Configuring AudioMoth for Bat Acoustic Surveys

The following document provides guidance for configuring AudioMoth recording devices for bat acoustic surveys, including recommended NABat settings. Prior to beginning the steps outlined below, users should download the *NABat_AudioMoth_Configuration.config* file from https://www.sciencebase.gov/catalog/file/get/5e3de185e4b0edb47be3d6e6?name=NABat_AudioMoth_Configuration.config.

To configure an AudioMoth detector for bat acoustic surveys:

1. Download the AudioMoth Configuration App and AudioMoth Flash App from https://www.openacousticdevices.info/applications.

2. Insert batteries and microSD card into the AudioMoth detector.

3. Flip the white switch to USB/OFF.

4. Open the AudioMoth Flash App and connect the AudioMoth detector to the computer using a micro-USB to USB 3.0 cable.

5. Using the AudioMoth Flash App, check whether the AudioMoth detector has the most recent firmware. The app will recognize the current firmware version and provide an option to update if newer firmware is available. If necessary, update to the most recent firmware by clicking the green "Flash AudioMoth" button.

6. If the AudioMoth detector was updated with new firmware, it must be power cycled before use. Disconnect from the computer, remove the batteries, then reinsert them.

7. Open the AudioMoth Configuration App and reconnect the device to the computer (the white switch should still be set to USB/OFF).

8. Click the "File" menu and select "Local Time." Return to the "File" menu and select "Open Configuration." Navigate to the *NABat_AudioMoth_Configuration.config* file. The NABat recommended settings for AudioMoth will load into the configuration app.

9. Click the "Schedule" tab and ensure that the current recording period is appropriate for your region. If necessary, adjust the recording period by first clicking "Clear all periods." Next, enter new start and end times in the "Start recording" and "End recording" fields and clicking "Add recording period." Double check to ensure the new recording period includes the correct time zone (the - UTC value should match the value displayed in the greyed-out time and date at the top of the app; don't be alarmed if the time displayed at the top of the app is inaccurate and the date is listed as 01/01/1979; the correct time will load when the AudioMoth detector is configured).

10. Once the correct recording period is entered, click the green "Configure AudioMoth" button at the bottom of the app. The button will temporarily grey out as the detector is being configured. Once the button is selectable again, the device has been configured.

11. Disconnect the detector from the computer and move the white switch from USB/OFF to CUSTOM. Check the LED indicator lights located on the side of the detector opposite the switch. Outside the scheduled recording period, the lights should flash green. During the recording period, a red light will flash when the detector is triggered. If both the green and red LEDs are blinking, either the recording period is not set or the internal clock is not set. In this case, reconnect the device and reconfigure (begin with step 9). If the configuration is set and the appropriate LED indicators are blinking, return the switch to USB/OFF until ready to deploy the detector.

12. When ready to deploy the AudioMoth detector, move the white switch to CUSTOM and mount appropriately.