

Dear Mr. Gaston,

I am an endangered bat biologist who calls Letcher County, Kentucky home. I have studied Indiana, Northern long-eared (NLEB), and Gray bats for 17 years (Please see my attached resume). These bats and their continual presence are important to my livelihood. Their presence brings a cultural and ecological richness to the area. They are an important component to the ecological health and recovery of Letcher County and I therefore have several economic, environmental, and aesthetic interests in the recovery and presence of these endangered bat species at the project site, action area, and Letcher County as a whole. As a conservationist, a local resident, and a member of the Letcher Governance Project, I have quite a few concerns about the proposed federal prison to be located in Roxana Kentucky and how it will impact these species. I have listed out my concerns below.

1. Other USFWS field offices have called into question the scientific validity of the Imperiled Bat Conservation Fund (IBCF) and entities that are required to have federal permitting for their projects will no longer be able to use this option (<http://www.smithmanage.com/usfws-kentucky-office-mitigation-policy-change/>). This in and of itself is justification to agree that even if the mitigation for this project was carried out correctly, it would still be flawed. Yet, the mitigation for this project is woefully undervalued.
2. Copperhead (2016) concluded that 251 acres of habitat exist within the project area and the BOP claims that it will only disturb 120.6 acres of habitat within the project area. Both of these estimates fail to include the grassland/wetland/shrub-scrub habitat that is going to be disturbed. In both the BA and the BO this type of habitat is dismissed as unimportant and not used by the endangered bat species assessed in these documents. However, Indiana bat habitat can consist of grassland/wetland/shrub-scrub habitat. Brack (1983) has observed Indiana bats foraging over old fields and pastures and observed that most foraging occurred along habitat edges (Menzel et. al. 2001). Most Myotis bats are opportunistic foragers, as they have been observed foraging in open fields, and forage along habitat edges (Belwood and Fenton 1976; Fenton and Morris 1976; Whitaker 1995; Menzel 2001). The non-forested area of the project area must be considered habitat, and properly assessed in order to fully understand the impact that this project will have on endangered species.
3. The Facility's Perimeter and Security Fence: Neither the BA or the BO adequately address the impact that the perimeter and security fence will have on the endangered bat species found in the area where the BOP wants to build a new prison. This fence, however, will have a negative impact on the bats in the following ways:
 - a. The overall tree removal currently projected by the BOP does not account for trees that will be removed from the project area for the fence. A fence that consists of 3 parallel fences and is adorned with razor wire will need a lot of trees cleared in order to be installed and to be effective.
 - b. The BA states that the fence will be 3.6 meters high with razor wire and this is within the foraging height of Indiana and NLEB's (Humphrey et al. 1977; USFW 2015). These bat species could be drawn to the corridor created by the fence to

use it as a flyway and foraging area. This could prove fatal due to the razor wire. Especially for the NLEB since it has been documented using cluttered habitat and often gleans its prey from the limbs of trees and bushes (USFWS 2015). NLEB's could easily mistake the razor wire for cluttered limbs and this has the potential for high rates of casualties.

4. Critical habitat is defined in ESA section 3(5)(A)] as: "(1) the specific areas within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of the Act, on which are found those physical or biological features (constituent elements) (a) essential to the conservation of the species and (b) which may require special management considerations or protection; and (2) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination by the Secretary that such areas are essential for the conservation of the species." Based on this definition the project area must be considered critical habitat. Not only is it critical summer habitat, but it is considered swarming habitat for a priority 1 hibernaculum. This is the highest valued winter habitat for Indiana bats. What this all means is that the project area provides critical habitat for Indiana and NLEB's for 3 out of the 4 seasons. This is extremely rare when considering forested roosting potential. And of the 3 bat species of concern, only 1, the Indiana bat, even has critical habitat designated! At a time when White Nose Syndrome (WNS) is ravaging bat populations, especially NLEB's, and wind farms are causing high numbers of bat fatalities, everything must be done within our power to protect these species from any more harm. It is only prudent as stewards of biological diversity to protect such critical habitat in order to give the species a chance at survival.
5. The action area of the project is 10,484 acres. Yet not all of this was surveyed for potential winter habitat. Due to the remoteness of east Kentucky, new caves and entrances are still being discovered. And with the knowledge that a priority 1 hibernacula exists just 7.2 miles away, we have to assume that there is a possibility of other undiscovered hibernacula within the action area. While desktop analysis of the entire action area is essential, it cannot be used to replace physical on-the-ground surveys for winter habitat. For example, potential winter habitat for the Indiana and Gray Bat was found by Copperhead during the actual survey of the site in Roxana. This habitat consists of a rock shelter in a rock outcrop. This potential winter habitat was not identifiable through desktop analysis. Similarly, I recently found a fissure on a property (See Abolitionist Law Center's comments on the DSEIS within the "action area" that the Kentucky Field Office with US Fish and Wildlife concluded could be potential winter habitat for endangered bat species. This site was not visible through desktop analysis. Consequently, the determination of bat population and possible winter habitat in the action area is based on incomplete data. An actual survey of the entire "action area" and not just the footprint of the proposed project is needed to accurately determine how a new prison will impact endangered bat species of the area. Furthermore, the "action area" as described in the BA and BO clearly overlaps with the Lilly Cornett Woods. This region of old-growth and undeveloped forest presents a unique habitat for endangered bat species that is not found in many other locations within these bat's range. Therefore,

without actual physical surveys for winter and summer habits throughout the actual “action area” the BA and BO will be an incomplete analysis of the direct and indirect impacts this project will have on endangered bat species. Couple this with the fact that the biologists weren’t even able to survey the entire project area due to access issues, and it is unconscionable to move forward with this project without a much more thorough investigation into the potential winter habitat for all three species.

6. Lighting: Despite the BOP’s claim that all lights will have a top on them that keeps light from going skyward, it’s obvious that the proposed prison will be well lit throughout the project area. Indiana bats use streams and rivers during migration (Copperhead unpublished data; (This comes straight from the BA as well)) and Copperhead (unpublished data (also contained in the BA)) observed that Indiana bats also avoid heavily lit areas while migrating. With the presence of a priority 1 hibernacula so close to the project area, the well lit proposed prison will have a deleterious effect on migrating Indiana bats that use the North Fork of the Kentucky river as a travel corridor.
7. Tree clearing is not to take place during June and July in an effort to protect the newly born bat pups and their mothers. But again, this just isn’t enough protection for species that are at such a high risk for extinction. Both Indiana and NLEB pregnant females roost in trees in April and May. Disturbing them during this crucial gestation period with tree clearing, eliminating their roosting habitat, would have obvious negative effects to the species.

All of these issues add up to mean that the current mitigation effort meant to offset the impact of the proposed prison is terribly insufficient. The only action that truly protects these three imperiled bat species is the “No Action Alternative”.

Thank you for your time and consideration,
Jonathan Hootman

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