NATURALLY: Monarch Butterflies' annually fly to Mexico and back to Indiana

- By CINDY ROGERS Special to the Gazette
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In February 2022, I traveled to Mexico to see the monarchs in their remote winter southern habitat. We started out in Mexico City and traveled up into the central highland mountains by bus to several different preserves.

We rode in the back of a truck, rode horses about 30 minutes and hiked about an hour more to get to the place where the native guides had found the monarchs, approximately 11,000 feet in elevation.

What a sight!

One day we went in the morning and had to wait a bit for the temperatures to get above 65 degrees and the sun to come out. We saw what looked like burnt orange leaves covering the trunks and branches of the fir trees. Suddenly, we realized that those "leaves" were quivering and as the sun came out to warm them, hundreds of thousands of monarch butterflies started to fly.

When they warm up, they need to start to fly to cool down because, if they warm up too much, they will deplete their fat. So their movement is a very important balancing act. Sometimes, the monarchs floated down to take a drink in a stream of water or alight on our hats or shoulders. What a unique experience!

We went to three different locations at different times of the day over the next few days because they move as a large group from day to day. The guides scout the area so they know where to take the visitors. In Mexico, you only find adult butterflies. There is no mating or egg laying. A small percentage feed on nectar while there, but most rely on the nectar they ingested on the way down to Mexico.



There are so many you can actually hear them sounding like the rustling of leaves. It was an incredible experience being surrounded by thousands of monarch butterflies.

The whole migration sequence is absolutely mind boggling. The butterflies weigh less than a gram and they fly more than 3,000 miles each year. It is amazing how they find their way. They use the daylight shift, angle of the sun and cues from the lifespan of the milkweeds to start to fly and to establish direction. They also have a magnetic sense and use chemical cues and smells when they get close to their destination to hone in on the exact location their ancestors stayed the previous year. They have to deal with all kinds of weather and be resilient and strong.

They stay in Mexico about four months. In the second or third week in March, they head back north. Along the way, when they first find

milkweed, they stop, mate, hatch and die, and the next generation continues until they reach the north where they will feed on milkweed species and spend the summer. When it is time to fly back south, they mate and lay eggs to hatch the long haulers that will fly back to Mexico. They can actually change their lifespan from two to eight months when they need to fly the long distance and winter over in Mexico. Nature is so amazing.

Conservation plays a huge part in the lives of the monarchs. In Mexico, one of the problems was illegal lumbering of their habitat. Fortunately, that has been dramatically curtailed and, in fact, they are working to replant the fir forests the monarchs need when they are in Mexico.

Agricultural expansion and the depleting milkweed populations are also threats to the monarch population in the United States. There has been a push to plant milkweed and develop "way stations" that the monarchs need to survive. Climate change will also have an impact on the monarch population. They need a very specific microclimate in Mexico and, if the temperatures are too warm in the mountains, it will affect the population's survival. Ecotourism is helping by bringing alternative money into the region of Mexico and encouraging the local population to support the monarchs.

Evergreen Conservancy planted over 350 milkweed plugs through Monarch Watch in 2021 at their Tanoma wetlands, a way station for monarch butterflies.

There are many places where milkweed grows in Pennsylvania and where you can see monarch butterflies, including White's Woods, and, with luck, your own yard. The monarchs usually

arrive in Pennsylvania around May and produce offspring who will make the migration back to Mexico. They will need milkweed to lay their eggs and for food when they hatch.

What can you do to help preserve the monarch butterflies?

Plant milkweed, create and register a "way station" with <u>monarchwatch.org</u>, promote roadside conservation and habitats, and minimize the use of insecticides.

For more information, you can read a very interesting article in The New Yorker titled "Saving the Butterfly Forest."

The Naturally columns are brought to you each month by the Indiana Gazette and Friends of White's Woods to showcase the wonders of nature in our area.