

# Package ‘rdryad’

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**Type** Package

**Description** Interface to the API for Dryad

**Title** Dryad API interface.

**Version** 0.1.1

**License** CC0

**Date** 2013-1-29

**URL** <http://www.github.com/ropensci/rdryad>

**BugReports** <https://github.com/ropensci/rdryad/issues>

**Imports** XML, RCurl, OAIHarvester, ape, gdata, plyr, stringr, RJSONIO

**Collate** 'download\_dryadmetadata.r' 'download\_url.r' 'dryad\_getfile.r'  
'getalldryad\_metadata.r' 'search\_dryad.r' 'totimp.r'  
'totimp\_dryad.r' 'dr\_identify.r' 'dr\_listidentifiers.r'  
'dr\_listmetadataformats.r' 'dr\_listsets.r'

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**NeedsCompilation** no

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download\_dryadmetadata

*Download metadata for individual Dryad id's.*

---

## Description

Download metadata for individual Dryad id's.

## Usage

```
download_dryadmetadata(id, transform,
  url = "http://www.datadryad.org/oai")
```

## Arguments

id	Dryad identifier, i.e. 19.
transform	(logical) transform metadata to list, TRUE or FALSE.
url	the base url for the function (should be left to default).

## Value

Metadata for a Dryad dataset.

## Examples

```
## Not run:
metadat <- download_dryadmetadata('oai:datadryad.org:10255/dryad.8820', T)
metadat <- download_dryadmetadata(8820, T)
metadat$metadata # get $identifier, $datestamp, $setSpec, or $metadata
metadata <- oaih_transform(metadat$metadata) # transform to a list

## End(Not run)
```

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download_url	<i>Download URL for a Dryad id.</i>
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**Description**

Download URL for a Dryad id.

**Usage**

```
download_url(id, curl = getCurlHandle())
```

**Arguments**

id	Dryad identifier, i.e. '10255/dryad.19'.
curl	If using in a loop, call getCurlHandle() first and pass the returned value in here (avoids unnecessary footprint)

**Value**

A URL for dataset for the Dryad id.

**Examples**

```
## Not run:  
download_url(id='10255/dryad.1759')  
  
## End(Not run)
```

---

dryad_getfile	<i>Download Dryad dataset (determines file type, then downloads).</i>
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**Description**

Download Dryad dataset (determines file type, then downloads).

**Usage**

```
dryad_getfile(dryadurl)
```

**Arguments**

dryadurl	Dryad URL for a dataset.
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**Value**

A Dryad dataset.

**Examples**

```
## Not run:  
# csv file  
dryaddat <- download_url('10255/dryad.1759')  
dryad_getfile(dryaddat)  
  
## End(Not run)
```

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dr\_identify                    *Learn about the Dryad OAI-PMH service.*

---

**Description**

Learn about the Dryad OAI-PMH service.

**Usage**

```
dr_identify(formatted = FALSE)
```

**Arguments**

formatted                    Defaults to printing results - set to TRUE to silence printing.

**Value**

List of information describing Dryad.

**Examples**

```
## Not run:  
dr_identify()  
  
## End(Not run)
```

---

dr\_listidentifiers           *Gets all OAI Dryad identifiers.*

---

**Description**

Gets all OAI Dryad identifiers.

**Usage**

```
dr_listidentifiers(tor,  
  url = "http://www.datadryad.org/oai/request", ...,  
  curl = getCurlHandle())
```

**Arguments**

tor	Return list of identifiers to R ('r'), or to your directory at '~/.' ('dir') (character).
url	the base url for the function (should be left to default).
...	optional additional curl options (debugging tools mostly)
curl	If using in a loop, call getCurlHandle() first and pass the returned value in here (avoids unnecessary footprint)

**Value**

List of OAI identifiers for each dataset.

**Examples**

```
## Not run:
identifiers <- dr_listidentifiers('r')

# Data packages
identifiers[[1]]

# Data files
identifiers[[2]]

## End(Not run)
```

---

dr\_listmetadataformats

*Learn about the Dryad metadata formats available.*

---

**Description**

Learn about the Dryad metadata formats available.

**Usage**

```
dr_listmetadataformats()
```

**Value**

List of information on metadata formats.

**Examples**

```
## Not run:
dr_listmetadataformats()

## End(Not run)
```

---

dr_listsets	<i>List the sets in the Dryad metadata repository.</i>
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**Description**

Retrieve the set structure of Dryad, useful for selective harvesting

**Usage**

```
dr_listsets()
```

**Examples**

```
## Not run:
dr_listsets()

## End(Not run)
```

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getalldryad_metadata	<i>Download metadata for all Dryad oai's for defined time period.</i>
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**Description**

Download metadata for all Dryad oai's for defined time period.

**Usage**

```
getalldryad_metadata(transform, progress = "text", write,
  dir = FALSE)
```

**Arguments**

transform	(logical) transform metadata to list, TRUE or FALSE
progress	print progress bar (built in to the call to llply, plyr package)
write	(logical) write metadata to local file, TRUE or FALSE
dir	FALSE (default) or give directory as e.g. "/Mac/dryad/" only if write argument == TRUE

**Value**

A Dryad dataset in a data.frame.

**Examples**

```
## Not run:
mymetadata <- getalldryad_metadata(T, progress = "text", T,
  "/path/to/dir/")

## End(Not run)
```

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search_dryad	<i>Search metadata for search terms using regex (more powerful than searching online without regex).</i>
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**Description**

Search metadata for search terms using regex (more powerful than searching online without regex).

**Usage**

```
search_dryad(input, terms, fuzzy = "FALSE",
  ignorecase = "TRUE", value = "FALSE",
  maxdistance = 0.1, loc = "all")
```

**Arguments**

input	Dryad metadata list, from e.g., getalldryad_metadata function, or load xml from directory (in which case, provide directory)
terms	search terms e.g., 'plants', 'Whickam'
fuzzy	(logical) do fuzzy search, TRUE (uses agrep) or FALSE (uses grep)
ignorecase	(logical) if FALSE, pattern matching is case sensitive, and if TRUE, case is ignored during matching
value	(logical) if FALSE, a vector containing integer (row) indices of the matches returned, and if TRUE, a vector containing the matching elements themselves is returned
maxdistance	maximum distance allowed for a match. As integer, OR fraction of the pattern length, OR a list with possible entries: all (max. overall distance), insertions (max. number/fraction of insertions), deletions (max. number/fraction of deletions), and substitutions (max. number/fraction of substitutions)
loc	where you want to search, any of title, creator, description, date, type, identifier, relation, OR 'all' for search over all metadata fields

**Details**

Input is a Dryad metadata data frame from function getalldryad\_metadata, or from directory (if latter, give path with arg 'input').

**Value**

A numeric vector of OAI identifier's for datasets that match search.

**Examples**

```
## Not run:
# Search data.frame in R
mymetdata <- getalldryad_metadata(T, progress = 'text', T, '/Mac/R_stuff/Blog_etc/Dryad/')
search_dryad(mymetdata, 'map', fuzzy=F, loc='type', maxdistance='all')
search_dryad(mymetdata, 'asdddf', fuzzy=T, loc='all')
search_dryad(mymetdata, 'clustal', fuzzy=F, ignorecase=T, value=F, loc='all')

# Or search from a saved data.frame on file
search_dryad('/Mac/R_stuff/Blog_etc/Dryad/dryadmetadata.csv', 'me', fuzzy=T)

## End(Not run)
```

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totimp	<i>Get Total Impact (<a href="http://totalimpact.org/">http://totalimpact.org/</a>) metrics or bibliography on a paper.</i>
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**Description**

Get Total Impact (<http://totalimpact.org/>) metrics or bibliography on a paper.

**Usage**

```
totimp(id = NA, fields = "metrics", sleep = 0,
       url = "http://total-impact.org/api/v1/items/")
```

**Arguments**

id	The DOI, URL, or PubMed ID - see examples.
fields	One of 'metrics' or 'biblio'.
sleep	Time (in seconds) before function sends API call - defaults to zero. Set to higher number if you are using this function in a loop with many API calls. Although, with TotalImpact, you can also just put in multiple id's in one call (much faster) instead of using a loop (slower).
url	The base URL (do not change from default).

**Value**

A list.



## Examples

```
## Not run:
totimp(id = '10.5061/dryad.8671')
totimp(id = '10.5061/dryad.8671', 'biblio')
totimp(id = list('10.5061/dryad.8671', '18428094', 'http://opensciencesummit.com/program/'), 'biblio')
totimp(id = '18428094', 'biblio')

## End(Not run)
```

---

totimp\_dryad

*Get Dryad metrics from Total Impact (<http://totalimpact.org/>) API.*

---

## Description

Get Dryad metrics from Total Impact (<http://totalimpact.org/>) API.

## Usage

```
totimp_dryad(id = NA, sleep = 0,
             url = "http://total-impact.org/api/v1/items/")
```

## Arguments

id	The Dryad identifier - see examples.
sleep	Time (in seconds) before function sends API call - defaults to zero. Set to higher number if you are using this function in a loop with many API calls. Although, with TotalImpact, you can also just put in multiple id's in one call (much faster) instead of using a loop (slower).
url	The base URL (do not change from default).

## Value

A data.frame, or list of data.frame's, of results.

## Examples

```
## Not run:
totimp_dryad(id = '10.5061/dryad.8671')
totimp_dryad(id = list('10.5061/dryad.8671', '10.5061/dryad.8908'))

## End(Not run)
```

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