Package 'redlist'

May 9, 2026

Type Package

Title Interface to the IUCN Red List Data

Version 0.2.0

Description Provides an interface to access data from the International Union for Conservation of Nature (IUCN) Red List <https://api.iucnredlist.org/api-docs/index.html>. It allows users to retrieve up-to-date information on species' conservation status, supporting biodiversity research and conservation efforts.

License MIT + file LICENSE

Encoding UTF-8

RoxygenNote 7.3.2

Imports cli (>= 3.6.3), dplyr (>= 1.1.4), httr2 (>= 1.1.2), magrittr (>= 2.0.3), methods, rvest (>= 1.0.4)

URL https://github.com/stangandaho/redlist, https://stangandaho.github.io/redlist/

BugReports https://github.com/stangandaho/redlist/issues

Depends R (>= 3.6.0)

Suggests ggplot2 (>= 3.5.2), httptest2 (>= 1.1.0), kableExtra (>= 1.4.0), knitr (>= 1.50), rmarkdown (>= 2.29), scales (>= 1.4.0), testthat (>= 3.0.0)

Config/testthat/edition 3

Config/Needs/website rmarkdown

VignetteBuilder knitr

NeedsCompilation no

Author Stanislas Mahussi Gandaho [aut, cre] (ORCID: <https://orcid.org/0009-0003-4969-1252>)

Maintainer Stanislas Mahussi Gandaho <stangandaho@gmail.com>

Repository CRAN

Date/Publication 2025-08-20 17:00:09 UTC

Contents

`rl_assessment_id` *IUCN Red List assessment*

Description

Retrieves an assessment

Usage

```
rl_assessment_id(assessment_id = 1425064)
```

Arguments

assessment_id	Assessment ID

Value

A tibble where each column represents a unique API response JSON key for the supplied `assessment_id`. The columns include key information about the Red List assessment, such as taxon details, category, year, and other relevant metadata.

Examples

```
## Not run:
rl_assessment_id(1425064)

## End(Not run)
```

---

rl_biogeographical_realms

IUCN Red List biogeographical realms

Description

Retrieve available biogeographical realms or detailed species assessments for one or more realms.

Usage

```
rl_biogeographical_realms(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

code	Numeric or Character. One or more biogeographical realm codes (e.g. `0` or `"0"`). Use `rl_biogeographical_realms()` to list available realms.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If `TRUE`, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.

possibly_extinct_in_the_wild
: Optional. Logical. Filter for species possibly extinct in the wild.

scope_code
: Optional. Integer One or more scope codes to filter assessments.

page
: Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Details

This function has two modes:

- If code = NULL, it returns a list of available biogeographical realms.
- If code is provided, it retrieves assessments for the specified realm(s), optionally filtered by year, extinction status, scope, and page(s).

If page is not specified, the function will automatically paginate over all available pages for each parameter combination.

Value

A tibble (class tbl_df``, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available biogeographical realms with columns such as realm code and name. If code is provided, the tibble contains assessment data for the specified realm(s), including taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
# List all available biogeographical realms
rl_biogeographical_realms()

# Retrieve all assessments for realm code 0
rl_biogeographical_realms(code = 0)

# Get latest assessments from multiple pages with filters
rl_biogeographical_realms(
  code = 0,
  year_published = c(2020, 2021),
  page = c(1, 2)
)

## End(Not run)
```

rl_check_api *Check IUCN Red List API Status*

Description

Verifies whether the IUCN Red List API is accessible and the provided API key is valid.

Usage

```
rl_check_api()
```

Value

Invisibly returns `TRUE` if the API is working properly. If not, the function will abort with an appropriate error message.

See Also

`rl_set_api()`

Examples

```
## Not run:
# Check if API is properly set up
rl_check_api()

## End(Not run)
```

rl_classes *IUCN Red List taxa by class*

Description

Retrieve species assessments by taxonomic class. If `class_name = NULL`, it returns a list of available classes. If `class_name` is provided, it retrieves assessments for species in the specified class.

Usage

```
rl_classes(
  class_name = NULL,
  year_published = NULL,
  latest = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

class_name	Character. The class name (e.g., "Mammalia"). Use rl_classes() to list available classes.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If class_name = NULL, the tibble contains available taxonomic classes with a column for class names. If class_name is provided, the tibble contains assessment data for the specified class, including taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
# List all available classes
rl_classes()

# Get assessments for Mammalia class
rl_classes(class_name = "Mammalia")

# Get latest Aves assessments published since 2024
rl_classes(
  class_name = "Aves",
  year_published = 2024:2025,
  latest = TRUE
)

## End(Not run)
```

---

rl_comprehensive_groups

IUCN Red List Comprehensive groups

Description

Get assessment data by comprehensive group name (e.g amphibians, mammals, birds, blennies, mangrove_plants, reptiles, insects, fishes, etc). See name argument for available group names.

Usage

```
rl_comprehensive_groups(
  name = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

name	Character. One or more group names. Use rl_comprehensive_groups() to list available group names.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.
possibly_extinct_in_the_wild	Optional. Logical. Filter for species possibly extinct in the wild.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If name = NULL, the tibble contains available comprehensive group names. If name is provided, the tibble contains assessment data for the specified group(s), including taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
rl_comprehensive_groups(name = "amphibians",
                        year_published = 2024:2025,
                        page = 1:3)

## End(Not run)
```

`rl_conservation_actions` *IUCN Red List conservation action*

Description

Get assessment data by conservation action See `actions` argument for available action codes

Usage

```
rl_conservation_actions(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character. One or more action codes Use `rl_conservation_actions()` to list available action codes.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.
`possibly_extinct_in_the_wild`	Optional. Logical. Filter for species possibly extinct in the wild.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `code = NULL`, the tibble contains available conservation action codes. If `code` is provided, the tibble contains assessment data for the specified action code(s), including taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
rl_conservation_actions(code = 1,
                        year_published = 2024:2025,
                        page = 1:3)

## End(Not run)
```

`rl_countries` *Retrieve IUCN Red List assessments by country*

Description

Retrieves the species assessed by the IUCN for a specified countries. See code argument for available countries codes

Usage

```
rl_countries(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character. One or more countries ISO alpha-2 code. Use `rl_countries()` to list available countries codes.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.
`possibly_extinct_in_the_wild`	Optional. Logical. Filter for species possibly extinct in the wild.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `code = NULL`, the tibble contains available country codes. If `code` is provided, the tibble contains assessment data for the specified country code(s), including taxon details, red list category, year, and other relevant metadata

Examples

```
## Not run:
  # Retrieve assessments for Benin (country code "BJ") for the year 2020
  rl_countries("BJ", year = 2020)

  # Retrieve all assessments for Brazil (country code "BR")
  rl_countries("BR", page = 2)

  # Retrieve assessments for Canada (country code "CA") on specific pages
  rl_countries("CA", page = c(1, 2))

## End(Not run)
```

---

rl_family *IUCN Red List taxa by family*

Description

Retrieve species assessments by taxonomic family. If `family_name = NULL`, it returns a list of available families. If `family_name` is provided, it retrieves assessments for species in the specified family.

Usage

```
rl_family(
  family_name = NULL,
  year_published = NULL,
  latest = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`family_name`	Character. The family name (e.g., "Felidae"). Use `rl_family()` to list available families.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.

page — Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If family_name = NULL, the tibble contains available family names. If family_name is provided, the tibble contains assessment data for the specified family, including taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
# List all available families
rl_family()

# Get assessments for Felidae family
rl_family(family_name = "Felidae")

# Get latest Canidae assessments published from 2019 to 2022
rl_family(
  family_name = "Canidae",
  year_published = 2019:2022,
  latest = TRUE
)

## End(Not run)
```

---

rl_faos *FAO marine fishing areas*

Description

List or retrieve IUCN Red List assessments for FAO Marine Fishing Areas.

Usage

```
rl_faos(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

code	Character. One or more FAO region codes (e.g. "21", "27"). Use rl_faos() with no arguments to list available FAO region codes.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.
possibly_extinct_in_the_wild	Optional. Logical. Filter for species possibly extinct in the wild.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Details

If code is NULL, this returns the available FAO region codes and their descriptions. If a code (or multiple codes) is provided, retrieves the IUCN assessments for those regions.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available FAO region codes and their descriptions. If code is provided, the tibble contains assessment data for the specified FAO region(s), including description, taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
# List available FAO regions
rl_faos()

# Get assessments for FAO region 27
rl_faos(code = "27")

# Get assessments for regions 21 and 27 on page 1
rl_faos(code = c("21", "27"), page = 1)

## End(Not run)
```

rl_green_status *Green status*

Description

Retrieve all IUCN Green Status assessments.

Usage

```
rl_green_status()
```

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. The columns include key information about the Green Status assessment, such as year, weights, justification, and other relevant metadata.

Examples

```
## Not run:
rl_green_status()

## End(Not run)
```

rl_growth_forms *Growth forms*

Description

Retrieve IUCN Red List assessments by growth form.

Usage

```
rl_growth_forms(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

code	Character. One or more growth form codes (e.g. "TREE", "SHRUB"). Use rl_growth_forms() with no arguments to list available growth form codes.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.
possibly_extinct_in_the_wild	Optional. Logical. Filter for species possibly extinct in the wild.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Details

If code is NULL, this returns the available growth form codes and their descriptions. If a code (or multiple codes) is provided, retrieves the IUCN assessments for those growth forms.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available growth form codes and their descriptions. If code is provided, the tibble contains assessment data for the specified growth form(s), including year, taxon details, and other relevant metadata.

Examples

```
## Not run:
# List available growth form codes
rl_growth_forms()

# Get assessments for tree growth form (e.g Geophyte)
rl_growth_forms(code = "GE")

# Get assessments for multiple growth forms (e.g Hydrophyte, Lithophyte)
rl_growth_forms(code = c("H", "L"), page = c(1, 2))

## End(Not run)
```

`rl_habitats` *Habitats*

Description

Retrieve IUCN Red List assessments by habitat classification.

Usage

```
rl_habitats(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character. One or more habitat classification codes. Use `rl_habitats()` with no arguments to list available habitat codes.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.
`possibly_extinct_in_the_wild`	Optional. Logical. Filter for species possibly extinct in the wild.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `code = NULL`, the tibble contains available habitat codes and their descriptions. If `code` is provided, the tibble contains assessment data for the specified habitat(s), including taxon details, description, red list category, year, assessment id, and other relevant metadata.

Examples

```
## Not run:
# Retrieve available habitat codes
rl_habitats()

# Retrieve assessments for the Desert
rl_habitats(code = 8)

## End(Not run)
```

`rl_kingdoms` *IUCN Red List taxa by kingdom*

Description

Retrieve species assessments by kingdom. If `kingdom_name = NULL`, it returns a list of available kingdoms. If `kingdom_name` is provided, it retrieves assessments for species in the specified kingdom.

Usage

```
rl_kingdoms(
  kingdom_name = NULL,
  year_published = NULL,
  latest = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`kingdom_name`	Character. The kingdom name (e.g., "Animalia"). Use `rl_kingdoms()` to list available kingdoms.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `kingdom_name = NULL`, the tibble contains available kingdom names. If `kingdom_name` is provided, the tibble contains assessment data for the specified kingdom, including taxon details, red list category, year, and other relevant metadata.

Examples

```
## Not run:
# List all available kingdoms
rl_kingdoms()

# Get assessments for species in Animalia kingdom
rl_kingdoms(kingdom_name = "Animalia")

# Get latest assessments for Plantae published in 2021
rl_kingdoms(
  kingdom_name = "Plantae",
  year_published = 2021,
  latest = TRUE
)

## End(Not run)
```

`rl_open_file` *Open file for editing*

Description

Opens a specified file for editing in the system's default editor (as configured by R).

Usage

```
rl_open_file(path = NULL, scope = c("user", "project"))
```

Arguments

`path`	Optional character string specifying the path to the file to open. If `NULL` (default), a `.Renviron` file is opened based on the value of `scope`.
`scope`	Character string indicating which `.Renviron` file to open when `path = NULL`: • `user`: Opens the user-level `.Renviron` • `project`: Opens or creates a `.Renviron` file in the current working directory

Value

(Invisibly) returns the path to the file opened.

Examples

```
## Not run:
# Open user-level .Renviron
open_file()

## End(Not run)
```

rl_orders *IUCN Red List taxa by order*

Description

Retrieve species assessments by taxonomic order. If `order_name = NULL`, it returns a list of available orders. If `order_name` is provided, it retrieves assessments for species in the specified order.

Usage

```
rl_orders(
  order_name = NULL,
  year_published = NULL,
  latest = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`order_name`	Character. The order name (e.g., "Carnivora"). Use `rl_orders()` to list available orders.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `order_name = NULL`, the tibble contains available taxonomic orders with a column for order names. If `order_name` is provided, the tibble contains assessment data for the specified order, including year, taxon details, criteria, and other relevant metadata.

Examples

```
## Not run:
# List all available orders
rl_orders()

# Get assessments for Carnivora order
rl_orders(order_name = "Carnivora")

# Get latest Primates assessments published in 2022
rl_orders(
```

```
  order_name = "Primates",
  year_published = 2022,
  latest = TRUE
)

## End(Not run)
```

`rl_phylum` *IUCN Red List taxa by phylum*

Description

Retrieve species assessments by phylum. If `phylum_name = NULL`, it returns a list of available phyla. If `phylum_name` is provided, it retrieves assessments for species in the specified phylum.

Usage

```
rl_phylum(
  phylum_name = NULL,
  year_published = NULL,
  latest = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`phylum_name`	Character. The phylum name (e.g., "Chordata"). Use `rl_phylum()` to list available phyla.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `phylum_name = NULL`, the tibble contains available phylum names. If `phylum_name` is provided, the tibble contains assessment data for the specified phylum, year, latest, possibly extincts, and other relevant metadata.

Examples

```
## Not run:
# List all available phyla
rl_phylum()

# Get assessments for species in Chordata phylum
rl_phylum(phylum_name = "Chordata")

# Get latest assessments for Arthropoda published in 2020
rl_phylum(
  phylum_name = "Arthropoda",
  year_published = 2020,
  latest = TRUE
)

## End(Not run)
```

`rl_population_trends` *IUCN Red List population trends*

Description

Retrieve available population trend categories or species assessments for one or more trends.

Usage

```
rl_population_trends(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character or Numeric. One or more population trend codes (`0`-`3`). Use `rl_population_trends()` to list available trend codes and definition.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.
`possibly_extinct_in_the_wild`	Optional. Logical. Filter for species possibly extinct in the wild.

scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Details

This function has two modes:

- If code = NULL, it returns a list of available population trend categories.
- If code is provided, it retrieves assessments for the specified trend(s), optionally filtered by year, extinction status, scope, and page(s).

Population trends include: Increasing, Decreasing, Stable, or Unknown.

If page is not specified, the function will automatically paginate over all available pages for each parameter combination.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available population trend categories with columns such as code and description. If code is provided, the tibble contains assessment data for the specified trend(s), including population trend description, population trend code, year, latest, and other relevant metadata.

Examples

```
## Not run:
# List all available population trend categories
rl_population_trends()

# Retrieve assessments for species with decreasing populations
rl_population_trends(code = "1")

# Get latest decreasing population assessments from 2020
rl_population_trends(
  code = 2,
  year_published = 2020,
  latest = TRUE
)

## End(Not run)
```

---

rl_possibly_extinct *IUCN Red List possibly extinct taxa*

Description

Retrieve species assessments flagged as possibly extinct. Returns all latest global assessments for taxa that are possibly extinct.

Usage

```
rl_possibly_extinct()
```

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. Columns include year, latest, possibly extinct, possibly extinct in the wild, sis taxon id, url, taxon scientific name, red list category, assessment id, scopes description, and scopes code

Examples

```
## Not run:
# Get all possibly extinct species
rl_possibly_extinct()

## End(Not run)
```

`rl_possibly_extinct_in_wild` *IUCN Red List possibly extinct in the wild taxa*

Description

Retrieve species assessments flagged as possibly extinct in the wild. Returns all latest global assessments for taxa that are possibly extinct in the wild.

Usage

```
rl_possibly_extinct_in_wild()
```

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. Columns include year, latest, possibly extinct, possibly extinct in the wild, sis taxon id, url, taxon scientific name, red list category, assessment id, scopes description, and scopes code

Examples

```
## Not run:
# Get all possibly extinct in the wild species
rl_possibly_extinct_in_wild()

## End(Not run)
```

`rl_red_list_categories` *IUCN Red List Categories*

Description

Retrieve species assessments based on their Red List threat categories. If `code = NULL`, it returns a list of available Red List categories. If `code` is provided, it retrieves assessments for species in the specified category(ies).

Usage

```
rl_red_list_categories(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character. One or more Red List category codes (e.g., "CR", "EN"). Use `rl_red_list_categories()` to list available categories.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.
`possibly_extinct_in_the_wild`	Optional. Logical. Filter for species possibly extinct in the wild.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `code = NULL`, the tibble contains available Red List categories with columns such as code and description. If `code` is provided, the tibble contains assessment data for the specified category(ies), including year, taxon details, and other relevant metadata.

Examples

```
## Not run:
# List all Red List categories
rl_red_list_categories()

# Get Critically Endangered species assessments
rl_red_list_categories(code = "CR")

# Get Vulnerable species assessments published in 2020
rl_red_list_categories(
  code = "VU",
  year_published = 2020
)

## End(Not run)
```

`rl_research` *IUCN Red List research categories*

Description

Retrieve species assessments based on their research needs categories. If `code = NULL`, it returns a list of available research categories. If `code` is provided, it retrieves assessments for species with the specified research need(s).

Usage

```
rl_research(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character Or Numeric. One or more research category codes (e.g., "1", "2"). Use `rl_research()` to list available research categories.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.

possibly_extinct_in_the_wild
: Optional. Logical. Filter for species possibly extinct in the wild.

scope_code
: Optional. Integer One or more scope codes to filter assessments.

page
: Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available research categories with columns such as code and description. If code is provided, the tibble contains assessment data for the specified research need(s), including description, research code, year, taxon details, and other relevant metadata.

Examples

```
## Not run:
# List all research categories
rl_research()

# Get species needing population trends research (code 3_1)
rl_research(code = "3_1")

# Get species needing life history & ecology research published since 2019
rl_research(
  code = "1_3",
  year_published = 2019:2023
)

## End(Not run)
```

---

rl_scientific_name *IUCN Red List taxa by scientific name*

Description

Retrieve species assessments using scientific names (Latin binomials). Returns summary assessment data including both latest and historic assessments.

Usage

```
rl_scientific_name(
  genus_name,
  species_name,
  infra_name = NULL,
  subpopulation_name = NULL
)
```

Arguments

genus_name	Character. The genus name (required).
species_name	Character. The species name (required).
infra_name	Character. The infraspecific name (optional).
subpopulation_name	Character. The subpopulation name (optional).

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. The tibble contains assessment data for the specified taxon, including taxon details.

Examples

```
## Not run:
# Get assessments for Panthera leo (lion)
rl_scientific_name(genus_name = "Panthera", species_name = "leo")

## End(Not run)
```

---

rl_scopes *IUCN Red List assessment scopes*

Description

Retrieve species assessments based on their geographic assessment scopes. If code = NULL, it returns a list of available assessment scopes. If code is provided, it retrieves assessments for the specified scope(s).

Usage

```
rl_scopes(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = scope_code %||% NA,
  page = 1
)
```

Arguments

code	Character or Numeric. One or more scope codes (e.g., "1", "2"). Use rl_scopes() to list available scope categories.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.
possibly_extinct_in_the_wild	Optional. Logical. Filter for species possibly extinct in the wild.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available assessment scopes with columns such as code and description. If code is provided, the tibble contains assessment data for the specified scope(s), including, description, year, latest, taxon details, and other relevant metadata.

Examples

```
## Not run:
# List all assessment scopes
rl_scopes()

# Get globally assessed species (code 1)
rl_scopes(code = "1")

# Get Pan-Africa species assessed species published since 2020
rl_scopes(
  code = "2",
  year_published = 2020:2023
)

## End(Not run)
```

---

rl_set_api *Set the IUCN Red List API key*

Description

The function provide steps to set the IUCN Red List API key.

Usage

```
rl_set_api(api_key)
```

Arguments

api_key	Character. The API key provided by the IUCN Red List to authenticate requests, obtainable at IUCN Red List API website.

Value

Invisibly returns NULL after setting the API key.

Examples

```
## Not run:
# Set the API key for the IUCN Red List
rl_set_api("your_api_key")

## End(Not run)
```

---

rl_sis *IUCN Red List taxa by SIS ID*

Description

Retrieve species assessments using the Species Information Service (SIS) identifier. Returns summary assessment data including both latest and historic assessments.

Usage

```
rl_sis(sis_id = 179359)
```

Arguments

sis_id	Numeric. One or more SIS identifiers for taxa.

Value

A tibble (class tbl_df, tbl, data.frame) containing assessment data for the specified SIS ID(s).

Examples

```
## Not run:
# Get assessments for species with SIS ID 179359
rl_sis(179359)

## End(Not run)
```

rl_statistics *IUCN Red List statistics*

Description

Retrieve count of species with assessments. This endpoint returns the total number of assessed species on the IUCN Red List.

Usage

```
rl_statistics()
```

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) containing count and date of access.

Examples

```
## Not run:
# Get total count of assessed species
rl_statistics()

## End(Not run)
```

rl_stresses *IUCN Red List stress categories*

Description

Retrieve species assessments based on stress categories affecting species. If `code = NULL`, it returns a list of available stress categories. If `code` is provided, it retrieves assessments for species affected by the specified stress(es).

Usage

```
rl_stresses(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

code	Character or Numeric. One or more stress codes (e.g., "1", "2_1"). Use rl_stresses() to list available stress categories.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.
possibly_extinct_in_the_wild	Optional. Logical. Filter for species possibly extinct in the wild.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) containing stress categories or species assessments. If code = NULL, the tibble contains available stress categories with columns such as code and description. If code is provided, the tibble contains assessment data for the specified stress(es), including year, taxon details, and other relevant metadata.

Examples

```
## Not run:
# List all stress categories
rl_stresses()

# Get species affected by ecosystem stresses (code 1)
rl_stresses(code = "1") # or code = 1

# Get species affected by competition stresses published since 2020
rl_stresses(
  code = "2_3_2",
  year_published = 2020:2023
)

## End(Not run)
```

---

rl_systems *IUCN Red List ecological systems*

Description

Retrieve species assessments based on their ecological systems. If code = NULL, it returns a list of available ecological systems. If code is provided, it retrieves assessments for species in the specified system(s).

Usage

```
rl_systems(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

code	Character or Numeric. One or more system codes (e.g., "0", "1", "2"). Use rl_systems() to list available ecological systems.
year_published	Optional. Single or numeric vector of years to filter assessments by publication year.
latest	Optional. Logical. If TRUE, return only the latest assessment per species.
possibly_extinct	Optional. Logical. Filter for species flagged as possibly extinct.
possibly_extinct_in_the_wild	Optional. Logical. Filter for species possibly extinct in the wild.
scope_code	Optional. Integer One or more scope codes to filter assessments.
page	Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available ecological systems with columns such as code and description. If code is provided, the tibble contains assessment data for the specified system(s), including description, possible extinct in the wild, scientific name, latest, taxon details, and other relevant metadata.

Examples

```
## Not run:
# List all ecological systems
rl_systems()

# Get terrestrial species assessments (code 0)
rl_systems(code = 0)

# Get marine species assessments published since 2021
rl_systems(
  code = "2",
  year_published = 2021:2023
)
```

```
## End(Not run)
```

`rl_threats` *IUCN Red List threat categories*

Description

Retrieve species assessments based on threat categories. If `code = NULL`, it returns a list of available threat categories. If `code` is provided, it retrieves assessments for species affected by the specified threat(s).

Usage

```
rl_threats(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character. One or more threat codes (e.g., "1"). Use `rl_threats()` to list available threat categories.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.
`possibly_extinct_in_the_wild`	Optional. Logical. Filter for species possibly extinct in the wild.
`scope_code`	Optional. Integer One or more scope codes to filter assessments.
`page`	Optional. Integer vector. Specify one or more page numbers to fetch. If `NULL` or `NA`, all pages will be fetched automatically.

Value

A tibble (class `tbl_df`, `tbl`, `data.frame`) where each column represents a unique API response JSON key. If `code = NULL`, the tibble contains available threat categories with columns such as code and description. If `code` is provided, the tibble contains assessment data for the specified threat(s), including threat description, threat code and year.

Examples

```
## Not run:
# List all threat categories
rl_threats()

# Get species affected by agriculture & aquaculture threats (code 2)
rl_threats(code = 2)

# Get species affected by Climate change & severe weather threats published in 2025
rl_threats(
  code = "11",
  year_published = 2025
)

## End(Not run)
```

`rl_use_and_trade` *IUCN Red List use and trade categories*

Description

Retrieve species assessments based on use and trade categories. If `code = NULL`, it returns a list of available use and trade categories. If `code` is provided, it retrieves assessments for species affected by the specified use/trade category(ies).

Usage

```
rl_use_and_trade(
  code = NULL,
  year_published = NULL,
  latest = NULL,
  possibly_extinct = NULL,
  possibly_extinct_in_the_wild = NULL,
  scope_code = NULL,
  page = 1
)
```

Arguments

`code`	Character. One or more use/trade codes (e.g., "1", "5_2"). Use `rl_use_and_trade()` to list available categories.
`year_published`	Optional. Single or numeric vector of years to filter assessments by publication year.
`latest`	Optional. Logical. If `TRUE`, return only the latest assessment per species.
`possibly_extinct`	Optional. Logical. Filter for species flagged as possibly extinct.

possibly_extinct_in_the_wild
: Optional. Logical. Filter for species possibly extinct in the wild.

scope_code
: Optional. Integer One or more scope codes to filter assessments.

page
: Optional. Integer vector. Specify one or more page numbers to fetch. If NULL or NA, all pages will be fetched automatically.

Value

A tibble (class tbl_df, tbl, data.frame) where each column represents a unique API response JSON key. If code = NULL, the tibble contains available use and trade categories with columns such as code and description. If code is provided, the tibble contains assessment data for the specified use/trade category(ies), including description, code, year, latest, and other relevant metatdata.

Examples

```
## Not run:
# List all use and trade categories
rl_use_and_trade()

# Get species used for food - human (code 1)
rl_use_and_trade(code = "1")

# Get species hunted for Sport hunting/specimen collecting published in 2024
rl_use_and_trade(
  code = "15",
  year_published = 2024
)

## End(Not run)
```

---

rl_version *IUCN Red List and API version*

Description

Print the current version of the IUCN Red List of Threatened Species and API

Usage

```
rl_version()
```

Value

Invisibly returns NULL after printing the Red List and API versions.

Examples

```
## Not run:
rl_version()

## End(Not run)
```

Index