MLMP Updates

An e-newsletter of the Monarch Larva Monitoring Project

Summer 2025

*This summer's newsletter includes a **season update** and a save-the-date for our second-annual virtual **2025 end of season gathering** in October 2025 as well as information about our remaining **2025 Q&A sessions** offered over Zoom.*

*We also have articles featuring **our volunteers**, a **research review**, and information about **insects on milkweed**.*

Read on!

Season Update

by Karen Oberhauser, MLMP Founder and Coordinator

A volunteer in North Mankato, Minnesota recently wrote to me, "**If the number increases, we rejoice; if it decreases, we get depressed. It has been an emotional seesaw for 12 years.**" If you feel the same, and are in the Upper Midwest, hopefully the second half of summer 2025 has provided reason for rejoicing. The adult monarchs that we're seeing in the northern part of the US and southern Canada now are a mixture of offspring and grandprogeny of the generation that started as eggs in the south last spring. The monarchs that started in the south were the first new generation of 2025 ("Gen1") and were themselves the offspring of monarchs that overwintered in Mexico. So we're seeing a combination of "Gen2" and "Gen3s" right now. Monarchs that emerge as adults after about the middle of August will be the final generation of the year (a combination of Gen3 and Gen4) and will migrate south.

We always hope for more monarchs in Generations 2 and 3 than we saw in Generation 1; this increase is a sign of a combination of high fecundity (number of eggs laid by females) and high egg and larval survival.

(continued on next page)

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Season Update (continued)

MLMP volunteers throughout the northern breeding range are documenting such an increase in 2025, with July/early August peaks up to three times higher than the June peak. See for examples, graphs from Minnesota, Wisconsin, and Michigan. In Minnesota, where the MLMP started, peak monarch density this year was just over 0.20 monarchs per plant, a value Minnesotans haven't seen since 2021 (see Figures A and B). And those high numbers are continuing into August, at least so far.

Of course, monarchs still need to finish off the summer strongly, since the butterflies that will migrate to Mexico are just beginning to emerge. For more detailed comparisons across years and to check out your own state, see Graphs of egg and larva densities per milkweed plant on the MLMP website.

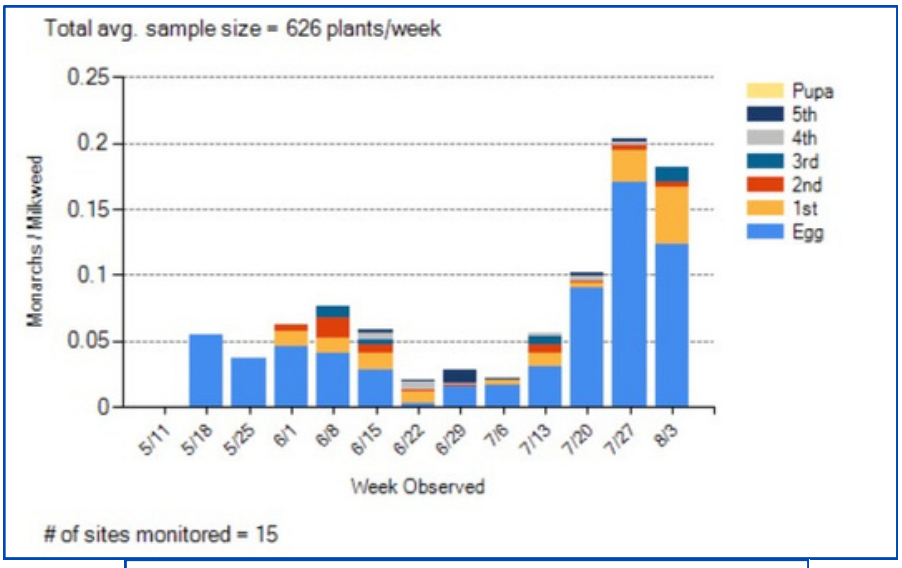

Figure A. Minnesota MLMP data from 2025.
Note July peak just over 0.2 monarchs per milkweed and large increase from June to July.

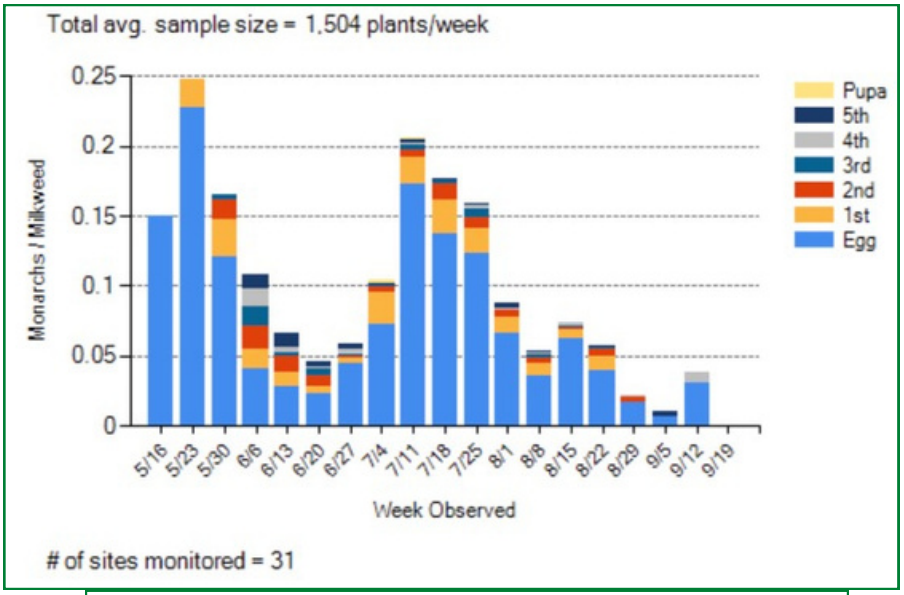

Figure B. Minnesota MLMP data from 2021.
Note July peak just over 0.2 monarchs per milkweed but little to no increase from June to July.

Monitoring Update, with a welcome to new volunteers

As of August 7, MLMP volunteers have gone into the field to monitor sites across the monarch breeding range 1543 times in 2025. You've looked at a total of 122,099 plants, and found 8229 eggs, 1352 1st instars, 1140 2nd instars, 732 3rd instars, 567 4th instars, and 519 5th instars, and reported hundreds of blooming flower species. The data you're contributing are providing important insights into the state of the monarch population. We know that these monitoring events represent a significant time investment, and that heat, rain, mosquitoes, biting flies, and high humidity can make monitoring a challenge. But we also know from personal experience that the rewards of getting to know a milkweed patch, finding monarch eggs and larvae, making research contributions that will benefit monarchs, and enjoying the company of co-monitors overcomes these challenges.

Thank you!

Welcome to the 44 folks who monitored for the first time in 2025!

British Columbia: *Danielle Crumback*
Ontario: *Deborah Brooks*
California: *Ida Kaller-Vincent*, *Todd Lemein*
Colorado: *Arianna Gentile Polese*, *Bryan Ruiz*, *Gerry Snyder*, *Karina Seidel*, *Linda Janiszewski*, *Rosemarie Devaney*, *Tracy Yates*
Connecticut: *Heidi Norcross*
Delaware: *Deb Vickery*
Iowa: *Lexi Miller*
Illinois: *Gregory Walburg*, *Lil Burton*
Indiana: *Erin Huber*
Massachusetts: *Joan Vohl Hamilton*
Maryland: *Judy Free*
Michigan: *Lamanda Hilty*, *Lara Mahr*, *Liam Tomko*, *Makaya Johnson*, *Michelle Wise*, *Natalie Patchell*, *Nate Fuller*
Minnesota: *Madison Holman*, *Marie Worley*, *Mike Hay*
New Hampshire: *Heidi Emmons*, *Kathryn Brooks*
New York: *Adam Bradford*, *Annemarie Neary*
Ohio: *Denver Daniel*, *Laney Barger*
Texas: *Jessica Wollin*
Virginia: *Charlene Noll*, *Leonora Crane*, *Sheryl Smith*
Wisconsin: *Diane Greenley*, *Ellise Tallard*, *Jillian Kassela*, *Judy Olson*, *Michael Riegert*

Save the Date! Virtual End of Season Gathering

Monday, October 27, 2025 2 - 3:30 pm CT (3 - 4:30 pm ET)

Please join us for the second virtual end of season gathering where we will give you an update on preliminary 2025 monitoring season results, thanks to your invaluable data collection and reporting. We will have time to share with one another and ask questions as well.

Save the date! **Monday, October 27**, at **2 pm CT / 3 pm ET**
More details to follow via email.*

*If you haven't signed up for our email updates, you can do so here and on our website at: mlmp.org → *About* → *Get Updates*

Monarch Joint Venture's Research Review

Beginning in 2020, the Monarch Joint Venture has published an annual review of papers published about monarch biology and conservation. These reviews are written by MJV staff and volunteers and provide a comprehensive picture of current contributions to our understanding of monarchs. Authors from all over the world examined how factors like climate change, habitat restoration, and parasites are affecting monarchs, in both positive and negative ways. Their papers also highlight the important contributions made by volunteers who are contributing data to programs like the Monarch Larva Monitoring Project, Journey North, Project Monarch Health, Monarch Watch, and the Integrated Monarch Monitoring Program.

For a fascinating peek into monarch research, check out all the research reviews at this URL: https://monarchjointventure.org/mjvprograms/science/monarch-research/research-reviews

OR you also can:

Click here to read MJV's Research Reviews.

- **2024 Review** (most recent)
- **Previous Years' Reviews**

Whether you're happy to read a short summary of the published papers or want to follow the links to the papers themselves, we guarantee that you'll learn something new!

Volunteer Spotlight

A Legacy of Monarch Monitoring: Dexter and Jan Sharp's Journey

by Annie Isenbarger, MLMP Coordinator &
University of Wisconsin–Madison Arboretum Citizen Science Coordinator

Photos provided by Jan Sharp

Tucked in the woods of northern Wisconsin, near a family cabin built almost a century ago, Jan Sharp has carried on a legacy that began when her father, Dexter Sharp, first began monitoring monarchs at multiple sites near his Clam Lake Wisconsin cabin in 2000, providing valuable information in the northern reaches of monarchs' summer breeding range. When Dexter stopped monitoring, Jan took over and now lives next to the family cabin.

Jan Sharp in a field of (tall!) common milkweed, growing in a spot that gets about a half a day's worth of sun.

"He kept going until he turned 90," Jan recalls. "That's when I took over." Since then, she's monitored monarchs in her yard, which once hosted nearly 900 common milkweed plants overlooking a sunny lake. Even now, she maintains several hundred plants, including a cherished patch of poke milkweed nestled in the shade—an unexpected magnet for monarchs.

A clump of poke milkweed in full bloom near Jan's home.

Volunteer Spotlight: Jan Sharp (continued)

A scientist by training, Jan was captivated from the start by how much data a simple field survey could yield. “The whole ecosystem reveals itself when you’re that close,” she says, recalling frogs, spiders, and the occasional monarch predator she’s observed over the years during her monitoring session.

Her commitment has been fueled by curiosity and a love for data. “The variability from year to year is fascinating,” she says. “And I’ve become really interested in phenology, especially how plant blooming changes over time.” She also has enjoyed seeing how much monarchs love poke milkweed. “They love it!” Jan exclaims. “Ten years ago, 4th and 5th instars ate the plants all the way down to the nubs. They are ravenous for poke milkweed!”

Several monarch larvae eating poke milkweed.

Over the years, she’s witnessed notable shifts and variation: monarchs arriving earlier, staying later, and fluctuations in population numbers. “The last five or six years have been tough,” she notes. “But this year, there were so many eggs and larvae in early summer. That’s been encouraging.”

Meadow of common milkweed in bloom near Clam Lake.

Jan is involved with monarch conservation at many levels. Now chair of the Monarch Joint Venture Board, Jan advocates for both monarchs and community science. Her advice to newcomers? “Enjoy the learning.” For Jan, monarch monitoring has never been just about butterflies, it’s about connection to the land, to science, and to a family legacy that continues to inspire many of us who have had a pleasure to get to know the Sharp family over the years.

Monthly Live Q&A Sessions

We recently started hosting live Q&A sessions once a month from March through September, and we hope you'll consider joining us for our last of the season — or keep them in mind for next season!

At these 30-minute Zoom sessions, we answer questions about sites, monitoring protocols, entering data, and everything in between. This is your chance to ask questions about the MLMP data portal, monitoring, the course platform, or you can just come to listen to other volunteers' questions and to share experiences.

Please register at the form here. A Zoom link will be sent out in a confirmation email to registrants a day before each Q&A session.

For almost 20 years, MLMP Trainers throughout monarchs' breeding range have provided resources for volunteers. These experienced monitors offer help in the field, workshops, suggestions for monitoring sites, and a local connection for new and less experienced volunteers.

We're recruiting new trainers!

If you're comfortable with MLMP protocols and confident in your identification of local milkweeds and monarch eggs and larvae, please consider sharing your expertise with people in your area. There are no time or additional training requirements; we just ask that you give us permission to list your name and contact information on our website. We hope that trainers offer formal or informal training sessions for local volunteers, but this is not a requirement. And we're always available to support members of this important MLMP team.

If being an MLMP Trainer sounds interesting, please contact info@mlmp.org for more information.

Sharing the Milkweed Patch – Swamp Milkweed Leaf Beetles

by Ilse Gebhard, MLMP Volunteer

Planting milkweed not only helps monarchs but also a number of other insects that depend on milkweed. One such insect is the Swamp Milkweed Leaf Beetle (*Labidomera clivicollis*). The common name is a misnomer as this beetle readily feeds on other milkweed species. I have found its elongated, orange eggs on Common Milkweed (*Asclepias syriaca*) on a regular basis.

The Swamp Milkweed Leaf Beetle has the typical beetle life cycle of egg, larva, pupa, and adult. Its larvae go through 4 larval stages, called instars, one less than the monarch. The last instar falls to the ground to pupate.

I wanted to follow the whole life cycle of the Swamp Milkweed Leaf Beetle, so I kept a few of the larvae to raise. In my opinion, the larvae and pupae are rather homely, at least compared to monarch caterpillars and chrysalises, and there is no dramatic transition from larva to pupa like with the monarch. But the shiny red and black adult is beautiful. It overwinters in leaf litter, one of uncountable species that do. While the larvae feed mostly on milkweed leaves, the adults also feed on the flowers and can often be found hiding among them.

Help: My Milkweed Plants Have Aphids!

by Karen Oberhauser

We receive many questions about aphids on milkweed. These small, sap-sucking insects are fascinating in so many ways—in most species, including the aphids you see on milkweed plants, flightless females give birth to live nymphs throughout the summer, no eggs or males involved (see photo)! These new nymphs mature quickly, allowing the population on a single plant to grow rapidly. For most temperate species, winged females develop at the end of summer, mate with males, and lay eggs that overwinter. So a single species has both asexual and sexual reproduction and reproduces with both live birth and external eggs.

Oleander (*Aphis nerii*) aphid giving birth to a live daughter. This female did not mate. Oleander aphids are native to Europe and were introduced to North America, where they feed on many species of milkweed.

Photo licensed by Creative Commons.

Large aphid colonies can weaken the plant, making it less useful to monarchs and other herbivores (see photo). Many species also attract ants, which protect the aphids to receive a tasty and nutritious honeydew reward. These ants may kill other herbivores on the plants, including monarch eggs and larvae. The aphids also attract a suite of predators, like lacewing larvae and many beetles, that sometimes eat monarchs as well.

Oleander (Aphis nerii) aphid colony on a milkweed plant.
Note range of size of aphids, white shed exoskeletons, and dense clustering.

Photo by Mike Reese.

Help: My Milkweed Plants Have Aphids! (continued)

Despite the potential for negative effects, I generally recommend letting nature takes its course with aphids. An insecticide will kill all insects, including monarchs, and can persist for a long time. Some people recommend spraying the plants with soapy water, either a mixture of dish detergent and water or a commercial insecticidal soap. The soap is not a toxin; it works by blocking the spiracles through which insects breathe. It will make the plants sticky for a while but will wash off in the next rain so the plant can be eaten by monarchs later. It will kill the aphids, but it will also kill other insects on the plants, including ones that are probably there eating the aphids (like lacewings, many true bugs, or beetle larvae). If there are monarch eggs or larvae on the plant it will kill them.

Generally, predators and parasitoids will find your aphids and eat them. Also, they tend to go through cycles of high and low populations. If the aphids are too bad I'll sometimes cut off the top of the plant where they congregate. I used insecticidal soaps when I grew milkweed in a greenhouse and found that continual use can damage the plants because their stomata, or breathing pores, can be blocked. So, I'd recommend giving natural enemies some time, manually removing aphids if you just can't stand them, and looking closely at the colonies to see if you can find any females giving birth, alligator-like lacewing larvae eating them, or parasitized individuals that look like tiny aphid mummies. Your observations might just give a new appreciation of the amazing world of milkweed insects!

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You can support MLMP in many ways!

Please consider supporting our collective conservation efforts with a donation that supports training, materials, and maintenance of the data you collect.

You can make a financial contribution today **here**.

Have a story from your site or art to share? We'd love to hear from you!

info@mlmp.org | mlmp.org