Pollinators

National Park Service
U.S. Department of the Interior

Natural Resource Stewardship and Science www.nps.gov/pollinators





More than 75% of the Earth's flowering plants depend on bees, butterflies, birds, bats, and other pollinators. Yet scientists have noted that these hardworking pollinators are in trouble.

What is a pollinator?

All bees and butterflies and some wasps, moths, birds, flies and small mammals, such as bats, are pollinators. They feed on nectar (sugars) and pollen (protein) from flowers. As they carry pollen from the male part of the flower to the female part of the same or another flower, fertilization occurs producing fruits, seeds, and young plants. Pollinators

visit flowers in search of food, shelter, nest-building materials, and sometimes even mates. Some pollinators, including many bee species, intentionally collect pollen. Butterflies, birds and bats, move pollen accidentally. Pollen sticks on their bodies while they are drinking or feeding on nectar in the flower blooms and is transported from flower to flower.

Why are pollinators important?

One out of every three bites of food we eat exists because of pollinators, including many fruits, vegetables, and seeds. Honey bees alone contribute \$15 billion to the United States economy (White House, 2014).

Healthy ecosystems also depend on pollinators. This includes the pollination of 180,000 different types of plants that help stabilize our soils, clean our air, supply oxygen, and support wildlife.

Why are pollinators in trouble?

Populations of bees and other pollinators may be declining around the world for varied reasons:

- Human development may contribute to habitat loss and fragmentation. In addition, non-native plants tend to outcompete native species, reducing available pollinator habitat.
- Parasites and diseases may affect pollinators by killing the hosts on which they depend.
- Some insecticides and herbicides may kill pollinators and their host plants by hampering the ability of pollinators to navigate or forage.
- Evidence suggests that changing climate conditions may modify the distribution of pollinators and their host plant bloom dates, which in turn may affect the availability of food sources.

What can I do?

Even small changes in our own backyards can help pollinators survive and thrive. We can provide habitat for many types of pollinators by planting native flowers of different shapes, sizes, colors, and bloom times. For planting guides that are specific to different regions, visit www.pollinator.org

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We can also:

- use non-lethal methods to control pests;
- place out a shallow dish of water to help thirsty pollinators stay hydrated;
- provide nesting sites in living and dead trees, brush piles, and bare ground; and
- learn more about pollinators at www.nps.gov/pollinators