

## Short description

Converts the .xlsx files created by the BORIS export into csv files required by BOVIDS. In such an xlsx-file it is possible to have multiple individuals (subjects) and a list of behaviors (actions) exceeding those of BOVIDS. The file will map those behaviors accordingly.

## Requirements

- packages: numpy, openpyxl
- data structure
  - BORIS export „observation list“ should be saved at  
*.../Auswertung/species/zoo/Auswertung/Boris\_KI/Boris-Dateien/YYYY-MM-DD\_species\_zoo\_\*.xlsx* (\* indicating: arbitrary, no special characters!)
  - Create a folder in which the output files can be stored  
*.../Auswertung/species/zoo/Auswertung/Boris\_KI/csv-Dateien/*

## Step 1 – open spyder:

- Terminal / Shell:
  - conda activate bovids
  - spyder

## Step 2 – adjust parameters

- INPUT\_FOLDER = path containing the observation lists in above's structure [string]
  - E.g.: "U:/ Auswertung/Wildebeest/FancyZoo/Boris\_KI/Boris-Dateien/"
- OUTPUT\_FOLDER = output destination (see above's structure) [string]
  - E.g.: "U:/Auswertung/Wildebeest/FancyZoo/Auswertung/Boris\_KI/csv-Dateien/"
- INDIVIDUAL\_NUMBERS = Dictionary such that each key refers to a subject (individual) in the observation list. Value is the corresponding individual number (the identifier). [dictionary]
  - Bsp: INDIVIDUAL\_NUMBERS = {  
     'Wildebeest\_Olly': 1,  
     'Wildebeest\_Romy': 5}
- BEHAVIOR\_MAPPING = Dictionary such that each key is an action of the observation list. Values are numbers (0 standing, 1 LHU, 2 LHD, 3 Out – additional keys are possible here but cannot be further used without code changes!). [dictionary]

- Bsp: BEHAVIOR\_MAPPING = {  
    "Standing": 0,  
    "Running": 0,  
    "Lying": 1,  
    "Sleeping": 2,  
    "Out": 3  
}
- BEHAVIOR\_CODES: Dictionary mapping the behavior codes to names. [dictionary],
- INTERVAL\_LENGTH: How many seconds are one time-interval? BOVIDS is adjusted for a choice of 7 here, larger numbers would probably work in the whole system, smaller numbers require (easy) code adjusting. [integer]
- EXTENSION: Will be part of the file name and will be required by BOVIDS in its standard form. [string]
- TIME\_COL = "A"; SUBJECT\_COL = "E"; BEHAVIOR\_COL = "F"; ACTION\_COL = "I" = Col-Indices of the observation list. If BORIS 7.7.3 is used as suggested, those parameters can be ignored.

### Step 3 – run the file

- The script starts automatically to process the data as soon as it is run.