

# Package ‘worrms’

June 20, 2023

**Type** Package

**Title** World Register of Marine Species (WoRMS) Client

**Description** Client for World Register of Marine Species (<<https://www.marinespecies.org/>>). Includes functions for each of the API methods, including searching for names by name, date and common names, searching using external identifiers, fetching synonyms, as well as fetching taxonomic children and taxonomic classification.

**Version** 0.4.3

**License** MIT + file LICENSE

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<https://github.com/ropensci/worrms> (devel), <https://taxize.dev>  
(user manual)

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

**Maintainer** Bart Vanhoorne. <[bart.vanhoorne@vliz.be](mailto:bart.vanhoorne@vliz.be)>

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worrms-package	<i>worrms</i>
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### Description

World Register of Marine Species Client

### Fail behavior

The WoRMS REST API doesn't have sophisticated error messaging, so most errors will result in a (204) - No Content or in (400) - Bad Request

Because WoRMS doesn't do comprehensive error reporting, we do a fair amount of checking user inputs to help prevent errors that will be meaningless to the user. Let us know if we can improve on this.

**Author(s)**

Scott Chamberlain <myrmecocystus@gmail.com>

---

wm_attr_aphia	<i>Get AphiaIDs by attribute definition ID</i>
---------------	--

---

**Description**

Get AphiaIDs by attribute definition ID

**Usage**

```
wm_attr_aphia(id, offset = 1, ...)
```

```
wm_attr_aphia_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) a attribute ID. For <code>wm_attr_aphia</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_attr_aphia_</code> it's optional and can be <code>length(id) &gt;= 1</code>
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_attr_aphia(id = 7)
wm_attr_aphia(id = 4)
wm_attr_aphia(id = 4, offset = 50)

wm_attr_aphia_(id = c(7, 2))

## End(Not run)
```

---

wm_attr_category	<i>Get attributes grouped by a CategoryID</i>
------------------	---

---

**Description**

Get attributes grouped by a CategoryID

**Usage**

```
wm_attr_category(id, ...)

wm_attr_category_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) a CategoryID. For <code>wm_attr_category</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_attr_category_</code> it's optional and can be <code>length(id) &gt;= 1</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_attr_category(id = 7)
wm_attr_category(id = 2)

wm_attr_category_(id = c(7, 2))

## End(Not run)
```

---

wm_attr_data	<i>Get attribute data by AphiaID</i>
--------------	--------------------------------------

---

**Description**

Get attribute data by AphiaID

**Usage**

```
wm_attr_data(id, include_inherited = FALSE, ...)

wm_attr_data_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_attr_data</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_attr_data_</code> it's optional and can be <code>length(id) &gt;= 1</code>
include_inherited	(logical) Include attributes inherited from its parent taxon. Default: FALSE
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_attr_data(id = 127160)
wm_attr_data(id = 126436)

wm_attr_data_(id = c(127160, 126436))

## End(Not run)
```

---

wm_attr_def	<i>Get attribute definition by ID</i>
-------------	---------------------------------------

---

**Description**

Get attribute definition by ID

**Usage**

```
wm_attr_def(id, include_inherited = FALSE, ...)

wm_attr_def_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an attribute ID. For <code>wm_attr_def</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_attr_def_</code> it's optional and can be <code>length(id) &gt;= 1</code>
include_inherited	(logical) Include attributes inherited from its parent taxon. Default: FALSE
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_attr_def(id = 1)
wm_attr_def(id = 4)
wm_attr_def(id = 4, include_inherited = TRUE)

wm_attr_def_(id = c(4, 1))

## End(Not run)
```

---

wm\_children

*Get children for an AphiaID*


---

**Description**

Get children for an AphiaID

**Usage**

```
wm_children(id, marine_only = TRUE, offset = 1, ...)
```

```
wm_children_(id = NULL, name = NULL, marine_only = TRUE, offset = 1, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_children</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_children_</code> it's optional and can be <code>length(id) &gt;= 1</code>
marine_only	(logical) marine only or not. default: TRUE
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_children(343613)
wm_children(id = 105706)
wm_children(id = 105706, FALSE)
wm_children(id = 105706, offset = 5)

# plural version, via id or name
wm_children_(id = c(105706, 343613))
wm_children_(name = c('Mesodesma', 'Leucophaeus'))

## End(Not run)
```

---

wm_classification	<i>Get classification for an AphiaID</i>
-------------------	--

---

**Description**

Get classification for an AphiaID

**Usage**

```
wm_classification(id, ...)

wm_classification_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_children</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_children_</code> it's optional and can be <code>length(id) &gt;= 1</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.



**Examples**

```
## Not run:
wm_classification(id = 105706)
wm_classification(id = 126436)

wm_classification(254967)
wm_classification(344089)

# plural version, via id or name
wm_classification_(id = c(254967, 344089))
wm_classification_(name = c('Platanista gangetica', 'Leucophaeus scoresbii'))

## End(Not run)
```

---

wm_common_id	<i>Get vernacular names from an AphiaID</i>
--------------	---

---

**Description**

Get vernacular names from an AphiaID

**Usage**

```
wm_common_id(id, ...)

wm_common_id_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_common_id</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_common_id_</code> it's optional and can be <code>length(id) &gt;= 1</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_common_id(id = 105706)
wm_common_id(id = 156806)
wm_common_id(id = 397065)

wm_common_id(id = c(105706, 156806, 397065))
nms <- c("Rhincodontidae", "Mesodesma deauratum", "Cryptomya californica")
wm_common_id(name = nms)

## End(Not run)
```

---

<code>wm_distribution</code>	<i>Get distribution data by AphiaID</i>
------------------------------	---

---

**Description**

Get distribution data by AphiaID

**Usage**

```
wm_distribution(id, ...)

wm_distribution_(id = NULL, name = NULL, ...)
```

**Arguments**

<code>id</code>	(numeric/integer) an AphiaID. For <code>wm_distribution</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_distribution_</code> it's optional and can be <code>length(id) &gt;= 1</code>
<code>...</code>	named curl options. see <code>curl::curl_options</code>
<code>name</code>	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_distribution(id = 156806)
wm_distribution(id = 126436)

wm_distribution_(id = c(156806, 126436))

## End(Not run)
```

---

wm_external	<i>Get an external ID via an AphiaID</i>
-------------	--

---

**Description**

Get an external ID via an AphiaID

**Usage**

```
wm_external(id, type = "tsn", ...)

wm_external_(id = NULL, name = NULL, type = "tsn", ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_external</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_external_</code> it's optional and can be <code>length(id) &gt;= 1</code>
type	(character) the type of external id. one of: <code>tsn</code> , <code>bold</code> , <code>dyntaxa</code> , <code>eol</code> , <code>fishbase</code> , <code>iucn</code> , <code>lsid</code> , <code>ncbi</code> , <code>gisd</code> . default: <code>tsn</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

An integer that is the ID. When using underscore method, a list, named by the input IDs

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
# by default, get a TSN (an ITIS code)
wm_external(id = 1080)

## get many
wm_external_(id = c(1080, 126436))

# BOLD code
wm_external(id = 278468, type = "bold")

# NCBI code
wm_external(id = 278468, type = "ncbi")

# fishbase code
wm_external(id = 278468, type = "fishbase")

# curl options
library(crul)
wm_external(id = 105706, verbose = TRUE)

## End(Not run)
```

---

wm\_id2name

*Get taxonomic name for an AphiaID*


---

**Description**

Get taxonomic name for an AphiaID

**Usage**

```
wm_id2name(id, ...)
```

```
wm_id2name_(id, ...)
```

**Arguments**

**id** (numeric/integer) an AphiaID, required. For `wm_id2name` must be `length(id) == 1`, but for `wm_id2name_` can be `length(id) >= 1`

**...** named curl options. see `curl::curl_options`

**Value**

An character string that is the taxonomic name. When using underscore method, a list, named by the input IDs

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_id2name(id = 105706)
wm_id2name_(id = c(105706, 126436))

## End(Not run)
```

---

wm_name2id	<i>Get AphiaID from a taxonomic name</i>
------------	--

---

**Description**

Get AphiaID from a taxonomic name

**Usage**

```
wm_name2id(name, ...)
wm_name2id_(name, ...)
```

**Arguments**

name	(character) a taxonomic name, required. For <code>wm_name2id</code> must be <code>length(name) == 1</code> , but for <code>wm_name2id_</code> can be <code>length(name) &gt;= 1</code>
...	named curl options. see <code>curl::curl_options</code>

**Value**

An integer that is the AphiaID. When using underscore method, a list, named by the input names

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_name2id(name = "Rhincodon")
wm_name2id_(name = c("Rhincodon", "Gadus morhua"))

## End(Not run)
```

---

wm\_ranks

*Get taxonomic ranks by their identifier*


---

**Description**

Get taxonomic ranks by their identifier

**Usage**

```
wm_ranks_id(rank_id, id = NULL, offset = 1, ...)
wm_ranks_name(rank_name, id = NULL, offset = 1, ...)
```

**Arguments**

```
rank_id      (numeric/integer) a rank identifier. length==1
id           an AphiaID. length==1
offset       (integer) record to start at. default: 1
...         named curl options. see curl::curl_options
rank_name    (character) a rank name. length==1
```

**Value**

A tibble/data.frame

**Examples**

```
## Not run:
wm_ranks_id(220)
wm_ranks_id(180)
wm_ranks_id(180, id = 4)

wm_ranks_name("genus")
wm_ranks_name("genus", id = 4)

## End(Not run)
```

---

 wm\_record

*Get complete AphiaRecord for an AphiaID*


---

**Description**

Get complete AphiaRecord for an AphiaID

**Usage**

```
wm_record(id, ...)
```

```
wm_record_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_record</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_record_</code> it's optional and can be <code>length(id) &gt;= 1</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A named list. When using underscore method, each output is named by the input ID, and can be separated by the list names

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Note**

`wm_record_` is defunct, `wm_record` can do plural requests now

**Examples**

```
## Not run:
wm_record(id = 105706)
wm_record(id = c(105706, 126436))
wm_record_(id = c(105706, 126436))

## End(Not run)
```

---

wm\_records\_common      *Get records by vernacular name, optional fuzzy matching*

---

### Description

Get records by vernacular name, optional fuzzy matching

### Usage

```
wm_records_common(name, fuzzy = FALSE, offset = 1, ...)
```

```
wm_records_common_(name, fuzzy = FALSE, offset = 1, ...)
```

### Arguments

name	(character) a species common name. required. For <code>wm_records_common</code> must be <code>length(name) == 1</code> ; for <code>wm_records_common_</code> can be <code>length(name) &gt;= 1</code>
fuzzy	(logical) fuzzy search. default: FALSE
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>

### Value

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

### Singular vs. plural

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

### Examples

```
## Not run:
wm_records_common(name = 'dolphin')
wm_records_common(name = 'clam')

wm_records_common_(name = c('dolphin', 'clam'))

wm_records_common(name = 'dolphin', fuzzy = TRUE)
wm_records_common(name = 'clam', fuzzy = TRUE, offset = 5)

## End(Not run)
```



---

wm_records_date	<i>Get records by date</i>
-----------------	----------------------------

---

## Description

Get records by date

## Usage

```
wm_records_date(  
  start_date,  
  end_date = NULL,  
  marine_only = TRUE,  
  offset = 1,  
  ...  
)
```

## Arguments

start_date	(character) start date. required.
end_date	(character) end date. optional
marine_only	(logical) marine only or not. default: TRUE
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>

## Value

A tibble/data.frame

## Examples

```
## Not run:  
a_date <- format(Sys.Date() - 1, "%Y-%m-%dT%H:%M:%S+00:00")  
wm_records_date(a_date)  
  
## End(Not run)
```

---

wm_records_name	<i>Get records by single name, optional fuzzy matching</i>
-----------------	--

---

### Description

Get records by single name, optional fuzzy matching

### Usage

```
wm_records_name(name, fuzzy = TRUE, marine_only = TRUE, offset = 1, ...)
```

### Arguments

name	(character) a taxonomic name, required.
fuzzy	(logical) fuzzy search. default: TRUE
marine_only	(logical) marine only or not. default: TRUE
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>

### Value

A tibble/data.frame

### Note

there is no underscore method like other functions in this package as there is already a plural version:  
[wm\\_records\\_names\(\)](#)

### Examples

```
## Not run:  
wm_records_name(name = 'Leucophaeus')  
wm_records_name(name = 'Leucophaeus', fuzzy = FALSE)  
wm_records_name(name = 'Leucophaeus', marine_only = FALSE)  
wm_records_name(name = 'Platanista', marine_only = FALSE)  
wm_records_name(name = 'Platanista', marine_only = FALSE, offset = 5)  
  
## End(Not run)
```

---

wm_records_names	<i>Get records for one or more taxonomic name(s)</i>
------------------	--

---

**Description**

Get records for one or more taxonomic name(s)

**Usage**

```
wm_records_names(name, marine_only = TRUE, ...)
```

**Arguments**

name	(character) start date. required.
marine_only	(logical) marine only or not. default: TRUE
...	named curl options. see <code>curl::curl_options</code>

**Value**

A list of tibble's/data.frame's, one for each of the input names

**Note**

there is no underscore method like other functions in this package as this is the plural version for [wm\\_records\\_name\(\)](#)

**Examples**

```
## Not run:  
wm_records_names(name = 'Leucophaeus scoresbii')  
wm_records_names(name = c('Leucophaeus scoresbii', 'Coryphaena'))  
  
## End(Not run)
```

---

wm_records_rank	<i>Get AphiaRecords for a given taxonRankID</i>
-----------------	---

---

**Description**

Get AphiaRecords for a given taxonRankID

**Usage**

```
wm_records_rank(rank_id, id = NULL, offset = 1, ...)
```

**Arguments**

rank_id	(numeric/integer) a rank id
id	(character) a single AphiaID
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by id column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_records_rank(rank_id = 180, id = 106776)
wm_records_rank(rank_id = 180, id = 106776, offset = 50)

## End(Not run)
```

---

wm\_records\_taxamatch *Get records for one or more taxonomic name(s) using the TAXAMATCH fuzzy matching algorithm*

---

**Description**

Get records for one or more taxonomic name(s) using the TAXAMATCH fuzzy matching algorithm

**Usage**

```
wm_records_taxamatch(name, marine_only = TRUE, ...)
```

**Arguments**

name	(character) taxon name. required.
marine_only	(logical) marine only or not. default: TRUE
...	named curl options. see <code>curl::curl_options</code>

**Value**

A list of tibble's/data.frame's, one for each of the input names

**Note**

there is no underscore method like other functions in this package as this function already accepts many names

**Examples**

```
## Not run:
wm_records_taxamatch(name = 'Leucophaeus')
wm_records_taxamatch(name = c('Leucophaeus', 'Coryphaena'))

## End(Not run)
```

---

wm\_record\_by\_external *Get record by external ID*

---

**Description**

Get record by external ID

**Usage**

```
wm_record_by_external(id, type = "tsn", ...)

wm_record_by_external_(id = NULL, name = NULL, type = "tsn", ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_record_by_external</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_record_by_external_</code> it's optional and can be <code>length(id) &gt;= 1</code>
type	(character) the type of external id. one of: <code>tsn</code> , <code>bold</code> , <code>dyntaxa</code> , <code>eol</code> , <code>fishbase</code> , <code>iucn</code> , <code>lsid</code> , <code>ncbi</code> , <code>gisd</code> . default: <code>tsn</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A named list. When using underscore method, each output is named by the input ID, and can be separated by the list names

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_record_by_external(id = 85257)
wm_record_by_external(id = 159854)

wm_record_by_external_(id = c(85257, 159854))

## End(Not run)
```

---

 wm\_sources

*Get sources for an AphiaID*


---

**Description**

Get sources for an AphiaID

**Usage**

```
wm_sources(id, ...)

wm_sources_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_sources</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_sources_</code> it's optional and can be <code>length(id) &gt;= 1</code>
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by `id` column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_sources(id = 105706)
wm_sources_(id = 105706)
wm_sources_(id = c(105706, 126436))
wm_sources_(name = c("Rhincodontidae", "Gadus morhua"))

## End(Not run)
```

---

 wm\_synonyms

*Get synonyms for an AphiaID*


---

**Description**

Get synonyms for an AphiaID

**Usage**

```
wm_synonyms(id, offset = 1, ...)

wm_synonyms_(id = NULL, name = NULL, ...)
```

**Arguments**

id	(numeric/integer) an AphiaID. For <code>wm_synonyms</code> it's required and must be <code>length(id) == 1</code> , for <code>wm_synonyms_</code> it's optional and can be <code>length(id) &gt;= 1</code>
offset	(integer) record to start at. default: 1
...	named curl options. see <code>curl::curl_options</code>
name	(character) one or more taxonomic names. optional

**Value**

A tibble/data.frame. when using underscore method, outputs from each input are binded together, but can be split by `id` column

**Singular vs. plural**

Of the two sister functions, the one without the underscore is the original function that wraps the relevant WoRMS API method - and only accepts one thing (i.e., name or AphiaID) per request.

The sister function with the underscore at the end is the plural version, accepting more than one input. Internally this function loops over the non-underscore method, and labels output (whether it's a list or data.frame rows) with the input names or IDs so that you can easily parse output by your inputs.

**Examples**

```
## Not run:
wm_synonyms(id = 105706)
wm_synonyms_(id = 105706)
wm_synonyms(id = 126436)
wm_synonyms(id = 126436, offset = 10)
wm_synonyms_(id = c(105706, 126436))

## End(Not run)
```



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