

Threats to the Monarch Butterfly

Given the great numbers of monarchs (up to 100 million) that gather to migrate each fall, it is hard to imagine them facing any threat of extinction. In reality, however, monarchs and their amazing annual migration are seriously threatened by human activities in both their summer and overwintering sites. Many of these threatening activities hinge on the destruction of good monarch habitats.

In the north (the United States and Canada), monarchs face direct habitat destruction caused by humans. New roads, housing developments, and agricultural expansion all transform a natural landscape in ways that make it impossible for monarchs to survive. Also in the north they face more subtle habitat destruction by the loss of host plants. Milkweed is considered a noxious weed by some people, which means it is often destroyed. In some areas across North America, milkweed plants are also being severely damaged by ozone. Both milkweed and nectaring plants are also vulnerable to the herbicides used by many landscapers, farmers, gardeners, and others. Monarchs themselves can be killed outright by many pesticides.

Monarch populations are even more vulnerable in their overwintering sites. These sites are threatened by human activities in both Mexico and California. Increased pressure to build, remove trees, and develop the land are rapidly destroying monarch overwintering habitat.



Information in this brochure was sourced from Monarch Watch, the National Wildlife Federation, the North American Pollinator Protection Campaign, and www.monarch-butterfly.com

What You Can Do to Help

Mayors' Monarch Pledge

The Mayors' Monarch Pledge is a program of the National Wildlife Federation designed to encourage municipalities to promote monarch-friendly policies and increase its habitat. The Town of Windsor has teamed with the Virginia Master Naturalist Historic Southside Chapter to:

- Promote monarch-friendly landscaping
- Declare March "Monarch Month"
- Support monarch and pollinator education in the schools and community
- Plant a monarch and pollinator learning garden at the Windsor Library
- Hold free presentations at the Windsor Library

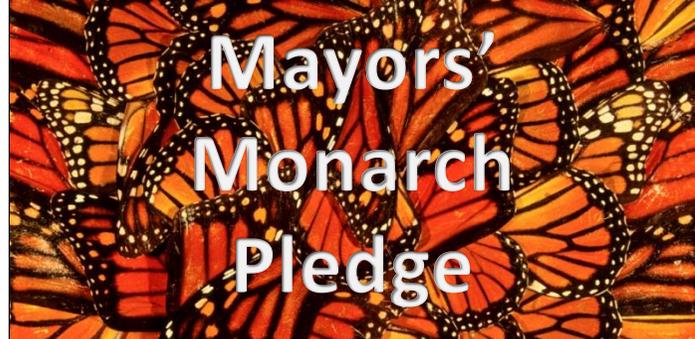
What you can do:

- Participate in the projects and programs offered in conjunction with the Mayors' Monarch Pledge
- Plant milkweed and nectar plants in your home gardens and flower beds
- Encourage public land managers to create monarch habitats along roadsides and in parks
- Join citizen-science efforts to collect data and track monarch populations

For More Information

- National Wildlife Federation:
www.nwf.org/mayorsmonarchpledge
- Town of Windsor: **www.windsor-va.gov**
- Windsor Charter Public Access Channel 188
- Virginia Master Naturalist Historic Southside Chapter: **www.vmnhistoricsouthside.org**

The Virginia Master Naturalist program is open to all, regardless of age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, genetic information, veteran status, or any other basis protected by law. An equal opportunity/affirmative action employer.



Mayors' Monarch Pledge

About the Monarch Butterfly

Brought to you by:
The Town of Windsor



Virginia Master Naturalist
Historic Southside Chapter

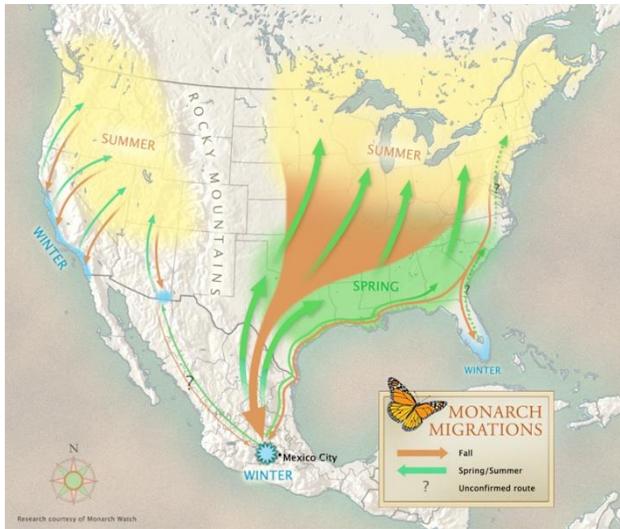


Monarch Butterflies are among the most beautiful in the world, often referred to as the “King” of butterflies, hence the name monarch. There are many, many interesting things about the monarch butterfly.

Monarch Life Cycle

The monarch completes four generations in one year and there are four stages in each generation’s life cycle: the egg, the larvae (caterpillar), the pupa (chrysalis), and the adult butterfly.

Early in the spring in the forests of Mexico, the final generation of the previous season comes out of hibernation to find a mate and migrate north. They find a place to lay the first generation’s eggs on milkweed plants along the migration route late in the spring, March and April.



The eggs hatch into baby caterpillars, also called the larvae, in about four days. The baby caterpillar doesn’t do much more than eat the milkweed in order to grow.

After about two weeks, the caterpillar will be fully-grown and find a place to attach itself so that it can start the process of metamorphosis. It will attach itself to a stem or a leaf using silk and transform into a chrysalis. Although, from the outside, the 10 days of the chrysalis phase seems to be a time



when nothing is happening, it is really a time of rapid change. Within the chrysalis the caterpillar is undergoing a remarkable transformation, called



metamorphosis, where its body parts change to become the beautiful butterfly that will emerge. The butterfly will emerge from the pupa and fly away continuing the migration, feeding on flowers and just enjoying the short life it has left, which is only about two to six weeks. This first generation of the monarch will

then die after laying eggs for generation number two. The second generation of monarchs is born in May and June, and the third generation is born in July and August. These butterflies will go through exactly the same four life cycle stages as the first generation did, dying two to six weeks after it becomes a beautiful monarch butterfly.



The fourth generation of monarch butterflies is a little bit different than the first three generations. The fourth generation is born in September and October and goes through exactly the same process as the first, second and third generations except for one part. The fourth generation does not die after two to six weeks. Instead, this generation migrates back to Mexico for the winter and will live for six to eight months until it is time to start the whole process over again.

It is amazing how the four generations enable the monarch population to continue to live on throughout the years without becoming overpopulated. Mother Nature sure has interesting ways of doing things, doesn’t she?

Interesting Facts About the Monarch

- Milkweed, called the “host plant”, is the only plant on which the monarch can lay eggs. Caterpillars eat and grow rapidly, increasing their weight almost 3,000 times in 10-15 days.
- Milkweed contains a compound which is toxic to most predators, but the monarch has adapted to tolerate it. This makes the monarch quite distasteful to its natural predators!
- Adult monarchs feed on the nectar of a variety of flowering plants, called “nectar plants”. These plants provide energy for breeding, their migratory journey, and reserves for the winter.
- Monarchs are important pollinators because they pick up pollen while they feed on nectar and deliver that pollen to nearby plants, pollinating them.
- Monarchs conserve energy during flight to accomplish their great fall migration. Like birds, they gain altitude by soaring in “thermals”, or updrafts of warm air. Once at the top of a thermal, they glide toward their destination. Monarchs make their migration at an average pace of 25-30 miles per day, quite impressive for an insect the weight of a paperclip!