

SMALL-SCALE HABITAT IMPROVEMENTS

Put up a bat house to provide a safe place for females to raise their pups in the summer. Install a dark-colored bat house on a pole or building in a sunny location, ideally close to a forest edge, near a water source, and at least 10 feet off the ground.

Provide a water feature like a pond or even a bird bath placed in an open area, so bats can get a drink when they emerge in the evening.

Bring on the bugs by planting native plants. Night-blooming and pale or white flowers are particularly attractive to night-flying insects. Leave leaf litter or brush piles for native insect cover to attract more food for hungry bats.

Reduce outdoor lighting and point spotlights at objects instead of into the air. Bright lights make bats more visible to predators like owls and cats.



BAT HOUSE

GET ASSISTANCE

Before you take action, consider creating a management plan for your property. Identify your objectives and steps to take and then contact a natural resource professional for help. They perform site visits with landowners and offer advice on best management practices, as well as information on opportunities for financial assistance to help achieve management goals.

A list of natural resource professionals can be found at [The Ohio Bat Working Group](http://u.osu.edu/OBWG) website <http://u.osu.edu/OBWG>, look under the 'Landowner Resources' tab.

Consult with a **State Forester** prior to any timber harvest. Use *Call Before You Cut* by phone at 877-424-8288 or on the web at callb4ucut.com/ohio/.

You can call the **Division of Wildlife** at 1-800-WILDLIFE to be connected with a Private Lands Biologist in your area.



MANAGING HABITAT FOR BATS

A GUIDE FOR LANDOWNERS AND MANAGERS



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OHIO BAT WORKING GROUP
<http://u.osu.edu/OBWG>

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COVER: HOARY BAT
PHOTO BY NINA HARFMANN



BIG BROWN BAT

Bats play an important role in the ecosystem by consuming large numbers of night-flying insects including beetles, moths, mosquitoes, and other agricultural and forest pests. One of the threats to bat populations is conversion of forest habitats to non-forest uses. Bats often return to the same areas annually, so losing a known roosting or foraging area can have negative effects depending on factors such as the species impacted and the surrounding land use. Implementing various management methods on both public and private land could help to enhance existing habitat or create new habitat for bats to mitigate losses elsewhere.

Native Ohio bats have a variety of habitat needs; they require places to hibernate, freshwater sources for drinking, and healthy forests for roosting and foraging. Appropriate land management that maintains a wide variety of quality habitats, from wetlands and riparian areas to forested ridgetops, is essential. Even land-owners without large amounts of property can help create favorable conditions for bats.

No single type of management will work for all bat species, but the techniques outlined in this guide are aimed at creating and maintaining the general habitat features that are beneficial to most bats.

LARGE-SCALE HABITAT MANAGEMENT

Maintain a mosaic of habitats by providing a mixture of open areas, forested areas, and water to meet the foraging and roosting needs of bats.

Managing trees is critical to supporting bat populations. Maintaining the following trees on your property will be beneficial:

- Large diameter live trees (20+ diameter at breast height (DBH))
- Large dead trees (called snags). You can create snags using a variety of methods; ask a professional for advice if you are interested in doing this
- Trees of any size with exfoliating bark, crevices, or cavities for roosting
- Trees with the above characteristics located in sunny gaps in the tree canopy

Tree cutting and thinning around potential roost trees to increase sun exposure can be beneficial, but this work should only be done from October 1 to March 31 to protect roosting bats.

Eliminate chemical use like pesticides and insecticides since bats eat insects. When necessary, use a targeted pesticide or insecticide and avoid broadcast spraying.

Remove non-native, invasive plants that negatively impact the diversity and overall health of a forest, including the insect community.

Maintain riparian zones/wetlands to provide important foraging areas for bats.

- Remove and control invasive plant species so that access to open water is not restricted
- Do not dump yard waste, garbage, or otherwise fill in open water
- Do not put chemicals in the water, as they can kill insects. Consider using fish to manage plants and aquatic insects



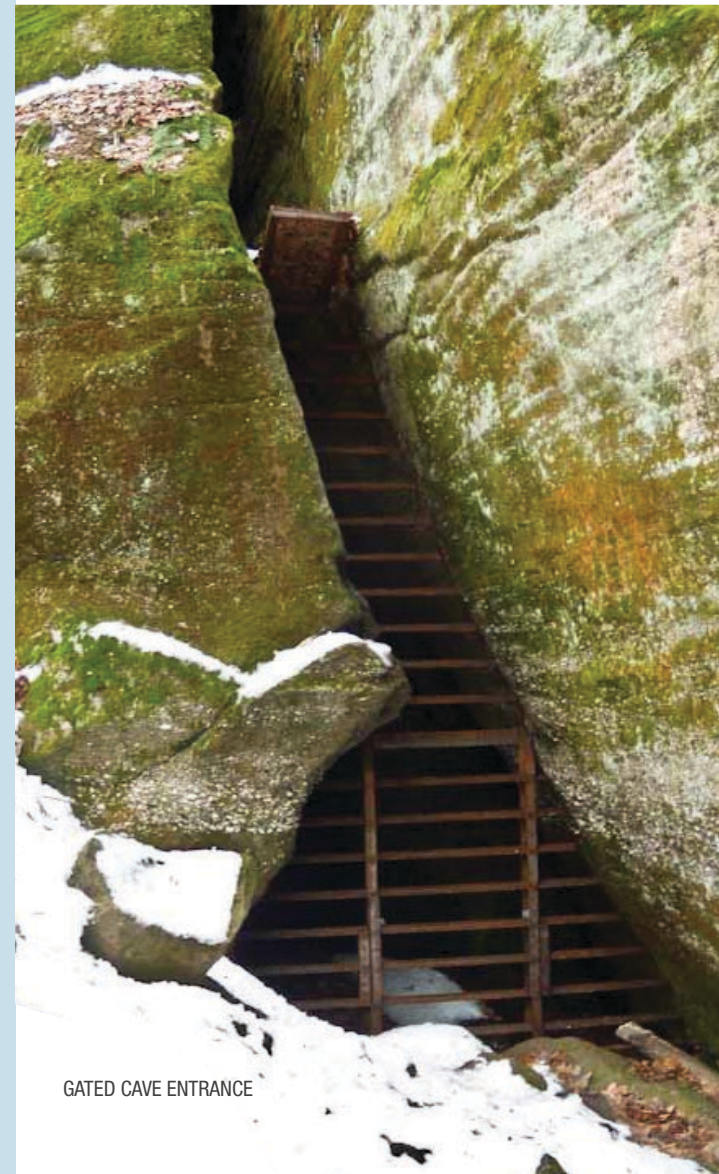
SILVER-HAIRED BAT

HIBERNACULUM MANAGEMENT

For bats that hibernate, caves and rock ledges are important, sensitive habitats.

Gating cave entrances with bat-friendly gates helps protect bats from human disturbance. This should only be done with help from a qualified contractor, as gating can change the airflow and temperature inside the cave, and correct gate specifications are critical.

Maintain habitat near hibernacula by leaving suitable roost trees near a cave or mine entrance. Creating or maintaining a nearby water source is also beneficial.



GATED CAVE ENTRANCE