

Package ‘rgeoboundaries’

March 12, 2024

Title geoBoundaries Client

Version 1.3

Description Provides access to the geoBoundaries international boundary database <<https://www.geoboundaries.org>>, a NSF and foundation supported dataset of subnational boundaries around the globe. Methods allow you to access data directly from the API <<https://www.geoboundaries.org/api/current/>> to query for the geometric boundaries for any country, globally. For more details, refer to the publication by Runfola et al. (2020) <[doi:10.1371/journal.pone.0231866](https://doi.org/10.1371/journal.pone.0231866)>.

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Encoding UTF-8

URL <https://github.com/wmgeolab/rgeoboundaries>

BugReports <https://github.com/wmgeolab/rgeoboundaries/issues>

Depends R (>= 4.1)

Imports crul (>= 1.4.0), jsonlite, sf (>= 1.0.0), hoardr, glue, memoise, countrycode (>= 1.2.0), lifecycle

Suggests roxygen2, knitr, rmarkdown, testthat, covr,

RoxygenNote 7.2.3

X-schema.org-applicationCategory Data Access

X-schema.org-keywords geoboundaries, boundaries, gis, map, geographic, data, spatial, dataset

NeedsCompilation no

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Repository CRAN

Date/Publication 2024-03-12 12:40:03 UTC

R topics documented:

rgeoboundaries-package	2
gb_max_adm_lvl	2
gb_metadata	3
geoboundaries	3

Index	7
--------------	----------

rgeoboundaries-package
rgeoboundaries

Description

R client to access geoBoundaries API

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gb_max_adm_lvl *Get the highest administrative level available for a given country*

Description

Get the highest administrative level available for a given country

Usage

```
gb_max_adm_lvl(
  country = NULL,
  release_type = c("gbOpen", "gbHumanitarian", "gbAuthoritative")
)
```

Arguments

country	character; a vector of country names or iso3 country codes.
release_type	character; This is one of gbOpen, gbHumanitarian, or gbAuthoritative. For most users, we suggest using gbOpen, as it is CC-BY 4.0 compliant, and can be used for most purposes so long as attribution is provided. gbHumanitarian files are mirrored from UN OCHA, but may have less open licensure. gbAuthoritative files are mirrored from UN SALB, and cannot be used for commercial purposes, but are verified through in-country processes. Default to gbOpen.

Value

a data.frame with the country names and corresponding highest administrative level

gb_metadata	<i>Get metadata for a country, administrative level, type of data and version</i>
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Description

Get metadata for a country and an administrative level, type of data and version

Usage

```
gb_metadata(
  country = NULL,
  adm_lvl = "all",
  release_type = c("gbOpen", "gbHumanitarian", "gbAuthoritative")
)
```

Arguments

country	character; a vector of country names or iso 3 country codes
adm_lvl	character or integer; administrative level, adm0, adm1, adm2, adm3, adm4 or adm5. adm0 being the country. 0, 1, 2, 3, 4 or 5 can also be used.
release_type	character; This is one of gbOpen, gbHumanitarian, or gbAuthoritative. For most users, we suggest using gbOpen, as it is CC-BY 4.0 compliant, and can be used for most purposes so long as attribution is provided. gbHumanitarian files are mirrored from UN OCHA, but may have less open licensure. gbAuthoritative files are mirrored from UN SALB, and cannot be used for commercial purposes, but are verified through in-country processes. Default to gbOpen.

Value

returns metadata from the api

geoboundaries	<i>Get the administrative boundaries of selected countries</i>
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Description

Access country boundaries at a specified administrative level

Usage

```
geoboundaries(  
  country = NULL,  
  adm_lvl = "adm0",  
  type = c("unsimplified", "simplified", "UNSIMPLIFIED", "SIMPLIFIED", "HPSCU", "HPSCGS",  
    "SSCGS", "SSCU", "CGAZ", "hpsc", "hpscgs", "sscg", "sscu", "cgaz"),  
  release_type = c("gbOpen", "gbHumanitarian", "gbAuthoritative"),  
  quiet = TRUE,  
  overwrite = FALSE,  
  version = deprecated()  
)  
  
gb_adm0(  
  country = NULL,  
  type = NULL,  
  release_type = NULL,  
  quiet = TRUE,  
  overwrite = FALSE,  
  version = deprecated()  
)  
  
gb_adm1(  
  country = NULL,  
  type = NULL,  
  release_type = NULL,  
  quiet = TRUE,  
  overwrite = FALSE,  
  version = deprecated()  
)  
  
gb_adm2(  
  country = NULL,  
  type = NULL,  
  release_type = NULL,  
  quiet = TRUE,  
  version = deprecated()  
)  
  
gb_adm3(  
  country = NULL,  
  type = NULL,  
  release_type = NULL,  
  quiet = TRUE,  
  overwrite = FALSE,  
  version = deprecated()  
)  
  
gb_adm4(  
  country = NULL,  
  type = NULL,  
  release_type = NULL,  
  quiet = TRUE,  
  overwrite = FALSE,  
  version = deprecated()  
)
```

```

country = NULL,
type = NULL,
release_type = NULL,
quiet = TRUE,
overwrite = FALSE,
version = deprecated()
)

gb_adm5(
country = NULL,
type = NULL,
release_type = NULL,
quiet = TRUE,
overwrite = FALSE,
version = deprecated()
)

```

Arguments

country	character; a vector of country names or country ISO3. If NULL all countries will be used for adm0, adm1, adm2 where the administrative level are available
adm_lvl	character; administrative level, adm0, adm1, adm2, adm3, adm4 or adm5. adm0 being the country boundary. 0, 1, 2, 3, 4 or 5 can also be used.
type	character; One of simplified and unsimplified. Determines the type of boundary to use. Default to unsimplified.
release_type	character; This is one of gbOpen, gbHumanitarian, or gbAuthoritative. For most users, we suggest using gbOpen, as it is CC-BY 4.0 compliant, and can be used for most purposes so long as attribution is provided. gbHumanitarian files are mirrored from UN OCHA, but may have less open licensure. gbAuthoritative files are mirrored from UN SALB, and cannot be used for commerical purposes, but are verified through in-country processes. Default to gbOpen
quiet	logical; if TRUE no message while downloading and reading the data. Default to FALSE
overwrite	logical; if TRUE overwrite the files downloaded previously in the cache. Default to FALSE.
version	character; deprecated parameter.

Details

Different types of boundaries are available:

- unsimplified - The premier geoBoundaries release, representing the highest precision files available for every country in the world. No standardization is performed on these files, so (for example) two countries may overlap in the case of contested boundaries.
- simplified - A simplified version of every file available for every country in the world. No standardization is performed on these files, so (for example) two countries may overlap in the case of contested boundaries.

The following wrappers are also available:

- `gb_adm0` returns the country boundaries
- `gb_adm1` if available, returns the country first administrative level boundaries
- `gb_adm2` if available, returns the country second administrative level boundaries
- `gb_adm3` if available, returns the country third administrative level boundaries
- `gb_adm4` if available, returns the country fourth administrative level boundaries
- `gb_adm5` if available, returns the country first administrative level boundaries

Value

a sf object

References

Runfola D, Anderson A, Baier H, Crittenden M, Dowker E, Fuhrig S, et al. (2020) geoBoundaries: A global database of political administrative boundaries. PLoS ONE 15(4): e0231866. <https://doi.org/10.1371/journal.pone.0231866>

Examples

```
# Get administrative boundaries for Canada at adm1 level
canada_adm1 <- geoboundaries(country = "Canada", adm_lvl = "adm1")

# Get administrative boundaries for all countries at adm0 level
all_countries_adm0 <- geoboundaries()
```

Index

* package

rgeoboundaries-package, 2

gb_adm0 (geoboundaries), 3

gb_adm1 (geoboundaries), 3

gb_adm2 (geoboundaries), 3

gb_adm3 (geoboundaries), 3

gb_adm4 (geoboundaries), 3

gb_adm5 (geoboundaries), 3

gb_max_adm_lvl, 2

gb_metadata, 3

geoboundaries, 3

rgeoboundaries

(rgeoboundaries-package), 2

rgeoboundaries-package, 2