

How can YOU help pollinators?

A decline in pollinators affects us all. Reversing this trend is important to our ecosystem as well as to human health and well-being. Pollinators have evolved with plants over thousands of years, developing unique and interdependent relationships. We can all do our part to help pollinators rebound from the challenges they face.

1. **Plant a variety of native flowering plants in your home garden, agricultural or natural landscapes (with bloom times from April to October).**
2. **Provide a variety of natural habitats for nesting sites and clean water sources.**
3. **Avoid pesticide use and purchase pollinator plants (and seeds) that have not been treated with systemic pesticides.**
4. **Help increase awareness about the need to protect pollinators**



PROTECTING Minnesota's Pollinators

There is increasing evidence that insect pollinators are disappearing at alarming rates. Major factors include loss of forage plants and nesting habitat, disease, pesticide use, and pests.



Pollination causes plants to produce the seeds and fruits that sustain wildlife and humans, and provides important ecosystem services. More than 1/3rd of all plants or plant products consumed by humans are dependent on pollinators.



Many Minnesota-grown crop plants cannot produce seed without the help of insect pollinators.

These include:

- Apples
- Berries
- Sunflowers
- Clovers
- Beans
- Squash
- Cucumbers



More resources about pollinators can be found at
<http://www.bwsr.state.mn.us/practices/pollinator/index.html>

Minnesota Board of Water & Soil Resources
www.bwsr.state.mn.us



Minnesota's Pollinators & Pollinator Plants

When these critters visit a flower to consume nectar and/or pollen, some of the pollen grains stick to their bodies. Pollination occurs when this pollen is transferred from one plant to another.

Bees

With over 4000 species, bees are considered the most important pollinators in North America, around 500 of which are native to Minnesota and Wisconsin. Bee families include honey bees, bumble bees, mason bees, carpenter bees, and sweat bees.



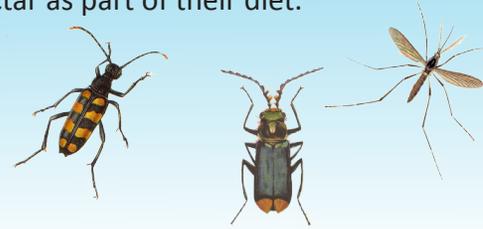
Butterflies & Moths

Butterflies and moths are also important pollinators and many are in trouble. Milkweed is the host plant for monarch butterfly caterpillars, and the loss of this plant is drastically reducing monarch butterfly populations. The Poweshiek skipperling, Dakota skipper, and Karner Blue butterflies are threatened or endangered in Minnesota.



Beetles, Flies, Wasps & Midges

Beetles are considered to be important pollinators because of their large numbers. Beetles play an important role in controlling agricultural pests. Though less effective as pollinators, many flies, wasps, midges, and even mosquitos visit flowers and consume nectar as part of their diet.



Hummingbirds

Of the 20 hummingbirds in North America, only the Ruby-throated is regularly found in Minnesota. This charismatic pollinator is attracted to brightly colored tubular flowers like the columbine.



Goldenrod
Solidago spp.



Joe Pye Weed
Eupatorium spp.



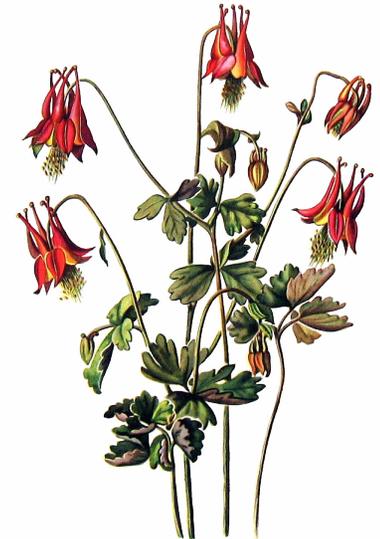
Milkweed
Asclepias spp.



Black-eyed Susan
Rudbeckia spp.



Prairie Blazing Star
Liatris spp.



Columbine
Aquilegia spp.