



The Monarch Butterfly (*Danaus plexippus*)

Together we can save this majestic species

Introduction

Monarch butterflies are one of the most recognizable and remarkable butterfly species in North America. Their bright coloration serves to warn predators that they are poisonous. Monarchs become poisonous by ingesting milkweed, their larval host plant. Monarch females lay eggs on the underside of milkweed leaves. The eggs hatch into caterpillars that eat the leaves, accumulating poisons that will remain in their bodies for the remainder of their lives. These extraordinary butterflies migrate thousands of miles over multiple generations. Unfortunately, due to increased use of pesticides and habitat loss, this incredible species' survival is now at risk.



Monarch roost. Photo by Michael O'Brien

Description

Monarch butterflies are bright orange with black and white markings and a wingspan of 3 ½ - 4 inches. Female

markings are a dull orange, while males have a much brighter orange coloration and a black spot on each hind wing. Caterpillars have yellow, white, and black bands.



Female monarch. Photo by Michael O'Brien



Male monarch. Photo by Michael O'Brien



Caterpillar. Photo by USFWS NJFO

Life Cycle

Monarch butterflies that occur in New Jersey overwinter in Mexico before migrating north in early spring. Once

monarchs begin migrating they will mate and females will look for milkweed plants on which to lay their eggs. The adults will live for only a few weeks. The eggs will hatch into caterpillars after four days. The caterpillars then feed on the milkweed plants over two weeks as they grow. Once they have reached the appropriate size, the caterpillars will form a chrysalis and transform into a butterfly after two more weeks. This new generation of monarchs will continue north, repeating this cycle every few weeks until the final generation of monarchs migrate back to Mexico where they will overwinter, multiple generations after their forefathers migrated.

Threats to survival

Monarchs face a number of threats to their survival. Monarchs can only successfully reproduce using plants in the milkweed family. Loss of these plants means the loss of the monarch. Another serious threat is loss of habitat, both in their summer breeding range and in their overwintering range. Additionally, the increased use of herbicides and pesticides can kill caterpillars and butterflies as well as the milkweed plants. Furthermore, a monarch parasite, *Ophryocystis elektroscirrha* (OE), causes disfigurement, weakness, and ultimately death. It is passed between males and females during mating as well as from parent to offspring. This parasite occurs naturally in monarch

populations but human activities, such as unknowingly distributing captive reared monarchs that are infected, can help to spread this parasite. If you are raising monarchs it is best to wait a generation before distributing them to ensure that the population is not infected.

How you can help

Plant milkweed

Monarchs cannot survive without milkweed. Female monarchs only lay their eggs on milkweed, which then serves as the food source for the caterpillars. The most commonly and easily obtained milkweed species native to New Jersey are: common milkweed (*Asclepias syriaca*), swamp milkweed (*A. incarnata*), and butterflyweed (*A. tuberosa*). It is best to plant milkweed seeds in the fall, scattering them ¼- ½ inch apart and covering with a ¼ inch of soil.



Common milkweed prefers well drained soils. Photo by Amber Rhodes



Swamp milkweed prefers damp, marshy areas. Photo by Tom Koerner



Butterflyweed prefers well-drained soils. Photo by Greg Kramos

Create pollinator habitat

Adult monarch butterflies are not as limited in their food sources as their caterpillar stage and will feed on a wide range of nectar plants. You do not need a lot of room to create your own pollinator habitat, even just a few square feet is sufficient. Make sure that your garden is in a sunny spot that has some shelter from wind. Plant a variety of native nectar plants that have staggered bloom times so that the pollinators will have a food source throughout the breeding and migration seasons. Remove non-native species to make room for more native plants. Consider converting lawn into pollinator habitat and try to use alternatives to herbicides and pesticides.



Rain gardens, like this one, are a great way to create pollinator habitat while also improving water quality. Photo by Amber Rhodes

Monarch mimics

Monarchs are North America's most identifiable butterfly, but there is another butterfly that is easily confused with it. The viceroy butterfly mimics the monarch's coloring as a way of protecting itself. By mimicking monarch's coloring, viceroys trick predators into believing that they are poisonous too. The easiest way to tell these two species apart is to look for the horizontal band on the bottom of the viceroy's wings.



Viceroy. Photo by Alex Galt, USFWS

How we can help

The U.S. Fish and Wildlife Partners for Fish and Wildlife program may be able to help with large scale habitat restoration projects on private or public land that benefit monarchs. For more information on the Partners program visit the New Jersey Field Office on the web at: <http://www.fws.gov/northeast/njfieldoffice/index.html>

For additional information visit:

<http://www.monarchjointventure.org/>

<http://www.fws.gov/savethemonarch/>

<http://monarchwatch.org/>

