

# Attracting Pollinators to the Garden

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Numerous studies have demonstrated the importance of pollinators to our ecosystems. The insects and animals that move pollen from one plant to another ensure a good majority of the world's crop and food production. Recent studies have shown that approximately 75% of the plants cultivated for human benefit are pollinated by insect and animal pollinators.

In recent years, pollinators have declined at a rapid rate due to destruction of habitats, pesticide use, invasive species and general neglect for their basic needs. There are several things that gardeners can do to help ensure that pollinators are available in their home gardens.

## General Information

In simple terms, we cannot survive without pollinators and pollination. The insects and animals visit the flowers to gather pollen and nectar for food or to find places to shelter and raise their young, and in return, assist the plants' reproductive cycle. Transferring the pollen from one flower to another, allows fertilization to take place. Most fruit will not develop without fertilization. Without pollinators, many plants couldn't produce seeds to ensure the plant's next generation. These seeds and the accompanying fruit provide important food sources for of birds and other animals, including man.

## Animal Pollinators

Many plants are wind pollinated (grasses, grain crops like corn and wheat, and conifers, etc.), but many others rely on animals, primarily insects, for the transfer of pollen.

The honeybee (Figure 1) is the most recognized and one of the most dependable pollinators found in

gardens. Many people think that it is a native species, but it is not. It was introduced into North America by European settlers who prized them for the honey and wax that they produced. They have become naturalized and now play an important role in modern agriculture. In addition to honeybees, Key animal pollinators include native bees, flies, moths and other insects, as well as birds (i.e. hummingbirds) and some mammals (i.e. bats).



**Fig. 1.** The honeybee is one of the best-known pollinators in the garden. The bee is collecting pollen to take back to the hive. The pollen is mixed with saliva and nectar and attached to the hind legs for transport. Source: E. Duke

Animal pollinators and especially bees currently are faced with many threats, including lack of flowers for food, pests, pathogens, pesticides, invasive plants, climate change and lack of suitable nesting sites. Gardeners can help by providing a diverse selection of plants, providing nesting sites and by using gardening practices that protect and encourage pollinators.

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## Encouraging Pollinators

An effective way to make a garden more enticing to a variety of pollinators is to provide a diverse selection of plants. Different flower shapes, sizes and colors will attract a variety of pollinators. Native wildflowers are lower maintenance choices that can attract an array of pollinators (Figure 2). With proper plant selection, flowers can be made available throughout the entire gardening season.



**Fig. 2.** The Tropical Checkered Skipper butterfly is found year-round in Florida gardens. Here it is visiting the flowers of Florida Pusley, a native wildflower often considered a weed. Source: L. Sapp

Many pollinators need plants that provide food for their young. For example, milkweed flowers provide nectar for a variety of wasps, bees and butterflies, but they are best known because their leaves are the preferred source of larval food for the Monarch Butterfly (Figure 3). Learn the requirements needed by the particular insects that are found in your area. A reliable source of fresh water is an excellent way to attract pollinators. Bird baths are common features in many gardens, but gardeners seldom provide appropriate water sources for insects. Wide, shallow containers with gently sloping edges provide easy access for insects like bees, wasps and flies. A similar container filled with sand that is kept constantly moist works well for water-seeking butterflies and moths.



**Fig. 3.** The boldy-striped Monarch Butterfly larva uses various species of Milkweed (*Asclepias* spp.) for food. Source: E. Duke

Many pollinators also seek places to shelter in the garden. To keep them from finding homes in the crevices of your house, provide them with their own homes. Many solitary bees seek or burrow holes into trees and structures. You can buy or construct 'bee hotels' that serve that purpose. A simple 'hotel' can be constructed by bundling together different sized pieces of bamboo or by drilling different sized holes into a block of wood. Place the 'hotel' in a shaded location and wait for the insects to take up residence.

One of the most important ways to increase the number of pollinators in the garden is to reduce or eliminate the use of pesticides. Many pesticides are 'broad-spectrum' chemicals that indiscriminately target a wide variety of insects. If insect control is necessary, consider biologicals or pesticides that target specific pests.

## Conclusion

By providing food, water, and shelter and following environmentally friendly growing practices, a gardener can provide a safe and inviting environment for pollinators.