

Package ‘wikilake’

October 5, 2021

Title Scrape Lake Metadata Tables from Wikipedia

Version 0.6.0

Description Scrape lake metadata tables from Wikipedia <<https://www.wikipedia.org/>>.

Imports rvest, stringi, WikipediR, xml2, sp, graphics, stringr,
selectr, units, dplyr, tidyr

URL <https://github.com/jsta/wikilake>

BugReports <https://github.com/jsta/wikilake/issues>

Depends R (>= 3.3.0), maps

License GPL (>= 2)

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Suggests knitr, rmarkdown, testthat, reticulate

VignetteBuilder knitr

NeedsCompilation no

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Repository CRAN

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R topics documented:

wikilake-package	2
dms2dd	2
get_lake_wiki	3
lake_clean	3
lake_wiki	4
lake_wiki_browser	5
map_lake_wiki	5

milakes	6
parse_unit_brackets	7
tidy_lake_df	7

Index	8
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wikilake-package	<i>Scrape Wikipedia lakes metadata</i>
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Description

Scrape Wikipedia lakes metadata

Author(s)

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dms2dd	<i>dms2dd</i>
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Description

Convert numeric coordinate vectors in degrees, minutes, and seconds to decimal degrees

Usage

```
dms2dd(x)
```

Arguments

x numeric vector of length 3 corresponding to degrees, minutes, and seconds

Examples

```
dt <- rbind(c(25,12,53.66),c(-80,32,00.61))
apply(dt, 1, function(x) dms2dd(x))
```

get_lake_wiki	<i>get_lake_wiki</i>
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Description

get_lake_wiki

Usage

```
get_lake_wiki(lake_name, cond = NA)
```

Arguments

lake_name	character
cond	character stopping condition

Examples

```
## Not run:  
get_lake_wiki("Lake Nipigon")  
  
## End(Not run)
```

lake_clean	<i>Clean output of lake_wiki</i>
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Description

Currently the only operation is to standardize the units of numeric fields. See the output units with the `unit_key_` function.

Usage

```
lake_clean(dt)
```

Arguments

dt	output of the lake_wiki function
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Examples

```
## Not run:  
dt <- lake_wiki(c("Lake Mendota", "Flagstaff Lake (Maine)"))  
dt_clean <- lake_clean(dt)  
  
dt <- lake_wiki(c("Lake Mendota", "Trout Lake (Wisconsin)"))  
dt_clean <- lake_clean(dt)  
  
## End(Not run)
```

lake_wiki	<i>lake_wiki</i>
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Description

lake_wiki

Usage

```
lake_wiki(lake_name, map = FALSE, clean = TRUE, ...)
```

Arguments

lake_name	character
map	logical produce map of lake location?
clean	logical enforce standardized units following wikilake::unit_key_()?
...	arguments passed to maps::map

Examples

```
## Not run:
lake_wiki("Lake Peipsi")
lake_wiki("Flagstaff Lake (Maine)")
lake_wiki("Lake George (Michigan-Ontario)")
lake_wiki("Lake Michigan", map = TRUE, "usa")
lake_wiki("Lac La Belle, Michigan")
lake_wiki("Lake Antoine")
lake_wiki("Lake Baikal")
lake_wiki("Dockery Lake (Michigan)")
lake_wiki("Coldwater Lake")
lake_wiki("Bankson Lake")
lake_wiki("Fisher Lake (Michigan)")
lake_wiki("Beals Lake")
lake_wiki("Devils Lake (Michigan)")
lake_wiki("Lake Michigan")
lake_wiki("Fletcher Pond")
lake_wiki("Lake Bella Vista (Michigan)")
lake_wiki("Lake Mendota")
lake_wiki("Lake Mendota", map = TRUE, "usa")
lake_wiki("Lake Nipigon", map = TRUE, regions = "Canada")
lake_wiki("Trout Lake (Wisconsin)")

# a vector of lake names
lake_wiki(c("Lake Mendota", "Trout Lake (Wisconsin)"))
lake_wiki(c("Lake Mendota", "Trout Lake (Wisconsin)"), map = TRUE)

# throws warning on redirects
lake_wiki("Beals Lake")
```

```
# ignore notability box
lake_wiki("Rainbow Lake (Waterford Township, Michigan)")

## End(Not run)
```

lake_wiki_browser *lake_wiki_browser*

Description

lake_wiki_browser

Usage

```
lake_wiki_browser(lake_wiki_obj = NA, lake_names = NA)
```

Arguments

lake_wiki_obj data.frame output of lake_wiki
lake_names fallback character vector of lake names

Examples

```
## Not run:
lake_wiki_browser(lake_names = "Lake Mendota")
lake_wiki_browser(lake_names = c("Lake Mendota", "Lake Champlain"))
lake_wiki_browser(lake_wiki(c("Lake Mendota", "Lake Champlain")))

## End(Not run)
```

map_lake_wiki *map_lake_wiki*

Description

map_lake_wiki

Usage

```
map_lake_wiki(res, ...)
```

Arguments

res data.frame output of get_lake_wiki
... arguments passed to maps::map

Examples

```
## Not run:
map_lake_wiki(lake_wiki("Corey Lake"), database = "usa")

map_lake_wiki(lake_wiki("Lake Nipigon"), regions = "Canada")

## End(Not run)
```

milakes

Michigan Lakes

Description

Metadata of Michigan lakes scraped from Wikipedia.

Format

A data frame with 48 columns and 177 rows:

- Name: lake name
- Location: location description
- Primary inflows: rivers and streams
- Basin countries: countries
- Surface area: hectares
- Max. depth: meters
- Surface elevation: meters
- Lat: decimal degrees
- Lon: decimal degrees
- Primary outflows: rivers and streams
- Average depth: meters
- Max. length: meters
- Max. width: meters

parse_unit_brackets *Parse string representation of units package quantities*

Description

Parse string representation of units package quantities

Usage

```
parse_unit_brackets(x, target_unit = NA)
```

Arguments

x character string with unit in brackets
target_unit target unit to convert to. optional

Examples

```
x <- "1 [m]"  
x <- "8.5 [m]"  
parse_unit_brackets(x, "feet")
```

tidy_lake_df *tidy_lake_df*

Description

tidy_lake_df

Usage

```
tidy_lake_df(lake)
```

Arguments

lake data.frame output of get_lake_wiki

Index

* datasets

milakes, [6](#)

dms2dd, [2](#)

get_lake_wiki, [3](#)

lake_clean, [3](#)

lake_wiki, [4](#)

lake_wiki_browser, [5](#)

map_lake_wiki, [5](#)

milakes, [6](#)

parse_unit_brackets, [7](#)

tidy_lake_df, [7](#)

wikilake (wikilake-package), [2](#)

wikilake-package, [2](#)