

Creating monarch habitat in your Midwestern garden 1

Iza Redlinski, The Field Museum, Chicago

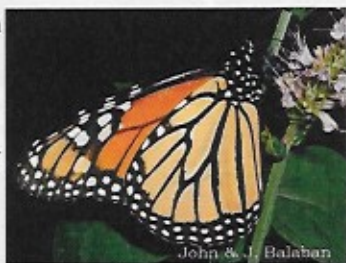
Photos: John and Jane Balaban, Wendy Caldwell, Candy Sarikonda, Laura Milkert, Iza Redlinski, and John Hilty. Produced by Iza Redlinski, Juliana Philipp and Tyana Wachter © Keller Science Action Center, The Field Museum, Chicago. [fieldguides@fieldmuseum.org] [fieldguides.fieldmuseum.org] [878] version 1 3/2017

The monarch butterfly (*Danaus plexippus*) captures the imagination of people across North America as it completes an annual migration from Mexico to Canada. The population of this once common butterfly has decreased by more than 80% over the last two decades. Although there are many reasons for its decline, lack of milkweed and nectar plants is a culprit. The good news is that gardeners can help reverse the decline; planting the flowers in this guide will help this iconic butterfly survive its long journey and produce the next generation of transcontinental travelers. And it's not just monarchs; adding these native plants to your garden, balcony or community provides habitat to dozens of other pollinator species too.

Learn to tell the difference between male monarchs, female monarchs, and a common monarch mimic.

MONARCH: no line crossing through the hind wing, much larger and a stronger flier than a viceroy. Male has dots on lower wings

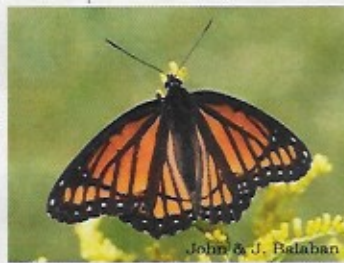
VICEROY: line crossing through hind wing, quick wing flutter



Adult Monarch - Female
Danaus plexippus

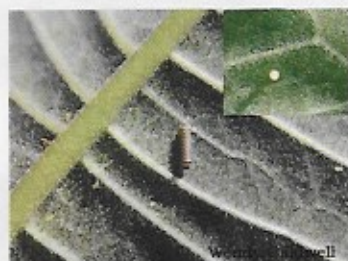


Adult Monarch - Male
Danaus plexippus



Viceroy
Limenitis archippus

LIFE CYCLE - A monarch egg usually takes about 4 days to hatch. It is off-white with ridges, and the size of a pinhead. Once it hatches, the larva (caterpillar) goes through 5 stages, called instars, before it forms a pupa (chrysalis) and metamorphoses into an adult monarch butterfly



Egg and 1st instar, caterpillar 2-6 mm in length, 0.5-1.5 mm in width, looks translucent & shiny with a dark head



3rd instar, caterpillar 10-14 mm in length, distinct black and yellow bands, front tentacles reach 1.7 mm



5th instar, caterpillar 25-45 mm in length, pronounced yellow, white and black stripes, black looks velvety

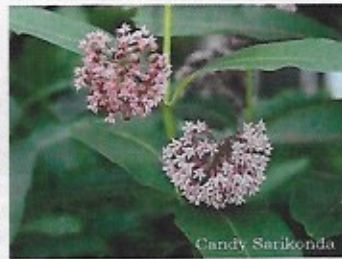


Monarch butterfly chrysalis

Milkweed: Monarch butterflies lay their eggs only on milkweeds (genus *Asclepias*). Monarch larvae thrive on a diet of milkweed leaves, which contain a milky sap that protects monarchs from their enemies. The more milkweed there is, the more monarchs make the trip each year



Butterflyweed - *A. tuberosa*
Beautiful orange blooms



Common milkweed - *A. syriaca*
Easy to plant, spreads quickly



Marsh milkweed - *A. incarnata*
Recommended for moist areas



Poke milkweed - *A. exaltata*
Grows well in part to full shade



Prairie milkweed - *A. sullivantii*
Harder to establish



Whorled milkweed - *A. verticillata*
Small plant, good garden filler

Other things to do for pollinators

- Do not use neonicotinoids or other pesticides in your garden
- Certify your garden as wildlife habitat
- Plant season - long nectar sources (next page) in addition to milkweeds
- Provide water and shelter from wind
- Join citizen science efforts tracking the monarch's migration
- For more information, including seeds source for species on this page, visit www.monarchjointventure.org

Creating monarch habitat in your Midwestern garden 2

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* Full sun, * Part shade, * Shade



Nodding Wild Onion
Allium cernuum
** July-August (18 in.)



Leadplant
Amorpha canescens
* June-August (1-3 ft.)



Smooth Aster
Aster laevis
** August-October (4 ft.)



Big-leaved Aster
Aster macrophyllus
* August-October (2-3 ft.)



New England Aster
Aster novae-angliae
** August-October (5 ft.)



Prairie Coreopsis
Coreopsis palmata
* June-August (1-2.5 ft.)



Pale Coneflower
Echinacea pallida
** June-July (3 ft.)



Rattlesnake Master
Eryngium yuccifolium
** July-September



Joe Pye Weed
Eupatorium purpureum
** July-September (7 ft.)



Marsh Blazing Star
Liatris spicata
** June-September (5 ft.)



Virginia Bluebells
Mertensia virginica
** March-May (1.5-2 ft.)



Bergamot
Monarda fistulosa
** June-October (2.5-4 ft.)



Sundrops
Oenothera spp
** May-September (1-4 ft.)



Mountain Mint
Pycnanthemum virginianum
** June-October (3 ft.)



Grey Headed Coneflower
Ratibida pinnata
** July-October (4 ft.)



Black-Eyed Susan
Rudbeckia hirta
** May-October (2-3 ft.)



Wild Petunia
Ruellia humilis
** June-August (1 ft.)



Culvers Root
Veronicastrum virginicum
** June-August (5 ft.)



Ironweed
Vernonia fasciculata
** July-October (3-5 ft.)



Zig zag goldenrods
Solidago flexicaulis
** August-October (2-3 ft.)