

Field Notes—October 5, 2022
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Pollinators in Our Yards

Here is a quick recap of the Monarch activity in our yard this season.



Remember, there are four generations of Monarchs each year:

Gen. 4 is the one that overwinters in Mexico.

Gen. 1 results from Gen. 4's mating in the southern US in early spring (April–May).

Gen. 2 shows up in the northeast (June–July) and mates here.

Gen. 3 represents their offspring, seen July–September.

Gen. 4 butterflies emerge here August–October, but do not mate (they emerge in diapause, a state of sexual arrest which will last until next spring). They catch the autumn winds and migrate south to Mexico.

In my field notes for July, I reported the Monarchs courting in our butterfly weed (I saw mating behavior every day from July 8 to July 18). A month later, there were fresh Generation 3 butterflies flirting in the flower gardens.



August 11, Fresh Gen. 3 Monarch

At the same time, we had 5th-instar Monarch caterpillars (Gen. 3 larvae) on our butterfly weed, the offspring of the last of the Gen. 2 pairs that had mated in July.



Monarch caterpillar (one of several) on butterfly weed, August 10

On September 13, I saw a male Monarch in the yard, looking very fresh – it may well have been an adult that developed from one of those August 10 caterpillars. I surmised that if it were to find a mate in our yard, I should expect to see Gen. 4 caterpillars by October 1.

Well, whaddya know?



Sept. 28. Two Monarch caterpillars on silky milkweed (*Asclepias curassavica*)

We had been on vacation in Maine the last week of September. Cool weather had already set in, but I saw three Monarchs on the wing in the gardens we visited

there. When we got back, there were big, fat cats on our silky milkweed plants!¹ On October 1, I cut the stems that had caterpillars on them (four cats altogether) and placed them in a 5-gallon tub with about ½ inch of water at the bottom to keep the stems fresh. I put a mesh covering over the top so the cats couldn't crawl out. The cats gobbled those leaves so fast, I had to cut a few more fresh stalks for them the next day.



October 1. Monarch caterpillars and silky milkweed stalks in a 5-gallon tub indoors

¹ I am aware that the Xerces Society cautions gardeners against growing *A. curassavica* in areas where it does not die back in the winter, because the increasing sequestration of cardenolides can become toxic to Monarchs when the plant is perennial. But here in my backyard, it's definitely an annual!
<https://xerces.org/blog/tropical-milkweed-a-no-grow>

Meanwhile, I left three cats to enjoy their milkweed outdoors. The nights were pretty cold, and I wasn't sure they'd make it, but they kept on chewing, slowly . . . as they are still doing today (October 5).



Monarch cat on silky milkweed outdoors, October 4

By October 4, there were only two Monarch cats on the milkweed outdoors – one had presumably crawled off to pupate in the garden.

The indoor cats were prevented from crawling away – they tried, but the mesh screen always made them turn back. One formed a chrysalis on the screen, and

three pupated on the milkweed stalks. You can tell they're ready to pupate when they attach their rear ends to something (a branch, a twig, a piece of wire mesh) with a bundle of fine white threads and dangle head down in a J-form:



Caterpillar in J form, showing white-thread attachment to stalk



Another caterpillar in J form, October 3, 10 a.m. This one has attached itself to the mesh screen.

By evening, all four had pupated— and the milkweed pods on the stalks were opening, too. So much development in one day! You can see the whole pupation process on many YouTube videos if you google “Monarch Metamorphosis Time Lapse.”

By this morning, October 5, all four chrysalises had developed gold flecks.



October 5, a gold-flecked chrysalis

The word *chrysalis* comes from the Greek *chrȳsós* "gold." Not all pupae have gold specks, but Monarchs do. I've read that the flecked spots are involved in air exchange inside and outside the chrysalis, but that doesn't explain why they look like real gold!



Monarch chrysalis and Milkweed seeds

These little gold-flecked pods are completely self-sufficient. All they need is to be left alone. Since indoor air tends to be dry, I will provide some moisture by dunking them in a tiny cup of water now and then. And in about two weeks . . . I hope to be back in touch with more marvels to report!