

# POLLINATORS - *Why We Care*

Pollinating animals travel from plant to plant carrying pollen from one plant to another as they collect nectar. Hummingbirds, bats, bees, beetles, butterflies, and flies, allow the transfer of genetic material critical to the reproduction of most flowering plants. Foods and beverages produced with the help of pollinators include: apples, bananas, blueberries, chocolate, coffee, melons, peaches, potatoes, pumpkins, vanilla, almonds, and tequila. (Imagine a world without some of these things!) Pollinators, “the birds and the bees”, are not only critical to our food and fiber supply, most of all flowering plants in our ecosystem need help with pollination. Almost 90% of all flowering plants rely on animal pollinators for fertilization, and about 200,000 species of animals act as pollinators. Of those, 1,000 are hummingbirds, bats, and small mammals such as mice. The rest are insects like beetles, bees, ants, wasps, butterflies, and moths.

Many pollinator populations are in decline; attributed most severely to a loss in feeding and nesting habitats. Pollinators are facing a multitude of challenges including habitat loss from agriculture, mining, and human development, competition with non-native species, and changes in climate that cause differences in timing and location of flowering plants and their respective pollinators. Other primary challenges include parasites and diseases due to rapid travel and commerce, and improper use of pesticides. Ways we can be more conscious of pollinators are 1) Plant Pollinator-friendly plants, 2) Provide Nesting Habitat, 3) Avoid or limit Pesticide Use.

Pollinator Week, an annual event celebrated internationally in support of pollinator health is this month from June 21-27, 2021. Popular events to celebrate Pollinator Week include planting for pollinators, garden or farm tours, and bee and butterfly ID workshops. To acquire more information, visit the Pollinator Partnership website [pollinator.org/pollinator-week](http://pollinator.org/pollinator-week).

## Flies

Flies typically pollinate flowers that are not as attractive to other pollinators like bees or butterflies. Putrid smelling blossoms, such as Red trillium have an adaptation to attract certain fly pollinators. Cocoa tree flowers smell somewhat mushroomy and to bear fruit, must first be pollinated by a tiny fly called a midge.



## Bats

Nectar-feeding bats are found in every continent with tropical ecosystems. Ecologically and economically important bat-pollinated plants are columnar cacti used for fruit, and paniculate agaves that produce sources of fiber and tequila. Nectar bats are not only critical to reproductive success of many plants, but also play key roles in ecosystems.



## Beetles

Beetles rely on their sense of smell for feeding. Scents associated with beetle pollination are often spicy (Crab apples), sweet (Chimonanthus), or fermented (Calycanthus). Beetles are especially important pollinators for ancient scented species such as magnolias and spicebush.



## Ants

Ants are often observed visiting flowers to collect energy rich nectar. Ants are more likely to take nectar without effectively cross-pollinating flowers. Flowers that are typically visited by ants are typically low-growing and positioned close to the stem. Some examples of ant-pollinated plants in North America include Small's Stonecrop, Alpine Nailwort, and Cascade Knotweed.



## Moths

Because moths are typically active by night, flowers that are visited by moths are typically open late afternoon or night. Moths visit ample nectar producers with nectar deeply hidden, such as morning glory, tobacco, yucca, and gardenia. Yucca plants are specifically dependent on the yucca moth for its survival and perpetuation.



## Bees

Honeybees are very important to today's food supply. One out of three bites of food we eat depends on pollinators and some estimates say that honeybees are responsible for 80% of all pollination. The top 6 major crops in the U.S. dependent on bee pollination are almonds, apples, blueberries, cucumbers, melons, and peaches.



## Birds

Hummingbirds are key in wildflower pollination. There are multiple types of hummingbirds, some migratory and others not. Flowers that are visited by birds and hummingbirds are typically tubular, strong supports for perching, brightly colored, odorless (birds have a poor sense of smell). Hummingbirds have very good eyes and are attracted to the color red. The best way to support hummingbirds is to plant native nectar.



## Wasps

Wasps have high energy needs, like bees. They need key resources such as pollen and nectar, however unlike bees they lack fuzzy hairs which makes them less efficient pollinators. Some species of wasp are specialist pollinators such as fig wasps. Fig moths do so by entering the fruit through a tiny pore to pollinate the tiny flowers inside.



## Butterflies

There has been a 90% decline of monarch populations in recent years. Monarchs help in wildflower pollination. Theorized causes of this decline include loss of milkweed needed for monarch caterpillars to grow and develop; insecticide and herbicide use with unintended consequences for monarchs; and habitat loss of overwintering sites in Mexico and California.

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