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**Nature's Odd Couple: Gray Whales and El Segundo Blue Butterflies**

by *Char Miller*  
 on March 26, 2014 3:42 PM

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**Nature's Odd Couple: Gray Whales and El Segundo Blue Butterflies**

by [Char Miller](#)  
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A gray whale tail and El Segundo blue butterfly. | Photos: Left - [Sam Beebe/Flickr/Creative Commons License](#); Right - [stonebird/Flickr/Creative Commons License](#)

We drove to Point Vicente on Palos Verdes Peninsula to look for gray whales. We came away even more impressed by a tiny butterfly, the El Segundo Blue.

The large-bodied mammal [travels](#) as much as 12,000 miles a year to fulfill its lifecycle demands, whereas the El Segundo Blue (ESB) goes nowhere, finding [all it needs](#) on a single plant rooted in the steep bluffs above the surging ocean through which the iconic whales annually migrate.

Neither strategy, it turns out, has been risk free.

Story Continues Below

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Of the two, the gray whale is far better known; the timing and duration of its migration has captured the imagination of generations of those living on the Pacific Coast. Although the stuff of legend, its [two-month-long voyage](#) from its frigid feeding grounds in the Chukchi and Bering seas to its southernmost bathtub-warm nursery in Baja's Magdalena Bay almost led to its extirpation.

Because 18th- and 19th-century whalers assiduously mapped so they could murderously track gray whales as they plowed north and south, they were able to mount an indiscriminate slaughter of the slow-moving creatures. An estimated 8,000 adults, for example, were killed in and around Magdalena Bay between the mid-1840s and mid-1870s, with thousands more calves dying as result of their mothers' destruction.

"No species of the whale tribe is so constantly and variously pursued," whaleman Charles Scammon wrote in the [Proceedings of the Academy of Natural Sciences](#) 1869. And he should know for he is credited with discovering their birthing grounds. Within but a short period of time, these "large bays and lagoons where once these animals congregated, brought forth and nurtured their young, are now nearly deserted. Their mammoth bones lie bleaching on the shores of those placid waters." Because the "civilized hunter seeks the hunted animal farther seaward, as from year to year it learns to shun the fatal shore," before too long, he predicted, "the California gray will be known only as one of the extinct species of cetacea recorded in history."

Scammon's prediction almost came to be. That it did not, at least not in the eastern Pacific, was also due to the whales' round-trip migration that served as the basis for conservationists' diligent efforts to protect these magnificent animals from human predation.

In 1937, the League of Nations, and a decade later, the International Whaling Commission (IWC), established bans on the commercial hunting of gray whales; aboriginal subsistence hunting continues under IWC regulations. Additional protection emerged in the U.S. through the enactment of the Marine Mammal Protection Act (1972) and the Endangered Species Act (1973), each of which listed the gray whale as an endangered species. Just as critical to the population's slow recovery has been the creation of a series of protected areas, such as the [Channel Islands National Marine Sanctuary](#) and the [California Coastal National Monument](#), lining its migratory route.

These institutionalized responses have gained considerable public support. That's because as the number of gray whales has rebounded to an estimated 26,000, it is now possible to see them in action. Whale sightseeing tours are launched from harbors everywhere, and observation sites have been built on such high ground as Point Vicente. There, with binoculars in hand, my wife and I joined a throng of people scattered along the well-trodden paths stretching north of the nearby lighthouse; all were scanning the blue horizon in hopes of spotting telltale signs -- breach or spray -- of whales in motion.

We only saw two grays on that clear, bright morning, but the fresh-aired experience was hardly a wash. While keeping a weather eye to sea, we came upon a series of informational signs that detailed the plight of the El Segundo Blue, a species indigenous to this high and dry land and about which we knew nothing.

Our ignorance is perhaps understandable, for no other butterfly on the planet flits so beneath the human imagination.

Consider the ESB's constrained life. Minute in size (its wing span is roughly one inch) and small in number (so endangered is it, that since 1976 the Fish and Wildlife Service has declared it rare "wherever found"), it occupies a narrow range, the equally rare, undisturbed coastal dunes in Los Angeles and Santa Barbara counties. During its short lifespan (adults last a few days, during which they mate, lay eggs, and die), it is also exclusive in niche, spending its entire life on the flowerheads of coast buckwheat (*Eriogonum parviflorum* --

also known as dune or seacliff buckwheat). "The almost total involvement of all stages with a single plant part," argues specialist [Rudolf Mattoni](#), "is unique among North American butterflies."

This uniqueness accounts for its near-undoing. Although humans have no economic interest in the El Segundo Blue, the same cannot be said for the windswept, sandy terrain within which it makes its home. Across the 20th-century, these dunes have proved a high-value commodity -- as beachfront property for the rich, industrial sites for refineries, water-treatment facilities, power plants, and sand-mining operations, as well as waterfront commercial districts, roadways, and runways. Jets taking off from Los Angeles International Airport roll down tarmac that has buried prime ESB habitat; with liftoff, they thunder over its fragmented vestiges.



El Segundo Blue Butterfly habitat restoration area at LAX. | Photo: [Laurie Avocado](#)/Flickr/[Creative Commons License](#)

By the 1970s, with its habitat largely destroyed, the USFWS stepped in, designating the ESB an endangered species in the very [first cohort](#) of listed butterflies. Yet its ecosystem had been so bulldozed -- the urbanizing onslaught had already shrunk the El Segundo Dune formations from an estimated 4.5 square miles (roughly 3,200 acres) to a series of miniscule islands in a wide concrete sea -- that many wondered whether the insect was long for this earth.

Ironically enough, LAX, that most concretized space, was discovered to contain the largest ESB colony. Although less an acre of pristine dune remained there in the early 1990s, about 2,000 butterflies lived on a relatively undisturbed set of 16 acres on which grew more than one thousand buckwheat. At the nearby Chevron refinery, 1.6 acres of dunes supported maybe 400 ESB, and at Malaga Cove, at the base of Palos Verdes Peninsula, an even smaller colony of 60 or so had been observed. This was all that remained from what Mattoni calculated was the butterfly's historic population of 750,000 adults. [A recent suggests](#) suggests that its numbers may have soared to over 100,000 but even those gains mean that the ESB remains on the endangered list for a reason.

Its partial recovery is due to human intervention. Like the indefatigable advocates for the protection of gray whales, the El Segundo Blue has its ardent champions. At the same time that the whale's fans were securing marine sanctuaries, the butterfly's proponents were adopting similar strategies, if on a much smaller scale. Encouraging the airport and other industrial sites voluntarily to set aside dunes on their properties, they sought to nudge beach cities to adopt new, more butterfly-friendly landscaping. The goal has been to replace the ubiquitous iceplant and other exotics with coast buckwheat, a process that over the past three decades has only slowly has taken root.

One such conversion effort is visible along the Point Vicente Bluffs trail weaving through the [Palos Verdes Peninsula Land Conservancy](#); in 2005, the City of Rancho Palos Verdes designated the 1,200-acre site a nature preserve.

Although this site contained intact coastal bluff scrub and coastal cactus scrub habitats, it was thought to have been outside the El Segundo Blue's historic range. Until, that is, scientists and citizens monitoring the bluffs and

surrounding terrain discovered an ESB colony. Already committed to restoring the disturbed sectors, [the conservancy](#) received funding from the California Coastal Commission to remove exotic and invasive plants and revegetate with buckwheat and other natives (a biota that will also support the Palos Verde Blue Butterfly and such threatened bird species as the California gnatcatcher and coastal cactus wren).

The work continues, signaling the conservancy's sustained effort to return this small patch of land to its former health and to reinvigorate its biodiversity. Yet whether this laudable project will succeed will depend on factors now mostly beyond human control, not least of which is time itself. So thoroughly and for so long have we run roughshod over ESB habitat that the butterfly's future, Mattoni warned in 1992, was "grim," a prognosis that has not changed substantively.

Still, one could have predicted the same about the gray whale's slim chance of survival (and whaler Scammon did), so that its recovery offers some optimism about the El Segundo Blue's fate. A hope revived whenever this graceful and bulky mammal rounds Point Vicente and breaks through the Pacific's shimmering surface.



### **About the Author**

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