



Our Future Flies on the Wings of Pollinators



Fast Facts for Public Land Managers

What do pollinators mean to public land?

- Pollinators are vital to the ecosystem. Nearly 400,000 species of plants and animals are dependent on or benefit from pollination.
- Ecologist E. O. Wilson has stated that most plant and animal species would die out in a matter of months if all pollinators were somehow eliminated.
- Animal-pollinated plants are important in providing ecosystem services, such as water filtration, carbon sequestration, and flood and erosion control.

What is pollination and who does it?

Pollination is a vital stage in the life cycle of all flowering plants. When pollen is moved within a flower or carried from one flower to another of the same species, it leads to fertilization. This transfer of pollen is necessary for healthy and productive native and agricultural ecosystems. Adequate pollination ensures that a plant will produce full-bodied fruit and a full set of fertile seeds. With no pollination at all, most flowering plants could not produce fruit nor set seed, and many of the foods we eat would no longer be available. The plants that many wild creatures rely on for food or shelter would also disappear.

- More than 80% of all flowering plant species need the help of animals to move their heavy pollen grains from plant to plant for fertilization.
- About 1,000 of all pollinators are vertebrates such as birds, bats and small mammals.
- Most pollinators (up to 200,000 species) are beneficial insects such as flies, beetles, wasps, ants, butterflies, moths, and bees.

Help pollinators help you

It does not take much time or effort to increase pollinator abundance and diversity. The best way to protect pollinators is to protect and manage the largest possible areas of native habitat.

- **Conserve** existing original habitats, which already include the necessary food and habitat resources for native pollinators.
- **Create** foraging habitat by providing a wide variety of native, flowering plants with overlapping blooming periods.
- **Create** nesting, roosting and egg-laying sites for pollinators such as bees, hummingbirds, beetles and bats. Provide shelter habitat for pollinators during periods of inactivity, such as hibernation and over-wintering.
- **Replace** non-native species with native species wherever possible.
- **Reduce** or eliminate the use of pesticides, insecticides and herbicides wherever possible.
- **Monitor** your pollinators and their associated plants before you begin managing your land for them.



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Why are pollinators important to us?

The work of pollinators ensures full harvests of many agricultural crops and provides for healthy plants grown in backyards, community gardens and wild lands.



- Worldwide, of the estimated 1,330 crop plants grown for food, beverages, fibers, condiments, spices, and medicines, approximately 1,000 (75%) are pollinated by animals.
- An estimated one-eighth to one-third of all foods and beverages is delivered by pollinators.
- More than half the world's diet of fats and oils comes from oilseed crops, of which cotton, oil palm, canola and sunflowers are pollinated by animals.
- In the U.S., pollination by insects produces nearly \$20 billion worth of products annually.

What everyone can do for pollinators:

- **Watch for pollinators.** Get connected with nature. Take a walk, experience the landscape and look for pollinators midday in sunny, planted areas.
- **Reduce your impact.** Reduce or eliminate your pesticide use, increase green spaces, and minimize urbanization. Pollution and climate change affects pollinators, too!
- **Plant for pollinators.** Create pollinator-friendly habitat with native flowering plants used for nectar, pollen, and pollinator homes. Support pollinator havens.

Join the North American Pollinator Protection Campaign (NAPPC)

More than 100 organizations and individuals have formed a public-private conservation partnership to protect pollinators and form global connections in support of biodiversity and a sustainable environment. NAPPC (www.napcc.org) is coordinated by the CoEvolution Institute, a 501(c)(3) nonprofit organization that manages The Pollinator Partnership (www.pollinator.org). Join the list of NAPPC members and link up to support pollinator-friendly practices.