



# MONARCH JOINT VENTURE

*Partnering across the U.S. to conserve the monarch migration*

[www.monarchjointventure.org](http://www.monarchjointventure.org)

*The Monarch Joint Venture is a partnership of federal and state agencies, non-governmental organizations, and academic programs that are working together to protect the monarch migration across the lower 48 United States.*

## **PARTNERS**

U.S. Forest Service  
U.S. Fish and Wildlife Service  
U.S. Geological Survey  
Bureau of Land Management  
Natural Resources Conservation Service  
Iowa Department of Natural Resources  
Cibola Nature Center  
Cincinnati Nature Center  
Green Schools Alliance  
Journey North  
Lady Bird Johnson Wildflower Center  
Loudoun Wildlife Conservancy  
Monarch Alert  
Monarch Butterfly Fund  
Monarch Health  
Monarch Lab  
Monarch Watch  
National Wildlife Federation  
North American Butterfly Association  
Pacific Grove Museum of Natural History  
Pheasants Forever and Quail Forever  
Pollinator Partnership  
Southwest Monarch Study  
Tallgrass Prairie Center  
Wild Ones: Native Plants, Natural Landscapes  
The Xerces Society for Invertebrate Conservation

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*In the face of declines in monarch numbers and habitat, researchers and conservationists are pooling their efforts under the Monarch Joint Venture to protect monarchs and pollinator habitat.*

## **Monarch Migration**

The monarch migration is one of nature's most spectacular events. Much as birds migrate to take advantage of resources available across a large landscape, North American monarchs travel up to an astonishing 3,000 miles in an annual migration from their summer breeding habitat to overwintering grounds.

During the summer breeding season, eastern monarchs spread across the eastern U.S. and into southern Canada, laying eggs on milkweed plants. Western monarchs make use of milkweeds across the western states, primarily west and south of the Rockies, and into southwestern Canada.

In the fall, monarchs feast on late-blooming nectar plants along the way to their wintering sites. The eastern monarch population winters in oyamel fir forests in the mountains of central Mexico.

While the spring migration northward is completed over the course of two or more generations, the final generation of the year flies the entire way back to these forests, new to them, but visited by

their ancestors a few generations ago. In the same way, monarchs from across the western U.S. return to eucalyptus, Monterey cypress, Monterey pine, and other trees in groves along the Pacific coastline, from Mendocino County south to Baja, Mexico. Climatic conditions at these sites allow monarchs to survive the winter before beginning the return trek to their summer breeding grounds.

## **Monarchs and Milkweed**

Monarch caterpillars require milkweed to grow and develop into butterflies, and they feed on many of the over 100 species of milkweed native

to North America. These plants, key to monarch survival, are found along roads and highways; in yards, parks, and gardens; in old fields; and in pristine native prairies and other natural habitats.

In addition to the important role that milkweeds play in the lives of

monarchs, they are valuable nectar resources for a diverse suite of bees and butterflies. Enhancing monarch habitat will thus benefit many important pollinators.



## **The Monarch Joint Venture Mission and Vision**

Recognizing that North American monarch (*Danaus plexippus*) conservation is a responsibility of Mexico, Canada and the U.S., as identified in the North American Monarch Conservation Plan, this Joint Venture will work throughout the U.S. to conserve and protect monarch populations and their migratory phenomena by implementing science-based habitat conservation and restoration measures in collaboration with multiple stakeholders.

This goal will be achieved through a combination of habitat conservation, enhancement and restoration; education; research and monitoring.

The vision of this Joint Venture is abundant monarch populations that can be sustained into perpetuity, and more broadly the promotion of monarchs as a flagship species whose conservation will sustain habitats for pollinators and other plants and animals.

## Monarchs at Risk?

The monarch migration was listed by the International Union for Conservation of Nature as an endangered phenomenon in 1983. In 2010, the World Wildlife Fund included monarchs on its list of the “Top 10 to Watch in 2010”: species that are thought to be in need of close monitoring and protection.

The conservation status of monarch overwintering sites in Mexico receives much attention. However, monarchs face challenges in the U.S. as well. A decline in the number of western monarchs, most of which spend their entire life cycle in the U.S., has been well documented over the past decade. Both eastern and western monarchs are dependent on habitat quality throughout the U.S., which is being threatened by:

- Habitat conversion and changes in land management practices that are reducing the availability of milkweed;
- Possible changes in milkweed availability, quality, and distributions due to effects of climate change;
- Pesticide use to control other insects, with unintended harmful consequences for monarchs;
- Habitat conversion in California, resulting in reduced availability and quality of overwintering sites; and
- Shifting overwintering habitat quality, as the trees in California’s monarch groves age and deteriorate.



## Monarch Joint Venture Projects

Ensuring the availability of quality habitat is critical for the conservation of any species. The availability and quality of monarch breeding habitat has diminished in recent years, with a reduced abundance of milkweed in the landscape in the eastern and western U.S. Overwintering habitat for the western monarch population is threatened by habitat destruction and degradation due to development. MJV partners are engaged in work to improve habitat availability and quality for both eastern and western monarch populations. We are implementing a variety of science-based habitat conservation and public engagement projects to better protect monarchs while inspiring America’s youth and adults to observe and study nature.



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## A few of our current projects include:

- Increasing the availability of native milkweed seeds and plants for habitat enhancement projects;
- Adding milkweed and nectar plant seeds in key monarch breeding areas annually;
- Expanding butterfly gardening programs (e.g. Monarch Waystations) to increase monarch habitat and citizen engagement in monarch conservation;
- Inventorying, assessing, and creating land management plans for monarch overwintering sites along coastal California;
- Creating wildlife corridors by expanding monarch habitat in corporate landscapes, utility right-of-ways, residential landscapes, and neighborhood common areas;
- Conducting teacher-training workshops to increase student knowledge of monarch biology across the migration flyway;
- Increasing citizen-science monarch and other butterfly monitoring efforts, especially in important areas where little or no data exists; and
- Expanding the online availability of monarch and milkweed educational resources.



## What is a Conservation Joint Venture?

In 1986, the largest cooperative effort ever initiated to protect wetlands, waterfowl, and other wildlife was initiated with the North American Waterfowl Management Plan. In a new approach to conservation, regional partnerships of agencies, non-profit organizations, corporations, tribes, and individuals—called Joint Ventures—were created to implement conservation plans within specific geographical areas.

Joint Ventures increase the efficiency and effectiveness of conservation by bringing together the science, the people, and the resources needed to develop and implement conservation strategies. Due to their remarkable success, Joint Ventures have been generally accepted as the model for moving bird conservation forward in the 21st century.

The similar migratory nature of birds and monarchs, and their use of multiple habitats across a large landscape, make the Joint Venture model ideal for building monarch conservation efforts.

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