

What's the problem?

Monarchs have evolved over thousands of years with the native milkweed plants upon which they depend. But habitat loss, wide use of herbicides and genetically modified crops, and frequent roadside mowing have decreased the occurrence of milkweeds (*Asclepias* species) throughout Florida and the U.S. This has contributed to the steep decline of Monarch butterfly (*Danaus plexippus*) populations. Our love and concern for Monarchs has increased interest in milkweed — the butterfly's primary host plant.

How you can help

Homeowners can support Monarchs by planting native milkweeds in their landscapes. There are 21 Florida native milkweed species, three of which are available at Florida native nurseries.



Photo by Stacey Mairazzo

Butterflyweed (*Asclepias tuberosa*) is the most widely recognized native milkweed. Its showy clusters of bright reddish-orange flowers bloom late spring through fall. This native wildflower grows 12 to 15 inches high in a bushy form and has coarse lance- or oval-shaped leaves. Because it grows naturally in sandy habitats, it adapts well to dry landscapes.



Photo by Mary Keim

Pink swamp milkweed (*Asclepias incarnata*) is found in moderate to moist sunny habitats, where it grows 2 to 4 feet tall. It blooms in summer with very showy light pink- to rose-colored flower clusters. Its fleshy linear leaves grow up to 6 inches.



Photo by Peg Urban

White swamp milkweed (*Asclepias perennis*) is a shorter bushy plant growing to about 2 feet. Summer flowerheads are small with white to light-pink flowers. Bright green leaves are lance-shaped. It prefers moist to wet soil conditions and can adapt to shady locations.

Why aren't native milkweed plants widely available?

Although these plants are robust in Florida's natural habitats, they can be difficult to propagate using typical horticultural practices. Because native milkweeds are a larval food source, butterfly larvae may devour milkweed foliage before the plants can be brought to market.

What we are doing

Through research and education, the Florida Wildflower Foundation, Florida Museum of Natural History and other partners are working to expand Monarch breeding habitat and increase the commercial availability of native milkweeds.

Where can I purchase native milkweed plants?

- Visit www.PlantRealFlorida.org to locate a native nursery near you. Several also offer mail-order plants.
- Look for native milkweed plants at regional native plant sales. Many are hosted by Florida Native Plant Society chapters. To find a chapter near you, visit www.FNPS.org.
- Encourage your local garden center to carry native species.

Did you know?

Queen and Soldier butterflies also use native milkweeds as host plants for their caterpillars. Many other butterflies, native bees, moths and other insect pollinators utilize the blossoms.

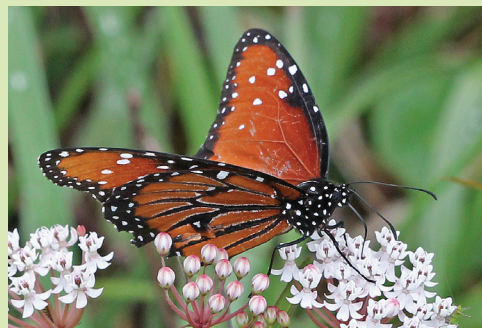


Photo by Peg Urban

How Tropical milkweed can harm Monarchs

Tropical milkweed (*Asclepias curassavica*) is native to Mexico and Central America. It is widely available at Florida's mainstream nurseries and big-box stores because it is easy to grow. However, the use of Tropical milkweed can potentially harm the Monarch.

Commercially purchased Tropical milkweed plants are often treated with systemic chemicals that can be very toxic to Monarch larvae, increasing mortality rates.

Tropical milkweed also has been linked to the transmission of *Ophryocystis elektroscirrha* (OE), a protozoan parasite. When OE spores infect milkweed leaves, they can be carried on the bodies of adult butterflies, which spread the infection to other butterflies. Microscopic spores on the bodies of infected caterpillars are spread to eggs, and infected larvae may not emerge from pupal stage or may emerge as very weak adults.

The use of non-native Tropical milkweed is believed to encourage Monarchs to overwinter in Florida instead of migrating, making them more susceptible to OE. The plant also may escape into natural areas, causing further disruption of migration paths. By staying in Florida and continuously breeding, Monarchs are subject to death from food shortages and freezing temperatures.

Although not documented scientifically, the higher concentration of cardenolides toxin in Tropical milkweed also may have adverse effects.



Tropical milkweed

Photo by Peg Urban

Insecticides

Commercially grown milkweed plants are sometimes treated with systemic insecticides to keep pests off of them, giving them a better appearance at retail nurseries. However, pesticides can harm Monarch caterpillars that feed on their leaves.

What we are doing

The Florida Wildflower Foundation is sponsoring research at the Florida Museum of Natural History that is documenting the effect of various insecticides on Monarch caterpillar mortality. This information will help growers produce the best plants possible without harming Monarch caterpillars.



Photo by Peg Urban

Monarch nectar plants

Plant these natives along with milkweed to provide nectar to Monarchs:

Blazing star (*Liatrix* spp.)
Snow squarestem (*Melanthera nivea*)
Chaffhead (*Carphephorus* spp.)
Climbing aster (*Symphytotrichum carolinianum*)
White crownbeard (*Verbesina virginica*)
Flattop goldenrod (*Euthamia caroliniana*)
Goldenrod (*Solidago* spp.)
Mistflower (*Conoclinium coelestinum*)
Scorpiontail (*Heliotropium angiospermum*)
Spanish needles (*Bidens alba*)
Yellowtop (*Flaveria linearis*)

Act responsibly

Digging up wild milkweed and collecting seed can reduce its ability to reproduce.

- Do not attempt to dig up wild plants.
- Do not collect wild seed unless you first have permission from the landowner.
- If you have permission to harvest, take no more than 10 percent of the available seed.

More information

- Florida Wildflower Foundation (www.FlaWildflowers.org)
- Florida Museum of Natural History (www.floridamuseum.ufl.edu/discover-butterflies/brochures/)
- Monarch Joint Venture (www.monarchjointventure.org)
- Monarch Watch (www.monarchwatch.org)
- Xerces Society (www.xerces.org/monarchs)



Help save Monarch butterflies. Your purchase of the Florida Wildflower license plate supports Monarch research and the planting of native milkweed. Get yours today at your county tag office.

Produced in partnership with the Florida Scenic Highways program. More information at www.FloridaScenicHighways.com.

