Midwest Bat Hub Q2 Partner Meeting

5/14/2025

Agenda

- Data Summaries
- Utility of a Bat Hub
- Plans for NABat Data Collection
- Resources for Partners
- Looking Ahead and Q&A

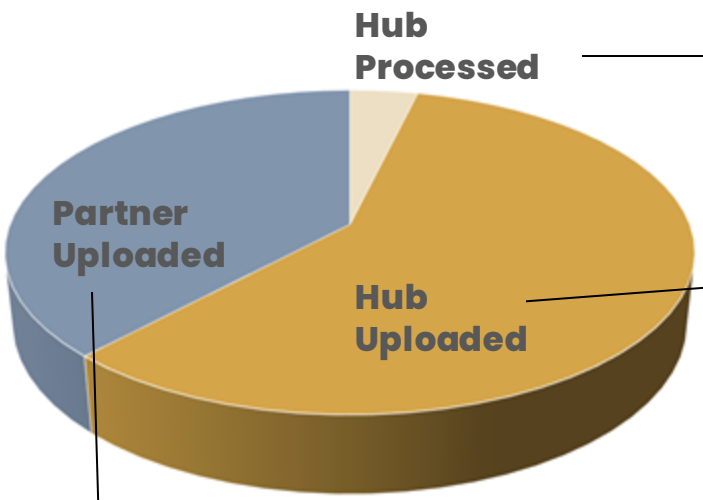
Midwest Bat Hub Data Summaries

- The Midwest Bat Hub continued to support partners by providing data processing services
- Primarily acoustic data
  - Stationary acoustic data processing
  - Mobile acoustic data management resources and processing services
- Here's a recap of what we did since the last data summary (Q4 Partner meeting in 2024)

3,918,718

Total number of rows we added to NABat Database from December 2024 to May 2025

Processed Data Breakdown

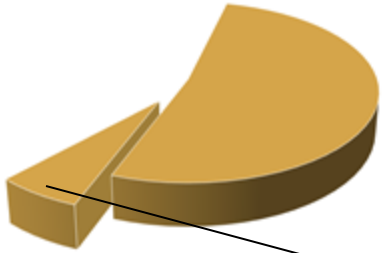


152,518 rows	4% of total data
2,369,335	58% of total data
1,549,383	38% of total data

Data Uploaded by the Hub

11% of data uploaded by the Hub was partner collected data that the Hub processed

These data come from 5 different NABat projects. Some data were only auto ID'd while others were manually vetted



Winter Colony Count- 564 observations

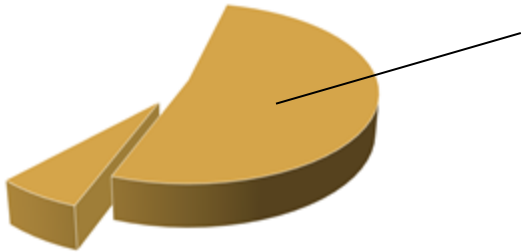
Mobile Acoustic- 5,309 files

Stationary Acoustic- 250,076 files

Data Uploaded by the Hub

89% of data uploaded by the Hub was data that the Hub collected and processed

Most of these data are the outstanding volunteer program data from 2023 and 2024

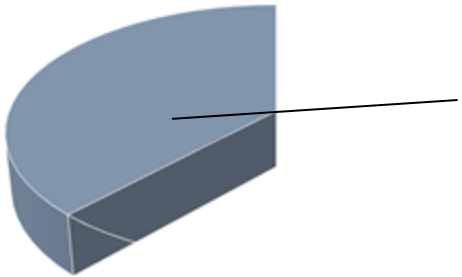


Mobile Acoustic- 509 files

Stationary Acoustic- 2,112,877 files

Data Uploaded by Partners

These data come from 8 different NABat projects. Most are run at the state level and have routine upload times, but some citizen science projects as well

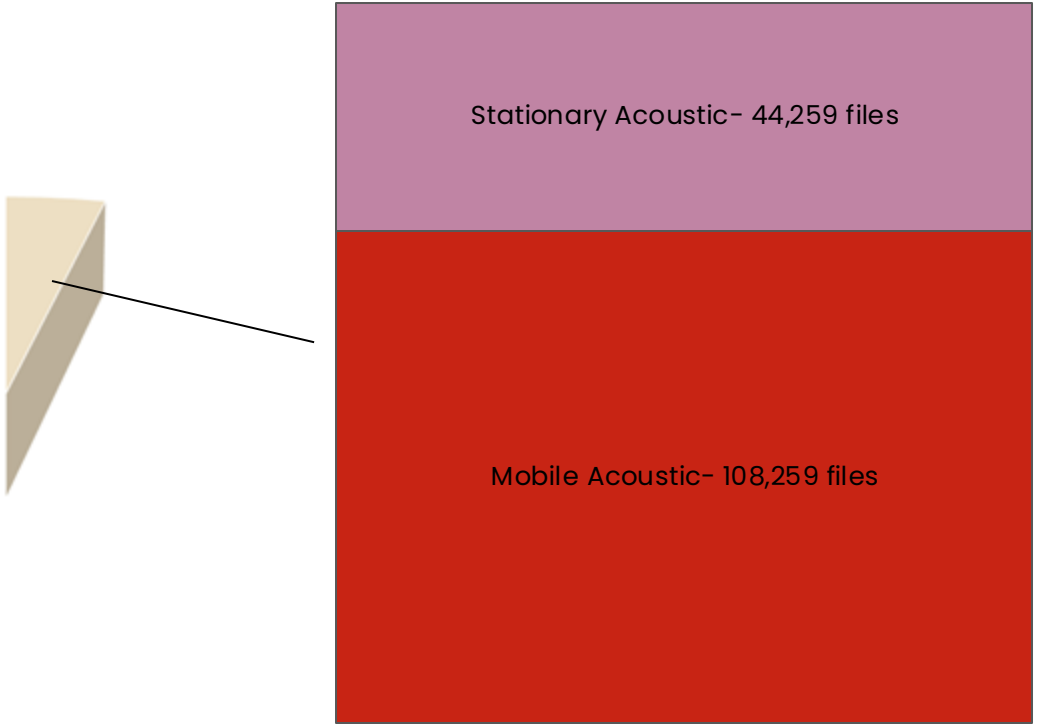


Mobile Acoustic- 11,665 files

Stationary Acoustic- 1,537,718 files

Data to be Uploaded by the Hub

The Hub has processed data for 3 partners waiting to be uploaded. Changes to the Partner Portal and to funding sources have caused an internal delay



Utility of a Bat Hub

- The Midwest Bat Hub was established in 2020 with support from USGS and USFWS
- Bat Hubs serve multiple roles, including coordination, technical support, and data mobilization
- Our current work is primarily funded through a 2023 task agreement with USFWS. Under this agreement, we're focused on:
    - Tackling challenges related to integrating legacy data into NABat
    - Helping partners collect data
    - Developing colony count protocols
    - Contributing regional data to NABat annually

USGS
science for a changing world

U.S. FISH & WILDLIFE SERVICE

Utility of a Bat Hub

- Help overcome challenges to incorporating legacy data
  - Data tracker database
  - Legacy data inventory
    - Please fill out legacy data questionnaire ASAP if you have any legacy data!

Utility of a Bat Hub

- Help partners collect data
  - Advice on site selection
  - Advice on equipment selection (detectors, etc.)
  - Processing softwares to use
  - Development of SOPs, instructional materials, and protocols for fieldwork

Utility of a Bat Hub

- Promote coordinated bat conservation efforts in the Midwest
  - Development of regional colony count protocols
  - Partner meetings
  - Hub website (“Where We Monitor” map)
  - Creating new partnerships within the region

Utility of a Bat Hub

- Submit data to NABat
  - Process partner acoustic data (autoID and manual vetting)
  - Scripts to automate data processing
  - Develop data management tools
  - Assist partners in navigating the Partner Portal
  - Process and submit partner data to the Partner Portal

UTILITY OF A BAT HUB-OPEN ENDED POLL AND DISCUSSION

NABat Plans for Data Collection

- Potential budget cuts to the USGS Biological Research Program could impact the NABat program and its support structure
    - **There is no confirmed news yet regarding cuts to NABat**
- What are your plans for data collection in summer and fall of 2025?
- Many partners contribute data from routine surveys, annual field seasons, and consistent data collection

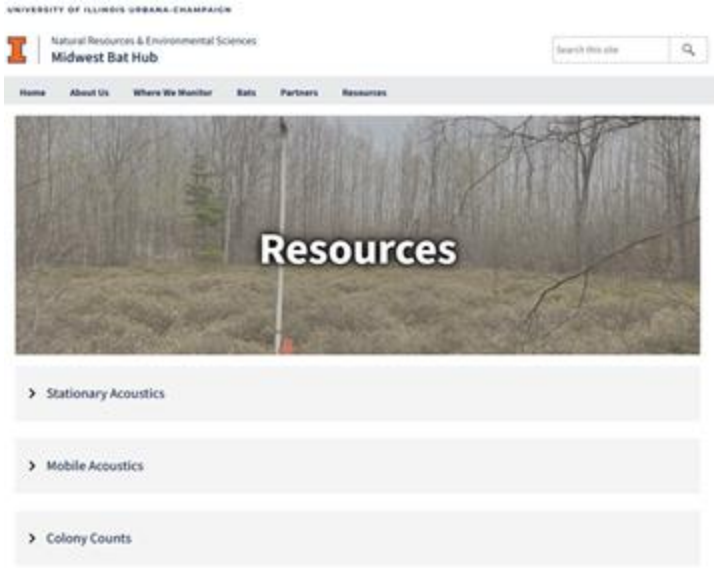
NABat Plans for Data Collection

- Continue collecting data if your own funding and capacity allow
- Whenever possible, follow NABat protocols, including
  - Using GRTS prioritization for site selection
  - Collecting data with NABat bulk upload templates in mind
  - Processing data with NABat bulk upload templates in mind.
- If using other standardized protocols, please continue doing so—consistency is valuable

Priority GRTS cells in the Midwest

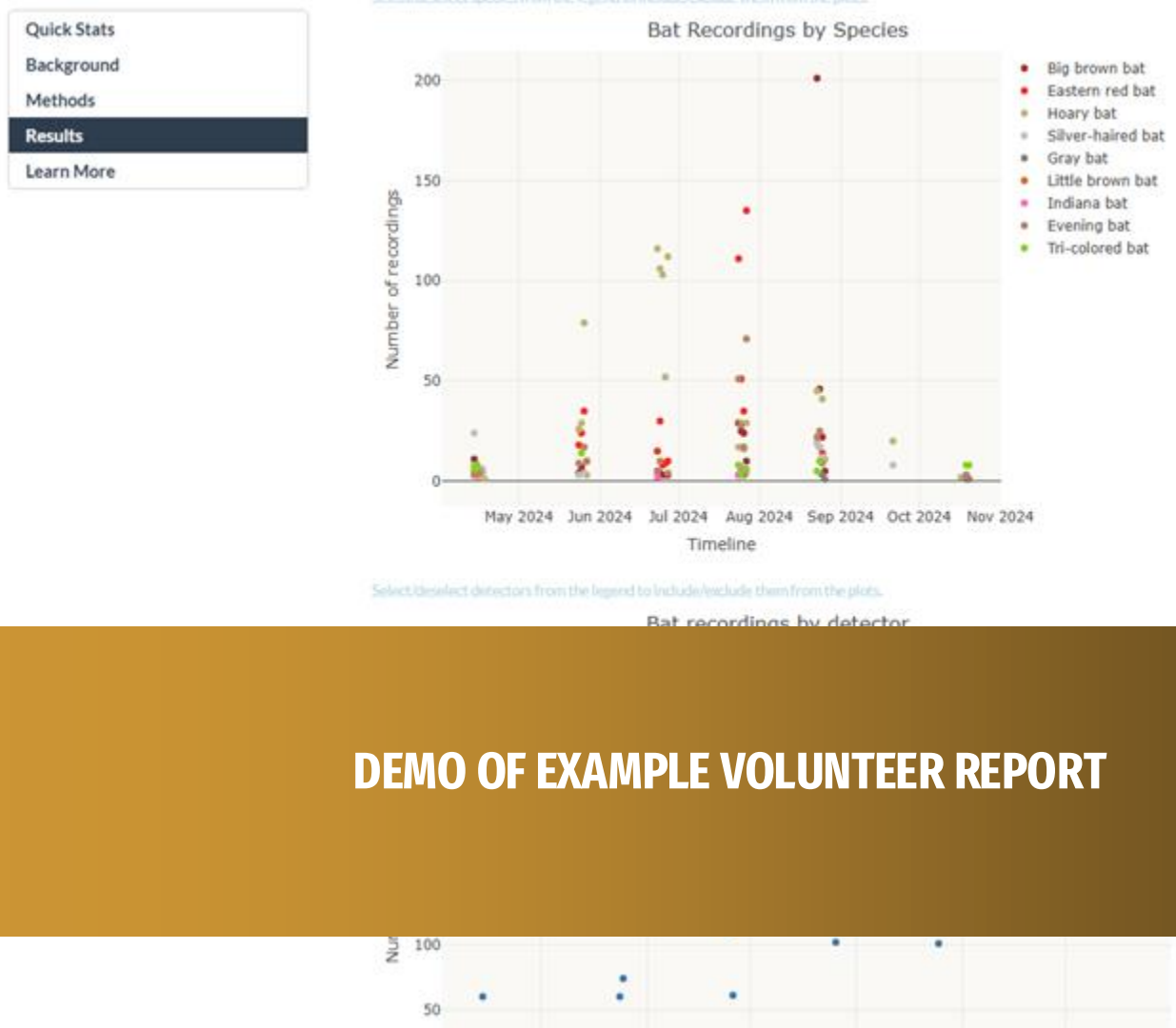
Resources for Partners

- The Hub's Website is hosted by the University of Illinois at Urbana-Champaign
  - Will remain online even after some of the current Hub departs this summer
- Good place to quickly access NABat resources (upload templates, data collection sheets, protocol, and more)
- More important resources to be posted in the upcoming weeks



Resources for Partners

- R Script to automate reporting for Stationary acoustic surveys
  - Used by Hub staff to produce bat activity reports to volunteers of the MBH volunteer program
  - Works with output *idsummary* files from Kaleidoscope Pro and metadata as inputs
  - Standardizes and automates reporting process



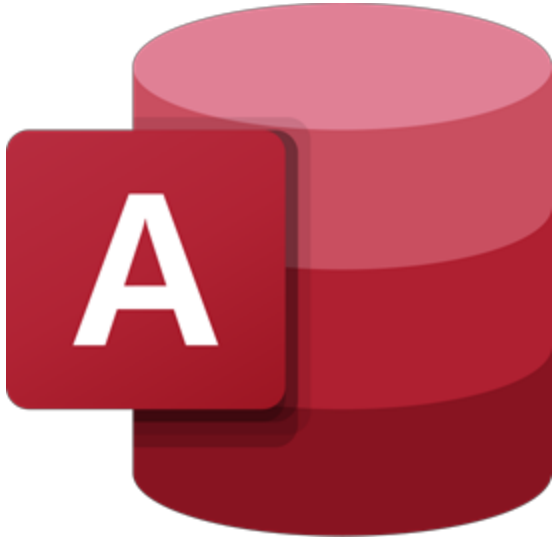
DEMO OF EXAMPLE VOLUNTEER REPORT

Resources for Partners

- Edited to be customizable by state
- Edited to be easier to use for different species lists and a different number of total species considered
- Includes documentation and instruction (ReadMe file) for easier use

Resources for Partners

- Hub's Legacy Data Tracker Database
- Helps keep track of all bat data collected by partners
- Helps maintain organized structure of datasets, prevents loss of data with staffing changes
- Table structure to track metadata of datasets, as well as status of dataset separately (% processed, software used, current location of dataset, etc.)



Looking Ahead- Work for Partners

Outstanding Tasks for May

- Finalizing data processing and reporting for a few remaining partners
- Fine-tuning the website and uploading resources to the Resources tab
- Completing a regional inventory of legacy bat data
    - If you have legacy data, please return your completed Legacy Data Questionnaire as soon as possible!
- Wrapping up the final Hub report to USFWS

Looking Ahead- Volunteer Program

2025 Volunteer Program

- Program continued this year
- April-October 2025
- 41 returning volunteers
  - Independently programmed detectors
  - Prepared sites and equipment for deployment before the season
- Raw unprocessed data stored by the Hub for possible future analysis
  - Exceptions: Volunteers in Conservation areas and volunteers in Minnesota
- 2026 Volunteer Program not planned

Looking Ahead-Volunteer Program Data

Looking Ahead- Hub Staff

Hub Staff moving on

- Marissa Foley-Hub Data Manager
  - Last day of work- May 14th
  - Bat mist netting technician with Montana State University
- Bryan Levi-Hub Coordinator
  - Last day of work- May 31st
  - Plan to have access to Hub email and data folders through 2026

Joy O'Keefe

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Reach out with any questions about bats or best practices for data collection

Rich Geboy

USFWS Fish and Wildlife biologist
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USFWS Field Office

You can reach out to your local USFWS Field office to discuss data collection

NABat technical team

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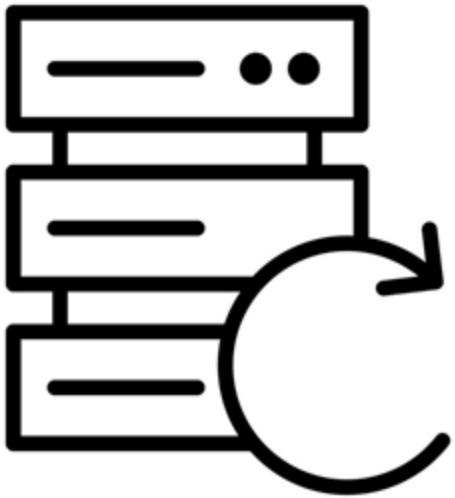
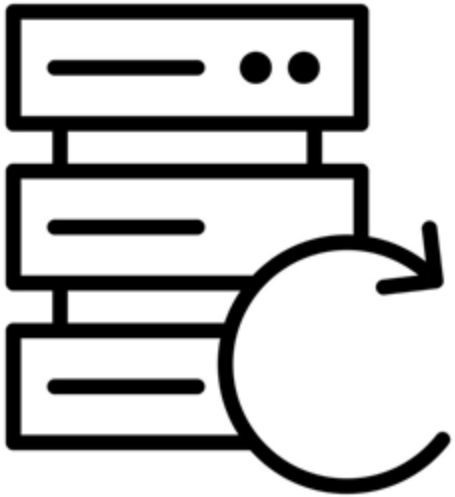
Recommendations

- Have multiple people listed on your NABat projects
  - Protects access to projects in the face of employee turnover and funding constraints
  - Redundancy is essential!
  - People to add:
    - Long-term project managers, current working staff, and technicians to upload data to the Portal
- Know where your data are! Can it be found if you're gone?
- Backup your data!



Recommendations

- Backup your data!
  - Raw data
  - Processed data (if metadata has been attributed to audio files)
  - Outputs from AutoID Software
- Versioning and metadata documentation are essential
- Document workflows for future analysis



Q&A

Questions?

Thoughts?

Concerns?