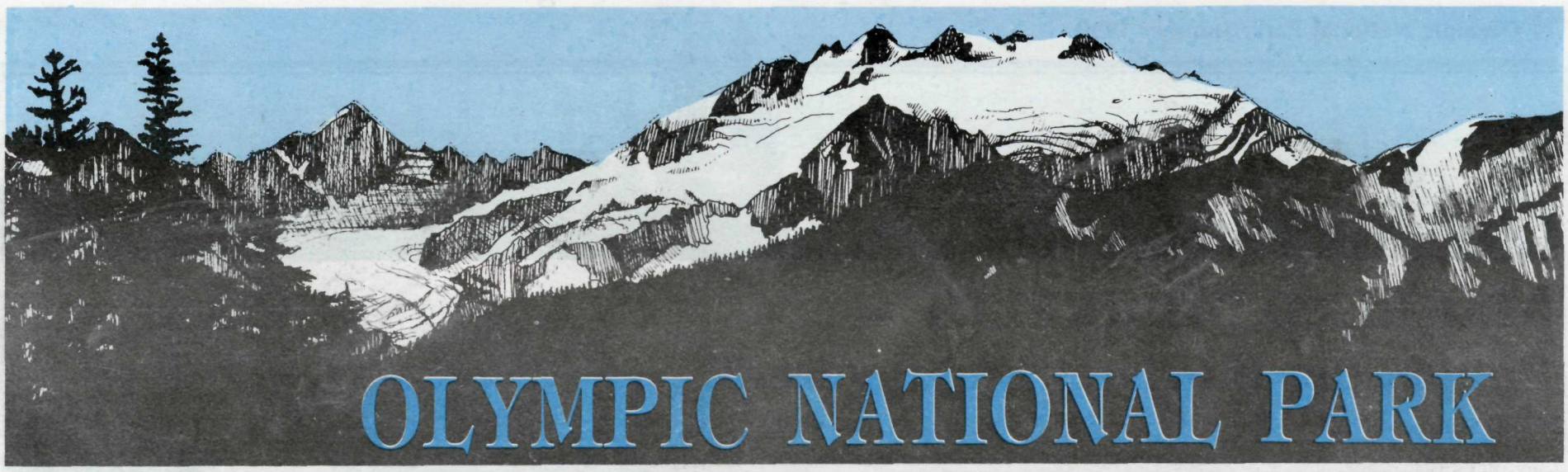


JULY 1-SEPT. 2, 1990 NATURALIST ACTIVITIES INFORMATION CHILDREN'S SECTION

PRESERVING DIVERSITY—Who Me?

By Cat Hawkins, Natural Resource Specialist

"To keep every cog and wheel is the first precaution of intelligent tinkering."

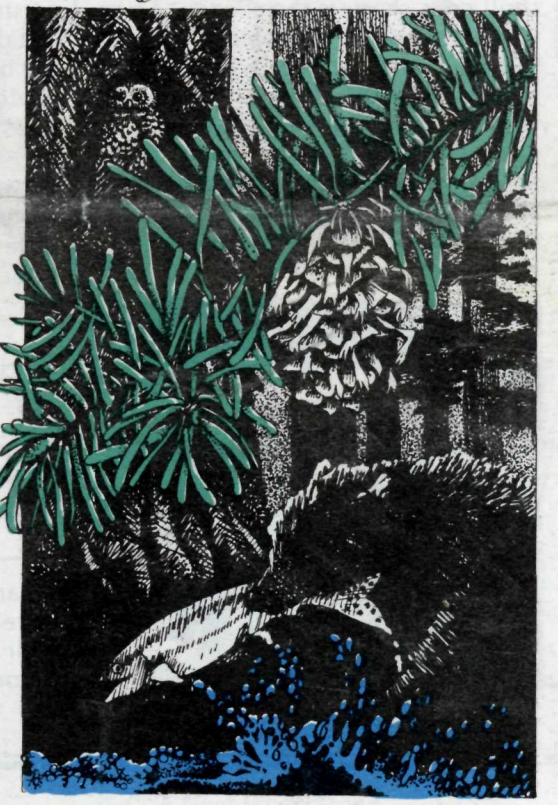
The majority of us no longer cultivate or capture our own food, nor do we maintain strong personal association with the land which supports us. Our knowledge of where our food originates is, for most of us, rudimentary and incomplete.

Most know even less about the source of our medicines. From textbooks, we learn that the tomato is first known from the northern Andes, and corn from Mexico. But how many realize that a wild relative of our cultivated tomato, discovered in the Peruvian Andes, has yielded a commercial tomato with much larger and sweeter fruit? That a wild species of corn, discovered in the mountains of Mexico, yields remarkably disease-resistant plants? And that both of these discoveries occurred within the last three decades?

Humans depend upon biological diversity. Food is one obvious example - human beings eat a variety of plants and animals. We also depend upon plants and animals for raw materials, such as lumber, resins, dyes, spices, industrial fibers and medicine. For the past 25 years or more, at least 25% of all prescriptions dispensed from pharmacies in the United States contained active components extracted from plants. Approximately 85% of traditional medicine, particularly in developing countries, involves the use of plant extracts. This means that about 3.5 to 4 billion people in the world rely on plants as sources of drugs. For example, cortizone comes from the yam, digitalis from foxglove, and anti-leukemia agents from the rosy periwinkle.

Our dependence upon other species that occupy this world is in many cases indirect, and we have been slow to discern the need for conservation. In this "web of life," who can label any species as unimportant? Aldo Leopold wisely stated, "To keep every cog and wheel is the first precaution of intelligent tinkering."

Living organisms and the land which supports them are the cogs and wheels of a diversity that is complex beyond our comprehension. Largely due to the activities of human beings, extinction of species is preceeding at a rate far greater than that prior to 1800, and more extreme than any time since the end of the Paleozoic and Mesozoic eras.

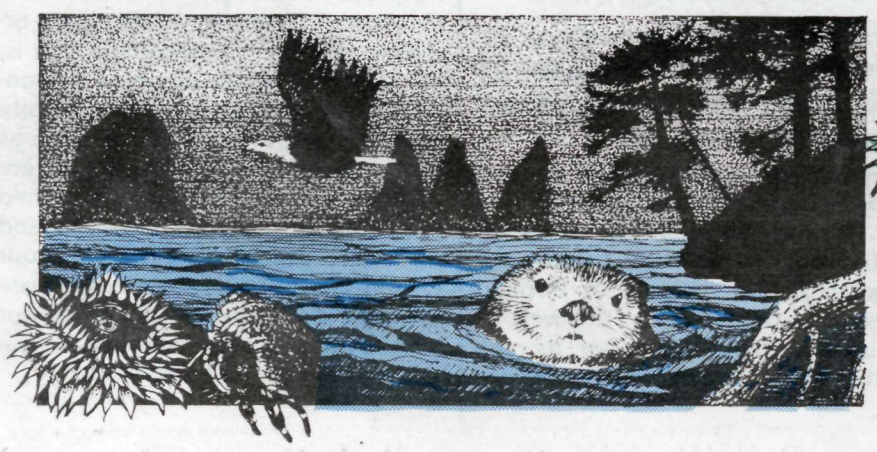


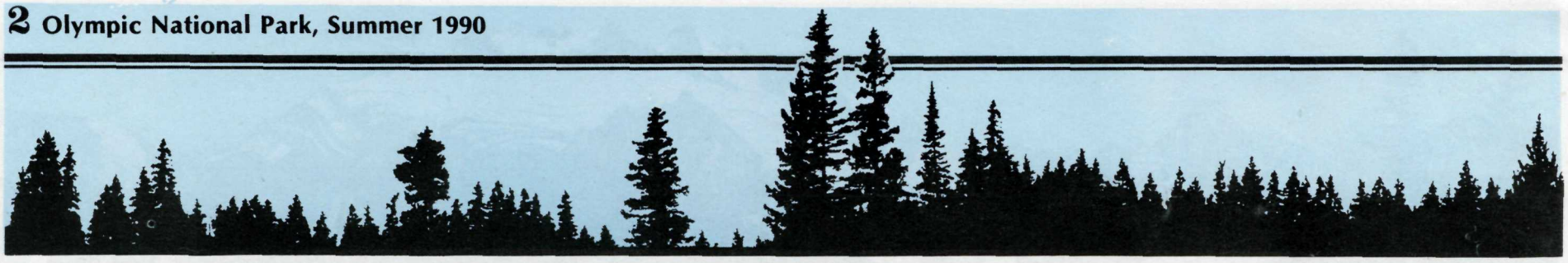
At least one species becomes extinct every day.

Many of these species are in the tropics, and many never well-known or described. Habitat destruction, in this country and abroad, is a primary cause of the loss of biologic diversity. Clearly, the human species "tinkers," not always intelligently.

What can be done about threats to biologic diversity, and

(Continued on page 2)

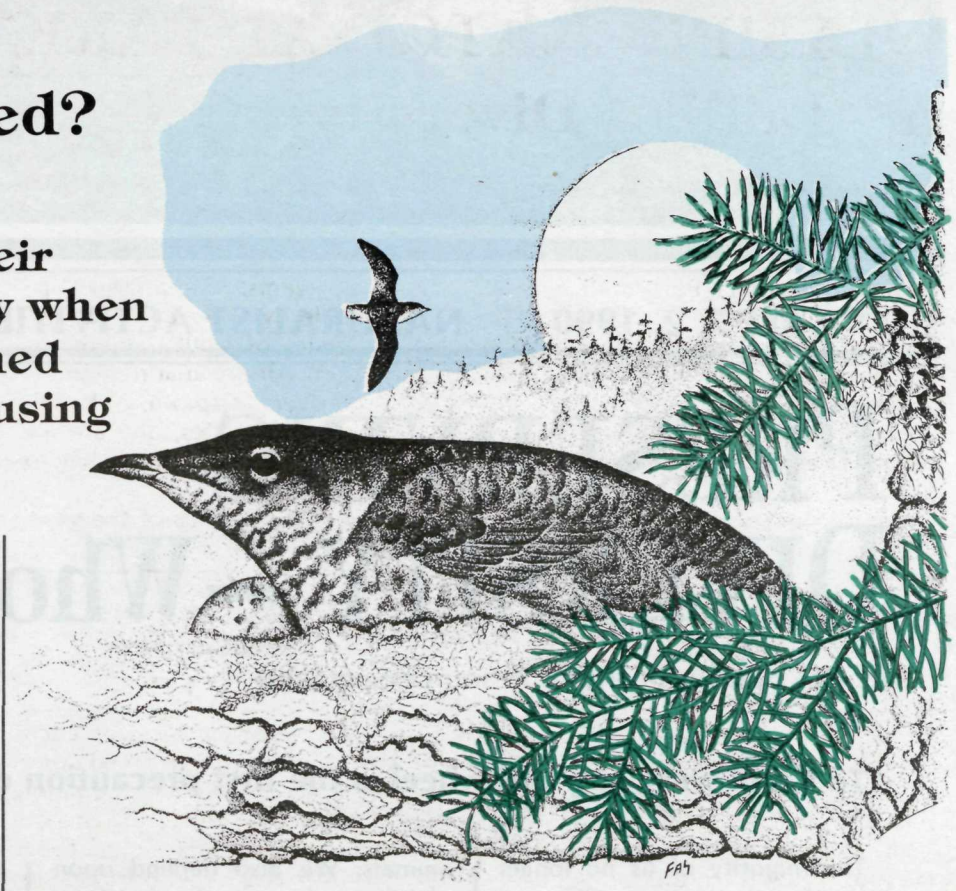




MARBLED MURRELET – Enigmatic, Elusive...Endangered?

by Fred Sharpe

Their webbed feet are set far back on their bodies, forcing them to hobble awkwardly when on land. In the water, they are transformed into graceful and efficient swimmers by using their wings to "fly" beneath the waves.



High in Olympic's Gray Wolf Valley the first shafts of light pierce the morning mists and strike the jagged teeth of Mt. Deception. The silence is broken only by river murmurs rising from the cathedral of ancient trees five thousand feet below. Darkness lingers in the slumbering forest when suddenly a chorus of shrill cries shatters the silence. An invisible party of marbled murrelets threads through the treetops and circles above the canopy. They quickly slip under the remaining veil of darkness and navigate down valley toward the sea. A thousand feet above the kelp beds, this small flock suddenly pulls into a steep dive and plummets toward the water.

The murrelets' passage from mountain to sound is so secretive, they appear to remain always on water, rather than making nightly pilgrimages to hidden mountain haunts.

For over 150 years, the nesting location of this small seabird of the cool North Pacific was one of the greatest mysteries of ornithology. Within the last decade or so we have learned that the breeding ecology of this species is profoundly linked to old-growth forests. A pair of murrelets, mated for life, will fly far inland to nest in old-growth forest. The female lays a single speckled egg on a large moss-covered branch high above the forest floor.

Murrelets will fly as far as 30 miles inland from the sea each night to bring food to a hungry nestling.

Paradoxically, it is the murrelets' secretive behavior that is leading to their demise. The murrelet has become so depleted in the southern half of its range, apparently due to the harvesting of old-growth forests, that the U.S. Fish and Wildlife Service is considering listing the bird as a threatened species in Washington, Oregon and California.

Despite their elusive habits, these remarkable members of the puffin family may be observed in old-growth stands at dawn. Listen for their high-pitched "keer keer" calls, or watch for their chunky silhouettes against the morning sky. If you detect any mottled-brown adults, or their black and white chicks, please call Bruce Moorhead, park biologist, at 452-4501.

Like the ancient forests in which the murrelet nests, this seabird has disappeared from many areas in the Olympics, Cascade and Coast ranges. But the final chapter remains to be written. The continued existence of the marbled murrelet and other species depends on preservation of some of the coastal old-growth forests from northern California to Alaska. We have learned that these great stands of trees are part of a wonderfully complex web of water, air, soil and life.

How many other species, yet unknown, have developed specialized relationships to old-growth forests?

Preserving Diversity – Who Me? (Continued from page 1)

about the extraordinary extinction rate? Knowledge to support solutions must come from scientists studying the complexity of the world's biota. Many solutions lie in the political realm, since efforts to build a world economy have drastically altered traditional uses of the land, leading to habitat destruction.

Progress is being made. Funding has increased for exploration and study of species diversity, and preservation of endangered species. The U.S. Congress has amended the Foreign Assistance Act calling for the development of a strategy for conserving biological diversity. And, the establishment of national parks and nature reserves in many countries is a commitment to keep, or enhance the "cogs and wheels" of diversity.

Olympic National Park, an International Biosphere Reserve, is part of a worldwide network which preserves biological diversity. National Park status, however, does not ensure maintenance of all native species. The native wolf is now extinct from the park and the Peninsula. The fisher is extremely rare and may also be extinct. Many species of plants in this area occur nowhere else in the world. Some are of such restricted distribution that they could be lost to a mudslide or rockfall, or trampling by animals or people.

Even events which destroy or alter habitats thousands of miles away influence biota of Olympic.

For instance, biologists are learning that declines in migratory songbird populations in northern areas are associated with the loss of tropical forests. Quite obviously, the web of life is more than a metaphor; its connections and interdependencies are real.

Preservation of biodiversity is a global issue, and may engender a helpless feeling for individual response. However, "average, ordinary, who-me?" individuals - that is, all of us - share an immense responsibility to address the biodiversity crisis. Conservation measures such as recycling and minimizing waste are available to us now. Making informed selections of products, lifestyles and political candidates is also our responsibility. To respond to or ignore the need is not a matter of choice; our own existence depends upon wise stewardship of the living world.

OLYMPIC NATIONAL PARK'S FISH – A "Tail" of Diversity

by John Meyer, Fisheries Biologist

Olympic National Park contains numerous rivers, streams, lakes and swamps dominated by fish known as salmonids. These include five species of salmon (chinook, coho, chum, pink and sockeye), two species of trout (rainbow or steelhead and cutthroat), and one char (Dolly Varden). All are anadromous — they migrate to the ocean then return to their natal rivers to spawn. Although similar in appearance, these species have diverse life histories, and are excellent examples of animal populations filling different ecological niches to maximize survival and reproduction.

Salmonids return from ocean to river at widely varying times of the year, ranging from early spring to winter.

In rivers such as the Elwha, which support many species, salmon or steelhead enter the river during every month of the year.

Spawning location within the river system varies between species, with each utilizing a different area of the watershed, or a different season to avoid competition for sites. Headwaters, tributaries, and side channels with varying water velocities and gravel sizes accomodate different sizes and species of fish.

Life histories of salmonids are also diverse. Some fry migrate to the sea soon after emerging from the gravel, while others swim to a lake or tributary to rear for a year or longer.

All of these fish are important food sources for other animals in the park's "web of life." At least 22 species of birds and mammals utilize salmon carcasses, including squirrels, coyotes, bears, raccoons, weasels, mink, skunk, bobcats, otter, hawks, eagles, jays and ravens. In addition, salmon carcasses transfer nutrients from the ocean to freshwater systems.

Fish populations are under constant pressure from natural and human threats. Salmonids are the target of natural predators from the day the eggs are hidden in the gravel till the time they are large enough to bite a hook. Outside the park, a number of industries degrade rivers and streams, while hydroelectric dams block some of our larger rivers. Migration of non-native hatchery fish into park waters may introduce disease and reduce genetic diversity and fitness of native stocks.

We are fortunate in Olympic National Park to have excellent salmonid habitat, except in the Elwha and North Fork Skokomish Rivers where dams block migration. There are still relatively large numbers of wild stocks in good condition, most with diverse life histories. With care and scientific study, these fish will continue to provide recreational enjoyment for park visitors, serve as an important link in the food chain, and contribute to the biological diversity of the park's ecosystem.

Salmon Savvy

Name each fish pictured below!

Chinook (king): large fish up to 60 lbs.; spots on both lobes of tail fin; adults turn green, brown or black in freshwater.

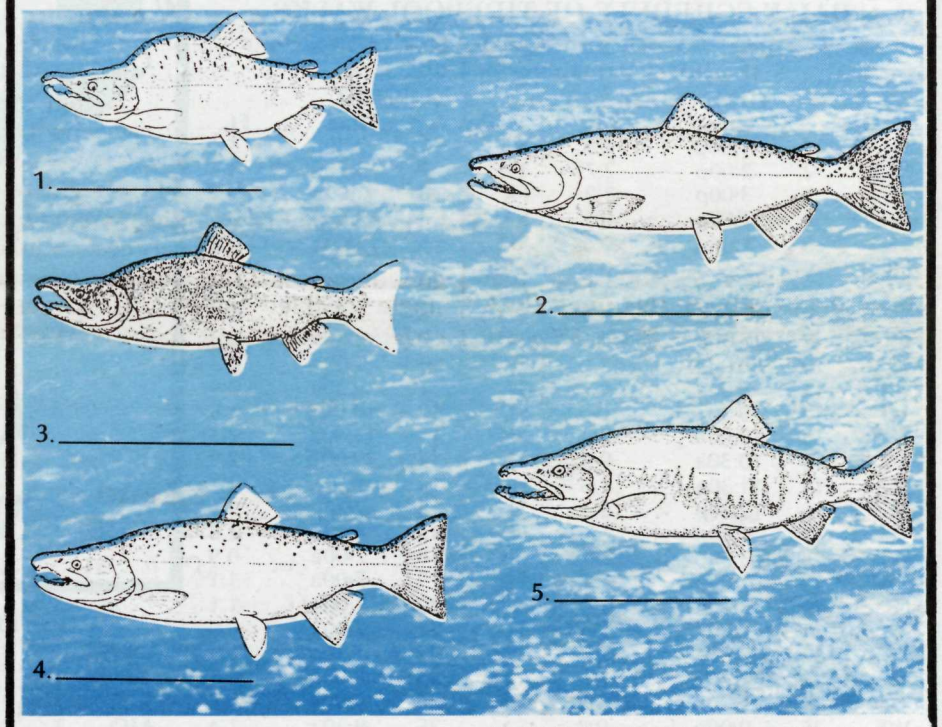
Coho (silver): up to 20 lbs.; spots on top lobe of tail; adults turn red in freshwater.

Chum (dog): no spots as juveniles or adults; in freshwater, adults turn multi-colored and develop vertical blotchings, prominent hooked nose and dog-like teeth.

Pink (humpy): adults have elongated oval spots on both lobes of tail and on the back; adults turn gray in freshwater and males develop a large hump on their back.

Sockeye: no spots as juveniles or adults; adults turn red with green heads in freshwater.

Drawings courtesy of Bulletin 184, Fisheries Research Board of Canada.



Answer: 1. pink, 2. chinook, 3. sockeye, 4. coho, 5. chum

NORTHERN SPOTTED OWL CONCERNS

by Bruce Moorhead, Biologist

The northern spotted owl is currently at the center of a major controversy in the Pacific Northwest over its survival and the continued removal of old-growth forests. The U.S. Fish and Wildlife Service is currently considering the proposition of listing the owl as a threatened species, under provisions of the Endangered Species Act. The status of spotted owls on the Olympic Peninsula is of special concern, due to the reduced size of the population, low productivity and isoloation.

Spotted owls in the park receive full protection, as do all native wildlife. Surveys underway since 1989 suggest that spotted owls occur widely in rather low densities at lower elevations. Only 12 breeding pairs have been confirmed in the park in five years and reproductive success varies considerably from year to year. Owls in the park occupy old-growth forests which are characterized by vertical layering of the canopy and large trees and snags. If old growth forests are entirely removed from around the park, the habitat available within the park may not be able to sustain a spotted owl population.

NATURALIST PROGRAMS – JULY 1 TO SEPT. 2, 1990

OZETTE

Eighty-seven miles west of Port Angeles. Ranger station, campground, information kiosk. Three-mile puncheon board trail to beach; camping on beach. Information kiosk, bridge spanning the Ozette River, and first section of trail to Capa Alava are accessible to wheelchair users. Check local bulletin boards for information. Naturalist Activities are not available.

PLEASE NOTE: The Ozette Village Site Archaeological Excavation has been permanently closed. To view cultural items from the site, visit the Makah Museum in Neah Bay, open daily 10:00 a.m.-5:00 p.m.

MORA

Seventy-three miles west of Port Angeles. Take LaPush Road, just north of Forks. Fourteen miles off Hwy. 101. Tent and trailer camping two miles from Rialto Beach. Ranger/Information station. Maps, brochures, and publications are available. To the right of the parking area at Rialto Beach is a wheelchair-accessible trail for viewing the surf.

Daily—Beach and Tidepool Walk— Meet at the bulletin board at Rialto Beach parking lot for a naturalist-led walk along the beach. About 2 miles round trip to explore rocky tidepools and discover unusual life of the sea. Two hours. See Tidepool Walk schedule for times.

Campfire Program—Friday, Saturday, & Sunday Nights— June 29 through August 4 at 9:00 p.m.; August 5 through September 2 at 8:30 p.m. — Topics vary; see local bulletin boards.

DAILY SCHEDULE OF TIDEPOOL WALKS
Mora and Kalaloch
July 1-September 2, 1990

JULY				AUGUST			
Day	Time	Ft.		Day	Time	Ft.	
SU 1	1:00p	2.3		WE 1	2:30p	3.4	
MO 2	2:00p	2.7		TH 2	3:30p	3.3	
TU 3	3:00p	2.9		FR 3	7:00a	-0.1	
WE 4	7:00a	-0.1		SA 4	7:00a	-0.5	
TH 5	7:00a	-0.5		SU 5	7:00a	-0.8	
FR 6	7:00a	-0.8		MO 6	7:00a	-1.0	
SA 7	7:00a	-1.0		TU 7	7:30a	-0.9	
SU 8	7:00a	-1.2		WE 8	7:30a	-0.7	
MO 9	7:30a	-1.2		TH 9	8:30a	-0.3	
TU 10	8:00a	-1.0		FR 10	9:00a	0.3	
WE 11	9:00a	-0.7		SA 11	9:30a	0.9	
TH 12	9:30a	-0.3		SU 12	10:00a	1.6	
FRI 13	10:00a	0.3		MO 13	11:00a	2.3	
SA 14	10:30a	0.9		TU 14	12:00p	2.9	
SU 15	11:30a	1.6		WE 15	1:30p	3.2	
MO 16	12:30p	2.3		TH 16	2:30p	3.1	
TU 17	1:30p	2.8		FR 17	4:00p	2.8	
WE 18	3:00p	2.9		SA 18	7:00a	-0.9	
TH 19	7:00a	-1.1		SU 19	7:00a	-1.1	
FR 20	7:00a	-1.5		MO 20	7:00a	-1.1	
SA 21	7:00a	-1.8		TU 21	7:00a	-0.9	
SU 22	7:00a	-1.8		WE 22	7:30a	-0.5	
MO 23	7:30a	-1.7		TH 23	8:00a	0.1	
TU 24	8:00a	-1.3		FR 24	9:00a	0.8	
WE 25	9:00a	-0.8		SA 25	9:30a	1.4	
TH 26	9:30p	-0.1		SU 26	10:00a	2.1	
FR 27	10:00a	0.7		MO 27	11:00a	2.7	
SA 28	10:30a	1.4		TU 28	11:30a	3.2	
SU 29	11:30a	2.2		WE 29	1:00p	3.6	
MO 30	12:30p	2.8		TH 30	2:00p	3.7	
TU 31	1:30p	3.2		FR 31	3:00p	3.4	

SEPTEMBER		
Day	Time	Ft.
SA 1	7:00a	0.3
SU 2	7:00a	0.0
MO 3	7:00a	-0.3

Times shown are program times not the actual times of the low tides—see a tide table for matching times/tides.

KALALOCH

Ninety-three miles from Port Angeles along Hwy. 101. Tent and trailer campground above beach. Beach-access trails. Information station. Kalaloch Lodge and store. Beach is most accessible for disabled persons from beach trail at campground parking lot; wheelchair users need assistance.

Check campground bulletin boards for times of these programs offered July 1 through Sept. 2.

Daily—Tidepool Walks— Come and discover the variety of plants and animals that live between land and sea. Meet the naturalist in the parking lot at Beach Trail No. 4, three miles north of Kalaloch Campground. Two hours. See Tidepool Schedule above for times.

Thursday—Beach Walk— Discover the mysteries and treasures of the sea on a walk along the beach. Join a park naturalist for a 1-hour, easy walk. See bulletin boards for meeting time and place.

Friday—Coastal Walk— Stroll through dense greenery as a park naturalist uncovers decades of secrets of the coastal forest. Meet at the circle in parking area of campground. 1½ hours. See bulletin boards for time.

Saturday & Sunday—featured Activity— The topics and locations will vary. See local bulletin boards for meeting time and place.

Nightly—Campfire Program— July 1 through August 4 at 9:00 p.m.; August 5 through September 2 at 8:30 p.m. — At Campground Amphitheater; See local bulletin boards for topics.

LAKE CRESCENT

A winding road hugs this deep glacial lake for 11 miles. Facilities include Log Cabin Resort, East Beach Picnic Area, Lake Crescent Lodge, La Poel Picnic Area, Fairholm General Store, and Fairholm Campground (tents and trailers). Several popular day hikes start near the lake.

Nature Walks, Hikes and Campfire Programs — There will be no nature programs offered this year.

Log Cabin Resort Campfire Program— Check at Log Cabin for program announcements.

USFS/NPS SOLEDUCK RANGER STATION

Joint Forest Service/Park Service Ranger Station located on Hwy. 101 4½ miles north of Forks. Maps, brochures and publications are available. Open Monday-Friday 8:00 a.m. to 5:00 p.m. Saturday & Sunday 8:30 a.m. to 12:00 p.m. 12:30 p.m. to 5:00 p.m. Phone number (206) 374-6522. Wheelchair accessible.

SOLEDUCK

Forty miles west of Port Angeles. Turn up Soleduck Road just 1.6 miles west of Lake Crescent, then travel 13 miles south from Hwy. 101. An interpretive shelter at the beginning of the Soleduck Road, and wayside exhibits along the drive, provide unique opportunities to learn more about the natural and human history of the area.

Salmon Cascades, located 6 miles up the road can, be reached by a short trail. The viewing platform is accessible for wheelchairs, with assistance. Here you can view the annual fall migration of salmon returning from the sea to spawn in their birthplace.

At Soleduck, there is tent and trailer camping, Ranger Station, hiking, and concession-operated Sol Duc Hot Springs Resort. There is a fee for using the pools.

Campfire Program nightly July 1 through August 4 at 9:00 p.m.; August 5 through September 2 at 8:30 p.m.— Meet at the Soleduck Campground Amphitheater just north of Area A. Topics vary; see local bulletin boards.

Nature Walks and Hikes— Family activities for all ages. Check local bulletin boards for program announcements.

HOH

Ninety-one miles from Port Angeles, turn off 12 miles south of Forks. Visitor Center open daily 9 a.m.-7 p.m. with exhibits, maps, publications and information. Two self-guiding nature trails. The Hoh Visitor Center is accessible to wheelchair users. A short loop trail from the Visitor Center allows easy wheelchair access to the rain forest.

10:00 a.m. and 2:00 p.m. Daily—Guided Walk— Join a leisurely walk through the rain forest. Experience various stages of forest succession, the role of the Hoh River and the wildlife that lives in this world of wet and green. Up to 1¼ miles.

Campfire Program—Nightly July 1 through August 4 at 9:00 p.m.; August 5 through September 2 at 8:30 p.m.— Topics vary; see local bulletin boards.

QUINAULT

Located on the north shore road of Lake Quinault, this Ranger Information Station (intermittent) will be open most days from 9:00 a.m.-5:00 p.m. Maps, brochures, and publications are available. This area offers an alternative location to view a temperate rain forest. Includes self-guiding 1/2-mile nature trail next to ranger station.

Naturalist activities are not available at this time.

PLEASE NOTE: Trailers and motorhomes are not recommended on the road east of the Ranger Information Station.

ELWHA

Six miles west of Port Angeles on Highway 101, turn left into the Elwha Valley area of the park. Five miles up the valley is a Ranger Station and the Elwha and Altaire Campgrounds. Several trailheads within the valley provide routes into the backcountry.

Madison Falls Nature Trail begins opposite the Entrance Station. Observation Point along the Boulder Creek Road overlooks Lake Mills and the mountains encircling the Elwha drainage. Both of these areas are wheelchair accessible.

Naturalist Activities — There will be no nature programs offered this year at Elwha.

MT. OLYMPUS

STAIRCASE

Staircase is located 100 miles from Port Angeles. Turn off Highway 101 near Hoodsport for the last 16 miles. There you will find a campground with sites for tents and small trailers, restrooms and running water. The ranger station provides information and exhibits. Several trails into the backcountry begin at Staircase and offer opportunities for day and overnight hiking. The Staircase Rapids Natural Trail starts at the bridge near the ranger station. Wheelchair users can view the Skokomish River from the bridge.

Naturalist Activities— There will be no nature programs offered this year at Staircase.

HOODSPORT JOINT USFS/NPS RANGER STATION

Ranger Station operated jointly by Olympic National Forest and Olympic National Park. It is located about one block off Hwy. 101 on Lake Cushman Road in Hoodsport. Information, maps and publications are available on weekdays 7:00 a.m. to 4:30 p.m. and on weekends 8:00 a.m. to 4:30 p.m.

PIONEER MEMORIAL MUSEUM

Main National Park visitor center located at 3002 Mt. Angeles Rd. on the south side of Port Angeles. Open daily from 8:00 a.m. to 6:00 p.m. Park staff available to answer questions about campgrounds, trail conditions, and scenic attractions. Maps, books and publications on Olympic National Park for sale. Orientation slide program. Accessible restrooms. Picnic area and nature trail. Exhibits. Visitor center wheelchair accessible. Phone Number: (206) 452-4501, extension 230. Tune to 1610 AM for information.

HEART O' THE HILLS

Heart O' the Hills is located five miles above the Pioneer Memorial Museum Visitor Center on the Hurricane Ridge Road. The campground there has tent and trailer sites, restrooms, running water and an amphitheater. Lake Creek Nature Trail begins from Loop E of the campground.

Site A-19 is accessible to wheelchairs, as are the restrooms in A loop. Assistance may be needed in reaching the amphitheater.

Pay phones are located next to the entrance station.

Campfire Programs—9:00 p.m. nightly June 30 through August 4; 8:30 p.m. nightly August 5 through September 2. Meet at the Heart O' the Hills campground amphitheater. Topics vary; check at visitor centers or bulletin boards.

HURRICANE RIDGE

The 17-mile road from Port Angeles to Hurricane Ridge brings you from sea level to the subalpine meadows of the Olympic high country in about 40 minutes. At an elevation of 5230 feet, Hurricane Ridge (on a clear day!) offers sweeping views of Mount Olympus and much of the park's rugged interior to the south, as well as panoramas of the Strait of Juan de Fuca and British Columbia to the north.

For wheelchair users: accessible restrooms, naturalist programs, exhibits, picnic and viewing areas, cafeteria and gift shop are available at the Hurricane Ridge Lodge. Paved trails lead you through subalpine meadows; wheelchair assistance may be needed on these trails.

10:00 a.m.-5:00 p.m. daily: Information desk and exhibit area are open inside the lodge. An orientation slide program is shown on the hour and half hour.

10:30 a.m. Subalpine Secrets— (and much more!) will be revealed during this 20-minute talk by a Ranger Naturalist. Topics vary; check bulletin boards or ask a ranger.

2:00 p.m. Meadow Exploration— Discover one of the harshest yet most delicate environments in the park on this one-hour Ranger Naturalist-led walk through the subalpine meadows and forest of Hurricane Ridge.

4:00 p.m. Subalpine Secrets— See above.

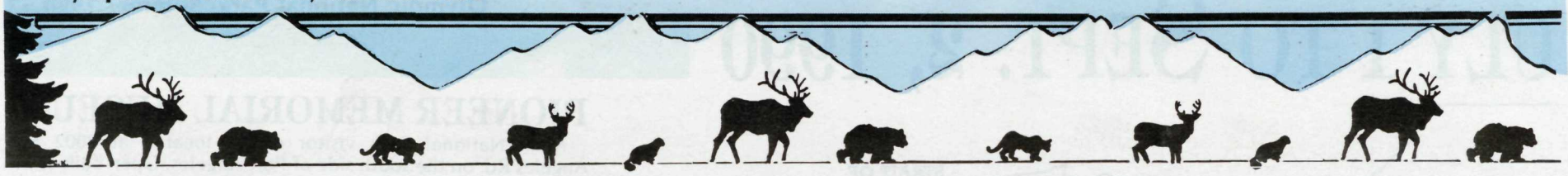
Help protect the fragile beauty of subalpine meadows by walking only on paved trails at the Ridge.

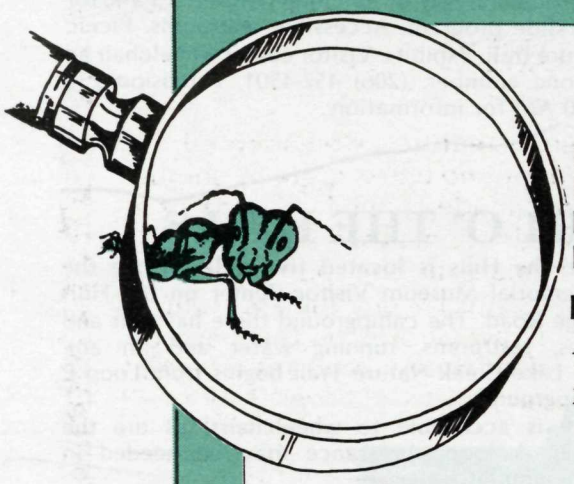
For your safety and the animals' health, do not feed any wildlife in the park. Wild animals can bite and often carry disease. Feeding them produces unnatural behavior and harmful changes to the ecosystem.

Pets are not allowed on park trails and must be kept on leashes in parking areas.

Ranger Naturalists walk the ridge trails throughout the day and are ready to lend assistance and answer questions.

In addition to the programs listed here, please check local bulletin boards for schedule changes and additional programs.





BE A JUNIOR RANGER

How would YOU like to become a Junior Ranger this summer? Junior Rangers learn about the park and the plants and animals that live there. They also learn how to be safe and careful visitors to the park. And most of all, Junior Rangers have FUN!

FOLLOW THESE STEPS TO BE JUNIOR RANGER.

1. Complete the activities on these two pages.
2. Collect a bag of litter and bring it to a ranger.

_____

(Ranger's signature)

3. Go for a walk on one of the park nature trails with an adult. Be a careful observer of plants and animals along the way.
4. Attend a ranger-led walk, talk or campfire program. Be sure to get the ranger's signature at the end of the activity.

_____

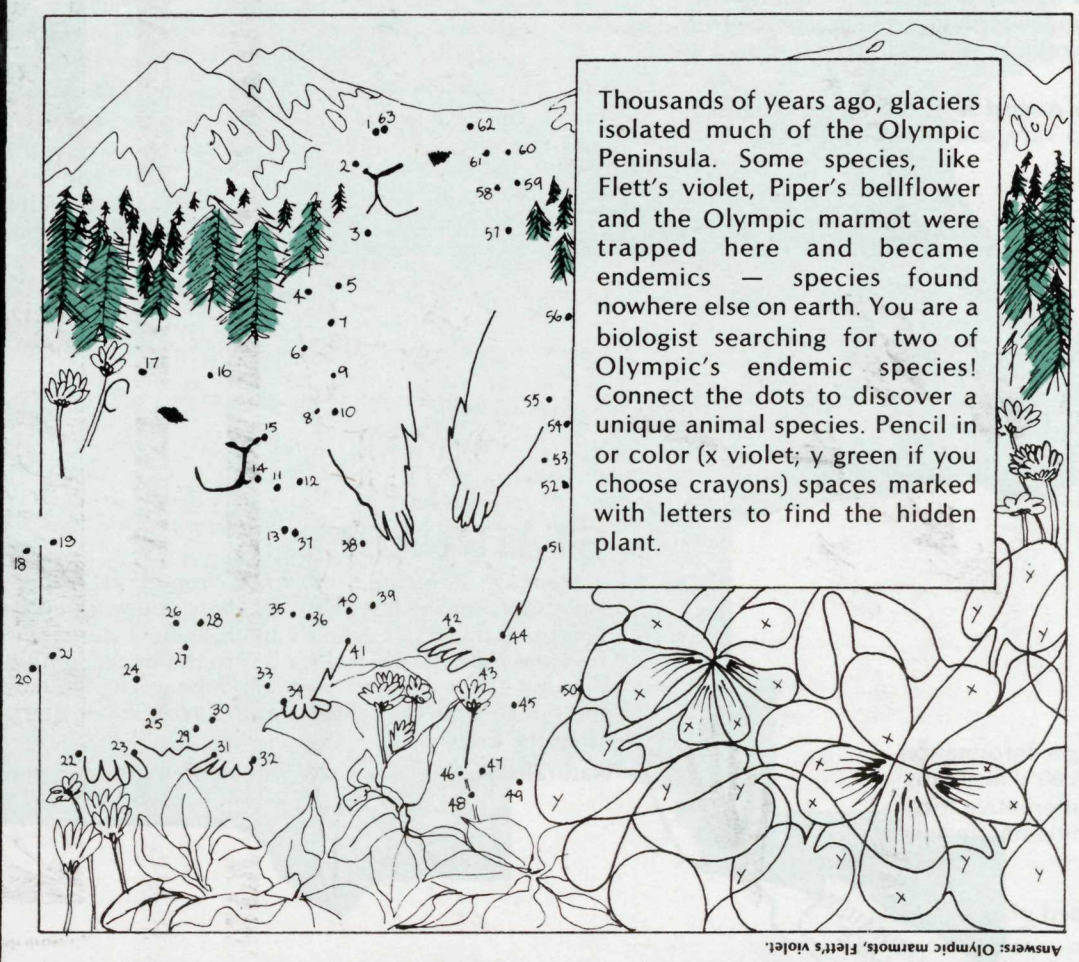
(Ranger's signature)

HAVE YOU COMPLETED ALL THE STEPS? CONGRATULATIONS! YOU'RE READY TO BE A JUNIOR RANGER! NOW BRING THIS SHEET WITH YOUR COMPLETED ACTIVITIES TO A RANGER TO GET YOUR JUNIOR RANGER BADGE.

NATURE MAP

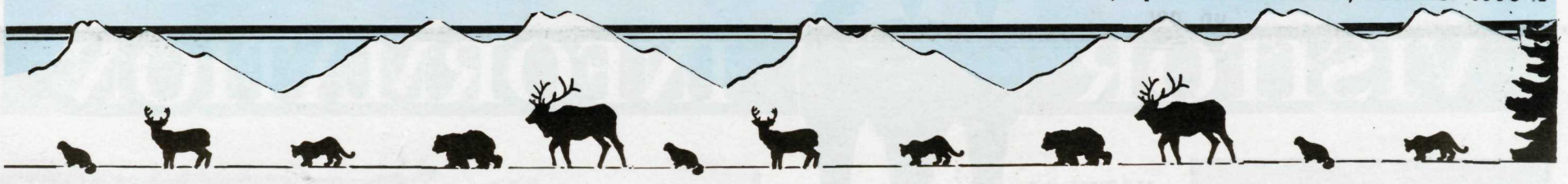
Pirates use treasure maps to locate lost riches. Junior Rangers draw nature maps that lead to special places in Olympic National Park. With an adult, look around your campsite, a nature trail or other park area, then draw a nature map with at least five stops. The last stop is the discovery you like best. Assist your friends or relatives as they follow your map. When you arrive at the last stop, tell at least three interesting things about your favorite discovery!

SPECIAL SPECIES



Thousands of years ago, glaciers isolated much of the Olympic Peninsula. Some species, like Flett's violet, Piper's bellflower and the Olympic marmot were trapped here and became endemics — species found nowhere else on earth. You are a biologist searching for two of Olympic's endemic species! Connect the dots to discover a unique animal species. Pencil in or color (x violet; y green if you choose crayons) spaces marked with letters to find the hidden plant.

Answers: Olympic marmots, Flett's violet.



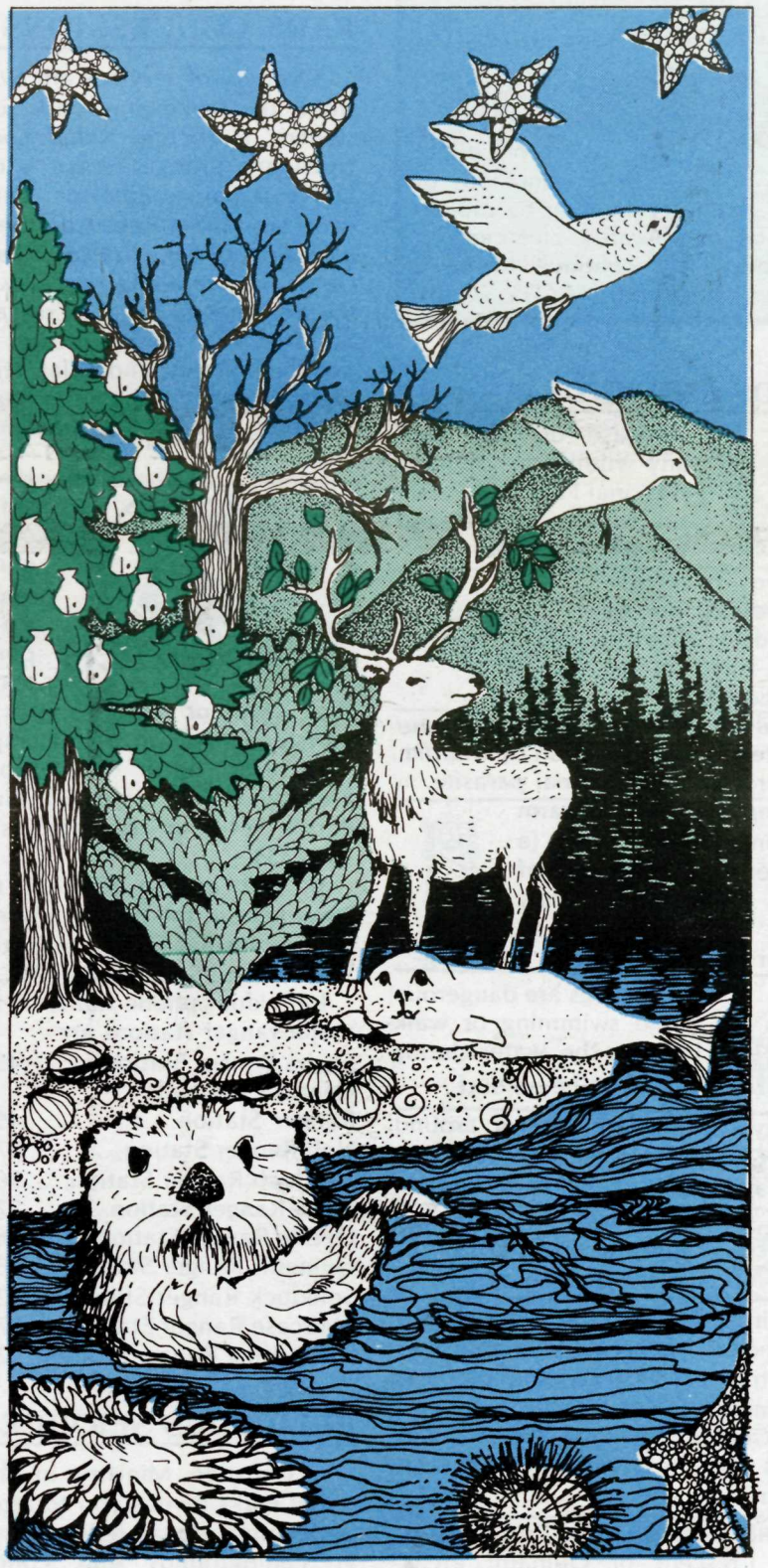
LET'S MEET SOME FEET

Feet are adapted to deal with unique survival situations. Ducks have webbed feet for swimming toward food and away from danger. Bears have long, sharp claws to help them find bugs, larvae and sap in tree trunks, catch salmon and other fish in rivers, and protect them from predators. Deer, elk and other ungulates have hooves that allow them to quickly escape from predators, or strike a swift blow if carnivores get too close. Try to match each set of animal tracks with the proper animal. Look for animal tracks and other clues during your visit to the park, and in your own backyard!

Answers: 1c, 2d, 3e, 4b, 5a, 6g, 7f.

GOOFUS B'DUFUS

The world is full of diverse creatures, well-adapted for survival and competition. But no one is quite as unique as Goofus B'Dufus, who is made of the best parts of a lot of things! His wild imagination allows him to see interesting plants and animals in the park. Identify what's wrong with this picture by circling six strange things that Goofus sees. Draw Goofus on this page or another piece of paper. What funny creatures can you imagine while hiking in the park?



Answers: starfish in sky, flying fish, upside down tree, elk with tree-branch antlers, fish growing on tree, seal with fish tail.

VISITOR INFORMATION

MOUNTAIN GOAT NEWS

Non-native mountain goats are significantly impacting park native plant sub-alpine communities and soils. The park began experimental control efforts in 1981, but in 1983 goats still numbered over 1,000.

In 1988, after extensive research and public review, park managers began a three-year program to capture and translocate goats to native ranges, in cooperation with state wildlife agencies. The plan is to make the interior of the park goat-free and to control goat numbers along the eastern park boundary.

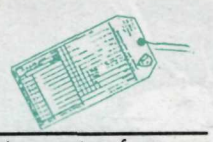
In 1988 and 1989, 147 goats were removed from the park. Goat capture operations will resume this June and July. In 1991, the population will be censured and the program evaluated. Where safety and

cost-benefits dictate a more direct method of goat removal, shooting by rangers will be incorporated. Live capture, however, will continue to be a preferred method.

ODDS AND ENDS

✔Please do not feed any wildlife in Olympic National Park. It is harmful to the animal and hazardous to you.

✔Free backcountry permits are required for all overnight travel in the backcountry.



✔Boil all backcountry water for one minute to avoid infection by *Giardia*, a microscopic intestional parasite.

✔Bring rain gear and warm clothing! Hypothermia (a dangerous lowering of body temperature) may result from exposure to wet or chilly weather.

✔Drift logs are dangerous! Avoid swimming or walking near the water during storms or heavy surf.

✔Bicyclists beware! Travel around Lake Crescent can be hazardous due to heavy traffic on the narrow road.

✔Please! Pets are not allowed on park trails or in the backcountry.

✔Main park visitor-use areas charge a $3 fee for 7 consecutive days use at all entrances. A $10 annual park pass, $25 annual Golden Eagle Pass and free Golden Age Pass (age 62 and older) are available at entrance stations.

✔While traveling in the Port Angeles, Lake Crescent or Quinault areas, tune your radio to 1610 AM for park information.

NATURAL HISTORY ASSOCIATION

This newspaper is presented to you with the compliments of the Pacific Northwest National Parks and Forests Association, a non-profit organization which supports the informational and educational programs of Olympic National Park.

Many of the interpretive services you enjoy at this and other national parks are benefited by the assistance of cooperating associations. Through the sale of books and other materials, associations are able to make donations directly to the parks' interpretive programs.

PARK CONCESSIONS

A variety of services are available from the following park concessioners: Hurricane Ridge Lodge at Hurricane Ridge; Lake Crescent Lodge at Barnes Point on Lake Crescent; Log Cabin Resort on the northeast shore of Lake Crescent; Fairholm General Store along Highway 101 at the western end of Lake Crescent; the Sol Duc Hot Springs Resort in the Soleduck Valley; and Kalaloch Lodge along Highway 101 on the coast.

Help us with your eyes and ears. Do your part and report vandalism, fires, crime or safety hazards to any park ranger station or park employee.

If you need to report an EMERGENCY, Olympic National Park's 24-hour number is (206) 452-2333.

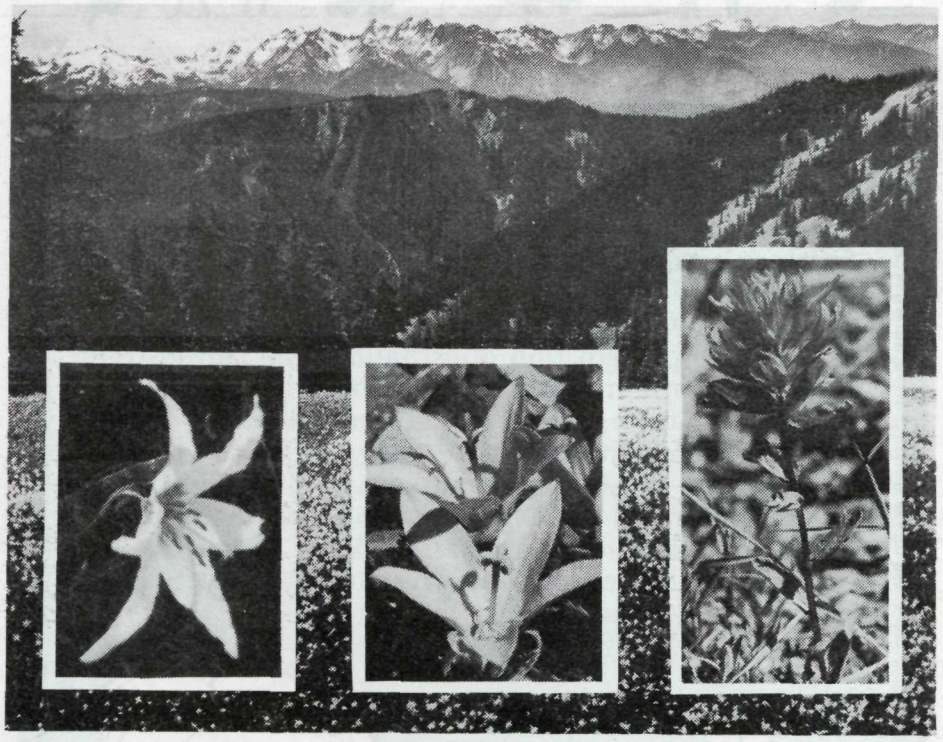
If you are in Clallam County (anywhere in the northern portion of the peninsula from Forks to Port Angeles and Sequim) dial 911.

Individual phone numbers for the major ranger stations are:

Elwha Ranger Station.....452-9191
Heart O'The Hills
Ranger Station.....452-2713
Hoh Ranger Station.....374-6925
Kalaloch Ranger Station.....962-2283
Mora Ranger Station.....374-5460
Ozette Ranger Station.....963-2725
Quinault Ranger Station.....288-2444
Soleduck Ranger Station.....327-3534
Staircase Ranger Station.....877-5569
Storm King Ranger Station...928-3380

RELIGIOUS SERVICES

A Christian Ministry in the National Parks invites you to attend interdenominational religious services at campgrounds and concession facilities. Check bulletin boards for times and locations.



OLYMPIC PARK INSTITUTE

The Olympic Park Institute offers adults and children the opportunity to study cultural and natural history of the Pacific Northwest. Participants stay at historic Rosemary Inn on the shores of Lake Crescent, while attending courses in the park. For more information contact Olympic Park Institute, HC62 Box 9T, Port Angeles, WA. 98362. (206) 928-3720.

How Many Miles To...

Elwha											
23	Fairholm										
18	31	Heart O'The Hills									
79	57	96	Hoh Rain Forest								
30	43	12	108	Hurricane Ridge							
81	59	100	40	112	Kalaloch						
16	7	26	65	38	67	Lake Crescent					
60	36	75	47	87	49	44	Mora				
11	26	5	91	17	95	21	70	Port Angeles			
85	100	77	156	89	160	93	137	72	Seattle (by ferry)		
39	16	45	72	57	72	16	49	40	114	Soleduck	
111	126	105	191	117	195	121	170	100	110	140	Staircase

Olympic National Park contains approximately 900,000 acres and a wide variety of environments. Visiting a park with such size and diversity can require substantial driving. This mileage chart lists travel distances to some of the more frequently-visited areas. It takes at least two days to sample the major sights of Olympic National Park. Some highlights are: Hurricane Ridge with spectacular mountain views, temperate rain forest at either the Hoh or Quinault, and coastal beaches at Mora or Kalaloch. To provide assistance, information centers are located in Port Angeles, Forks, the Hoh Rain Forest, the Quinault Rain Forest and at Lake Crescent.

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