

Northern Long-eared Bat & Indiana Bat

Effects Determination Guidance for Endangered & Threatened Species (EDGES)

Banks, Bartow, Carroll, Catoosa, Chattooga, Cherokee, Cobb, Dade, Dawson, Douglas, Fannin, Floyd, Forsyth, Gilmer, Gordon, Habersham, Hall, Haralson, Murray, Lumpkin, Paulding, Pickens, Polk, Rabun, Stephens, Towns, Union, Walker, White, Whitfield Counties

Species Covered by This EDGES:

- **Endangered:** Indiana bat
- **Threatened:** Northern long-eared bat

The Indiana bat (*Myotis sodalis*) is federally listed as endangered (USFWS 1967). Its historic range includes much of the Midwest, Northeast, and Mid-Atlantic regions in the United States and parts of the Southeast including northwest Georgia. Winter disturbance and habitat modification were the primary causes of the decline of the Indiana bat (USFWS 2007). However, the disease white-nose syndrome, which is caused by the fungus *Pseudogymnoascus destructans*, is currently considered the most significant threat to many populations. The northern long-eared bat (*M. septentrionalis*) is federally listed as threatened (USFWS 2015). The northern long-eared bat is found across much of the eastern and north central United States and in all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. White-nose syndrome is currently the predominant threat to this species, but anthropogenic activities that adversely affect suitable overwintering, foraging, or roosting habitat also pose threats to the northern long-eared bat. Both species breed in the fall immediately prior to hibernation, which occurs typically October-April. Indiana and northern long-eared bats hibernate in caves, mines, and other cave-like features with stable temperatures under 50 degrees Fahrenheit but above freezing (USFWS 2007, USFWS 2014). In the Spring, Indiana and northern long-eared bats migrate to summer habitat where they will form maternity colonies to rear young. Suitable summer habitat generally consists of a wide variety of forested habitats where they can roost, forage, and travel, including riparian zones, bottomland and floodplain areas, wooded wetlands, and upland communities. This includes forests and woodlots that contain potential roosts—live trees and/or snags that have exfoliating bark, cracks, crevices, and/or hollows. Both the Indiana and the northern long-eared bat have occasionally been documented in the winter and summer season roosting in anthropogenic structures, including bridges and culverts (Keeley and Tuttle 1999, K. Morris, pers. comm.). The USFWS species profile for the Indiana bat can be found at <https://ecos.fws.gov/ecp/species/A000?>. The USFWS species profile for northern long-eared bat can be found at <https://ecos.fws.gov/ecp0/profile/speciesProfile.action?spcode=A0JE>.



Northern long-eared bat (top) and Indiana bat (bottom). Photos by Laci Pattavina.



Endangered Species Act Consultation Checklist:

Applicant:

1. IPaC indicates the Indiana bat and/or the northern long-eared bat may occur in the project area.
 - a. No.....No effect. Provide IPaC information to the Savannah District with application/PCN.
 - b. Yes.....Go to #2.
2. The Fish and Wildlife Service’s Georgia Ecological Services Field Office (GA ES) already reviewed and provided comments on the project.
 - a. No.....Go to #3.
 - b. Yes.....Provide GA ES project review documentation to the Savannah District with application/PCN.

3. Determination key(s) were completed in IPaC and a consistency letter was auto-generated for the project.
 - a. No..... Provide completed EDGES Applicant Consultation Form and supporting documentation to the Savannah District with 404 application/PCN.
 - b. Yes.....Provide IPaC determination key and consistency letter to the Savannah District with application/PCN.

Savannah District:

4. IPaC indicates the Indiana bat and/or the northern long-eared bat may occur in the project area.
 - a. No..... No effect.
 - b. Yes.....Go to #5.
5. GA ES has reviewed the project and provided information that Indiana bat and/or the northern long-eared bat will not be impacted by the project or the Savannah district has determined that the project will have ‘no effect’ on Indiana bat and/or the northern long-eared bat.
 - a. No..... Go to #6.
 - b. Yes.....No effect.
6. The applicant has provided a consistency letter from IPaC indicating the project will have ‘no effect’ or is ‘not likely to adversely affect’ federally listed species.
 - a. No..... Go to #7.
 - b. Yes.....Verify that the applicant has completed the IPaC determination key properly. No concurrence from GAES is required. Section 7 consultation complete.
7. Has the Savannah district completed the required determination key in IPaC and generated a concurrence letter?
 - a. No..... Go to #8.
 - b. Yes.....No concurrence from GAES required. Section 7 consultation complete.
8. Does the project include any of the following activities: (a) construction or operation of wind turbines, (b) perennial stream loss or other activities requiring an individual permit under 404 of the Clean Water Act, (c) new point source discharge from a facility other than a water treatment plant, (d) prescribed fire, or (e) any construction activities within 0.5 mile of a known roost, cave, or other priority area?
 - a. No..... Go to #9.
 - b. Yes.....Go to #14.
9. Does the project require (a) cutting, harvest, and/or clearing of trees >3” diameter at breast height; (b) maintenance, alteration, and/or removal of an existing bridge/culvert or other structure that may provide roost habitat for bats?
 - a. No..... NLAA. No concurrence from GA ES required. Section 7 consultation complete.
 - b. Yes..... Go to #10.
10. Will the project require activities involving removal, repair, or maintenance of an existing bridge/culvert/structure?
 - a. No..... Go to #13.
 - b. Yes..... Go to #11.
11. Has a bat inspection been conducted of said structure within the last two years?
 - a. No..... Go to #14.
 - b. Yes..... Go to #12.
12. Were any bats observed on/in the structure or was any evidence of bats found on/around the structure? Please attach inspection form to this worksheet.
 - a. No..... Go to #13.
 - b. Yes..... Go to #14.
13. Will the project require cutting, harvest, and/or clearing of trees >3” diameter at breast height during the non-volant pup season for bats (May 15-July 31)?
 - a. No..... NLAA. No concurrence from GA ES required. Section 7 consultation complete.
 - b. Yes..... Go to #14.

14. Is the necessary information provided in the PCN or application to assist the Savannah District and GAES in Section 7 consultation?
 - a. No.....Request the information and, once received, continue with 14b.
 - b. Yes.....Share data with GAES and continue consultation. Go to #15.

15. Consultation results in a Savannah district determination of:
 - a. NLAA..... Concurrence letter from GA ES required to complete Section 7 consultation.
 - b. LAA.....Initiate formal consultation.

Information to Provide the Savannah District for Endangered Species Act Review

All (where applicable):

- A timeline documenting when land clearing, construction, and post-construction actions will be implemented.
- An estimate of the total forested acres to be cleared.
- Bat inspection reports of any structures that will be modified or removed.

References

Keeley, Brian M. and Merlin D. Tuttle. 1999. Bats in American Bridges. Bat Conservation International, Inc. Resource Publication No. 4, Austin, TX.

Morris, Katrina. Georgia Department of Natural Resources. Personal Communication.

U.S. Fish and Wildlife Service. 1967. Office of the Secretary, Native Fish and Wildlife, Endangered Species. Federal Register Volume 32, Number 48, page 6, March 11, 1967.

U.S. Fish and Wildlife Service. 2007. Indiana Bat (*Myotis sodalis*) Draft Recovery Plan: First Revision. U.S. Fish and Wildlife Service, Fort Snelling, MN. https://ecos.fws.gov/docs/recovery_plan/070416.pdf

U.S. Fish and Wildlife Service. 2014. Northern Long-Eared Bat Interim Conference and Planning Guidance. U.S. Fish and Wildlife Service. <https://www.fws.gov/northeast/virginiafield/pdf/NLEBinterimGuidance6Jan2014.pdf>.

U.S. Fish and Wildlife Service. 2015. Endangered and Threatened Wildlife and Plants; Threatened Species Status for the Northern Long-Eared Bat With 4(d) Rule. Federal Register Volume 80, Number 63, pages 17974–18033, April 2, 2015.