



Indiana Bat, FW3 <indiana\_bat@fws.gov>

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## Fwd: Fw: comments on revised protocol

1 message

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**King, Andrew** <andrew\_king@fws.gov>  
To: FW3 Indiana Bat <indiana\_bat@fws.gov>

Mon, Feb 25, 2013 at 2:52 PM

**Allen Kurta**  
<[akurta@emich.edu](mailto:akurta@emich.edu)> To: indiana bat <[indiana\\_bat@fws.gov](mailto:indiana_bat@fws.gov)>  
02/07/2013 02:33 PM CC:  
Subject: comments on revised protocol

Hi,

Attached on my comments on the revised summer protocol.

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(See attached file: *SurveyProtocolComments2-A\_Kurta.docx*)

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 **SurveyProtocolComments2-A\_Kurta.docx**  
23K

## Comments on the Revised Summer Protocol

by

Dr. Allen Kurta  
Eastern Michigan University

1. P. 11 Detectors along woodland edges must be “oriented parallel.” Parallel to what? Do you mean the opening of the pvc should point parallel to the edge? If so, then how far away from the trees? You state that detectors must be 5 feet from vegetation, but if the detector is 5 feet from the trees and the opening is pointed parallel to the trees, then the trees are presumably within the “cone of detection.”
2. P. 12. The minimum requirement of 10 calls per detector per night has no biological basis. If you record few bats, you record few bats. You could conceivably force someone to monitor for 100 nights if a site is not heavily used. There is no biological justification for a minimum number of passes, especially in a post-wms world.
3. P. 14. Clarify use of multiple detectors. If you use 4 detectors, for example at one site, do you want each of these 4 no closer than 200 m to another detector?
4. P. 11. “at least 49 feet (15 meters) from water surfaces (Johnson et al 2012).” So you’re saying that we can’t use acoustic detectors at woodland ponds???? It has to be a pond with trees no closer than 50 feet from the edge? If there is a river, there must be no riparian trees??? What is the rationale? Water associated with woods is one of the best places for bat activity but you must explain why trees must be 50 feet from the edge of the water. The reference to Johnson et al. is wrong. There is nothing in there about placing detectors 50 feet from water. That same article is used to support the placement of detectors away from “artificial high-frequency emitters” but there is simply nothing in that report about such things.
5. P. 14. Must report positive acoustic hit within 48 h. Why? Is there a reason for this? It also needs clarification. Are you saying that acoustic recordings must be analyzed piecemeal each day? You can’t analyze your data at the end of the project? What if you can’t analyze the data within 48 h?
6. P. 15. Why must it be tabulated rather than in paragraph form?
7. P. 19. By not specifying the minimum height of nets, you are going to get the minimum effort, which will be single-high nets. Corridors that have the canopy only 7 feet above the ground are not as likely to be used by I bats or as likely by other bats. Also I still have some 3-foot-high nets; would that be suitable? Of course not, but you won’t set a minimum . . .

8. There isn't much justification for expanding to 6 hours of netting per night. The cost in time and money simply is not worth it. That is a dead time of night, and I suggest that the modal number of bats of any species that will be caught in any particular net during that last hour will be zero. WHY? It would make more biological sense to require an additional 5-h night of netting than to insist on 10 net-hours during a time in which nothing will be caught. What data do you have to back up extending the effort to 6 hours?
9. P. 21. "Although no minimum spacing between mist-nets is being specified, surveyors should distribute net set-ups throughout suitable habitat." So, if I place two nets in the V-shaped arrangement or perpendicular to each other, will that count as 2 net-nights?
10. The request for hundreds of photos of little brown bats is excessive. You insist that someone has a permit to do this. To get the permit, you evaluate whether they can identify the animal. Then you say to the permit holder, even though we gave you a permit, we don't trust you.
11. Why must it be a "ventral" view of the keeled calcar? Why is that superior to dorsal? You can get a better photo of the dorsal, since the membrane will wrap around a finger.
12. Why insist on the wing index? What is the purpose? What will you do with the data? The index is subjective and it varies among species and with time of year.
13. Why must thousands of bats be weighed and measured every year, year after year? Why not just let them go more quickly? What is your planned use of the data? If there is no plan, then why subject the animals to more harassment? What value does the forearm length of a big brown bat have to the preservation of I bats?
14. You require that I bats be tracked to their roosts for 7 days, and report when one suspects that the transmitter has fallen off/malfunctioned before the 7 days are up. However, this is the average time that transmitters stay attached. ( $7.4 \pm 0.5$  SE days,  $n=44$ ; see Kurta, A., S. W. Murray, and D. H. Miller. 2002. Roost selection and movements across the summer landscape. Pages 118–129 *in* The Indiana bat: biology and management of an endangered species. Bat Conservation International, Austin, Texas). So you want us to inform the local office EVERY time this common event occurs? It will happen to 50% of the bats! Why? What will it change? Why call "immediately"?
15. Why must tallies be kept every 2 minutes? You will get a better count from someone who doesn't have to take his eyes off the tree at least 45 times during the 90-minute emergence period to look at a tally sheet, let alone check the watch. Why not let someone use a hand counter and continually watch the tree? Are you going to do something with this 2-minute interval data? If there is no plan, then why insist on it? Why does your data sheet only have 29 time intervals (empty boxes) if you require that the data be recorded every 2 minutes? There should be 45. And we have to use that improperly formatted form specifically?

16. The weather parameters for emergence surveys were just copied and pasted in. It is possible for any of those things to happen after every bat has left the roost, but you will insist on the observation being repeated anyway. If 50 bats have left the roost before it starts to rain, why must the night be repeated? If it rains during the 30 minutes before sunset and stops at sunset, then all bats will leave, but this protocol says the observation must be repeated. Why? Also I doubt whether a bat inside its roost can adequately judge wind speed, and it is not going to forgo a drink of water if the wind speed is 4.1 m/sec. Tailor the weather parameters to this activity; don't just cut and paste from netting.
17. For emergency surveys it is perfectly possible to have a bat fly out of a tree and with a bat detector determine that it was a big brown bat and not an Indiana bat. I agree that you can't distinguish the three *Myotis* this way, but you certainly can say whether it was a big brown (or other low-frequency bat), which is the most common bat in my area and therefore the one most likely to jump out of a tree.
18. I appreciate the "frequently asked questions" that were placed on the web site because they at least explained the reasoning behind some aspects of the plan. I don't necessarily agree that this is the way to go, but it is helpful to know why some things were done as stated.
19. I still don't see you addressing the very high probability of false positives from using acoustic techniques. Call libraries consist of perfect calls made under ideal conditions in areas where many bats, including Indiana bats, do not fly typically (open areas). The real world is going to lead to false positives and at a high rate.