Readme: Descriptive data for USN Research Data Archive

Dataset generated by [Charlotte Holmstad Arnesen]

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GENERAL INFORMATION

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TITLE FOR THE DATASET

- Data for Arnesen et al. 2019. Canines (*Canis lupus familiaris*) as biodetectors for conservation work: can they discriminate rock ptarmigan (*Lagopus muta*) from the willow grouse (*L. lagopus*) in a yes/no task?

INFORMATION ON PERSON PERSON RESPONSIBLE FOR COLLECTING THE DATA

- Charlotte Holmstad Arnesen

- University of South-Eastern Norway

- charlotte.holmstad.arnesen@usn.no

- Frank Rosell
- University of South-Eastern Norway
- frank.rosell@usn.no

- Jean-Marc Costanzi

- University of South-Eastern Norway

- jcostanzi@rzss.org.uk

- Christin Beate Johnsen
- University of South-Eastern Norway
- christinBjohnsen@hotmail.com

DATE(S) OF DATA COLLECTION

- 20150501 - 20191031

GEOGRAPHIC LOCATION(S) OF DATA COLLECTION

|  |  |  |
| --- | --- | --- |
| Sample\_site | LONGITUDE | LATITUDE |
| 1 | 9,598665742 | 60,48520048 |
| 2 | 9,182525595 | 59,80688595 |
| 3 | 9,291964 | 60,34900324 |
| 7 | 9,191617338 | 60,75866938 |
| 8 | 9,844166093 | 61,08756806 |
| 12 | 12,37238796 | 62,14722229 |
| 14 | 10,69974657 | 62,1600647 |
| 25 | 12,32862752 | 62,62655662 |
| 27 | 13,0769925 | 61,16316783 |
| 28 | 13,82518574 | 62,97276117 |
| 29 | 8,236356611 | 59,28167411 |
| 30 | 7,141854488 | 59,50082744 |
| 37 | 8,097066788 | 59,6204233 |
| 39 | 10,05389324 | 61,39398003 |
| 40 | 10,27733357 | 61,65086123 |
| 41 | 11,48320263 | 61,60224663 |
| 42 | 12,84447466 | 61,96552259 |
| 43 | 12,74051541 | 61,54281739 |
| 44 | 13,24331729 | 62,00531231 |
| 45 | 13,51351133 | 62,2893959 |
| 46 | 14,00826616 | 62,42475952 |
| 47 | 13,96460263 | 62,52085475 |
| 48 | 12,89087098 | 63,13850145 |
| 50 | 9,971013583 | 62,93876888 |
| 52 | 7,79063219 | 59,99154436 |

LANGUAGE

- English.

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FILE INFORMATION

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FOR EACH FILENAME

Samples

* No
* No
* File creation: 20160901, updates: 20191031

Final experiment
 - No

* No
* File creation: 20180301, updates: 20191031

Training, all dogs

* No
* No
* File creation: 20161001, updates: 20191031

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SHARING

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ALL UPLOADED DATASETS HAVE THEIR OWN CITE AND SHARING SECCTION IN USN RESEARD DATA ARCHIVE

-If your data require different citation methods than the traditional citation methods, please specify.

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METHODOLOGY

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DESCRIBE THE PROCESS OF COLLECTING AND GENERATING YOUR DATA

Samples

* Faecal pellets from the ptarmigans were collected in the field for the genetic study and directly placed in plastic jars (Nalgene, 15 x 38 mm or 30 x 43 mm, Thermo Scientific™, Norway). Later they were taken out of the jars for seven days to dry and cross-contamination of the pellets was avoided by separating them by species and only interacting with them using sterilised equipment. Time from sampling in the field to when the drying process was initiated ranged from five hours to two weeks. The dry pellets were then inserted into new jars filled with silica gel (Sodium silicate, VWR, BDH Polabo, 28087.361, Norway) and a precision wipe (Kimberly-Clark ™, Professional 05511, Norway) to separate the gel from the pellets. The pellets were then stored in a fridge (4°C), and storing time varied from time sampled (spring 2015 to spring 2016) to the time they were added in this study´s sample collection (October 2016). For this study, the ptarmigan pellets were weighed (AND Electronic balance FA-200, AC adapter DC 12V 0.3A, China) and placed in glass vials with teflon lids (57 x 27.5 mm, Qorpak®, Pennsylvania, USA) with a mean weight of 0.7 grams (SD ± 0.078). Each sample was handled with a new pair of disposable gloves and sterilised tweezers. They were stored in a freezer (– 20ºC) until they were used in either training or experiments. Collection of faecal pellets from black grouse and western capercaillie was independent from the ptarmigans and was carried out between October and December 2016. They were collected throughout four lowland, forest areas in Telemark and Buskerud county, Norway. None of the ptarmigans had been reported as present in those areas. The pellets were then dried for seven days for later insertion into glass vials and then immediately stored in the freezer (-20ºC).
* Microsoft Excel 2016 MSO

Final experiment & Training, all dogs

* Since the table platform presents the dogs with four scent options in each lineup, one target scent and three control scents were always present. Therefore, a dog can respond to a sample in four different ways: 1) a true positive (TP) response, the dog lies down in front of the target scent, 2) a false positive (FP) response, the dog lies down in front of a control scent, 3) a true negative (TN) response, the dog correctly rejects control scents and 4) a false negative (FN) response, the dog falsely rejects a target scent. Three parameters were calculated to evaluate all dogs from the four possible responses: sensitivity, specificity and accuracy: calculation of sensitivity: TP / (TP + FN), calculation of specificity: TN / (TN + FP) and calculation of accuracy: (TP + TN) / (TP + FP + TN + FN).
* Microsoft Excel 2016 MSO