

## **Indiana Bat in Alabama**

The Indiana bat is a small bat with dark gray to blackish, brown fur, found across much of the eastern United States. It is listed as endangered under the Endangered Species Act (ESA). It was first listed as a result of large numbers of Indiana bat deaths caused by human disturbance during hibernation.

Indiana bats hibernate during winter in caves or, occasionally, in abandoned mines. For hibernation, they require cool, humid caves with stable temperatures, under 50° F but above freezing. Very few caves within the range of the species have these conditions. However, Alabama is a state rich in karst geology and with this geology comes many caves. Currently, 10 caves (two Priority 3 and eight Priority 4 caves) within the State in Blount, Colbert, DeKalb, Jackson, Lauderdale, Lawrence, Limestone, Marshall, Morgan, and Shelby Counties are known, or believed, to harbor Indiana bat winter populations.

After hibernation, Indiana bats migrate to their summer habitat where they usually roost under loose tree bark on living, dead, or dying trees. During summer, males roost alone or in small groups, while females roost in larger groups of up to 100 bats or more. Indiana bats also forage in or along the edges of forested areas. Suitable summer habitat for Indiana bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags  $\geq 5$  inches diameter at breast height (dbh) (12.7 centimeters) 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 forested/wooded habitat. Due to the frequent occurrence of suitable summer habitat conditions within the State of Alabama, the Service considers the Indiana bat to have the potential to occur anywhere in the State that suitable habitat is present.

More information on the Indiana bat can be found by visiting the [Ecological Conservation Online System \(ECOS\) website](#) for the Indiana bat or the [USFWS Region 3 Indiana bat website](#)

## **Procedures for Working with the Indiana Bat in Alabama**

Alabama, like most states, is experiencing significant growth. Projects associated with growth can cause the loss, degradation, and fragmentation of natural habitats as the alteration or development of these formerly natural to semi-natural habitats occur. Examples of such projects include land clearing for development (residential, commercial, industrial, and other), utility line (gas, electric, water, sewer, etc.) construction and maintenance, wind energy projects, communication tower construction, and road construction and maintenance. Additionally, natural resource activities such as surface coal mining and silviculture (forest management and timber harvest) can result in similar impacts to natural and semi-natural habitats.

These types of impacts have the potential to adversely affect the Indiana bat. Projects proposed in areas where suitable habitat occurs and the Indiana bat is known or assumed to be present require project proponents to determine if potential adverse effects to Indiana bats are likely to occur and, if so, how they can avoid, minimize, and/or mitigate for those adverse effects.

## **Avoidance**

In the State of Alabama, avoidance measures for all proposed projects that may impact suitable Indiana bat habitat should follow the procedures outlined in the [Range-wide Indiana Bat Protection and Enhancement Plan Guidelines](#) (July 2009), which were developed by a team comprised of the U.S. Fish and Wildlife Service, Office of Surface Mining, and a group of Regulatory Authorities representing the Interstate Mining Compact Commission. While the purpose of these guidelines is to aid coal mining applicants in understanding the options and protocols associated with assuring compliance with the 1996 Biological Opinion on implementation of the Surface Mining Control and Reclamation Act (SMCRA), they are equally applicable to other land-clearing projects within the State. The following guidance is provided for proposed projects in Alabama:

### **October 15 to March 31**

Tree clearing should only occur from October 15 to March 31 on proposed project areas that:

- (a) Are within a 5 mile radius of a maternity capture record and no hibernaculum exists within a 5 mile radius of the project area; or
- (b) Are within a 2.5 mile radius of a male capture record and no hibernaculum exists within a 5 mile radius of the project area; or
- (c) Are within a 2.5 mile radius of a known maternity tree and no hibernaculum exists within a 5 mile radius of the project area; or
- (d) Contain potential summer habitat, Indiana bat presence is assumed, and no hibernaculum exists within a 5 mile radius of the project area.

### **November 15 to March 31**

Tree clearing should only occur from November 15 to March 31 on proposed project areas that:

- (a) Contain caves, underground mine workings, rock shelters, bridges, tunnels, dams, and other underground openings where Indiana bats have been recorded; or
- (b) Are within a 10 mile radius of a P1 or P2 hibernaculum; or
- (c) Are within a 5 mile radius of a P3 or P4 hibernaculum.

Upon written agreement, the applicant and the Alabama Ecological Services Field Office may modify seasonal clearing dates based on specific data that would support such modifications.

If avoidance of all likely adverse effects is not achievable, project proponents must take steps to ensure compliance with the ESA and avoid an illegal “take” of Indiana bats, a federally listed species. “Take” of federally listed species means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” and is prohibited pursuant to section 9 of the ESA. Violations of section 9 can lead to significant civil and/or criminal penalties. In general, project proponents have three primary options:

### **1. Surveying**

Surveys for Indiana bats in their summer habitat must follow the current survey guidance and have all necessary permits.

Surveys should follow the 2014 Range-wide Indiana Bat Summer Survey Guidelines (January 2014)

(<http://www.fws.gov/midwest/endangered/mammals/inba/surveys/pdf/2014IBatSummerSurveyGuidelines13Jan2014.pdf>).

### **2. Conducting informal and/or formal consultation under section 7(a)(2) of the ESA**

Information on the section 7 consultation process may be found on our website at:

<http://www.fws.gov/daphne/section7/section7.html>.

### **3. Obtaining an Incidental Take Permit pursuant to section 10(a)(1)(B) of the ESA.**

Section 10(a)(1)(B) of the ESA provides an opportunity for project proponents not receiving federal funding or authorizations to work with the Service under the Habitat Conservation Planning (HCP) process. To obtain an incidental take permit from the Service under section 10(a)(1)(b), the applicant (project proponent) needs to develop a Habitat Conservation Plan designed to offset any harmful effects the activity might have on the species. This process allows the project to proceed consistent with conserving the listed species through the issuance of an incidental take permit. More information on the HCP process can be found at

<http://www.fws.gov/southeast/es/hcp2.htm>.