



# STATE OF IOWA

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES  
JEFFREY R. VONK, DIRECTOR

January 22, 2003

Col. William J. Bayles, Commander  
U.S. Army Corps of Engineers  
Clock Tower Building, P. O. Box 2004  
Rock Island, IL 61204-2994

RE: Proposed Lease of Corps property along Coralville Lake, Johnson County to Muslim Youth Camps of America

Dear Col. Bayles:

Thank you for inviting our comments on the impact of the above referenced project on protected species and rare natural communities.

12-8 In the environmental assessment dated September 16, 2002 by Zambrana Engineering Inc., it is not clear whether state-listed threatened or endangered species do or do not occur within the portion of the property to be impacted by construction or visitor use. If protected species exist on the property but in areas that will not be affected by construction or visitor use, then the Department would have no concerns with the proposed development.

12-4 Several animal species were listed as potentially occurring in the project area but there is no determination if suitable habitat exists. For example, the ornate box turtle is listed as potentially occurring and the northern harrier was observed at the project site. However there is no information about habitat suitability or survey efforts for these species. An effort should be made to determine if suitable habitat exists for Iowa listed threatened or endangered species. If suitable habitat exists in areas that will be affected by construction or visitor use, a survey should be conducted.

12-5 While it appears that the eastern prairie fringed orchid (*Platanthera leucophaea*, Endangered), showy lady's-slipper (*Cypripedium reginae*, Threatened), muskroot (*Adoxa moschatellina*, rare but unlisted), and crowfoot clubmoss (*Lycopodium digitatum*, rare but unlisted) do not occur in areas to be developed, suitable habitat for running pine (*Lycopodium clavatum*, Endangered) is described in the Environmental Assessment as "within the project area in the vicinity of the former Camp Daybreak". We recommend that a survey for this species be conducted within areas of suitable habitat to be impacted by construction or use.

12-7 The Indiana bat (*Myotis sodalis*, state and federal endangered) may occur in the area of this project. Indiana bats are found in areas of mature upland forest and along wooded corridors of streams and rivers. Females form maternity colonies under the loose bark of trees. Trees 9 inches or greater in diameter as described in the attached guidelines are potential roost trees. If trees of this size are to be cleared between April 1 and September 30, please contact the Department at (515) 281-8524. You may need to survey habitat in the construction zone to determine if the area is potential summer habitat for the Indiana bat. The enclosed guidelines provide information about summer habitat requirements and survey methods for the Indiana Bat.

We suggest that you contact the U.S. Fish and Wildlife Service regarding this project. Their office at Rock Island may be reached at (309) 793-5800.

03-1527L

If other listed species or rare communities are found during the planning or construction phases, additional studies **and/or mitigation** may be required.

This letter **is** a record of review for protected species, rare natural communities, state lands and waters in the project area, **including** review by personnel representing **state parks**, preserves, recreation areas, wetlands, fisheries and wildlife. It does not **constitute** a permit and before proceeding with the project, you may need to obtain permits from the ONR or other state and federal agencies.

If you have **any** questions about this letter or if you require further **information**, please contact Keith Dohrmann at (515) 281-8967.

Sincerely,



KEVIN R. SZCODRONSKI  
ASSISTANT ADMINISTRATOR  
CONSERVATION AND RECREATION DIVISION

KS:kd

CC: Christine Schwake, Water Quality Bureau, Iowa DNR (by email)  
Barb Lynch, Field Services and Compliance Bureau, Iowa DNR (by email)  
Kyle Jensen, Conservation Officer, Law Enforcement Bureau, Iowa DNR

ATTACHMENT: Indiana Bat Guidelines

Revised February 28, 2000

## IOWA DEPARTMENT OF NATURAL RESOURCES

### GUIDELINES FOR PROTECTION OF INDIANA BAT SUMMER HABITAT

These guidelines were prepared to provide information about the Indiana bat and its summer habitat requirements in Iowa and to prevent inadvertent harm to the species **through** various human activities. This update **of the guidelines is** in response to changes in the **U.S.** Fish and Wildlife Service requirements **for** protecting this endangered species. **The** changes include:

- Adding Poweshiek and **Iowa** Counties
- No cut dates expanded to **April 1** through September 30
- Tree size **changed** from 11 inches to 9 inches (dbh)

The Indiana bat **is a federal ( 50 CFR Part 17 )** and state ( Code of Iowa, Chapter **481B** ) **listed** endangered species that **occurs** in southern Iowa from May **through** August. **This** species was **listed** as endangered **by** the US Fish and Wildlife Service because over **85%** of the Indiana bat population hibernate in **just** seven locations **in Missouri, Indiana, and Kentucky.** Protection of the hibernation caves and mines **has** stabilized the population in the **eastern** US but the western portion of the population, which includes **Iowa,** has continued to decline.

Female Indiana bats have **their** young beneath the loose or peeling bark of trees. Most nursery colonies have been **found** beneath the bark of standing dead trees on the trunk or large branches. Dead trees that retain sheets or plates of bark **and which** provide space beneath the bark such as red oak, post **oak,** **and** cottonwood are potential roost trees. Live trees such as shagbark **and** shellbark **hickory** are **also** used at times for roosting. The nursery colonies are located **dong** streams and rivers or in upland forest areas. Riparian **areas** are **also** important feeding areas for **this** species. **Indiana bats** have been captured on the edge of urban areas. **It is likely** that the bats would be **using only** areas **on** the edge of the town or city and **only** if there **is** suitable habitat such **as** a greenbelt or a large park with a natural forest component that would have the below listed requirements. **This** would exclude city parks that are maintained as mowed areas.

#### Counties affected

Summer Range in Iowa:

Appanoose, Clarke, Davis, Decatur, Des Moines, Henry, **Iowa,** Jasper, Jefferson, **Keokuk,** Lee, Louisa, Lucas, Madison, **Mahaska,** Marion, Monroe, Muscatine, Poweshiek, **Ringgold,** Union, **Van** Buren, Wapello, **Warren,** Washington, and Wayne.

### **Summer Habitat Requirements for the Indiana bat**

**Essential summer habitat in Illinois was considered to be 30% or greater deciduous forest cover within a 6/10 mile radius, permanent water within a 6/10 mile radius, and suitable roost trees within a 3/10 mile radius. Areas of as low as 5% deciduous forest cover provided suitable habitat as long as water and roost trees were within the listed distances in Illinois. In Iowa records for the Indiana bat have occurred in areas of 15% or greater forest cover and near permanent water. Tree species that have been identified as roost trees from studies in other states are shagbark and shellbark hickory that may be alive or dead and dead, bitternut hickory, American elm, slippery elm, eastern cottonwood, silver maple, white oak, red oak, post oak, and shingle oak with slabs or plates of loose bark.**

**Suitable summer habitat in Iowa is considered to have the following within a 1/2 mile radius of a location:**

- 1) Forest cover of 15% or greater**
- 2) Permanent water**
- 3) One or more of the listed tree species 9 inches dbh or greater**
- 4) At least 1 potential roost tree per 2.5 acres.**
- 5) The potential roost trees ranked as moderate or high for peeling or loose bark**

### **Survey Methods for Indiana Bat Summer Habitat**

#### **Step 1**

**Determine if there is 15% or greater forest cover and permanent water in a 1/2 mile radius of the project site.**

**If not then there is no need to continue survey efforts.**

**If these requirements are met go to Step 2.**

#### **Step 2**

**Conduct a survey of the project area that will be cleared or cut to determine if suitable roost trees are present. This will include both upland and floodplain forests. Areas that are too large for complete counts may be sampled using techniques such as point-quarter, tenth-hectare quadrats or other acceptable forest sampling techniques. The information to be collected during sampling includes the following:**

**Standing trees 9 inches or greater (dbh) diameter at breast height per acre -- ( alive or dead ) shagbark and shellbark hickory ( dead ) all other species listed above that have 10% or greater loose or peeling bark on the trunks and main limbs. The amount of loose or peeling bark is based on visual estimation. The number of potential roosts per acre.**

**If a survey of the habitat within the project area finds that suitable summer habitat for the Indiana Bat, as defined above, is present then there are two options available.**

#### **Option 1:**

**Conduct a mist net survey of the project area for Indiana Bats**

**Survey period May 15 - August 31**

**Temperature above 50 degrees F at night**

**No precipitation**

**Wind - calm**

**Light conditions (moonlight) at net site**

**No considerations if nets are under closed forest canopy**

**If the net is in an open site there should be cloud cover or less than 1/2 moon**

**Mist nets stacked at least 4 m (13 feet) high**

**Net set distance - 1 set per 1/2 mile of stream corridor or upland sites**

**Nets set 3 nights from sunset to at least 0200 hours**

**Nets to cover from ground or water surface to enclosing foliage or banks on sides**

**Nets must be checked every 20 minutes**

**No disturbance within 50 meters of the net sites**

**Survey results should be submitted to the Iowa Department of Natural Resources, Wallace State Office Building, 900 East Grand, Des Moines, Iowa (Attention: Daryl Howell) for a prompt Determination. The IDNR will then provide a letter stating Effect or No Effect.**

**If Indiana bats are found during the survey then no removal of the trees will be allowed between April 1 and September 30.**

**Option 2 :**

**Conduct tree clearing and cutting between October 1 and March 31 or remove all potential roost trees identified during the habitat survey between October 1 and March 31.**

**Activities such as timber stand improvement that do not cut potential roost trees or fell other trees on potential roost trees are not considered to cause harm to Indiana bats because of their short-term natural and limited disturbance. In some cases the girdling of trees 9 inches or larger can create potential roost trees, maintaining dead trees with loose bark and maintaining the diversity of tree species can be positive in providing roosting habitat for the Indiana bat.**

**The IDNR can offer assistance in identifying qualified professionals to conduct habitat surveys and bat surveys. Contact Daryl Howell if you have questions about these guidelines at the above listed address or (5 15) 281-8524.**

**These guidelines may be revised based on the availability of new research or management information or to clarify particular points in the guidelines. You may wish to check with the DNR to determine if you have the most current set of guidelines.**

**Many of the above recommendations were taken from the report by James D. Gamer and James E. Gardner, 1992. Determination of summer distribution and habitat utilization of the Indiana Bat (Myotis sodalis) in Illinois. Final report to the U.S. Fish and Wildlife Service, Project E-3, 23 pp.**

# Summer Range of the Indiana Bat in Iowa

