

# How to Help Pollinators in Your Own Neighborhood

By Dave Crawford, Wild Ones member

Robin Wall Kimmerer (*Braiding Sweetgrass*, 2014) suggests humans can restore natural landscapes as a reciprocal gift to the Earth in exchange for the gifts nature provides to humans. She suggests that the Earth might say "thank you" to humans for doing this. I've done this in my yard, and the Earth says "thank you" in pollinators!



Helping your indigenous pollinators by providing plants native to your region can work at any scale. I've done both a yard-scale planting and a square mile of prairie, but I've found native pollinators even on a front porch containing nothing more than three potted native plants.

Native pollinators, which do most of the work of sustaining our ecosystems and a large share of sustaining our crops, are radically declining in population. Native pollinators need regionally appropriate native plants and a pesticide-free environment in order to maintain their

populations and do their pollination work. These needs can be met as simply as by installing a small pollinator garden.

As pollinators succumb to rural habitat conversion and agricultural practices, urban habitat becomes increasingly important. For example, the federally endangered rusty-patched bumble bee may currently be sustained more successfully in cities than in rural areas.

**The ideal goal** for a pollinator-friendly neighborhood is to ensure the presence of native plants in bloom through as much of the growing season as possible. Some pollinators, like bumble bees and many sweat bees, are active through most of the growing season. Others, like mason bees and early-season mining bees, complete the pollinating part of their life cycle in spring and aren't seen again until the following spring. Still others, like the golden hairy mining bee, are active as adults only during late summer and early fall. All must find appropriate food.



## Definitions

**Native** = an organism indigenous to a specified geographic area, occurring naturally, not introduced by human manipulation of its range. Well-adapted to interactions with other native organisms within the ecosystem in which it is found. Often dependent on those interactions.

**Pollinator** = any organism which effectively transports pollen from one flower of a given species to another flower of the same species. Not all organisms found on flowers are effective at conveying pollen. Ants and lady beetles are examples - but they can convey other benefits.

**Native pollinator** = an organism indigenous to a specified geographic area, which co-evolved with the native flowers of that area. For example, Minnesota has over 400 native bee species, and they require flowers to which their physical characteristics and their behaviors and nutrient requirements are adapted. Contrast that with honeybees, which are not native and have been domesticated to be "generalists", using a wide variety of flowers and not dependent on any particular species. Honeybees, as generalists, are often much less effective at pollinating native species – and even some non-native species like tomatoes and squash – than native bees are.



**Cultivar** = a plant variety based on a naturally-occurring species but bred for human-centric qualities. Most are bred from species which are not locally native and are totally unfamiliar to local pollinators. Even locally-based cultivars (see *Nativar*) are less able to supply the needs of native pollinators. Most domestic flowers are cultivars.

**Nativar** = a cultivar derived from a species native to a specified geographic area. Typically not hugely different in form from their wild-type source species. Still, with some exceptions, relatively less helpful to native pollinators compared to their wild-grown source species. See <https://pollinatorgardens.org/2013/02/08/my-research/>. Generally, if a plant sold at a nursery has a varietal name, such as "Geranium maculatum 'Espresso'" (a human-bred variety of native wild geranium), it is a cultivar.

## Tips

**You can allow dandelions and lawn clover and other non-natives**, at least until you install natives in their place. These weedy non-natives can be stopgap food sources for pollinators in the absence of native alternatives. They rarely pose a serious competitive threat to the integrity of native plant communities, unlike invasive species like creeping bellflower, crown vetch, blue squill, purple loosestrife, Japanese barberry, European buckthorn, and many others. Natives are still best, but it's not necessary to eliminate all non-natives.

**Avoid installing any plant or seed which has been treated with neonicotinoid pesticide.** Avoid inoculating ash trees to prevent emerald ash borer infestation – the chemical used is a neonicotinoid. All parts of a neonicotinoid-treated plant can be toxic to all insects, and neonicotinoids may leach from treated plants into soil and contaminate adjacent plants.

**Avoid chemical use in your yard or neighborhood** (i.e., insecticides, herbicides, fungicides). Evidence increasingly shows that any chemical pesticide weakens pollinators' ability to sustain their populations.

**Encourage beneficial insects:** a healthy ecosystem (even when as small as a single yard) will tend to balance itself. Insect pests are food which sustains predatory insects and insect-eating birds and mammals. When pest insects are eliminated, predators are also eliminated. Unfortunately, pest insect populations recover much faster than predator populations, so pests become a problem again very quickly. Allowing or helping predator populations to sustain themselves works better in the long term. Acute episodes of damage by pests might justify control, but consider tolerating moderate levels of damage if you want to sustain predators and a healthy balance.



**Manage the landscape to provide nest sites:** 70% of native bee species nest in the ground. Most species dig their own nest burrows and prefer bare, loose, undisturbed, well-drained soils instead of compacted, clay, or wet soils. Mulch makes soil inaccessible – avoid using it. Some species (including virtually all bumble bee species) nest in abandoned small mammal burrows. 30% of native bee species nest in cavities in dead wood, dead plant stalks, and rock piles. Leave plant stalks standing in fall and winter, and cut them to 15-inch height in late spring. Unless there's a safety hazard, consider allowing dead limbs to remain on trees, and leave a log or two to slowly decay into the soil.

**A yard that's allowed to be less-than-immaculate** will harbor more beneficial life than a perfectly-groomed yard. Mole and shrew burrows, anthills, standing and fallen dead wood and plant stalks, natural leaf litter, and an abundance of native plant diversity all contribute to more resilient ecological functioning. Well-groomed yards are not only "wastelands" when it comes to harboring desirable species, they can create farther-reaching problems. Turf grass lawns, for instance, are the most productive habitat for Japanese beetle larvae. Turf lawns are poor at absorbing rainfall, so runoff and lawn chemicals end up in lakes and streams, and groundwater doesn't get recharged. Turf lawns don't sequester as much carbon as diversified native plant communities. Turf grass maintenance consumes energy and generates pollutants.

**What's native to your region?** Start with the plant lists at <https://xerces.org/pollinator-conservation/plant-lists/> or <https://www.wildflower.org/collections/>. Expand your local diversity further by learning which plant community types occur naturally in your state and which plant species are found in native plant communities near you.

**Questions?** Email me at [naturalistdave@hotmail.com](mailto:naturalistdave@hotmail.com).



All photos by Dave Crawford, from my urban garden:

- Eastern tiger swallowtail on wild bergamot
- Rusty-patched bumble bee on showy goldenrod
- Green sweat bee on New England aster
- Ladybug larva eating aphid on early sunflower
- Small carpenter bee excavating nest in stiff goldenrod stalk
- Monarch butterflies on meadow blazing star