Package ‘rbhl’

May 13, 2021

Title Interface to the ‘Biodiversity’ ‘Heritage’ Library

Description Interface to ‘Biodiversity’ ‘Heritage’ Library (‘BHL’)
(https://www.biodiversitylibrary.org/) API
(https://www.biodiversitylibrary.org/docs/api3.html). ‘BHL’ is a repository of ‘digitized’ literature on ‘biodiversity’ studies, including ‘floras’, research papers, and more.

Type Package

Version 0.9.2

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URL https://github.com/ropensci/rbhl (devel)
https://docs.ropensci.org/rbhl/ (documentation)

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

LazyData true

Encoding UTF-8

Language en-US

Imports crul, xml2, jsonlite, plyr, tibble

Suggests testthat, vcr

RoxygenNote 7.1.1

X-schema.org-applicationCategory Biodiversity

X-schema.org-keywords BHL, library, API, web-services, conservation, species, taxonomy, OCR, text-mining

X-schema.org-isPartOf https://ropensci.org

NeedsCompilation no

Author Scott Chamberlain [aut, cre] (<https://orcid.org/0000-0003-1444-9135>)

Maintainer Scott Chamberlain <myrmecocystus@gmail.com>

Repository CRAN

Date/Publication 2021-05-13 04:30:03 UTC
**Description**

R interface to the Biodiversity Heritage Library API.

You need an API key to use the Biodiversity Heritage Library API. Get your BHL API key at [http://www.biodiversitylibrary.org/getapikey.aspx](http://www.biodiversitylibrary.org/getapikey.aspx). Put your API key either in your .Renviron file (or similar) with the name BHL_KEY, or in your .Rprofile file with the name bhl_key, and the we’ll use your API key without you having to enter it every time you run a search.

See **rbhl-defunct** for defunct functions.

**Author(s)**

Scott Chamberlain
bhl_authorsearch  Author search

Description

Return a list of authors that match (fully or partially) the specified search string.

Usage

bhl_authorsearch(name = NULL, as = "table", key = NULL, ...)

Arguments

name  full or partial name of the author for which to search (last name listed first, i.e. 'Darwin, Charles') (character)
as  (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key  Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
...  Curl options passed on to crul::HttpClient()

Details

The names searched are those contained in MARC 100a, 110a, 111a, 700a, 710a, and 711a library records.

Examples

```r
## Not run:
bhl_authorsearch(name='dimmock')
bhl_authorsearch(name='Jones')
## End(Not run)
```

bhl_bioherlib  Search BHL across many API methods.

Description

Search BHL across many API methods.
Usage

bhl_bioherlib(
    method = "GetPageMetadata",
    pageid = NULL,
    ocr = FALSE,
    names = FALSE,
    as = "table",
    key = NULL,
    ...
)

Arguments

method The API method to use.
pageid The identifier of an individual page in a scanned book.
ocr return ocr text of the page (logical). Default: FALSE
names return the names that appear on the page (logical). Default: FALSE
as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
...
Curl options passed on to crul::HttpClient()

Examples

## Not run:
bhl_bioherlib(method='GetPageMetadata', pageid=1328690, ocr=TRUE, names=TRUE)
bhl_bioherlib(method='GetPageMetadata', pageid=1328690, ocr=TRUE, names=TRUE, as="xml")
bhl_bioherlib(method='GetPageMetadata', pageid=1328690, ocr=TRUE, names=TRUE, as="list")

## End(Not run)

bhl_getauthormetadata  Get metadata about an author

Description

Get metadata about an author
Usage

bhl_getauthormetadata(
    id,
    id_type = "bhl",
    pubs = FALSE,
    as = "table",
    key = NULL,
    ...
)

Arguments

id (numeric) the identifier of an individual author
id_type (character) the type of identifier (bhl, biostor, viaf). Default: "bhl"
pubs (logical) TRUE to return the subject’s publications. Default: FALSE
as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
... Curl options passed on to curl::HttpClient()

Details

You may choose to include a list of the author’s publications. The BHLType element identifies the type of each publication (Title or Part).

Examples

## Not run:
bhl_getauthormetadata(87509)
bhl_getauthormetadata(87509, pubs = TRUE, verbose = TRUE)
bhl_getauthormetadata(87509, as = "json")

## End(Not run)

bhl_getcollections Get a list of collections which are used to group titles and items. A single collection may contain either titles or items, but not both.

Description

Get a list of collections which are used to group titles and items. A single collection may contain either titles or items, but not both.
Usage

bhl_getcollections(as = "table", key = NULL, ...)

Arguments

as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.

key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.

... Curl options passed on to crul::HttpClient()

Examples

## Not run:
bhl_getcollections()
bhl_getcollections(as = 'list')
bhl_getcollections(as = 'json')
bhl_getcollections(as = 'xml')

## End(Not run)

bhl_getinstitutions GetInstitutions data

Description

GetInstitutions data

Usage

bhl_getinstitutions(as = "table", key = NULL, ...)

Arguments

as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.

key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.

... Curl options passed on to crul::HttpClient()

Details

Get a list of institutions which have contributed to BHL in some way. These institutions may fill roles such as contributors, rights holders, and scanning institutions.
bhl_getitemmetadata

Examples

```r
## Not run:
bhl_getinstitutions()

## End(Not run)
```

bhl_getitemmetadata  Return metadata about an item.

Description

You may choose to include a list of the item's pages.

Usage

```r
bhl_getitemmetadata(
  itemid = NULL,
  pages = TRUE,
  ocr = FALSE,
  parts = FALSE,
  as = "table",
  key = NULL,
  ...
)
```

Arguments

- `itemid` - item id (character)
- `pages` - return the items pages (TRUE/FALSE)
- `ocr` - (logical) TRUE to return the ocr for the item's pages. Setting this to TRUE apparently doesn't return any actual ocr text, but leaving parameter here for now.
- `parts` - (logical) TRUE to return the item's parts. Setting this to TRUE apparently doesn't return any parts text, but leaving parameter here for now.
- `as` - (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
- `key` - Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
- `...` - Curl options passed on to `crl::HttpClient()`
bhl_getlanguages

Get a list of languages in which materials in BHL have been written.

Description
Get a list of languages in which materials in BHL have been written.

Usage
bhl_getlanguages(as = "table", key = NULL, ...)

Arguments
as
(character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.

key
Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.

...Curl options passed on to crul::HttpClient()

Examples
## Not run:
bhl_getlanguages()
bhl_getlanguages('json')
bhl_getlanguages('xml')
bhl_getlanguages('list')

## End(Not run)
bhl_getpagemetadata  

Return metadata about a page.

Description

You may choose to include the OCR text and a list of names found on the page

Usage

bhl_getpagemetadata(
  page = NULL,
  ocr = FALSE,
  names = FALSE,
  as = "table",
  key = NULL,
  ...
)

Arguments

page  page number to get
ocr  return ocr text of the page (TRUE/FALSE)
names  return the names that appear on the page (TRUE/FALSE)
as  (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key  Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.

Examples

## Not run:
bhl_getpagemetadata(page=1328690, ocr=TRUE)
bhl_getpagemetadata(page=1328690, ocr=TRUE, as='json')
bhl_getpagemetadata(page=1328690, ocr=TRUE, as='xml')
bhl_getpagemetadata(page=1328690, ocr=TRUE, as='list')

## End(Not run)
bhl_getpartmetadata  
Return a list of an item’s pages.

Description
Return a list of an item’s pages.

Usage
bhl_getpartmetadata(partid, key = NULL, ...)

Arguments
partid  
The identifier of an individual part (article, chapter, etc) (numeric)
key  
Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
...  
Curl options passed on to curl::HttpClient()

Examples
## Not run:
bhl_getpartmetadata(10409)
## End(Not run)

bhl_gettitlemetadata  
Get title metadata

Description
Return metadata about a title. You may choose to include a list of the items (books) associated with the title.

Usage
bhl_gettitlemetadata(titleid = NA, items = FALSE, as = "list", key = NULL, ...)

Arguments
titleid  
the identifier of an individual title (numeric)
items  
(logical) TRUE of FALSE (default) to inclue items
as  
(character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
**bhl_namemetadata**

Get basic title, item, and page metadata for each page on which the specified name appears.

### Description

Get basic title, item, and page metadata for each page on which the specified name appears.

### Usage

```r
bhl_namemetadata(
  namebankid = NULL,
  name = NULL,
  id_type = NULL,
  as = "list",
  key = "NULL",
  ...
)
```

### Arguments

- **namebankid** *(numeric)* (not used if 'name' specified) NameBank identifier for a name
- **name** *(character)* (not used if 'namebankid' specified) a complete name string
- **id_type** *(character)* the type of identifier (namebank, eol, gni, ion, col, gbif, itis, ipni, worms). Not used if name is specified
- **as** *(character)* Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
- **key** Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
- **...** Curl options passed on to `curl::HttpClient()`
bhl_namesearch

Search for a particular name.

Description

Names both with and without NameBank identifiers are returned.

Usage

bhl_namesearch(name = NULL, as = "table", key = NULL, ...)

Arguments

name species name (character)
as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
... Curl options passed on to curl::HttpClient()

Examples

## Not run:
bhl_namesearch("poa annua")
bhl_namesearch(name='helianthus annuus')
bhl_namesearch(name='helianthus annuus', as='xml')
bhl_namesearch(name='helianthus annuus', as='json')

## End(Not run)
Description

Not sure how this differs from their other API...

Usage

bhl_openurl(
  genre = NULL,
  title = NULL,
  aufirst = NULL,
  aulast = NULL,
  date = NULL,
  spage = NULL,
  issue = NULL,
  version = 0.1,
  as = "list",
  key = NULL,
  ...
)

Arguments

genre  Book genre
title  Book title
aufirst  First author
aulast  Last author
date  Date of publication
spage  Start page
issue  Issue number
version  One of 0.1 or 1.0
as  (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key  Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
...  Curl options passed on to curl::HttpClient()
Examples

## Not run:
bhl_openurl(
  genre="book",
  title="Manual of North American Diptera",
  aufirst="Samuel Wendell",
  aulast="Williston",
  date=1908,
  spage=16)

  aufirst="Samuel Wendell", aulast="Williston", date=1908, spage=16)

  aufirst="Samuel Wendell", aulast="Williston", date=1908, spage=16,
  as='xml')

## End(Not run)

---

bhl_pages

Get many OCR-generated pages given a single item id

Description

Get many OCR-generated pages given a single item id

Usage

bhl_pages(itemid, key = NULL, ...)

Arguments

itemid the item id (character). Required
key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key
...

Curl options passed on to curl::HttpClient()

Examples

## Not run:
x <- bhl_publicationsearch('Selborne', year=1825, collection=4,
  language='eng')
bhl_pages(itemid = x$ItemID[1])

## End(Not run)
bhl_pagesearch

Search an item for pages containing the specified text

Description

Search an item for pages containing the specified text

Usage

bhl_pagesearch(id, text, as = "table", key = NULL, ...)

Arguments

id  (integer) BHL identifier of the item to be searched

text (character) the text for which to search

as  (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.

key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.

... Curl options passed on to curl::HttpClient()

Examples

## Not run:
bhl_pagesearch(22004, "dog")
bhl_pagesearch(22004, "dog", as = "json")

## End(Not run)

bhl_publicationsearch

Publication search

Description

Publication search
bhl_publicationsearchadv

Usage

bhl_publicationsearch(
    q = NULL,
    full_text = FALSE,
    page = NULL,
    as = "table",
    key = NULL,
    ...
)

Arguments

q (character) the text for which to search
full_text (character) TRUE for a catalog plus full-text search; FALSE for a catalog-only search. default: FALSE
page (integer) page to return
as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
...

Curl options passed on to crul::HttpClient()

See Also

Other publication-search: bhl_publicationsearchadv()

Examples

## Not run:
bhl_publicationsearch('cocos island costa rica birds')
bhl_publicationsearch('poa annua')
bhl_publicationsearch('helianthus annuus')

## End(Not run)

bhl_publicationsearchadv

Publication search advanced

Description

Publication search advanced
bhl_publicationsearchadv

Usage

bhl_publicationsearchadv(
  title = NULL,
  titleop = NULL,
  authorname = NULL,
  year = NULL,
  subject = NULL,
  language = NULL,
  collection = NULL,
  notes = NULL,
  notesop = NULL,
  text = NULL,
  textop = NULL,
  page = NULL,
  as = "table",
  key = NULL,
  ...)

Arguments

  title      (character) a title for which to search
  titleop    (character) 'all' to search for all specified words in the title fields; 'phrase' to search for the exact phrase specified
  authorname (character) an author name for which to search
  year       (integer) a four-digit publication year for which to search
  subject    (character) a subject for which to search
  language   (character) a language code; search will only return publications in the specified language
  collection (character) a collection id; search will only return publications from the specified collection
  notes      (character) one or more words for which to search in the publication notes
  notesop    (character) 'all' to search for all specified words in the notes field; 'phrase' to search for the exact phrase specified
  text       (character) one or more words for which to search in the text of the publications
  textop     (character) 'all' to search for all specified words in the text field; 'phrase' to search for the exact phrase specified
  page       (integer) 1 for the first page of results, 2 for the second, and so on
  as         (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
  key        Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
  ...        Curl options passed on to crul::HttpClient()
bhl_subjectmetadata

Get metadata about a subject

Description

Get metadata about a subject

Usage

bhl_subjectmetadata(subject, pubs = FALSE, as = "table", key = NULL, ...)

Arguments

subject (character) the subject for which to return metadata
pubs (logical) TRUE to return the subject’s publications. Default: FALSE
as (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as="table" can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
key Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
... Curl options passed on to curl::HttpClient()

Details

You may choose to include a list of the subject’s publications. The BHLType element identifies the type of each publication (Title or Part).

Examples

## Not run:
bhl_subjectmetadata(subject = "water")
x <- bhl_subjectmetadata(subject = "water", pubs = TRUE)
head(x$Publications[[1]])
## End(Not run)
bhl_subjectsearch

Return a list of subjects that match (fully or partially) the specified search string.

Description

Return a list of subjects that match (fully or partially) the specified search string.

Usage

bhl_subjectsearch(subject, as = "table", key = NULL, ...)

Arguments

- **subject**: the full or partial subject for which to search (character)
- **as**: (character) Return a list ("list"), json ("json"), xml ("xml"), or parsed table ("table", default). Note that as=“table” can give different data format back depending on the function - for example, sometimes a data.frame and sometimes a character vector.
- **key**: Your BHL API key, either enter, or loads from your .Renviron as BHL_KEY or from .Rprofile as bhl_key.
- **...**: Curl options passed on to crul::HttpClient()

Examples

```r
## Not run:
bhl_subjectsearch("diptera")
bhl_subjectsearch("diptera", "json")
## End(Not run)
```

rbhl-defunct

Defunct functions in rbhl

Description

- bhl_getpartendnote(): BHL removed this API method.
- bhl_gettitleendnote(): BHL removed this API method.
- bhl_booksearch(): method removed in API v3, see bhl_publicationsearch()
- bhl_partsearch(): method removed in API v3, see bhl_publicationsearch()
- bhl_titlesearchsimple(): method removed in API v3, see bhl_publicationsearch()
- bhl_getauthorparts(): method removed in API v3, see bhl_getauthormetadata()
- bhl_getauthortitles(): method removed in API v3, see bhl_getauthormetadata()
• **bhl_getitembyidentifier()**: method removed in API v3, see *bhl_getitemmetadata()*
• **bhl_getitempages()**: method removed in API v3, see *bhl_getitemmetadata()*
• **bhl_getitemparts()**: method removed in API v3, see *bhl_getitemmetadata()*
• **bhl_getpagenames()**: method removed in API v3, see *bhl_getpagemetadata()*
• **bhl_getpageocrtext()**: method removed in API v3, see *bhl_getpagemetadata()*
• **bhl_getpartbyidentifier()**: method removed in API v3, see *bhl_getpartmetadata()*
• **bhl_getpartnames()**: method removed in API v3, see *bhl_getpartmetadata()*
• **bhl_getsubjectparts()**: method removed in API v3, see *bhl_subjectmetadata()*
• **bhl_getsubjecttitles()**: method removed in API v3, see *bhl_subjectmetadata()*
• **bhl_getpartbibTex()**: method removed in API v3
• **bhl_gettitlebibTex()**: method removed in API v3
• **bhl_gettitlebyidentifier()**: API method merged in API v3, see *bhl_gettitlemetadata()*
• **bhl_gettitleitems()**: API method merged in API v3, see *bhl_gettitlemetadata()*
• **bhl_getunpublisheditems()**: method removed in API v3
• **bhl_getunpublishedparts()**: method removed in API v3
• **bhl_getunpublishedtitles()**: method removed in API v3
• **bhl_namecount()**: method removed in API v3
• **bhl_namelist()**: method removed in API v3
• **bhl_namegetdetail()**: method renamed - see *bhl_namemetadata()*

---

**rbhlmethos**

*Data.frame of all the BHL API methods from the BHL website.*

**Description**

Data.frame of all the BHL API methods from the BHL website.
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