



## **MANUAL VETTING ✨ DATA POST PROCESSING ✨ NABAT FULL SERVICE MONITORING**

*Let us put our experience to work for you to help you efficiently meet your bat survey and monitoring objectives.*

*Our staff has decades of acoustic survey experience from actively recording bats in the field to post-processing and reporting on vast echolocation call data sets. We are familiar with all full-spectrum detectors from every major manufacturer and have been on the ground floor of acoustic analysis software development as this technology has rapidly advanced.*

### **DATA PROCESSING - FOR RAW ACOUSTIC DATA RECORDED DURING NABAT SURVEYS**

**From Raw Detector Data to NABat Upload** Choose your GRTS cells and monitoring locations and/or transect routes, deploy the surveys, collect and off load the data, and send copies of all original recordings and metadata (e.g., photos, data sheets, weather records, etc.) and we will post-process, vet, and return copies of attributed files and outputs ready for NABat upload.

### **MANUAL VETTING - FOR ACOUSTIC DATA NEEDING SPECIES ID AND MANUAL VETTING**

**For full-spectrum (WAV file format) acoustic data that has already been post-processed**

All files must be submitted *according to the NABat Data Processing/Data Management* guidelines. Recordings should be: (1) scrubbed of noise/non-bat files, (2) renamed, (3) appended with GUANO data, and (4) auto-classified. Submissions should be organized in folders according to **GRTS Cell** preferably with sub-folders for each **Quad**. in the cell. Auto-ID outputs from either SonoBat (\*.txt file) or Kaleidoscope (\*.csv file) must be included. Surveyors are strongly encouraged to provide copies of completed NABat data sheets that fully describe the survey effort. All data will be returned with archetypical WAV files appended with species, and Manual IDs entered in the auto-classification outputs, and formatted for upload to NABat.

**Mobile Transect Manual Vetting Services include:** Manual vetting of full-spectrum files collected from a single detector, during a single 20-30 mile transect route, that has been run twice within the span of a single week. 100% of files will be (1) manually identified to species or species-guild, and (2) quantified with the number of bats in the file for recordings with multiple individuals and/or species. *Additional nights conducted over the same route are billed at an additional fee.*

**Stationary Point Manual Vetting Services include** Manual vetting of all full-spectrum files collected at a single GRTS cell from at most four (4) stationary point bat detectors, each deployed for a maximum of four (4) consecutive nights. Vetting includes identification at the night-level/site-level of at least one (1) archetypical call sequence for each species auto-classified. *Additional points in a single GRTS cell and/or additional nights at a single point are billed at an additional fee.*

***We Do Not Currently Accept Zero-cross (Frequency Division) Recordings.***

## NABAT FULL SERVICE MONITORING - WE WILL RUN YOUR NABAT PROJECT

**For NABat projects already registered and with GRTS cells already selected** Leave the survey to us. We will travel to your area, micro-site stationary point deployments and /or mobile transects, collect all metadata, conduct the survey, collect the data, post-process files, generate auto-classification outputs, manually vet results, and summarize results of the survey. All original data and attributed copies of recordings will be returned to you with appropriate NABat materials ready to upload to NABat. *We can bring our favorite gear or use yours.*

**Let your staff shadow us on your project:** Learn from us so you don't have to hire us next year! Send staff out with us as we micro-site your survey, collect the data, and post-process the results. This requires up to a four hour commitment per day for four consecutive days. Activities may be conducted after hours and /or on weekends. *Limited availability between 1 June and 30 July.*

*Cost per-person per 4-day shadow process = \$1,995*

**Learn from us at one of our Southern Arizona GRTS locations - Beginning June 2021:** Travel to Elgin, Portal, or Tucson Arizona and join us as we conduct stationary point monitoring and mobile transects at a priority NABat GRTS cell. Students will receive hands-on instruction covering all aspects of NABat acoustic survey methods from site selection to post-processing, analysis, and manual vetting for both stationary point and mobile transect surveys.

*Cost per-person per 5-day in-field training = \$1,995*

*Or, join us for just the days and for topics you need = at \$500 per day, per-person (lodging and M&IE not included; see attached 2021 training schedule)*

### PRICING AND TURN-AROUND TIME

SURVEY TYPE PER GRTS	MANUAL VETTING ONLY	DATA POST PROCESSING	FULL SERVICE MONITORING
<b>MOBILE TRANSECT</b>	\$150	\$250	\$500 w/stationary point or \$1,000 w/o point survey*
EACH ADDITIONAL NIGHT	\$75	\$125	\$250
<b>STATIONARY POINT</b>	\$500	\$1,250	\$2,000 w/mobile transect or \$2,500 w/o transect*
EACH ADDITIONAL POINT	\$75	\$100	\$200
EACH ADDITIONAL NITE	\$50	\$75	\$150
<b>TURN-AROUND TIME</b>	3-5 BUSINESS DAYS	5-10 BUSINESS DAYS	2-4 WEEKS

*\* plus travel, lodging, M&IE for up to 2 BatSS staff at current GSA rates*

SMALL PRINT: Manual Vetting of Stationary Point Data includes up to 4-nights at 4-sites in a single GRTS cell and confirms true-positive and rejects false-positive auto-classifications for computer-generated ID results. It does not address false-negative or true-negatives. Manual Vetting can be done on 100% of Stationary Point data at an additional charge. Manual vetting of Mobile Transect Data includes up to 2-nights of a single route with a single detector and provides species or species-guild ID confirmations on 100% of the collection. Manual Vetting and Data Post Processing contracts are accepted year-round, but fulfillment may be delayed during the summer field season. Full Service Monitoring contracts will be conducted between 1 June and 30 July annually. Jobs will not be accepted if we do not have sufficient staffing and/or equipment to ensure suitable turn-around times. "Shadow" opportunities can be conducted any time of the year, outside NABat monitoring windows, and be used as training to prepare for work during the monitoring season on your own. "Learn from Us" opportunities include supplemental electronic resources and future consultation from our staff at no additional charge.

*Have Questions? Need More Information? contact:*

**Janet Debelak Tyburec**

**Bat Survey Solutions, LLC**

Post Office Box 86493

Tucson, AZ 85745

Cell/Text: 520.404.7406

[jtyburec@batsurveysolutions.com](mailto:jtyburec@batsurveysolutions.com)

[www.batsurveysolutions.com](http://www.batsurveysolutions.com)