

ReadMe - V_rodents_cameratraps_annual_metadata_lemming_blocks

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1 Protocol

Camera trapping of small mammals has been conducted using the COAT protocol 'protocol_camera_trapping_small_mammals_varanger'.

1.1 Spatial layout of sampling and changes in that.

Camera trapping of small rodents in Komagdalen was started in summer 2015. A pilot study was conducted from summer 2014 to 2015 and the data is available in dataset 'V_rodents_cameratraps_pilot'.

Some camera traps have been moved in 2016 and 2018. In 2018, cameras have been set up in a second locality (Vestre Jakobselv).

More detailed information about which sites were included in the study design can be found in the auxiliary file 'V_rodents_cameratraps_image_metadata_lemming_blocks_aux.txt'

1.2 Timing of sampling

The camera traps are deployed the whole year. They are checked and images are downloaded once a year, usually in July.

2 Description of the dataset

The dataset includes four different types of files and all files are saved as ;-separated txt-files:

- One file per year with metadata from the annual camera check (`_2016.txt`)
- One file per year with observations on the images during the annual camera check (only for 2016 and 2017) (`_observations_2016.txt`)
- One coordinate file with coordinates of all sites (`_coordinates.txt`)
- One auxiliary file with additional information about the sites (`_aux.txt`)

2.1 V_rodents_cameratraps_annual_metadata_lemming_blocks.txt

These files contain information recorded during the annual camera check, such as the serial number of the camera, the condition of the camera and other relevant comments.

Example of the first rows of the metadata file:

	sn_region	sn_locality	sn_section	sn_site	t_year	t_date	v_observer
1	varanger	komagdalen	gargas	ko_ga_hu_1b	2018	2018-07-03	NA
2	varanger	komagdalen	gargas	ko_ga_hu_2	2018	2018-07-03	NA
3	varanger	komagdalen	gargas	ko_ga_hu_3	2018	2018-07-03	NA
	v_serial_number_camera_in	v_serial_number_camera_out	v_camera_status				
1	s750hg03177822	s750hg03177822	functioning				
2	p750hk02272713	s750hk02272713	functioning				
3	p750hk04275847	s750hk04275847	functioning				
	v_number_images	v_comment					
1	2268	<NA>					
2	3132	<NA>					
3	1784	<NA>					

Description of the columns included in the metadata file:

Column name	Description	Possible values
sn_region	Study region	varanger
sn_locality	Locality (within region)	komagdalen, vestre_jakobselv
sn_section	Section (within locality)	gargas, hubejohka, kjoltindan, ryggfjellet, gaasevannan, reinhaugen, skoarrajohka, tranemyra
sn_site	Unique Site ID	e.g. ko_ga_hu_1b, ko_ga_hu_5, ko_ga_sn_4, ko_hu_hu_2b, ko_hu_sn_2
t_year	Year of the camera check	e.g. 2016
t_date	Date of the camera check	YYYY-MM-DD
v_observer	Initials of the person who checked the camera	e.g. es (Eeva Soininen)
v_serial_number_camera_in	Serial number of the camera that was taken in	e.g. s750hg03177822, s750hg03177872
v_serial_number_camera_out	Serial number of the camera that was put out	e.g. s750hg03177822, s750hg03177872
v_camera_status	Information about the camera status (whether the camera was functioning, battery status...)	[character]
v_number_images	Number of images that were taken during the year	[numeric]
v_comment	Comments	[character]

2.2 V_rodents_cameratraps_annual_metadata_lemming_blocks_observations.txt

These files contain observations on the images recorded during the annual camera check, such as the presence of small mammal species and periods with snow or water in the camera box. Observations were only recorded in 2016 and 2017.

Example of the first rows of the metadata file:

	sn_region	sn_locality	sn_section	sn_site	t_year	t_date	v_observer
1	varanger	komagdalen	gargas	ko_ga_hu_1b	2017	2017-08-27	NA
2	varanger	komagdalen	gargas	ko_ga_hu_1b	2017	2017-08-27	NA
3	varanger	komagdalen	gargas	ko_ga_hu_1b	2017	2017-08-27	NA
	v_observations	v_presence					
1	cricetidae	yes					
2	frost_lense	no					
3	humidity_lense	no					

Description of the columns included in the observation-file:

Column name	Description	Possible values
sn_region	Study region	varanger
sn_locality	Locality (within region)	komagdalen
sn_section	Section (within locality)	gargas, hubejohka, kjoltindan, ryggfjellet
sn_site	Unique Site ID	e.g. ko_ga_hu_1b, ko_ga_hu_5, ko_ga_sn_4, ko_hu_hu_3b, ko_hu_sn_3
t_year	Year of the camera check	e.g. 2016
t_date	Date of the camera check	YYYY-MM-DD
v_observer	Initials of the person who checked the camera	e.g. es (Eeva Soininen)
v_observations	Category of observation	cricetidae, frost_lense, humidity_lense, lem_lem, mus_erm, mus_niv, snow, sorex_sp, water
v_presence	Presence of the observation category or period when a category was present	'yes', 'no' or period (e.g. 2.12.16-2.01.17)

2.3 V_rodents_cameratraps_annual_metadata_lemming_blocks_coordinates.txt

This file contains the coordinates of all camera sites included in the study design. Coordinates are given in decimal degrees and UTM 33 (WGS 84).

Example of the first rows of coordinate files:

```
      sn_site      e_dd      n_dd e_utm33 n_utm33
1 ko_ga_hu_1 29.90737 70.34465 1054721 7872741
2 ko_ga_hu_1b 29.90745 70.34474 1054721 7872751
3 ko_ga_sn_1 29.92304 70.36851 1054643 7875475
```

2.4 V_rodents_cameratraps_annual_metadata_lemming_blocks_aux.txt

This file contains further information about the dataset such as old site names and the years when sites were first included in the study design and when sites were excluded from the study design.

Example of the first rows of auxiliary files:

```
      sn_region sn_locality sn_section sc_type_of_sites_ecological      sn_site
1 varanger komagdalen gargas hummock_mire ko_ga_hu_1
2 varanger komagdalen gargas hummock_mire ko_ga_hu_1b
3 varanger komagdalen gargas snowbed ko_ga_sn_1
      sn_site_old date_first date_last
1 GNY1 2015-08-24 2016-07-04
2 GNY1-2016 2016-07-04 <NA>
3 GNY10 2015-08-26 2016-07-04
      v_comment
1 <NA>
2 <NA>
3 no rockfield but hummocks that make alot of microtopography in the snowbed.
* year_last is NA if the site is still included in the study design
```

3 Related datasets

3.1 V_rodents_cameratraps_image_classification_lemming_blocks

This dataset contain presence (1) or absence (0) of small mammal species on the images.

3.2 V_rodents_cameratraps_image_metadata_lemming_blocks

This dataset contains image metadata for each image such as trigger mode (motion sensor or timelapse) and temperature.

3.3 V_rodents_cameratraps_manual_image_classification_lemming_blocks

This dataset contains manual classification for all images from Komagdalen between summer 2015 and summer 2018. In this period, all images were annotated manually. The manual classifications in the dataset 'V_rodents_cameratraps_manual_image_classification_lemming_blocks' differ slightly from the manual classifications included in the dataset 'V_rodents_cameratraps_image_classification_lemming_blocks' because different persons annotated the images.

3.4 V_rodents_cameratraps_pilot

This dataset contains data from a pilot study performed in Komagdalen in 2014 and 2015.