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Butterfly

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LAX Dunes Preserve



At the west end of Los Angeles International Airport (LAX), a remarkable ecological success story is unfolding on approximately 307 acres of sand dunes voluntarily set aside as a natural wildlife preserve. Native animals and plants that once seemed destined for extinction – including the beautiful and delicate El Segundo Blue Butterfly – are thriving again, thanks to a visionary and aggressive restoration project by Los Angeles World Airports (LAWA).

Background & Overview

The El Segundo Blue Butterfly (*Euphilotes battoides allyni*) was placed on the U.S. Fish and Wildlife Service's Endangered Species List on June 1, 1976. LAWA began the LAX Dunes Restoration Project in 1986, after careful study and consultation with environmental experts. Today, after being voluntarily set aside by LAWA as a natural wildlife preserve, the LAX Dunes restoration area is home to more than 1,000 species of plants and animals.

The preserve is the largest remaining coastal dune area in Southern California, supporting 43 acres of original native dunes habitat located within the 203-acre El Segundo Blue Butterfly Habitat Restoration Area of the Preserve.

Almost lost forever, the endangered El Segundo Blue Butterfly has found a refuge at the LAX Dunes. By 1960, the butterfly existed on three known sites, with the then 20-acre LAX Dunes the largest. When less than 500 butterflies were counted in 1976, it became the first insect listed as a Federal Endangered Species. To encourage the butterfly's comeback, LAWA's restoration project focused on reintroducing and protecting the coastal buckwheat plant (*Eriogonum parvifolium*), the butterfly's sole food source.

Preserve Contact:

(Vacant)

Preserve Manager

El Segundo Blue Butterfly



Male



Female

After expanding the butterfly's habitat to its current 200 acres in the LAX Dunes, Los Angeles World Airports (LAWA) then established ongoing management programs such as an annual population count. Because of these efforts, the El Segundo Blue Butterfly is now flourishing. Its population is now estimated in the tens of thousands. An estimated 90,000 butterflies were present in the Reserve in 2012.

Taxonomy and Description

The El Segundo Blue Butterfly (ESBB) is one of six polytypic subspecies belonging to the species *Euphilotes battoides*. A few publications use the name *Euphilotes bernardino allyni*. Its size is 0.8 to 1 inch. The males have blue wings while the females have brown wings. Both have an orange border on the distal part of the upper hindwings where the margin is bordered by a row of dots.

Life History

The complete metamorphosis (egg, larva, pupa, and adult) is usually completed within one year. The adult El Segundo Blue Butterfly spends its entire life, usually from mid-June to early September, around the coastal buckwheat (*Eriogonum parvifolium*) when it is blooming. They typically fly within 200 feet

of this food plant where they suck nectar, perch, mate, lay eggs and die around the plant's flowerheads, all in a two-to-seven-day lifetime. Females lay up to 120 eggs in flower heads. These eggs hatch within three to five days and are preyed upon by a parasitic wasp.

The larvae undergo four instars, taking 18 to 25 days to pupate. Attracted to a sweet secretion from the larvae, ants tend to the larvae often protecting them from predators and parasites. The larvae feed on the flowerheads, especially the seeds. Each larva needs 2 to 3 flowerheads to complete development. By late September, the larvae has burrowed into and pupated in the soil or beneath the leaf litter at the base of the food plant. Pupae are susceptible to rot, disease and predation.

New butterflies emerge from their pupa stage over a nine- to ten-week period from middle- to late-June until late-August, depending on weather and rainfall. Males usually emerge early. At peak, the male-to-female population ratio is about 2:1. More females emerge later during the active season. Adults are preyed upon by crab and lynx spiders and compete with moths and other butterflies for food.

Habitat and Recovery

Habitat restoration at LAX continues and includes the removal of acacia, ice plant and other invasive plants following the [1994 Long-Term Habitat Management Plan for Los Angeles Airport/El Segundo Dunes](#). LAX has experienced an increase in butterfly numbers of about 65-130 times (depending on the year) since the start of restoration.