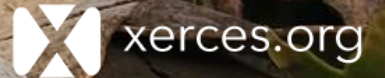


Western Monarch Population Update

ISIS HOWARD, XERCES SOCIETY

Western Monarch Update

By Isis Howard
Conservation Biologist
Xerces Society



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Outline

MJV Annual Meeting, Phoenix, AZ

- 1. About Xerces**
- 2. Western Monarch Count Summary**
- 3. Springtime Observations**
- 4. Extra Opportunities & Resources**



Photo: Clustering monarchs at overwintering site; Jessica Griffiths, 2021

About The Xerces Society

The Xerces Society for Invertebrate Conservation is an international, science-based nonprofit organization that engages in education, outreach, applied research, policy, and restoration to protect invertebrates and their habitats.

Mission: Protect the natural world through the conservation of invertebrates and their habitats.

Video: <https://youtu.be/JgH8t9oJfXg>



Western Monarch Count

A brief summary of the Western Monarch Thanksgiving Count and New Year's Count efforts

What: Annual community science effort to track the status of western monarchs at overwintering sites in the West.

Who: Managed by the Xerces Society and Mia Monroe, powered by volunteers!

Where: California Coast; Northern Baja, Mexico; a few inland sites in California and Arizona.

When: A three-week period centered around Thanksgiving, and a two-week period centered around New Year's.

Monarch Clusters

Over 300,000 butterflies estimated for the Thanksgiving count in 2022



Photo by volunteer Rick Parsons, Pacific Grove Butterfly Sanctuary, 2021.

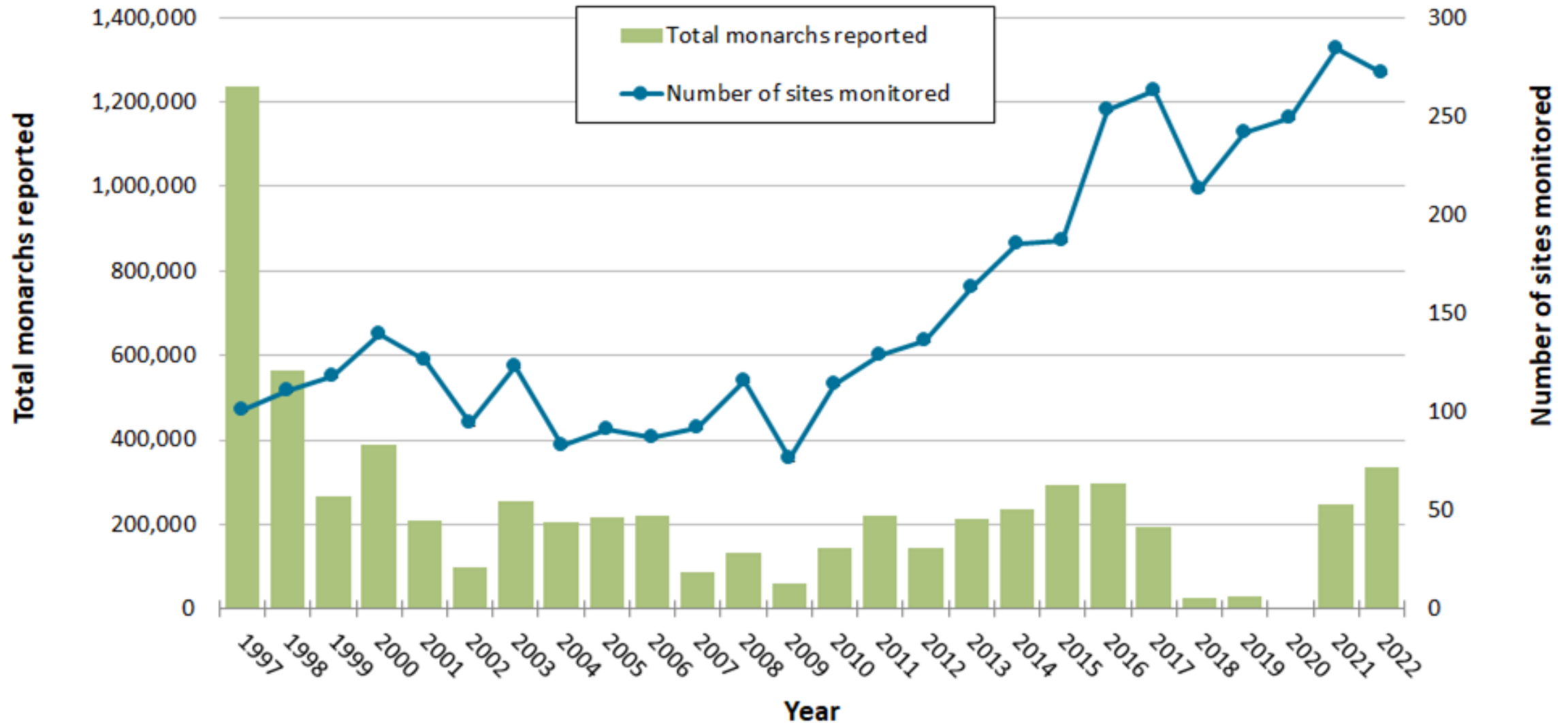


Photo by volunteers Nancy Merrick and Patricia McCart-Malloy, Santa Barbara, 2021.

Western Monarch Thanksgiving Count

Total monarchs reported and number of sites monitored from 1997-2022

Data Available at: WesternMonarchCount.org

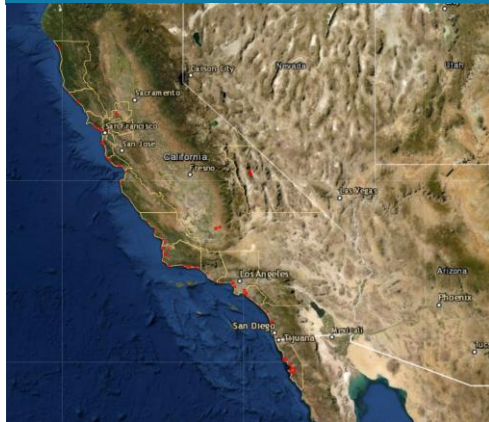


Summary of General Findings

2022-2023 Western Monarch Thanksgiving & New Year's Counts

Central Coast of California

Majority of monarchs reported along the Central Coast.



Largest Sites in SB & SLO

Santa Barbara and San Luis Obispo stood out with peak counts.



New Survey Sites

New sites hosted over 15,000 butterflies.



Total Decline: >95%

Western monarchs are still at high risk of disappearing in the near future.

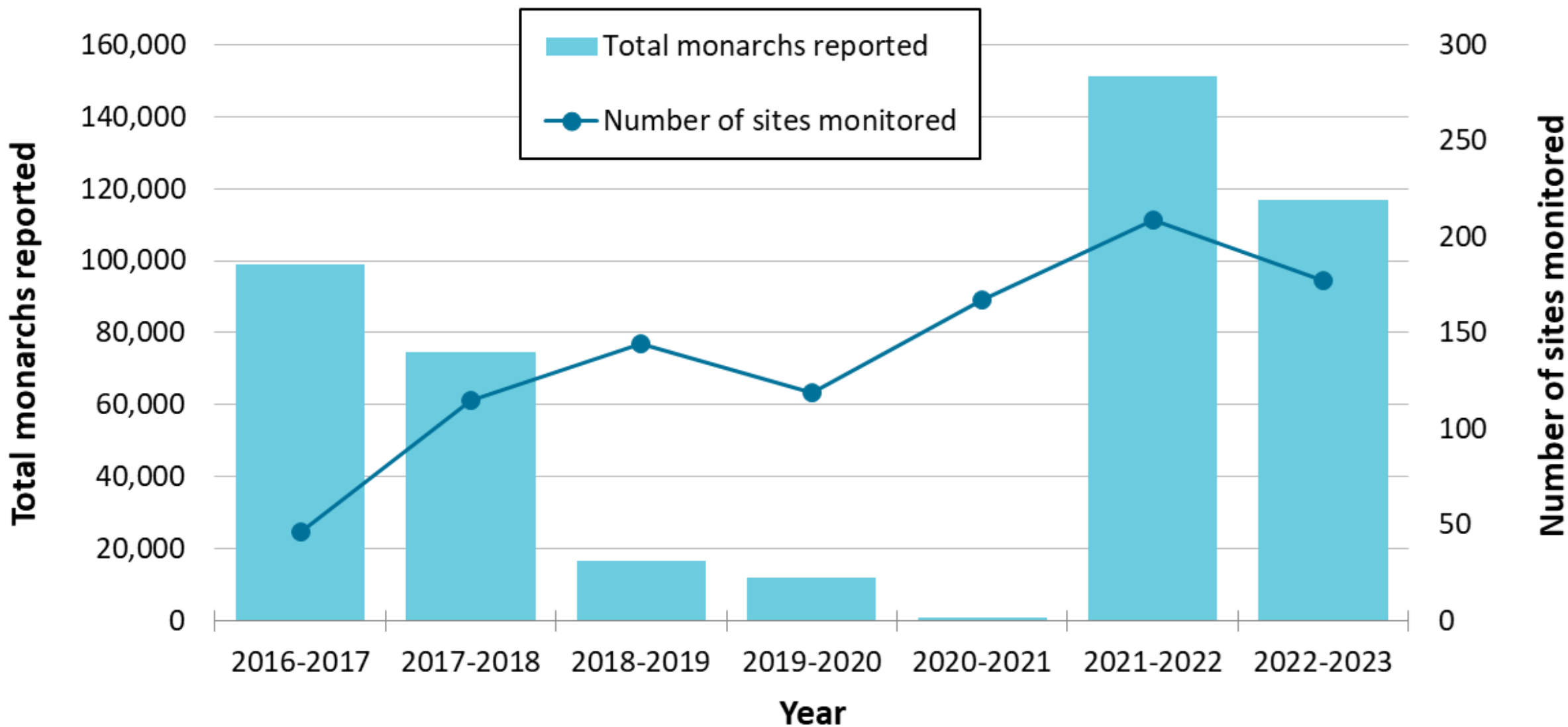


Photos (Left to Right): Xerces' overwintering site map; Anthony Fisher, UC Gill Tract; Jessica Griffiths, Las Varas Ranch; Christina Garcia, San Leandro

Western Monarch New Year's Count

Total monarchs reported and number of sites monitored from 2016-2023.

Data Available at: westernmonarchcount.org



Seasonal Winter Decrease

How have western monarchs fared over the winter?

Relatively large decrease of **58%** between Thanksgiving and New Year's counts.

Compared across sites monitored during both count periods.

58%

Seasonal Decrease

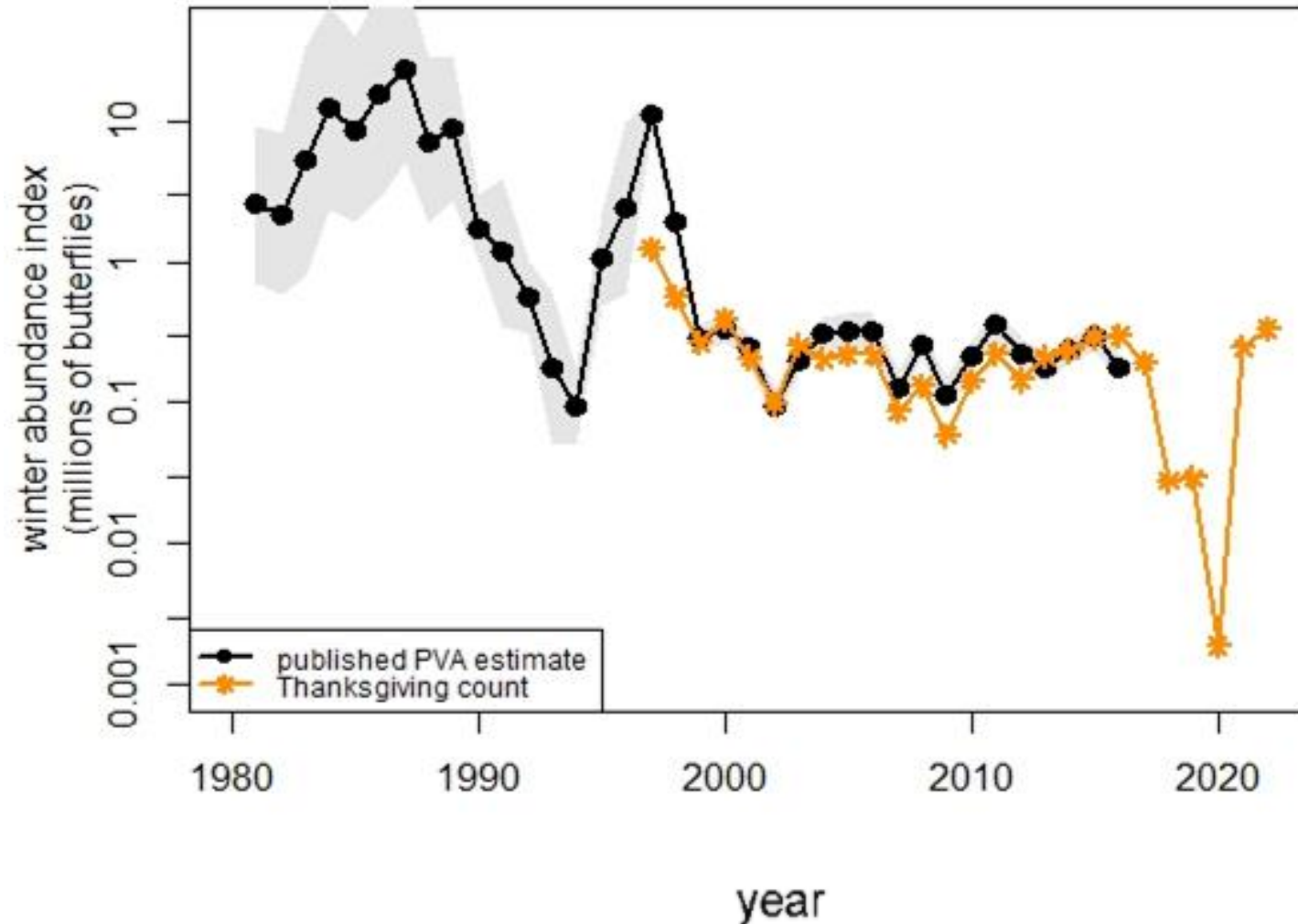


Storms Impacted Many Sites



Images of Natural Bridges and Pismo Beach overwintering groves from the 2022-23 season.

95% population decline



Primary Threats:

1. Loss of habitat
2. Pesticide use
3. Climate change
4. Other factors:
 - a. OE Parasite
 - b. Predation

What's Next?

Western Monarch Mystery Challenge

Feb 14 - Apr 22

Early spring is a critical time for monarch butterflies, but we know very little about where they go during this period. We need your help to look for them!

Step 1





If you see a monarch outside of overwintering groves, take a picture! Don't worry, it can be far away or blurry!

Step 2

Report it to iNaturalist and include species, date, and location OR email it to monarchmystery@wsu.edu

Step 3

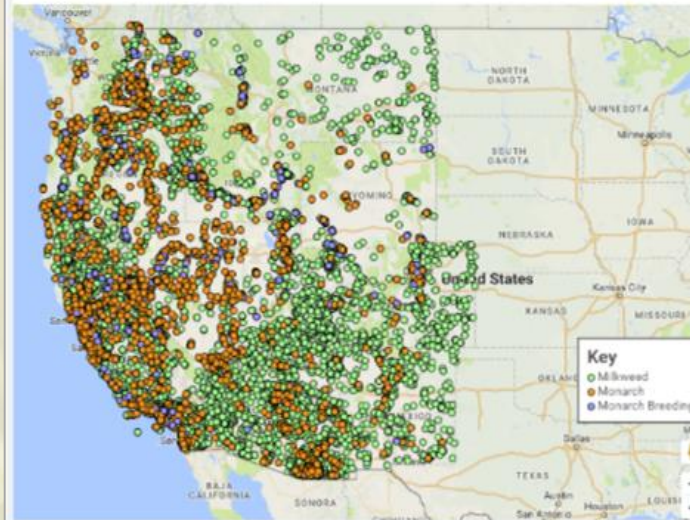
Be automatically entered to win a variety of prizes every week you report a sighting!

 @monarchmystery
 @wmonarchmystery
 @westernmonarchmystery
 monarchmystery@wsu.edu



Western Monarch Milkweed Mapper

Check out sightings submitted in your area! [Explore now](#)



How to Submit a Sighting



1 Take a photo of a monarch and/or milkweed



2 Login and upload your photo(s)



3 Identify your sighting



4 Submit your sighting!

[Get started!](#)



WESTERN MONARCH MILKWEED MAPPER

Submissions

Milkweed Sightings: 38552
Monarch Sightings: 16977
Monarch Breeding Sightings: 2959
Total Sightings: 55529

Learn more & participate at www.monarchmilkweedmapper.org

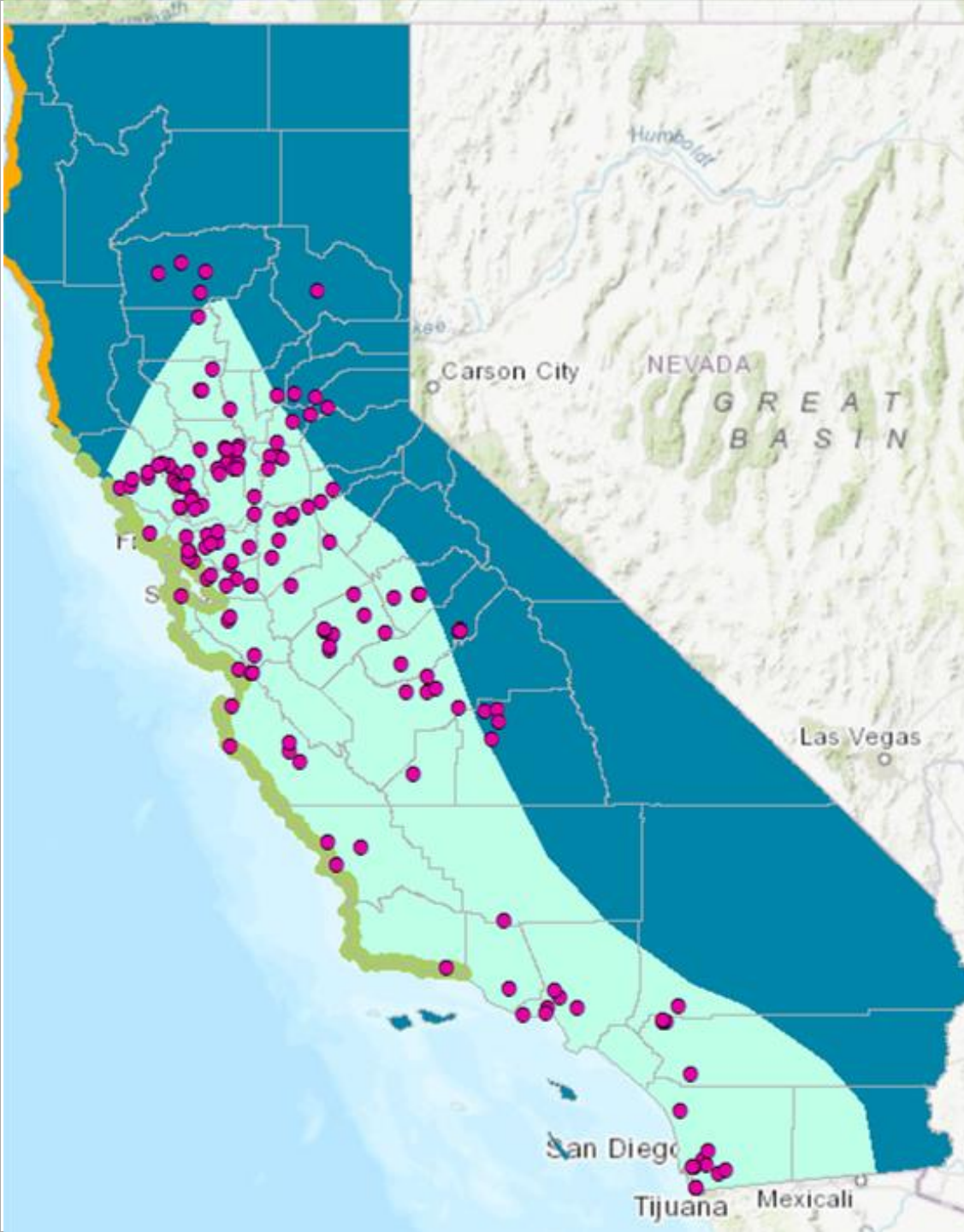


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California Habitat Kits



- Focused on western monarchs and other pollinators.
- Most kits in high priority region for monarch restoration.
- Regionally specific kits, contain drought-tolerant species that benefit monarchs and pollinators, including native milkweed.
- Three types of kits:
 - Wildflower grassland kits (1600 plants)
 - Hedgerow kits (17 plants- 100ft of hedgerow)
 - Garden kits (17 – 32 plants)
- Application Deadline: 4/3/2023

Learn More: <https://xerces.org/pollinator-conservation/habitat-kits/california>

Monarch and Pollinator Habitat Kits



Photo: Images of habitat kit recipients in 2021.

Recipients:

- Working Lands
- Community groups
- Resource Conservation Districts
- Schools
- And Others!

Acknowledgements

A huge thank you to the **250+ dedicated volunteers** who collected data at overwintering sites.

And, thank you to our western monarch conservation funders, who make this work possible:

Bureau of Land Management, California Department of Fish and Wildlife, California State Parks Foundation, California Wildlife Conservation Board, Chantecaille, Google.org, Forest Service International Programs, The Marion R. Weber Family Fund, National Fish and Wildlife Foundation, Natural Resources Conservation Service, San Diego Zoo Wildlife Alliance, The Taggart Saxon Schubert Fund, US Fish and Wildlife Service, and Xerces Society members.

Photo of an overwintering site in San Leandro, California, 2021.



Thank



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