



# NABat National Data Processing Laboratory (NDPL)

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## Acoustic Data Checklist

### I. BEFORE going into the field:

- Check your NABat Project and make sure the cells you will survey are selected. Release any cells that you previously selected that you will not be monitoring.
- Add [bats@conservationmetrics.com](mailto:bats@conservationmetrics.com) (“Metrics, Conservation”) and [clong@batcon.org](mailto:clong@batcon.org) (“Long, Christen”) as project members (at the “Analyst” level) to your NABat project.
- Detector Settings:
  - Recorded file prefix should be set to detector serial number. Instructions for setting filename prefixes by detector type can be found at the end of this document.
  - Double check detector settings [here](#).
- Plan for Metadata collection – Survey123 (preferred) or Excel.
  - *If using Survey123 for metadata:*
    - The Survey123 form for stationary acoustic surveys can be found [here](#) or via this QR code:



- If you used Survey 123 in prior years, make sure the form is the most recent one by removing and re-adding it to your app.
- Ensure that relevant forms are downloaded to the Survey123 app on your field device before you go into the field.
- Only submit the form upon pick-up of the detector once all relevant fields are complete.

- If you are out of service at your field site, save your form as a draft and return to it and submit once you return to service
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- *If using an Excel metadata sheet:*
  - Print out a copy to take into the field.
  - Do not submit both Survey123 and Excel.

### What is metadata?

Metadata is a set of data that describes and gives information about other data (e.g., latitude and longitude, or detector type). We cannot process your data if we don't receive metadata in the format we request. Also, please see the common metadata mistakes found later in this document so your data processing goes smoothly!

## II. WHILE in the field:

- Take a photo from behind the detector, in the direction that it is pointing. See example at the end of this document.
  - Update your location each time the detector is relocated.
  - At time of deployment, fill out initial relevant Metadata
    - Begin filling out the Survey123 form
      - **Note: Submit the form only once your survey is complete and all fields have been entered and double-checked. You can save a Survey123 form within the app and return to edit it without submitting it.**
    - OR use printed copy of excel sheet to take notes
  - Complete Metadata when picking up the detector
    - Double-check all fields are filled correctly.
    - If using Survey123 for metadata, ensure the Survey123 form has been submitted.
      - **Note: If you were unable to send the form because of limited cellular/data access, send the form from your Outbox in Survey123 once you can do so**
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## III. AFTER going into the field:

- If you used a paper/Excel metadata sheet, transfer all handwritten information to Excel metadata document.
  - *Required fields are:*
    - **GRTS cell ID:** Use GRTS ID and **not** the CONUS ID
    - **Location Name:** No spaces. Only letters, numbers, and underscores. Must match metadata – check spelling and capitalization.
    - **Latitude & Longitude:** Use WGS84 **decimal degrees**
    - **Survey Start Time and End Time:** Local date and time when detectors were set up and taken down
      - use the format MM/DD/YYYY HH:MM.
      - Note: Provide actual time, not “30 minutes before sunset”*
    - **Detector manufacturer and model:** Use the dropdown menu
      - e.g., Wildlife Acoustics SM4BAT-FS
    - **Detector Serial Number**

- **Microphone type:** Use the dropdown menu
  - e.g., Wildlife Acoustics SMM-U1
- **Microphone height** in meters.

Save a backup copy of your raw data.

Organize your data/recordings on your external hard drive in the following way:

**Root Folder: GRTS\_ID#**

**“Stationary”**

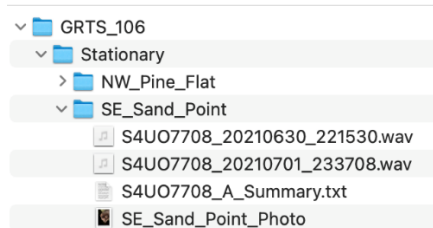
↳ **Location\_Name\_1** (No spaces. Only letters, numbers, and underscores. Must match metadata – check spelling and capitalization)

↳ Acoustic recordings (.WAV), log file (.TXT)\*, photo†

↳ **Location\_Name\_2**

↳ Acoustic recordings (.WAV), log file (.TXT)\*, photo†

For example:



Send the following on an external hard drive, memory stick, or SD card to the relevant address on the following page:

- o Organized recordings and log files
- o Completed metadata spreadsheet (if not using Survey123)
- o Completed Information Form (pg. 5)

Send an **email to [rapid@batcon.org](mailto:rapid@batcon.org) when you put your data in the mail.** Include:

- o Name and contact information (email) of the preferred point of contact
- o Agency/organization name and region/forest/park/etc.
- o Regional species list(s) and/or considerations (if desired/applicable).

\* Include the log or text file associated with those WAV/ZC files within the same folder. These are .txt files associated with the recording files. Examples can be found at end of this document.

† If you don't have any new 2021 site photos, you do not need to include old photos from previous years.

**Below are common mistakes or missing information – please double check that these are correct when you send us your data and metadata!**

1. **Serial numbers** – Make sure you record the correct detector serial number exactly as it appears on your detector.
2. **Sensor location is in adjacent GRT** – Check to make sure your survey location is actually within the boundary of your target NABat cell
3. **For mobile surveys** – Make sure your coordinates are embedded into mobile wavs and only kml is given, not gps/gpx.
4. **Metadata from Survey123 and excel sheet do not match** – When possible, please use Survey123! You don't need to submit metadata in both formats.
5. **Accidental metadata entries in Survey123** – Make sure you are only collecting one set of metadata and delete accidental or incorrect entries; if multiple get submitted, indicate which is the correct one as notes.
6. **Missing data** – Sometimes we receive metadata for a location that we didn't get data for –make sure you are sending in data for the locations you are submitting metadata for so we don't need to track it down.
7. **Files included that shouldn't be processed** – Don't include folders that say "failed attempt" or "do not process" – they can be onerous to weed through with our pipeline. Don't include data from prior years that have already been processed, or duplicated zipped files of data. Don't include T.Wav files in addition to a folder of expanded files – just one set.
8. **Metadata fields are entered in incorrect format in xlsx data sheets** - Certain columns call for a **single** specific standardized answer – use NABat specified categories for microphone orientation, habitat type, and clutter type.

**If you are in California or Nevada, send to:**

Jessie Bunkley  
2265 Patrick's Point Drive  
Trinidad, CA 95570

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**If you are outside CA/NV/NM/AZ, send to:**

Bat Conservation International  
145 McAllister Way  
Santa Cruz, CA 95060 USA

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**If you are in Arizona or New Mexico (SW Hub), send to:**

Kathy Gerst  
5198 N Camino Esplendor  
Tucson, AZ 85718



**NABat Acoustic Data Information Form**  
please print and include this form when mailing data to the  
National Data Processing Lab



Sender's Name:

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Email address:

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Agency or Organization:

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Region/ District/ Forest/  
Park (as applicable):

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NABat Project Name:  
(if known)

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Return mailing address:  
(please no P.O. Boxes)

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GRTS cell #(s) included:

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Primary contact info:  
(if different from above)

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Did you use Survey123?

Yes

No

# Customizing Filename Prefixes

## Wildlife Acoustics SM4BAT FS

### 4.3 Setting the Device Prefix for Recorded Files

The prefix appears in the name of every recording file to easily identify the recordings made on a specific recorder or from a common shared schedule. The default prefix combines the model number with the serial number. You can specify a custom filename prefix of up to 12 characters to identify each recorder.

1. Navigate to **Main Menu > Settings > Location > Prefix**.
2. Specify a 1 to 12 character prefix from left to right:
  - a. At the first position, press **▲ Up** to cycle through the alphabetic characters A to Z. Press **▼ Down** to cycle through the numbers 9 to 0. You can also select a hyphen (it is above the digit 9).
  - b. Press **▶ Right** to advance to the next position in the prefix and repeat the previous step.
3. To erase characters, select the blank character that is above the hyphen and below the letter A. All of the characters to the right of the blank character are erased.
4. When finished, press **▶ Right** to advance to the last position and then press **ENTER**.

**NOTE:** The prefix can only contain capital letters, numbers, and hyphens. When you change the default prefix, the serial number of the recorder no longer appears in the recording file names; however, it does still appear in the metadata inside the file.



### ***SongMeter Mini Bat***

1. The default “Recorder Name” is the Serial Number
2. It if needs to be changed: PAIR>Configure>
3. Edit Recorder Name

### **Titley Scientific *Anabat SWIFT***

1. Turn on the detector and press the yellow Settings button (gear icon) in the bottom right corner of the screen.
2. Select the ‘Recording’ menu.
3. Scroll through the first two ‘Recording’ menu pages until you reach 3/3.
4. Select ‘Filename Prefix’ and ensure it is set to ‘On.’

### **Audiomoth**

1. Do NOT re-name file names.

### **Petterson**

1. Coming soon.

### **Example log files**

You can find the log files in the folder with the echolocation recordings or one folder up from that.

- Wildlife Acoustics: a summary file that includes the detector serial number
  - E.g. “S4U03702\_A\_Summary.txt”

### **Example detector photo**

Single photo from behind the microphone, facing the same orientation as the microphone. The goal is to capture a view of the space the detector is sampling.

