A Home Gardening Guide for Butterfly Lovers

2026

Come Fly with Us

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Introduction

This is a guide for home gardeners who want to help preserve the Western Monarch butterfly. It is filled with interesting facts about our butterfly. It gives you all the information you need to attract them and to make your garden a safe haven for them to reproduce and multiply. By doing so, you will become part of a growing movement to return the Western Monarch to its historic place as one of the glories of the California environment and a pillar of our food chain.

A Brief History

The Western Monarch is unique to California and the west coast. It is distinct from the Monarchs found east of the Rockies, which are well-known for their epic annual migration from their cold-climate summer homes to the mountain forests of Mexico where they spend the winter. The Western Monarch, like all good Californians, doesn't find it necessary to leave for the winter. Instead, they move on for only a few miles when cool weather comes, finding coastal eucalyptus groves for shelter until it's time to start the annual reproductive cycle again.

San Diego County is especially suited to the Western Monarch. We have here on the coast one of just five "Mediterranean" climates in the world, with relatively little temperature variation from season to season. The Western Monarchs that breed here tend to stay here, thriving in our moderate summers and seeing no need to go very far for over-wintering, migrating only as far as eucalyptus, pine, and cypress groves within the state. We're lucky in that way, and so we have a special obligation to make our environment as welcoming for them as possible.

Despite these advantages, it looked just a few years ago as if the Western Monarch might be headed for extinction in California. Years ago, annual butterfly counts placed their population at around four to five million. But since then Monarchs have suffered from a dramatic loss of habitat through deforestation, the expansion of farming, and our habit of constructing homes, offices, and golf courses on former wildlands. At the same time, the profusion of pesticides and herbicides used to "tame" our environment has accelerated the crisis. (The use of Round- Up alone has been devastating) To make matters even worse, climate change further disrupted the Western Monarch's natural habitats. Butterflies are highly sensitive to weather and climate conditions. They have thrived in our coastal climate because they can find sheltered areas buffered from wind, cold temperatures, and storms. A changing climate, however, destabilizes the Monarch's relationship with its environment. For all these reasons, by 2018, the number of Western Monarchs in California had shrunk to barely 1,800.

That shocking decline set off alarm bells for many reasons. Not only did it mean we faced the loss of one of our most beautiful creatures, but it had dire implications for food production.

Butterflies, along with bees – also under threat – are our two most important pollinators. Losing them would mean losing most of the flowers and plants we rely on for our own survival.

When Myra Esler read about their possible extinction, she wrote an article for The Village Voice about her childhood love of Monarchs. So many people responded that the notion of an OHCC butterfly sanctuary seemed possible. Rona Cole was one of the first to call and say that she wanted to be a participant. Together they started a project - with the Master Board's approval – that became The Save the Monarch Butterfly Club in November 2021.

Its mission is to make a significant contribution to preserving the Western Monarch and to grow their numbers. We began by building the butterfly sanctuary in the area known as The Park in 2022, where we successfully produced hundreds of butterflies that year. Our efforts were part of a state-wide drive that has made encouraging progress in restoring the Monarch population – the 2022 count put the number at about 230,000.

2022 represented a good first step – but it was only a small step, 2023 brought hundreds of Monarchs to the Sanctuary and to residents' backyards, easily three times 2022 numbers. Despite a statewide effort the Western Monarch is still endangered. We need to do more, and the SMB Club is committed to expanding our efforts to increase these numbers.

One of our goals is to enlist the help of residents throughout OHCC to use their home gardens to expand the habitat available to our Monarchs. Many of you are already doing that, and many more have expressed interest in joining our ranks. This guide is intended to give you step-by-step advice to help you contribute to our mission.

Good luck!

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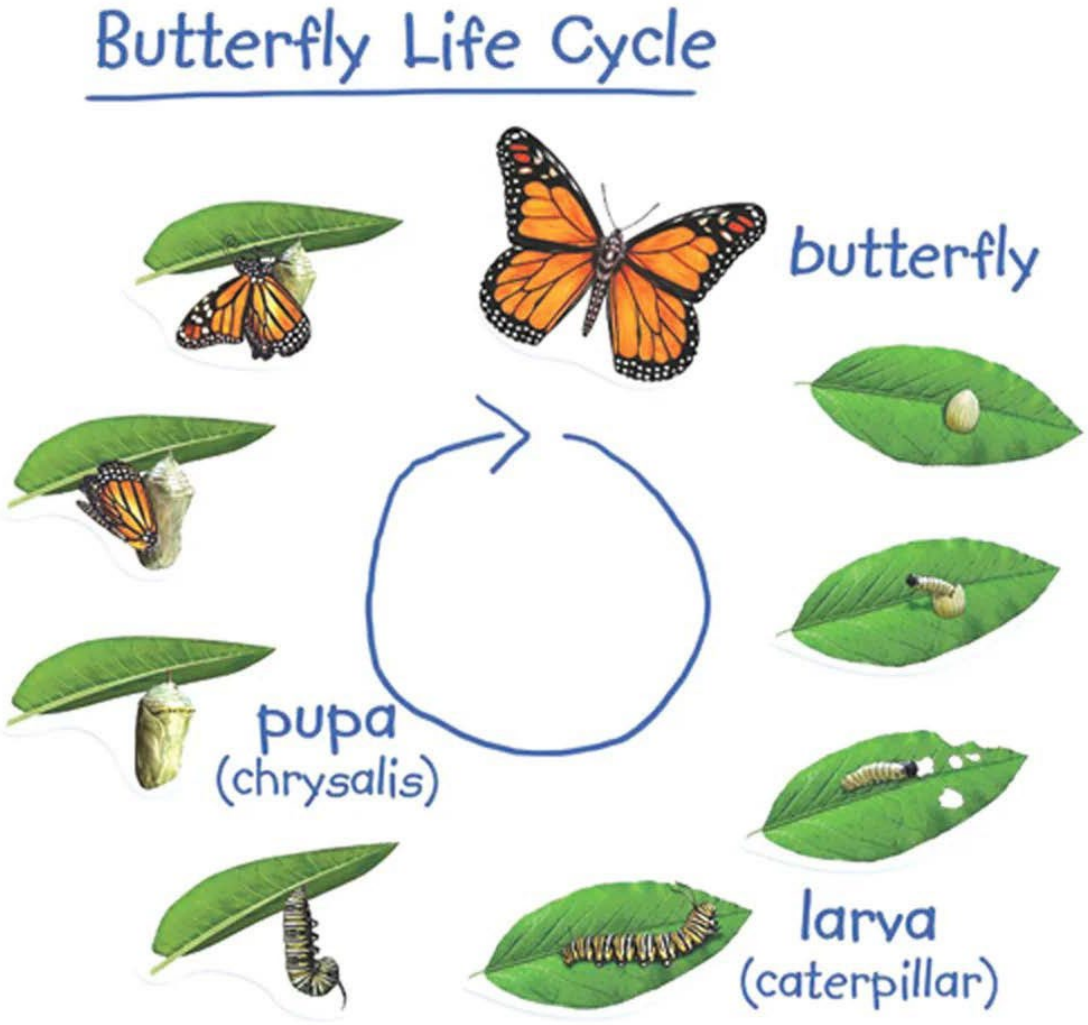
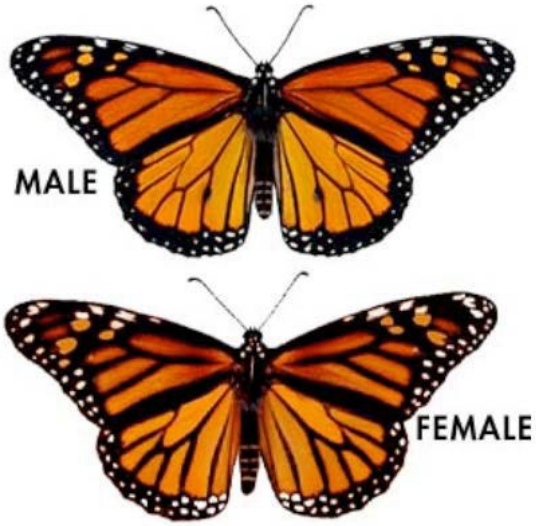
Club

The Life Cycle of the Monarch Butterfly

As you read these pages, it's a good idea to have in mind the various stages of Monarch development. This diagram shows you what to expect as this continuous miracle unfolds.



Interesting Facts about Monarchs



- Males have a small black spot on the top surface of the hindwing. Females do not.
- You can see the spot when the wings are open; sometimes it's visible when the wings are closed, too.
- Males also have slightly thinner wing veins.
- Females tend to be slightly darker than males.
- The trip of the abdomen of the male and female are visibly different.
- A male Monarch courts the female by rubbing his antenna on the female's head and thorax.
- Monarchs have true color vision.
- Like other insects, Monarchs have six legs, but they only use the middle and hind legs.

Other Interesting Facts

- The beautiful orange of the Monarch butterfly so impressed early settlers that they named it “Monarch” after King William III, Prince of Orange.
- Monarchs ’life spans are up to 6 weeks. Their entire life is spent reproducing to save their species.
- Monarchs need water like all living creatures. They need salty water especially the male who stores the salt and leaves it in the female when he impregnates her.
- The male dies soon after mating.
- Monarchs have “DNA” memory. While one may not live to return to its birthplace (although this has been recorded), the offspring they produce will return there.
- A female carries up to 400 eggs.
- Adult Monarchs are not afraid of humans and will land on your shoulders, arms, and head. Do not touch them. Once they have rested, they will fly off to do their work.
- The do not travel in masses when flying to and from their over-wintering sites.
- Monarchs cannot fly when the temperature is less than 55 degrees. They are cold blooded and need warmth to fly.
- The Western Monarch in California does not migrate between Canada and Mexico like those found east of the Rockies. Our Monarchs move only to their wintering sites.

Getting Started

A Few Basics

There are a few general rules to know before you start your butterfly journey.

- Never use pesticides or herbicides on or near milkweed or nectar plants in your garden. They are lethal to Monarchs.
- Always wear gloves when you have to touch or move Monarch caterpillars or eggs. This is for the butterfly's protection, not our own. If you have to move or rescue them, either cut off the piece of milkweed that the egg or caterpillar is on and place it in a cage or on a plant or use a flat piece of bark or a clean piece of paper. And don't squeeze – eggs and caterpillars are very fragile!

It All Starts with Milkweed

There are no Western Monarchs without milkweed. Milkweed is the only food for Monarch caterpillars, and so without a sufficient supply of it, the Monarch life cycle can't go on. Besides, milkweed leaves are where the Monarchs lay their eggs. It's no exaggeration to say that expanding the volume of milkweed, here and throughout the country, is the only way for these butterflies to survive and thrive.

But the factors behind the disappearance of milkweed over the years have not gone away. Developers are still cutting forests for urban dwellings and golf courses and farms continue to be dependent on deadly pesticides and herbicides. The only solution is for individuals – people like us – to dedicate more of the space we control to milkweed. We can also press landowners to allow vacant spaces to be used for that purpose.

Some people are hesitant to plant milkweed, because, let's face it, it isn't the most attractive plant you can find for your garden, and it goes dormant in the winter, when it looks like it has died. But if you surround it with other critical butterfly plants – the nectar plants that the adult Monarch feeds on – you can support the butterfly throughout its cycle and still have a beautiful garden year-round.

What is Milkweed

Milkweed is actually – wait for it – a weed. But weed or not, it is the only food that the caterpillar of the Monarch butterfly will eat. No milkweed, no Monarchs – it's that simpl3.Many so-called "weeds" form critical parts of our ecosystem, helping to produce food and provide other benefits to our environment.

Native narrow leaf Milkweed is a relatively small plant – it grows to about 18-24 inches in height – but it becomes much broader over time. It grows by means of rhizomes – light, radish-like bulbs on the roots that spread sideways.

Milkweed is very bitter, and its sap can be toxic to the eyes of pets and humans – always wear gloves when handling them. This toxicity helps provide protection from the caterpillar's predators, like many of our California birds.

How to Plant Milkweed

Not all milkweed is created equal. There are several varieties, and the Monarchs will eat most of them, but plant only native narrow leaf milkweed (Asclepias), or native Woolly (Asclepias Eriocarpa) obtained from a nursery that guarantees them to be herbicide-free and pesticide-free. Heartleaf Snowy milkweed is an acceptable alternative, but it is harder to find.

Narrow Leaf Milkweed

Native Wooly Milkweed

Heartless Snowy Milkweed

Tropical milkweed is widely available; it has much more colorful blossoms than the others, and it doesn't go dormant in the winter. However, it harms the Monarch's reproductive ability and, over time, interferes with its ability to fly. So to be safe, plant only herbicide-free and pesticide-free milkweed.

You can plant milkweed in pots or in the garden. When you plant it, make sure you don't disturb the roots. We often spread the roots of other plants when we take them out of their containers but doing that with milkweed impedes its growth. Just transfer the milkweed from the container to a hole twice the size of the pot with as little disturbance as possible.

It's probably a good idea to plant several milkweed plants, or as many as you have room for. When Monarchs start laying eggs, they are very generous about it. When you see the eggs appear -- they look like little, microscopic white dots -- be aware that if you see any eggs, there will likely be many, some of them out of sight on the underside of leaves. A single Monarch will lay up to 400 eggs in its lifetime, and all will want to eat milkweed leaves immediately. Be prepared for the likelihood that once those eggs start hatching into caterpillars, a single plant in your garden may not be enough to support the demand.

Caring for Milkweed

Good news! Milkweed needs little care. The plant should be in the open sun up to 6 hours a day. Water your milkweed regularly at first – every three days, unless there's rain. Do not let the roots dry out. A water meter, which you can get at any nursery (or online) is an easy way to determine whether your plant needs watering or not. Once the milkweed is established, water it only sparingly. Milkweed is drought tolerant.

Don't let pets near milkweed – remember that its sap can be toxic to their eyes, and to yours too. Use gloves when handling it.

Milkweed can attract aphids. Aphids do not harm the plant, but they multiply quickly and can harm other plants in your garden. Just take a wet paper towel and wipe them off the milkweed leaves.

When you get caterpillars on your milkweed, they may eat all the leaves on the plant, leaving it with a forlorn appearance. Simply cut the plant back and new growth will quickly appear. In the meantime, you must continue to feed the caterpillars until they go into chrysalis; this is why it's a good idea to have multiple plants available.

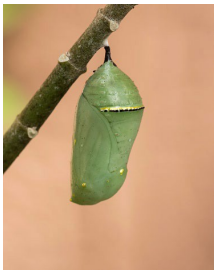
How to Care for Milkweed in Winter

Milkweed goes dormant in late fall – between November and March, depending on weather. The stalks will lose their leaves and turn gray. Despite appearances, the plant is not dead; the roots are still growing. If you have a landscaper, make sure to let them know that these are *not* dead plants; sometimes in their zeal to clean up, landscapers have been known to pull dormant milkweed out. When milkweed goes dormant, prune the stalks back to the ground. Continue to water the plant once a week or so. It will produce new leaves in February or March, again depending on the weather.

Many people compensate for the milkweed's winter drabness by surrounding it with plants that remain attractive all year. Nectar plants are a good choice, since the adult Monarchs will need them for food when they emerge from chrysalis. (A later section of this guide talks about nectar plants.

Managing the Monarch Life Cycle

The caterpillar will assume a “J” position for a day or two, and then, as it sheds its last exo-skeleton, the chrysalis is revealed. The chrysalis is a wax-like substance with that gold band which is unique to the Monarch. The whole process happens fairly quickly, and it is an amazing thing to watch. The length of the chrysalis stage depends on the weather. The warmer the weather, the faster the butterfly develops. Generally, the butterfly spends from 10 to 15 days in chrysalis.



When the chrysalis turns black, the butterfly is ready to emerge. That process takes a few minutes. The new butterfly will hang on the empty chrysalis while it pumps blood into its wings and then dries them prior to taking flight. This usually takes a few hours. Then, when it’s ready, it will fly off, looking for nectar plants for food.

November through February

This is when milkweed loses its leaves and goes dormant. The Monarchs, and most other butterflies, will move to their overwintering sites where they hang on eucalyptus and pine trees that are sheltered from cold winds. California has more than 200 wintering sites. A list of those that are the easiest to access is at the end of this guide.

Monarchs must consume enough nectar as adults to create fat that they need to survive their flight to overwintering sites. They also need water to prevent dehydration, which they get from streams, dew, and fog.

Dealing with Predators

It's hard to believe that a creature as beautiful and useful as the Western Monarch would have enemies, but Mother Nature has, in her wisdom, put a number of obstacles in the path from egg to adult butterfly. Here are some of the deadliest:

Humans

Very few humans dislike butterflies, but we often are responsible for behavior that is very damaging to the species. Spraying pesticides or herbicides in our yards and fields does tremendous damage by contaminating their food sources. Our relentless elimination of the Monarch's natural habitat is another main reason for their decline. And many gardeners and homeowners mistake the Monarch caterpillar for harmful look-alikes and try to eliminate them from their property. Make sure you identify any caterpillar you think you need to spray before harming them.

Lizards, Snakes, Wasps, Ants, and Spiders

Lizards and baby rattlesnakes love to eat caterpillars. There are also a few wasps, spiders, and ants that will feed on them. Fortunately, very few California birds eat Monarch caterpillars because of their bitter taste; there are, however, a few exceptions.

Tachinid Fly (T-Fly)

This very small fly is one of the Monarch's worst enemies. Its size allows it to get through fences or even protective mesh easily. These parasites lay their eggs on Monarch caterpillars and kill the host caterpillar just before or just after it goes into chrysalis. When this happens, the caterpillar loses its J position and a long, white, gel-like thread hangs from it. The fly's maggots come out of the chrysalis and drop to the ground onto soil or leaf litter, where they develop into more flies within 10 to 14 days

These flies are very difficult to control. The best solution found so far is to cage the caterpillars when they are very young (1-2 instars), because the fly does not eat them at this stage. (See section on caging and instar chart)

Viruses

Monarchs are vulnerable to two destructive viruses. One is called OE. It is ingested by the butterflies when they eat infected milkweed. It is spread by spores that fall off the wings and bodies of adult butterflies. It spreads very quickly.

The second virus is called NPV, which causes a caterpillar and/or the chrysalis to deflate, turn black, and then liquify.

Don't be discouraged by these conditions. As you know, Mother Nature puts obstacles in the way of every species; that is how the eco-system works. Just as with humans, not every butterfly lives. For creatures in the wild, the odds of survival can be very low, especially since we humans have created even more obstacles for them. Fortunately, we can do something about improving this odds by dramatically increasing the number of butterflies we raise. Your contribution as a home gardener is crucial to this effort.

The good news is that both viruses can be controlled by taking some precautions. Caging helps. (Next page) Alternatively, cleaning affected milkweed with a solution of 10% bleach and 90%water helps control both flies and viruses and prevents transmission. Completely saturate the plant with the solution and let it sit for five minutes. Then rinse the plant several times with clean water. Allow the milkweed to dry before allowing caterpillars to feed on it.

We hope that this new guide provides you with the information you need to attract and care for these beautiful creatures, while making your garden a beautiful and safe haven for them.

Nectar Plants

With so much attention paid to milkweed's role in attracting butterflies and helping caterpillars reach chrysalis stage, the food needs of the adult Monarch sometimes get overlooked. Monarchs feed on the nectar provided by nectar plants. They need nectar to survive and to store up the energy to migrate to overwintering sites. Whether or not you want to plant milkweed, you can make a big contribution to the Monarch's welfare by making nectar plants available in your garden. Here are a few samples.

We have developed a very comprehensive list of nectar and native plants that will feed both butterflies and bees. You can find it in the Resources section of this guide.

Pentas

Salvia

Delphinium

Cassia

Alyssum

Cosmos

Lavender

Lobelia

Sunflower

Penstemons

Bladder Pod

Fennel

Cabbage

Parsley

Kale

Plants That Rabbit Will Not Eat

Salvia
Bearded Tongue Penstemon
Gaillardia
Sweet Alyssum
Verbena
Most Shrubs
Lavender
Artemisia
Shasta Daisies
Butterfly Bush
Coreopsis
Veronica
Black Eyed Susan
Begonias
Geraniums
Candy Tuft
Yarrow
Monkshood
Foxglove

Resources

Pesticide-Free Milkweed and Plants

Moosa Nursery, Oceanside and Vista Farmers' Market
Neels Nursery, Encinitas
Green Thumb Nursery, San Marcos
Tree of Life Nursery, Capistrano
Wild Yards Project, on-line
Home-Grown National Parks, on-line

Water Meters
Any nursery
Home Depot, Lowes
Amazon

Overwintering Sites Near Us
SDSU Campus, La Jolla
Doheny State Beach, Dana Point
Ellwood Main, Santa Barbara
Tecolote Canyon Santa Barbara
Refugio State Beach, Santa Barbara
Oceano Campground, San Luis Obispo
Pismo State Beach, San Luis Obispo
Los Osos, Sweet Springs, San Luis Obispo