

# Package ‘phenocamapi’

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**Type** Package

**Title** Interacting with the PhenoCam Data and API

**Version** 0.1.3

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**Description** A bundle to facilitate working with PhenoCam time-series and data. The user would be able to obtain phenological time-series and site meta-data from the PhenoCam network <<https://phenocam.sr.unh.edu/webcam/>>.

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**Encoding** UTF-8

**LazyData** true

**Depends** R (>= 3.4.0), data.table, rjson, RCurl, utils,

**Suggests** testthat, knitr, rmarkdown, jpeg,

**RoxygenNote** 6.0.1.9000

**VignetteBuilder** knitr

**URL** <https://github.com/bnasr/phenocamapi/>

**BugReports** <https://github.com/bnasr/phenocamapi/issues>

**NeedsCompilation** no

**Repository** CRAN

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download\_midday\_images

*Downloading the midday images for PhenoCam sites given a time range*

---

### Description

Downloading the midday images for PhenoCam sites given a time range

### Usage

```
download_midday_images(site, y = year(Sys.Date()), months = 1, days = 1,  
  download_dir)
```

### Arguments

site	a character string, the PhenoCam site name
y	integer numeric, the year for which midday images are downloaded
months	a vector of integer numeric, months for which midday images are downloaded
days	a vector of integer numeric, days for which midday images are downloaded
download_dir	a character string, path to directory where images are downloaded

### Value

a character string, path to directory where images are downloaded

### Examples

```
download_dir <- download_midday_images('dukehw',  
  y = 2018,  
  months = 2,  
  days=1,  
  download_dir= tempdir())
```

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get_awb_table	<i>Extracting Auto-White-Balance (AWB) status of images for PhenoCam sites</i>
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**Description**

Extracting Auto-White-Balance (AWB) status of images for PhenoCam sites

**Usage**

```
get_awb_table(site)
```

**Arguments**

site                    a character string of the PhenoCam site name

**Value**

a data.table of two columns: midday images and their AWB status ('ON', 'OFF', 'UNKOWN', 'LIKELY\_YES', 'LIKELY\_NO')

**Examples**

```
awb_table <- get_awb_table('dukehw')  
head(awb_table)
```

---

get_midday_list	<i>Extracting the list of midday images for PhenoCam sites</i>
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**Description**

Extracting the list of midday images for PhenoCam sites

**Usage**

```
get_midday_list(site, direct = TRUE)
```

**Arguments**

site                    a character string of the PhenoCam site name  
direct                  logical value indicating whether obtain the list from directly from the API or from the file on the server, default is TRUE

**Value**

a vector of URL's to the midday images for a given site

**Examples**

```
midday_url <- get_midday_list('dukehw', direct = FALSE)
head(midday_url)
```

---

get\_phenos

*Full list of PhenoCam sites and metadata*

---

**Description**

Full list of PhenoCam sites and metadata

**Usage**

```
get_phenos()
```

**Value**

a data.table with a list of all the PhenoCam sites and their metadata

**Examples**

```
phenos <- get_phenos()
head(phenos)
```

---

get\_pheno\_ts

*Obtain phenological time-series from the PhenoCam server*

---

**Description**

Obtain phenological time-series from the PhenoCam server

**Usage**

```
get_pheno_ts(site, vegType, roiID, type = "3day")
```

**Arguments**

site	site name as character string
vegType	2-letter character string indicating the vegetation type
roiID	four-digit integer number indicating the ROI number
type	a character string indicating what data to be obtained, can be '1day', '3day', or 'roistats'.

**Value**

a data.table containing phenological data over time.

**Examples**

```
ts <- get_pheno_ts(site = 'dukehw', vegType = 'DB', roiID = 1000)
head(ts)
```

---

get\_rois

*Full list of PhenoCam ROI's and metadata*

---

**Description**

Full list of PhenoCam ROI's and metadata

**Usage**

```
get_rois()
```

**Value**

a data.table with a list of all the PhenoCam ROI's and their metadata

**Examples**

```
rois <- get_rois()
head(rois)
```

---

parse\_phenocam\_filenames

*Parse Phenocam filenames*

---

**Description**

This function parse filename to extract sitename, date and timing of the images based on the phenocam naming convention.

**Usage**

```
parse_phenocam_filenames(filepaths)
```

**Arguments**

filepaths      a character vector of filenames

**Value**

a datatable containing filenames, with site name, date and timing

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