Gardening for Bats

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At over 1,200 known species, bats are the second most numerous order of mammals (outnumbered only by rodents). Bats comprise nearly 25% of all mammal species, which means nearly 25% of all mammal species fly! Pennsylvania is home to nine species of bats, and an occasional home to two southern species.

Why Bats?

All of Pennsylvania's bats are insect eaters and feed while flying; some hibernate, and some migrate south for winter. Pennsylvania bats are not pollinators – bats typically pollinate by feeding on nectar or fruit but the bats in PA feed in insects.

Bats play a critical role in the ecosystem; feeding on numerous species of insects, many that we consider pests — such as mosquitoes. A single little brown bat, Myotis lucifugus, can eat over a million insects per year. By ke eping insects in check, they reduce the demand for toxic pesticides.

Bat guano (feces) has been used as a fertilizer for centuries and is very rich in nutrients. Hawks, owls, and falcons all feed on bats as a food source. Many insects, fish and other creatures that live only in caves depend on bat guano as a source of nutrients.

Shelter

To encourage bats, you need two things: shelter and food. Not all bat species live in caves — in fact, many PA bat species prefer to roost in the cavities of dead trees.

Dead trees, also known as snags, have a variety of ecological benefits; from homes to cavity-dwelling critters to a food source for grubs and fungus, and even a hunting ground for woodpeckers and nuthatches. If you have a dead tree on your property in a safe place, let it stand, naturally decay, and watch critters utilize it. (Snags, if in the wrong place, pose risks for structures, people, and roadways, so make sure your snag is not in a position that could be a problem as it continues to decay.)

If you do not have any dead trees, consider building or buying a bat box. Bat boxes are narrow boxes that are open on the bottom and have small, crevice-like layers inside for the bats to tuck away in. They enter and exit through the bottom of the box. Consider

placing bat boxes in a sheltered location, such as just below the eave of a house or barn, a stand of trees, or even a tall pole. Avoid "unintentionally" hosting bats in your attic by sealing off any entry points.

Food

When talking about "feeding" bats, we cannot simply put food out for them. We must attract insects. One of the easiest and least pesky foods to attract for them is moths. Moths make up a large part of bat diets because they fly at night.

How does one attract moths? By planting night blooming, night-scented flowering plants. Moths are attracted to flowers that stay open at night, smell at night, and are visible at night. White or yellow are most visible.

The moth life cycle includes a larval caterpillar stage. Caterpillars feed on leaves, while adults feed on nectar. Each moth species needs a specific species of native plants to complete their lifecycle. You can visit butteflliesandmoths.org to learn about the specific needs of each moth species.

Planting a mixture of nectar and host plants is the best way to attract moths (and butterflies for that matter) to your property. It will encourage the highest possible diversity of moths and other night flying pollinators to attract bats.

A few good moth-attractant plant species would include Phlox paniculata (garden phlox), Hydrangea arborescens (wild hydrangea), Oenothera biennis (common evening primrose), Clethra alnifolia (summersweet), Viburnum nudum (smooth viburnum), and Trillium grandiflorum (white trillium).

When trying to attract bats, it may be a good idea to keep your "bat garden" away from bright lights and excessive commotion at night.