Part One: How to Raise Monarch Butterflies at Home

Posted on April 5, 2013 by Monika Maeckle

Remember those Monarch eggs I wrote about two weeks ago that I found on my front yard milkweed? The photos below illustrate how easy it is to raise Monarch butterflies at home. It's fun and gratifying to bring the eggs inside for fostering.



It's not pretty, but it works. Iced latte cup serves as "caterpillar condo." Photo by Monika Maeckle

Now's the time of year you'll find Monarch butterfly eggs on your milkweed. Just turn over the leaves, look on the underside and you'll see them. Your helping hand could give those eggs a

higher chance–from 10% to 90%–of completing their life cycle and becoming a butterfly. Mother Nature can be brutal. Threats lurk everywhere for the tiny eggs, which serve as a protein pop for beetles, ants, and wasps–equivalent of a highly nutritious smoothie.

Once the eggs hatch and start munching on milkweed leaves, the holes and "chew marks" they leave in their wake signal to predators that a tasty morsel is near. While birds generally don't find Monarchs tasty, they don't know that until they have their first bite.



Bring eggs in to give them a better chance of completing the life cycle. You'll find them on the underside of milkweed leaves. Photo by Monika Maeckle

It's not difficult to nurture an egg all the way through the life cycle—from teeny creamy yellow dot to chubby waddling caterpillar to jewel-like chrysalis to beautiful butterfly. Chrysalises also make fantastic, unique gifts for life's transitional occasions—weddings, funerals, graduations, a job or other life change.

If you're up for fostering Monarch caterpillars, you must have ample, chemical-free milkweed which can serve as Monarchs', Queens' and other milkweed feeders solitary food source in the caterpillar stage.

Any type of *Asclepias* species will do. As much as I like native plants, I'm a big fan of Tropical milkweed, *Asclepias curassavica*, for at-home butterfly gardens: it's easy-to-grow, widely available and a reliable bloomer. Other butterflies adore nectaring on its orange and yellow flowers.

Once the eggs hatch, you'll need to provide fresh milkweed regularly—and in later stages, daily—to these voracious eating machines, so make sure you're well stocked.



Former salad greens box converts to a caterpillar container. You'll have to provide fresh milkweed each day. Photo by Monika Maeckle

You'll also need a pot, container or "cage" in which to store the milkweed and sequester the caterpillars. They make quite a mess. Some people use tupperware boxes, others will put milkweed leaves in a vase and let the caterpillars crawl around, munching as they please. I like to use a beverage bottle or a plastic iced coffee cup with a lid, which makes a simple "caterpillar condo." Be sure to put some newspaper underneath to catch the enormous amount of caterpillar poop, also known as frass, that will result from the constant eating. Clipping the paper with a clothespin to create a catch for the frass will keep it from rolling onto your floor.



Whole lotta caterpillar poop! Known as frass, caterpillar excrement can be monumental. Photo by Monika Maeckle

Another option, if you have chemical-free potted milkweed available, is to bring the plant inside the house or on a porch and let the caterpillars consume the plant. That's one of the easiest methods.

Professional butterfly breeders often take this approach, devoting entire greenhouses to seeded milkweed pots. Others will use cut milkweed supplied fresh daily after cleaning the containers.



Professional breeders and Monarch enthusiasts plant Tropical milkweed seeds in January so they'll be sprouting in time for the caterpillar-palooza that arrives in the spring. Photo by Monika Maeckle

Cages must be kept clean and free of frass. You can empty out the frass and wipe down the inside of the cup or container with a paper towel. Trapped frass can cause a germ problem, as the caterpillars waddle through the mess, track it onto leaves, then consume the nastiness, possibly getting sick.

Beyond fresh milkweed and a container, cage, or potted plant, you'll need little else but time. The life cycle from egg to butterfly usually takes about a month. The egg stage lasts about four days. Then the caterpillar hatches and remains in its first instar, or stage, for several days. As it eats and outgrows its skin, it morphs to become a second instar caterpillar.



This guy is forming his silk button and will soon make a j-shape to morph into his chrysalis. See the silk? Photo by Monika Maeckle

The process continues, to third, fourth and fifth instar "cats," until finally, the caterpillar is almost as big as your ring finger and appears as if it will bust its stripes. Usually the process from egg to fifth instar takes about 10 -14 days, depending on conditions. And, if there's less milkweed available, the caterpillars will hurry up and form their chrysalises, eating less and forming more petite chrysalises.

When that time nears, the caterpillar typically wanders away from its host plant or attaches itself to the top of the cage if confined. It seeks a nice, quiet place, out of direct sunlight to form its chrysalis. We have found chrysalises in the most unusual places.



About to go chrysalis, he's forming his j-shape. Photo by Monika Maeckle

For that reason, many people prefer pop-up cages rather than cups or potted plants since you can put a potted plant inside, sit back and wait. Personally, I love watching the cats' acrobatics as they go through the process and I don't mind finding caterpillars on or under my furniture or curtains. My husband is also quite tolerant. But...I understand not everyone feels that way.

When the caterpillar is ready to go chrysalis, it sits quietly for a while, seeming to ponder the possibilities. But actually, it's spinning a tough, sturdy silk button that will support its weight for the period in which it hangs upside down as a chrysalis for about a week.

When it's ready, it hangs vertically and forms a j-shape. At some moment, when you see its tentacles hanging



These three caterpillars formed their chrysalises on the underside of the newspaper protecting my floor. Photo by Monika Maeckle

limply, it will begin its transformation from caterpillar to chrysalis with an exotic twisting dance that allows it to shed its skin for the fifth and final time. It forms the most fantastic jade colored jewel, flecked with gold specks and rimmed with black. The chrysalis remains for 10 - 14 days, depending on the weather and humidity.

Finally, when it's ready to become a butterfly, the green chrysalis will turn opaque, then dark, then black, then clear. You can see the gorgeous orange-and-black coloration of the Monarch butterfly



When the chrysalis turns clear, a butterfly is about to be born. Photo by Monika Maeckle

waiting to be born through the shell. To watch the butterfly eclose, or emerge, from this form warrants a toast of champagne or a sip of Bordeaux. It happens quickly, so don't leave the scene if you're hoping to catch the moment.

When the butterfly first hatches, its wings are soft and malleable. The butterfly needs to hang vertically so its wings can take shape and firm up. After about two hours, the butterfly's wings have dropped completely and are fully formed, ready for first flight. When you see the butterfly start to beat its wings slowly, as if it's revving up its engines, its time to take her outside and send her on her way.



Newborn Monarch butterfly: almost ready for flight. Photo by Monika Maeckle

For more information, check out the Monarch Larvae Monitoring Project page on raising Monarchs or Monarch Watch.

More on this topic:

- Part II: More Tips on Raising Monarch Caterpillars and Butterflies at Home
- FOS Monarch Lays Eggs in San Antonio Urban Garden
- Tropical Milkweed: To Plant it or Not is No Simple Question
- Oh Those Crazy Chrysalises: Caterpillars in Surprising Places
- Butterfly FAQ: Is it OK to Move a Chrysalis? Yes, and here's how to do it
- Should You Bring in a Late Season Caterpillar into Your Home?

Like what you're reading? Follow butterfly and native plant news at the Texas Butterfly Ranch. Sign up for email delivery in the righthand navigation bar of this page, like us on Facebook, or follow us on Twitter, @monikam. You can also read our stuff on the Rivard Report.

SHARE THIS:



Posted in Milkweed, Monarch Butterfly, Monarch caterpillar | Tagged how to raise caterpillars, milkweed, monarch butterfly chrysalis, monarch caterpillar | 201 Replies