REDWOOD NATIONAL PARK

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DEDICATED MAY 22, 1982

VISITOR GUIDE
REDWOOD NATIONAL PARK

TAKE PRIDE IN AMERICA

FALL-WINTER-SPRING 1987-88

U.S. DEPARTMENT OF THE INTERIOR / NATIONAL PARK SERVICE

Within Redwood National Park the world's tallest trees flourish on an alluvial flat along Redwood Creek.

WELCOME

Welcome to Redwood National Park! On behalf of the staff of Redwood national Park and myself, I am pleased to welcome you to one of the truly great parks in the National Park system. We urge you to take the time to get to know the park. While driving through on Highway 101 may give you an impression of the area, a real park experience can only be gained by spending some time. Sample some of the many trails that lead into the redwoods or along the coast. Pause long enough to walk along some of the many park beaches, listen to the sounds of the surf. Also remember that Redwood National Park has many changing moods and great variety through the seasons. Plan to return in the spring and/or fall when it is less crowded and breathtakingly beautiful.

This visitor guide will help you plan your visit and to gain the most of your time while you are here. It contains information and articles on features and activities within the park and vicinity. Should you need other information and/or assistance, please do not hesitate to ask anyone on the staff. Food, lodging, and other services may be found in the several communities located in and immediately adjacent to the park. We hope your visit will be all you expected and even more.

Douglas G. Warnock
Superintendent

Repeated fires in redwood forests sometimes result in hollowed out trees known as "goosepens", which were used by early settlers to house poultry.

REDWOOD MAGIC

Sandra L. Keith

Step into a redwood grove where winds whisper of coolness and footsteps are drowned upon the deep sponge of earth. Find a trail and follow it. This is the land of the everliving sequoia and every step taken along its forest aisles will only enhance your appetite for more.

The light is muted; the undergrowth luxuriant. For thousands of years, cloud-sweeping branches have filtered both fog and sun, turning the grove into either a mysterious "other world" or sprinkling it with pinholes of light that momentarily outline the sword fern or halo the bracken.

The earth beneath these auburn giants is a painter's palette of greens. Moss filigrees downed trees; maidenhair ferns decorate decaying stumps. Trillium and oxalis carpet forest duff while the vine-like poison oak, in a seeming attempt to atone for its toxicity, spirals numberless redwood trunks and, in the process, graces unimagined heights.

This is God's own cathedral, far nobler and loftier than any ever built with human hands, and the silence here is such that even man speaks in whispers. The stillness is eerily unreal — a quiet broken only by the groan of branch rubbing against branch, or the crack of a stepped-on twig, or the noisy scolding of the bright-eyed Steller's jay.

This is a forest with a mood uniquely its own. Of peace. And strength. As a race, these trees have survived the dinosaurs, the Ice Age, and the forces that thrust the mighty Rockies skyward. And still they stand — content with their yesterdays, and secure in the knowledge that tomorrow is a man's lifetime away.

But be warned! Their ambience is powerful, and whether you wish it or not, the spell will be cast. For these trees will beckon and you will find yourself returning again and again. It is a call triggered at odd moments and, sometimes, half a world away. It may begin with a scent. Or a sound. Or the way a lazy breeze brushes the back of your neck.

And suddenly you are there — locked deep within the redwood magic: reveling in the awesome beauty of its dense, pure groves. Touching a patriarch. Inhaling pungent air. Craning your neck to glimpse that special spot where treetops meld with heaven. Understanding a bit more of patience. And tenacity.

The flashback may only consume a moment.

But the spell lasts a lifetime.

There is no escape from the redwood magic.

IF YOU ONLY HAVE ONE DAY...

For maximum enjoyment and a quality experience in the redwoods, you should park your car and take a short walk in the woods or on the beach. That way you can absorb the beauty of the place at your own pace and experience things up close while those who stay in their cars only get a fleeting glance.

Several trails offer an adventure into the natural world, leaving behind the noise and congestion of that which is artificial. The trail thru Lady Bird Johnson Grove, near Orick, and the Yurok Trail at Lagoon Creek are short, delightful walks with self - guiding folders available. Lagoon Creek and Enderts Beach provide access to the seashore, where you can enjoy driftwood, gulls and ocean waves.

In a passenger car, some back roads will take you to several scenic areas. See the map in this guide and the Redwood Park folder for suggested side trips.

Inside . . .

CAMPING

Developed Campgrounds

The three state parks within the boundary of Redwood National Park offer campgrounds which have sites with a table, fireplace, food cupboard and restrooms with hot showers (except Gold Bluff Beach, which has solar showers). No hookups are available. Disposal dump stations are located at Jedediah Smith and Mill Creek campgrounds.

Overnight fees are $10.00 a night per site and $3.00 for each additional vehicle. Bicyclers and hikers may camp for $1.00 per person per night. Day use fee for picnicking is $3.00 in the state parks.

If you have a dog, proof of rabies vaccination and a fee of $1.00 per night is required. There is a fee of $1.00 each for dogs brought in by day use visitors. Dogs are required to be on a leash in campgrounds and are not allowed on trails.

During the busy summer months, reservations can be made through MISTIX up to 8 weeks in advance, or as late as 2 days prior to arrival. Write to MISTIX, P.O. Box 85705, San Diego, CA 92138-5705, or call (800) 446-7275. A reservation fee of $3.75 is charged. Your stay is limited to 30 days at each campground from October to May and 15 days during the summer.

Year-round camping is available at:

Jedediah Smith Redwoods State Park — 5 miles northeast of Crescent City on U.S. 199. 109 units and picnic area located on the Smith River.

Prairie Creek Redwoods State Park — 5 miles north of Orick on U.S. 101. 75 sites and picnic area on Elk Prairie.

Gold Bluff Beach — access via narrow, dirt Davison Road south of Prairie Creek. Wet weather sometimes makes area inaccessible. Oversized vehicles prohibited. 25 sites on beach and dunes.

Additional camping is available April-October at:

Mill Creek — 8 miles south of Crescent City on U.S. 101 in Del Norte Coast Redwoods State Park. 145 campsites in early logged-over area on Mill Creek.

U.S. Forest Service

The seven Forest Service campgrounds within the Gasquet District offer a variety of camping experiences. The campgrounds have sites with a table, fireplace and restrooms. Maximum stay is 14 days. Campsites are available on a first-come, first-served basis.

Panther Flat — 2 miles east of Gasquet on U.S. 199; $5.00 camping fee.

Grassy Flat — 4 miles east of Gasquet on U.S. 199; $5.00 camping fee. Open summer only.

Patricks Creek — 7 miles east of Gasquet; $5.00 camping fee. Open summer only.

Shelly Creek — 2 miles north on Patrick Creek Road; no fee.

Big Flat — 20 miles southeast of Gasquet on South Fork Road (access 7 miles west of Gasquet and 3 miles east of Hiouchi); $4.00 camping fee.

Horse Flat — 3 miles north of Big Flat; no fee.

Several unimproved campsites provide a place for activities that are dispersed, individual, and sometimes solitary, such as hunting, fishing, hiking and wilderness-type camping. Maximum stay is 30 days; fire permit required.

Bear Basin	Muslatt Lake
Chimney Flat	Sanger Lake
Doe Flat	Youngs Valley
Madrona	

Primitive Camping

Three primitive walk-in campsites are on Redwood National Park lands. Northernmost is the **Nickel Creek** campground, located .5 mile from the end of Enderts Beach Road, off U.S. Highway 101 just south of Crescent City. There are five sites with tables, fire rings, and composting toilet. No water is available. The second, **DeMartin**, is on the section of the Coastal Trail east of Highway 101 between Damnation Creek and Wilson Creek. This is a 10-site primitive campground with tables, bear boxes, and composting toilet. Potable water is available; no open fires are permitted. **Flint Ridge** primitive campground is located above the coastal bluffs west of Klamath. There are 10 sites there, with potable water and composting toilets. In addition to the established primitive camping areas listed above, backcountry camping is also permitted on the Redwood Creek Trail. Camping is allowed upstream from the first creek junction (1.5 miles from the trailhead), except for the areas 1/4 mile on either side of the Tall Trees Grove. Permits can be obtained at the trailhead or at park Information Centers. Dogs are not allowed at any of the backcountry sites, or along the Redwood Creek Trail.

Prairie Creek Redwoods State Park also offers walk-in campsites at Butler Creek Primitive Camp. There are several sites, with pit toilets and water nearby. The water must be treated before use. Permits must be acquired through the State Park.

Hostel — see page 10.

For Your Safety ...

For your safety we wish to remind you that there are hazards in this area. Be alert and exercise common sense. That way you can enjoy your outdoor experience and return home safely.

While driving use pull-offs when traffic backs up behind your car, to allow faster traffic to pass. Use caution when fog obscures visibility. Inquire before taking trailers and large campers on roads other than main highways. Logging and other trucks are common on roads.

On the beach be aware of tidal fluctuation. Use caution climbing or walking near edges of rocky high bluffs. Because the ocean is cold and has a strong undertow, swimming is not advised.

Drink water only from an approved source. Water from park streams is not safe.

Poison oak is found within the park, particularly the coastal sections.

Ticks and lyme disease

The common western tick has been identified as a probable carrier of a bacteria which may cause Lyme Disease. This bacteria has been blamed for polyarthritis, skin rashes, cardiac disorders, and several other ailments.

Some of the symptoms associated with Lyme Disease include skin rash or the occurrence of clumps of pimple-like bumps, periods of fatigue, fever, headache, and stiff neck. The rash may start at any point on the body and does not necessarily appear first at the site of the tick bits. The rash grows outward in a circular pattern, while the center heals and returns to normal skin color and texture. Symptoms can last for several days, recurring up to two years later. If you experience aching joints accompanied by swelling, in addition to the above problems, you should see a doctor as soon as possible.

As a precaution against tick bites, visitors should occasionally check themselves for ticks when hiking or backpacking in Redwood National Park. When travelling through high grass, an insect repellent may be appropriate.

Protect Your Valuables

Burglars follow tourists. Unfortunately they follow them to Redwood National Park, and they'd like nothing better than to look into a car, tent or camper and see cameras, purses and fishing equipment. LOCKING YOUR CAR IS NOT ENOUGH! When you leave your car or campsite, take your valuables with you, lock them in your trunk or put them out of sight. If they have serial numbers, record them and carry them with you. Items such as tents, rods and reels and other gear should be marked with your social security number or in some other way so that they may be identified if stolen, and replaced.

GIARDIA

Keeping them in their place

Giardia (Gee-R-dia) is the name given to a microscopic animal that has probably always lived in small numbers in steams. When you drink water from a clear stream or lake, no matter where you are, you run the risk of swallowing some of these somewhat unfriendly protozoans. Inside your stomach they multiply and within one week you will begin to experience chronic diarrhea, abdominal cramps, bloating, fatigue and loss of weight. Treatment by a physician is necessary to kill the organisms and produce a cure.

Giardia is carried by humans and some domestic and wild animals that may contaminate streams, especially Redwood Creek. It is recommended that, whenever possible, only treated tap water be used for drinking. Water disinfection chemicals are not as reliable as heat in killing giardia. Help keep giardia in its place — not yours — by boiling stream water for one minute.

Tour A Portion of Del Norte County

You can take a leisurely two-hour excursion through the redwoods and along the seashore in a van driven by an exprienced guide. Redwood Scenic Tours, Inc., a state licensed tour agency, operates the tours for visitors who wish to leave their vehicles behind while they enjoy a relaxing tour of Del Norte County's scenic wonders. For details, phone (707) 464-4224 or write Redwood Scenic Tours, P.O. Box 1286, Crescent City, CA 95531.

Northcoast parks designated a biosphere reserve

Redwood National Park and Jedediah Smith, Del Norte Coast, and Prairie Creek Redwoods State Parks have been designated as the California Coast Ranges Biosphere Reserve. The parks are protected samples of the world's major ecosystem types.

Biosphere Reserves are devoted to the conservation of nature and scientific research and provide a standard against which can be measured the effects of man's impact on his environment. They conserve, for present and future use, the diversity and integrity of natural communities of plants and animals within natural and semi-natural ecosystems. They serve to safeguard the genetic diversity of species on which their continued evolution depends.

Biosphere Reserves are designated by the International Co-ordinating Council of the Man and the Biosphere Program, under the auspices of the United Nations Educational, Scientific, and Cultural Organization. Some of the criteria for selection include: areas which are representative of examples of natural biomes, communities, or areas with unusual features of exceptional interest, and examples of modified or degraded ecosystems that are capable of being restored to more-or-less natural conditions; areas which provide opportunities for ecological research, education, and training; and areas with adequate long-term legal protection.

The northcoast parks form one of the 226 Biosphere Reserves located in 62 countries; the United States contains 40 of the reserves. Some of the other U.S. National Parks included in this designation are Big Bend, Channel Islands, Denali, Everglades, Glacier, Great Smokies, Haleakala, Hawaii Volcanoes, Isle Royale, Olympic, Rocky Mountain, Sequoia-Kings Canyon, Virgin Islands, and Yellowstone.

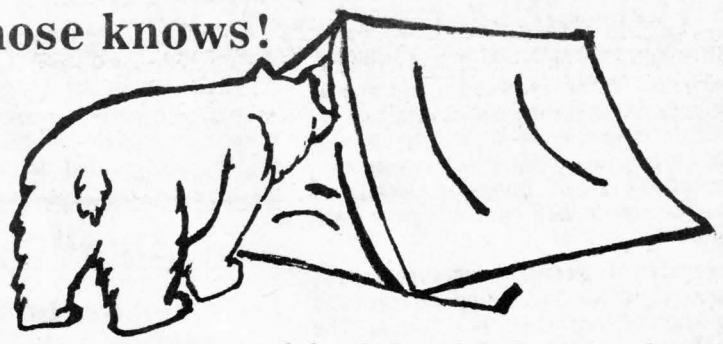
WE NEED YOUR HELP!

Over the last few years the world's tallest tree has been damaged from excessive handling by visitors. Its trunk has been worn and scuffed around the base. Please help protect the earth's tallest living thing by not taking pieces of bark or attempting to climb its trunk.

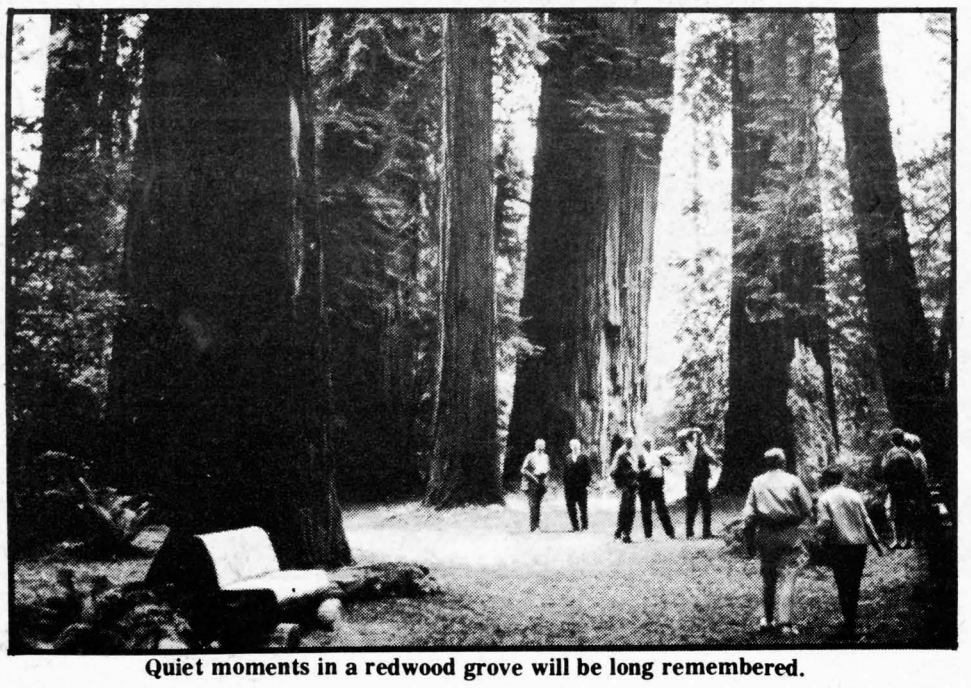
CAN YOUR TRASH

The National Park Service has begun an anti-litter campaign. It has the enthusiastic support of Park Service Director William Penn Mott, who emphasizes that the $15 million spent picking up litter could be far better spent in other areas of the national parks. Do your part — can your own trash and any stray litter you see.

Their nose knows!



When backcountry camping, visitors should hang all food, soap, toothpaste, suntan oil, and other scented items and garbage at least 200 feet from camp. These items should be hung from a stout branch below the branch, and 12-15 feet above the ground. By keeping human food away from black bears, park visitors can help to keep them from developing a habit of raiding campsites.



Quiet moments in a redwood grove will be long remembered.

The Redwoods are trees that endure time ...

The coast redwood, whose scientific name is "Sequoia sempervirens," is the tallest kind of plant in the world. It is also the fastest growing conifer, or cone-bearing tree, in North America.

Coast redwoods are among the oldest living things on earth. The oldest known specimen was logged in 1933. A count of the growth rings (one is added each year) showed the tree to be 2,200 years old. However, most redwoods live to an average age of six centuries.

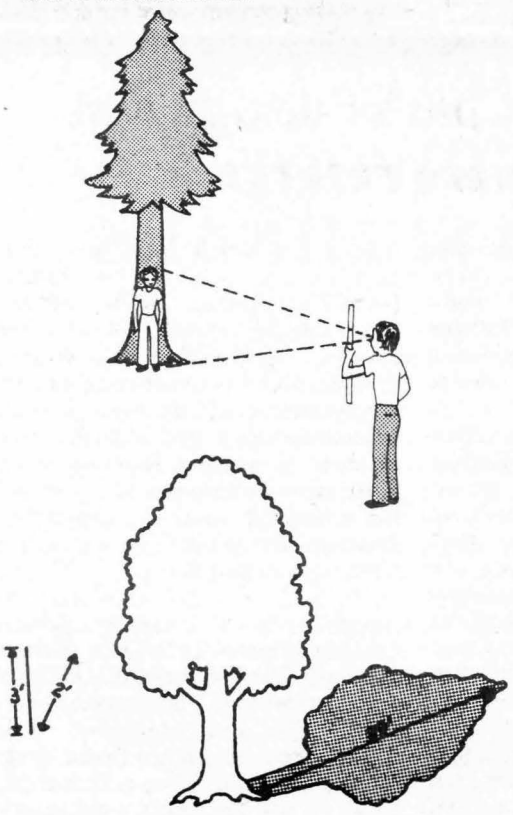
The tallest known redwood is about 600 years old. It is located on Redwood Creek within Redwood National Park, near Orick, California. The "Tall Tree" was measured at 367 feet by the National Geographic Society in 1963.

During your visit to the park you may want to look for a tree that might be taller than the "Tall Tree." Below you will find two ways to calculate the height of a tree.

Estimate the height of a tree:

If there are 2 or more of you, have someone whose height is known stand by the tree to be measured. If you are alone tie a marker around the tree at a measured height or stand a stick of known height against the trunk. (This is the "unit of measurement").

Hold a stick or pencil at arms length. Stand far enough away that you can sight over the top of the stick to the top of the "unit of measurement" on the tree trunk. Place your thumbnail on the stick where your line of sight meets the bottom of the "unit of measurement."



Move the stick upwards a unit at a time and multiply the number of times it takes to reach the top by the height of the "unit of measurement." This is the tree's height.

An alternate way to estimate the height of a tree is the Shadow-Ratio method.

Place a stick of known length (yardstick) vertical to the ground and measure the length of its shadow.

Measure the shadow cast by the tree (or any other object whose height you want to estimate).

Then: $\frac{\text{Shadow of Tree}}{\text{Shadow of Stick}} = \frac{\text{Tree's Height}}{\text{Stick's Height}}$

Example: 3 foot yardstick casts 2 foot shadow. Tree casts 20 foot shadow.

$\frac{20}{2} = \frac{\text{Tree's height}}{3}$

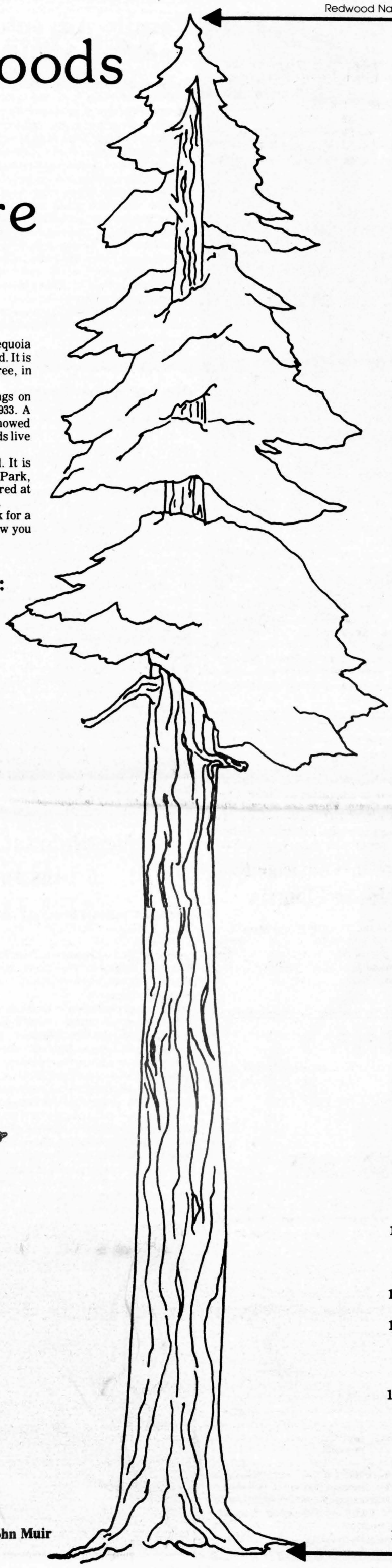
3 x 20 = 2 x tree's height

60 = 2x tree's height

or 60 divided by 2 equals tree's height.

30 feet is height of tree.

"Redwoods are the kings of their race." John Muir



1987 — Great Basin National Park established.

1982 — Redwood National Park dedicated as a World Heritage Site

1980 — Mt. Saint Helens erupts

1978 — Redwood National Park expanded

1976 — American Bicentennial

1969 — Man walks on the moon

1968 — Redwood National Park established

1959 — Alaska & Hawaii admitted to the Union

1957 — Space Age begins

1950 — Korean War

1945 — World War II ends. A new era begins with improved highways and global demand for redwood lumber products.

1942 — Birth of the Atomic Age

1939 — World War II begins

1930 — The Great Depression

1920's — Begin the first major highway improvements in the Redwood Region

1917 — U.S. enters World War I

1914 — Northwestern Pacific Railroad completed San Francisco to Eureka

1903 — First successful flight

1880 — Dolbeer Donkey engine invented in Eureka, revolutionized logging

1872 — Yellowstone established as world's first national park

1869 — First Transcontinental Railroad completed, CP & UP meet at Ogden

1861 — Civil War begins

1853 — Crescent City founded as entrepot to the Southern Oregon Mines

1850 — Trinidad, Arcata, Eureka founded as entrepot to Salmon-Trinity Mines.
Lumber industry begins on the West Coast.

1849 — Josiah Gregg rediscovers Humboldt Bay

1848 — Gold discovered at Sutter's Fort

1828 — Jedediah Smith travels through NW California, first notes on the redwoods

1824 — Fort Vancouver (WA) established as Hudson Bay Company Columbia Department Headquarters

1812 — Russians establish Fort Ross as agricultural colony

1806 — Jonathan Winship discovers Humboldt Bay (Russian American Fur Company)

1787 — U.S. Constitution adopted

1776 — Revolutionary War

1775 — Spanish enter and claim Trinidad Bay

1620 — Pilgrims land at Plymouth

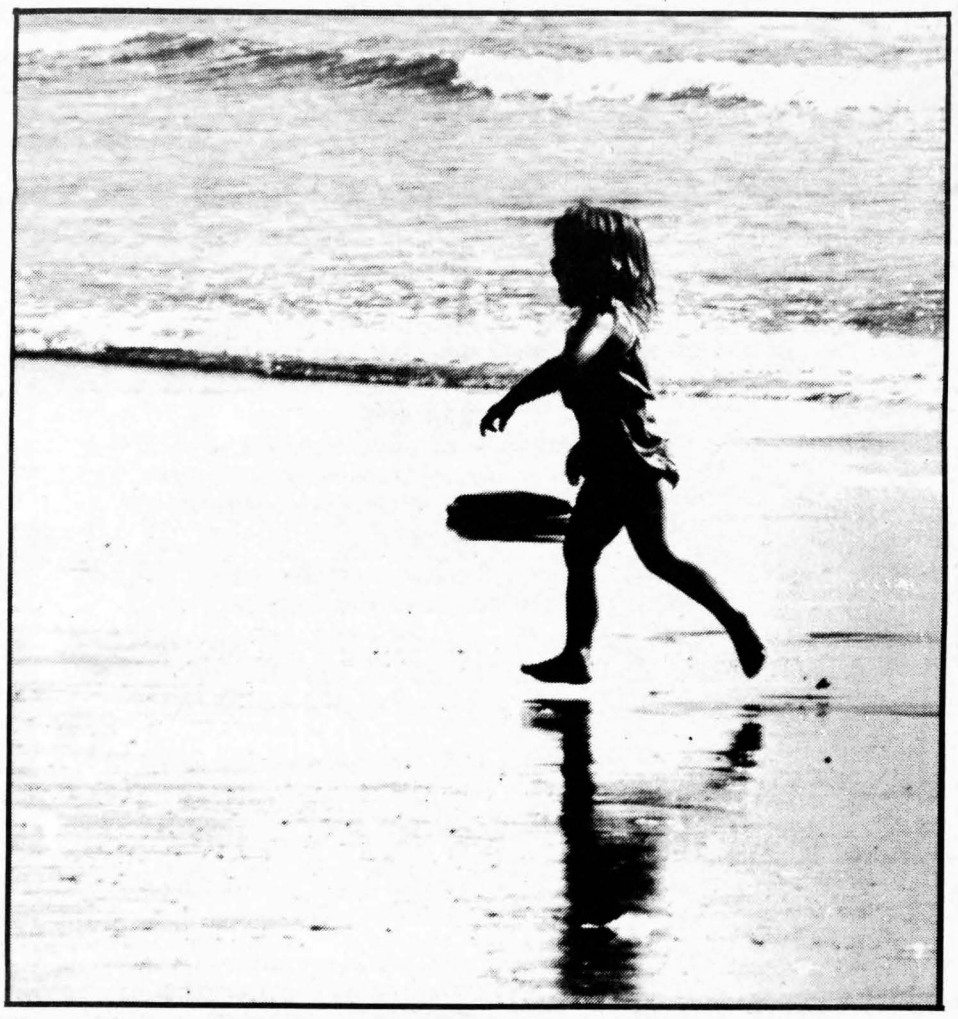
1579 — Drake in California

1542 — Spanish discover San Diego Bay

1492 — Columbus discovers America

1250 — Magna Carta

COAST REDWOODS tower over all other trees in the world. Many individual trees exceed 300 feet in height.



Beaches Are Intriguing Places

Beaches are intriguing places. And if you like to beachcomb, fish, watch sea gulls, enjoy waves crashing onshore, or just like to get sand in your shoes, you'll find plenty of opportunity for that in Redwood National Park.

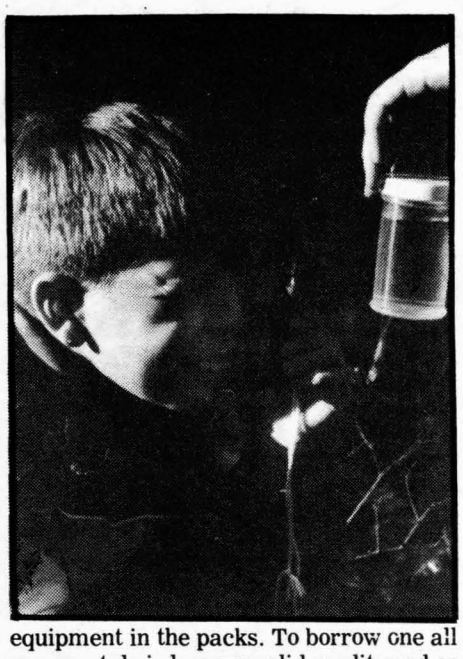
Ask a surf fisherman on the beach what he's catching and he'll no doubt obligingly display his catch - maybe a redtail perch.

Or as you climb over driftwood heaped on the beach, you might wonder where it all comes from. Winter storms on the north coast carry much wood out to sea in the rivers and streams. Wave action and currents bring it back into shore where it attracts the interest of a beachcomber looking for an unusual shape and texture. So most of the redwood originates on our own shores, but occasionally a lumber barge will contribute its load to the drift supply. Sometimes a timber will have oriental markings and will have made the long journey from Japan or Korea.

Nearly always sea gulls can be seen along the beach. Take a closer look next time and you'll find out some interesting things about these birds. First, there are many kinds of gulls and the older ones have different marking and coloring than the young ones. What do gulls eat? They are scavengers and keep the beach clean of dead creatures which have washed up. But they're glad to get a live fish, too, and in summer will harass a poor pelican trying to make him drop his catch. The pelican is a spectacular fisherman, diving from mid-air headfirst into the water after a fish. With any luck he reappears with fish safely held in the expandable pouch of his long bill only to be pestered by all the gulls in the vicinity. The flight formation of pelicans is in a line and wingbeats and changes in direction are in a follow-the-leader fashion.

Fires are permitted with a caution: Keep them isolated from large concentrations of driftwood, and extinguish when you leave.

Family Adventure Packs Available



If you enjoy investigating the intricacies of the natural world, if you're curious about the little cogs that combine to make the world go around, or if you're just plain new at this exploring business, then the Family Adventure Pack may be for you.

The "packs" are actually backpacks filled with all sorts of ideas and equipment to make it fun and easy to explore on your own in the park. They were designed so visitors can learn about nature without having to have a naturalist close at hand to answer questions. The basis of the Family Adventure Pack is two activity booklets that suggest many different outdoor activities that can be easily undertaken by anyone, regardless of their knowledge of redwood forest, river or seashore. There are activities that will interest everyone, whether they are plant-lover, animal-lover or all-around nature-lover.

Equipment inside the pack will help you carry out whichever of the activities you decide to do: measuring the temperature of the river in several locations or checking out different types of leaves with the hand lens. Park maps, thermometers, bug boxes, hand lenses, binoculars, compasses, yarn loops and several field guides for identifying local trees, wildflowers, seashore life, ferns and birds make up the equipment in the packs. To borrow one all you must do is leave a valid credit card or driver's license with the naturalist on duty at any of the three visitor centers (Orick, Crescent City or Hiouchi). Packs may be checked out all day or overnight and large groups may either check out more than one pack or ask that additional equipment be added to their pack. Groups of all ages and of all levels of knowledge enjoy using Family Adventure Packs. Why not try it with your group this afternoon?

A fallen redwood in the Tall Trees Grove reveals shallow roots, rarely more than ten feet deep, which extend great distances outward to support trees over 300 feet tall.

REDWOOD FIELD SEMINARS

Where can you explore redwoods from horseback, study Roosevelt elk and Black bear habits, and touch the sticky tentacles of a sea anemone? Redwood National Park, in association with Humboldt State University, is offering in-depth outdoor seminars June through August.

Enjoy rare opportunities. Follow an unsuspecting elk with radio-telemetry equipment to observe an entire herd's natural behavior. Discover wildflower meadows and ancient, tucked away redwood groves normally missed by most visitors. Learn to identify the Lady Slipper Orchid and how to photograph the delicate flower close-up. Develop identification skills for trees, wildflowers, rocks, birds, mammals, reptiles and amphibians. Enjoy a Native American salmon dinner cooked over a fire, at the site of a Tolowa village.

"Restoring the Forest Community" takes participants into the park's backcountry where specialists are working to stabilize the Redwood Creek watershed, after logging in the early 1970's, and to speed re-establishment of naturally functioning plant and animal habitats. Such a large scale project has never been undertaken by either public or private sectors.

Other topics include Night Birds, Stream Ecology, Wildlife, Reptiles and Amphibians, Basic and Advanced Nature Photography, Marine Ecology, Rocks and Gold, and several more.

Half the fun of attending a seminar is meeting people who share a common interest. Participants range widely in age and experience — from 10-year-old gold panners to 72-year-old tidepool explorers.

Registration is limited, so early sign-up is recommended. Courses generally last from one to several days. Fees range from $20 to $50 per course. Itineraries and other information are available. For a brochure call (707) 464-6101 or write: Redwood National Park, 1111 Second Street, Crescent City, CA 95531.

Please add my name to Redwood National Park's field seminar mailing list.

NAME: _____

ADDRESS: _____

_____

TELEPHONE: _____

_____

Walk among Giants

A Guide to Day Hikes in Redwood National and State Parks

Like to go for a walk in the redwood forest? Or along the Pacific Ocean? Or along scenic rivers or prairies? In your search for places to walk, you are invited to sample the trails listed on this guidesheet. It's a great way to enjoy and appreciate the park. Whether you are planning a ten-minute stroll or an all-day trek, Redwood's beauty can be found all along the way.

BE PREPARED for your hike by wearing appropriate clothing, footwear, and raingear. Carry water, especially on longer hikes. Water from park streams is not safe to drink without boiling.

FOR YOUR PROTECTION, please note these reminders: Lock your car; if you must keep valuables inside, store them out of sight. Be cautious when climbing or walking near the edges of high, rocky bluffs. Watch out for poison oak, particularly in coastal and riverside areas. Roosevelt elk are wild and unpredictable — don't approach them on foot.

NATURE TRAILS with self-guiding brochures are available at Lagoon Creek, Elk Prairie, and Lady Bird Johnson Grove. These areas offer good opportunities for learning about the natural and cultural history of Redwood.

INTERPRETIVE WALKS along several trails are led by park naturalists during the summer. Check a visitor activity schedule for information on these guided activities.

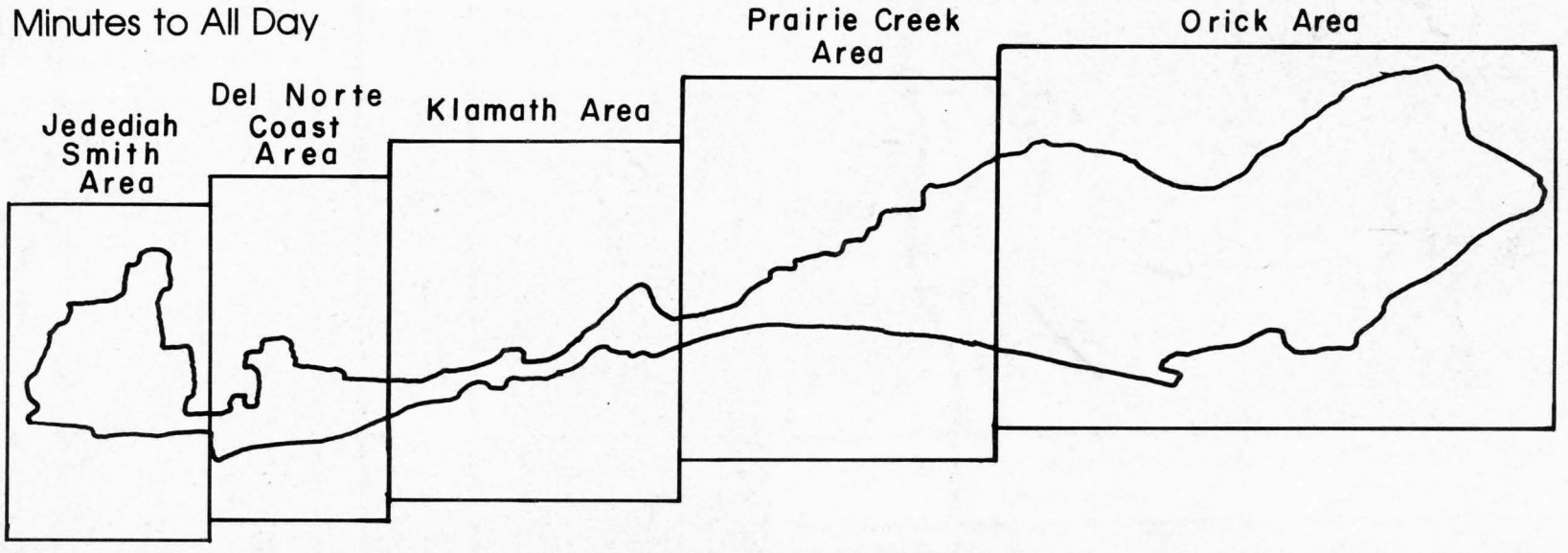
BACKCOUNTRY CAMPING is available along Redwood Creek, Butler Creek (in Prairie Creek Redwoods S.P.), and on the Coastal Trail. Check at a ranger station for detailed information.

HANDICAPPED ACCESS is shown where trails are being designed to be accessible by wheelchair. To arrange access to Stout Grove, call (707) 458-3310. To enhance the experience of the visually impaired, a cassette tape interpreting the Revelation Trail (not shown on map) is available for loan from the Elk Prairie visitor center.

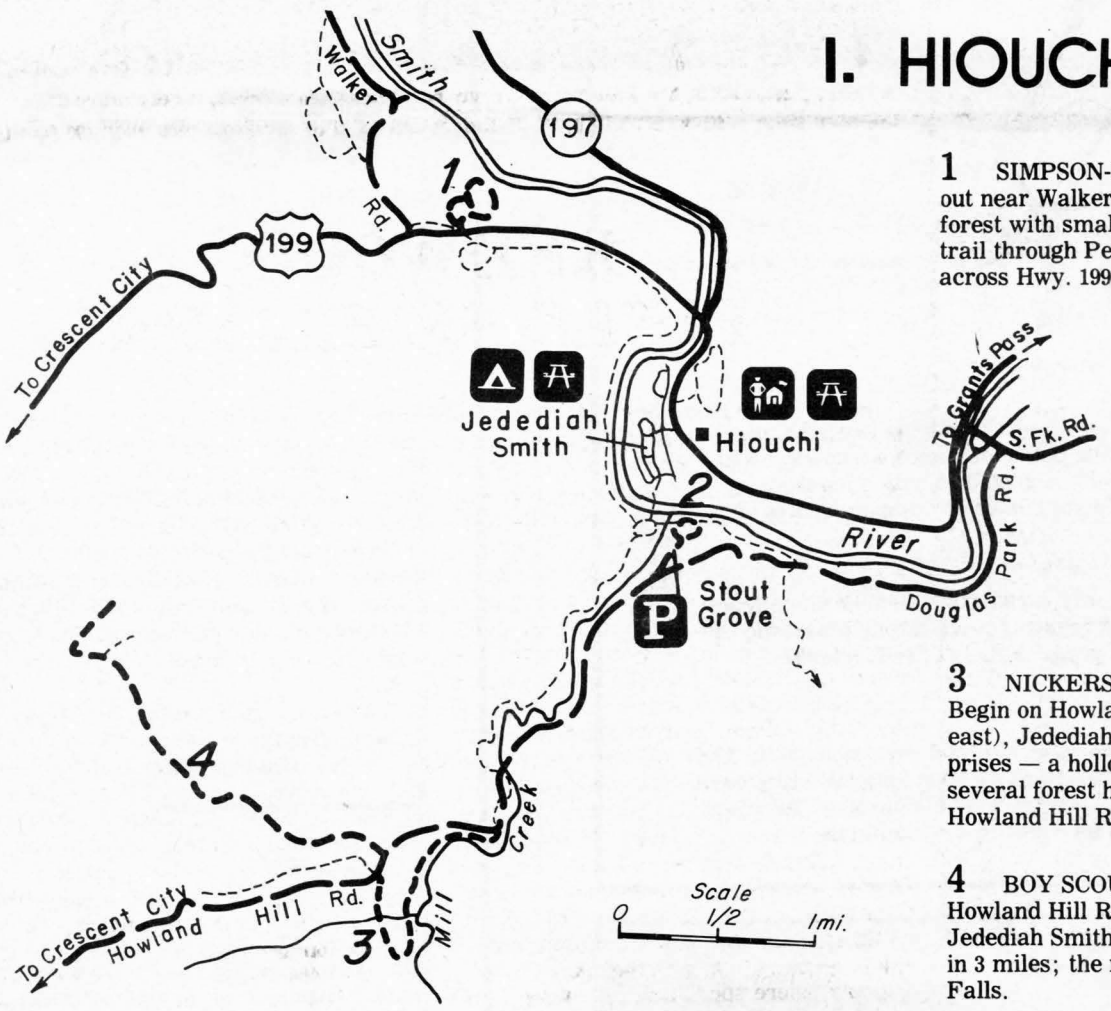
HORSEBACK RIDING is permitted on designated trails along Mill Creek and Redwood Creek. An information sheet is available at park ranger stations.

PARK REGULATIONS are designed to protect park resources — and you. Please observe them. All plants and animals are protected; however, fruits and berries may be gathered for your personal consumption. A California fishing license is required for freshwater and ocean fishing. Tidepools are fragile environments, so collecting is not permitted. Do not hunt, trap, or carry loaded or assembled firearms on park lands. No pets are allowed on trails. Camp and build fires only where indicated. Help keep the park clean and litter-free; take out what you bring in. If you have questions, check at a ranger station or ask a patroling park ranger.

10 Minutes to All Day



I. HIOUCHI AREA



1 SIMPSON-REED GROVE (0.6 mi. loop, easy). Begin at the Hwy. 199 turnout near Walker Rd. (milepost 3.0). This trail leads through old-growth redwood forest with small streams, lush undergrowth, and giant fallen redwoods. A side trail through Peterson Grove returns to the loop. Additional trails begin directly across Hwy. 199 from the Simpson-Reed trail.

2 STOUT GROVE (0.5 mi. loop, easy). Contains park's largest redwood in volume at 16' diameter (DBH), 340' height. Year-round access is available from the Howland Hill Rd. (an old stagecoach route). From Hwy. 199, turn on the South Fork Rd., then right onto Douglas Park Rd. to Howland Hill Rd. Continue 1.1 mi. past end of pavement to the parking area, where a short walk leads down into the grove and the 0.5 mi. loop trail. Summer-only access is available by a footbridge in Jedediah Smith campground (vehicle day-use fee required).

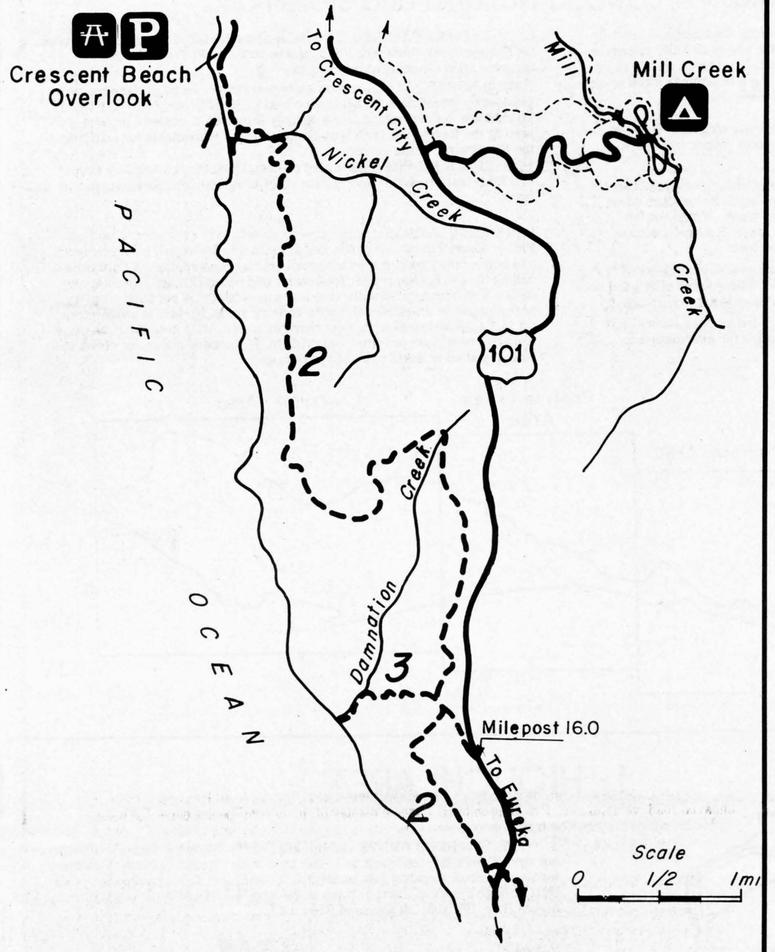
3 NICKERSON RANCH - MILL CREEK TRAIL (2 mi. loop, moderate). Begin on Howland Hill Rd. 2.1 mi. from west end of pavement (3.4 mi. from east), Jedediah Smith S.P. This loop trail along upper Mill Creek offers surprises — a hollow tree to walk into, a stream beneath a fallen redwood, and several forest habitats boasting a rich variety of life. A ten minute walk on the Howland Hill Rd. completes the loop.

4 BOY SCOUT TREE TRAIL (7.4 mi. round trip, strenuous). Begin on Howland Hill Rd. 2.3 mi. from west end of pavement (3.2 mi. from east), Jedediah Smith S.P. This trail through mature redwood forest comes to a fork in 3 miles; the right fork leads to the Boy Scout Tree; the left fork leads to Fern Falls.

TRAIL MANNERS

- PETS ARE NOT ALLOWED ON PARK TRAILS. Pets can disturb wildlife and interfere with visitors' enjoyment of the park.
- Help us keep your trail clean; pick up any litter you may find.
- A picked flower soon dies. Leave all plants and flowers for others to enjoy.
- Be considerate of others. Loud noises can disturb wildlife you've come to see. Walk quietly, and you might catch a glimpse of . . .
- Everything needs water — help keep it clean for all. Treat stream water for safety reasons, or take along your own water.
- Before leaving park boundaries on foot, check with adjacent land owners for permission to pass.
- Many suffer from an escaped fire; please be careful. Drown all fires. Campfires are permitted in designated areas only.
- Backcountry camping is allowed on certain portions of Redwood Creek. Primitive campsites are provided at other locations indicated on the map. All other camping is in established campgrounds only.
- Bears and other wildlife in the parks are wild animals and should be treated with respect. Wildlife is most enjoyed when viewed in its natural habitat; feeding wild animals quickly alters their normal behavior. Protect wildlife and yourself by hanging all food, soap, toothpaste, suntan oils, and other scented items or garbage at least 200 feet from camp. These items should be hung from a stout branch at least ten feet from the tree trunk, five feet below the branch and 12 to 15 feet above the ground.

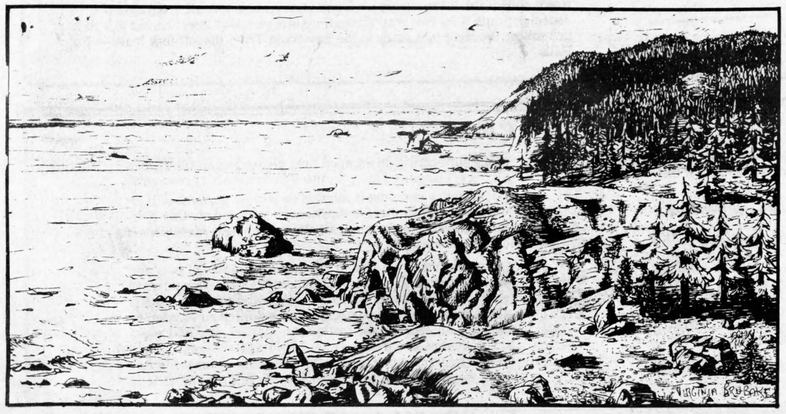
II. CRESCENT CITY AREA



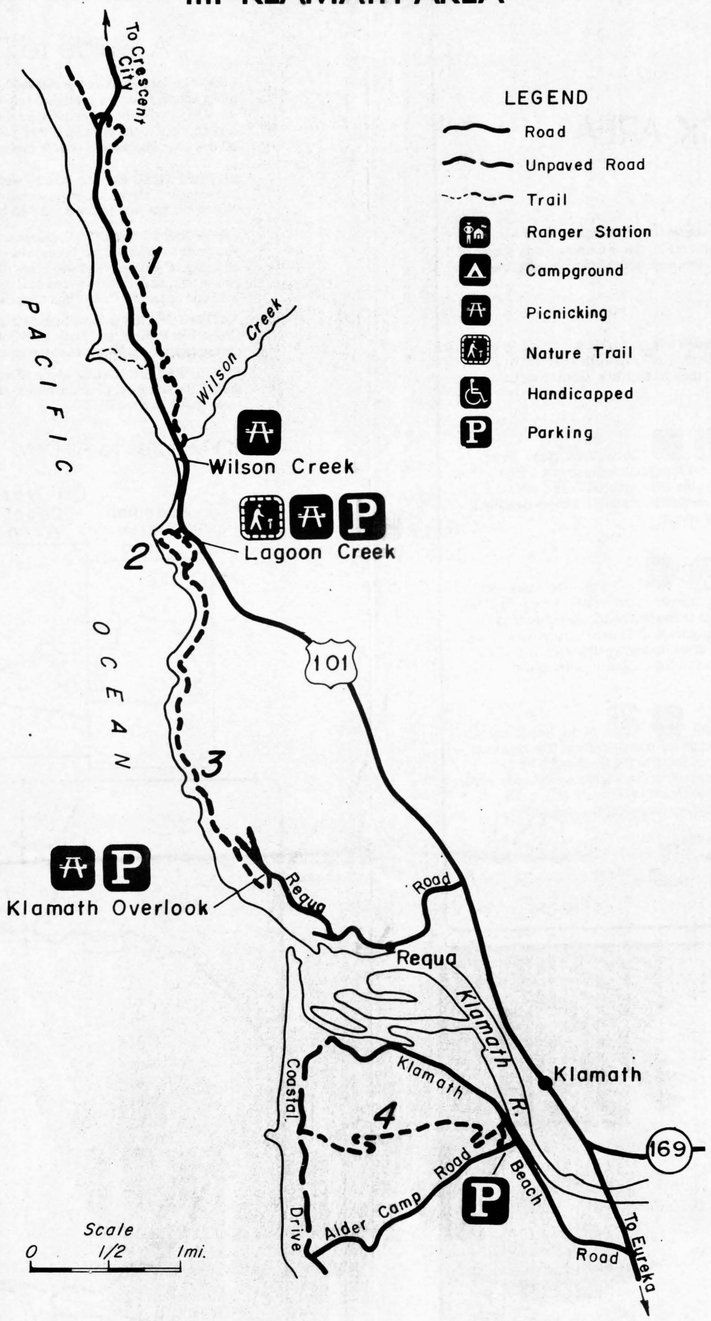
1 ENDERT'S BEACH TRAIL (1.2 mi. round trip, moderate). Trailhead located 4 mi. south of Crescent City at the end of Endert's Beach Rd. This wide path commands a bird's eye view of the ocean some 300 ft. below. Trail descends to Endert's Beach, a good destination for studying tidepool creatures or walking along the shore. Primitive camping available at designated sites on Nickel Creek, just above Endert's Beach.

2 COASTAL TRAIL/LAST CHANCE SECTION (6.0 mi. one-way, strenuous). Begin near milepost 15.6 on Hwy. 101, south of Crescent City. The trail follows an old highway route through majestic redwoods, crosses the Damnation Creek Trail, and follows a steep grade to Nickel Creek and the Endert's Beach Trailhead.

3 DAMNATION CREEK TRAIL (5 mi. round trip, strenuous). Begin at the trailhead on Hwy. 101, milepost 16.0, south of Crescent City. Descending 1000 ft., this trail leads through majestic old growth forest, past huge rhododendrons, and alongside small streams. You will cross the old Hwy. 101 route (Coastal Trail) as you descend to a sheltered cove, a good area for viewing sea mammals.



III. KLAMATH AREA



LEGEND
- Road
- Unpaved Road
- Trail
- Ranger Station
- Campground
- Picnicking
- Nature Trail
- Handicapped
- Parking

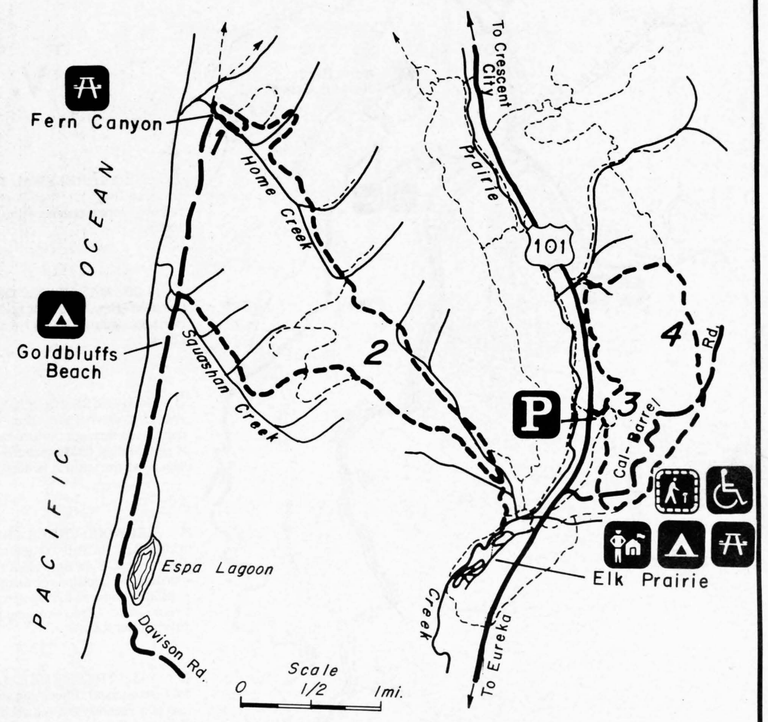
1 COASTAL TRAIL/DEMARTIN SECTION (5 mi. one-way, strenuous). Trailheads at N end of Wilson Creek Bridge and milepost 15.6. This trail leads above Hwy. 101 and offers wide vistas of the Pacific Ocean; passes through logged areas, abandoned farm sites, and old-growth redwoods. Primitive camping available at DeMartin Prairie (no open fires).

2 YUROK LOOP TRAIL (1.0 mi. loop, moderate). Trailhead at N end of Lagoon Creek picnic area. Climbs gradually atop the coastal bluff with wide views of the Pacific; the chance to view wildflowers and sea mammals provides added interest. A self-guiding brochure, available at the trailhead, describes the local Native American culture.

3 COASTAL TRAIL/HIDDEN BEACH SECTION (4.0 mi. one-way, moderate). Leads generally downhill from the Klamath Overlook to Lagoon Creek. The trail follows the coastal bluff through grassland and spruce forest areas offering good chances to view whales, birdlife, and coastal wildflowers.

4 COASTAL TRAIL/FLINT RIDGE SECTION (9 mi. round trip, strenuous). Beginning from the trailhead on Klamath Beach Rd., the trail follows the shoreline of Marshall Pond, then ascends into old-growth redwood forest. Primitive camping available near seaward end of trail (no open fires).
mation.

IV. PRAIRIE CREEK AREA

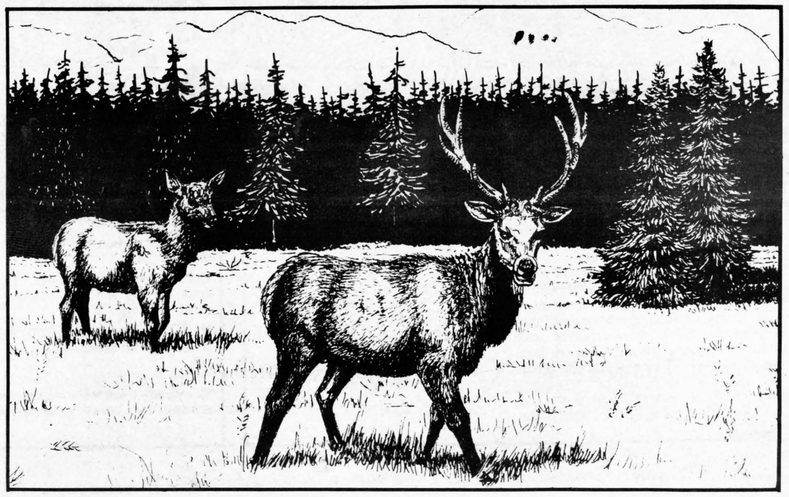


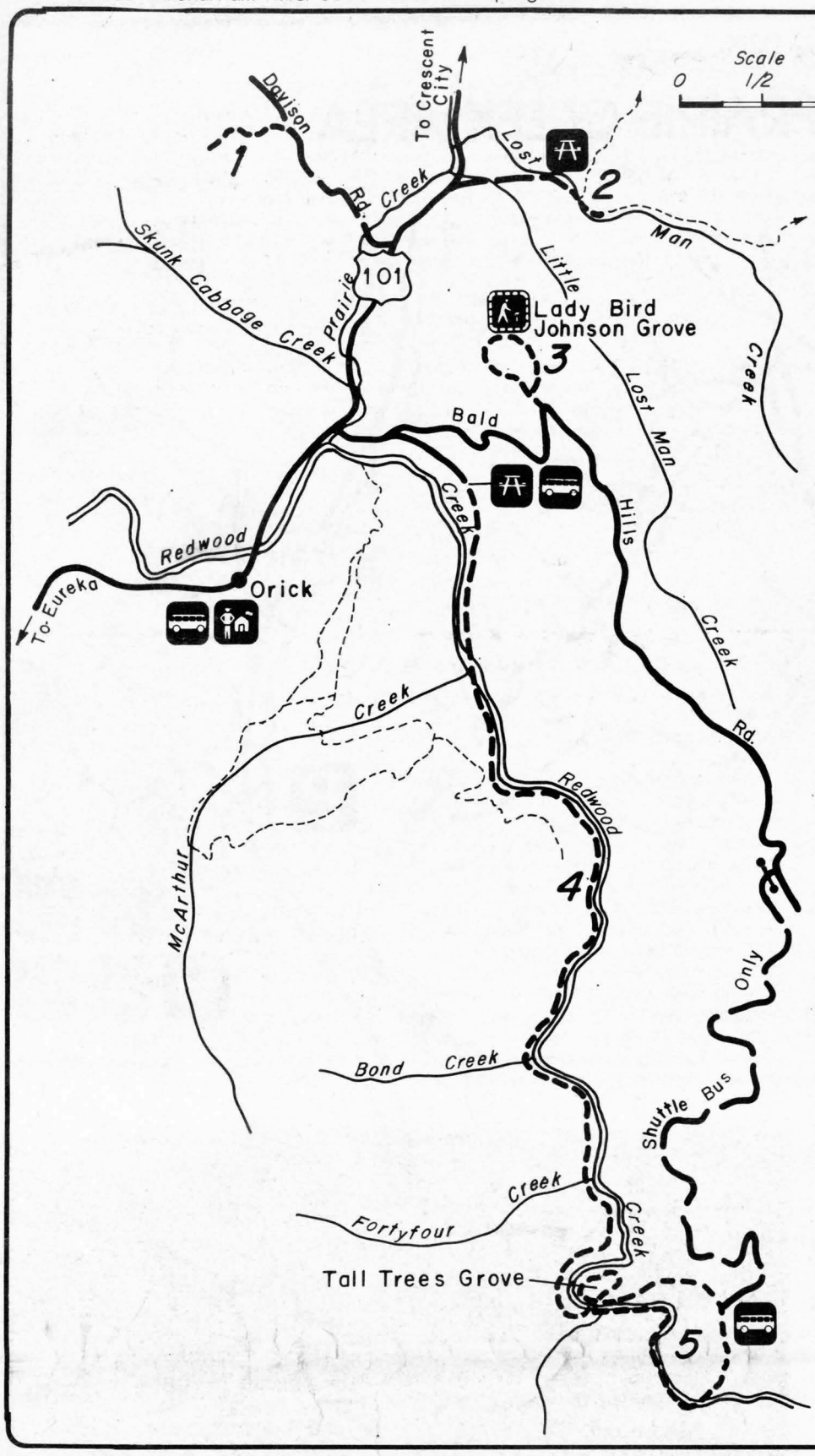
1 FERN CANYON (0.7 mi. loop, easy). Located on Davison Rd., 7 miles from Hwy. 101. (Note: unpaved road, vehicles over 7' x 20' prohibited.) Scenic display of many fern species cover the walls of this luxuriant canyon. The trail follows Home Creek up to the site of an historic mining settlement. Coastal Trail provides additional opportunities for walking. Vehicle day-use fee required.

2 MINERS RIDGE-JAMES IRVINE TRAIL (10.2 mi. loop, moderate). Begin at Prairie Creek Visitor Center; check detailed maps. On these historic trails that once linked Prairie Creek with mining camps at Gold Bluffs Beach, one can explore old-growth redwood groves, view wildlife, and visit Fern Canyon. Vehicle day-use fee required.

3 BIG TREE WAYSIDE (50 yds. to "Big Tree"). Located 1 mile N of Prairie Creek Visitor Center; parking space for buses and trailers provided. This trailhead provides easy access to the Big Tree, 304' tall, and a variety of beautiful trails ranging from short walks to all-day hikes.

4 CATHEDRAL TREES-RHODODENDRON TRAIL LOOP (6.5 mi. loop, strenuous). From the Big Tree, follow Cathedral Trees Trail across Cal-Barrel Rd. to Rhododendron Trail. This trail climbs 800 ft., then descends through majestic redwood. A walk along the Cal-Barrel Rd. may substitute for a portion of the trail. Return via the South Fork and Foothill trails.





V. ORICK AREA

1 FOREST RENEWAL TRAIL (1.5 mi. round trip, moderate). Drive 3 mi. N of Orick on Hwy. 101, then W on Davison Road 2 mi. to the trailhead. Early stages of redwood forest regeneration can be seen in this area which was logged in the early 1960's.

2 LOST MAN CREEK TRAIL (1.5 mi. round trip, easy). Drive 3.5 mi. N of Orick on Hwy. 101 then 1 mi. E to the trailhead. This trail leads past the World Heritage dedication site (in about 100 yds.), then further to a cascade on Lost Man Creek.

3 LADY BIRD JOHNSON GROVE (1.0 mi. loop, easy). From Hwy. 101, drive 2.5 mi. E on Bald Hills Rd. (17% grade; trailers not advised). This trail leads through mature redwood forest to the 1968 National Park dedication site. A self-guiding trail brochure, available at the trailhead and park ranger stations, describes the natural history of the redwood forest.

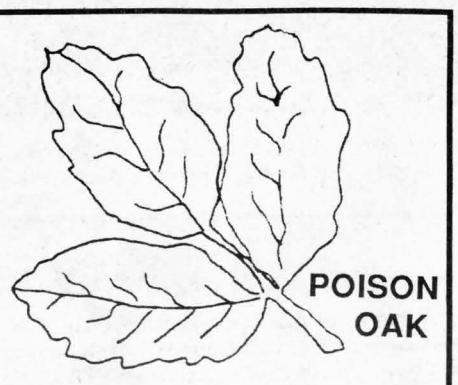
4 REDWOOD CREEK TRAIL (1.5 mi. to summer-only bridge, 8 mi. to Tall Trees Grove in summer, one-way; moderate). From Hwy. 101, drive 0.3 mi. E on Bald Hills Road; turn right to the trailhead. Check shuttlebus schedule for additional transportation arrangements, if desired. Primitive camping available on river bar upstream of summer crossing and up to 1/4 mi. from Tall Trees Grove. (Free camping permit available at the trailhead or Redwood Information Center.

5 TALL TREES-EMERALD RIDGE LOOP (4 mi. loop, summer-only, strenuous). Check the shuttle bus schedule for transportation. The regeneration of a recently cut redwood forest is seen en route to the trailhead. The Tall Trees Trail descends 800 ft. into the grove containing the world's tallest known tree (367.8 ft.). Follow Redwood Creek upstream to return to the trailhead via the Emerald Ridge Trail. (Allow 4-5 hrs. for this visit, including the shuttle.)

POISON OAK

"Leaves of three, let them be!"

Poison oak is a commonly found plant that can give you an itchy, painful rash. It is a shrub 12" to 30" high, sometimes a vine. Triple leaflets; short, smooth hair underneath. Early, berries fuzzy and white; later, dun-colored. Plants are dark green in spring and summer, bright red in fall, and lose their leaves in winter. Remember . . . clothing, shoes, tools and smoke from burning plants carry the poison, too.



Trail information and detailed trail maps can be obtained from:

Redwood National Park HQ: (707) 464-6101; 1111 2nd St., Crescent City, CA 95531

Hiouchi Ranger Station: (707) 458-3134; 10 miles east of Crescent City on Highway 199.

Redwood Information Center: (707) 488-5801; P.O. Box 7, Orick, CA 95555

A Breath of Fresh Air

By John Sacklin
Environmental Specialist

Fresh, clean air, spectacular ocean vistas, and sweeping views of the redwood forest are all part of the Redwood National Park experience. Visitors to the redwood region expect to enjoy excellent air quality during their stay. And today, air quality in Redwood National Park is generally considered to be quite good. But national parks are not immune to the air pollutants often attributed just to cities. Air currents do not recognize political boundaries such as national park borders and they can carry pollution from urban areas to parks, sometimes over hundreds of miles. Air quality in many national parks around the United States suffers from pollution, which in turn can affect the health of plants and animals as well as impair views of scenic wonders.

Concern about pollution in national parks began in the southwest in the 1960s when smoke plumes from newly constructed coal-fired power plants could be seen for tens of miles and were visible in many nearby parks. By the late 1960s, smog was appearing in many national parks such as Yosemite, Acadia, and Shenandoah. These concerns over worsening air quality led to Congressional action in 1977. Congress directed that the National Park Service insure that the values of the park were not being degraded by air pollution.

The National Park Service mandate to manage air as a resource is a particularly difficult one. Visitor enjoyment and health, the preservation of cultural resources, and the integrity of natural systems depend on it; yet air quality is unlike most other park resources. The wind blows where it will, and sometimes parks must consider pollution sources many miles away.

Much of the National Park Service's efforts have been focused on working with state, local, and other federal agencies to identify sources of, and analyze effects of, air pollution in national parks. In addition, air quality in parks is monitored to measure changes.

An air quality monitoring station has been established in Redwood National Park near the mouth of the Klamath River. At that station, ozone, sulfur oxides, and particulates are examined, along with visibility. Also, local weather conditions are measured to help understand the relation of wind, temperature, and humidity to pollution levels. The equipment was installed in Autumn, 1987. In several months the park staff will have a better understanding of the current air quality conditions. The National Park Service will use the information from air quality stations at Redwood National Park, and similar parks where air pollution is apparently not a problem, to help gauge the background levels of pollution and understand if pollution levels are changing in these areas.

Along with air quality and visibility, the park is also monitoring the effects of air pollution on plants. Generally, there is little knowledge about the effects of air pollution on plants. Most research has focused on farm crops rather than native plants found in national parks. However, it is known that some lichens are particularly sensitive to air pollution. Lichens are primitive plants, composed of algae and fungi that grow on trees, shrubs, rocks, and soils. They can be used as biological indicators to trace changes in pollution levels (especially sulfur oxides) and can serve as an early warning of other more subtle and extensive problems that may be occurring.

Through monitoring of air pollution at Redwood National Park and other national parks around the United States, the National Park Service will have a better understanding of how air pollution is affecting park resources and visitors' enjoyment of them.

TAKE PRIDE IN AMERICA

Many of us enjoy America's outdoors on lands and waters that are for everyone's benefit. This vast public domain encompasses over one-third of the Nation.

The federal government manages over 700 million acres of these public lands, including national parks, national forests, wildlife refuges, multiple-use lands, reservoirs and recreation areas. Recreation opportunities also abound on millions of acres of state parks, forests and preserves, neighborhood playgrounds and urban open spaces.

Important symbols of our past are protected for present and future generations as well. These historic sites and landmarks preserve places and memories of the great individuals, cultures, occasions and examples of architecture that make up our heritage.

Although most people appreciate and take pride in our lands, others often have the attitude that because they belong to everyone, no one has responsibility to take care of them. Around the country, in urban and rural areas, public and private resources have suffered from misuse. Too many resources have been littered, vandalized, looted, burned or misused. Each year vandalism in the national parks costs over $200,000. Many natural, historical and archeological resources are irreplaceable — if harmed, they are damaged or lost forever.

Some people must not realize that their carelessness is damaging the resources they share with their children and fellow citizens. Many people have forgotten or never learned about how to care for the land or how to leave the lands better for those who follow. Yet, the public lands will be subject to greater use. Estimates are that recreation visits to the public lands have risen 35 to 45 percent over the past decade. With increased use often comes increased opportunities for misuse or abuse.

The "Take Pride in America" campaign seeks to instill in citizens a greater sense of ownership, pride and responsibility for our public lands and to reduce destructive behavior. In every State, people are involved in activities ranging from outdoor stewardship and self-policing programs to "watch" programs or hotlines to report vandalism, wildlife poaching, theft, and other destructive activity. Others help care for parks, trails, shorelines, campsites and playgrounds through clean-up, maintenance and other forms of volunteerism.

We can enjoy our magnificent lands, waters, wildlife and history; but we must help care for them to ensure they will be everlasting. Individually, we can make a difference. Together there is no limit to what we can do.

Take Pride in America! This land is our land.

REDWOOD NATIONAL PARK — A WORLD HERITAGE

What does Redwood National Park have in common with Syria's ancient city of Damascus, Tanzania's Ngorongoro Conservation Area and Nepal's Kathmandu Valley? They are all World Heritage Sites, designated by the 21 member World Heritage Committee, under the auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO).

There are currently more than 186 sites on a select list of protected areas around the world which recognize natural and cultural properties of outstanding universal value to mankind. Besides Redwood National Park, these include Mesa Verde, Yosemite, Yellowstone, Grand Canyon, Olympic, Mammoth Cave, Great Smoky Mountains and Everglades National Parks; Wrangell St. Elias and Statue of Liberty National Monuments, San Juan and Independence Hall National Historic Sites, Cahokia Mounds State Historic Site; and internationally significant properties in some 49 foreign countries.

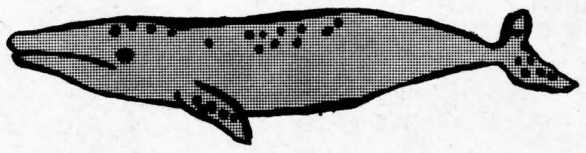
It is without question that the redwoods are of international interest and appeal. The considerable public interest in preserving redwoods is demonstrated by visitation from all over the world, and by the willingness of many to contribute substantial sums for the purchase of dedicated groves to be preserved in parks. This stems from many attributes — their size as the tallest of living things, their longevity and ability to withstand fire, insects and diseases, the fact that they grow nowhere else on earth and are, in a sense, a remnant specie dating from the age of the dinosaurs — these are some characteristics which invite interest and admiration. More important, however, is their very special inspirational qualities which so greatly impress the visitor — qualities which derive not from individual trees or cold statistics, but rather from old-growth groves in natural settings.

The selection of the Park as a natural heritage site is based on fulfillment of one or more of the following cirteria: Sites must be outstanding examples representing the major stages of the earth's evolutionary history; be outstanding examples representing significant ongoing geological processes, biological evolution, and man's interaction with his natural environment; contain superlative natural phenomena, formations or features or areas of exceptional natural beauty; or contain the most important and significant natural habitats where threatened species of animals or plants of outstanding universal value still survive.

The committee which approves properties for inclusion on the World Heritage List was established by the World Heritage Convention. This assemblage was convened by UNESCO in 1972 because of global concern over environmental deterioration and threatened loss of culturally valuable resources. The convention, ratified by the United States and now 61 other nations, recognized three basic principles: That each nation holds in trust for the rest of mankind those superlative resources that are found within its boundaries; that the international community has an obligation to support any nation in discharging this trust, if its own resources are insufficient; and that mankind must exercise the same sense of responsibility to the works of nature as to the works of its own hand.

Redwood National Park and neighboring state parks were dedicated as a World Heritage Site during a ceremony at Lost Man Creek.

CALIFORNIA GRAY WHALE



Visitors may see California Gray Whales along the coast by watching for their surfacing and tell - tale water spouts. This baleen whale, which may reach forty to fifty feet, migrates between its Alaskan summer range and winter breeding grounds in Baja California.

Their habit of swimming slowly and gathering close to the shoreline nearly led to their extinction at the hands of whalers. Under continued protections, these massive mammals will increase their numbers.

Radio Messages ...

Elk are among the wildlife of the redwoods. They are frequently seen along Highway 101 near Prairie Creek. Parking lanes have been constructed to allow you to safely get off the road in this area. While looking for elk, turn your am radio dial to 1610. The message will tell you about the life cycle and habitat of the elk.

COAST REDWOOD

THE LARGEST:
General Sherman Tree
Giant Sequoia

Height 272.4'
Diameter 32.2'
Location Sequoia National Park, California

THE TALLEST:
"The Tall Tree"
Coast Redwood

Height 367.8'
Diameter 14'
Location Redwood National Park, California

GIANT SEQUOIA

Superlatives In Trees

Oldest? Largest? Tallest?

Coast redwoods tower over all other trees in the world. Many individual trees are over 300 feet tall. The current title holder for tallest measured tree in the world is 367.8 feet tall, discovered in 1963 by the National Geographic Society. It is located near Redwood Creek in the southern end of Redwood National Park.

The current tallest tree is accessible by hiking trail or shuttle bus, but other impressive redwoods are near roads and can be reached by automobile.

Although coast redwoods are the tallest, the giant sequoias (or Sierra redwoods) exceed them in bulk, which takes diameter into consideration, making the latter the largest, but not the tallest.

Giant sequoias are known to grow to nearly 4,000 years of age, coast redwoods to about 2,000. Average age is considerably less, however, in the 500-700 range for coast redwoods. Not the oldest living things at all, both types of redwoods are outlived by California's bristlecone pines at high mountain elevations, some of which surpass 5,000 years.

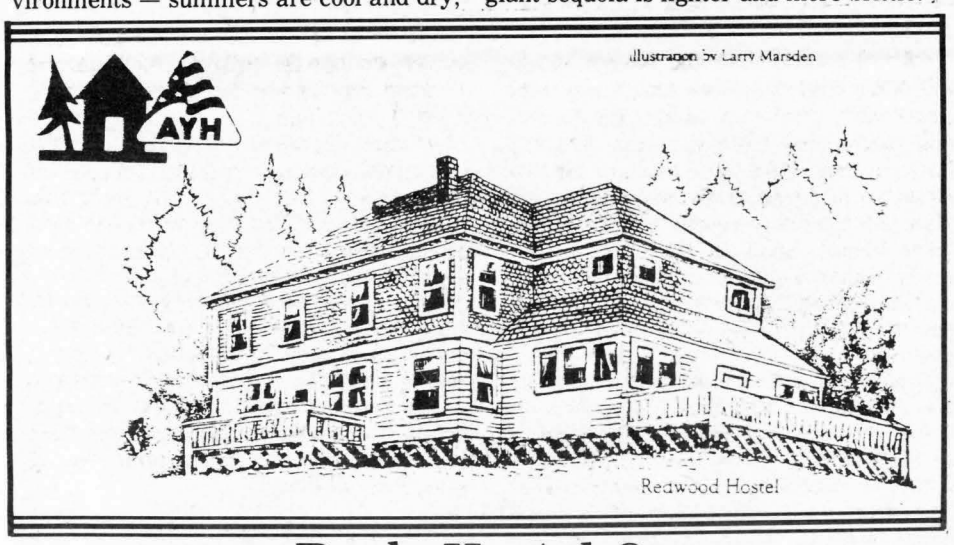
WHERE THEY GROW: Two redwoods are native to California — the giant sequoias grow only on the western slope of the Sierra Nevadas, and the coast redwoods occur only along the coast from about the Oregon state line to south of Monterey. They grow in Mediterranean-type environments — summers are cool and dry, winters moderate and wet. Up to one hundred inches of rain falls each year. Summers are often foggy. Specific soil types vary from place to place. They grow within 30 miles of the coast, no higher than 3,000 feet above sea level. They usually grow largest on the flood plains of streams and rivers.

From fossil records, we know that species of redwood trees have been growing for 130-140 million years, since the time of the great dinosaurs. These plant fossils have been found all over the Northern Hemisphere in places where today there is arctic ice and in places where there is hot, dry desert.

HOW THEY GROW: The coast redwoods can reproduce by both seeds or sprouts, but the giant sequoias can only grow from seeds.

Coast redwood cones range in size from ⅝ to 1⅛ inches long; their leaves are flat, needle-like, and arranged in flat sprays. However, cones of the giant sequoias range from 1½ to 3 inches long; their leaves are small, scale-like and sprially arranged along the twig. Seeds of the coast redwoods number 50 to 60 seeds per cone; the larger cones of the giant sequoia contain 100 to 300 seeds. There are about 120,000 redwood seeds in a pound.

The wood of the coast redwoods is strong, and highly resistant to decay; that of the giant sequoia is lighter and more brittle.



Park Hostel Opens

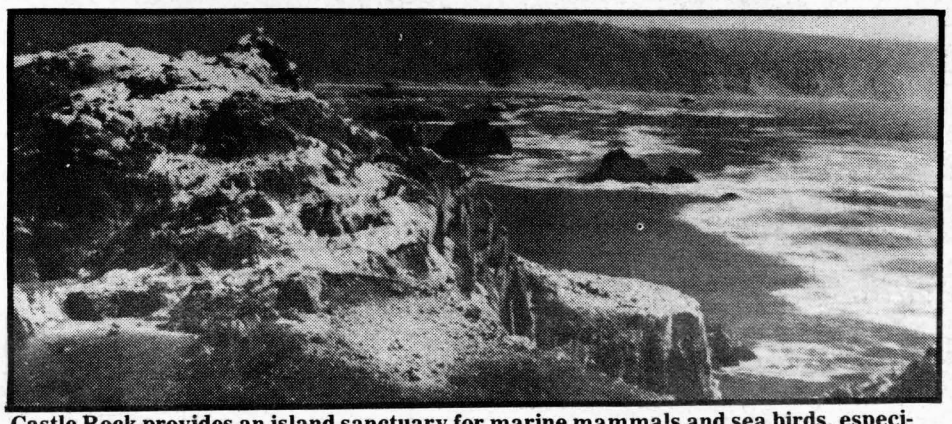
A pioneer homestead, known locally as the DeMartin House, has been refurbished as a comfortable 30-bed youth hostel for visitors to Redwood National Park in need of low-cost overnight accommodations.

The new "Redwood Hostel" has undergone extensive restoration during the past year. A new roof of cedar shingles and realignment of the building's original foundation was performed by the park, while crews from the California Conservation Corps dismantled and rebuilt the entire interior of the turn-of-the-century structure. Only the old fireplace (now a wood stove) and a spectacular view of Wilson Creek Cove are reminiscent of the two-story homestead built by northcoast pioneer Louis P. DeMartin.

Today's visitors to the hostel will also be creating an echo of early history. The DeMartin family was known to open their door to travelers in need of a night's lodging and meals, all for the nominal charge of 25 cents. Hospitality to visitors seems to be built into the bones of the old house.

American Youth Hostels, Inc., the new proprietor, continues the tradition of warm hospitality and modest rates — $6.50 per night for adults, and cook your own meals in a well-equipped kitchen.

The Redwood Hostel is located 12 miles south of Crescent City on Highway 101 at Wilson Creek Road. Local bus service is available. For more information call (707) 482-8265.



Castle Rock provides an island sanctuary for marine mammals and sea birds, especially those that require soil suitable for making burrow nests.

YOU CAN HELP

Redwood National Park is a national treasure featuring magnificent coastal redwoods, crystal-clear rivers, miles of spectacular coastline and a rich cultural heritage. In addition, the park is of international interest and appeal; it has been designated as a World Heritage Site and part of the California Coast Ranges Biosphere Reserve.

We often look at our national parks as islands of tranquility in an increasingly complex world, places that are removed from modern-day pressures. Unfortunately, it takes an ever-increasing effort to provide quality visitor services and to protect the resources for future generations.

Some of our plans to protect park resources and enhance public enjoyment and appreciation of Redwood National Park involve special projects which fall beyond the scope of the park's budget. To enhance the opportunities to protect these magnificent resources and to better serve park visitors, the park has embarked upon a fund-raising campaign.

Your tax-deductible donation can help in achieving our goals to provide quality visitor services and carefully develop and protect the park for future generations. Contributions of any amount, including memorial and restricted gifts, are welcome and each will be acknowledged. You may make use of one of our information center donation boxes in Hiouchi, Crescent City, or Orick, or you may fill out the form on this page. You will be given a signed receipt for tax purposes.

Projects needing your support include the following:

Sponsor an exhibit in the Redwood Information Center

A video tape monitor and playback unit are needed at the Redwood Information Center and Hiouchi Ranger Station to provide orientation and interpretive programs on Redwood National Park.

Videotape monitor and playback unit - - two of each, at $500 per set
Produce Videotape on Redwood National Park for visitor orientation

Provide sleeping shelters and a nature study room at Wolf Creek Outdoor School

Five sleeping shelters are needed to replace existing worn-out and leaking shelters at this park environmental education facility. A nature study room is needed as a weather-proof room to study park plants, wildlife and geological features. Over 5,000 students use Wolf Creek Outdoor School each year.

Each shelter costs $25,000 $125,000
Nature Study Room $25,000

Restore a Forest

Sponsor the planting of redwood and Douglas fir trees on formerly logged hillsides within Redwood National Park to help protect the Redwood Creek watershed. Your trees will never be turned into lumber!

$450 for 1,000 trees or $45 for 100 trees
$11.25 for 25 trees

Wildlife Research

We need to understand the needs of our park wildlife in order to protect their habitats and avoid wildlife-human conflicts.

Roosevelt Elk Research:
Radio collars $500 each
Trap-an-elk for monitoring $1,000

Kitchen Shelter for Howland Hill Outdoor School

Ever try cooking over a wood fire in the rain while 50 famished kids wait for dinner?! Howland Hill Outdoor School badly needs a shelter where cooking, eating and cleanup can occur under one roof.

Complete Shelter $65,000
Or buy the trusses $20,000
Or buy the roof $20,000
Or a dry corner for a wet kid $1,000

Help Fund a Film

We need to make a documentary film on coast redwoods and Redwood National Park - for use at our Visitor Information Centers and in classrooms nationwide.

Buy a minute for $ 2,700
Or sponsor the whole film $75,000

I/we support your efforts to protect and enhance the resources of Redwood National Park. Please find attached my contribution in the amount of:

$ _____

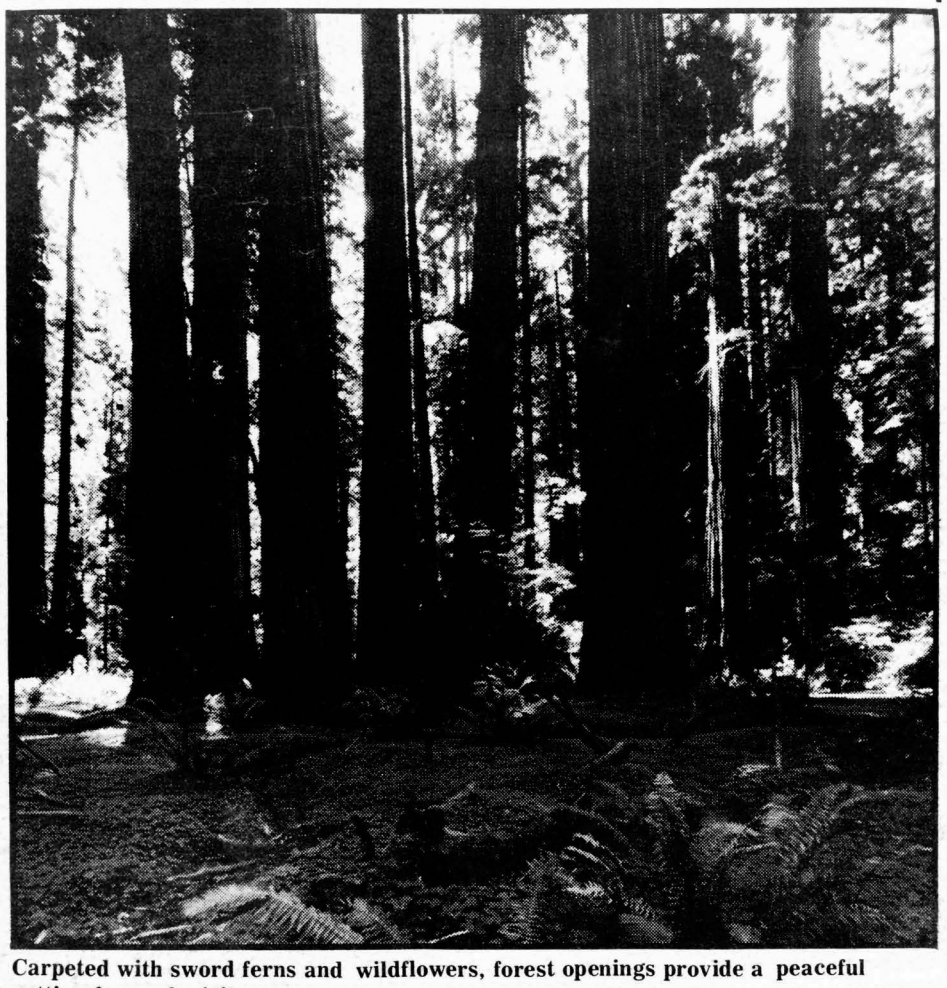
Make your check payable to:
"National Park Service"
Redwood National Park
1111 Second Street
Crescent City, California 95531

NAME: _____

ADDRESS: _____

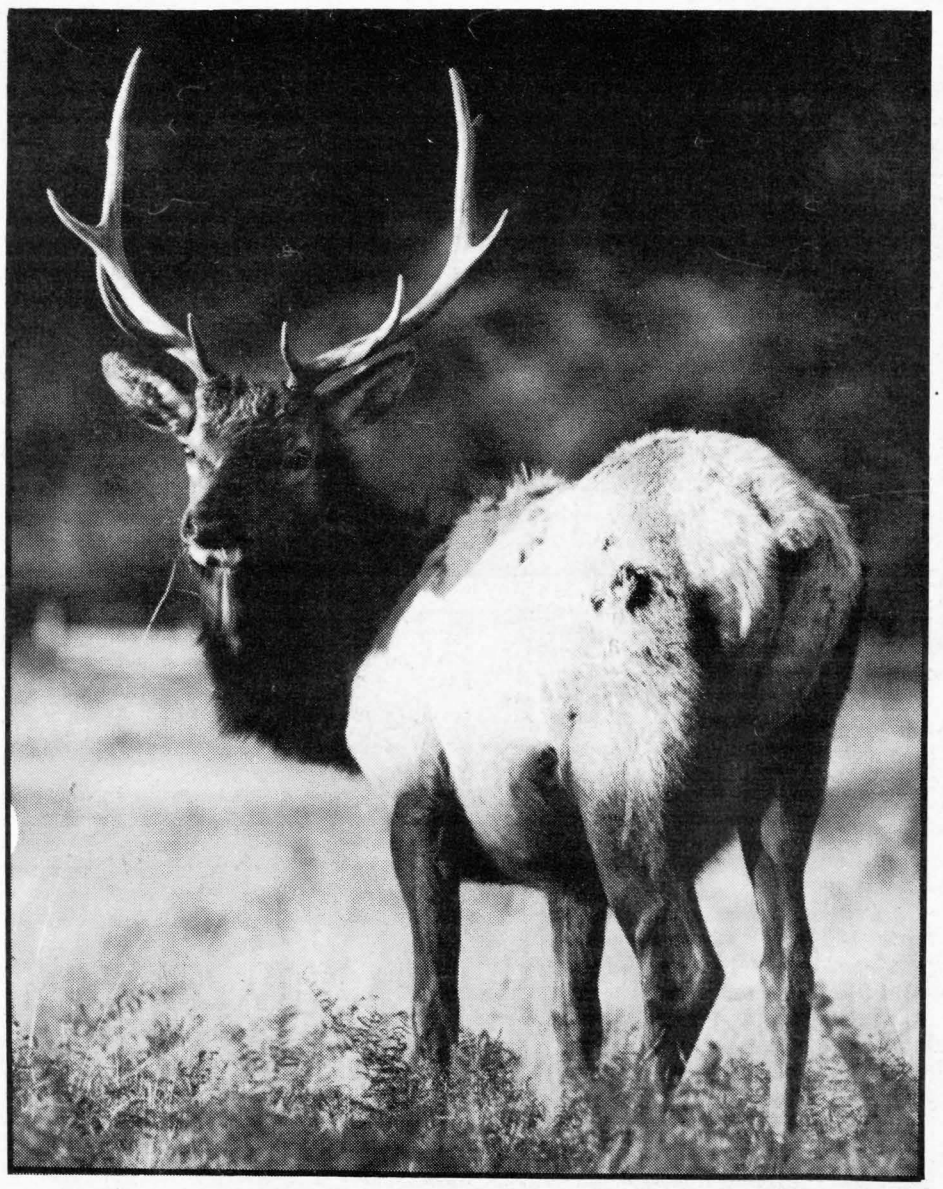
_____

TELEPHONE: _____



Carpeted with sword ferns and wildflowers, forest openings provide a peaceful setting for park visitors.

Park Wildlife



The largest of North American elk, Roosevelt elk prefer grazing in forest openings. A field seminar on elk ecology and management will be offered this summer.

By Terry Hofstra,
Park Wildlife Biologist

Redwood National Park is home to two of the country's largest wildlife species, the Roosevelt elk and the California black bear. Elk are abundant in the park and offer visitors ample opportunities for observation. They may often be seen in meadows, pastures, and prairies, and, if you are quiet, may be observed for long periods. However, bears are less commonly seen, and then for only brief periods as they cross roads or trails.

Elk

The Roosevelt elk is the largest of the six recognized subspecies of elk in North America with bulls weighing up to 1,200 pounds. They once ranged from southern British Columbia to south San Francisco Bay. Primarily due to interference with agriculture and their suitability as a food source, intense hunting eliminated them from the southern part of this range by the mid-1800's.

Before timber harvest began in the region, the elk used both forests and grasslands for browsing and cover, but the prairies and coastal shrublands probably provided the bulk of the available browse. Since 1850, more than 50,000 acres of redwood vegetation now within the park have been clearcut or selectively harvested. The increased growth of young trees, shrubs, and grasses following logging provide more food for wildlife for a few years. The rapid increase in elk population which should have resulted from the appearance of clearcut logged areas has probably been suppressed by illegal hunting. Since the expansion of Redwood National Park in 1978, new groups of elk have established themselves or increased in number in areas previously used only lightly. With protection, the elk population should continue to expand in the lower Redwood Creek and the May Creek drainages and northward along the coast along the Klamath River. As vegetation succession brings about a return to the redwood forest, what is now good elk habitat will be less productive, causing the elk population size, structure, and distribution to change again. To provide information for management of the elk population in the changing environment, the park has begun a research project. This involves live-trapping and anesthetizing the animals, fitting them with radio collars, taking blood and hair samples, monitoring movements, and detailed habitat analysis. The project is designed to yield home range, distribution, and habitat use data that will provide the basis for a long-term, comprehensive elk management plan.

Black Bear

Logging has increased the distribution and availability of bear habitat in the same manner as for elk. The result has been an increase in the population of bears. Prior to the park expansion of 1978, there was a conspicuous absence of "bear problems," relative to other parks. Part of the reason for this may have been that before the park was expanded, visitors were using the narrow band of old-growth forests that were the state and national parks, while bears were more abundant in the productive cutover lands. The result was a separation of visitors and bears, and a low potential for human/bear interactions. However, the expansion to the park resulted in prime bear habitat being acquired. The expected influx of visitors and employees into this new park area increases the bears' potential for familiarity with and loss of fear for humans, for experience with human-use foods, and to obtain people's food. These resulting behavioral modifications increase rates of interaction and escalate the risk of personal injury and property damage.

Most national parks with significant bear populations have adopted bear management plans after unfavorable bear/human relationships developed. In many of the older bear-populated national parks, extensive availability of artificial food sources increased bear numbers and altered the bears' natural behavior and foraging habits. By contrast, Redwood National Park has the opportunity to study bears and manage visitors on a preventive rather than a corrective basis.

To the end, the park has completed a black bear research project designed to provide management with comprehensive factual knowledge of bear distribution, population dynamics, behavior, ecology of human/bear interrelationships, and to evaluate the effectiveness of management programs affecting the black bear population. This information will ensure that campgrounds are planned and located to minimize the potential for adverse human/bear interactions.

Native Americans and Park Lands

By Ann King-Smith
Park Archaeologist

Redwood National Park lands include the traditional territories of three groups of Native Americans who have lived here for thousands of years, the Tolowa, Yurok and Chilula.

Although quite distinctive from each other, these three groups shared many similarities in their traditional lifestyles. The village with its headman, was the important unit, since a tribal organization and chief did not exist. Based in these permanent settlements during the winter months, people traveled at certain times of the year to follow a seasonal subsistence round. Salmon and steelhead were taken in the spring through the fall and acorns were gathered in the fall. These two items were mainstays of the diet. In addition, a wide variety of large and small game, birds, shellfish, sea mammals, seaweed, seeds, bulbs and berries were utilized. Resources which were not available locally were obtained through wide trade networks which connected groups throughout northern California.

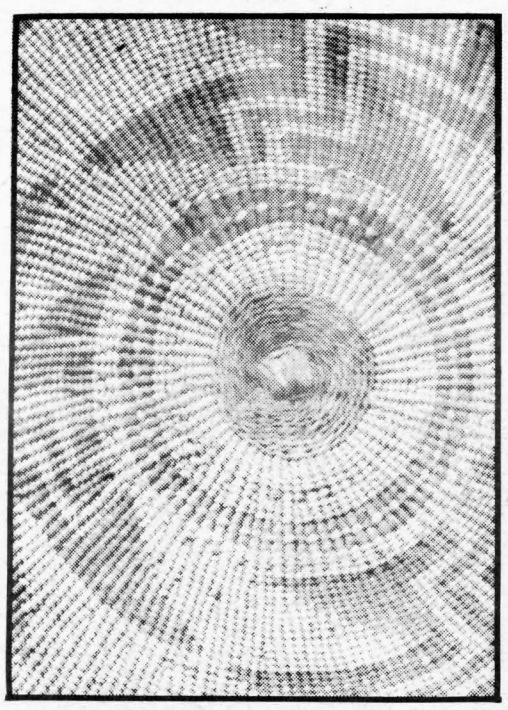
The Native American material culture is elaborate; it includes redwood plank houses and redwood canoes; beautiful baskets - both utilitarian and ceremonial; bows and arrows, stone and bone items, and fine dance regalia. Northwest Indian cultures have a rich, elaborate spiritual and ceremonial world. Certain people train to be doctors or spiritual leaders. Dances, held on a regular cycle, are times when people and perhaps different groups, come together. Throughout all of this life is an oral tradition explaining how things came to be, why they are the way they are and what people must do to keep the world in order.

With the arrival of the Whites in the 1800's the lives of Native Americans were irrevocably changed. Many were killed and many died from the new diseases. Because their lands were claimed for new settlements, homesteads and mining, the seasonal subsistence round was disrupted. Some groups such as the Chilula were nearly destroyed; others, the Yurok for example, survived more intact. As a consequence, much of the traditional culture was lost.

Today, however, in northwest California, the Indian community is viable and growing. Some groups are formally recognized with a tribal council and reservation or rancheria; others have applied for federal recognition. Many of the traditional aspects of the culture continue -language, dances, basket and canoe making, fishing, hunting and gathering. It is important to remember though, that all cultures change through time so things are not done exactly the way they were hundreds of years ago.

Redwood National Park has actively worked with the local Indian communities for a number of years. The park has Native American Heritage Advisory Committees, through which many issues have been discussed. Indians are consulted about proposed park planning projects, interpretive exhibits and protection of archaeological sites. A traditional dance is held on Indian lands within park lands and the park has donated redwood for boats and dance structures. Hopefully, we have contributed towards the continuation of these rich cultures.

Note: Indian artifact exhibits may be seen at the Trees of Mystery in Klamath, the Clarke Museum in Eureka or at the Hoopa Tribal Museum.



The ancient art of basketry was mastered by Indians in the redwood region. A Yurok collects stems of hazel, five-finger ferns or beargrass, and roots of spruce or willow to weave baskets of excellent quality and usability.

Restoring the Forest Community

The National Park Service policy calls for maintaining Redwood National Park as a vignette of primitive America, a place where natural processes operate uninfluenced, if possible, by the technological advances of modern man. This charge is most easily accomplished in parks whose boundaries follow natural features rather than political lines.

The ideal boundaries of a national park are drawn so as to preserve whole ecosystems, such as entire watersheds, islands, or mountains. A park can be more easily protected from outside influences when its ecosystems lie entirely within the park boundary.

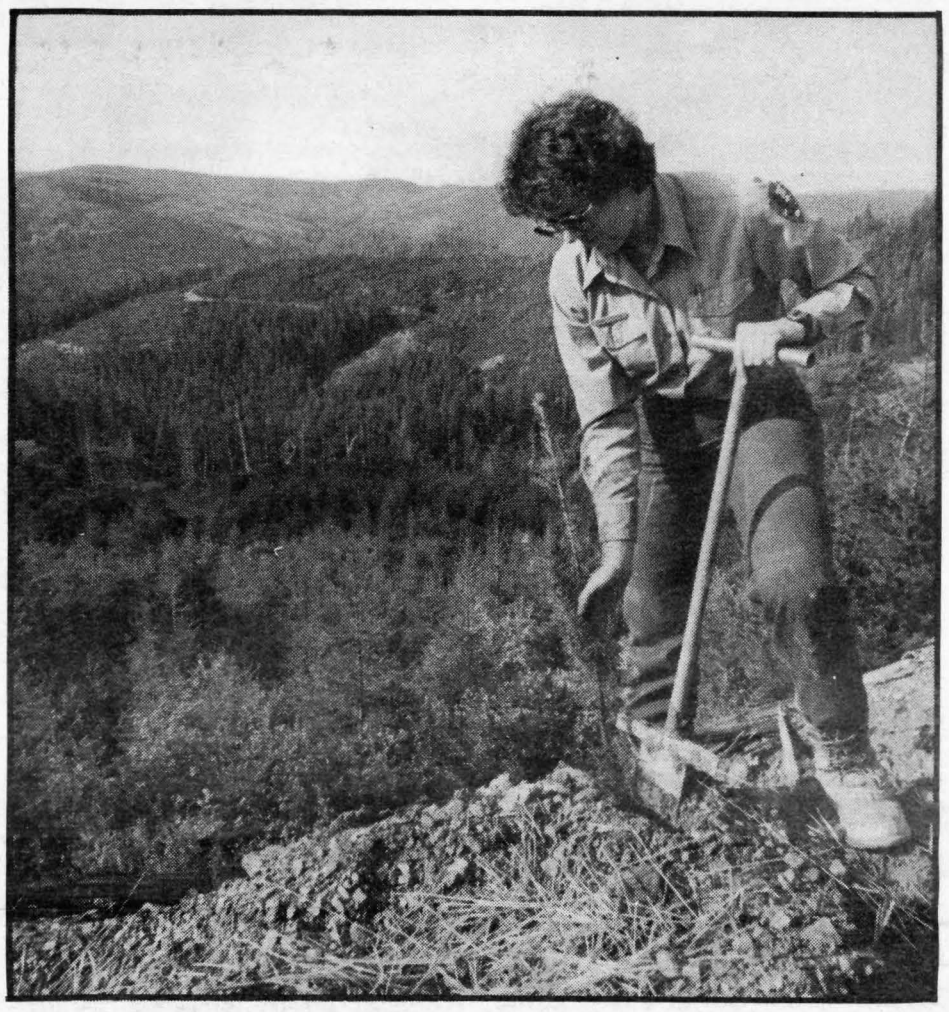
Such was not the case when Congress established Redwood National Park in 1968. The boundaries were the result of political compromise and they divided watersheds into private and federal lands. In addition, about 20% of the park had already been logged while under private ownership before 1968.

In the southern end of the park a narrow corridor of land along Redwood Creek was acquired to protect the world's tallest trees. This 9-mile long "Worm," as it was called, was downslope from private timberlands where there were intensive logging operations. These slopes have high natural erosion rates and are subject to intense winter storms. When these natural factors were combined with large scale logging, resulting slope erosion and stream sediments threatened the stream-side forest and aquatic ecosystems.

To protect this watershed, Congress added 48,000 acres in the Redwood Creek watershed to Redwood National Park in 1978. Approximately 39,000 acres of the 1978 land acquisitions have been logged in the 1960's and 1970's. The slopes are marked with 200-300 miles of former logging roads and 2,000-3,000 miles of skid roads. This land is now the site of a large-scale land rehabilitation program to stabilize the watershed and to speed re-establishment of naturally functioning plant and animal habitats. Congress authorized $33 million for the 10-15 year effort. Such a large scale project has never been undertaken by either public or private sectors.

Watershed rehabilitation began during 1978. Erosion problems were reduced and re-vegetation was started on 5 sites totalling 230 acres. In 1979 and 1980, the program was expanded and nearly 2,000 acres were treated. Now, the most critical sites in the park are rehabilitated and on their way to a natural ecosystem.

The rehabilitation program is a step-by-step process. First priority is to minimize erosion. When an area is logged, not only are large trees cut, but shrubby vegetation which is a protective ground cover on steep slopes, is destroyed. Heavy logging equipment also compacts the soil, preventing rain water from penetrating. This increases the runoff across unstable slopes, the water carving deep gullies.



Above, park botanist Bonnie Griffith plants a Douglas-fir to help revegetate a logged area as part of the park's large scale forest rehabilitation project.

Park geologists Terry Spreiter and Ray Kahler discuss techniques for recontouring logged lands using heavy equipment.

FIRE IN THE PARK!

By Mary Hektner
Park Botanist

If you visit the park on a typical foggy summer or rainy winter day, you may wonder how fire can be a part of the redwood ecosystem. The wet climate is deceiving, and even a casual walk in the forest reveals that evidence of past fires is everywhere. The "goosepens" in redwood trees are scars caused by repeated fires and many of the trees have fire-charred bark far up their stems. Before the era of fire suppression, natural lightning fires periodically burned through the forest, consuming forest litter and understory trees and shrubs. On the whole, these fires were probably of relatively low intensity and the overstory redwoods were seldom killed.

Studies by park researchers have shown that during pre-settlement times, large stand-altering fires occurred as infrequently as once in every 250-500 years in the park's coastal redwood forests, at 100-250 year intervals on intermediate sites and at 35-50 year intervals in the most inland areas.

In the nearby drier Bald Hills grasslands and oak woodlands, lightning fires started more easily and were therefore more frequent. In addition, the Native Americans intentionally set fires to maintain the open prairie and oak woodlands, to make food gathering easier, attract wildlife to the new plant growth and to stimulate growth of basket making materials.

The effects of decades of fire suppression in the Bald Hills is made evident by extensive Douglas-fir invasion into the prairies and oak woodlands. When fires were frequent, invading fir seedlings were easily killed and the grasslands and woodlands remained open. Without fire to kill the seedlings, the fir matures, oak and prairie species are shaded out and the area gradually converts to a Douglas-fir forest.

Park researchers estimate that approximately 1,000 acres of prairie and oak woodlands have been lost to fir invasion due to the lack of Indian-started fires and fire suppression.

Today we recognize that fire is a natural phenomenon and an integral part of the ecosystem. Fire is no longer viewed as a major enemy, rather a natural factor which under prescribed conditions can be used to help achieve resources management objectives to preserve natural environments.

In 1980, the park began a program of prescribed burning in the prairies and oak woodlands. Park staff deliberately set fires under carefully designed conditions. Each prescribed burn has a plan and specific set of objectives. When the time, wind, humidity, temperature and other factors are right, the fire is set. Trained personnel observe and monitor the fires to provide for public safety and document fire behavior and results. At the same time, researchers gather information regarding fire history, frequency and long-term fire effects.

The need to heed Smokey the Bear's advice to prevent careless human-caused fires is as important as ever and should continue to echo in our minds. Fire suppression is an ever present requirement where human life or property are endangered. However, through closely observing and monitoring prescribed fires and their effects, our knowledge of natural fire ecology continues to grow and our ability to perpetuate the natural ecosystems of the park is enhanced.

FOR MORE INFORMATION . . .

A wide selection of books, field guides and maps is available at the three information centers in Orick, Crescent City and Hiouchi. These help the visitor to better understand and appreciate the redwood forests, seashore, streams, and the human history of the park. Park literature is also available by mail by writing for a publication list.

Publications on park subjects are offered by the Redwood Natural History Association (RNHA), a non-profit cooperating association, established to aid and support the interpretive programs within Redwood National Park. Funds generated are used to purchase equipment, develop publications, and finance exhibits for the benefit of park visitors.

Associate membership in RNHA is open to any person who desires to become more closely affiliated with Redwood National Park. As a benefit, members receive a 15 percent discount on all regularly-priced publications. All dues and contributions are tax-deductible as provided by law.

Annual Dues

Individual.....$ 5.00
Organizational $20.00

Membership Application

Name _____

Address _____

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Enclosed is my check or money order for $_____.

Mail to: REDWOOD NATURAL HISTORY ASSOCIATION, 1111 Second Street, Crescent City, California 95531

For additional information phone 707/464-9150.