



**Why is the Monarch Butterfly
Population Dying Off?
Threats of the Monarch Butterfly.**



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Across North America the monarch butterfly population is taking a hit with more than an 80% decrease in the last two decades. Recently, the monarch butterfly has become a candidate under the [Endangered Species Act](#) as their breeding and migratory habitat is being destroyed bringing critically low population counts. So just how much danger is the monarch butterfly in? and what is threatening them?

Western Monarchs

The Western monarch population is found on the West side of the Rocky Mountains. These butterflies make up only 1% of the Monarch butterflies in North America and have reached alarmingly low numbers in the last few years. The Western monarch butterflies are found in the Northern United States and Canada throughout the summer seasons and migrate South to the coast of California to settle in their overwintering locations.

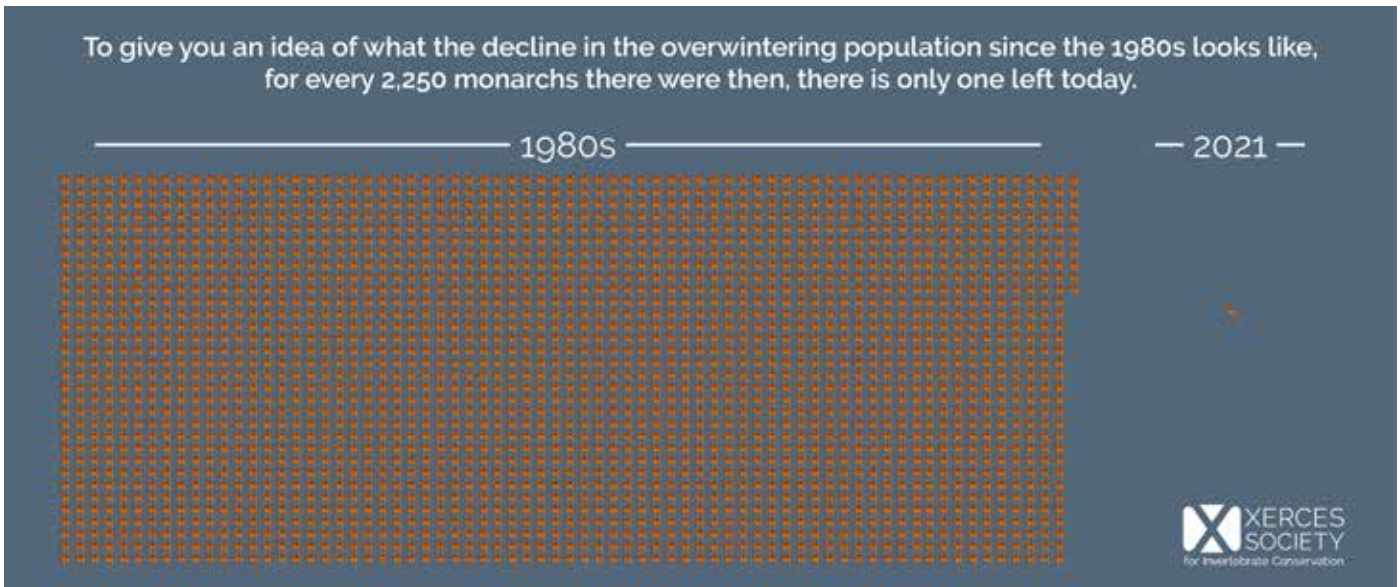
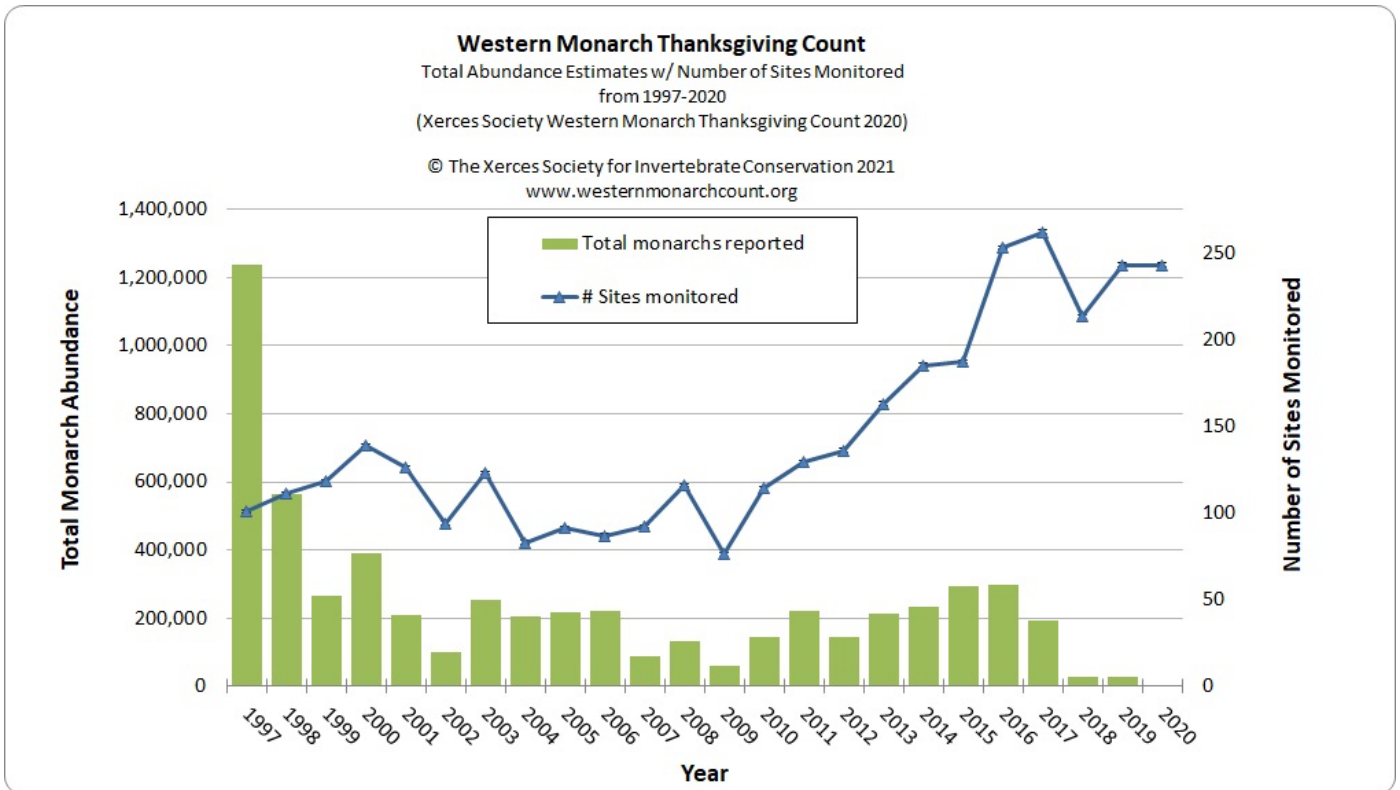
At one time, millions of Monarch butterflies overwintered along the coast of California, seeking refuge from the cold temperatures of their summer homes in the Northern United States and Canada.

In the Xerces Society's 2020 [Western Monarch Thanksgiving Count \(WMTC\)](#), volunteers counted less than 2,000 butterflies along the California coast. This marks the lowest recorded count representing a 99.9% decrease since the 1980s. The previous year's recording counted a little more than 29,000 monarch butterflies overwintering along the California coast. Unbelievably, as these numbers continue to decline year-to-year, the number of sites being surveyed by volunteers is increasing with 246 overwintering sites visited in 2020.

Well known overwintering sites like the Pismo State Beach Monarch Butterfly Grove and Natural Bridges State Park familiar with hosting thousands of butterflies annually, only hosted a few hundred. This overwhelming and heartbreaking decrease in the Western monarch population may mark the end of this amazing migration on the Western regions of the Rocky Mountains.



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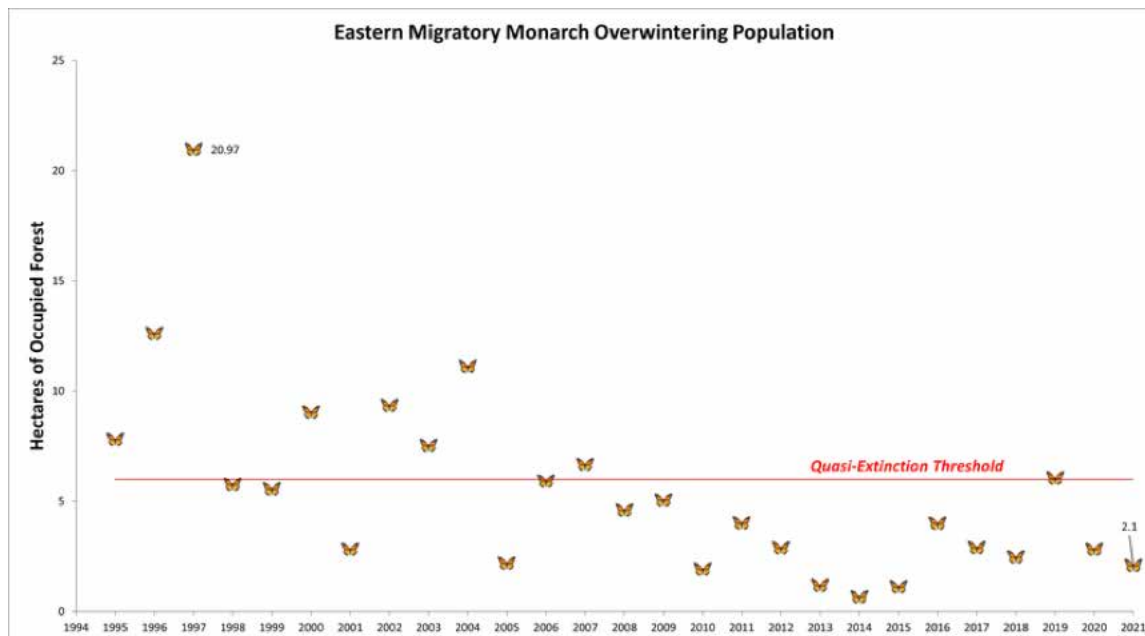


Eastern Monarchs

The Eastern monarch population are found on the Eastern side of the Rocky Mountains and make up nearly 99% of the monarch population in North America. Much like the Western monarch population, these butterflies spend their summers in Northern United States and Canada. The notable difference between these two communities is that while Western monarch migrate to the coast of California, the Eastern monarchs migrate to overwintering regions in Mexico.

Similar to the Western monarchs, these monarchs are facing an extreme drop in numbers with more than 80% of the population disappearing in the past 20 years. In late 2020, the U.S. Fish and Wildlife Service estimated that there is an 80% chance that the eastern monarch population will crumble and a 96-100% probability for the western population within 50 years.

The Eastern monarch population is estimated in part by the number of hectares occupied in Mexico's overwintering regions as well as scientists approximating the count based on measurements of trees turned orange by clustering butterflies. In early 2021, 2.10 hectares of overwinter habitat was occupied by monarch butterflies.



Threats to the Monarch Population

The large decrease in monarch butterflies within the last decade is attributed to a number of different causes. Most of the threats hold a common risk, they damage or destroy the breeding and migratory habitat that these butterflies depend on.

The destructions of milkweed plants are a large contributing factor to the decreasing population of the Monarch Butterfly. These milkweed plants are an essential part of the Monarch butterfly's lifecycle, supporting butterfly breeding and providing food for the monarch caterpillar.

Interesting Fact: These milkweeds which they feed on make the monarch caterpillars and butterflies moderately toxic, a defense which wards off predators from snatching up this seemingly easy prey.

So, what is destroying the very plants that these butterflies rely on? There are a number of elements that contribute. The large increase in the homebuilding and urbanization along the butterflies' migratory path had destroyed not only the milkweed that they depend on for breeding but also the trees that they roost in along their journey.

Another major contributing cause is the growth of the agricultural industry and more frequent use of chemical like pesticides herbicides and insecticides. The use of these chemicals is toxic to young caterpillars in many cases and destroys the milkweed necessary to these insects. It is estimated that monarchs have lost 165 million acres of habitat to development and pesticide spraying within the United States.

Other elements that play part in the loss of the monarch butterflies' breeding and migratory habitat include climate change, causing increased drought in these regions; illegal logging in overwintering areas, tearing down forests they rely on; and insects like the Oleander aphid. This invasive species damage or completely destroy the milkweed plants making them very unappealing or completely unusable for the monarch butterflies and caterpillars.



Milkweed plants are necessary for the growth and development of these butterflies. The decrease of milkweed plants threatens the lifecycle of the monarch butterfly, leaving them with a limited regions for reproduction and nourishment through their larva (caterpillar) stage.

The protection of the Monarch butterfly has been recognized by government agencies but is not supported by them and therefore has no state or federal protection to stop their habitat from being destroyed.

You Can Help!

To counter the destruction of this amazing insect and the annual migration they take across North America, action must be taken along with a growing regard for the causes that are threatening this species. To maintain the habitat that these butterflies rely on we should aim to reduce or eliminate the use of pesticides, in particular insecticides, especially in areas where milkweed is found. If you live in the overwintering locations or regions along the monarch's migration path, make an effort to plant milkweed and advocate for protecting these areas. On top of this, you can contribute to the science and research, like the [Western Monarch Thanksgiving Count \(WMTC\)](#), to help contribute to monarch migration education efforts in learning more about this population decay and new ways to help.

The Xerces Society have modeled a [Western Monarch Call to Action](#), which lays out a set of short-term conservation actions that, if taken right away, can help prevent the collapse of the western monarch population.

5 Key Steps of the Western Monarch Call to Action

1. Protect and manage California overwintering sites
2. Restore breeding and migratory habitat in California
3. Protect monarchs and their habitat from pesticides
4. Protect, manage, and restore summer breeding and fall migration monarch habitat outside of California
5. Answer key research questions about how to best aid western monarch recovery

The monarch butterfly and their amazing migration is on the point of extinction and if action is not taken soon, we may reach a point where it is too late to save them.

