

Attracting bats

During the summer, bats require three things: food, water, and roost sites. The closer a potential roost site is to food and water, the more likely the site is to be inhabited.

Food is easy to provide—night-flying garden insects. Because they drink on the fly, bats need water with a flat surface, uncluttered by vegetation, and at least 4 to 5 feet long. Natural or artificial ponds are a common source of drinking water.

Natural roost sites are rare in most gardens, but bat boxes can substitute. Bat boxes resemble large bird houses, but they are open on the bottom and are partitioned internally into several narrow spaces.

Several construction and placement details increase the chances that bats will inhabit a box. Caulk all joints, stain or paint the box a dark color, and hang it at least 15 feet high facing south or southwest.

Details for constructing or buying good bat boxes can be found on the Bat Conservation International website (www.batcon.org)



Where to learn more

Bat Conservation International

An excellent source of information on the topics introduced in this flier, as well as other topics about bats, can be found on the Bat Conservation International website (www.batcon.org).

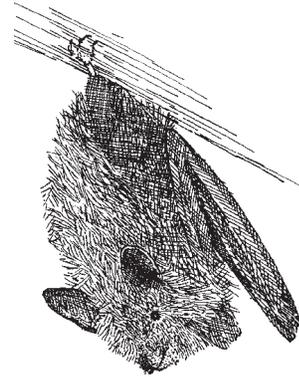
OSU Extension publications

The Wildlife Garden:

Little Brown Bat
(*Myotis lucifugus*),
EC 1584 (September 2006)

The Wildlife Garden:

Create Roosts for Bats in Your Yard,
EC 1555 (May 2003)



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Bat facts

- ❖ The largest Oregon bat weighs about as much as five quarters. The smallest weighs as much as two pennies.
- ❖ Bats are mammals and give birth to one or two live young each year.
- ❖ Bats eat more than half their body weight in insects each day.
- ❖ Bat mothers congregate in colonies to have their babies.
- ❖ Bats hibernate in the winter.

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Bats, bats, bats....

What are bats?

Bats can fly, but they are not birds. Rather, bats are mammals—they have hair and are warm-blooded, and the pups are born live and are fed milk.

Although some bats look like mice, they are not rodents. Bats are more closely related to humans and other primates than to rodents. Unlike rodents, bats have only 1 or 2 young per year and often live 10 years or more.

Bats are the only mammals capable of real flight. Their wings are made of thin layers of skin supported by bones like those in our arms and hands. These bones are very long and thin, especially the hand and finger bones that support the end of the wing.

Oregon bats

There are 15 species of bats in Oregon, and all are insect eaters. Flying bats often seem larger than they really are, but most Oregon bats weigh about $\frac{1}{4}$ – $\frac{1}{3}$ oz (as much as two quarters) and have a wing span of about 10 inches. The largest Oregon species weighs only about as much as five quarters and has a wing span of about 15 inches. The smallest species weighs about as much as two pennies and has a wing span of about 9 inches.

Bats use echolocation to find and capture insects. Very high-pitched sounds, emitted from the vocal cords, spread out in front of the bat until they hit an object. The echoes that



come back to the bat provide information on the size, movement, and speed of the object, allowing the bat to differentiate between food and objects that must be avoided, such as trees.

How do Oregon bats spend the winter?

Where winters are cold and food is unavailable, bats hibernate in rock crevices, large trees, caves, and attics—places where temperatures remain just above freezing and bats are safe from predators. Their heart and breathing rates decrease to just a few per minute, and their body temperature drops to that of the air around them. These changes help them sleep all winter using very little energy.

What do bats do the rest of the year?

Bats breed in the fall before they enter hibernation. When they emerge in early spring, they move to summer areas. Males spend the summer feeding, and they roost in a variety of structures. Pregnant females join together into colonies in mines, caves, tree cavities, rock crevices, and attics. Colonies contain a few to thousands of bats depending on species and size of the roost site.

When the pups are born in early summer, they lack fur and can't keep themselves warm. But bats like it **hot**—as much as 100°F—and maternity colonies select roost sites that retain heat produced by the mothers and captured from sunlight. Heat retention is most important in early evening, when all the mothers leave their pups in the roost while they go out and feed for an hour or so. After this first synchronous feeding period, females forage again several times during the night. These later foraging periods are not synchronized, so some females are always present in the roost, providing warmth for the pups as the night gets cooler.

The pups grow quickly and are weaned and able to fly after about a month. Soon the maternity colonies break up, and the animals slowly begin to move back to their hibernation sites.

Benefits of bats

A major benefit of bats in the garden is their appetite for insects. They consume about 50 to 100 percent of their body weight each day. Their favorite foods include garden pests such as beetles and moths. They also eat lots of mosquitoes, some of which carry diseases such as West Nile virus. A by-product of eating insects is waste material called guano, which is high in nitrogen and is an excellent organic fertilizer.

Myth versus reality

Many myths are associated with bats. Two myths—that bats will get caught in your hair and that they are blind—are not true at all. A third myth—that most bats carry rabies—is an exaggeration.

In North America, only about 1 in 1,000 wild bats carries the rabies virus, and only about 1 rabies death per year is due to a bat bite. Rabies is fatal if not treated prior to the development of symptoms, so the possible danger should not be ignored. But the risk needs to be evaluated in relation to other risks inherent in gardening and maintaining a yard. For example, many more people die every year from wasp and bee stings and from accidents with mowers and playground equipment than from rabies contracted from bat bites. In all of recorded history in the United States, only two human rabies cases can be attributed to the species most likely to inhabit bat boxes in Oregon.

The risk of a bat bite can be minimized by treating bats with respect. Like other wild animals, healthy bats don't readily allow people to approach them. Instruct children to leave any wild animal alone, especially one that is willing to be picked up. Such bats are probably sick (although not necessarily with rabies) and should not be handled.

