

GENERAL INFORMATION

1. Title of Dataset: Photo captures obtained within "Camera trapping of mammals in the Cantabrian Mountains (Spain)"

2. Authors: Héctor Ruiz-Villar, Ariadna Sanglas, Laura Benito, Fernando Jubete, and Francisco Palomares

3. Date of data collection: July to September 2023

4. Date of data publication on repository: 2023-11-24

5. Geographic location of data collection <latitude, longitude, or city/region, Country, continent as appropriate>:

Montaña Palentina Natural Park (Palencia, Spain) and Alto Sil (León, Spain)

6. Information about funding sources that supported the collection of the data (including research project reference/acronym):

This study was funded by a contract of collaboration between Fundación Reina Sofia and CSIC, the MICINN through the European Regional Development Fund [SUMHAL, LIFEWATCH-2019-09-CSIC-04, POPE 2014-2020], and Land Rover España.

7. Recommended citation for this dataset:

Ruiz-Villar, Héctor; Sanglas, Ariadna; Benito, Laura; Jubete, Fernando; Palomares, Francisco; 2023; Photo captures obtained within "Camera trapping of mammals in the Cantabrian Mountains (Spain)" [Dataset]; DIGITAL; <https://doi.org/10.20350/digitalCSIC/15690>

SHARING/ACCESS/CONTEXT INFORMATION

1. Usage Licenses/restrictions placed on the data (please indicate if different data files have different usage license):

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2. Links to publications/other research outputs that cite the data: N/A

3. Links to publications/other research outputs that use the data:
<https://digital.csic.es/handle/10261/338928>

4. Links to other publicly accessible locations of the data:
<https://digital.csic.es/handle/10261/338928>

5. Links/relationships to ancillary data sets: N/A

6. Was data derived from another source? If so, please add link where such work is located: <https://digital.csic.es/handle/10261/338928>

DATA & FILE OVERVIEW

1. File List: 24 main folders:

CAM1MP, CAM1OC, CAM2MP, CAM2OC, CAM3MP, CAM3OC, CAM4MP, CAM4OC, CAM5MP, CAM5OC, CAM6MP, CAM6OC, CAM7MP, CAM7OC, CAM8MP, CAM8OC, CAM9MP, CAM9OC, CAM10MP, CAM10OC, CAM11MP, CAM11OC, CAM12MP, CAM12OC

2. Relationship between files, if important:

The folders are organized as it follows: there is one folder per camera, which is labelled according to the camera number (CAM1 to 12) inside each study area (MP: Montaña Palentina; OC: Western Cantabrian Mountains). Inside each camera folder appear three different folders, each one corresponding to a visit and revision of the cameras. Every revision folder for each camera includes the images obtained between the following dates:

CAM1MP: Between 22-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM1OC: Between 23-07 and 10-08-2023 = REV1_10082023; Between 10-08-2023 and 29-08-2023 = REV2_29082023; Between 29-08 and 22-09-2023 = REV3_22092023
CAM2MP: Between 22-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM2OC: Between 23-07 and 12-08-2023 = REV1_12082023; Between 12-08-2023 and 31-08-2023 = REV2_31082023; Between 31-08 and 23-09-2023 = REV3_23092023
CAM3MP: Between 22-07 and 08-08-2023 = Rev_1_080823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM3OC: Between 23-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 23-09-2023 = REV3_230923
CAM4MP: Between 22-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM4OC: Between 23-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 23-09-2023 = REV3_230923
CAM5MP: Between 22-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM5OC: Between 24-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 22-09-2023 = REV3_220923
CAM6MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM6OC: Between 24-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 23-09-2023 = REV3_230923

CAM7MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM7OC: Between 24-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 23-09-2023 = REV3_230923
CAM8MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM8OC: Between 24-07 and 10-08-2023 = REV1_10082023; Between 10-08-2023 and 29-08-2023 = REV2_29082023; Between 29-08 and 22-09-2023 = REV3_22092023
CAM9MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM9OC: Between 24-07 and 10-08-2023 = REV1_10082023; Between 10-08-2023 and 29-08-2023 = REV2_29082023; Between 29-08 and 22-09-2023 = REV3_22092023
CAM10MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM10OC: Between 24-07 and 10-08-2023 = REV1_10082023; Between 10-08-2023 and 29-08-2023 = REV2_29082023; Between 29-08 and 22-09-2023 = REV3_22092023
CAM11MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM11OC: Between 24-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 22-09-2023 = REV3_220923
CAM12MP: Between 23-07 and 08-08-2023 = Rev_1_080823; Between 08-08 and 30-08-2023 = Rev_2_300823; Between 30-08 and 24-09-2023 = Rev_3_240923
CAM12OC: Between 24-07 and 12-08-2023 = REV1_120823; Between 12-08-2023 and 31-08-2023 = REV2_310823; Between 31-08 and 23-09-2023 = REV3_230923

Finally, inside each revision folder appears one folder for every species captured in that location during that period. These folders are labelled with the first three letters of the Genus name plus the first three letters of the specific name (e.g. *Martes martes* would be mar_mar or *Cervus elaphus* would be cer_ela) or with "Muridae" in the case of undetermined rodent species. Each one of these folders includes all the images obtained for that particular taxon at that location and period.

3. Additional related data collected that was not included in the current data package: N/A

4. Are there multiple versions of the dataset? If so, please indicate where they are located: N/A

METHODOLOGICAL INFORMATION

1. Description of methods used for collection/generation of data:

We deployed 12 trail cameras in Montaña Palentina (Acorn LTL5310 (Shenzhen, China) =9; Bushnell Trophy Cam HD Black Led (Kansas, USA) = 3) and 12 in Alto Sil (Acorn LTL5310 (Shenzhen, China) =9; Bushnell Trophy Cam HD Black Led (Kansas, USA) = 2, and Browning Dark OPS (Herstal, Belgium) = 1), between July and September 2023 (ca. 60 days per camera) aiming at detecting European wildcats.

Inside each location, cameras were distributed within an area of roughly 2000 Has at distances of ca. 1500 m from each other, as this procedure is reliable to estimate European wildcat densities (Gil-Sánchez et al., 2015). Cameras were placed 30-50 cm above ground pointing perpendicularly at paths naturally used by wild animals and from which they were 2-3 m away. An open Eppendorf tube filled with Iberian lynx (*Lynx pardinus*) urine was buried in front of each camera, aiming at causing European wildcats to stop in front of the camera to optimize identification of individuals based on pelage patterns. Cameras were checked ca. every 20 days to download pictures and replace the batteries and urine (i.e. 2 reviews after deployment and finally camera retrieval). All cameras were programmed to take a burst of three pictures per trigger. Sensitivity was set to low to minimize the excess of triggers caused by sun glares or moving branches. Cameras used natural and infrared light during day and night triggers respectively.

The study was undertaken with the correspondent permissions of the regional government of Castilla y León (Expte: AUES/CYL/008/2022).

References

Gil-Sánchez, J. M., Jaramillo, J., & Barea-Azcón, J. M. (2015). Strong spatial segregation between wildcats and domestic cats may explain low hybridization rates on the Iberian Peninsula. *Zoology*, 118(6), 377-385.

2. Methods for processing the data:

Pictures were sorted following the methodology of R package CamtrapR (Niedballa et al. 2016) in order to extract metadata (date and time of the picture). Humans and birds were not included.

References

Niedballa J, Sollmann R, Courtiol A, Wilting A (2016). "camtrapR: an R package for efficient camera trap data management." *Methods in Ecology and Evolution*, 7(12), 1457-1462. doi:10.1111/2041-210X.12600

3. Instrument- or software-specific information needed to interpret/reproduce the data, please indicate their location: N/A

4. Standards and calibration information, if appropriate: N/A

5. Environmental/experimental conditions: N/A

6. Describe any quality-assurance procedures performed on the data:

Three cameras failed occasionally when setting the date and hour parameters into the captures, providing wrong data in this regard. For this reason, and as we do not know the exact date and time of collection of such images, in this particular cases we only provide broad information on the date of collection (July-August 2023) and provide no data on the time and day of the capture.

7. People involved with sample collection, processing, analysis and/or submission, please specify using CREDIT roles <https://credit.niso.org/>:

Héctor Ruiz-Villar: Conceptualization, Data curation, Investigation, Methodology, Writing - original draft, Writing - review & editing

Ariadna Sanglas: Data curation, Investigation, Methodology, Project administration, Resources, Visualization.

Laura Benito: Investigation, Methodology

Fernando Jubete: Data curation, Investigation, Methodology.

Francisco Palomares: Conceptualization, Funding acquisition, Investigation, Methodology, Project administration, Resources, Supervision, Validation, Writing - review & editing.

8. Author contact information:

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DATA-SPECIFIC INFORMATION

1. Number of variables: N/A

2. Number of cases/rows: N/A

3. Variable List: N/A

4. Missing data codes: N/A

5. Specialized formats or other abbreviations used: N/A

6. Dictionaries/codebooks used: N/A

7. Controlled vocabularies/ontologies used: N/A