

Chicago, Illinois, USA Creating Monarch Habitat in Your Midwestern Garden

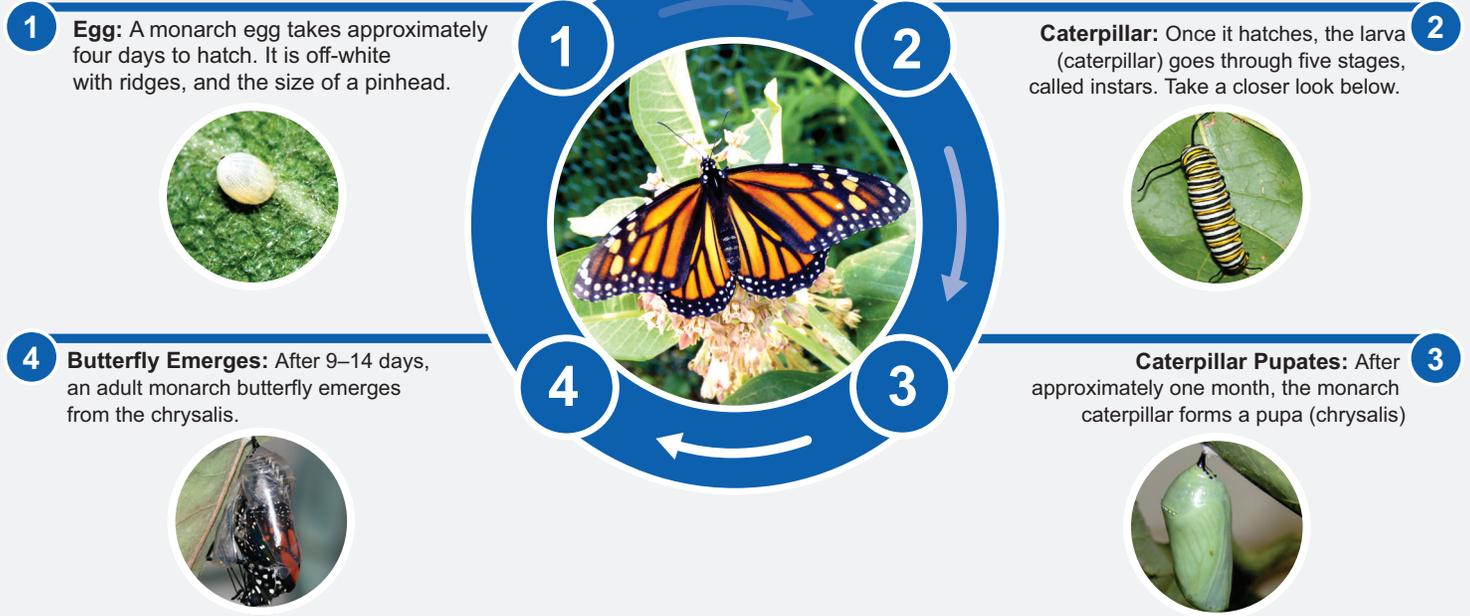
Iza Redlinski
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Photos: J&J Balaban, Candy Sarikonda, Laura Milkert, Iza Redlinski, Wendy Caldwell, Carter O'Brien, Erika Hasle and John Hilty. Produced by Iza Redlinski and Alicia Diaz. Designed by: Alicia Diaz, Field Museum. Acknowledgment: J&J Balaban, Lorena Lopez, Erika Hasle, Laura Milkert, Abigail Derby Lewis, Lex Winter, Juliana Philipp, and Tyana Wachter.

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MONARCH BUTTERFLY: LIFE CYCLE



THE FIVE STAGES OF THE MONARCH CATERPILLAR

The larvae (caterpillar) develops in five stages which scientists call instars.



1 instar: pale green with a dark head, this stage lacks the distinctive banding of later stages.



2 instar: Front tentacles are 0.3mm and back tentacles are emerging. Distinctive pattern of black, white, and yellow bands.



3 instar: Front tentacles are 1.7mm and back tentacles have emerged. The front pair of legs is smaller and close to the head.



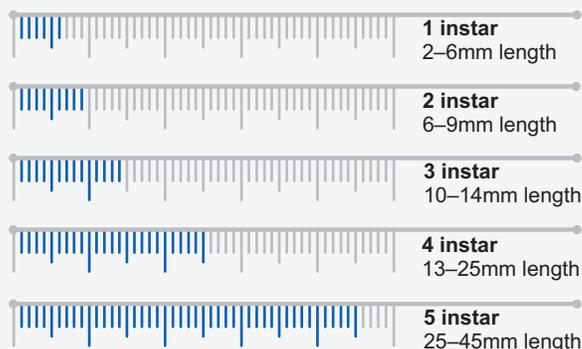
4 instar: Front tentacles are 5mm. The first pair of legs is even closer to the head. There are white spots on the prolegs that were less noticeable in the third instar.



5 instar: Front tentacles are 11mm. The black bands look velvety and the two front legs have moved close to the head.

MEASUREMENTS FOR CATERPILLAR

Print as "Actual Size" and at 100% for accurate measurements.



IDENTIFY A MONARCH BUTTERFLY

A common Monarch mimic is the Viceroy which has a quick wing flutter and a line crossing through it's hind wing. The Monarch is much larger in size and a stronger flier than a Viceroy. The male Monarch has two black dots on lower wings.



Adult Monarch - Female
Danaus plexippus



Adult Monarch - Male
Danaus plexippus



Viceroy
Limenitis archippus



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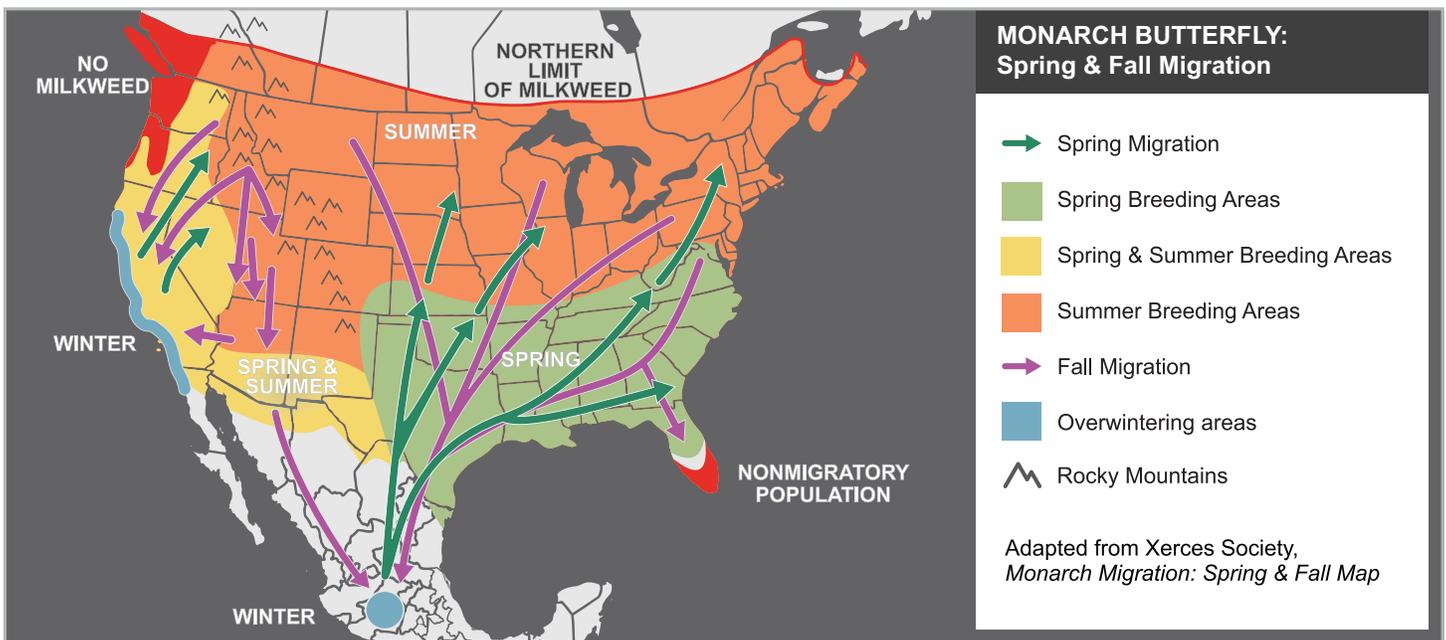
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MONARCH BUTTERFLY

The monarch butterfly (*Danaus plexippus*) captures the imagination of people across North America as it completes an annual multigenerational 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.



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 will be supported.

NECTAR SOURCES FOR ADULT MONARCHS BUTTERFLIES

In contrast to caterpillars that rely strictly on milkweeds, the adult monarchs eat nectar from a variety of species that are in bloom. Providing a habitat with constant blooms throughout the growing season will ensure that monarchs have a reliable food source. This is especially important in late summer and fall, when the monarchs fuel for their journey.

OTHER THINGS TO DO FOR POLLINATORS

- Do not use plants sprayed with neonicotinoids or other pesticides.
- Certify your garden as wildlife habitat.
- Along with milkweeds, provide nectar sources that bloom for long periods of time throughout the season.
- Provide water and shelter from wind.
- Join community science efforts tracking the monarch's migration.
- To learn more, visit monarchjointventure.org and illinoiswildflowers.info. Check out *Flora of the Chicago Region: A Floristic and Ecological Synthesis* by Gerould Wilhelm and Laura Rericha at your local library!

HOW TO USE THIS GUIDE

There are milkweeds and native plants for any type of a place be it shade or full sun, wet or dry. Familiarize yourself with the space you would like to plant and then pick the appropriate plants that will thrive there. Pay attention to sun exposure and soil moisture preferences and remember to pick plants so that you can ensure continuous blooms.

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BLOOM TIME:

Indicated by Months

SUN EXPOSURE PREFERENCE:

☀ Full Sun ☀ Part Sun ☀ Shade

SOIL MOISTURE PREFERENCE:

☉ Dry ☉ Dry to Medium ☉ Medium ☉ Moist

MILKWEED SPECIES:

C-Common N- Not Common & Not Rare R- Rare

MILKWEED



1 Common Milkweed
Asclepias syriaca

This is the most frequently encountered milkweed in the region and a favorite of the monarch butterfly and other pollinators. It reaches a height between 4-6ft and spreads through underground roots called rhizomes.

Jun-Aug ☀ ☀ ☉ ☉ ☉ C



2 Rose Milkweed
Asclepias incarnata

Stems up to 5 ft tall with long elegant leaves and bright pink flowers that attract an array of pollinators.

Jun-Sep ☀ ☀ ☉ ☉ ☉ C



3 Butterflyweed
Asclepias tuberosa

A shorter milkweed, usually around 1-2 ft tall with bright orange flowers. This is a showy plant that can easily become a center piece of any garden if the growing conditions are right.

Jun-Sep ☀ ☉ ☉ N



4 Whorled Milkweed
Asclepias verticillata

A more modest milkweed with a single stem and delicate white flowers. This species can spread by rhizomes and fill empty spots in gardens nicely.

Jun-Sep ☀ ☀ ☉ ☉ N



5 Short Green Milkweed
Asclepias viridiflora

This milkweed is found in high quality remnant areas, often with sandy and well drained soils or in gravel or hill prairies. It is not too showy, with greenish flowers and short stature.

Jun-Aug ☀ ☉ ☉ R



6 Purple Milkweed
Asclepias purpurascens

This uncommon milkweed has beautiful deep purple flowers and can grow up to 3 feet tall.

Jun-Jul ☀ ☉ ☉ R



7 Poke Milkweed
Asclepias exaltata

A tall milkweed that prefers shade and non-windy conditions. It has two colored flowers that provide a white and green color contrast.

May-Jul ☀ ☉ ☉ R



8 Prairie Milkweed
Asclepias sullivantii

Similar in appearance to common milkweed, this species will not spread easily. It's completely smooth underside of leaves and a midvein with a reddish tint distinguishes it from the common milkweed.

Jun-Aug ☀ ☉ ☉ ☉ R

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NECTAR SOURCES FOR ADULT MONARCH BUTTERFLIES



9 Golden Alexanders
Zizia aurea

A host plant for the swallowtail butterfly, this spring bloomer has bright yellow flowers arranged in an umbel - a grouping of short stalks that end with flowers.

Apr-Jun ☀ ☀ ☪ ☪



10 Anise Hyssop
Agastache foeniculum

A showy bloom attracting many pollinators, this plant is more common in natural communities further southwest but has been a native gardener's favorite for some time.

Jun-Sep ☀ ☀ ☪ ☪



11 Mountain Mint
Pycnanthemum virginianum

This plant grows many-branched stems with small, intensely smelling leaves. The flowers are small, white and dense. Plant preserves well into winter.

Jun-Oct ☀ ☀ ☪ ☪



12 Black Eyed Susan
Rudbeckia sp.

Many gardeners might have a species or its horticultural variety in the garden. The plants are charming, and not too tall, and have the added benefit of familiarity.

Jun-Aug ☀ ☀ ☪ ☪



13 Blue Vervain
Verbena hastata

The small blue flowers attract a lot of pollinators and are delicate and attractive in the garden.

Jun-Sep ☀ ☀ ☪ ☪



14 Yellow Coneflower
Ratibida pinnata

Tall flowers with yellow drooping petals. The aromatic seeds are a favorite to many local birds.

Jul-Oct ☀ ☪



15 Side Oats Gramma
Bouteloua curtipendula

This grass grows in a bunch with singular leaves sticking out. It is a great addition to any garden, adding texture and providing shelter for pollinators.

Jul-Oct ☀ ☪



16 Blazing Star
Liatris spicata

Pink bright flowers are aligned in a cone-like shape to add charm.

Jul-Sep ☀ ☪ ☪

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NECTAR SOURCES FOR ADULT MONARCH BUTTERFLIES (Cont.)



17 Common Ironweed
Veronia fasciculata

Common ironweed has bright purple flowers that will brighten any garden and attract many pollinators. Xerces society also lists this plant as having particular value for other pollinators as well.

Jul-Oct ☀ ☉



18 Purple Coneflower
Echinacea purpurea

Lovely and colorful plant with an open flower on a stout stem. This plant has many recorded medicinal and cultural uses.

Jul-Aug ☀ ☀ ☉



19 Stiff Goldenrod
Oligoneuron rigidum

Goldenrods brighten any garden in fall. Stiff goldenrod has a stout stem and culminates in round bunch of flowers. Pair with a blue aster for a beautiful color composition

Jul-Oct ☀ ☉ ☉



20 Big Leaf Aster
Eurybia macrophylla

The heart shaped leaves are just as attractive, if not more than the flowers.

Jul-Oct ☀ ☀ ☉



21 Little Bluestem
Schizachyrium scoparium

This commonly encountered grass brings a lot of ornamental value to the garden. In the fall the stems turn rusty brown color.

Aug-Sep ☀ ☉



22 Smooth Blue Aster
Symphyotrichum laeve

This late blooming aster adapts well to almost any setting and will add instant color to your garden in the fall. Pair with a goldenrod for a beautiful color contrast.

Aug-Oct ☀ ☀ ☉



23 Short's Aster
Symphyotrichum shortii

This medium size plant reaches about 3 feet and can be carpeted with lavender colored flowers in the fall.

Aug-Oct ☀ ☉



24 Blue Stem Goldenrod
Solidago caesia

This beautiful goldenrod has delicate small yellow flowers blooming along the stem. This species remains in the area where it was planted and does not spread easily.

Sep-Oct ☀ ☀ ☉