



EC 1584 • September 2006
\$1.00



Little Brown Bat

Myotis lucifugus

by L. Schumacher and N. Allen

Little brown bats are one of the most common bats in Oregon and the United States. Their scientific name is *Myotis lucifugus*. The group of bats in the genus *Myotis* are called the “mouse-eared” bats.

Little brown bats’ favorite foods are gnats, beetles, and moths. They also eat lots of mosquitoes. They help humans by eating mosquitoes that bite us and beetles that eat our crops. They are important to the ecosystem too. Without bats, there would be too many insects.

Bats are gentle animals. They do not attack humans. There is no reason to be scared of a bat. But remember, bats are wild animals. Never try to touch a bat. If you find a sick or hurt bat, be sure to tell an adult right away.



Where they live and why

Bats need food, water, and shelter. Little brown bats live almost everywhere in the United States except in very dry areas, such as deserts.

Bats often hunt at night about 10 feet above the water, where they can find lots of insects. Bats also need water to drink. They fly across the surface and swallow water as they fly.

During the day, little brown bats roost, or rest. Bats live only where they have safe places to rest during the day. Hollow trees and tree cavities made by woodpeckers are popular roosts.

During the early summer, many mothers and their babies live together in giant nursery roosts, which are places that always stay warm and dry.

In the fall, the weather gets colder and insects disappear. Little brown bat colonies move to a *hibernaculum*. This is a safe place where they will spend the winter, such as a cave or a mine. Bats may fly as far as 170 miles to get to their favorite hibernaculum.



Photo: Bat Conservation International, Inc.

Bats catch insects by hunting at night.



Oregon State | **Extension**
UNIVERSITY | **Service**

Laura Schumacher, student in Fisheries and Wildlife, and Nancy Allen, fisheries and wildlife faculty, Oregon State University.

Species description

Bats are mammals in the order Chiroptera. This name means “hand-wing,” because their wings are made up of very long fingers. Their arms actually are quite short.

Little brown bats are about 2 inches long. Their wingspan is 9 inches. They come in different shades of brown. Their fur is glossy, and their feet are large. They look just like another very common bat, the big brown bat, but they are much smaller.

All of the bats we have in Oregon are *insectivores*. This means they eat only insects. Bats find insects using *echolocation*. They send out very high-pitched sounds that humans cannot hear. These sounds bounce off an object and return to the bats’ ears. The returning sound tells the bats all about the object. Using only sound, the bat knows what it is, if it is moving, and how far away it is. Whales and dolphins hunt in the same way.

When a bat finds an insect

to eat, it catches it with its *uropatagium* (the skin around the bat’s tail).

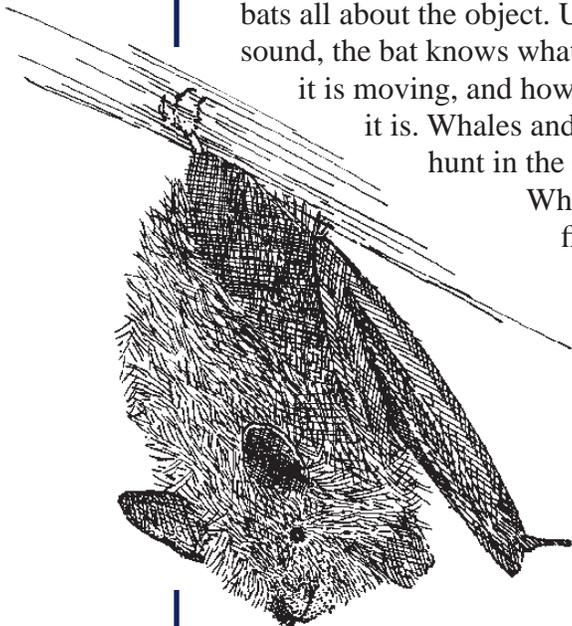
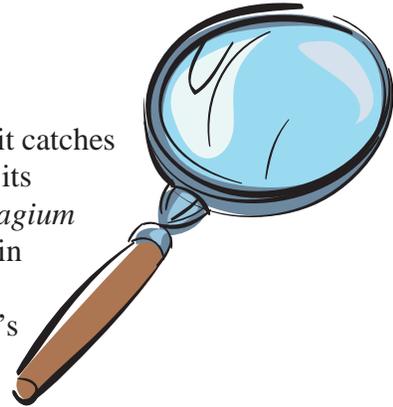
The bat scoops the insect up in its tail and then eats it.

All bats are mammals. Being a mammal means that bats give birth to live young. Little brown bat mothers are pregnant for 45 days. The baby bat is born in June or July. Mother bats nurse their young until they can catch insects themselves. Baby bats learn to fly quickly; they are flying by the time they are 3 weeks old.

Bats are the only mammals that can fly. Little brown bats can fly as fast as 22 miles per hour.

Little brown bats live in colonies. Hundreds of bats often are found living together.

During their winter hibernation, bats do not eat. All summer, they store fat in their bodies, which keeps them alive through the winter. Every time a bat wakes up during the winter, it uses some of its fat and energy. If a bat wakes up too many times, it will die. This is why we should never disturb hibernating bats.



Creating habitat



You can make a place better for bats by making sure it has everything they need.

A small pond attracts insects for bats to eat and gives them a place to drink.

Flowers that bloom at night and herbs that smell good attract the insects that bats like to eat. The following plants will help make a good habitat for bats.

Chives	Lemon balm
Borage	Sweet rocket
Mint	Evening primrose
Marjoram	Soapwort

Moths and other insects also like light. A special kind of light, called a mercury vapor light, gives bats an easy place to catch insects.

Dead trees, called snags, and old trees with peeling bark give bats safe places to rest and roost.

Bats will come back year after year to the same roosts. If they like the habitat you have created, you will see them every year when they return from hibernating.

Building a bat house

Some bats, including the little brown bat, will live in a bat house. You can buy bat houses, or you can build a simple bat house from exterior plywood. The rough surface helps the bats hold on while they sleep.

Painting the outside dark brown will keep it warmer inside. Never paint the inside because paint can make the bats sick.

A good bat house:

- Is at least 24 inches tall and 14 inches wide.
- Has air vents that are $\frac{1}{2}$ inch wide.
- Has a landing platform that hangs down 5 inches below the entrance hole. (This



Photo: P. Myers

You can attract bats by building a comfortable home for them.

helps baby bats when they are learning to fly.)

- Has several $\frac{3}{4}$ -inch-wide chambers for lots of bats.
- Has open space around it so bats can land and take off easily.

To find detailed instructions for building a bat house, see the resources under “Learn more!” on page 4.

Place two bat houses back-to-back on a pole at least 12 feet above the ground. They should be in a quiet spot where they get some sun everyday.

Bats need our help!

Bat habitat is disappearing. Old, hollow trees often are cut down. The caves and mines that bats like sometimes are closed, or too many people enter them and wake up the bats.

Bats also suffer when they eat insects that have been poisoned by pesticides.

There are lots of ways we can help bats. Remember, food, water, and shelter are what they need to survive.

Fun facts



Bats are not blind. Some have very good eyesight.



A little brown bat can eat 1,200 mosquitoes in a night.



Bats are the only mammal that can fly.



Little brown bats can live to be 30 years old.



The biggest bat in the world is the gigantic flying fox. It has a wingspan of 6 feet and weighs 2 pounds.



The smallest mammal in the world is the bumblebee bat, weighing only 2 grams.



During the Civil War, bat guano (droppings) was used as gunpowder.



A bat's wing is made up of very long fingers.

Learn more!

America's Neighborhood Bats. 1997.

Merlin Tuttle. University of Texas Press.

Bat Conservation International.

<http://www.batcon.org/home/>

The Bat House Builder's Handbook.

Merlin Tuttle & Donna Hensley. 1993.

Bat Conservation International.

Organization for Bat Conservation.

<http://www.batconservation.org>

Understanding Bats. Kim Williams and

Rob Mies. 1996. Bird Watcher's Digest Press.

University of Michigan Museum of

Zoology. [http://animaldiversity.ummz.](http://animaldiversity.ummz.umich.edu/accounts/myotis/m._lucifugus.html)

[umich.edu/accounts/myotis/m._lucifugus.html](http://animaldiversity.ummz.umich.edu/accounts/myotis/m._lucifugus.html)



Oregon
4-H
Wildlife
Stewards

Additional wildlife publications in this series are available on the OSU Extension Service website at <http://extension.oregonstate.edu/catalog>.

© 2006 Oregon State University.

This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U.S. Department of Agriculture, and Oregon counties. Oregon State University Extension Service offers educational programs, activities, and materials—without discrimination based on age, color, disability, gender identity or expression, marital status, national origin, race, religion, sex, sexual orientation, or veteran's status. Oregon State University Extension Service is an Equal Opportunity Employer.

Published September 2006.