

Monarch butterflies make regal recovery in north state, California

Population soars 165-fold after habitat restored locally

By [Evan Tuchinsky](#) | Chico Enterprise-Record
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CHICO — Kim Armstrong, like many of her neighbors in the north state, has a special fondness for monarch butterflies. For the yard of her Chico home, she chooses plants that are both native to the area and sources of sustenance to pollinating insects and, by extension, birds. The sight of monarchs fluttering through her garden brings joy.

Three years ago, that sight was rare. The population of western monarchs in California dropped precipitously low — a reduction of 99.9% from the peak, two to three decades earlier, when two million would return from winter migration. The annual count in fall 2020 recorded just 2,000 monarchs.

For Armstrong, a restoration biologist, the situation sounded alarm bells. The butterflies faced an existential threat. Already hurt by pesticides, climate change and loss of habitat, monarchs might dwindle to the point where they couldn't recover from extreme events like the storms this winter.

She's breathing easier now. River Partners, the habitat restoration firm where she works, planted pollinator-friendly plants — notably, milkweed, on which monarchs feed — on 595 acres across eight sites statewide, including the Oroville Wildlife Area and Upper Butte Basin Wildlife Area. Beyond that [project](#), funded by a \$1.2 million grant from the California Wildlife Conservation Board, River Partners started adding milkweed to other restorations, such as [Bidwell-Sacramento River State Park](#) west of Chico.

Work began in 2021. That year, the Western Monarch Count conducted each Thanksgiving totaled 250,000. Last year's count, [released](#) Tuesday, was 335,000 — representing a 165-fold increase since the planting project launched.

“There's still a lot to learn about what really caused that rapid decline and where all the butterflies have come from in the last two years,” Armstrong said, walking along rows of native plants at the Bidwell-Sacramento River site Tuesday morning. “But it's fantastic to see there are a lot more.

“When I found (wild) milkweed on the Oroville Wildlife Area when I worked for (the state) Department of Fish and Wildlife in 2016, that's when (monarchs) caught my eye and I've been paying attention to them. Last year, I think I saw the most adult monarchs I've seen since them — flying around, not just on the Oroville Wildlife Area, but other projects and in my yard.”

Angela Laws made the same observation. A conservation biologist with the [Xerces Society](#), the organization that released the monarch count results, Laws saw monarch activity at four project sites (Oroville and Butte Basin included) and beyond.

“I’m really grateful that the numbers were so high this year, before all these storms came in, and I’m hopeful,” she said Wednesday afternoon. “I think what this shows is we have time. We have a lot of work to do, but I’m hopeful that we can be successful in sustaining the species.”

Monarch counts have implications wider than one type of butterfly. Hillary Sardiñas, statewide pollinator coordinator for the Department of Fish and Wildlife, calls the western monarch “an umbrella species” for what it signals about others.

“They occur over such a broad area that they are a bit like the canary in the coal mine,” Sardiñas explained Wednesday morning. “They’re habitat generalists, and they’re using all these areas; so if they’re declining, that might indicate that other species are declining — and we actually have a lot of research on that.

“Monarchs are actually not the butterfly species declining the most in the west. There’s a lot of other, much more vulnerable species that have declined a lot more. But because they’re a species that people see really often, that we have an opportunity to interact with, we know when we haven’t seen them a lot. And creating habitat for monarchs is creating pollen and nectar resources that other pollinator species, not just butterflies, are using.”

Indeed, at the local project sites, Armstrong has encountered native bees buzzing around flowering plants such as milkweed, and Laws has found more diversity in butterfly species at the Oroville Wildlife Area than six of the other seven locations.

The ripple effect carries to birds and other wildlife. Scientists need more data before directly connecting the monarchs’ rebound to habitat restoration, but the correlation is clear.

“Habitat is a big piece of it,” Laws said. “Having a variety of species flowering, species flowering throughout the growing season, those are all very important for butterfly diversity.

“It’s hard to get that cause and effect,” she added. “There are many factors leading monarchs to decline — things like habitat loss, pesticide and climate change are all these contributing factors. There probably are a lot of factors playing into the recent increases, so it’s hard to attribute to any one thing like this project or this habitat.”

All three biologists advocate for more habitat, still. They recommend planting native flowering plants in yards and gardens, as Armstrong has. The Xerces Society distributes [kits](#) with seeds from River Partners’ nursery, [Heritage Growers](#), while working with farmers to increase milkweed and other pollinator plants on ag lands.

Also, monarch lovers can participate in [citizen science](#) activities such as the counts.

“It’s really good news,” Sardiñas said of the latest count, “and it makes us feel really optimistic about the monarchs’ ability to rebound. It gives us the opportunity to build on the great work that’s already being done. So people should feel inspired.”