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Bats are mammals, the only mammals that can fly.  
Worldwide there are more than 1,000 species of bats (about one-quarter of all mammal species).

# ATS OF ILLINOIS

BOY SCOUT TROOP 20 WINNETKA

EAGLE SCOUT PROJECT 2016

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## BAT MYSTIQUE

Bats are found throughout Illinois, however they are most common in the Illinois and Mississippi river basins and in the cave regions of southern Illinois. There are 12 species of bats in Illinois. All Illinois bats are insectivores (they eat insects).

In summer, bats roost in bell towers, church steeples, attics, and other structures. They can also be found beneath loose tree bark, in the foliage of trees, in hollow trees, bird’s nests, woodpeckers’ holes, and other natural locations. In winter, caves provide homes for most bats that hibernate (some migrate south) although buildings and hollow trees can also be used.

Bat populations are declining throughout the U.S. and the world. The major factor is disturbance of their habitat. The use of pesticides has also reduced their food source — insects. The direct killing of bats, vandalism, and disturbance of maternity colonies, resulting in population declines.

Bats roost in the attics or crawlspaces of many buildings often undetected. However, bats should not be allowed in living quarters. For information on how to safely evict bats and bat proof a structure, contact the Illinois Department of Natural Resources.



**BIG BROWN BAT**  
*Eptesicus fuscus*

Common throughout Illinois, the big brown bat is two to three times the size of its smaller relative, the little brown bat. A colony of 150 bats can protect local farmers from 33 million or more root worms each summer.



**SOUTHEASTERN BIG-EARED BAT**  
*Corynorhinus rafinesquii*

As its name indicates, this bat has really big ears that make it distinct in appearance among Illinois’ bats. It is found in areas where historically there were great cypress swamps. The Winnetka Golf Club has dozens of bald cypress trees due to the muck-peat soil



**EVENING BAT**  
*Nycticeius humeralis*

One of its major foods is the spotted cucumber beetle, a significant agricultural pest. These bats seem to disappear in winter, migrating to the southern part of their range.



**EASTERN PIPISTRELLE**  
*Pipistrellus subflavus*

The smallest of Illinois’ bats, it usually hangs singly when in winter hibernation rather than in clusters, as do most other bats.



**HOARY BAT**  
*Lasiurus cinereus*

The largest bat in Illinois. Males live in the southwestern United States during the summer while the females spread out across the country. The females join the males in fall and together they migrate further south for the winter.



**INDIANA BAT**  
*Myotis sodalis*

The Indiana bat is nearly extinct over most of its former range. Bats are vulnerable to extinction, in part, because they are slow to reproduce. Most produce only one young annually.



The Winnetka Golf Club has four bat houses located by the pond and willow trees near the 17th hole.

## Fears and Facts

**Fear...** Bats give you rabies.  
**Fact...** Bats can become rabid but they don’t attack people. In the U.S. over a 50 year period, less than 40 people contracted rabies from bats. Nevertheless, rabies is a dangerous disease, so one should avoid contact with bats, as well as other wild animals.

**Fear...** Bats get caught in your hair.  
**Fact...** Because bats fly using echolocation, they won’t fly into your hair.

**Fear...** Bats are filthy.  
**Fact...** Like most mammals, bats spend considerable time grooming to keep their fur clean.

**Fear...** Bats drink human blood.  
**Fact...** Vampire bats prey on cattle, other herd animals and birds, not humans. There are no vampire bats in the U.S.

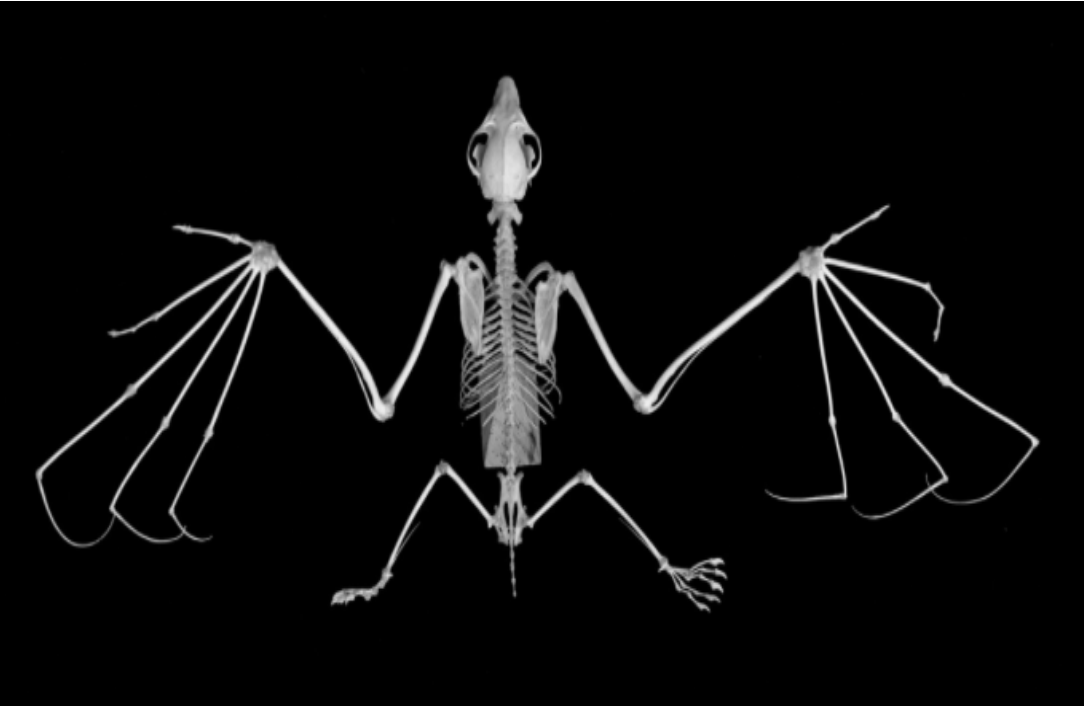
## BIG EATERS

Bats are important in controlling flying insects like mosquitoes and corn borer and cutworm moths. A single little brown bat (Myotis lucifugus) is estimated to eat 600-1,000 insects per hour - up to 3,000 insects in one night.

## LITTLE BROWN BAT

*Myotis lucifugus*

One of the most best-known bats in North America, it is common throughout Illinois. The little brown bat is the world’s longest lived mammal for its size, with life-spans sometimes in excess of 32 years.



This is a picture of a skeleton of a bat. Notice how the wing is actually a modified hand with a small thumb at the top and four long fingers. Webbing between the fingers creates the wing surface.

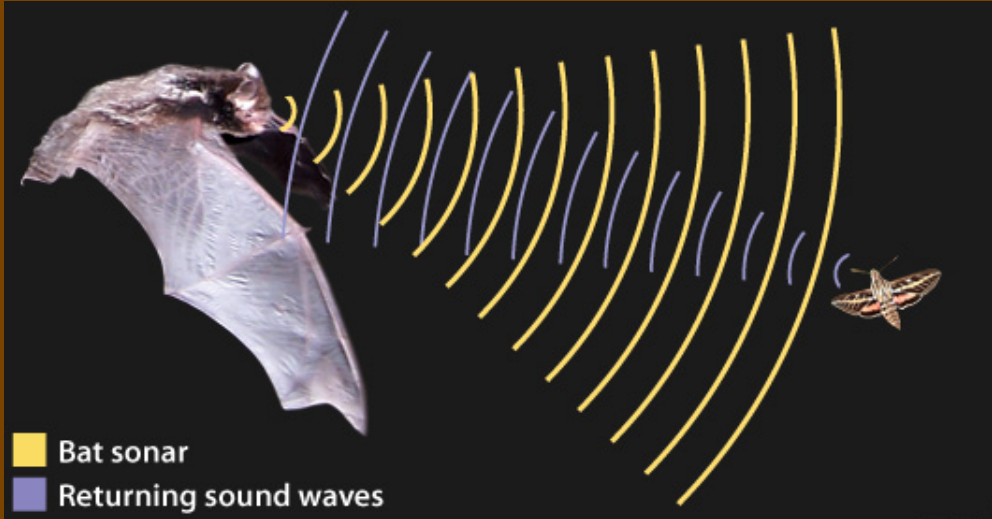
The Illinois Department of Natural Resources has building plans available for artificial bat houses. They include instructions on how to attract bats and what to do once the bat colony is established. Remember, bats are wild animals, not pets. Treat them with respect.

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Bats use echolocation to navigate and find insects for their nightly meal. Bats emit an almost continuous series of sounds (clicks), most of which are above the human hearing range. As the sounds bounce back off objects in their path, the bats can tell how close the object is. The higher the pitch, the closer the object; the lower the pitch, the farther away the object is.

Radar and sonar systems, invented in the 20th century, use the same principle, but bats have used echolocation for millions of years! With echolocation, bats can fly through narrow cave passages at high speed, in complete darkness. Their ability is so precise, they can avoid obstacles no wider than a strand of thread.

## ECHOLOCATION



**RED BAT**  
*Lasiurus borealis*

This common bat is often seen feeding around street lights in towns.



**NORTHERN LONG-EARED BAT**  
*Myotis septentrionalis*

One of the least common of Illinois’ species, it spends summers in woodlands and hibernates throughout the winter in caves and mines.



**GRAY BAT**  
*Myotis grisescens*

Gray bat droppings (guano) were a primary source of nitrates used for gunpowder and fertilizer in the 19th century.



**SOUTHEASTERN BAT**  
*Myotis austroriparius*

Generally limited in distribution to southern Illinois, its summer roosts are hollow trees in hardwood swamps.



**SILVER-HAIRED BAT**  
*Lasioncyteris noctivagans*

One of the slowest flying bats in North America, the silver-haired bat roosts in summer beneath loose tree bark and in woodpeckers’ holes and birds’ nests.