

Janet Tyburec Consulting, LLC

1832 North Whispering Bells Drive
Tucson, Arizona 85745

CELL 520.404.7406

EMAIL jtyburec@mac.com



March 9, 2013

TO: U.S. Fish and Wildlife Service, Midwest Region (Service)

RE: Comments on: Draft Revised Range-wide Indiana Bat Summer Survey Guidelines - January 2013

I reviewed with continued interest the “Draft Revised Range-wide Indiana Bat Summer Survey Guidelines - January 2013” and its accompanying documents. I have also participated in a “collective response” as part of a consortium facilitated by Dr. Virgil Brack, Jr. (ESI, Inc./Cincinnati, OH). The efforts of our consortium faithfully represent the bulk of my comments. Yet, with this individual, independent submission I am taking the opportunity to expand upon, and give further rationale and references for the positions I support. I offer these comments by drawing upon my professional experiences and studies as they apply to the inventory and monitoring of bats, specifically *Myotis sodalis*, and particularly thru the use of acoustic technology to survey for bats.

At the suggestion made during the USF&WS presentation in Tennessee at the Southeast Bat Diversity Network, 14-15 February 2013, the bulk of my focused comments refer to the Draft 2013 Field Season Contingency Plan for Conducting Indiana Bat Summer Surveys - January 2013 (Contingency Plan). It was mentioned that the Service’s ability to prepare an official “guideline document” in advance of the 2013 field season was unlikely, therefore comments to the Contingency Plan would be most relevant and useful to move the effort forward.

My overarching concerns with the new revised draft materials, especially as they apply to the Contingency Plan are the following:

- The Service continues to insist that acoustic detection of *Myotis sodalis* is both more efficient and more effective than mist-netting to determine presence of the species, **despite compelling evidence to the contrary** offered up during the 2012 review period.
- The Service continues to insist that acoustic recordings of *Myotis sodalis* are acoustically distinct enough to be un-ambiguously classified with a high degree of confidence, **despite compelling evidence to the contrary** which was also offered up during the 2012 review period, and which has emerged as a result of testing the current variety of acoustic classifiers available.
- The Service **continues to ignore** copious citations promoting the **advantages of using acoustics and mist-netting in tandem** for surveying bat communities in favor of a single study (done prior to the outbreak of WNS) that differs from the bulk of the available science on this issue, and whose main conclusion is misrepresented in Service citations.
- Moreover, the Service **completely misinterprets the purpose** of using acoustics and mist-nets in tandem for performing surveys. Though a multi-tool protocol *does* assist with



documenting the entire species complex of an area, this is only because some bat species are more easily detected, and more easily identified acoustically than they are captured in mist nets; while other species are more easily captured in mist nets (or harp traps) while being more difficult to detect and/or identify acoustically. But **for the majority of bat species, including *Myotis sodalis***, that are neither especially easy nor difficult to capture physically, and that may or may not produce echolocation calls which are distinctive and/or easy to record, efforts **that combine** survey techniques will **increase** the chances that on any given outing, one or the other survey technique will return a positive occupancy result for these “middle of the road” species, like *Myotis sodalis*.

- The Service cites the Fort Drum study (in the heart of a post-WNS habitat) as evidence of the decline in “detection probability” for *Myotis sodalis* using mist-nets, while disregarding that **the detection probability for *Myotis sodalis* using bat-detectors will be equally affected by the paucity of *Myotis* on the post-WNS landscape** throughout the northeast. This has been documented both during the acoustic portion of the Fort Drum study, and by additional region-wide acoustic monitoring efforts as WNS has spread. Replacing mist-netting with acoustics will not increase detection probabilities in these areas.
- The Service continues to cite a **paucity of references**, in support of the use of acoustic technology for performing bat inventories to document *Myotis sodalis*, and continues to rely upon **a preponderance of dated journal articles**, citing research that is more than a decade old, instead of applying current scientific findings from the most recent studies, and incorporating leading-edge technology in this rapidly evolving survey method.

For these reasons I urge the Service to make revisions to the Contingency Plan for 2013 that **combine the use of acoustics with physical capture techniques**, and to reflect this change throughout the associated documents. This will ensure that a truly comprehensive, effective, and efficient set of guidelines for Indiana bat summer surveys can be developed for future seasons.

To assist with this process, I have attached detailed comments on the Contingency Plan, in addition to including constructive comments on **all** of the documents released in January 2013. These have been collated into a spreadsheet similar to that which was suggested for use during the review period. I have submitted an electronic copy of my spreadsheet with this cover letter. The main page of the spreadsheet organizes my comments by document and page, as requested. I have also provided additional sheets that reference the documents I commented upon, that include a key to the abbreviations used throughout my comments, that provides a comprehensive list of references supporting my rationale for comments, and a sheet that includes my complete contact information.

I appreciate the opportunity to participate in this comment process and anticipate that the resulting documents will eventually incorporate the best science for the survey of Indiana myotis and for the management and recovery of the species.

Sincerely,

Janet Tyburec

enclosure: ProtocolComments_JTyburec2013.xlsx