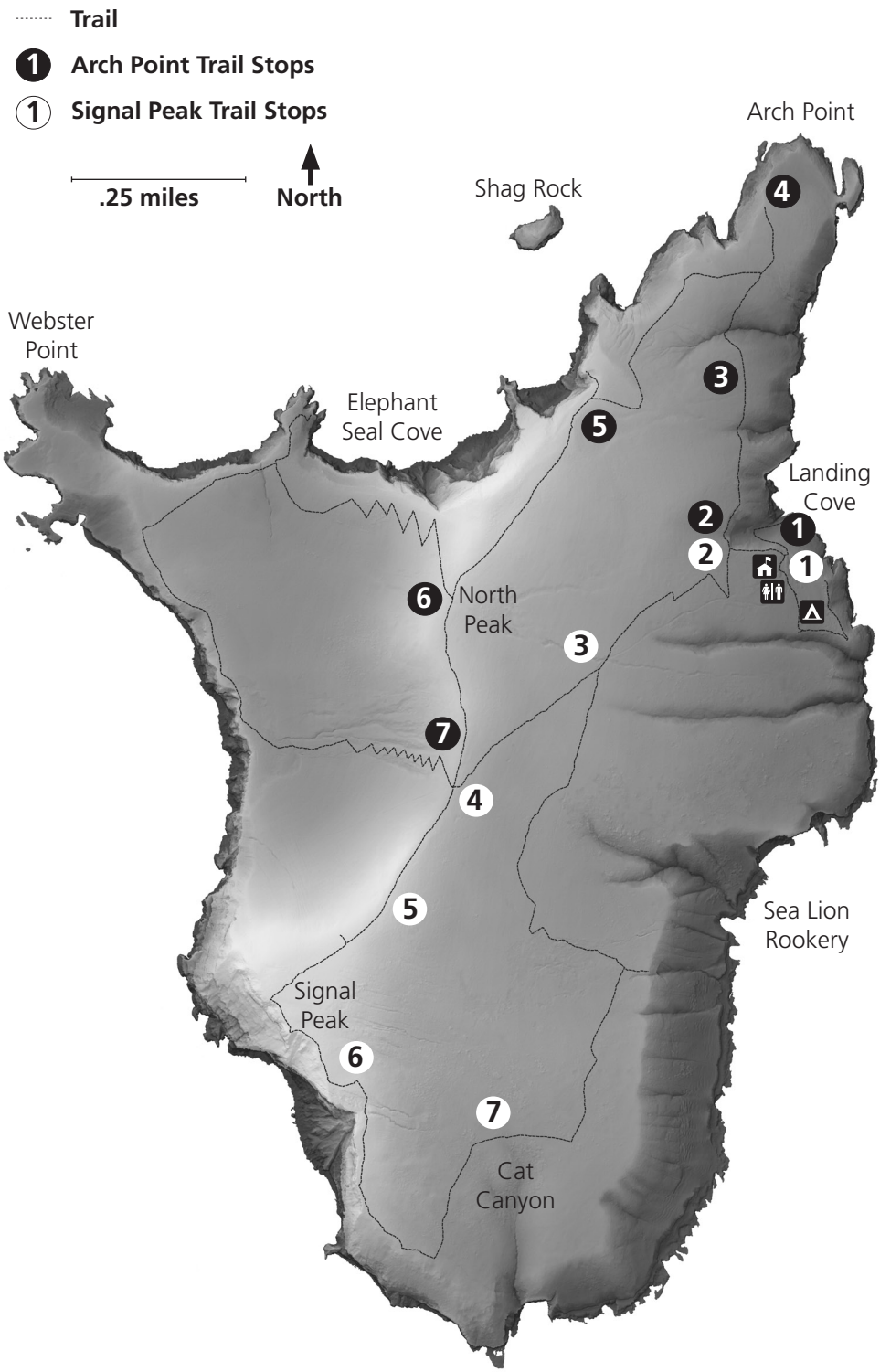
National Park Service
U.S. Department of the Interior

Channel Islands National Park

Santa Barbara Island Trail Guide


Trail
Arch Point Trail Stops
Signal Peak Trail Stops
.25 miles
North
Arch Point
Shag Rock
Webster Point
Elephant Seal Cove
Landing Cove
North Peak
Sea Lion Rookery
Signal Peak
Cat Canyon

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Webster Point

How To Use This Trail Guide

This trail guide provides 7 interpretive stops along the 2.3 mile loop to Arch Point or the 3 mile loop to Signal Peak. The stops and information are the same for either trail.

Please see the adjacent map for specific stop locations for both trails. Arch Point stops are indicated with black circles, while Signal Peak stops have white circles.

Also, please note that many of the topics covered are applicable to any island location. No matter what trail you choose to hike, take this guide along to learn about the rich natural and cultural history of Santa Barbara Island.

For a more detailed hiking map, please see the "Hiking Santa Barbara Island" bulletin available at the orientation sign near the visitor center.

Trail Stop 1

Nowhere Else on Earth

Location: Orientation Sign near the Visitor Center

Close to the mainland, yet worlds apart, Santa Barbara Island, along with the other Channel Islands, is home to plants and animals that are found nowhere else on Earth. As on the Galápagos Islands of South America, the isolation of the Channel Islands has allowed evolution to proceed independently, fostering the development of nearly 150 plants and animals endemic, or unique, to these islands. Santa Barbara Island is home to 14 of these species and some, like the rare Santa Barbara Island live-forever, are found only on this island.

Isolation has also played a major role in shaping human activities on the islands. While the southern California coastal mainland has seen extensive development, the Channel Islands remain undeveloped. The islands' separation from the mainland by up to 60 miles of an often turbulent ocean has limited and directed human use and occupation for thousands of years. And this limited use continues today, giving us a chance to see coastal southern California as it once was.

So step back in time and experience Santa Barbara Island's isolation as you walk to Arch Point or up to Signal Peak. It's like nowhere else on Earth.

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Trail Stop 2

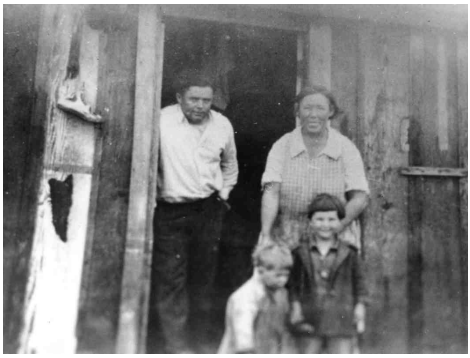
Preserving the Past

Location: Trail Junction with Arch Point Trail

An island ranch is a study in self-reliance. With no stores, phones…everything has to be fashioned from whatever is on hand; it's the art of making do.

Gretel Ehrlich, *Cowboy Island: Farewell to a Ranching Legacy*

While the isolated island offered ranchers several advantages over the mainland, including no predators and the world's best fence (the ocean), it created special challenges as well. Supplying such a remote outpost was probably the most considerable of these. The transportation of supplies and stock on and off the island was always an adventure—the distance to the mainland, rough seas, and high expense made it very difficult. However, ranchers adapted to the challenges of island life through self-reliance and, as one ranch foreman wrote, "learning to make do with what [they] had."



Santa Barbara Museum of Natural History

Alvin Hyder family on Santa Barbara Island.

No one was better suited to this island life than Alvin Hyder, who lived on Santa Barbara Island along with his extended family from 1914 to 1922. According to Alvin's son, Buster, "The ol' man got up with a lantern and went to bed with a lantern. Eight hours was just getting' started. He worked all the time. He was a hard-working man who never knew when to stop."

In order to produce income and be as self-sufficient as possible, the Hyders developed a diverse operation: they raised various crops (barley, corn, and potatoes), maintained a vegetable garden, and imported different animals, including sheep from Santa Cruz Island, horses, mules, pigs, goats, rabbits, chickens, ducks, geese and turkeys.

Not all of these enterprises succeeded. "Too much guano in the ground… burned [the potatoes]." High winds wreaked havoc on the chickens and geese: "We watched more gosh darn chickens and turkeys and our stuff blow out in that ocean—blow 'em clear out." One terrible year, the Hyders even lost their entire hay harvest: "We sold our hay to this guy [in San Pedro], and he went bankrupt. We lost all of our feed and all our work…we got skunked."

Raising sheep for wool and meat eventually became the mainstay of the Hyder operations. But even this had its challenges. One of the biggest was transporting the sheep and supplies to


Santa Barbara Museum of Natural History

Remaining Hyder Ranch buildings as of 1946.


Santa Barbara Museum of Natural History

Cleve Hyder family home.

the top of the island. To accomplish this difficult task, the Hyders constructed a wooden track with a sled that ran between the Landing Cove and the house. A horse pulled the sled up the track, and people lowered it by hand. The horse, named Dan, listened for a signal from below to start hauling, and stopped when the load was exactly at the barn.

To supplement the family income, Alvin ran rum during Prohibition along the Southern California coast and transported animals and supplies to and from other islands aboard his boat, *Nora*. The family also fished and collected sea gull eggs which were boiled because they were so oily. Occasionally, hunger and lack of supplies would drive family members to eating mice and brushing their teeth with green coreopsis branches, a practice Buster describes below:

> When [the coreopsis] were green I used to break them off and scrub my teeth with them. No kiddin'. We had no toothbrushes. . .and no toothpaste. So I used to clean my teeth with the things. It's just like eatin' an apple, and it keeps your teeth slick and clean. Maybe that's why I got all my teeth still.

The lack of fresh water also posed a challenge. Since the island had no springs or flowing water, the Hyders constructed a system of reservoirs. They built two large concrete cisterns at the house and brought water from the mainland on *Nora II* in twenty-five 50-gallon barrels. This water was then pumped to the house reservoir. They also collected water from the building roofs and constructed two water catchment basins on the island for the livestock and crops. To ensure water quality, Buster had the job of removing dead mice from the drinking water supply every day.

Despite these actions, water remained a precious resource as Buster recalled, "You had to limit your drinking water. It had to last a year. Then it got stagnant. Many times when it was raining I'd drink water out of horse tracks. No kiddin'. Boy, it was hard to drink it. But when you don't have anything else, you have to drink it."

Besides teh lack of fresh water, the Hyders also lacked natural resources for construction materials. With no trees on the island, all supplies for facilities had to be brought from the mainland. The Hyders built a two-room wooden ranch house above the Landing Cove for the families of both Alvin and his brother, Clarence, to share. A barn, stable, and

a chicken coop were located nearby. Alvin's other brother, Cleve, and his wife built their own small house half way up from the Landing Cove. At one time around 1915 some 15 people lived on this little island.

With all of these difficulties and setbacks, it may come as no surprise that the Hyders finally decided to leave the island in 1922, after years of hard work and frustration. They tore down the buildings for lumber and removed their animals with the exception of the rabbits and a mule. The Hyders were the only family to permanently reside on this isolated island.

After the Hyders, only government activity occurred on the island. From 1942 through 1946, the island served as a military coastal lookout station, which consisted of a lookout tower, radio antenna, roads, boat landing with tramway, and barracks. A staff of seven men on 24-hour duty kept a lookout for all passing vessels and submarines. Two unmanned navigational light towers were also constructed, one of which is still operational and can be seen near Arch Point.

As you might expect, military life was a little different on an isolated island. Cal

Radio antenna (left) and lookout tower, 1942.

Santa Barbara Museum of Natural History

Landing cove with tramway and Quonset huts.

Reynolds remembered his 1942 duty time at the station as "very hang loose . . . not a lot of regimentation, we stood our four on and eight off . . . it was a small island, there wasn't a lot to do on it." The men worked two weeks on the island and then received one week of leave. They kept chickens and rabbits in pens, and fished and tended lobster pots: "[we] always had hot buttered lobster." Even though the Navy had constructed a water storage tank and pumped water up from the dock, water was still scarce and the men were unable to keep a garden. A weekly boat brought supplies and transferred men on and off the island. "It was a good life," Reynolds recalled, "an enjoyable experience."

Even today, the isolation of this island still affects visitors and the National Park Service. Public boat trips for park visitors are limited to only a few days each month during the summer and visitors must bring (and carry up to the top of the island) all their own food and water. Park staff must import food and water as well, and have established a solar power system for energy. Like so many who visited and resided here before, we must learn to make do with what we have.

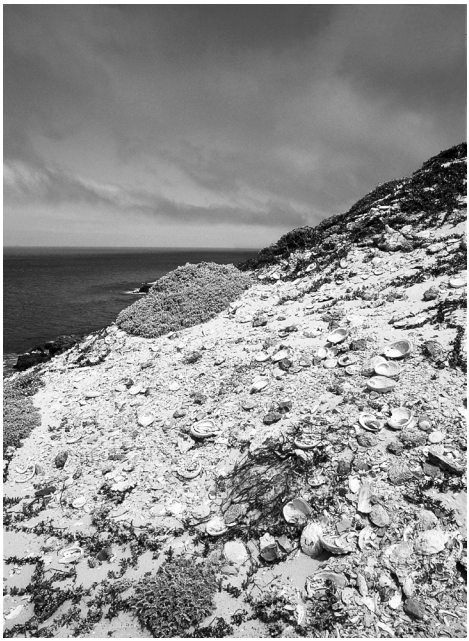
Trail Stop 3

Window into Their World

Location: Halfway to Arch Point or Halfway to the Saddle between North and Signal Peaks

Throughout your hike today, you may discover tiny fragments of broken shells glittering in the soil or piles of shells falling out from the cliff edge. How did these shells get there? It must be the ocean at work—or is it?

Archeologists identify these sites as "middens," debris piles containing remnants of past societies—the Tongva, the Chumash, and their ancestors. The island's 30 or so midden sites suggest that occupation dates back at least 4,000 years, and probably even more than that. However, due to the lack of a steady supply of fresh water and the few terrestrial resources, permanent settlements were never established on Santa Barbara Island. The island was instead used on a seasonal basis and as a stopover between Santa Catalina and San Nicolas Islands.



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Island midden site.

These midden sites offer us a window into the Tongva and Chumash world. By examining these sites, archeologists can piece together a picture of the ancient island life of these peoples. The Tongva and Chumash were skilled craftspeople and seafarers, with a vast knowledge of the world around them and how to use it for their survival. The predominance of shells and fish bones within the middens reveals that they subsisted primarily on fish, shellfish, and other marine organisms. They often plied the Santa Barbara Channel in search of this rich variety of marine food, traveling in *tomols* (canoes) made of redwood or pine planks caulked with tar from natural seeps.

These middens also reveal that other items not available in this isolated island environment had to be traded for with villages on the mainland or other islands. One of the principal products manufactured and traded by the islanders were shell beads, which were used as currency of trade in the Tongva and Chumash areas and throughout California.

To produce these beads, chert microdrills were used to bore holes in pieces of olivella snail shells. Chert, a hard, durable silica rock, was found in considerable quantities on Santa Cruz Island. Because

Eastern Santa Cruz Island had chert of the proper type and quality needed for tool construction, this location became the center for manufacturing chert microdrills. One particular site contains evidence of the highest density of microdrill production in North America.

Santa Barbara Island and the other Channel Islands were not isolated enough to protect the island Tongva and Chumash from the diseases the Spanish explorers and missionaries brought with them as they began colonizing California in the late 1700s. By the early 1800s, the island Tongva and Chumash had been devastated by measles and other introduced epidemics, as well as by drought and the disruption of their trade-based economy. The last of the islanders would leave their traditional island home by the mid-1800s.

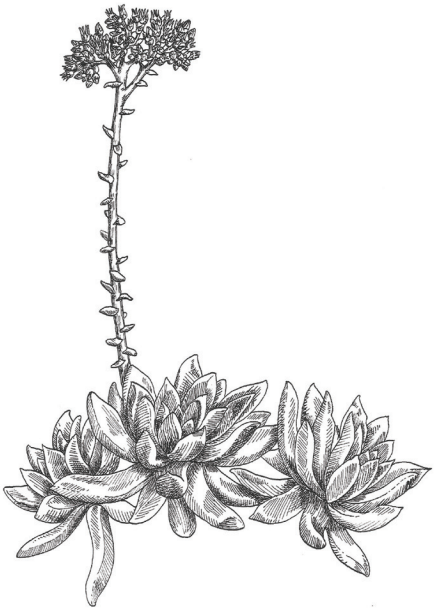
Although much of the islander's history and way of life has been lost, enough remains to remind us of this unique part of Santa Barbara Island's past. These midden sites, along with today's descendants of the island Tongva and Chumash, remind us how important and sacred these isolated islands are.

Taking from or disturbing archeological sites or artifacts is a violation of state and federal law. The archeological sites around the Channel Islands are a testament to the importance of the Tongva, Chumash and other American Indians. Archeological sites are sacred to Tongva and Chumash peoples today, are protected by federal law, and are a vital nonrenewable scientific resource. Please help us in protecting and preserving this rich part of California's heritage.

Trail Stop 4

Return of the Natives

Location: Arch Point or Saddle between North and Signal Peaks



Ellie Yun Hui Tu

Santa Barbara Island live-forever

As you walk the island, you may notice the fields of grains and grasses that dominate the landscape. This was not always the case. What was once an island covered with coastal sage and bluff scrub, maritime cactus scrub, and native grasslands, has given way to nonnative, European grazing grasses and an assortment of weeds, including iceplants, oats, bromes, foxtails, thistles, and mustard. Today, about a third of the plant species found on Santa Barbara Island are nonnative.

During the early 1900s, native vegetation was cut, burned, and plowed for farming. In addition, sheep, goats, and rabbits severely overgrazed the island, eliminating most of the native vegetation and creating open, disturbed, and eroded soils that allowed nonnative plants to flourish. Once established, these hardier nonnatives outcompeted the natives for limited soil and moisture, due to their longer germination and growth cycles and ability to withstand grazing and browsing by livestock.

The NPS is working to restore the island's native vegetation, and special focus is being placed on the 14 plants endemic to the islands—those found nowhere else in the world. Four of these occur only on Santa Barbara Island: the Santa Barbara Island live-forever, buckwheat, cream cups, and island chicory. To ensure the survival of these unique species and encourage the recovery of the island's native vegetation, all non-native animals have been removed and the effort to plant native species and control nonnative weeds is underway.

The recovery of native plants has so far been remarkable. Many are now spreading beyond the buried seed banks and steep canyon walls and cliffs, where they remained protected from grazing, and are reestablishing themselves slowly throughout the island.

This reestablishment of native plants has also aided in the recovery of endemic deer mice, night lizards, and nesting land birds by providing important habitat. Today, there are 14 land birds that

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The recovery of native island vegetation.

Charles Drost

The endemic island night lizard.

nest annually on the island. Three of these—the horned lark, orange-crowned warbler, and house finch—are endemic subspecies found only on Santa Barbara Island.

Unfortunately, the island's recovery did not come soon enough for the endemic Santa Barbara Island song sparrow, one of the smallest forms of song sparrow and differentiated from its mainland relative by its very gray back. The destruction of this sparrow's sagebrush and coreopsis nesting habitat and the presence of feral cats led to the extinction of this species in the 1960s. It is now lost forever.

However, ecological restoration has helped populations of the endemic island night lizard recover to the point that it was removed from the Federal List of Threatened and Endangered Wildlife in 2014. This species only occurs on Santa Barbara, San Nicolas, and San Clemente Islands.

You can help with this recovery of island natives by cleaning your boots and other possessions, such as backpacks, before you visit. This ensures that you don't accidentally introduce nonnative species to the island. Together we can guarantee the return of native plants and animals throughout Santa Barbara Island.

Trail Stop 5

Geographical Isolation

Location: Halfway between Arch Point and North Peak or Halfway between the Saddle and Signal Peak

As you near the ridgeline with the island's two highest points, 635-foot Signal Peak and 562-foot North Peak, take a moment to look across the island. You may notice the broad, elevated coastal plain stretching in front of you, one of six on the island. These plains are remnants of what geologists call "marine terraces"—ancient shorelines carved flat by wave action and exposed through changes in sea level and tectonic uplift of the land. A future marine terrace (called a wave-cut platform) is being created today by wave erosion at the base of the sea cliffs.

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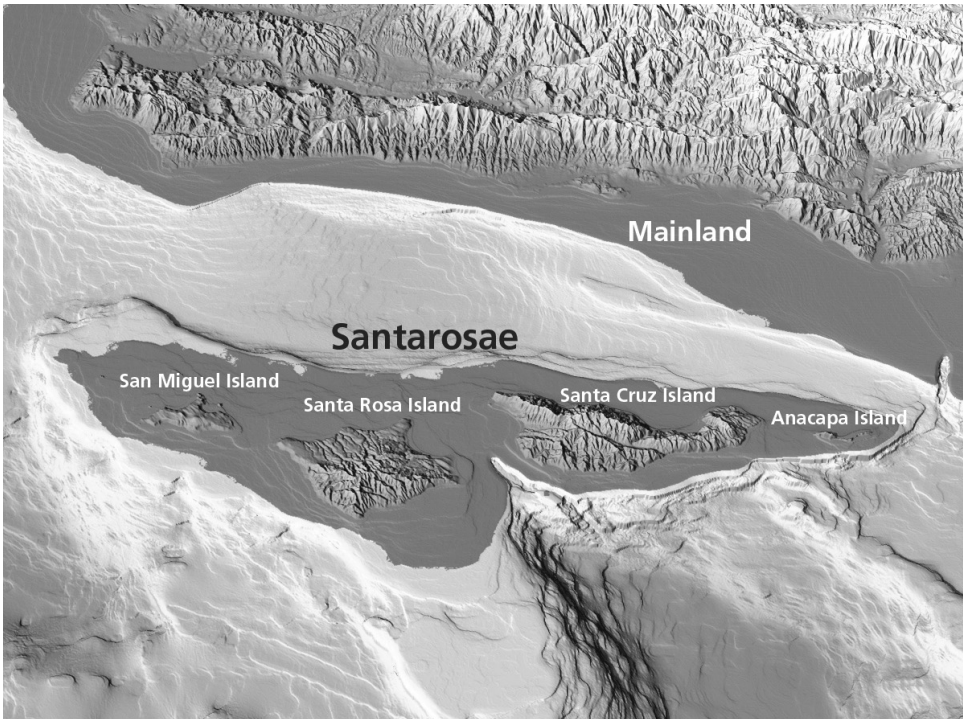
Erosional forces at work on Webster Point.

The Channel Islands' first shoreline was created around five million years ago, when compressional forces, caused by the ramming of Baja California into southern California, resulted in the folding and faulting of marine sediments and volcanic rocks (deposited between 15–30 million years ago) and the eventual uplift of the islands. These compressional forces are still ongoing, making this area

Aerial view showing Santa Barbara Island's marine terraces.



Although never connected to the mainland by a land bridge, the four northern islands were once part of the Pleistocene "super island" known as Santarosae, nearly four times as large as the combined areas of the modern Channel Islands. The dark-shaded area on the map depicts the ancient coast of Santarosae and California around 20,000 years ago when sea level was approximately 350 feet lower than it is today. As the ice sheets and glaciers melted and the sea level rose, only the highest parts of Santarosae remained as modern islands. (Adapted from a map by geologist Tom Rockwell)

geologically active today—Santa Barbara Island, as well as the other Channel Islands, continues to be uplifted.

Ever since these compressional forces caused the islands to emerge from the sea, the Channel Islands have been separated from the mainland. And unlike the four northern islands, which were once joined as a single, "super island" known as Santarosae, Santa Barbara Island has never been connected to another neighboring island.

For decades, however, scientists assumed that the northern islands (Anacapa, Santa Cruz, Santa Rosa, and San Miguel Islands) were connected to the mainland by a land bridge, but as bathymetric information (or topography) of the sea floor improved, it revealed that even during periods of lowest sea levels (about 17,000 years ago), the islands still remained isolated by at least four miles of ocean. It is this continuous geographical isolation that has shaped island life.

Trail Stop 6

An Ocean Park and Sanctuary

Location: Trail Junction with Elephant Seal Cove or Bluff below Signal Peak overlooking Sutil Island

From this vantage point, one has the opportunity to gaze upon another part of the park: the marine environment. One nautical mile of water around each island is part of Channel Islands National Park, and the six nautical miles around each island form Channel Islands National Marine Sanctuary.

Within this ocean realm, one often sees or hears California sea lions, northern elephant seals, or harbor seals. The island's isolated shoreline (especially below the Elephant Seal Cove, Webster Point, and Sea Lion Rookery Overlooks) offers these pinnipeds an ideal combination of safety from predators and freedom from human disturbance, making the island an ideal place to rest, breed, and pup.

But even Santa Barbara Island's isolation could not always protect these and other sea mammals from human predation. As early as the late 1700's, fur hunters were exploiting sea otters, fur seals, elephant seals, and sea lions for their fur, hides and oil. Sea mammal hunting ended in the early 1900's and laws like the Marine Mammal Protection Act now protect these species. Today, elephant seals, sea lions, and harbor seals regularly breed along the island's shoreline. In this isolated environment, their protected populations are recovering from centuries of slaughter. Unfortunately, the sea otter has not yet returned.

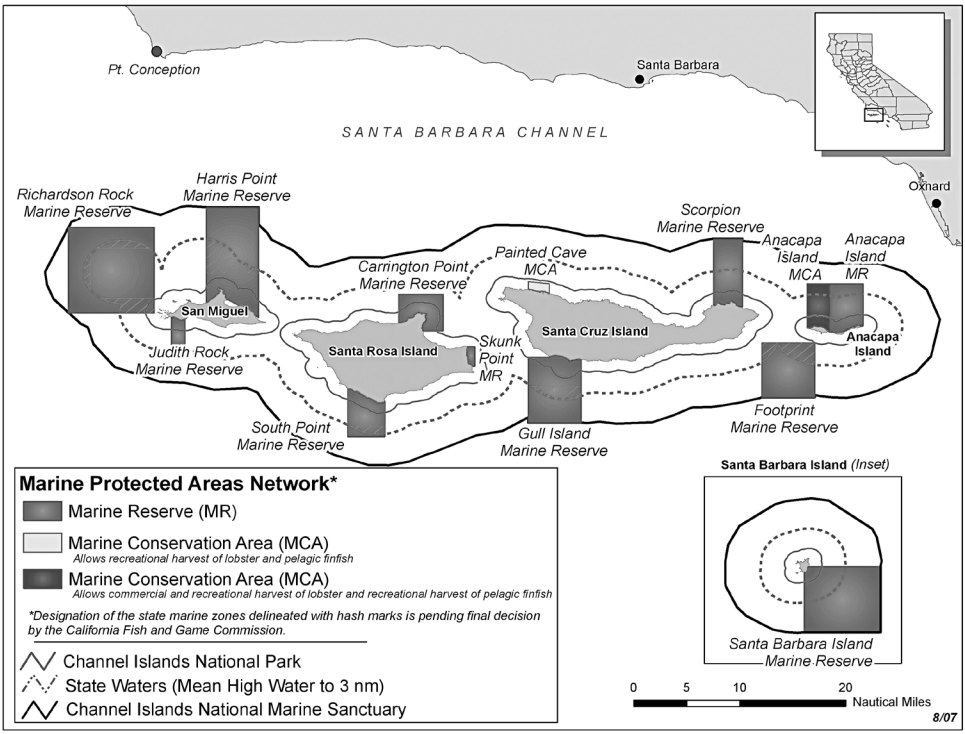
These pinnipeds, along with over 800

Kelp forest, Santa Barbara Island.

other marine species, also depend on the extensive kelp forests found in these waters for food, shelter, and protection—from foraging nudibranchs, to grazing snails, to fish seeking refuge, to whales feasting on plankton. Kelp is a type of algae that, under ideal conditions (cold, nutrient-rich water), is one of the fastest growing organisms on Earth—it can grow two feet per day.

While urban and industrial development has altered much of the southern California coastal mainland, the isolated islands contain the most undisturbed stretches of coastline in this region, providing some of the best conditions for kelp forests and their inhabitants.

Kelp forests don't just benefit marine species—they benefit us as well. Not only do we eat some of the animals that depend upon the kelp forest, but everyday products like ice cream, salad dressing, and even toothpaste also use a little bit of seaweed as well. Kelp is harvested for a natural ingredient called



algin, which is used as a suspending, stabilizing, emulsifying, gel-producing, and film-forming additive in more than 70 commercial products. In addition, marine plants and algae such as kelp provide Earth with 80 percent of its oxygen.

Despite these benefits, human activities have placed the kelp forest and its inhabitants in jeopardy. Pollution and over-harvesting of marine species have altered the kelp forest ecosystem, and kelp forests in southern California today cover less than half the area they covered at the turn of the 20th century.

However, with the establishment of marine protected areas (MPAs), improved pollution controls, fishing regulations, and increased research and public education, some of these problems have been corrected.

Within the park and sanctuary, this network of MPAs provides a refuge for sea life, as well as opportunities for recreation, education, and science. In 11 marine reserves (including one on Santa Barbara Island's southeastern side), recreational fishing and commercial harvesting are prohibited; limited fishing and harvesting are allowed in two marine conservation areas. The MPAs total 318 square miles, the largest such network off the continental United States and an important part of a larger, worldwide effort to conserve natural, historic, and cultural marine resources.

Trail Stop 7

An Ideal Isolated Home

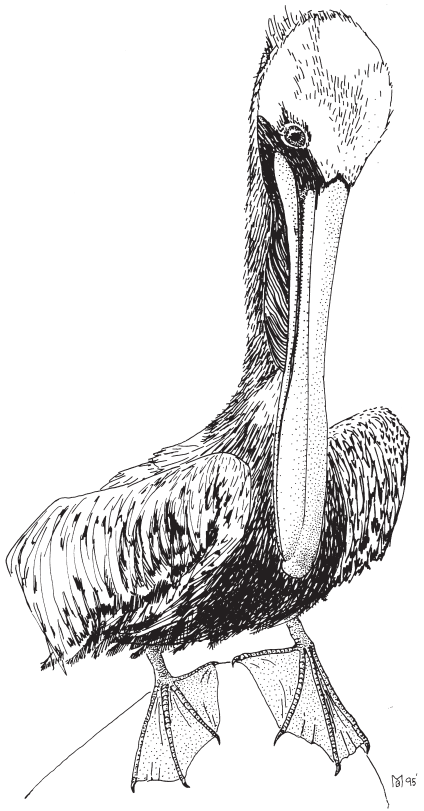
Location: Trail Junction with Webster Point or near Cat Canyon

The ever-present western gulls and graceful pelicans can often be sighted soaring throughout the island, especially along the steep, rugged volcanic cliffs. These cliffs, their numerous caves, and the rest of Santa Barbara Island's coastline and neighboring islets are home to 13 different species of nesting seabirds and shorebirds. Ashy storm-petrels, Brandt's cormorants, Cassin's auklets, pigeon guillemots, black oystercatchers, and one of the world's largest colonies of Scripps's murrelets all make their home here.

Santa Barbara Island, the other Channel Islands, and all of their associated islets and offshore rocks comprise one of the largest breeding centers on the west coast for seabirds and shorebirds. Their isolation and freedom from predators and human disturbance, as well as the abundance of food in the cold, nutrient-rich ocean waters surrounding them, make them an ideal place for marine birds to breed and rear their young.

However, the island's isolation was not able to protect some species of seabirds from human impacts. The destruction of native vegetation, importing of non-native species, gathering of eggs, disturbance of rookeries, and the spread of pesticides in the marine environment have all been detrimental.

During the 1960s, the pesticide DDT nearly caused the extinction of the California brown pelican as a breeding



California brown pelican

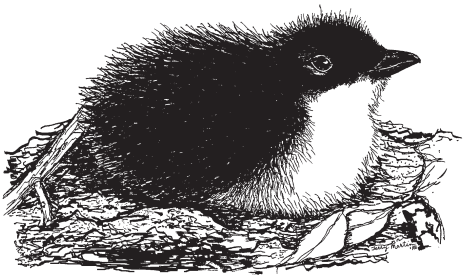
species on the west coast of the United States. In 1970, only 552 nesting attempts were made on Anacapa Island (the largest colony on the West coast of the United States) and just one chick survived. On October 13, 1970, the brown pelican was listed as an endangered species.

Cassin's auklets were once so abundant on Santa Barbara Island that in 1863 it was recorded that "they had undermined almost every part of the soft, earthy surface with their burrows." Between

1897 and 1908, cats were introduced to the island, and by 1911, it was reported that the breeding colony had been entirely abandoned. To make matters even worse, the cats devastated the island's large Scripps's murrelet colony as well—biologists found only one egg.

Today, these species are gradually recovering now that their isolated island home is protected within Channel Islands National Park. Through monitoring and restoration programs, the park and its partners are working to conserve critical nesting habitat and to protect the integrity of the island and marine ecosystems that support 90 percent of southern California's seabird populations. On Santa Barbara Island, these efforts have focused on restoring seabird nesting habitat, removing feral cats and non-native vegetation, revegetating with native plants, installing nest boxes, and closing areas to protect nesting seabirds.

The most notable results of these efforts have been the successful recovery of the California brown pelican and its removal from the endangered species list in 2009, and Santa Barbara Island once more supporting the largest number of breeding seabirds on any of the Channel Islands.



Scripps's murrelet chick

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Webster Point

Park Protection

In 1938, Santa Barbara Island was proclaimed a national monument to protect, preserve, and teach us about the island's fragile resources and unique past. This distinction was reaffirmed and strengthened in 1980, when the island was included in the newly established Channel Islands National Park. By understanding these resources and the role isolation plays on these islands, the National Park Service can preserve them for future generations to study and enjoy.

The National Park Service needs your help as well. We encourage you to explore and learn more about Santa Barbara Island and the rest of the Channel Islands—but don't stop there. In recognizing the importance of these islands, take your awareness to the action level. Make every effort to preserve the plants, animals, and artifacts found not only within this park, but throughout the world as well.

National Park Service
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