



Indiana Bat, FW3 <indiana_bat@fws.gov>

USDA Forest Service comments on draft summer survey guidelines

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Andy/Mike/Robyn: Rather than have you inundated with similar comments from the Forest Service, I have compiled our comments. There are two documents for your consideration. One is a summary of our major concerns, the other the spreadsheet you requested with page and paragraph identified.

Obviously, not having the acoustic software is a major concern. That said, when we do have it, we think the protocol you came up with is appropriate for projects that result in the permanent loss of habitat. We do not believe it is appropriate for projects designed to improve habitat.

If you have any questions, please contact me. I would love to send you to Becky Ewing, but by now you probably know she is taking a new position in MO in a few weeks.

Thanks for your consideration, Dennis

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2 attachments



USDA Forest Service Summary of Concerns 031113.docx

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Public Comment Spreadsheet.xlsx

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USDA Forest Service Summary of Concerns: Draft Revised Rangewide Indiana Bat Summer Survey Guidelines

The USDA Forest Service (Forest Service) appreciates the opportunity to comment on the USDI Fish and Wildlife Service (Service) January 2013, Draft Revised Rangewide Indiana Bat Summer Survey Guidelines (guidelines or protocol). The Forest Service supports the implementation of the guidelines for projects on public or private lands that result in a permanent loss of habitat. We do however have serious concerns with the implementation of the guidelines for projects at a landscape scale which do not result in a permanent loss of habitat. This includes most projects on national forests within the range of the Indiana bat, including projects specifically designed to improve habitat conditions for Indiana bat recovery. We believe implementation of national forest management plans within the range of the Indiana bat will be virtually impossible with the protocol as currently written. Our concerns are detailed below, first with the guidelines in general and then specifically regarding national forests.

The guidelines were developed using the worst-case scenario for detection probability based on areas already decimated by white-nose syndrome (WNS) and do not acknowledge any difference between projects that result in a permanent loss of habitat for Indiana bats and those designed to improve habitat conditions for Indiana bat recovery. There are difference in detection probabilities between areas decimated by WNS and those not affected. There are also difference in the likelihood of harm between projects resulting in permanent loss of habitat and those designed to improve habitat conditions including protecting snags and suitable roost trees. We appreciate the Service's desire to be consistent, but these are situations where inconsistency in survey intensity may be biologically warranted. Different survey protocols could be implemented based on the answers to two questions. Has the area been significantly affected (more than 50% mortality in local hibernating bat populations) by WNS and does the project result in a permanent loss of bat habitat?

The guidelines were developed with the assumption an acoustic software program would be available to reliably identify Indiana bat echolocation calls and clearly separate them from other bat echolocation calls. The best available science clearly indicates differentiating bat species acoustically with any reliability and repeatability is not possible with our current state of knowledge and technology. Reliable acoustic software does not exist and Service biologists readily admit this. Because reliable acoustic software does not exist, the Service has delayed implementation of the guidelines for the summer of 2013.

The Service has developed a contingency plan for the summer of 2013, which we believe is arbitrary and capricious, and not based on the best available science. In this plan, the Service states that any bat recorded with an echolocation call frequency above 35 kilohertz should be assumed to be an Indiana bat. There are ten species of bats within the range of the Indiana bat that have echolocation call frequencies above 35 kilohertz. This could lead to a significant number of false positive detections of Indiana bats. The Service then directs biologists to run recorded echolocation calls through an acoustic software program which they have admitted does not produce reliable results to try and differentiate Indiana bats from other bats. Lastly, the Service directs biologists to simply look at the call structure and make a determination if the call was made by an Indiana bat or not. There is nothing reliable or repeatable with this process. We

recommend the existing mist-netting protocols be implemented until a reliable acoustic software package is developed and available.

When assessing the acceptance of acoustic monitoring data, the guidelines state, “*Thus, at least 10 bat calls (i.e., greater than or equal to 3 high-quality pulses in a call) must be recorded AND a minimum of 40% of all recorded bat calls must be identified to the species level for each detector on each survey night for the site to be deemed suitable. Nights of sampling at individual sites that do not meet these minimum requirements will need to be re-sampled unless adequate justification can be provided to the USFWS FO(s).*” This statement basically states the Service believes bats should be present on every acre surveyed and if bats aren’t detected, the night of sampling must be repeated. There is no acknowledgement that bats may simply not be present. There is also no way to meet the 40% criteria established because the Service approved acoustic software does not exist.

The guidelines state, “*all projects will require (1) a minimum of two acoustic survey sites, (2) the deployment of a minimum of one detector per survey site, and (3) all sampling to be conducted for at least six suitable nights.*” We believe there should be a minimum acreage impacted driving the criteria. Clearing one acre for a cell tower would require 12 detector nights. Clearing 60 acres for development would require 12 detector nights. Project impacts to habitat and potential impact on bats are grossly different and survey intensity should not be the same. We suggest any project impacting 10 acres or less only require one detector site.

The guidelines consist of several phases and at each phase the Service must provide concurrence, including concurrence on the acoustic analysis. We are concerned the Service will not have the funding or expertise to meet the needs created with this protocol.

The following issues are of particular concern to the Forest Service. The guidelines state, “*Unless otherwise agreed to by the USFWS, negative acoustic survey results obtained using this guidance are valid for two years¹ from the completion of the acoustic survey.*” The footnote states, “¹ *The timeframe may be reduced if significant habitat changes have occurred in the area.*” Negative acoustic survey results only being good for two years will make it virtually impossible to manage national forests within the range of the Indiana bat. Forest Service timber sale contracts are for a minimum of 3 years. We can’t shut down sales to resurvey for bats. Also the survey work is needed to be done years before the sale is sold so we know we have a viable sale, and can prepare the sale package. Our prescribed burning program is a similar situation. We often have two or three years of approved burn plans available for implementation because it may take two or more years to have the appropriate parameters to safely burn some sensitive areas near airports, towns, and major highways. With surveys only good for 2 years we may never get past the survey/re-survey stage to project implementation. We recommend negative acoustic survey results be good for a minimum of 5 years.

The guidelines define suitable summer Indiana bat habitat as, “*the variety of forested/wooded habitats where they roost, forage, and travel as well as surrounding non-forested habitats (e.g., agricultural fields, emergent wetlands, old fields, pasture).* This includes forests and woodlots

containing potential roosts (i.e., live trees and/or snags greater than 3 inches dbh² (7.6 centimeter) that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other suitable habitat.” This includes every acre of national forest lands within the range of the Indiana bat. Even regeneration areas meet this standard because we are leaving snags and potential roosts. By definition this means every acre of national forest land in the range of the Indiana bat is subject to survey prior to project implementation.

It is obvious from the guidelines, the survey protocol was developed for the highly fragmented landscapes of the Midwestern United States. The protocol calls for one acoustic detector for every 30 acres of suitable summer Indiana bat habitat, and the detector must be deployed for at least 6 suitable nights of data collection. A satellite image was used to depict a 30 square mile project area which included 41 detector locations, which indicates how little suitable habitat was in the area. A 30 square mile project area on a national forest would require 640 detector locations because every acre would be potentially suitable summer Indiana bat habitat.

To put this in perspective, what follows is an example from the Talladega National Forest. The Talladega NF is home to newest Indiana bat maternity site. They are also an identified red-cockaded woodpecker recovery population. They prescribe burn about 30,000 acres/year and manage 2,000 acres of timber per year. 32,000 acres per year would need to be inventoried, which includes 1,067 detector locations, for 6,402 detector nights. The forest could find funding to buy 10 detectors. We now need 640 nights to get surveys done. It would take us more than 7 years to complete inventory assuming every night was perfect, but negative survey results are only good for two years, so we would never move to implementation. Completing the survey in one year would require 71 acoustic detectors, an outlay of nearly \$200,000 for hardware, perfect weather, and staffing we don't currently employ. This is only one forest. The Forest Service does not have the personnel or budget to implement the guidelines for projects that do not result in a permanent loss of habitat.

The guidelines call for mist-netting if a positive acoustic hit for Indiana bats is detected. The guidelines call for netting 6 hours post sunset. This will put people in the field netting until 3 AM when the reality of netting data indicates capture significantly decreases after 1 AM. By the time people breakdown all gear, pack it out to their truck, etc. it will be 5AM, possibly 6 AM before people are back to base. If set up begins at 6 PM, you are looking at an 11 or 12 hour night and this is becoming a safety issue.

If Indiana bats are captured, they are to be fitted with radio transmitters and tracked to locate roost sites. We do have biologists qualified to mist-net bats, but we have very few permitted for radio telemetry. We do not have the qualified staffing and equipment to implement the radio

² While any tree greater than 3 inches dbh (7.6 centimeters) with exfoliating bark, cracks, crevices, and/or hollows has the potential to be male Indiana bat summer roosting habitat, even-aged stands of 3-inch dbh and smaller trees are not defined as suitable roosting habitat for the purposes of this guidance. Suitable roosting habitat is defined as forest patches with trees of 5-inch dbh (12.7 centimeters) or larger, although trees as small as 3 inches within the forest patch(es) may also be included.

telemetry portion of the guidelines, nor do we have the budget to acquire the staffing and equipment or to contract this work. The Forest Service manages habitat and the respective state wildlife agencies have retained wildlife management responsibilities. If the radio telemetry portion of the guidelines is critical, we suggest the Service provide funding to the states to implement this portion of the protocol.

When addressing hazard trees, the guidelines state, “*Consult with the local USFWS Field Office(s) to determine whether a tree(s) that needs to be felled/ cleared may be potential roosting habitat for Indiana bats and whether conducting an emergence survey is an appropriate means of avoiding take of Indiana bats. In general, the USFWS only approves of conducting emergence surveys as a means of avoiding direct take of bats for projects that only affect a very small number of potential roosts (e.g., less than or equal to 10).*” If emergence counts are conducted on hazard trees and no bats exit a tree it is a non-roost and should be cut. In areas on national forests that have had beetle outbreaks or significant wind damage, there could be 100s of hazard trees that could also be potential roost trees. By limiting removal to only 10 trees, public safety could be compromised. We recommend doing emergence counts on hazard trees and if no bats emerge, the hazard should be removed within 48 hours. If large numbers of hazard trees occur near roads and recreations areas, this is indicative of a landscape level disturbance and potential bat roost trees should be available across the landscape.

The USDA Forest Service and USDI Fish and Wildlife Service are both facing budget cuts that will result in reduced staffing and project funding. Together we need to find a better way to implement the Endangered Species Act (ESA). We currently do not have the staffing or funding to implement the proposed summer survey guidelines as written because of the extensive survey requirements. We could assume Indiana bats are present on every acre of national forest within the range of the bat and formally consult on every project. We do not believe the Service has enough staff to turn around that many biological opinions in a timely manner.

When the Louisiana black bear was listed, silvicultural activities were exempted from section 9 taking under the ESA. We suggest that projects designed to improve Indiana bat habitat, including leaving snags and currently suitable roost trees, be exempted from the survey protocol and the Service agree that a project-level determination of effect of “not likely to adversely affect” is appropriate. That any take would be insignificant or discountable. The Forest Service wants to focus our efforts on our ESA section 7a(1) responsibilities and improve habitat conditions for forest bats.

We also prefer to spend our survey funding on projects that likely have a higher return than project-level mist-netting, which we have been doing for almost 20 years. In that time, we have probably located fewer than 10 new maternity colonies. In 2012, Copperhead Consulting radio tracked female Indiana bats, by plane, from TN to two new maternity colonies, one in AL, the other in GA. The Forest Service provided funding to this project for ground work after the sites were located. In 2013, the Forest Service has provided funding at the beginning of this project for multiple transmitters. We believe this is a better investment of our funds in trying to locate new maternity colonies.

Again, we thank you for the opportunity to comment on the draft survey guidelines.

Compiled and submitted by Dennis L Krusac, Endangered Species Specialist, USDA Forest Service Southern Region, on behalf of the USDA Forest Service.