

Monarchs Return?

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Not news equivalent to King James returning to Cleveland, but on 14 July I was happy to see the first Monarch of 2014 outside our front door, a month earlier than our first sighting in 2013.

In [Quest of a Broken-Wing Butterfly](#) I hypothesized that the population of Eastern Monarchs may have passed a tipping point that could lead to their extinction. These remarkable butterflies hibernate in a small area in mountainous central Mexico, travel north in the spring and summer to rollick in fields of Canada and the United States, with the 3rd or 4th generation somehow finding its way back to the Mexican mountain in the fall. My hypothesis was borne from observation of the butterfly sighted on 14 August 2013, a male who continued to flit all about our property for an hour or two, even though he had quickly found the location of the milkweeds and the butterfly bush. My suspicion was that he was looking for a female Monarch. Monarchs, unlike most birds, do not travel in pairs, so their reproduction depends upon chance encounters, which suggests the need for a minimum butterfly population, if the species is to be sustainable.

It is easy to measure the number making it back to Mexico, because they huddle on a fir tree as close together as possible until the tree is loaded with as many as can squeeze together. One hectare¹ of loaded trees is about 50 million Monarchs. In the early 1990s, when recording of measurements began, the number of returning Monarchs varied from about 300 million to more than a billion, similar to the human population of North America, but up to double or triple that.

By winter 2010-11 the Monarch population was down to 200 million. Each following year the population fell further (Fig. 7 of [Quest of a Broken-Wing Butterfly](#)) driven by climate extremes as well as herbicides that eliminate milkweeds, the only food for Monarch caterpillars. By last winter their number was down to 30-35 million, only about 3% of the maximum population in the early 1990s. Is that past the tipping point? This year will provide an indication.

The female only stayed on the milkweeds a few minutes. She was gone by the time I returned with a telephoto lens. Perhaps she had laid some eggs on the milkweeds before I saw her. Or perhaps she was not fertile. We will see if any caterpillars appear. However, assessment of the status of the Monarchs will not be possible until next winter in Mexico.

There is a citizen effort to plant milkweeds along the migratory route. With such efforts and some luck, the hypothesis of having passed a tipping point may be proven wrong.

¹ A hectare, slightly less than 2½ acres, is the area of a square 100 meters on a side, i.e., 10,000 square meters.



Fig. 1. The female Monarch coming in for a landing. The common milkweed is not exactly a beautiful wildflower. I had planted a more exotic perennial milkweed, which grows to only 1-2 foot height and has orange flowers, but common milkweed seeds must have wafted in on their fluffy white parachutes, because the patch has been taken over by these 5-6 foot wild milkweed behemoths. Anniek tolerated them this year under the hope that they may be easier for Monarchs to find.

