

Monarch Butterfly

Class	Order	Family	Species
Insecta	Lepidoptera	Danaidae	Danaus plexippus

Range

Throughout North America and Central America, introduced into Hawaii and Australia

Habitat

Wide variety; temperate and tropical

Niche

A milkweed butterfly, adapted to feed on many of the 100+ species of milkweed plants in North America

Diet

Nature: caterpillar - milkweed (*Asclepias spp.* only). There are 14 species of *Asclepias* native to California (*A. speciosa, A. fascicularis, A. eriocarpa, A. californica, A. asperula* are a few) adult - nectar onmany different species of flowering plants Captivity: same as above

Reproduction

Growth: complete metamorphosis

Adult

Egg: glued to undersides of milkweed plant leaves, hatch

in four days

Larva: in warm weather 13 days, cooler 21 days

Pupa: 1 week

Adult: 3-4 generations; about 33 days from egg to adult. 7

days to reach sexual maturity. Adult lifespan varies

Caterpillar

depending on time of year.

Physical Characteristics

Mouthparts: Legs: Wings:	siphoning/sucking 3 pair 2 pair (2 forewings, 2 hindwings)	chewing 3 pair, 5 pair fleshy prolegs none	
Egg: Larva: Chrysalis: Adult:	yellow black, white stripes, smooth green with gold trim wing span 4 inches; orange with black veins; males have a black spot on hind wing not present in female which is a scent gland.		

Conservation Concerns

The major threats to the Monarch Butterfly are as follows. The urban expansion and agricultural use of herbicides contribute to destruction of overwhelming trees (including *Pinus radiata* and *Eucalyptus globulus* (native and non native)); of larval food plants; and nectar sources for the adults along their migratory routes. The biggest threat to the eastern population in Mexico is timber harvesting in and around the overwintering sites, which is destroying the environment crucial to their winter survival.

The Monarch's migration is considered to be an "**endangered phenomenon**"

Special Adaptations

Physiology: The milkweed plants they consume as larvae contain cardiac glycosides, chemicals potentially dangerous to mammals and birds. When ingested, the chemical can have the effect of slowing or stopping the heart. The bright coloration of the monarch is a warning: "Don't eat me, I taste bad!" The milkweed's glycosides are retained in the body fluid, and especially the cuticle, of the adult butterfly.



Migration

This is an insect that overwinters as an adult. These great migrators are both symbols of beauty and endurance. They travel thousands of miles, averaging 250 miles in migration and reaching cruising speeds of about 10 mph.

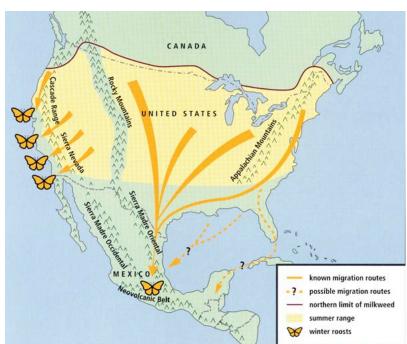
Butterflies migrating from areas east of the rockies overwinter in Mexico, Single wintering sites there may have as many as 200 million Monarchs covering trees and shrubs. Monarchs traveling from areas west of the rockies overwinter in coastal areas of California. Natural Bridges State Park will average 40,000 to 80,000 Monarchs and may peak at 200,000 in January in some years.

The butterflies do not lay eggs at the overwintering sites but do become more active as spring approaches and mate before leaving the area in search of milkweed plants to lay their eggs on. The Monarchs that return to the winter ground next year are the offspring of these butterflies (several generations removed).

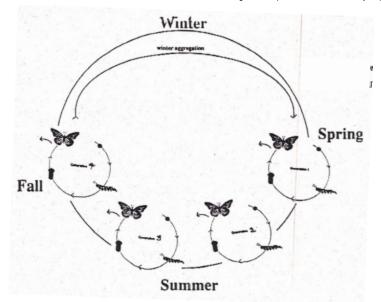
CALENDAR OF THE MONARCH BUTTERFLY IN CALIFORNIA

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

arrive in breeding range (3-4 broods) breeding completed by $\begin{array}{c|c} \text{Migration begins} & \\ \end{array}$



Migration Map from Queens University Department of Psychology





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