Readme: Descriptive data for USN Research Data Archive

Dataset generated by [Anke Benten, Hannah Cross & Helga Veronica Tinnesand]

-------------------

GENERAL INFORMATION

-------------------

TITLE FOR THE DATASET

- Beaver Distant Neighbours

INFORMATION ON PERSON RESPONSIBLE FOR COLLECTING THE DATA

- Anke Benten

- Wildlife Research Unit, Agricultural Centre Baden-Württemberg, Atzenberger Weg 99, 88326 Aulendorf, Germany

- abenten@gwdg.de

DATE(S) OF DATA COLLECTION

- The samples were collected as a part of Norwegian Beaver Project from 2012 – 2013.

GEOGRAPHIC LOCATION(S) OF DATA COLLECTION

- The study area was located in Telemark County, in southeastern Norway, along the rivers Straumen (59° 29’ N, 09° 153’ E), Sauar (59° 444’ N, 09° 307’ E), and Gvarv (59° 386’ N, 09° 179 E)

LANGUAGE

- English.

----------------

FILE INFORMATION

----------------

The files can be visualized in Microsoft Excel. For statistical analysis, files are saved in csv. format, to be used further in the software program R.

-------

SHARING

-------

ALL UPLOADED DATASETS HAVE THEIR OWN CITE AND SHARING SECTION IN USN RESEARCH DATA ARCHIVE

-----------

METHODOLOGY

-----------

DESCRIBE THE PROCESS OF COLLECTING AND GENERATING YOUR DATA

 Prior to collecting samples of castoreum and anal gland secretion, a beaver’s tail was lifted, the rectum emptied and the cloaca was rinsed with distilled water. Castoreum was collected by a rolling motion oriented downwards from the urinary bladder over the castor sacs and towards the cloaca. To squeeze out the anal gland secretion the papillae were pushed out of the anal gland separately. The samples were collected in glass vials with Teflon lids and stored at -20°C until used in an experiment.

For each experiment two pairs of experimental scent mounds were constructed, one pair on each side and within 30 m of an active lodge. One pair contained castoreum of a distant neighbours (i.e. 2 territories away) and a stranger (i.e. from another watershed), the other pair contained anal gland secretion of a distant neighbours and a stranger.

Responses were recorded with camera traps and a tripod-mounted digital camera set to record continuously on the infra-red setting. Pictures were analysed using Microsoft Photo Editor (Microsoft®) and video recordings by the digital cameras were analysed using Solomon Coder© (András Péter).

Response duration (in seconds) were recorded and analysed for sniffing and physical responses (i.e. the animal was pawing of destroying the scent mount). Due to the pairwise presentation of samples, the difference in response between the two samples in each trial was calculated, using this as a measure of the degree of discrimination between the two samples, with positive values showing a stronger response to the distant neighbour, and negative values showing a stronger response to the stranger