

# Natural History

Butterflies first appeared on the earth during the Eocene epoch, 40-50 million years ago. They can be found on every continent on earth except Antarctica.

Butterflies feed primarily on nectar from flowers. Some also derive nourishment from pollen, tree sap, rotting fruit, dung, decaying flesh, and dissolved minerals in wet sand or dirt to obtain additional nutrients.



As adults, butterflies consume only liquids which are ingested by means of their proboscis. They sip water from damp patches for hydration. This behavior is known as mud-puddling.

Butterflies use their antennae to sense the air for wind direction and scents. Vision is well developed in butterflies and most species are sensitive to the ultraviolet spectrum. Most butterfly species are deaf but are capable of sensing vibrations that could signal approaching danger.

# Resources

## Open Space Parks & Preserves

Ulistac Natural Area (butterfly nectar plants)  
4901 Lick Mill Blvd, Santa Clara, CA

Nectar Garden (butterflies & hummingbirds)  
Coyote Hills Regional Park, East Bay Parks  
[www.ebparks.org/parks/coyote\\_hills](http://www.ebparks.org/parks/coyote_hills)

Santa Clara County Parks & Recreation  
[www.parkhere.org](http://www.parkhere.org)

SCC Open Space Authority  
[www.openspaceauthority.org](http://www.openspaceauthority.org)

Mid Peninsula Open Space District  
[www.openspace.org](http://www.openspace.org)

## On-Line Plant, Animal, Insect ID

Al Shapiro's Butterfly Site,  
[www.butterfly.ucdavis.edu/](http://www.butterfly.ucdavis.edu/)

The Butterfly Site, [www.thebutterflysite.com](http://www.thebutterflysite.com)

CalPhotos, UC Berkeley  
[www.calphotos.berkeley.edu](http://www.calphotos.berkeley.edu)

## Books & Publications

Local Butterflies of the  
San Francisco Bay Area, [www.localbirds.com](http://www.localbirds.com)

Field Guide to Butterflies of the San Francisco  
Bay and Sacramento Valley Regions, Arthur M.  
Shapiro and Timothy D. Manolis, UC Press

KAUFMAN Field Guide to Butterflies  
of North America, J.P. Brock & K. Kaufman

# Western Pygmy Blue



Fall 2012



Favoring harsh salt marsh and alkaline tidal environments, California's smallest butterfly, the **Western Pygmy Blue** is a hardy survivor that flies spring through fall and produces 2-4 broods per year. Pygmy Blues are most noticeable in late summer, early fall, when breeding activity is at its peak. Clouds of Pygmy Blues flutter busily searching for mates or foraging for food on shrubs such as Salt-Bush, Russian Thistle, Lambsquarters, and Pickleweed. Diminishing food sources and the onset of winter bring the Pygmy Blue's seasonal life cycle to its close.



Female Pygmy Blue with wings erect. Markings on under side of hind wings include iridescent spots along the lower edge that, when reflecting light, shine like tiny mirrors. Both males and females share these hind wing markings.

The Pygmy Blue is a "quick, nervous flyer" often spending little time pausing on food sources, or to sun themselves making it difficult to fully appreciate their exquisite beauty. Their size ranges from  $\frac{1}{2}$  to  $\frac{3}{4}$  inch. Females tend to be larger than males, but habitat plays an important role in the general size of the species in specific areas.

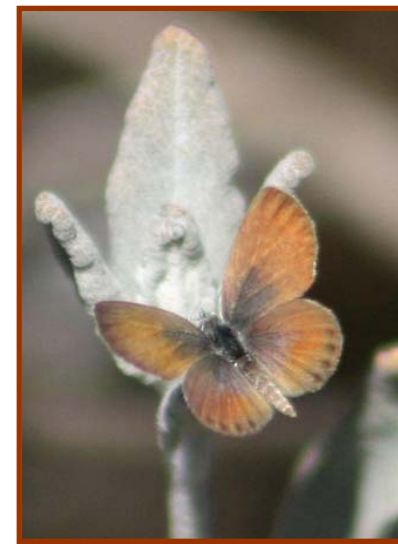
Like most insects, butterflies need warm temperatures in order to fly. The best times of day for viewing butterflies is between 10AM and 3PM.

Butterflies shelter for the night at high points in their territory in order to catch the first rays of the morning sun.

The lifespan of butterflies is fairly short. Most live a single season from egg to adulthood. The flight life of the average butterfly is 7 to 12 days. During this short span, they must find enough food daily to survive, they must hunt for a suitable mate and find safe places to lay their eggs.

Butterflies have many natural enemies. Predators include spiders, mantis, dragonflies, toads, lizards, birds and small mammals.

To combat these threats, butterflies have evolved defense mechanisms that include foul taste, bright "warning" colors, large fake eye spots on wings, and the ability to wiggle their hind wings to distract predators from attacking the butterfly's more vital body parts.



Female Pygmy Blue is a warm brown color with blue highlights on its wings.

Male Pygmy Blue is darker than the female, with dark blue highlights and white edging on its wings.

