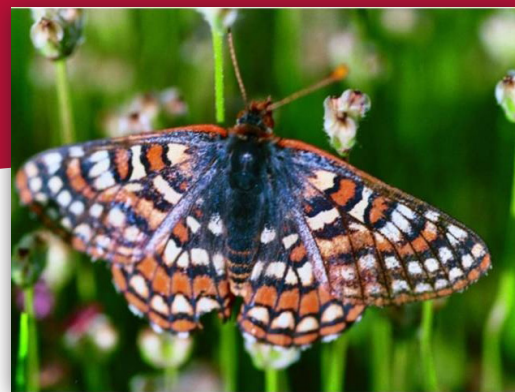


# THE HEAT IS ON

Species feeling the effects of climate change



GORDON PRATT/LUSCS

## Quino Checkerspot Butterfly

*Euphydryas editha quino*

### Region:

Southwest

### Area affected:

Southern California

### Climatic change:

Drought, snowpack changes

### Impact:

Loss of habitat and host plants

### ABOUT THIS SPECIES

The Quino checkerspot is an endangered subspecies of the more broadly distributed Edith's checkerspot butterfly. The Quino is known from only a handful of counties in southern California and adjacent areas in northern Mexico. The range of these butterflies unfortunately overlaps strongly with the expanding footprints of San Diego and Los Angeles; consequently the species has lost more than 75 percent of its historical distribution to urban and agricultural development. Like many butterflies, Quino adults lay their eggs exclusively on a few plant species—in this case, plantain and snapdragon—that become the food source of the newly hatched caterpillars. Adult Quinos feed on the nectar of flowers, but their short tongues limit them to a relatively small number of species that have shallow or open-shaped flowers.

### DESCRIPTION OF IMPACT

In addition to habitat loss, climate-related events have detrimental effects on the Quino checkerspot. In Orange County, for instance, a large flood wiped out the last low-elevation population of the butterfly, and a wildfire extirpated the last high-elevation population. A comparison of Edith's checkerspot butterfly distribution in the early and late 20th century found that **the species has vanished from many of its former locations in the southern part of its range and at lower elevations.** A high proportion of the butterflies that disappeared likely belonged to the Quino subspecies. Drought seems to have a particularly negative effect on the Quino, as it causes host plants to dry out before the caterpillars complete their development. Butterfly population contractions in the past have all been associated with drought conditions, and much of the Quino's range has been affected by the severe to extreme drought that has plagued California in recent years.

### Reference

U.S. Fish and Wildlife Service. 2009. Quino Checkerspot Butterfly 5-Year Review. [http://ecos.fws.gov/docs/five\\_year\\_review/doc4341.pdf](http://ecos.fws.gov/docs/five_year_review/doc4341.pdf)



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