

NABAT DATA TRANSFER PROTOCOL FOR CALL PROCESSING AND ANALYSIS

October 5, 2020

NW Bat Hub
Oregon State University-Cascades

When transferring data to the NW Bat Hub for call analysis, following the steps outlined below will help the Bat Hub with matching the field metadata (e.g., the survey dates, location, who, etc.) to the corresponding acoustic data for each detector location deployment and subsequently ensure that we, as a community, have the most accurate and best quality data that will help us understand status and trends in bat populations.

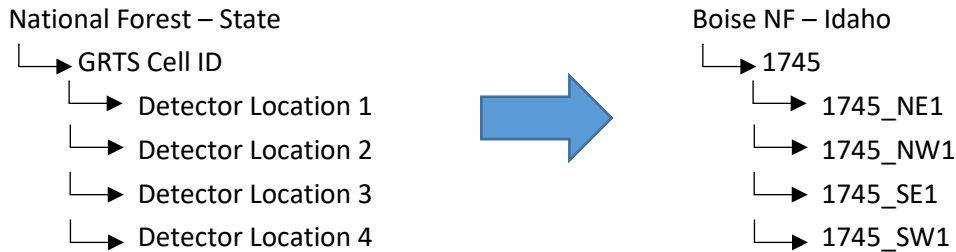
Prepare NABat Field Metadata

- 1) Compile and organize the field metadata for every detector location you surveyed by completing the 'NABat Metadata Template.xlsx' file.
 - a) Complete each field as much as possible. Yet, at a minimum, ensure to complete the required fields highlighted in yellow:
 1. **GRTS Cell ID** – GRTS ID number of the NABat grid cell where the survey was conducted.
 2. **Location Name** – A user-defined name (6-character limit) of the specific location (or point) where a detector was deployed within a single grid cell. For example, this could be a combination of the GRTS Cell ID and intercardinal direction (NE, NW, SE, and SW) of the 5 km x 5 km cell quadrant, i.e., 1745_NE1.
 3. **Latitude/Northing** – Try to report in WGS84 decimal degrees (DDD.DDDDD°), but if you don't have it in this format, then provide other coordinate format (UTMs) and complete the Datum and Coordinate Notes fields.
 4. **Longitude/Easting** – Try to report in WGS84 decimal degrees, but if you don't have it in this format, then provide other coordinate format (UTMs) and complete the Datum and Coordinate Notes fields.
 5. **Datum** – Report the datum (WGS84, NAD27, or NAD83) of the coordinates provided in the Latitude/Northing and Longitude/Easting fields. Select from the dropdown list.
 6. **Coordinate Notes** – Report notes on the coordinate format, such as providing the zone for UTMs. You could also describe if you converted the original coordinates taken in the field to another format while in the office.
 7. **Survey Start Time** – The date and time when the detector first started recording on night 1.
 8. **Survey End Time** – The date and time when the detector stopped recording on the last night.

9. **Detector** – Select the brand and model of detector from the dropdown list.
 10. **Microphone** – Select the brand and model of detector microphone from the dropdown list.
 11. **Microphone Height (meters)** – Report in meters, the height of microphone above ground.
 12. **Distance to Nearest Clutter (meters)** – Report in meters, the distance between microphone and nearest clutter ('clutter' being defined as physical objects within the flight environment, e.g., vegetation, buildings, or other structures). If you did not record this, then consider recording this data the next time you deploy detectors as this info is important for understanding the probability of detecting bats, especially certain species that are more prone to be active in cluttered habitats.
 13. **Clutter Type** – Select the type of clutter that is predominantly found in the vicinity of the detector microphone.
 14. **Contact** – Report the name of the person who deployed the detector.
 15. **Deployment Notes** – Provide any notes on the detector deployment, such as did the detector stop recording before the end of the monitoring period (either fewer night or before the night ended) and why did this occur (e.g., due to power failure).
- b) Pay special attention to complete the two fields highlighted in green, **Detector Serial Number** and **Memory Card ID Number**. These fields help us to verify acoustic data is correctly associated with the corresponding detector deployment.
1. **Detector Serial Number** – The serial number of the detector provided by the manufacturer (e.g., for the SM4BAT-FS, it would start with 'S4U' followed by some numbers).
 2. **Memory Card ID Number** – If you are sending the memory cards (e.g. SD) that were originally used in the detector, please give them an ID number by writing it on the card (either with a sticker or using the existing label) and complete the Memory Card ID Number field. This ID number can be any combination of letters and/or numbers (e.g., BoiseNF-0100).
- c) Copy the completed 'NABat Metadata Template.xlsx' file to your storage device.
- 2) If you are unable to complete the 'NABat Metadata Template.xlsx' form, then please scan your datasheets and copy those into the corresponding detector location folder (see the Organize Acoustic Data section).
- a) Please ensure the datasheets are completed as much as possible with highlighted fields in the metadata template file and the Detector Serial Number and Memory Card ID Number fields.
 - b) Ensure coordinates are clearly written on datasheets.

Organize Acoustic Data

- 1) If organizing the acoustic data onto external hard drives or thumb drives, then please use the following folder structure and folder naming convention.



- a) Within each Detector Location folder (e.g., 1745_NE1 in the above example) corresponding to the specific detector site, provide the following:
 1. **Detector log file** – provides information on the dates/times the detector was operational as well as other info, e.g., this would be the Summary file for the SM4BAT-FS that includes the detector serial number, S4U03176_A_Summary.txt.
 2. **Acoustic files** – typically .wav files but could be other formats (*.wac).
 3. **Photos** – a photo of the detector deployment, preferably showing the detector setup, surrounding environment, and the detection target (or targeted habitat feature in which bat activity is being recorded, e.g., pond, forest, edge, etc.). Ensure filenames of photos contain the Location Name of the site (e.g. 1745_NE1.jpg).
- 2) If sending the memory cards that were originally used in the detector, copy the following to the memory card with the corresponding acoustic data (****remember to back up acoustic data, photos, and scanned datasheets to your computer****):
 - a) Datasheet (scanned copy)
 - b) Photo(s)

Mail external hard drives, thumb drives or data cards to the Bat Hub Coordinator at:

Roger Rodriguez
HERS Lab, NW Bat Hub
Oregon State University-Cascades
1500 SW Chandler Avenue
Bend, Oregon 97702

NOTE: If you are interested in transferring data via the cloud, please reach out to the Bat Hub Coordinator for discussing options.

For all questions, please contact: Roger Rodriguez, NW Bat Hub Coordinator, Office: 541.706.2049, Cell: 817.614.7219, Roger.Rodriguez@osucascades.edu.