



Maximize Your Garden for Monarchs

The Monarch butterfly is so popular that it's the state insect for 7 states! Monarchs are certainly beautiful, and their epic migration – up to 3000 miles in a season - makes them fascinating. There are 2 distinct populations of Monarchs separated by the Rockies. The eastern population overwinters in Central Mexico, while our western population overwinters in coastal California. It takes approximately 4 generations to complete the migration.

Unfortunately, Monarchs were classified as endangered in July 2022. Deforestation of overwintering habitat and loss of milkweed and nectar plants along their migration routes are the main problems causing a decrease in Monarch numbers.

Monarchs and Milkweed

Milkweeds (*Asclepias*) are the sole food plants for Monarch larvae. The leaves contain chemicals called cardiac glycosides, or cardenolides. By ingesting the leaves, Monarch larvae become toxic to eat, and predators learn to avoid them.

Monarch conservation groups recommend planting species of milkweeds that are native to North America whenever possible. We bring in native milkweeds such as *Asclepias incarnata*, *A. tuberosa*, *A. fascicularis*, and *A. speciosa* whenever they are available, but they can be hard to get.

Tropical milkweed (*Asclepias curassavica*) is attractive and easy to grow, so it tends to be the most widely available milkweed. Monarchs love it, but it can be problematic in frost-free areas where it continues to grow and flower during the winter. *Ophryocystis elektroscirrha* (OE) is a parasite that weakens or kills Monarchs, and it can build up on plants that grow year-round. Also, having food plants through winter discourages Monarchs from migrating, which weakens the population.

If tropical milkweed is the only type you can find, make sure to cut it back to 6 inches at least once per season to reduce the concentration of OE on the plant. Cut again in the fall to encourage Monarchs to migrate. Replace these plants with native varieties when they are available.

Designing your Monarch garden

You can make your garden a way station for migrating Monarchs. Here are some proven tips based on urban landscape entomology research.

- Plant your butterfly garden in full sun.
- Include at least 2 species of milkweed (*Asclepias*) for the larvae. Whenever possible, plant native species.
- Plant a variety of nectar plants for the adults. See our care sheet *Butterflies in the Garden* for a list of nectar plants butterflies love.



- Butterflies find food plants by sight, so make milkweed as visible as you can. All of the following methods have been shown to increase the number of larvae on plants.
 - Place milkweed with unimpeded north-south access.
 - Don't block milkweed with taller plants.
 - When possible, plant milkweed at the perimeter of your garden.
 - Leave a slight separation with mulched ground between milkweeds and other plants.
- Cut milkweed plants back to 6 inches during the growing season to reduce the amount of OE and to encourage fresh new growth that is especially attractive to Monarchs.

What not to do

- Don't plant a butterfly garden near a highway.
- Don't hand-rear large quantities of Monarchs; hand-reared Monarchs don't migrate well.
- Don't use butterfly houses or bird houses that can be attractive to invasive European Paper Wasps. These wasps are not bothered by the cardenolides accumulated by the caterpillars and prey heavily on Monarch larvae.

European paper wasp – *Polistes dominulus*
 Note the orange antennae, which native wasps don't have.



Problems on milkweed



Milkweeds are attractive to many insects, including, unfortunately, the oleander aphid, *Aphis nerii*. While a high concentration of these bright yellow aphids on your milkweed may look unsightly, these insects aren't expected to cause serious harm to your plants. To keep your Monarch larvae safe, do not use insecticides. Even spraying the plants with water can knock off caterpillars and eggs. If the population becomes too dense, use your fingers to squish the aphids. You might want to wear gloves when doing this, as it will be a sticky mess. Water the plants regularly to ensure that they are able to tolerate aphid feeding, but don't fertilize; aphids love soft, new growth.

Resources

- Xerces Society
- Monarch Joint Ventures
- Monarch Watch