

Channel Islands Community



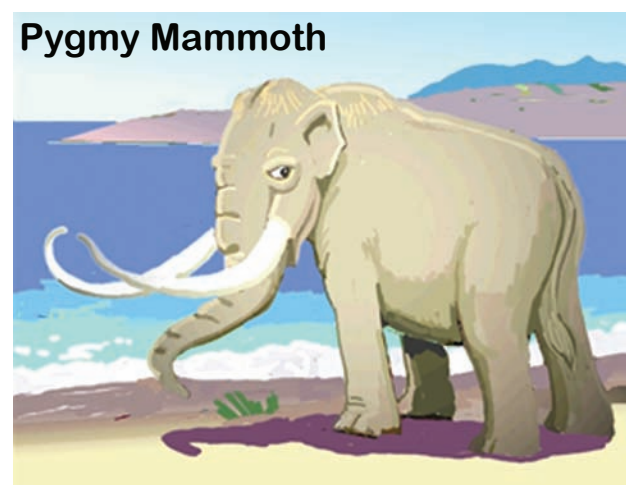
What are the Channel Islands?

The Channel Islands are comprised of a chain of islands off the coast of southern California near Los Angeles. Although there are several islands, the five northernmost islands have been designated as Channel Islands National Park and the Channel Islands National Marine Sanctuary. The marine sanctuary encompasses the five islands and water 6 nautical miles off shore. The Channel Islands have an interesting geological and ecological history. They seem to be an extension of the Santa Monica mountains, but the geologic history is complex and this theory is still being deciphered.

Exposed during the last ice age when sea levels were much lower, the islands were linked together as one large island known by geologists as Santarosae. During this time, there were opportunities for mainland animals to reach the island. As sea levels rose, the mountain tops of the large island became surrounded with water creating the Channel Islands we know today.

This separation from the mainland allowed the plants and animals to evolve in isolation and adapt to a unique set of environmental conditions. As the plants and animals evolved they became distinct species from their close relatives on the mainland. Dwarf species of mammals, such as the pygmy mammoth, roamed the cypress forests of the islands.

Pygmy Mammoth



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NPS Channel Islands

What animals live on and around the islands?

Known as the North American Galapagos, the islands host over 2,000 species of plants and animals. Of these, 145 are endemic to the Channel Islands, found nowhere else on earth! From the largest animal in the world– the blue whale–to the tiny marine plankton, the Channel Islands and Marine Sanctuary are home to an incredible diversity of life. In the intertidal zone, many different sea creatures such as sea stars, sea anemones and limpets can be found in the tidepools. Offshore, there are several species of whales and dolphins that are frequently sighted around the islands.

There are many animals that depend on both the land and sea for survival. The Channel Islands support the only breeding and nesting colonies of the brown pelican in the western United States. The endangered brown pelicans fish for anchovies in the kelp forests, but nest on the dry bluffs of the islands.

The islands also support breeding populations of northern elephant seal, the California sea lion, harbor seals and others seals that take advantage of the isolated and protected stretches of sandy beaches.



Channel Island Fox

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Robert Potts © California Academy of Sciences

Sea Anemone, Sea Star, Urchins



Northern Elephant Seal Pup

Gerard and Buff Corsi © California Academy of Sciences

What plants grow on the islands?

Island communities tend to have many unique species due to isolation from the mainland. Although many of the plants have ancestors on the mainland, there are several that have been isolated and separated for so long that they have become distinct island species. In some cases, the ancestral mainland species become extinct while the isolated island species survive. These plants with limited distribution are known as endemics.

Sixty five plants are endemic to the Channel Islands. Of these, several are rare, threatened or endangered, including the Malva rose, the Santa Cruz Island ironwood, the San Clemente Island bush mallow and the Santa Barbara Island dudleya. One of the rarest plants is the Catalina Island mountain mahogany. There are only seven individual shrubs that naturally occur in a single canyon on Catalina Island.

Although these plants are uniquely adapted to island conditions, they are also more susceptible to disturbance from human development, pollution and from non-native plants and animals.



Channel Island Tree Poppy

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Malva Rose

© Annie Presler De Anza College 2006



Clemantine Island Bush Mallow

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What impact have humans had on the Channel Islands?

Human remains found on Santa Rosa Island in the early 1900s have been dated as being more than 13,000 years old, making the Channel Islands home of the oldest human remains in the United States! Chumash Indians lived on the island for thousands of years until Spanish explorers and Mexican and American ranchers dominated the occupation of the islands. Along with the non-indigenous people came many species of non-native plants and animals.

Today, feral cats, rabbits, hogs, sheep and a variety of invasive plants have devastated the native populations of plants and animals leading to the decline or extinction of many of these unique species. The South African iceplant is a tenacious non-native plant that thrives in arid environments. It spreads dense mats of vegetation that compete with and suppress native plant growth. The iceplant also leaches salt into the soil, producing high concentrations of salt that are detrimental to the native plants. The eradication of non-native species and protection of the islands are critical to the long term ecological health of the island community.

Brown Pelican



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