



JULY 1-SEPT. 3, 1989

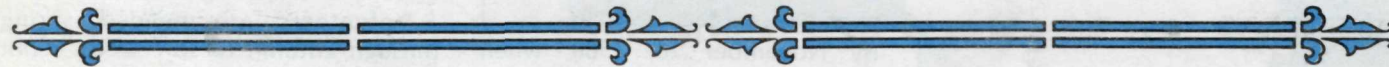
NATURALIST ACTIVITIES

INFORMATION

CHILDREN'S SECTION

TO PRESERVE...

By Susan Schultz, Park Historian



"...to conserve the scenery and the natural and historic objects and the wildlife..."

When Captain George Vancouver explored and charted the waters surrounding the Olympic Peninsula for Britain, nearly two hundred years ago, he noted the slopes of the peninsula rising from the beaches, "entirely covered with trees . . . until the forest reached a range of high craggy mountains, which seemed to arise from the woodland country in a very abrupt manner . . . their summits covered with snow."

Almost one hundred years later Washington's Territorial Governor Eugene Semple remarked that the Olympic Mountains remained unexplored and unknown, "as though nature had designed to shut up this spot for her safe retreat forever." In December 1889 the Press sponsored one of the first and certainly the best publicized expedition into the Olympic Mountains. The Press Expedition entered the Elwha Valley during one of the snowiest winters in the peninsula's history and emerged thin and dishevelled from the Quinault Valley almost six months later (see related article page 2).

A few months later, July through September 1890, Army Lt. Joseph P. O'Neil led a group of enlisted men, three scientists from the Oregon Alpine Club, and a pack train of eleven mules on an east-to-west reconnaissance across the peninsula from Hood Canal to the Pacific. O'Neil recommended that the interior of the Olympic Peninsula would "serve admirably for a national park.

There are numerous elk — that noble animal so fast disappearing from this country that should be protected."

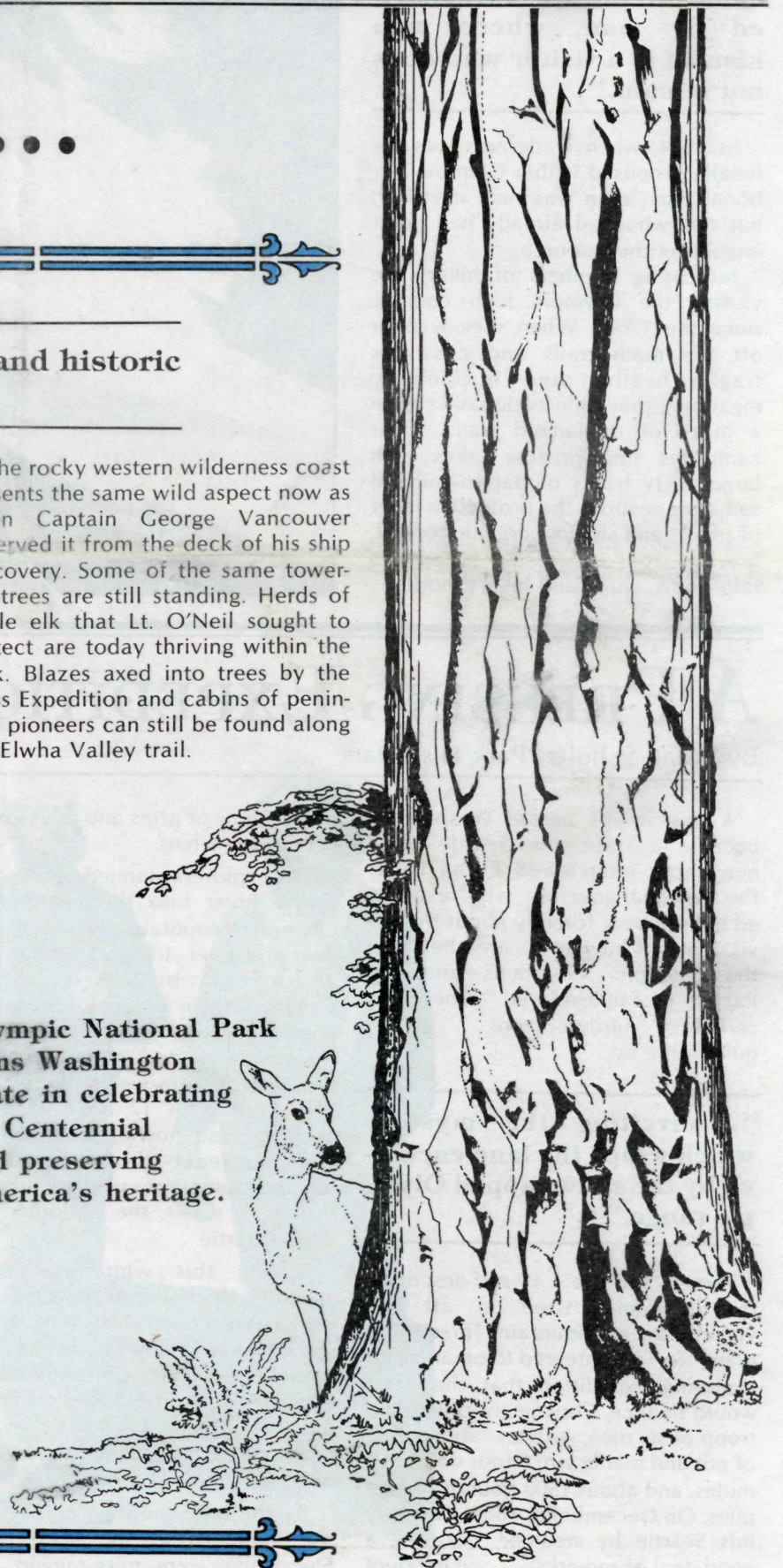
In 1897 most of the forested land on the peninsula was included in the Olympic Forest Reserve (later Olympic National Forest). During the early 1900s Washington State Congressmen introduced various bills to establish a national park or an elk reserve on the Olympic Peninsula, but none was successful. Then in 1909 President Theodore Roosevelt, for whom the Roosevelt elk was named, issued a proclamation establishing Mount Olympus National Monument, within the national forest, to protect the summer range and breeding grounds of the Roosevelt elk. On June 29, 1938, President Franklin D. Roosevelt signed the legislation establishing Olympic National Park.

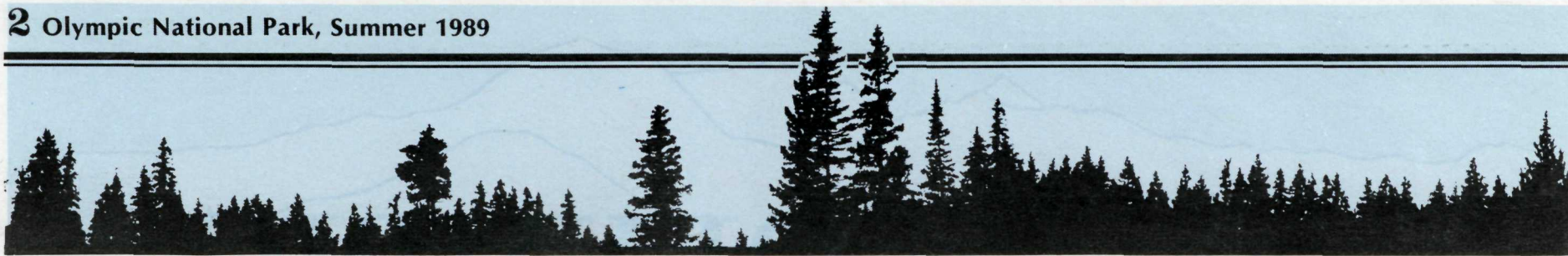
The fundamental purpose of a national park is "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." — from 1916 act establishing the National Park Service.

Parks attempt to allow ecological relationships to persist within their boundaries as nearly as possible to the conditions that prevailed when an area was first visited by people from western cultures. A wilderness park such as Olympic thus represents "a vignette of primitive America."

The rocky western wilderness coast presents the same wild aspect now as when Captain George Vancouver observed it from the deck of his ship Discovery. Some of the same towering trees are still standing. Herds of noble elk that Lt. O'Neil sought to protect are today thriving within the park. Blazes axed into trees by the Press Expedition and cabins of peninsula pioneers can still be found along the Elwha Valley trail.

Olympic National Park joins Washington State in celebrating its Centennial and preserving America's heritage.





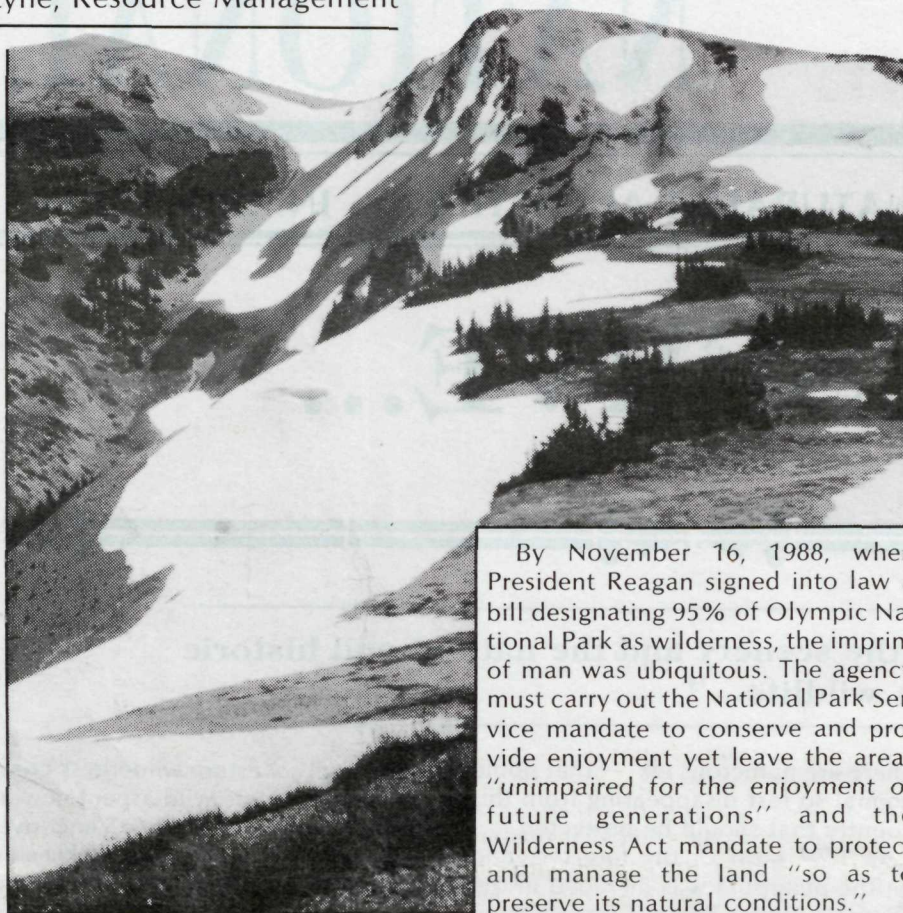
WHERE MAN IS A VISITOR

By Ruth Scott and Martha Dearstyne, Resource Management

"A wilderness," Congress stated 25 years ago, "is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."

In 1974, when wilderness was officially proposed within Olympic National Park, man was only a visitor, but one who had already had great impact on the resource.

Increasing numbers of hikers are visiting the Olympic high country since the 1960s. When they wander off the main trails and crisscross fragile heather and huckleberry meadows, they unintentionally create a maze of unplanned trails. Their campsites ring pristine lakes with large dusty tracts of barren mineral soil. This destroys the protective layer of plants and shallow organic topsoil, leaving areas vulnerable to erosive rain, snow, wind, and hikers' boots.



By November 16, 1988, when President Reagan signed into law a bill designating 95% of Olympic National Park as wilderness, the imprint of man was ubiquitous. The agency must carry out the National Park Service mandate to conserve and provide enjoyment yet leave the areas "unimpaired for the enjoyment of future generations" and the Wilderness Act mandate to protect and manage the land "so as to preserve its natural conditions."

In the 1970s the park began to restore native plants and prevent further erosion of fragile subalpine areas. In 1988, monies collected from park entrance fees boosted these efforts into a long-term parkwide wilderness revegetation program to preserve and restore damaged areas.

The project brings together resource managers, rangers, trail crew members and volunteers. Individuals prepare transplanting sites by breaking up compacted soil and replacing lost soil components. They collect seeds and cuttings from areas targeted for recovery, and propagate them in the park's greenhouse. After a summer's growth, they transport starts to the recovery sites, plant and water them. Workers also sow seeds directly onto damaged areas.

Volunteers are needed spring through autumn to sow seeds, replot starts, prepare backcountry sites and transplant plant material. To offer assistance, please contact Ruth Scott, Natural Resource Specialist, Olympic National Park (206) 452-4501.

Olympic National Park's wilderness is a priceless heritage, set aside for our delight and our wise stewardship. We must continue to protect and restore the unique features that make this park worthy of national park and wilderness designation.

A PRESSING EXPEDITION — ONE HUNDRED YEARS AGO

By Susan Schultz, Park Historian

A few weeks before Washington became a state, the Seattle Press newspaper interviewed Elisha Ferry, the territorial governor, who "expressed himself very forcibly about the advisability of having the area between the Olympic Mountains and the Pacific Ocean explored." The Press called for "hardy citizens . . . to acquire fame by..."

"...unveiling the mystery which wraps the land encircled by the snow capped Olympic range."

James Christie, a self-described frontiersman, "tried in all the vicissitudes of mountain, forest, and plain life," volunteered to organize an exploring expedition that the Press would finance. Christie got together a troop of six men, with an "abundance of grit and manly vim," four dogs, two mules, and about 1500 pounds of supplies. On December 8, 1889, the party left Seattle by steamer, "causing a good deal of remarks . . . on account

of our show of arms and dogs" on our way to the wharf.

The explorers planned to follow the Elwha River into the heart of the Olympic Mountains. They camped near the river and cut timber for a 30-foot flat-bottomed boat to transport their supplies upriver. The boat, christened Gertie, was launched December 31, and immediately "she began to take in water like a thirsty fish." But after 12 days of poling, pushing, and towing the awkward craft upstream through rapids and logjams, sometimes wading chin-deep in the icy water, the explorers abandoned Gertie.

During this winter of record snowfall, three feet of snow fell in the Elwha Valley on February 4, with snowflakes "as large as an after-dinner coffee cup." Consequently, the explorers spent most of the first four months in the Elwha Valley, not reaching the high country until the end of April.

By the time the men climbed into the mountains at the head of the Elwha, they were quite ragged.

"Tougher looking tramps never bummed along the roadside than the once well-dressed Press Exploring Expedition..."

"A piece of blanket served for a stocking; of our boots there is little left but the soles. . . . So much the less to pack over the mountains. At this rate, if we reach Grays Harbor with our ammunition belts we will be doing well." They were also hungry. They hadn't seen any game since reaching the high country, and had been surviving on flour soup for a week because their dogs had stolen the last of the bacon.

Once across Low Divide, between the Elwha and Quinault watersheds, the group followed the Quinault River southwest. On May 18 they built a raft to float the remaining distance down the river. After traveling only a mile and a half, the raft was thrust by the rapid current into a pile of drift logs, throwing some of the party and their remaining gear into the water. Their

packs, equipment, and scientific specimens were lost. Fortunately, their journals, charts, and camera film were saved.

Finally on May 20, 1890, after nearly six months in the Olympic Wilderness, the Press Expedition reached the Pacific Ocean at the mouth of the Quinault. There was the first expedition to cross the Olympic Peninsula interior from north to south and keep records and maps of the area.

During their journey, the party named many geographical features now located within the park. These names — such as Mount Christie, the Baily Range (after the publisher of the Seattle Press), Press Valley, Geyser Valley (for low rumbling sounds of geysers, now thought to have been the drumming of ruffed grouse, as no geysers exist in the valley) — are still in use on this hundredth anniversary of the expedition. The Press Party's set of three blazes still mark a few trees along the Elwha Valley trail. The route the expedition blazed is today a hiking trail through Olympic National Park.

SEEING THE OLD GROWTH FOREST THROUGH THE TREES

By Scott Mills and Richard Fredrickson, Natural Science Studies

One hundred years have passed since Washington became a state, less than half the time needed for a forest to become old growth. Large live trees, large standing dead trees, multiple-layered canopies and large amounts of downed and decaying logs are unique old growth qualities which provide critical habitats for a rich variety of plants and animals.

Less than 20% of the old growth forest which was present in the Pacific Northwest when European settlers arrived remains today. Olympic National Park has some of the finest examples of this unique and biologically diverse ecosystem.

Special old growth forest characteristics begin on the forest floor. Their soils maintain over 200 invertebrate species per square foot, a richness exceeding that of clearcuts tenfold. These invertebrates assist microbial organisms in breaking down logs that provide cover, nesting materials, and food for forest reptiles, amphibians, and small mammals.

Rotting logs benefit trees as well. Most coniferous trees cannot absorb adequate nutrients from the soil without the assistance of fungi that live in their roots. These fungi are dispersed by voles and mice, which in turn depend on rotting logs for food and protection.

Downed logs benefit tree seedlings, where they are ten times more likely to germinate than on the forest floor. On the logs, seedlings receive more protection from leaf litter, animal grazing, snow and material moving downslope.

Large logs are vital to streams in old growth forests. They provide food, feeding platforms and refuges from predators for hundreds of species of aquatic invertebrates, which are a rich food source for fish. Logs and other woody debris also increase fish populations by providing cover, storing important sediments and nutrients, and stabilizing channels from the high stream flows which often jeopardize fish habitats in winter. A recent study of Olympic Peninsula rivers found that side channels with woody debris supported eight times more juvenile coho salmon than side channels without woody debris. When salmon die, woody debris traps the carcasses, providing food for invertebrates and for

the fish that eat these tiny animals.

Tree snags are standing equivalents of rotting logs, and are important to the richness of old growth forests. Snags are generally larger and more decayed in old growth, allowing easier excavation of cavities and contributing to the greater variety and number of birds wintering here than in younger forests.

Studies have found several bird species to be markedly more abundant in old growth forests, and some species to be dependent on them for survival. Chestnut-backed chickadees, red-breasted nuthatch, brown creepers, and red crossbills are all more common in old growth. Vaux's swifts and marbled murrelets most likely depend on old growth forests for life-giving food and shelter.

The northern spotted owl is the bird most commonly associated with old growth forests. Olympic Park has been involved in spotted owl inventory since 1985. In the last two years the focus has been on specific characteristics of old growth forest most important to spotted owls. The park is a unique study area with its diverse unharvested forests. Estimates on the amount of old growth within the park boundary range from 35% to 45% of the total acreage. Steep mountains, a strong precipitation gradient, and fires contribute to the variety of tree species, tree and snag size, canopy structure and log cover.

In 1988, researchers established transects along more than 70 miles of the park's trails and roads to sample owls and vegetation. At least 13 spotted owls responded to simulated calls. Early indications of this research suggest that the value of a multi-layered canopy for hunting prey and regulating body temperature, plus the value of large snags for nesting, roosting and as sources of flying squirrels (a preferred spotted owl prey), are old growth characteristics which may be of special importance to spotted owls in Olympic National Park.

Researchers believe that the park contains on the order of 40 to 50 spotted owl pairs. The density of this population is small compared to spotted owls in more southern old growth areas, and the park population is inadequate to ensure the long-term survival of the spotted owl on the Olympic Peninsula. Rather, the survival of



the spotted owl, as well as many other species, depends on the complex web of life in old growth forests. This wildlife will require the continued maintenance of old growth ecosystems both within and outside the park.

NATURALIST PROGRAMS - JULY 1 TO SEPT. 3, 1989

OZETTE

Eighty-seven miles west of Port Angeles. Ranger station, campground, information kiosk. Maps, brochures, and publications are available. 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 visitor activities.

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. Explore rocky tidepools and discover unusual life of the sea. Two hours. See Tidepool Walk schedule for times.

Campfire Program—Nightly July 1 through August 9 at 9:00 p.m.; August 10 through September 3 at 8:30 p.m.—Topics vary; see local bulletin boards.

DAILY SCHEDULE OF TIDEPOOL WALKS

Mora and Kalaloch
July 1-September 3, 1989

JULY			AUGUST		
Day	Time	Ft.	Day	Time	Ft.
SA	1 4:30p	2.7	TU	1 7:00a	-1.3
SU	2 7:00a	-1.7	WE	2 7:00a	-1.1
MO	3 7:00a	-1.8	TH	3 7:30a	-0.8
TU	4 7:00a	-1.7	FR	4 8:00a	-0.4
WE	5 7:30a	-1.3	SA	5 8:30a	0.1
TH	6 8:30a	-0.9	SU	6 9:30a	0.7
FR	7 9:00a	-0.4	MO	7 10:00a	1.3
SA	8 10:00a	0.3	TU	8 10:30a	2.0
SU	9 10:30a	0.8	WE	9 11:00a	2.6
MO	10 11:30a	1.5	TH	10 12:00p	3.2
TU	11 12:00p	2.2	FR	11 1:00p	3.5
WE	12 1:00p	2.7	SA	12 2:30p	3.6
TH	13 2:00p	3.1	SU	13 3:30p	3.4
FR	14 3:00p	3.3	MO	14 4:30p	3.0
SA	15 4:00p	3.3	TU	15 7:00a	-0.9
SU	16 4:30p	3.2	WE	16 7:00a	-1.2
MO	17 7:00a	-1.1	TH	17 7:00a	-1.3
TU	18 7:00a	-1.4	FR	18 7:30a	-1.1
WE	19 7:00a	-1.6	SA	19 8:00a	-0.7
TH	20 7:30a	-1.5	SU	20 8:30a	0.0
FR	21 8:00a	-1.3	MO	21 9:30a	0.8
SA	22 9:00a	-0.8	TU	22 10:00a	1.5
SU	23 10:00a	-0.1	WE	23 11:00a	2.3
MO	24 10:30a	0.8	TH	24 12:00p	2.9
TU	25 11:30a	1.5	FR	25 1:00p	3.3
WE	26 12:30p	2.3	SA	26 2:30p	3.3
TH	27 1:30p	2.8	SU	27 3:30p	2.9
FR	28 2:30p	3.0	MO	28 4:30p	2.5
SA	29 3:30p	2.9	TU	29 4:30p	1.9
SU	30 4:30p	2.7	WE	30 7:00a	-0.5
MO	31 7:00a	-1.2	TH	31 7:00a	-0.3

SEPTEMBER		
Day	Time	Ft.
FR	1 7:00a	0.0
SA	2 7:30a	0.4
SU	3 8:00a	0.9

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. 3.

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—Sand Sculptures—Attention seashore artists... express your feelings about Olympic National Park through creative sand sculpture. Don't let this opportunity slip through your fingers. See bulletin boards for time.

Sunday—Featured Activity—The topics and locations of this activity will vary. See bulletin boards for meeting time and place.

Nightly—Campfire Program—See bulletin board for topics and times.

For additional programs see bulletin boards.

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 and Hikes—Check local bulletin boards for program announcements.

Campfire Program—Nightly July through August 9 at 9:00 p.m.; August 10 through September 3 at 8:30 p.m. Meet at the Fairholm Campground Amphitheater. Topics vary; see local bulletin boards.

Log Cabin Resort Campfire Program—Tuesdays and Thursdays, July 1 through August 9 at 9:00 p.m.; August 11 through September 1 at 8:30 p.m. Meet at Log Cabin Resort Picnic Area. Topics vary; see local bulletin boards.

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 daily 8:30 a.m. to 5:00 p.m. Wheelchair accessible. Phone number (206) 374-6522.

FORKS

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, in addition to 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 9 at 9:00 p.m.; August 10 through September 3 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—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.

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 9 at 9:00 p.m.; August 10 through September 3 at 8:30 p.m.—Topics vary; see local bulletin boards.

QUINAULT

Located on the north shore road of Lake Quinalt, 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.

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.



MT. OLYMPUS

STAIRCASE

Staircase is located 100 miles from Port Angeles. Turn off Highway 101 near Hoodspout 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.

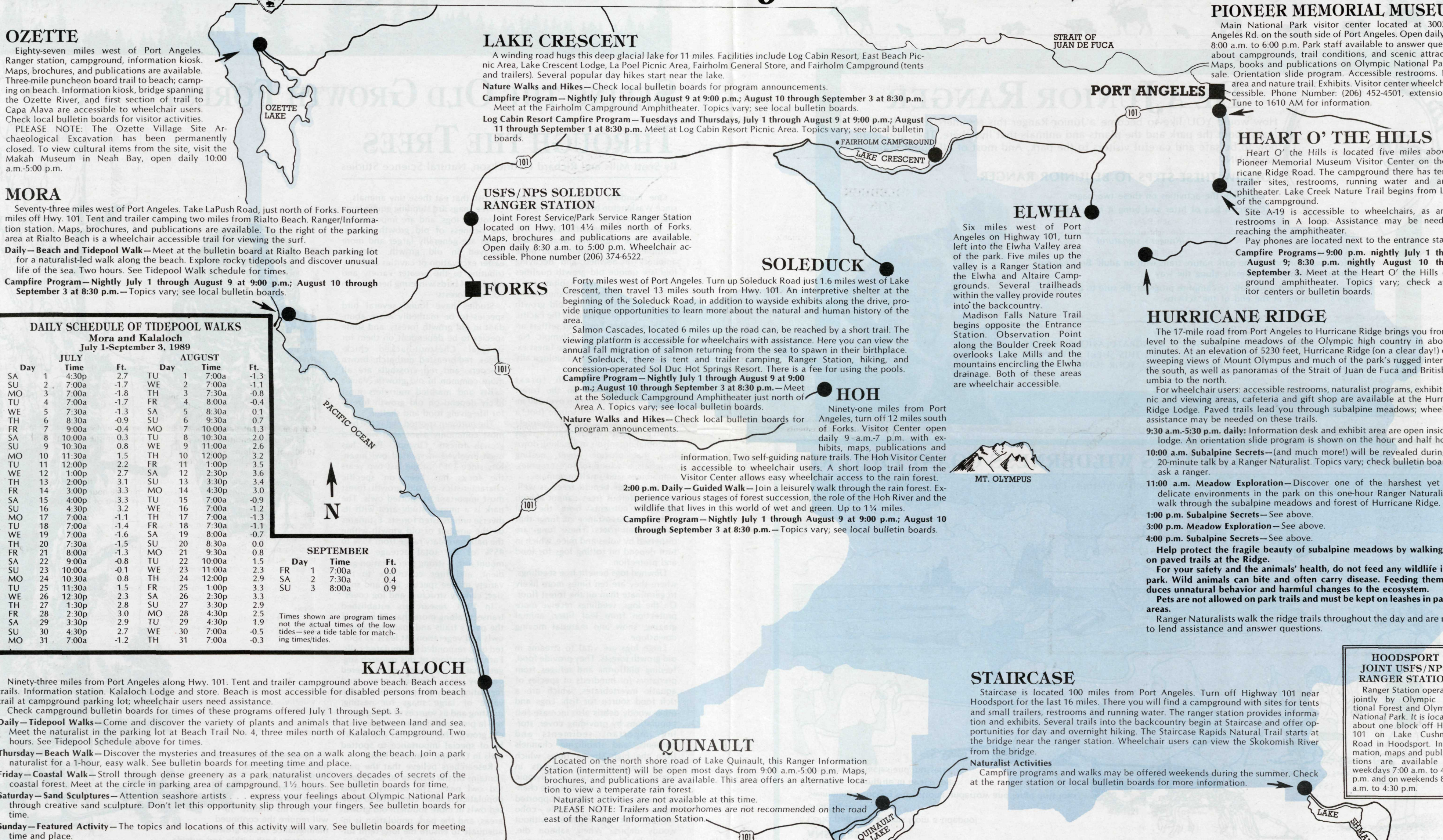
Naturalist Activities

Campfire programs and walks may be offered weekends during the summer. Check at the ranger station or local bulletin boards for more information.

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 Hoodspout. 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.

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



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 July 1 through August 9; 8:30 p.m. nightly August 10 through September 3. 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.

9:30 a.m.-5:30 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.

10:00 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.

11:00 a.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.

1:00 p.m. Subalpine Secrets—See above.

3:00 p.m. Meadow Exploration—See above.

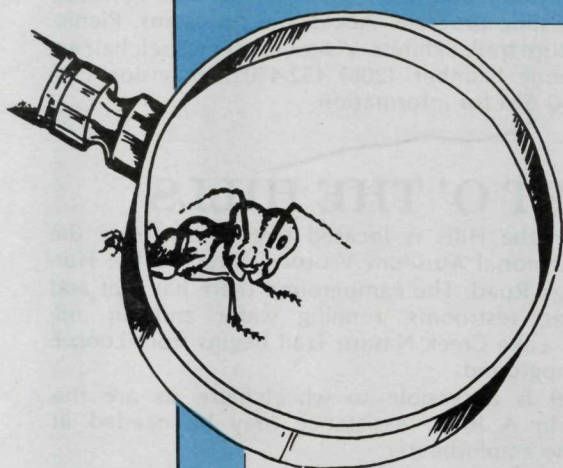
4:00 p.m. Subalpine Secrets—See above.

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.



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.

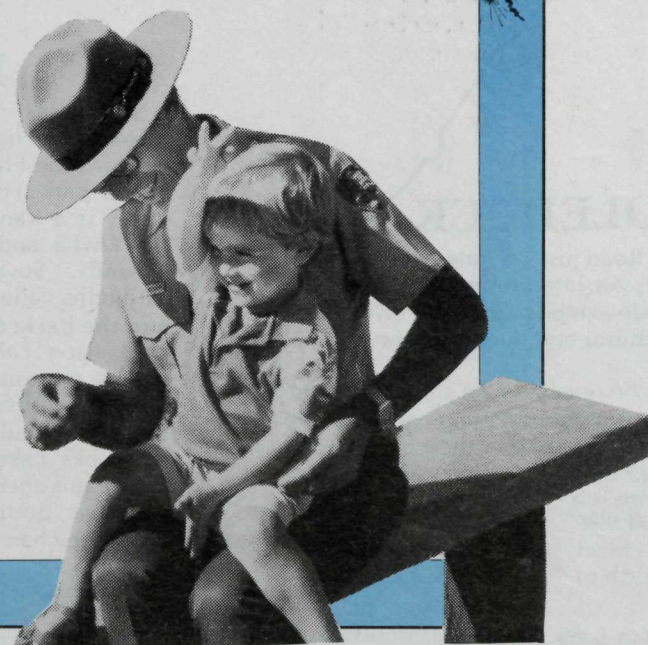
1. Complete the activities on these two pages.
2. Collect a bag of litter and bring it to a ranger.

(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.



WHAT'S WRONG WITH THIS WILDERNESS COAST PICTURE?

Circle the things that could do harm to you or to Olympic's wilderness coast.



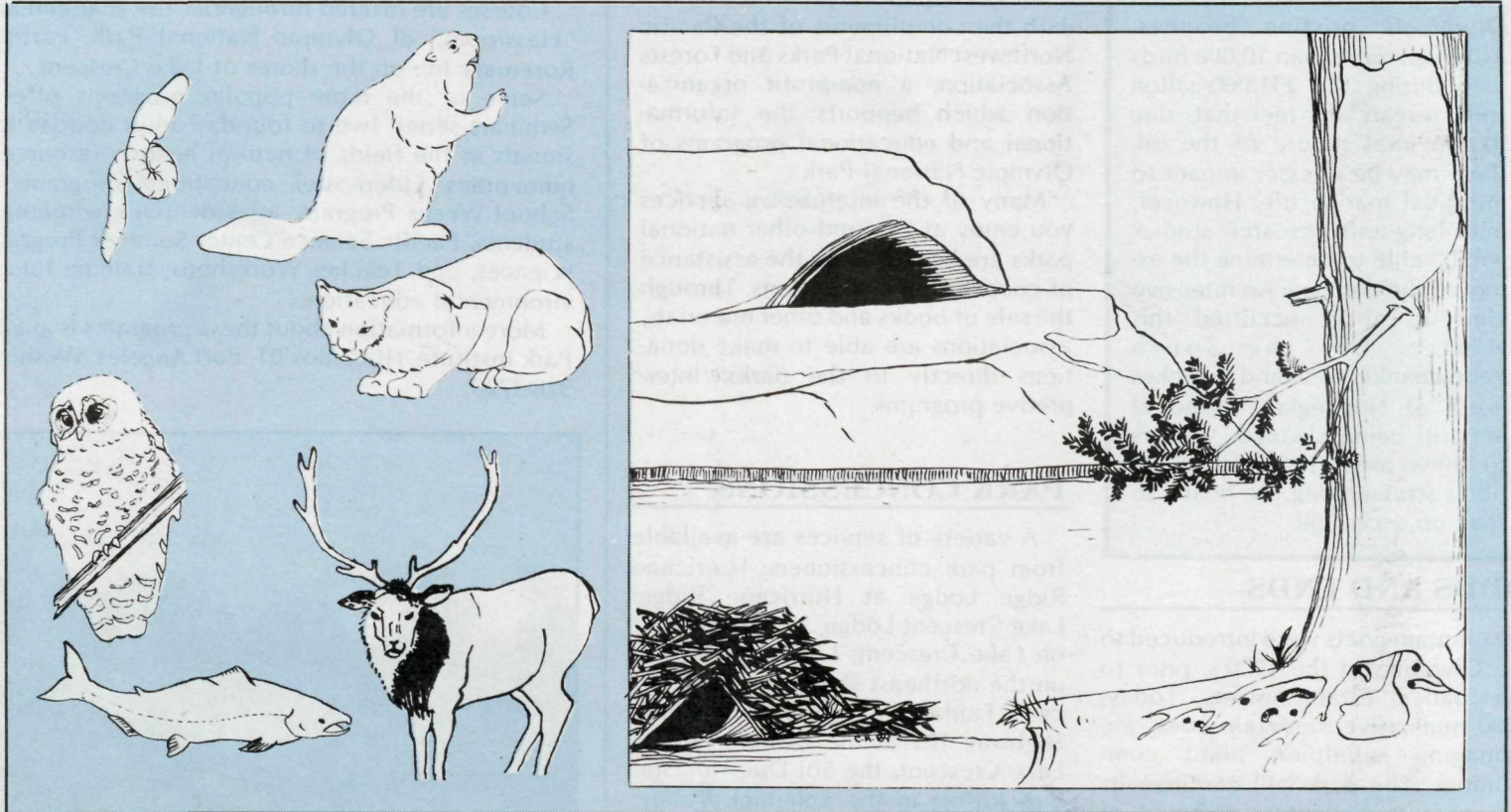
- Collecting tube worms from a tidepool.
- Slipping on rock tar.
- Swimming in ocean with strong undertow and large drift logs.
- Building a campfire in beach logs.
- Crushing barnacles and mussels.

ANSWERS:

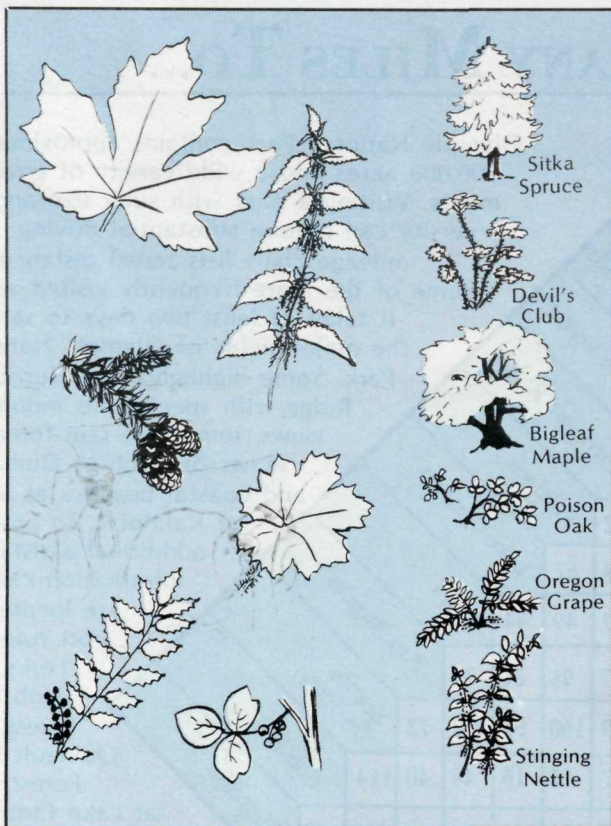


OLD GROWTH FOREST APARTMENT HOUSE

Animals live in all levels of the old growth forest, from deep within the soil to the tops of broken trees. Some creatures, like spotted owls, depend on this sheltering habitat for survival. Can you draw each animal in its proper home?



OLYMPIC'S BE-LEAF IT OR NOT!

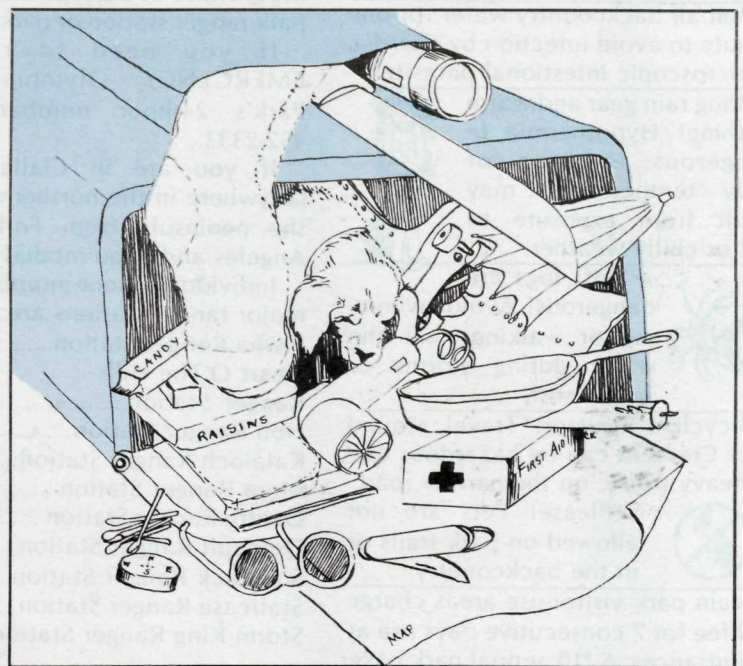


Leaves help us identify plants. They also tell a story of each plant's struggle for survival. Bigleaf maple's large leaves have lots of surface area where they collect sunshine to produce food. Spines on devil's club and stinging hairs on nettle keep people and animals away. Sharp needles of Sitka spruce and pointed leaves of Oregon grape spell OUCH! Poison oak gives a rash to most people who touch it.

Draw a line between each leaf and its plant.

BACKCOUNTRY SAFETY

Hiking can bring many unexpected challenges. To protect yourself remember to bring the "ten essentials" on every day and overnight hike. Circle the ten items that could mean SURVIVAL.



- Matches
- Flashlight
- Extra food
- Extra clothing
- ANSWERS:
- Fire starter/candle
- Knife
- Sunglasses
- First aid kit
- Compass
- Map of area

Please remember that dogs are not allowed on park trails!

VISITOR



INFORMATION

OIL SPILL UPDATE

On December 30 and 31, 1988, bunker oil from a barge accident off the coast of Washington washed ashore on Olympic's pristine beaches. Although more than 10,000 birds died during the 231,000-gallon spill, researchers feel that, due to the inert nature of the oil, there may be a lesser impact to intertidal marine life. However, only long-term research studies will be able to determine the extent of the damage. An intensive clean-up effort occurred this winter, but the South Yellowbanks area and beaches north of Norwegian Memorial are still being cleaned. Visitors to these areas may find pom-poms strung along the beach to soak up excess oil.

ODDS AND ENDS

Mountain goats were introduced to the Olympics in the 1920's, prior to the park's establishment. Today, 1000 non-native mountain goats are damaging subalpine plant communities. The park will continue its live capture helicopter removal of goats this summer.

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 intestinal 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 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.

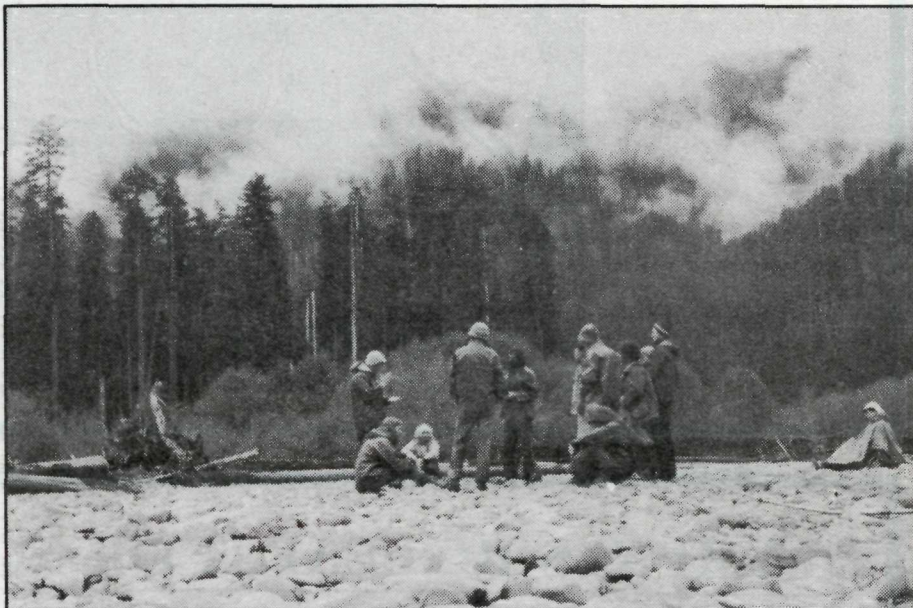
OLYMPIC PARK INSTITUTE

The Olympic Park Institute, a campus of the nationally recognized Yosemite National Institutes, offers adults and children an exciting opportunity to study the cultural and natural history of the Pacific Northwest.

Courses are offered throughout the year and are conducted in the outdoor "classroom" of Olympic National Park. Participants stay at the historic Rosemary Inn on the shores of Lake Crescent.

Some of the more popular programs offered are the Olympic Field Seminars series, two to four-day adult courses taught by recognized professionals in the fields of natural history, resource management, the arts and humanities; Elderhostel, educational programs for students 55 and older; School Weeks Program, a residential environmental education program for students; Pacific Science Center Summer Program, for students interested in sciences; and Teacher Workshops, training for teachers in the realm of environmental education.

More information about these programs is available by contacting Olympic Park Institute, HC62 Box 9T, Port Angeles, Washington 98362. Telephone (206) 928-3720.



HOW MANY MILES TO...

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

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 additional assistance, information centers are located in Port Angeles, Forks, the Hoh Rain Forest, the Quinault Rain Forest, and at Lake Crescent.

The Olympic National Park

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