



# Partnerships for Pollinators

## Building relations between people and nature



### What is a pollinator?

Flowers produce **nectar**, a sugary liquid, that pollinators eat. Flowers also produce a yellow powder called **pollen**, which falls onto pollinators when they eat nectar. When pollinators fly to other plants to eat more nectar, they carry the pollen with them and deposit it on the other flowers. This is how pollinators fertilize flowers, which allows plants to **reproduce** and create the **fruit** that we eat.

Many different animals are pollinators:

- Bees
- Flies
- Ants
- Butterflies
- Moths
- Hummingbirds
- Bats



There has been a decrease in pollinators, especially bees, in recent years. What is killing the pollinators?

- Loss of natural habitat
- Invasive species
- Disease
- Pesticides

### Pesticides and pollinators

**Pesticides** are chemicals used to kill **pests**, which are insects that damage crops and plants. Even though pesticides do not target pollinators, they still often **kill** or **harm** pollinators.

There are two kinds of pesticides, **inorganic** and **organic**, and **both** can be harmful to pollinators

- **Inorganic** pesticides are chemicals that are created by humans in a laboratory
- **Organic** pesticides are made of toxic chemicals that occur naturally in the wild

Pesticides can **harm** pollinators in the following ways:

- killing them
- disrupting their ability to find their way home
- disrupting their ability to find flowers for food
- sickening other bees with which they come into contact
- disrupting the normal growth of baby bees

**Avoid using pesticides so other pollinators are not killed or harmed!**

### What do pollinators do?



The work that native pollinators do for agricultural crops is worth **\$3 billion** every year!

**Two-thirds** of all foods grown in the world need pollination.

Over **75%** of plants with flowers need pollinators to make seeds.

In North America there are more than **100 agricultural plants** that need pollinators to make as many seeds as possible.

Pollinators are responsible for providing us with many of our favorites foods:

- apples
- cucumbers
- beans
- sunflowers
- strawberries
- coffee
- pumpkins
- cherries
- and many more!



### All kinds of bees!

When we think of bee pollination, most of us picture black and yellow honey bees buzzing around flowers. But honey bees are not native to North America. They were imported from Europe many years ago.

Honey bees contribute to the pollination of about **1/3** of the world's food!

But there are many other kinds of bees that pollinate too! These bees are **native**, which means they live naturally in Wisconsin. These bees are **black**, **brown**, and **green** in color.

#### There are two kinds of bee lifestyles: Social and Solitary

• **Social** bees live with many other bees. Honey bees and bumble bees are the most well known social bees.

• **Solitary** bees live alone in a nest or hole that they make or find. Most bees (**almost 4000 species!**) are solitary.



For more information, check out our website:

<http://pollinators.beavercreekreserve.org>

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### Do all bees sting? NO!

- Most bees are **not aggressive** and **do not sting**. This is because most are solitary with no hive to defend.
- No bee wants to sting you and will only do so as a **last resort**—usually because it is being swatted at or squashed.
- Most bees die after stinging.



The best way to avoid being stung is to remain calm around bees and stay away from their hives and homes.

### How can you help?

Plant pollinator habitat in your yard or garden that provides key needs:

- low logs, trees, and plants provide nest sites
- rocks for sunning
- puddles/bird bath for water
- a variety of plants provide shelter and different kinds of food for pollinators.

Most pollinators may use nectar/pollen from both native and non-native plants so you should use both native and non-native plants in your habitat.

Pollinators like areas with high **biodiversity**, which are habitats with many different types plants and flowers. A great way to achieve biodiversity is by planting a wide variety of plants that bloom at different times. This ensures pollinators always have a food source over the entire growing season.

