Research Data Journal

Date YYYY-MM-DD

General

Researcher	*Name, Surname*
Researcher ID	*e.g. Digital Author Identifier (DAI), ORCID*
Researcher Affiliations	*university, department, address*
Supervisors	*1. Name, Surname* *2. Name, Surname*
Supervisors ID	*e.g. Digital Author Identifier (DAI), ORCID*
Supervisors Affiliations	*university, department, address*
Project title	*forest habitat analysis across taxa*
Project acronym	*HABTAX*
Project description	*A description of the aim of the project.*
Project duration	*from YYYY-MM-DD to YYYY-MM-DD*
Funder(s)	
Related documents	*e.g. project proposal*

Computer and software specifications

Operating system	*e.g., macOS, ubuntu14.04, Windows10*

Required Software	**Version**	**Libraries/Packages/Modules/Plugins**
R	*3.6.1.*	*dplyr, RpostgreSQL*
GRASS	*7*	
QGIS	*3.6.*	*openlayers*

Directory structure

1. How did you structure the digital archive? How were files and folders named?

Describe here in short the directory tree so that it is easy to navigate through the archive. For instance, one could add a schematic representation of the directory tree (see Fig. 6 in guidelines).

Give a description on the naming conventions that you followed. For example: <ProjectCode>/<ReactionProduct>/Analysis/YYYY-MM-DD <Technique>.csv

Datasets and Analysis

2. Provide a generic description of each dataset used throughout the research project.
Please describe all the datasets that were used throughout the project in the table below. Describe also the non-digital datasets that were used (e.g., museum collection, photos, archive documents) and make sure that it is clear where to find those.

Nr	Dataset name	Dataset acronym	Dataset description
D1	*Gull GPS movement data*	*GULLGPS*	*GPS movement data of 5 GPS monitored seagulls in Amsterdam, The Netherlands, monitored over a period of 3 years (March 2016-March 2019). GPS movement data has been collected using uva-bits tags and were subsequently stored in the uva-bits bird tracking database.*
D2	*Elephant GPS movement data*	*ELEPGPS*	*GPS movement data of 32 GPS monitored elephants of a single population in Hwange National Park, Zimbabwe, monitored over a period of 8 years (July 2009-April 2017). Data is available upon request from movebank.*
D3	*High resolution layer - Forest cover density 2015 (20 m)*	*TCDRAST*	*Tree cover density raster layer providing level of tree cover density in a range from 0-100%. This dataset is openly provided by the Copernicus project.*
D4	*Roe Deer Habitat use Sequences*	*ROESEQ*	*A dataset including real and simulated habitat use sequences (i.e., annotations of GPS trajectories) of 404 roe deer ranging in 9 population in Europe. The dataset also includes home ranges in raster format of each animal. Data from the paper "Individual Movement - Sequence Analysis Method (IM-SAM): characterizing spatio-temporal patterns of animal habitat use across landscapes".*
D5	*Lidar Europe/Africa*	*LIDAREA*	*LIDAR scans from 50 locations in Europe and 50 locations in Africa.*

3. What is the file format and size of each dataset? Are there software requirements to open the files?

Nr	Dataset	Characteristics∗	Format	Size (MB)	Software requirements ∗ ∗
D1	*GULLGPS*	*Table,Spatial*	*csv*	*35*	
D2	*ELEPGPS*	*Table, Spatial*	*csv*	*30*	
D3	*TCDRAST*	*Raster, Spatial*	*tiff*	*1150*	
D4	*ROESEQ*	*Table, Raster, Spatial*	*RDS*	*200*	*R*
D5	*LIDAREA*	*Spatial*	*LAS*	*100000*	

∗ *Qualitative, quantitative, table, raster, spatial, textual, images, audio, video, software source code, computation model output,...*
∗∗ *fill in if the file format is specific to a software*

4. Which datasets are linked to which analysis? Which software has been used for different sets of analysis?
One analysis could be linked to multiple analysis scripts or software projects.

Nr	Analysis	Analysis scripts software project names *	Dataset	software
A1	*Gull habitat selection*	*gullgps_habitat_selection.R*	*GULLGPS* *TCDRAST*	*R*
A2	*Elephant habitat selection*	*elepgps_habitat_selection.R*	*ELEPGPS* *LIDAREA*	*R*
A3	*Roe deer sequential habitat analysis*	*roeseq_seq_habitat_analysis.rdm*	*ROESEQ* *TCDRAST* *LIDAREA*	*R*

5. Describe each analysis with sufficient detail.

Nr	Analysis name	Analysis Description
A1	*Gull habitat selection*	*This script analyses the gulls' selection for open habitats. We used the software R and packages adehabitatHS to calculate the selection coefficients and ggplot2 for generating figures. The output of this script are 2 main figures and a table with the summary of the model.*
A2	*Elephant habitat selection*	*...*
A3	*Roe deer sequential habitat analysis*	*...*

6. What are the results of an analysis?
The results of an analysis might be for instance, figures, tables, statistical outputs,...

Nr	type	File or folder name where the result is stored	Description of the result	Dataset	Analysis
R1	*Fig*	*A1_mapHS_GULLGPS.png*	*Map of gull habitat selection*	*GULLGPS*	*A1*
R2	*Fig*	*A1_barchartsHS_GULLGPS.png*	*Habitat selection summarised in barcharts*	*GULLGPS*	*A1*
R3	*Fig*	*/individual_maps/...*	*Folder with 10 maps plotting gull movement trajectories*	*GULLGPS*	*A1*
R4	*Tab*	*A1_modHS_GULLGPS.csv*	*Habitat selection Model outputs*	*GULLGPS*	*A1*

7. Which manuscripts are linked to which datasets?
Please also include unfinished manuscripts in this archive and specify the status.

Nr	status	Manuscript	Dataset Acronym	Analysis
MS1	*Published (07-2017)*	*doi*	*GULLGPS ELEPGPS LIDAREA TCDRAST*	*A1; A2*
MS2	*Draft*	*MS2_roedeer_seq_habitat_analysis*	*ROESEQ TCDRAST LIDAREA*	*A3*

Metadata documentation

8. What metadata standard and metadata format did you use?
Please describe more in detail which metadata standards and metadata formats were used for the datasets. A metadata template (MetadataTemplate) is available to facilitate metadata documentation.
examples of metadata standard: EML, Darwin core, Dublin core standard
examples of metadata format: XML, RDF, TXT, PDF/LATEX

Nr	Dataset acronym	Metadata standard	Metadata form	resources
D1	*GULLGPS*	*minimum set of metadata provided following Dublin Core Standard, using the MetadataTemplate. UvA bits data structure*	*Documented in PDF/LATEX*	*For generic information about uva-bits database structure see also here*
D2	*ELEPGPS*	*minimum set of metadata provided following Dublin Core Standard, using the MetadataTemplate. Movebank data structure*	*Documented in PDF/LATEX*	*See also here*
D3	*TCDRAST*	*Based on the metadata described at the copernicus website (see link) using the MetadataTemplate.*	*Documented in PDF/LATEX*	*see here*
D4	*ROESEQ*	*metadata provided as described in the zenodo archive*	*Documented in TXT*	*see here*

Data Accessibility

9. Where are datasets stored and what are the original terms of use?
From this section it should be clear where the data can be found (weblink, DOI), whether it is accessible online and what are the terms of use for the general public. Here should be the information relevant for citing the dataset.

Nr	Dataset acronym	Source	terms	Link/DOI/...
D1	*GULLGPS*	*uva-bits tracking database*	*Available upon request <contact person>*	*phppgadmin-link*
D2	*ELEPGPS*	*movebank*	*Available upon request <contact person>*	*Available here at movebank.org*
D3	*TCDRAST*	*copernicus*	*Public dataset, available after registration*	*Available here at land.copernicus.eu*
D4	*ROESEQ*	*zenodo*	*Public dataset*	*zenodo-link*
D5	*LIDAREA*	*Lidar database*	*Public dataset*	*Link to database server = <server> host = <host> For other access details to access the database contact <contact person>*

10. Is the dataset stored physically in the archive? If yes, which folder? If no, where and how can the data be retrieved?

Nr	Dataset acronym	Stored in data archive	location
D1	*GULLGPS*	*Yes*	*DATA/GULLGPS*
D2	*ELEPGPS*	*Yes*	*DATA/ELEPGPS*
D3	*TCDRAST*	*Yes*	*DATA/TCDRAST*
D4	*ROESEQ*	*Yes*	*DATA/ROESEQ*
D5	*LIDAREA*	*No*	*Same as above*