

By the Nebraska Statewide Arboretum

The word pollinator conjures up images of bees and butterflies, but there are others. They include bees, butterflies, moths, beetles, flies, birds, bats and even reptiles. They are insects and animals that move pollen from one plant to another; more specifically, from the anthers of a male flower to the female flower's reproductive organ or stigma.

When a flower receives pollen from the same species of plant, successful fertilization can occur to develop seeds that carry the genetic information for new plants. Since plants can't move, all sorts of adaptations have occurred to move pollen around by wind, water and, of course, by pollinators.

Pollinators only inadvertently play a major role in plant reproduction. They're simply seeking their own food sources of nectar and pollen. But their work is essential to us, as more than 80 percent of the 1,400 food crops we depend on are pollinated by pollinators and 90 percent or more of flowering plants need pollinators to survive.

Next time you're at the supermarket, take a look around. That colorful produce aisle full of apples, pumpkins, squash, soybeans and watermelons relies on the activity of pollinators. In the United States alone, the domestic honey bee pollinates over \$10 billion worth of crops.

There is increasing concern about pollinators. The numbers of native pollinators and domestic pollinators are declining due to disease, extensive and inappropriate use of pesticides and loss of habitat.

Even aside from the very tangible and immediate need for food production, pollinators are part of the intricate and biologically diverse natural ecosystem that sustains both life and quality of life.

As citizens, property owners and stewards of the natural resources that sustain us, we can help by creating landscapes that are pollinator-friendly. We can do this by minimizing and properly using pesticides, and by changing landscape management strategies to create landscapes that provide food, shelter and water for pollinators.

Many pollinators travel long distances in the process of migrating (one of the most notable is the monarch butterfly, which travels all the way from Canada to Mexico). We can help by making sure proper food and habitat is widely available.

The simplest way to help protect pollinators is to realize that the chemicals we apply to kill unwanted insects also kill beneficial insects. Instead of reaching for the nearest bottle of pesticide when something appears to be nibbling on plant leaves, consider using Integrated Pest Management strategy and only use pesticides when no other option is available.

Take a walk around your property and neighborhood. Is your landscape pollinator-friendly? Is there a variety of plants? A diversity of pollinators? Are the plants in your landscape able to grow without fertilizer and pesticides? What could be added or replaced to attract more pollinators?

Trees, shrubs and grasses are important components of the pollinator landscape since they provide food, shelter and resting places. Native plants are always good choices for attracting pollinators and there are adapted and annual plants that attract more colorful pollinators like hummingbirds and butterflies.

Pollinators tend to have very specific needs or preferences in terms of flower color, bloom time, fragrance, etc. Below is a general guide for some common pollinators:

- Honey bees prefer fragrant blue and yellow flowers.
- Beetles frequent white or dull-colored flowers with yeasty, spicy or fruity odors.
- Flies like it stinky, but they also visit plants that attract bees.
- Butterflies and moths prefer sweet-smelling bright blue, orange or yellow flowers.
- Butterfly larvae feed on plant tissues from little bluestem and other native grasses.
- Certain pollinators, such as butterflies, also need access to mud puddles, which they sip to take in salts and minerals.
- Night-flying moths tend to visit highly-scented white or yellow flowers.
- Birds and hummingbirds prefer very large red and yellow flowers that produce an abundance of nectar.

Some plants to consider for a pollinator garden include: milkweed, goldenrod, aster, sorrel, native grasses, gayfeather, coneflower, yarrow, leadplant, New Jersey tea, Monarda, Rudbeckia, Joe-Pye weed, ironweed, pasque flower, salvias, sedum, clover and daylily.