

## **Monarch Butterflies as a Therapy for Covid-19**

Christopher Wills (the photographer)  
and Liz Fong Wills (the Monarch whisperer)

After my wife Liz and I managed to get out of Raja Ampat, Indonesia, at the end of March (we were two of the last people to transit through the Singapore Airport), we found ourselves back in San Diego. It seemed that one moment we were swimming with whale sharks and watching birds of paradise mating, and the next we were stuck in quarantine at home. It was disorienting!

Casting about for something to do, we observed that the milkweed plants Liz had added to our back garden were full of Monarch butterfly caterpillars, and adult Monarchs were flying everywhere. Over the next several weeks I used a variety of closeup equipment to make a movie of all the life stages of this remarkable insect.

At one point we were tracking sixteen caterpillars. The most challenging bits to photograph were an egg hatching and the swift transition from larva to pupa since you never know when these things will happen. Sometimes we would watch all day, only for the awaited transition to happen during the night!

The Monarch, as you know, can fly long distances — as shown on the map on the next page. Now, on the West Coast, some populations have taken up year-round residence.

These beautiful butterflies can make birds sick because as larvae they fed on milkweed sap, which is full of cardiac glycosides. To help these threatened insects, you can plant milkweed plants!

Here is the YouTube link to the movie on the Monarch butterfly life cycle:  
[https://www.youtube.com/watch?v=wFYrDqF\\_4rM](https://www.youtube.com/watch?v=wFYrDqF_4rM).

On the next page is a map showing the fall migrations — they reverse in the spring. Remarkably, it takes more than one generation for the Eastern Monarchs to complete their spring and fall migrations!



Liz and Chris Wills are members of Oceanids and the Friends of the UCSD International Center. We were born in Stockton, Calif. and London, England respectively, and we met at Berkeley's International House in the early 1960s during the Free Speech Movement. We came to UCSD in 1972. Liz was trained as a school psychologist, and Chris is now an emeritus professor of evolutionary biology in UCSD's Division of Biological Sciences. He has worked in human evolution and molecular evolution.

Chris has written a number of books about evolution, including "The Darwinian Tourist" (Oxford, 2010). We have traveled widely, in part because of Chris' current research on the evolution and ecology of rainforests around the world, and in part just for the fun of it. Chris has photographed wildlife in a wide range of terrestrial and marine ecosystems. Together we have presented many illustrated talks about our adventures to help raise money for the Friends of the International Center Scholarship Program. If we hadn't been stuck at home because of Covid, we would have missed the many details of the Monarch butterfly life cycle!

This piece was sent to SDIS in August 2020.

Reprinted from *COVID-19: getting through with wit and grit*, published by the San Diego Independent Scholars. 2020 (<https://sdscholars.org>) © Christopher and Liz Wills