

# Monarch Butterfly



*Danaus plexippus*

## Identification

Monarchs have two sets of wings, deep orange with black borders and veins, and white spots along the edge, with a wingspan of 3–4 in/7–10 cm. The underside of the wings is pale orange. Male monarchs have two black spots in the center of their hind wings, which females lack. These spots are scent glands that help males attract female mates. Females have thicker wing veins than males. Monarch caterpillars are striped with yellow, black, and white bands, and are about 2 in/5 cm long.



Photo credit: [Bruce Fingerhood/Flickr](#)

## Observation Tips

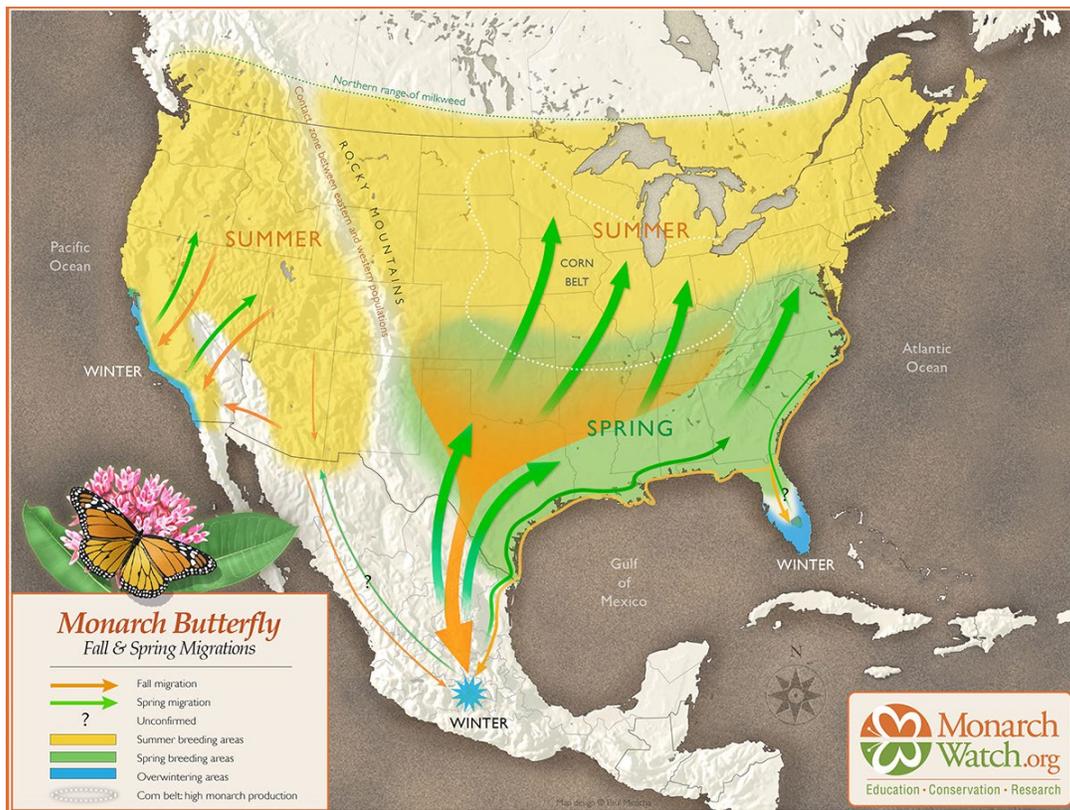
Monarchs are one of the few migratory insects, traveling great distances between summer breeding habitat and winter habitat where they spend several months inactive. In the summer they range as far north as southern Canada. In the fall the eastern population migrates to the cool, high mountains of central Mexico and the western population migrates to coastal California, where they spend the entire winter.

## Interesting Fact

The monarch's bright coloring warns predators not to eat it. Their toxins come from milkweed plants, which are the only food source for the caterpillars. While animals that eat a monarch butterfly usually do not die, they will get sick enough to avoid monarchs in the future. Another amazing fact is the length of the migration that North American monarchs undertake each year. Every fall, millions of these delicate insects travel to Southern California or central Mexico, more than 2,000 mi/3,200 km).

## Ideal Habitat

Monarch larvae feed exclusively on native milkweeds. Twenty-seven different milkweed species in North America, as well as a few closely related species, have been recorded as larval food plants. Adult butterflies survive by drinking nectar from flowers including milkweed, clover, and goldenrod.



Map courtesy of Monarch Watch

## Management Activities that Benefit Species – Best Management Practices (BMPs)

Restoring and protecting existing milkweed plants is the most important monarch conservation and management need. In addition to milkweed, monarch butterflies also require nectar plants that bloom during the times when they are present. Nectar plants that are attractive to monarchs and available during the fall migration may be especially important. Native species of milkweed and monarch nectar plants that are produced from locally or regionally sourced seeds should be used in restoration efforts. On private lands, opportunities exist for restoring monarch habitat through Farm Bill programs, including the EQIP, CSP, CRP, and others. The CRP can incentivize milkweed restoration on private agricultural lands, and the CSP can incentivize the protection of milkweed resources on private ranchlands. Planting gardens and roadsides with milkweed and nectar plants is also important.

## Management Activities to Avoid

Declining populations of monarchs are primarily because of loss of milkweed habitat through conversion and increased use of herbicides, and changes in the amount and quality of overwintering sites. Therefore, avoid any additional loss of milkweed and nectar plants in the migration areas. Also avoid planting nonnative / nonlocal milkweed species because the timing of flowering can interfere with migration. Avoid pesticide use during times when monarchs are in your area except for targeted invasive species control. Avoid mowing until after monarchs have left your area if possible.

## Other Species that Benefit from Similar Habitat Management

Management for monarchs will benefit native milkweed and nectar plants and those that feed on them such as many insects, including other butterflies and hummingbirds.

## Other Resources

**eButterfly.** 2018. Larrivee M, Prudic KL, McFarland KP and J Kerr. eButterfly: a citizen-based butterfly database in the biological sciences. [Monarch butterfly](#)

**Monarch Joint Venture:** <https://monarchjointventure.org/monarch-biology/habitat-needs/types-of-monarch-habitat>

**MonarchWatch.org:** Education, Conservation, Research. [Monarch butterfly](#)

**US Department of Agriculture, Natural Resource Conservation Service:** [Working Lands for Wildlife, Monarch butterflies](#)

**US Department of Agriculture, US Forest Service.** [Milkweed Species Beneficial to the Monarch Butterfly](#)

**US Geological Service:** [Monarch Conservation Science \(story map\).](#)

**Xerces Society for Invertebrate Conservation:** [Monarch butterfly conservation](#)

**Western Monarch Milkweed Mapper:** Record monarch and milkweed observations in a community science project.

<https://www.monarchmilkweedmapper.org/>