Package: inatpick (via r-universe)

June 25, 2026

Title Download Photos and Metadata from 'iNaturalist'

Version 0.2.2

Description A lightweight interface to the 'iNaturalist' API (<https://www.inaturalist.org/pages/api+reference>) for downloading observation photos and exporting metadata to CSV. Supports filtering by taxon, place, user, and annotation. Note that downloaded photos retain their original licenses as set by 'iNaturalist' observers; users are responsible for respecting these licenses.

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Encoding UTF-8

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Depends R (>= 4.1.0)

Imports httr, jsonlite, dplyr, tidyr, purrr, rlang, stats, utils

Suggests knitr, rmarkdown, testthat (>= 3.0.0), httptest2

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URL https://github.com/andresarb/inatpick, https://andresarb.github.io/inatpick/

BugReports https://github.com/andresarb/inatpick/issues

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Contents

`inat_annotations` *iNaturalist annotation term and value IDs*

Description

A named lookup table for human-readable annotation labels and their corresponding iNaturalist `term_id` and `term_value_id` pairs, for use with `inat_fetch()`.

Usage

```
inat_annotations
```

Format

A data frame with columns `label`, `term_id`, `term_value_id`.

Value

A data frame with 20 rows and 3 columns (`label`, `term_id`, `term_value_id`) listing all supported annotation labels and their corresponding iNaturalist API term and term-value IDs.

`inat_download` *Download photos from iNaturalist observations*

Description

Downloads all photos from a data frame returned by `inat_fetch()`, and optionally saves observation metadata to a CSV file in the same folder.

Usage

```
inat_download(
  obs,
  out_dir,
  size = "large",
  metadata = TRUE,
  overwrite = FALSE,
  verbose = TRUE
)
```

Arguments

`obs`	Data frame returned by `inat_fetch()`.
`out_dir`	Character. Directory to save images and metadata. Created if it does not exist. There is no default: you must specify a path, e.g. a folder in your working directory or `tempdir()` for a temporary location.
`size`	Character. Photo size: `"square"` (75px), `"small"` (240px), `"medium"` (500px), `"large"` (1024px), or `"original"`. Default `"large"`. The size is appended to the filename (e.g. `obs123_456_large.jpg`).
`metadata`	Logical. If `TRUE` (default), automatically saves a `metadata.csv` file to `out_dir` alongside the downloaded photos.
`overwrite`	Logical. Re-download files that already exist (default `FALSE`).
`verbose`	Logical. Print progress messages (default `TRUE`).

Value

Invisibly returns a data frame of photo URLs and local file paths.

Examples

```
## Not run:
obs <- inat_fetch(taxon_id = 488444, place_id = 6783,
                  user_login = "someuser")

# Download photos and save metadata.csv to the same folder
inat_download(obs, out_dir = file.path(tempdir(), "my_photos"))

# Download photos only, no metadata
inat_download(obs, out_dir = file.path(tempdir(), "my_photos"),
              metadata = FALSE)

## End(Not run)
```

`inat_fetch` *Fetch observations from the iNaturalist API*

Description

Retrieves all observations matching the given filters, handling pagination automatically. Multiple annotations can be passed as a character vector; each is fetched separately and the results combined.

Usage

```
inat_fetch(
  taxon_id,
  place_id = NULL,
  user_login = NULL,
  annotation = NULL,
  quality_grade = "any",
  year = NULL,
  month = NULL,
  licensed = NULL,
  per_page = 200,
  verbose = TRUE
)
```

Arguments

`taxon_id`	Integer. iNaturalist taxon ID (e.g. `488444` for *Caiophora chuquitensis*).
`place_id`	Integer or `NULL`. iNaturalist place ID (e.g. `6783` for Bolivia).
`user_login`	Character or `NULL`. iNaturalist username.
`annotation`	Character vector of annotation labels, or a single integer vector `c(term_id, term_value_id)`, or `NULL`. Use labels from inat_annotations (e.g. `"flowers"`, `"green_leaves"`, `"alive"`). Multiple labels can be passed as `c("flowers", "green_leaves")` — each is fetched separately and results are combined. See inat_annotations for all valid labels.
`quality_grade`	Character. One of `"research"`, `"needs_id"`, or `"any"` (default).
`year`	Integer or `NULL`. Filter by observation year.
`month`	Integer (1–12) or `NULL`. Filter by observation month.
`licensed`	Logical or `NULL`. If `TRUE`, return only observations with a CC photo license.
`per_page`	Integer. Results per API page (max 200).
`verbose`	Logical. Print progress messages (default `TRUE`).

Value

A data frame of observations with list-column `photos`.

See Also

inat_annotations for all annotation labels and IDs.

Examples

```
## Not run:
# Single annotation
obs <- inat_fetch(taxon_id = 488444, place_id = 6783,
                  annotation = "flowers")

# Multiple annotations
obs <- inat_fetch(taxon_id = 51935, place_id = 6857,
                  annotation = c("flowers", "green_leaves"))

# See all available annotation labels
inat_annotations

## End(Not run)
```

`inat_metadata` *Export observation metadata to CSV*

Description

Extracts key fields from observations returned by `inat_fetch()` and writes them to a CSV file. Use `path` to save the CSV in the same folder as your downloaded photos.

Usage

```
inat_metadata(obs, path, extra_cols = NULL)
```

Arguments

`obs`	Data frame returned by `inat_fetch()`.
`path`	Character. Output CSV file path. There is no default: you must specify a path, e.g. a file in your working directory or `tempfile(fileext = ".csv")` for a temporary location. To save alongside downloaded photos, use `path = file.path(out_dir, "metadata.csv")`.
`extra_cols`	Character vector of additional column names from `obs` to include, if present.

Value

Invisibly returns the metadata data frame.

Note

The `common_name` column reflects iNaturalist's `preferred_common_name`, which is typically in English but may vary depending on the taxon and iNaturalist's locale settings.

Examples

```
## Not run:
obs <- inat_fetch(taxon_id = 488444, place_id = 6783,
                  user_login = "someuser")

# Save photos and metadata to the same folder
inat_download(obs, out_dir = file.path(tempdir(), "my_photos"))
inat_metadata(obs, path = file.path(tempdir(), "my_photos", "metadata.csv"))

## End(Not run)
```

`inat_search_place` *Search for a place by name on iNaturalist*

Description

Returns matching places from iNaturalist, useful for finding the place ID to pass to `inat_fetch()`.

Usage

```
inat_search_place(name, n = 10)
```

Arguments

`name`	Character. Place name to search.
`n`	Integer. Maximum number of results to return (default 10).

Value

A data frame with columns `id`, `name`, `display_name`, and `place_type`.

Examples

```
## Not run:
inat_search_place("United Kingdom")
inat_search_place("Bolivia")

## End(Not run)
```

`inat_search_taxon` *Search for a taxon by name on iNaturalist*

Description

Returns matching taxa from iNaturalist, useful for finding the taxon ID to pass to `inat_fetch()`.

Usage

```
inat_search_taxon(name, rank = NULL, n = 10)
```

Arguments

`name`	Character. Taxon name to search (common or scientific).
`rank`	Character or `NULL`. Filter results by taxonomic rank, e.g. `"genus"`, `"species"`, `"family"`. Default `NULL` returns all ranks.
`n`	Integer. Maximum number of results to return (default 10).

Value

A data frame with columns `id`, `name`, `common_name`, `rank`, and `observations_count`, ordered by number of observations.

Note

The `common_name` field reflects iNaturalist's `preferred_common_name`, which is typically in English but may vary depending on the taxon and iNaturalist's locale settings.

Examples

```
## Not run:
inat_search_taxon("Drosera rotundifolia")
inat_search_taxon("Drosera", rank = "genus")
inat_search_taxon("sundew", rank = "species")

## End(Not run)
```

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