BLUE PAPER

Pollinators – Nature's Most Reliable Delivery Service

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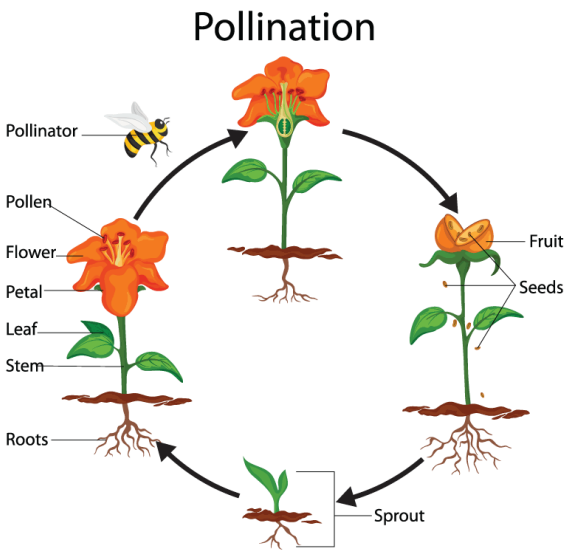
The mission of every living being, including plants, is to reproduce, to create offspring for the next generation. In plants, pollination is the transfer of pollen grains from the male portion (anther) of the flower of a plant to the female portion (stigma) enabling fertilization and the production of seeds. Although some plants are self-pollinating, most require some form of "movement" by an outside source – a pollinator. These are the transporters of continuing life in the world of plants.



Many pollinators are "B-guys," creatures whose names begin with the second letter of the alphabet. Good ol' Honey Bees are first on the list. However, Birds, Bats, and Bugs like Beetles and Butterflies qualify as well. And there's a Marvelous M-contingent: Moths, Midges, and small Mammals.

According to the Pollinator Partnership, we learn that between 75 and 95% of all flowering plants need help with pollination. Pollinators from the local environment provide this service to over 180,000 different plant species, not to mention 1,200 agricultural crops. Are we affected? Well, one third of every single bite of food that we eat is there because of the diligent work of those busy pollinators.

Honey bee on a native aster flower.

But there is a problem. Populations of pollinators are changing. Species are declining primarily because of loss of feeding and nesting environments. Pollution, improper use of chemical pesticides, loss of habitat, disease, and the alteration of climate are all contributing factors.

The question comes to us. How can we – as a community of stewards – be good "neighbors" and assist these wondrous pollinators in carrying out their vital function. Like most forms of life these beings require food and shelter. Whether a farmer of large tracts of land, a gardener with a small area, or simply a homeowner with landscaping needs, we can do a great deal to assist these important pollinators:

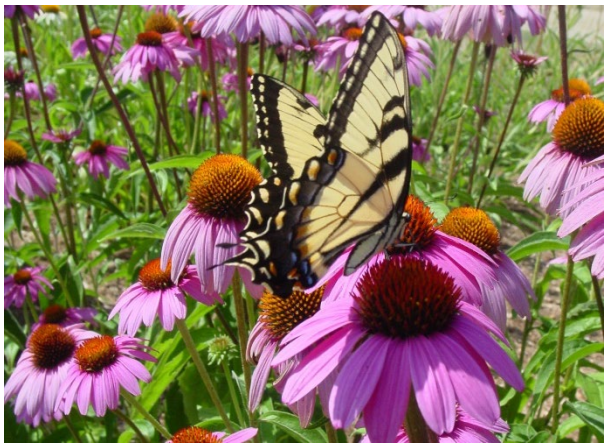
- **Native plants**. Include a variety of native plants, already adapted to our local climate and soil, to provide blooming flowers through the growing season. Plant in clumps to help the insects locate them. Also consider night-blooming flowers for moths and bats, both active in the dark hours.
- **Host Plants**. Butterflies need nectar for feed, but also host plants on which to lay their eggs and have the larva grow. Common milkweed, butterfly weed, dill, fennel, parsley and other herbs are among those necessary host or "shelter" plants.

- **Pesticides**. Eliminate or greatly reduce the use of pesticides, looking for the least possible toxicity to beneficial insects. If chemicals must be used, take a targeted approach and avoid over spraying.
- **Homes**. Unlike honey bees, many native bees are solitary and do not live in hives. They make their homes in small holes in trees or in "bee condos." You can create a bee condo by drilling holes about 5 inches deep and of various diameters into scrap lumber and placing in a sheltered location. Some native bees need mud to construct their houses. You can help by making sure they have access to open soil as well as a water source.

Native bee habitat at Pokagon State Park.

- **Food**. Butterflies need more micro-nutrients than are available in just flower nectar. Consider putting out overripe fruits such as oranges, bananas, or a small sponge in a dish with water and sea salt.
- **Buffer zones**. On a broader scale, work with organizations, like the Conservancy, or government entities to install native plants along roadside rights-of-way and as buffer zones alongside of ditches, streams, and lakes.
- **Knowledge**. Join a growing coalition to educate others on the importance of being good stewards of our land and water resources. Promote awareness within the community of sound environmental practices that will lead to the sustainability of natural resources within our township.

If we all do our part, we will make the Clear Lake Township an even better place to live and grow.


A native swallowtail butterfly on a coneflower.


A swamp milkweed leaf beetle perched above butterfly weed, an attractive native plant. Photo credit: Pat Clark.

References:

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Recommended Indiana-native Plants for Protecting Pollinators (purdue.edu)
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Build a Butterfly Garden This Spring (my-indiana-home.com)
Gardening for Pollinators (fs.fed.us)