Indiana Bat, FW3 <indiana_bat@fws.gov>

comments on Summer Survey Guidelines

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See attached.

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Document Name	Page #	Comment
Draft Revised Rangewide Indiana Bat Summer Survey Guidelines January 2013	1,3,14	These Summer Survey guidelines appear to conflict with the existing Rangewide Indiana Bat Protection and Enhancement Guidelines. Recently the I-bat Workgroup was charged with review of some proposed changes to the Rangewide Guidelines. Some of the proposed changes, which were not recommended by the I-bat Workgroup, have been adopted in requirements of Summer Surveys proposed by the USFWS. For example,(1) trees 5”dbh are considered suitable as bat habitat, but in the new survey guidelines trees 3” dbh are considered suitable habitat. Indiana bat habitat is generally defined as roosting habitat that has forest patches that contain trees >5" dbh (pg. 3 footnote). Why are areas that have live trees and snags as small as 3" dbh being considered when choosing sampling habitat? Sampling in areas that have trees that are 3-4" dbh seem unnecessary since Indiana bat habitat is defined as forest patches containing trees >5". (2) Reducing the acreage that requires Surveys to 30 acres, under old survey methods acreage requiring surveys was 40 acres Page 14. (3)The survey guidelines reduce the number of years that negative Survey results are valid from 5 years to 2 years, which conflicts with Rangewide Guidelines. Page 1
	14	It is difficult to understand why acoustic surveys will be required for the 2013 summer survey season. According to the DRAFT Guidelines under the ANALYSIS OF RECORDED ECHOLOCATION CALLS it states that a list of approved programs will be available on the USFWS web site. The USFWS web site at this time states that NO software program is currently approved for Indiana bat survey use. The program titled for use under the ECHO CLASS ACOUSTIC ID PROGRAM (Version 1.1) cautions us that this program is in the testing and development phase and should not be used in any official capacity.

	13,14	The level of survey effort within the summer survey guidelines seems quite extensive. The acoustic detectors must be deployed for the entire night for a minimum of six nights. Several factors come to mind when considering surveys all night for six nights. Do they have to be six consecutive nights? Theft or damaged equipment and weather can be complicating factors in survey efforts. Weather in the state of WV can vary depending on your location during the summer time. If weather becomes a factor sometime in the middle of the night, what level of survey effort is required for a night to count as complete.
	18,19 ,20	Significant changes include the amount of sites that have to be surveyed after a positive acoustical detection and the amount of time that surveying equipment needs to be deployed. One positive acoustic detection equals 10 sites, which on a small piece of land, is a lot of effort for small (e.g. 30-40 acre) projects. The actual protocol does state to do those 10 sites within a one mile buffer circle.
	14 & FAQ 33 p. 11,12	The USFWS states that only acoustic identification software with 90% accuracy will be acceptable. If no software are developed that can achieve this standard, a Contingency Plan will be followed. A brief review of the Contingency Plan indicates it is identical to the Summer Survey Guidelines. This is very confusing and needs to be clarified.
Draft Revised Rangewide Indiana Bat Summer Survey Guidelines January 2013 and Frequently Asked Questions	5 and pages 14,15 question 40	It seems unscientific to assume a maternity colony is present anytime an Indiana bat is detected acoustically, without the collection of morphometric data, all which should be critical to determine whether or not a maternity colony is present. Under these guidelines acoustic detection leads to the assumption of presence, unless through mist-netting the actual maternity colony is discovered. After a positive acoustic detection and mist netting efforts that produce no capture, the USFWS will draw a 5 mile radius around the detection point and assume a maternity colony is present at the center of the property. It is poor science to assume multiple maternity colonies based on a distance formula and multiple acoustic detections. This philosophy will lead to multiple maternity colony sites or locations based only on acoustic detection with no substantial data to back them up.

General Comments to Survey Guidelines	all	The 1996 B.O. repeatedly states species-specific protective measures are to be developed by the USFWS field offices and the regulatory authorities. We consider the survey methodology specific to a certain species, and as such it is a species specific protective measure. A change to the Summer Survey methodology with no involvement of the OSM, and State Regulatory Authorities, we feel, is in conflict with the 1996 B.O. "The regulatory authority, acting in accordance with the applicable SMCRA regulatory program, must implement and require compliance with any species-specific protective measures developed by the USFWS field office and the regulatory authority (with the involvement, as appropriate, of the permittee and OSM." (1996 Biological Opinion and Conference Report)
	all	The newly arranged four step process in determining the presence/absence of the Indiana bat includes a Phase 1 Summer Habitat Assessment, Phase 2 Acoustic Surveys, Phase 3 Mist Net Surveys, and Phase 4 Radio-tracking and Emergence Survey. The Phase 2 Acoustic Surveys is surely going to be the most scrutinized element within this summer surveying process. After an extensive review of literature and comments from bat professionals, it is obvious that this Summer Survey Guideline is not well received. Allowing acoustic monitoring detection alone to determine presence of a bat species is repeatedly discouraged within the literature and in the comments. Using acoustic monitoring detection to differentiate between *Myotis* species is repeatedly warned against. The Acoustic monitoring process the USFWS is trying to enact employs the use of technology that hasn't been effective, to date, to identify the presence/absence of a federally endangered species. We also feel very strongly that the Phase 2 Acoustic Survey section should be reconsidered until the USFWS is confident that an approved call library to evaluate and identify recorded calls with 100% confidence is available.

	all	The main reason for survey efforts is to determine the presence/absence of the federally endangered Indiana bat. The Indiana bat is from the genus *Myotis;* this genus has been documented to produce higher rates of misclassification due to the similarity of the echolocation calls between the Indiana bat and other members of *Myotis* (Britzke et al. 2002, Britzke et al. 2011). According to Corben et al. (2012), the detection of bats varies greatly depending on the species and conditions at the time of sampling. Many bats change their amplitudes as they approach targets or clutter, which can be a hindrance in identification. "Whispering bats" such as *Corynorhinus townsendii virginianus* (federally endangered) always produce low amplitude calls which are hard to detect and within clutter can easily be misidentified as a *Myotis* bat. Typically, Corben et al. (2012) explains, the detection distances can vary greatly. Some species are even hard to detect at a distance of 1m, while others can be detected as far as 100 m away. Also, it has been noted that acoustic monitoring was never intended to be the sole determining factor of presence/absence of the Indiana bat, but as a guide to help with the placement of mist nets or extend mist netting efforts to try and increase catch rates (USFWS & KDFWR 2007).
	all	Mist netting is a very important process in bat surveying. Mist netting allows for **positive** identification, collection of morphometric data, and determination of the overall health of the population. The occurance of White Nose Syndrome (WNS) actually supports mist netting; without netting, population health assessments would be difficult and potentially inaccurate. Also, if the USFWS is afraid of spreading WNS, they need to examine caves and mine portals. According to Lorch et al. (2011) WNS is only spread while bats are in hibernation and it cannot grow above 20°C. With the new survey guidelines requesting acoustic surveys we are afraid that the acoustical detection process will eventually phase out the mist netting portion of surveying and this is valuable data that could be lost.
	all	These Summer Survey Guidelines create a tremendous workload for the field offices. For example, the field office in the State of West Virginia is already understaffed and having workload issues. The review of draft study plans and reports for the phase 2, phase 3 and phase 4 surveys will only increase the workload.