



March 11, 2013

U.S. Fish and Wildlife Service  
620 South Walker Street  
Bloomington, IN 47403-2121

Submitted via electronic mail to [Indiana\\_bat@fws.gov](mailto:Indiana_bat@fws.gov)

**RE: COMMENTS ON THE DRAFT REVISED RANGEWIDE INDIANA BAT SUMMER SURVEY GUIDELINES, JANUARY 2013**

To Whom It May Concern:

Golder Associates Inc. (Golder) has reviewed and provides comments herein on the Draft Revised Rangewide Indiana Bat Summer Survey Guidelines, dated January 2013 ("The Guidelines"). Golder understands the need for: 1) doing what is best for the Indiana bat (Myso); 2) implementing and practicing safe handling procedures as outlined in the White-nose Syndrome Decontamination Protocol, as issued by the U.S. Fish and Wildlife Service (USFWS) to prevent the spread of the fungus; and 3) continuing data sharing to help the regulatory, scientific, and industrial communities to better understand Myso and its behaviors to prevent further decline of the species or essential habitat. By developing better guidance, biologists will be able to provide better results in presence/probable absence surveys.

## Comments

### *Phase 1: Summer Habitat Assessments*

- Summer Habitat Assessments – The definition of suitable summer habitat is very broad. The definition includes roost, forage and travel areas, as well as surrounding non-forested habitats (e.g. agriculture fields, emergent wetlands, old fields, pasture) within 1,000 feet from the project site boundary. In almost every potential site scenario, the provided definition does not eliminate many possibilities. Therefore, the Phase 1 process in almost every case would automatically trigger the Phase 2 Acoustical Survey. Golder recommends either being more specific with the definition of suitable summer habitat or eliminating the Phase 1 process altogether and automatically go straight to Phase 2.
- If the USFWS does decide to move forward with the summer habitat assessment, no formal training is required for biologists tasked with determining suitable summer habitat. The USFWS should consider designing and implementing a training program that would ensure biologists conducting the habitat assessments are consistent and standardized in their data collection. Demonstrating experience from one biologist to another is challenging by reviewing resumes, but participating in training and completion certificates can validate one's experience level.
- The Guidelines indicate that field surveys would be required to assess and define the habitat. Golder recommends that with such a broad definition of habitat, this exercise can be done from suitable and recent habitat imagery and then validated during later field surveys, if required.
- The Guidelines indicate that the habitat assessment be submitted to the USFWS FO(s) for review and approval. Since many projects are on accelerated schedules, can the USFWS provide any service guarantee on responding to this or any subsequent report? Further, the habitat assessment functions only as a planning tool for the next stage of the process; it does not confirm presence. Therefore, Golder recommends that reporting at this stage be a suggestion so that USFWS can help with planning if necessary, but not a requirement.

Golder Associates Inc.  
3730 Chamblee Tucker Road  
Atlanta, GA 30341 USA

Tel: (770) 496-1893 Fax: (770) 934-9476 [www.golder.com](http://www.golder.com)



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## Phase 2 – Acoustic Surveys

- Available acoustic equipment provides great supportive data for a multiple phase approach to answer the question of presence/probable absence. In addition, acoustic surveys provide a non-invasive technique that does not stress or harm bats.
- The requirement to submit positive Myso calls within 48 hours to the USFWS FO would not be feasible, nor is it warranted. The process of collecting acoustic data does not cause any impact to the bats. Therefore, the data within the acoustic survey report should be analyzed with all the data collected from that field program, then included into a report as described and submitted to the USFWS FO. Typically, for projects that do not intend to conduct both the acoustic and capture programs concurrently, the analysis is done during the fall and winter when biologists are available. Golder recommends allowing the acoustic survey field activities and report to be completed before reporting to the USFWS.
- Projects such as wind generation facilities may require acoustic bat surveys for a much greater time period than what is required for Myso identification in The Guidelines. If such a study is underway, what nights should the consultant use for the Myso acoustic assessment? If Myso are observed on nights that are not selected, how is that taken into consideration?
- If the project is terminated after the acoustic program has been completed, Golder recommends that there be no requirement to submit the results of the acoustic program. These results do not qualify as positive presence of Myso, and therefore should not be used to impose any requirements on other local projects.

Considering the known overlap in the calls of Myso and the little brown bat (Mylo), Golder predicts many false positives will be collected, analyzed and necessary to notify USFWS FO. The consequence is both financial and timeline for proponents. There is also a consequence to the bats themselves. Engaging in a netting program (and potentially radio-tracking) can impose a significant stress on the individuals of any species. If one or a few false positive identifications of Myso are found during the acoustic program, an intensive netting program would be required. Even if Myso are not found in the nets, a physical stress would be applied to all other species in the process, some of which are already stressed by the effects of WNS. Golder suggests investigation into a “probability of detection” rate. As such, a certain level of false positives would be acceptable before there is a requirement to initiate capture studies, without considering the false positives as an indication of Myso presence.

## Phase 3 - Mist-Netting Surveys

- Mist-netting surveys provide conclusive results for knowing the presence of Myso. However, mist-netting still does not answer the question of absence. A false positive call in the Phase 2 acoustic survey at one project site could trigger many project sites in an area, County or region to mist-net. The additional netting may cause stress in non-Myso bat populations, especially in WNS areas, and may not be necessary.
- The guidelines state that “If Indiana bats are not captured during mist netting, coordinate with the local USFWS FO to determine which type of Indiana bat population (i.e., maternity colony or males) is likely to use the project site”. Doesn’t non-capture indicate probable absence? Golder requests clarification on this criteria, or what would constitute a determination of “probable absence”.
- The handling of bats should be minimized as stated in the proposed mist-netting protocols. Retrieving a bat from a mist-net, data collection, keying the bat, obtaining photographs, and attaching radio transmitter within a maximum 45 minute holding timeframe seems reasonable. However, during survey nights with the capture of large numbers of bats, this timeframe may prove to be difficult. The sample data sheet for mist-netting includes a capture time, but not a release time.
- It is recommended in the protocol that if a Myso is captured, the USFWS FO must be contacted within 48hrs of the capture. Netting programs are likely to be conducted over several days or weeks. It would be more reasonable if the notification to the USFWS FO is within 1 week of the completion of the netting and tracking program within that year. This will allow the surveyor to compile all of the

information, including the details of each of the individuals and where and when they were found and tracked to rather than piecemeal reports as the study unfolds.

- The Guidelines state that banding bats is not required, but suggested. Golder recommends that more guidance be provided by USFWS on banding bats of all species including Myso. USFWS or some central repository should be initiated as a source to purchase bands with a consistent style and numbering. This repository should also act as a data management resource for the band recoveries. Past banding efforts have failed primarily because there were too many independent managers of the bands.
- Obtaining a USFWS Recovery Permit as a Qualified Biologist (QB) is the responsibility of the state. However, this species is under federal protection and federal assessment guidelines. Therefore, Golder recommends that the permit be maintained at the federal level so that a QB can work anywhere in the country. This is most important when radio-tracking individual bats. A bat may be captured in one state where the QB holds a permit, then tracked to another state where the biologist does not hold a permit. Although the bat is not likely to be handled again in the adjacent state, the permit should allow for the QB to work with Myso in that state as well.
- Further to the above point, The Guidelines should provide the explicit criteria for biologists to become qualified and hold a permit.
- The Guidelines indicate that the QB must be within 10 minutes walking distance between nets. Golder suggests that the QB may be able to oversee multiple net stations that are operated by other bat biologists (BB) trained and proficient in bat handling and use of all equipment and in constant contact with the QB. In the event that any myotis is captured, the QB must be able to get to that capture site within the 45 minute holding period (as opposed to 10 minute), by whatever transport means possible (walking, driving, etc.) to confirm the identification and measurements made by the BB. BB's must still be able to check net setups within the 10-15 minute check period.
- A "net night" is not well defined in The Guidelines. The capture rate of a single 6 m net is not the same as four 12 m (or larger) stacked high. Other capture techniques should be considered also, such as harp traps. Golder recommends that a better definition be provided, which incorporates net area and height from ground. Acoustic attractants are used effectively in other regions such as Europe. Does the USFWS permit the use of attractants for this survey protocol?
- Golder requests clarification on why the duration of net placement has been increased to 6 hours from the previously required 5 hours. Golder also suggests that sunset may not be the most appropriate start time and should be better defined.

#### ***Phase 4 – Radio Tracking and Emergence Surveys***

- Telemetry system components (antenna type – yagi, hand held, mast mounted, etc.) and system settings (scan time, data summarizing features, receiver gain/antenna gain etc.) are extremely important factors underlying the performance of any telemetry system. The Guidelines do not specify the need to record this type of information during radio telemetry studies. The format of reporting it should be consistent between studies and study years.
- The USFWS should have a central repository for radio tag ID (can be the same as for bands). It is possible that the same frequency of tag or tag codes could arise from the same or different manufacturers. Without upper level controls there is no mechanism in place to determine/ confirm that each bat tagged in an area or state is unique. Obviously this would apply more to areas where many studies are occurring and there is potential for range overlap. This could be done to the level that certain frequencies and codes are assigned to geographic areas to avoid this issue.
- A geographic limit should be applied where biologists search for radio-tagged bats each day. Although bats typically stay within a relatively small area during the maternity roost season, they can travel great distances when they are so inclined (often during migration).

### Emergence Surveys

- A QB should not be required to conduct emergence surveys. Identification of any bat to the species level from flying individuals is typically not possible. Therefore, any individual that can differentiate a flying bat from any other flying object should be able to conduct the emergence survey.
- In step 3a of “Emergence Surveys for Potential Indiana Bat Roosts”, it is indicated that if a bat is not observed “emerging” from the roost in the evening it can be felled the next day. This does not ascertain that there are no bats still in the tree that did not leave that night, or that they did not begin to use the roost the following morning.

### Acoustic Bat Identification Software Testing Criteria

- Two acoustic bat identification software packages (EchoClass and BCID) have already been listed on the USFWS website, yet these have not passed the defined criteria. Golder requests clarification why these have been inappropriately promoted.
- Criteria 4 indicates that certain files must be “removed”. Golder suggests that this word be changed to “distinguished from” so that files containing bat passes that can only be identified to the group level or just as a bat are included in the analysis if they are needed for other types of studies.

### **Closing**

The overall goal of the guidance should be to benefit the Indiana bat without compromising the health of other bat species or imposing insurmountable requirements on proponents. In general, the habitat model does not function well for species management when the habitat of the species is not well understood, nor is it a limiting factor in a post-WNS scenario. Use of acoustic monitoring equipment is an excellent approach for “hands off” assessment of bat usage, but it should not be relied on entirely without strict understanding of the inherent limitations of the current science and technology. Mist-netting is a labor-intensive and intrusive process. One goal of The Guidelines should be to reduce netting effort where appropriate. Golder appreciates the opportunity to assist in the development of the guidance document.

#### **GOLDER ASSOCIATES INC.**



Christopher C. Brookshire, PWS  
Senior Project Ecologist



William M. Griffin  
Senior Ecologist

cc: Derek Morningstar, Golder Associates Ltd.

CCB/WMG/sdp