries and returns languages.

Usage

```
lang.country(x, list = TRUE)
```

Arguments

x	character vector of the countries (in alpha-2 ISO codes)
list	logical. If TRUE, it returns a list of languages, if FALSE it returns a named vector.

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

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

---

lang.gltc *Get language by Glottocode*

Description

Takes any vector of Glottocodes and returns languages.

Usage

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

Arguments

x	A character vector of the Glottocodes.

Author(s)

George Moroz <agricolamz@gmail.com>

See Also

lang.aff

Examples

```
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

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

Arguments

x	A character vector of the ISO codes.

Author(s)

George Moroz <agricolamz@gmail.com>

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('Kabardian')
long.lang('Kabardian')
lat.lang(c('Kabardian', 'Russian'))
long.lang(c('Kabardian', 'Russian'))
```

---

level.lang *Get a level of language by language*

Description

Takes any vector of languages and returns a level of language.

Usage

```
level.lang(x)
```

Arguments

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

Author(s)

Sasha Shakhnova

See Also

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

Examples

```
level.lang('Russian Sign Language')
level.lang(c('Archi', 'Chechen'))
```

long.lang *Get longitude by language*

Description

Takes any vector of languages and returns longitude.

Usage

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

Arguments

x	A character vector of the languages (can be written in lower case)
map.orientation	A character verctor 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

```
lat.lang('Kabardian')
long.lang('Kabardian')
lat.lang(c('Kabardian', 'Russian'))
long.lang(c('Kabardian', 'Russian'))
long.lang(c('Kabardian', 'Aleut'), map.orientation = "Pacific")
```

map.feature *Create a map*

Description

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

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.

`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 datframe 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 meausures (first is latitude, secong 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` dataframe 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 = "kernal density estimation" it is a vector with two meausures (first is latitude, secong 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 verctor with a map tiles, popularized by Google Maps. See here for the complete set.

`tile.name`
: a character verctor 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."

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

`map.orientation`
: a character verctor 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("Kabardian", "Russian"))
```

`oto_mangueanIC` *Oto-Manguean Inflectional Class Database Language identifiers*

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

#' @format A data frame with 20 rows and 2 variables:

Language.name Languaeg 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/) 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

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature # oto_mangueanIC.feature()

`phoible` *Phoible glottolog - language correspondencies*

Description

Language correspondencies for Phoible (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

phoible.feature *Download PHOIBLE data*

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

```
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, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

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

Examples

```
# 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

```
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

```
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

```
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).

---

providers *Providers*

Description

List of all providers with their variations taken from leaflet package

Usage

```
providers
```

Format

A list of characters

Source

https://github.com/leaflet-extras/leaflet-providers/blob/master/leaflet-providers.js

---

sails.feature *Download SAILS data*

Description

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

Usage

```
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

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, soundcomparisons.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

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

Examples

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

---

soundcomparisons *SOUNDCOMPARISONS's Language identifiers*

Description

Language identifiers from SOUNDCOMPARISONS. 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

LanduageId Language Id

soundcomparisons.feature *Download SOUNDCOMPARISONS data*

Description

This function downloads data from SOUNDCOMPARISONS and changes language names to the names from lingtypology database. You need the internet connection.

Usage

```
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

abvd.feature, afbo.feature, autotyp.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, uralex.feature, valpal.feature, vanuatu.feature, eurasianphonology.feature, eurasianphonology.feature

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, uralex.feature, valpal.feature, vanuatu.feature, wals.feature

Examples

```
# 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:

uralex.name language name from database

glottocode Glottocodes

language 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

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, valpal.feature, vanuatu.feature, wals.feature

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

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', 'West Circassian', 'Ganai'))
```

---

valpal.feature *Download ValPaL data*

Description

This function downloads data from ValPal (https://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

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, vanuatu.feature, wals.feature

Examples

```
# valpal.feature()
```

vanuatu.feature *Download Vanuatu Voices data*

Description

This function downloads data from Vanuatu Voices (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))
na.rm	Logical. If TRUE function removes all languages not available in lingtypology database. By default is TRUE.

Author(s)

Mikhail Leonov

See Also

abvd.feature, afbo.feature, autotyp.feature, bivaltyp.feature, eurasianphonology.feature, oto_mangueanIC.feature, phoible.feature, sails.feature, soundcomparisons.feature, uralex.feature, valpal.feature, wals.feature

wals *WALS's Language identifiers*

Description

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

Usage

```
wals
```

Format

A data frame with 2678 rows and 2 variables:

wals.code WALS language identifier

glottocode Glottocode

`wals.feature` *Download WALS data*

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

`abvd.feature`, `afbo.feature`, `autotyp.feature`, `bivaltyp.feature`, `eurasianphonology.feature`, `oto_mangueanIC.feature`, `phoible.feature`, `sails.feature`, `soundcomparisons.feature`, `uralex.feature`, `valpal.feature`, `vanuatu.feature`

Examples

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

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