

A Monarch Resurgence??

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In [Quest of a Broken-Wing Butterfly](#) I speculated in 2014 that the Monarch population may have fallen below a critical level. We did not see more than a single Monarch on any day on our property. The number of butterflies reaching the mountainous area in Mexico where they hibernate had fallen in the winter of 2013-14 to a few percent of levels two decades earlier. Male and female Monarchs do not travel as pairs in their annual migration, so I wondered if a tipping point had been passed. Chance encounters of male and female may have become so rare that the species was headed to extermination. In [Butterflies and Flamingos](#) I cited empirical evidence in the summer of 2014 that added to my concern.

That concern was alleviated when the number of Monarchs reaching Mexico jumped in the next two winters, with the number in 2015-16 exceeding the minimum two years earlier by about a factor of five. A single female can lay 500 or more eggs, which helps explain the rapid rebound. Such reproductive capability is likely the ‘strategy’ that the species uses to survive natural weather and climate fluctuations that can greatly affect its food supply, the milkweed.

The number of Monarchs declined in the most recent two winters, but the number last winter (2017-18) was still much larger than the 2013-14 minimum (see [Chart 1](#)).

This summer has been remarkable. My grandson Jake and I counted 15 Monarchs as we walked two blocks from a beach on Long Island. There was a fallow potato field on one side of the road with occasional patches of milkweed. However, on this same stretch for the past decade, we never saw more than 2 or 3 Monarchs. Similarly, we have seen Monarchs every day in recent weeks at our home in eastern Pennsylvania, more than at any time in the 15 years we have lived here.

This abundance may be a regional fluke due to the wet weather this year, which caused an explosion of all weeds, including milkweeds. It will be interesting to see how many Monarchs make it to Mexico this winter. The Western Monarchs, which mostly overwinter near the California coastline and in Baja California, Mexico, may fare quite differently, given this year’s drought on the West Coast.

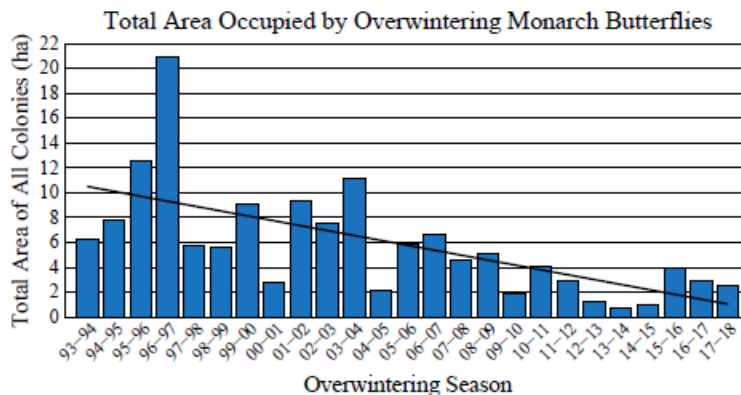


Chart 1. Monarch population is estimated by the area of the colonies in which they cluster together for winter hibernation. (Graph updated from Brower et al., *Insect Conser. & Diver.*, 5, 95, 2011.)



We had pulled the common milkweed out of our garden this year, because it attracted no butterflies last year and there is lots of milkweed on the edges of our property. However, one or more of the female Monarchs managed to find inch-high milkweed shoots in the garden and chose to lay eggs there! You can see three larvae on a single shoot in the photo above. I tried transplanting a milkweed to the garden, but it withered instantly. So instead I transferred the larvae to a healthy milkweed. I am going to try to minimize my interference in nature, but I hope they add to the population in Mexico this winter!

My next Communication should really be the promised “Acceleration of Global Warming.”