

## Pollinator Fact Sheet

### What are pollinators, and why are they important?

- Pollination is the transfer of pollen from the male organ to the female organ of a flowering plant—over 90% of all known flowering plants, and many fruits and vegetables, require pollination!
- Insects are the largest group of pollinators, but others include birds, bats, and even lizards.
- There are **four major groups** of insect pollinators: bees and wasps (Order Hymenoptera), butterflies and moths (Order Lepidoptera), beetles (Order Coleoptera), and flies (Order Diptera).
- As pollinators fly (or crawl) across the garden, grains of pollen stick to their bodies, and rub off on female flower parts as the pollinators go from flower to flower.



The side profile of a **cellophane bee** (*Colletes thoracicus*)

Cellophane bees are solitary nesting bees that prefer loose, sandy soils. They frequently pollinate plants in the carrot family (*Apiaceae*) and stone fruit family (*Rosaceae*).



The face of a **yellow-banded bumblebee** (*Bombus terricola*)

Although a general pollinator, populations of the yellow-banded bumblebee have declined and are threatened by habitat loss and fragmentation, pesticide use, climate change, and commercial bumblebee rearing.

- In return for helping plants reproduce, pollinators are often rewarded with food from flowering plants, such as pollen and nectar, a highly nutritious sweet fluid.
- The added value to crop production in the United States from pollinators is valued at \$18 billion!
- Native plants, which are adapted to local soils and climates, and have co-evolved with native pollinators, are the best sources of nectar and pollen for native pollinators.
- Planting gardens rich in native wildflowers, grasses, shrubs and trees is a great way to support native pollinators!



The face of a **leafcutter bee**  
(*Megachile pugnata*)

Look at those mandibles, or jaw-like structures! This bee was found foraging on wild sunflowers in the National Arboretum right here in D.C. Leafcutter bees are often found on purple coneflower and others in the *Echinacea* genus.



The majestic front of a queen **rusty-patched bumblebee**  
(*Bombus affinis*)

These bumblebees were listed as **federally endangered** in 2017, and are excellent generalist pollinators. Bumblebees pollinate using “buzz pollination,” where the bee grabs the pollen-producing structure of the flower in its jaws, vibrates, and dislodges trapped pollen from the flower. Tomatoes, peppers, and cranberries are a few common plants that need buzz pollination!

**Information on this fact sheet was synthesized from a few amazing sources. Please use the links below for further reading!**

- [University of Maryland Extension Resources](#)
- [Xerces Society for Invertebrate Conservation](#)
- [USDA Pollinators](#)
- [USGS Native Bee Inventory and Monitoring Lab \(BIML\)](#)