

## Nowhere Else On Earth

Something draws us to the sea and its islands. Maybe it is the thrill of traveling over water to an unfamiliar land. Or maybe it is the yearning for tranquility—to walk on a deserted beach with birds, salty breezes, and the rhythmic wash of waves as our companions. You don't have to go far to find such a place. Off the coast of southern California the Channel Islands seem to float on the horizon like ribbons of dark rock. Named for the deep troughs that separate them from the mainland, the eight islands and their encircling waters are home to more than 2,000 species of animals and plants—145 are found nowhere else on Earth. Isolation over thousands of years and the mingling of warm and cold ocean currents give rise to the rich biodiversity of these islands. Today, five of the islands, their submerged lands, and the waters within one nautical mile of each island are protected as Channel Islands National Park.

### The Channel Islands from the Ice Ages to Today

**Living Alone** Lower ocean levels during the ice ages narrowed the distance across the Santa Barbara Channel and exposed some of the sea floor. The land offshore, easier to reach then, allowed some species to venture into this new territory. Mammoths swam the channel. Mice and foxes drifted over on rafts of vegetation. Plants and seeds floated. Birds flew. Later, water from melting glaciers raised the sea level. This widened the channel again and increased the isolation of animals and plants from the mainland.

Many species evolved over time and adapted to their isolated environment. Mammoths evolved to become a new species of pygmy mammoth, and gray foxes shrank to the size of house cats, becoming today's island fox. Species of mice, scrub jays, and many plants grew larger. Isolation and evolution did more than alter their size or shape; it increased their vulnerability to outside forces.

**Kinship of Islands and Sea** A powerful bond between the land and sea controls everything here, from what plants grow to when seals breed. Together, water currents, winds, and weather create an ecosystem that supports a rich diversity of life. Among the 2,000 species you will find here are northern fur seals, bright orange garibaldi (California's state marine fish), some 28 species of whales and dolphins, intertidal dwellers such as sea stars and surfgrass, and squid, which serve as a major link in the food chain as predator and prey.

**People on the Islands** The islands attracted seafaring people long ago. About 13,000 years old, fragments from a woman's legbone found on Santa Rosa provide a record of the earliest known human presence on the islands. Over time Chumash Indians settled on the northern islands, and Gabrieliño/Tongva settled the southern islands. Prosperous and industrious, the tribes joined in a trading network that extended up and down the coast

and inland. The island Chumash used purple olivella shells to manufacture the main currency used for this commerce. Later, the region's temperate climate and bountiful natural resources attracted Spanish explorers, missionaries, and ranchers. In October 1542 Juan Rodríguez Cabrillo sailed into the Santa Barbara Channel. His expedition wintered on an island he called *Isla de Posesión*. On January 3, 1543, Cabrillo died from injuries and may have been buried on one of the islands, although his grave has never been found. In 1793 Capt. George Vancouver gave the islands their present names. Early in the 1800s fur traders searched the coves for sea otters, seals, and sea lions, nearly hunting them to extinction. By 1822 most Chumash had been moved to mainland missions. Except for fishing camps, ranching had become the economic mainstay by the late 1800s. In the 20th century the military established lookouts on Anacapa and Santa Barbara and prac-

ticed bombing raids on San Miguel. Today, ranching and other commercial and military activities have ceased. The islands are regaining some of their natural diversity.

**Alien Invasions** Ranching and development in the late 1800s introduced animals and plants that had devastating effects on island ecology. Livestock overgrazed the hills. Bare soil blew away. Feral pigs uprooted plants. Rabbits brought for meat escaped and devoured the native plants. Iceplant, thistles, and range grasses choked out native vegetation. Alien species threatened to destroy the ecological dynamics of the islands.

**Protection and Restoration** Protection began in 1938 when Anacapa and Santa Barbara islands became Channel Islands National Monument. Cooperative agreements with the

National Park Service, private landowners, The Nature Conservancy, U.S. Navy, and other state and federal agencies led to more preservation. In 1980 Congress designated San Miguel, Santa Rosa, Santa Cruz, Anacapa, Santa Barbara, and the submerged lands and waters within one nautical mile of each island as Channel Islands National Park. The waters extending out six miles from each island are a National Marine Sanctuary. Channel Islands National Park monitors and protects threatened and endangered species, restores ecosystems, and preserves the natural and cultural resources for you and for generations to come.

This illustration by Michael Hampshire is a composite of the national park's five islands.

### A Safe Haven for Brown Pelicans

Hundreds of varieties of plants, fish, invertebrates, and seabirds, such as brown pelicans, depend on the kelp forest ecosystem of Channel Islands. Giant kelp grows tall, fast, and thick in these nutrient-rich waters. Today, thousands of brown pelicans search the water for food. Not long ago, they faced extinction.

In 1970 only one chick on West Anacapa survived. Scientists pinpointed DDT flowing from mainland sewers

into the sea as the cause. When pelicans ate contaminated fish, DDT disrupted their reproductive systems: egg shells became so thin that they broke under the parent's weight. The Federal Government listed the brown pelican as an endangered species in 1970 and banned DDT in 1972. The fight to save these birds led to a remarkable recovery. Today on West Anacapa up to 6,000 nesting pairs of pelicans raise chicks each year.

