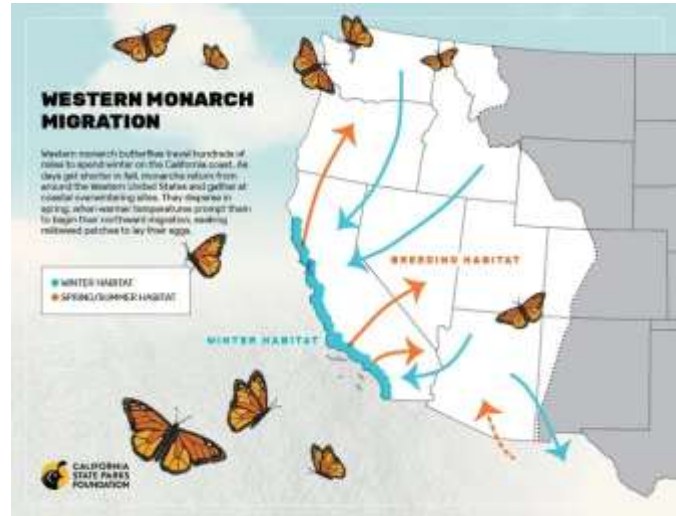


Monarchs and Queens
President's Message December 2023
by Margaret Rhyne

In California, a small state park is dedicated to protecting just one unique insect, the western monarch butterfly (*Danaus plexippus*). The Pismo State Beach Monarch Butterfly Grove, nestled alongside Highway 1 south of Pismo Beach, is a protected overwintering site for western monarch butterflies. It is not the only “overwintering” site along the coast but it is the one that consistently has the most butterflies.



The coastal sites, stretching in a narrow band from San Diego to Mendocino County, provide the ideal climate for monarch's winter diapause, a period of decreased resource consumption and suspended biological development similar to hibernation. Trees (including eucalyptus, Monterey pines, sycamores, coast live oaks and willows in Southern California), shelter groups of monarchs in camouflaged clusters, with wings closed showing only the tan underside in overlapping layers, resembling dead leaves. ([Image: California State Parks Foundation](#))

Monarchs begin arriving on the California coast in October and leave around February to begin looking for suitable sites for reproduction in California and other western states, west of the Rocky Mountains. Eastern monarchs overwinter mainly in Mexico and migrate to areas of the U.S. and Canada east of the Rocky Mountains to reproduce. It takes both western and eastern monarchs 4 and sometimes 5 generations to complete the migratory cycle and return in Autumn to overwintering sites. All monarchs lay eggs only on species of milkweed, the only host plant used by both western and eastern monarchs.

Current monarch populations remain seriously threatened. 2018 through 2020 were disastrous years for western monarchs. At the Pismo grove, just 122 butterflies were counted during the winter of 2020. Although the 2022 count showed a promising rebound of 24,128, western monarchs have decreased 90% since the early 1990s. (Source: [Xerces Society](#))

Are there monarchs overwintering in the desert? Yes! In 1976, monarchs were observed spending the winter in canyons of the Inyo Mountains adjacent to the Saline Valley. In 2016 formal winter counts began in these canyons and are continuing this year. (See salinemonarchcount.org for more information.) A few areas in the Sonoran Desert in Arizona are also known overwintering sites.

In spring and summer, monarchs search many areas in the desert both developed and wild in their search for milkweed and nectar. However, if you see an orange and black butterfly in the desert it may be one of the monarch's “lookalikes.” Because of toxins in milkweed, the host plant that they rely on, monarchs (usually immune to these toxins) are toxic to predators, who soon learn to leave them alone. It is advantageous then for other butterflies to imitate their

coloring. As discussed in a previous newsletter, the most common example of this is the painted lady (*Vanessa cardui*). Another desert monarch lookalike is the queen butterfly (*Danaus gilippus*). Queens look even more like monarchs than painted ladies and are found in California's deserts throughout the year. Like monarchs, they rely on the different species of native milkweed as host plants and are also toxic to predators. Graphic below from the [Lady Bird Johnson Wildflower Center](#). Their website has additional monarch and queen comparisons.)

Adult Monarch Butterfly



Adult Queen Butterfly



Another orange and black desert butterfly with white dots like monarchs and queens is the California patch (*Chlosyne californica*). My husband and I spotted one in Joshua Tree National Park in October on a California juniper. Their host plants include a variety of desert sunflowers. The Hydaspe fritillary (*Speyeria hydaspe*) is another orange and black butterfly. We spotted one in the Tehachapi foothills this past spring, perched on a Mariposa lily. My brother-in-law was able to get an excellent photo.



Hydaspe Fritillary courtesy of Bruce Blackadar

California Patch - Margaret Rhyne

What can we do to help monarchs and all butterflies? The best action to take is to plant native wildflowers. It is also helpful for monarchs and queens to plant milkweed but be sure to avoid tropical milkweed (common in garden centers, unfortunately) and plant only native species. Information about host plants used by monarchs and all of the butterflies mentioned is available on www.calscape.org.

