

Redwood

National and State Parks

Official Map and Guide



Redwoods and rhododendrons

World's tallest living tree—monarch of the North Coast—living link to the Age of Dinosaurs. A redwood grows from a seed the size of a tomato seed, yet it may weigh 500 tons and stand taller than the Statue of Liberty. With its foot-thick armor of bark, this tree seems nearly impervious to the effects of fire and insects. Botanical credit for the coast redwood's discovery is generally

From Exploration to Preservation

When Archibald Menzies saw the redwood forests in 1794, they probably covered almost two million acres. As gold fever subsided here redwood fever replaced it. The trees at first seemed endless but quickly fell to determined logging. The State of California preserved a number of key groves during the 1920s. When modern logging methods raised the possibility that *all* the rest might be cut, Congress created Redwood National Park in 1968. The park was expanded in 1978 to protect the world's tallest trees along Redwood Creek. Redwood National and State Parks include just fewer than 40,000 acres of ancient forest, nearly half of all that remain.

Jedediah Strong Smith
Lacking good deep harbors, the redwood coast drew little attention until fur trapper Jed Smith arrived overland in 1828. Smith explored the redwood coast for a better route between the Rockies and Pacific. Gold miners opened the area to settlement in the 1850s.



Kamela State Historical Society



Early logging centered on small trees. Later, redwoods could be logged. Gold mining (below) began after the 1848 strikes on the Trinity River.



Logging began in redwood country in 1851. At first small logs were floated to small mills or were dragged by oxen on skid roads. Railroads came into use in the 1870s, followed by the steam donkey in 1882, and the bull donkey 10 years later. Bulldozers were used by the 1920s and trucks by the 1940s. Redwood lumber was used to build some of San Francisco's great Victorian homes.



Split Rock along the Coastal Trail

given to Archibald Menzies, who noted it in 1794. In 1847 it was given its scientific name, *Sequoia sempervirens*, probably in honor of Cherokee leader Sequoyah. (*Sempervirens* means "ever living.") In 1918 paleontologists interested in preserving this living link to our evolutionary past launched a national campaign for the trees' protec-

tion. Interest from the scientific community led to the establishment of three North Coast redwoods state parks: **Prairie Creek in 1923, Del Norte in 1925, and Jedediah Smith in 1929.** Interest in preserving not just the trees, but also their natural setting in the Coast Range and the associated plants and animals, led to the creation of Redwood National Park in 1968, and its

Redwood National Park
Del Norte Coast Redwoods State Park
Jedediah Smith Redwoods State Park
Prairie Creek Redwoods State Park
California



Rough-skinned newt

expansion in 1978. The national park boundary encircled the three existing state redwoods parks and gave increased protection for the superlative, ancient redwood forests growing along the northern California coast. The parks form a World Heritage Site and are part of the California Coast Ranges Biosphere Reserve. These designations reflect worldwide recognition that

National Park Service
U.S. Department of the Interior

Department of Parks and Recreation
State of California



Lady Bird Johnson Grove Trail

Larry Ulrich

these resources are irreplaceable treasures. In watching over the trees, Congress and the State of California have saved miles of Pacific shore, rivers, streams, estuaries, meadows, and prairies. Here, the diversity of life is protected for you and for future generations. Help us safeguard this special place by treating it with care and respect.

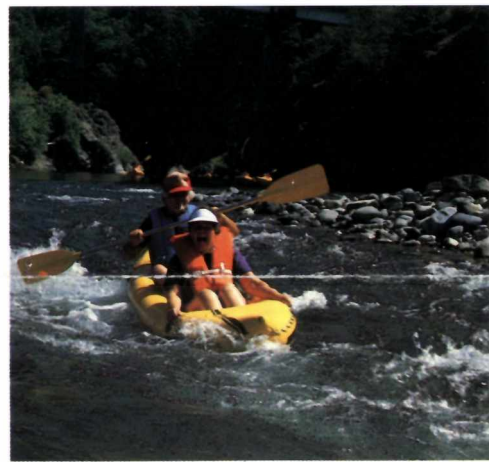
Treasures of Nature and Culture

From sea level to 3,200 feet in elevation in the Coast Range, a mild, moist climate assures the parks an abundant diversity of wildlife. Elusive to visitors, many mammals, birds, amphibians, and insects live in the mature redwood forest. They depend on it for food and for shelter. Prairies form natural islands of grasslands, where wildlife abounds.



Prairies and Waterways
Prairies and rivers reflect the changing of seasons far better than redwood groves do. *Prairies:* In springtime, prairie wildflowers burst with color that gives way in the dry summer to the grasslands' amber glow. Prairies are the realm of raptors, the predatory red-tailed hawk, kestrel, and great horned owl, and their prey of gophers and meadow mice. Mountain lions, bobcats, coyotes, foxes, elk, and black-tailed deer frequent prairies, which once were kept free of trees by fire and grazing elk. Acorn-bearing Oregon white oaks edge prairies at higher elevations. Oaks provided protein-rich food for Indians, who cleared the understory with fire. Prairies make good birding spots. There

Roosevelt elk favor prairie and other open lands but seek forests for cover and shade. The parks' largest land mammals, these elk may exceed 1,000 pounds. Their much larger antlers distinguish them from black-tailed deer. One of the best places to see Roosevelt elk is at Elk Prairie campground. At Gold Bluffs Beach elk can be found along the beach and nearby trails. Look for them along the Bald Hills and Davison roads, too. Always be alert for elk crossing the highways.



Park streams offer swimming and floating opportunities. Steelhead, cutthroat trout (left), and Chinook salmon (below) inhabit these streams.



Black Bears
Seldom seen, black bears roam throughout the parks. Fond of acorns, bears travel far to harvest them. These bears generally have not lost their fear of humans. The best way to prevent wild bears from becoming problem bears is to keep human food away from them. Use sound food storage practices. Counter-balance all food, scented



Illustration by George Founds

you may see the goldfinch, junco, quail, or raven. *Waterways:* These parks' rivers are world-renowned for fishing and no less loved for recreation and sheer beauty. The Smith River, named for Jedediah Smith, arises in the Siskiyou Mountains and flows through the parks' north section. It is now California's last major free-flowing river and is famous for salmon and steelhead. The Klamath River, also a salmon and steelhead stream, crosses the midsection of these parks. Redwood Creek flows through the parks' southern section. Salmon and steelhead populations were severely diminished by past logging activities within Redwood Creek's watershed.

items—soap, toothpaste, lotion—and garbage in a tree 200 feet from camp; 12 feet up and 10 feet out from the trunk; and five feet down from the branch. Ask a park ranger about proper food storage techniques. Remember: a bear seeking food from human camps can be aggressive and may have to be destroyed. Please keep wildlife wild.

Watershed Protection
Congress expanded the national park in 1978 and directed the National Park Service to rehabilitate logged-over lands. This limits the effects of timber harvesting there on the park downstream.



Where revegetation might be slow, native trees are planted to redevelop forests similar to those cut.

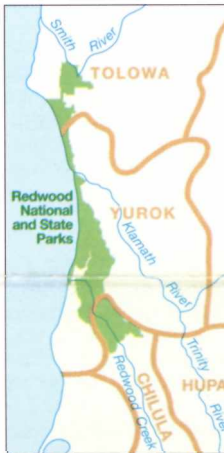
favoring the return of natural vegetation. Congress also created a 30,000-acre protection zone upstream from the park in Redwood Creek's watershed. This limits the effects of timber harvesting there on the park downstream.

Indians of the Redwood Coast

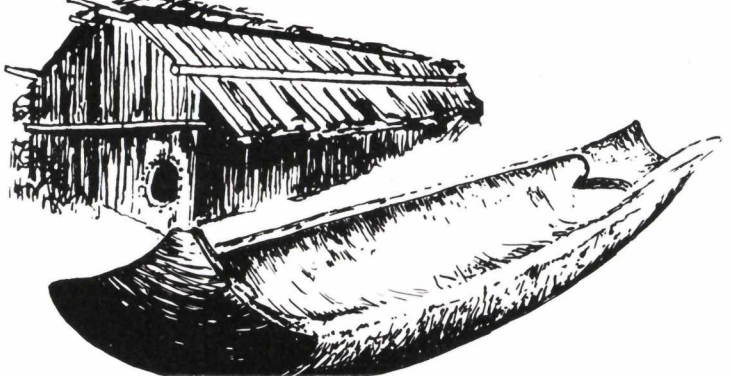
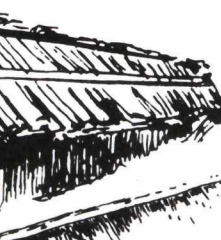
For thousands of years American Indians have lived along the redwood coast. They belong to a number of different groups and speak different languages, even within this relatively small geographic area. Before the arrival of non-Indian people in the 18th century, Indian villages, with their fine split-plank structures, dotted the coast and lined the major rivers. People traveled in redwood dugout canoes along the waterways and by foot along an elaborate system of trails. Their foods varied with the seasons. They fished the ocean and rivers, hunted land and marine mammals, and gathered nuts, seeds, and berries. Today American Indians live on



and off reservation lands and represent five to 10 percent of the local population. Groups are represented by sovereign governments and many traditions continue. Some members still speak the languages, traditional ceremonies are held, hunting and fishing are important, and traditional arts and crafts are kept alive.



Redwood National and State Parks lie within the traditional territories of three American Indian groups. Yurok and Tolowa groups still exist; the Chulita were assimilated into the inland Hupa culture.



Life Along the Seacoast

Even apart from the Coast Range and its lofty forests, the coastline here would justify national and state park status. Rugged and largely unaltered by humans, it features stretches of steep, rocky cliffs broken by rolling slopes. Generally rocky, its tidal zone can be difficult to traverse. One exception is Gold Bluffs Beach, a seven-mile stretch of dunes and sandy beach. Visitors to the North Coast may discover a rich mix of forms of life that occupy the distinct habitats illustrated below.

Many of the parks' animal species thrive along the coast. Brown pelicans are summer visitors, cormorants take to lagoon or river and shore waters, and willets and sanderlings work the beach. Offshore may be Pacific gray whales in migration, seals, sea lions, dolphins, porpoises, and orca (killer) whales. In the intertidal areas the cycles of rising and falling tides have produced tightly zoned layers of life. To help protect these animals, the national park boundary extends one-quarter mile offshore.

Offshore
Between shore and the deep ocean here an average surface acre is as productive as a surface acre of fertilized agricultural land. The basic wealth lies in phytoplankton, single-celled plants. Sea lions feed beyond the surf and haul out on shore or on sea stacks. Harbor seals swim in the surf and haul out in sheltered coves. Sea birds of several types nest on offshore rocks. The California Current flows south. It works with offshore winds to draw nutrients up from deep waters. This provides food for many coastal creatures. Moisture-laden air off the California Current condenses as low clouds over cold water near shore.

Intertidal Zone
Tides rise and fall twice daily on a 25-hour lunar cycle. In the zone between high and low tide, life forms arrange themselves vertically. Just where depends on their tolerance for exposure to air and/or water and to heat and wave shock. Other biological limits apply, too: predators and competition for food and living space. A **splash zone** above the high tide is home for periwinkle snails and beach hoppers that can withstand episodic



Periwinkle snail

wetting and the powerful shock of pounding waves. Inhabitants of the splash zone are transitional but are more attuned to life on land than in the sea. Mussels cling to rocks in the **high-tide zone**. They are covered by water only at high tide. Their shells enable them to tolerate temporary exposure to air and direct sunlight. Often called seaweeds, various algae that have chlorophyll frequent the **mid- and low-tide zones**. They can endure being deprived of water very long. Seaweeds provide oxygen, food, and shelter for inhabitants of the intertidal zone. Larger kelp have built-in floats and are anchored in deeper water. Some kelp rival the height of redwood trees.



Sea star

Tidepools that form in rocky beach outcroppings shelter life in these environments. Tidepool dwellers cope with great changes in water temperature, salinity, and oxygen content. Here are barnacles, limpets, nudibranchs, sea urchins, sea stars, and erect sea palms. Sea palms are anchored by root-like hold-fasts. Their flexible, stem-like structure lets them withstand the full force of breaking waves.



Giant green anemone

Beaches
Life on sandy beaches also observes wet and dry zones because of tides and waves. The lower beach is often wetted while upper beaches are like desert between the sea and lush coastal forest. Clams and mole crabs burrow into wet lower beaches. Sanderlings follow retreating wave lines to forage on the washed-up organisms.



Brown pelican

Sea Cliffs
Northern park beaches tend to be rocky and backed by sea cliffs. Southern beaches tend to be backed by bluffs. More than half of the parks' birds are marine species. Some of them nest—often as crowds—in the sea cliffs: murres, cormorants, puffins, auklets, gulls, and pigeon guillemots.



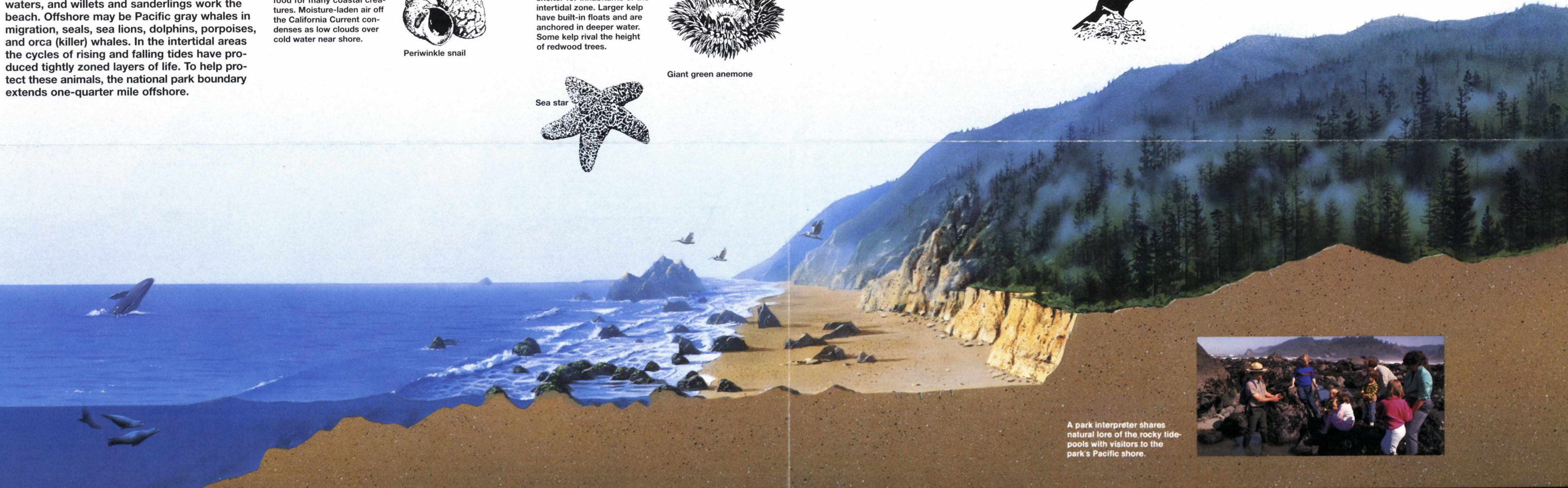
Double-crested cormorant

The Role of Fog
As air warmed by inland heat passes over cold, near-shore waters, fog forms—almost daily in summer. Fog helps approximate the mild, moist climate that prevailed in the Age of Dinosaurs, when redwood-like species grew over much of North America. Fog also brings redwood forests relief from the dry summer. It reduces the loss of water

through leaf surfaces. Fog collects on trees and then drips its precious moisture to the forest floor. Fog is not essential to redwoods, but its absence would reduce their range.

Woodlands
Forests of the Coast Range's west slopes benefit from being close to the ocean—for fog, rainfall, and moderated climate. Redwoods favor moist, north-facing slopes where sunlight's effects are less drying. Rivers near sea level also provide hospitable flats for these great trees.

Seacoast illustration by Rob Wood



A park interpreter shares natural lore of the rocky tidepools with visitors to the park's Pacific shore.



