

Habitat Gardening

Unlike traditional gardens, a habitat garden focuses on supporting a variety of wildlife, from small animals to birds to bees and insects. Habitat gardens provide the necessary resources for survival and reproduction such as food, water, shelter, and places to raise young.

Habitat gardens are most successful when they mimic the structure of a natural system that sustains a variety of species through plant layers of mulch, non-woody plants, shrubs, and both understory and canopy trees.

Most plants in a habitat garden should be **natives**, which have evolved with other organisms in the ecosystem. Non-natives can be less useful to insects and birds because an unusual flower color may make it unrecognizable, the bloom shape may make the nectar inaccessible, or the foliage color may make the leaf inedible.

Let's take a closer look at each resource provided in a habitat garden:

Food

Plants form the foundation for most food webs by harnessing the sun's energy and converting it to energy that can be used by animals.

- Flowers provide **nectar and pollen** for bees, butterflies, moths, and other insects. Hummingbirds drink the nectar of lantana, salvia, coral honeysuckle, lobelia, and many other flowers. **Seed heads** from coneflowers, zinnias, and sunflowers are used by goldfinches, chickadees, cardinals, and other birds. Leave these faded flowers in your garden; they are natural birdfeeders, providing essential food in winter.
- **Native** grasses, flowers, shrubs, and trees are **larval host plants** for butterfly and moth caterpillars, which eat their leaves. Those caterpillars, in turn, serve as food for baby birds.

Larval host plants that can be eaten by many caterpillar species are considered "**keystone plants**" because of the critical role they play in supporting the ecosystem. Examples include oaks, which are larval host plants for more than 400 species in the Kansas City area, and goldenrod, which is a host plant for almost 100 species here.

- The **fruits, berries, seeds, nuts and leaves** of trees and shrubs also feed birds. Elderberry, possumhaw, blackhaw viburnum, beautyberry, pawpaw, prairie crabapple, serviceberry, hackberry, oak, and walnut are just a few that are native to the Kansas City area.
- Even **dead plants** are important food sources for a habitat garden. **Fallen leaves** and **woody debris** create a mulch layer for a habitat garden and serve as food for insects that feed other wildlife, such as toads, lizards, and birds. "**Leave the Leaves**" in your habitat garden.

You can provide **supplemental food** in bird feeders that hold seeds, suet (woodpeckers), nectar (hummingbirds, orioles), or mealworms (bluebirds). These feeders must be regularly cleaned and disinfected to prevent the spread of disease.

Water

Wildlife must have clean water year-round for drinking and bathing. The water can be from a natural source, such as a pond or stream, or man-made, such as a rain garden, fountain, birdbath, or puddling area. The water in birdbaths and fountains must be replaced and the basin cleaned and disinfected regularly.

Shelter and a Place to Raise Young

Plants in the habitat garden are critical for shelter and reproduction.

- In addition to **dense shrubs, evergreens, and trees** that serve as shelter and nesting sites for birds, **groundcover plants** also provide a “soft landing,” where caterpillars can drop to the ground to continue their lifecycle, safe from lawnmowers or trimmers.
- **Fallen leaves** protect the eggs, caterpillars, chrysalises, and adults of most butterfly and moth species, some overwintering queen bumblebees, other insects, and worms that serve as food for turtles, birds, and amphibians.
- **Hollow or pithy stems** of dead herbaceous plants are used as homes by many cavity-nesting bees. **“Save the Stems”** in your habitat garden: cut them at various heights from 8-24” in the spring. The plant will put out new growth to hide the dead stems, where bees will nest over the winter. Repeat the process each spring, allowing old stems to naturally decompose after bees emerge throughout the spring and summer.
- **Standing dead trees** (“snags”) become homes to woodpeckers, owls, and insects.
- **Fallen branches or logs** provide habitat for insects, frogs, skinks, and lizards.

Rock piles, rock walls, brush or log piles, and dead hedges can also be added as shelter for butterflies, bees, beetles, and birds. In addition, man-made shelters, such as roosting and nesting boxes, are useful, but must be cleaned and disinfected regularly. Bee houses should consist of natural reeds or cardboard tubes replaced each year after the bees emerge. Bee houses made by drilling holes into a block of wood are too difficult to clean effectively.

Additional Practices

With a habitat garden, it’s important to follow **environmentally-conscious gardening practices**:

- **Reduce or eliminate use of pesticides and fertilizers.** Many insects are beneficial and will help manage populations of harmful insects. Fertilize naturally with compost made from lawn and kitchen waste and by allowing leaves, dead plants, and sticks to decompose in garden beds.
- **Reduce light pollution,** which negatively affects migration and breeding of birds, moths, fireflies, and other insects. Replace landscape lights with amber-colored LED bulbs and direct the light downward.

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Revised 2026

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