

Olympic National Park

Olympic is a gift of the sea. Clouds born on the moist sea winds, rain and snow wrung from the clouds by the heights, and glaciers and rivers returning seaward mold this park's magnificent shoreline, nurture the Pacific Northwest rain forest, mantle rugged peaks in snow, and sculpt the slopes from the high peaks to the valleys.

This cycle, so compacted in space that it is easily seen from favored viewpoints, recalls the ancient wisdom of Ecclesiastes:

All the rivers run into the sea; yet the sea is not full; unto the place from whence the rivers come, thither they return again.

But if Olympic is a place given to understanding, it is also a lavish presentation of natural beauty. Olympic, in a word, is inclusive; it offers much to all.

MOUNTAIN BUILDING: the power of crustal contact

For those who would understand the natural aspect in terms of its geology, Olympic is a classic example of an area at the cutting edge of continental drift. In the past 70 million years—a mere moment in earth time—these mountains have been squeezed upward along a contact zone between two giant crustal plates. From the west, the Juan de Fuca oceanic plate advances at a rate of no more than 5 centimeters (two inches) per year. Molten rock, oozing up from the ocean bottom 418 kilometers (260 miles) west, pushes the crustal segment with inexorable force. At the Olympic Peninsula the moving crust meets the North American continental plate. Ponderously, relentlessly, the eastward-moving crust slides beneath the continent, its top layers separating and piling upward to form the Olympic Range. These top layers, composed primarily of oceanic sediments, are the building material for the Olympics. Because of the great temperatures and pressures involved in earth movements, some rocks in the layers have been changed into forms so different from their original appearance that only geologists can recognize them.

Volcanism played a role in the creation of the Olympics too, but here lava welled up through fissures, not from great volcanic cones. Much of the volcanic rock is found along the eastern edge of the park. In most places, emerging lava cooled beneath ancient seas, often forming rounded, pillow-shaped outcroppings now seen on exposed slopes. Where the lava flows were especially thick, they have eroded into jagged peaks like The Needles.

Today's Olympics are geologically new mountains. The peaks are sharp and forceful. Only the elements challenge their supremacy, in the process creating a battle between erosion and upthrust that ebbs and flows continually. For the moment the mountains are master, having been so recently formed and so little changed. Their height molds the elements, creating the very weather that seeks to subdue them.

WATER: the life of a raindrop

The wind, sweeping eastward across Pacific swells, feeds freely on moisture rising from the warm sea. When finally it reaches the coast, the air sweeps up the cold mountain barriers. Ascending the slopes, the wind cools and is wrung dry in response to natural laws dictating that cool air can hold less moisture than warm air. Valleys east of the mountains receive little moisture. The situation is so extreme that the wettest spot in the continental United States, Mount Olympus, with about 5 meters (200 inches) of precipitation per year, lies only 84 kilometers (40 miles) west of the driest coastal region north of southern California—Sequim (pronounced "Squim"), Washington, with an annual rainfall of less than half a meter (17 inches).

At any time of the year, rains may last for days. Particularly is this true from October through March, when over three-fourths of Olympic's precipitation falls. Temperatures near sea level remain mild, usually reaching only the low 20s C (70s F) in summer and remain between 0 and 10 degrees C (40s F) during the winter.

... the passage of a raindrop

High on the battlements of Mount Olympus, where the snowfall is most prodigious, a fresh torrent of ice-water gushes from beneath Blue Glacier. Similarly, meltwater is making its way from beneath nearly 80 other glaciers. The meltwaters meet and then meet again, building quickly into rushing rivers. At treeline, forests appear, at first keeping their distance, but soon crowding the riverbanks. The rivers drop steadily until finally the slopes level somewhat and the water slows and warms enough to support fish. If the rivers are those flowing to the Pacific, they are spawning grounds of steelhead, cutthroat, and salmon. At an elevation of 300 meters (1000 feet), the westward-flowing rivers enter the rain forest. The vegetation presses in with unparalleled vigor until the rivers flow within canyons of green. Finally, in less than 80 kilometers (50 miles), the ocean looms ahead. The water slows and enters the sea.

In exceptional instances, water flowing off the Olympic Range pauses in glacial lakes. High in the mountains, where glaciers have scooped bowl-shaped depressions, small lakes called tarns are found. In the river valleys below, where receding glaciers long-ago created natural dams of debris, long narrow lakes fill the valleys.

Whether flowing seaward or pausing in lakes, water is the delight of Olympic visitors. In its multitude of variations from sparkling streams to heavy surf, it calls forth the mood of the moment. There is music in a mountain stream that is quite unlike that of surf, yet both become a part of those who hear them, and for those who listen best the music is endless.

... the power of a raindrop

Multiply the gouging power, the dissolving capacity, and the life-giving qualities in a single raindrop by all the raindrops that drench the Olympic Peninsula in an eon, and then imagine those raindrops as snow, ice, sleet, hail, rime, frost, and fog, and you may begin to comprehend what precipitation has done to the Olympics.

As glacial ice, water has been especially active. The Strait of Juan de Fuca is the legacy of a giant continental glacier which pushed down the Puget Sound region. On a lesser scale, alpine glaciers carved many U-shaped valleys in the Olympic Mountains. Sometimes, too, these alpine glaciers left valleys as they melted. When this happened, lakes were created, among them Lakes Quinault and Cushman. Today, small remnant-glaciers continue to wear away at the high country in the Olympics. Perpetuating them is the greatest amount of snowfall in the contiguous 48 states—at least 12 meters (40 feet) per year.

Now picture the power of water in its other forms. Or better yet, hear the power of water. Listen to the thud of Pacific surf as it wears away the coastline; pause a moment for the sound of rapids in a river valley, or for the constant faroff roar of a thousand waterfalls in the high mountains. And most of all, listen to the rain, the ever-present rain on the leaves. The sounds are there, always just beyond your footsteps, your voice, or automobile engine. These watersounds are eternal; the rest is ephemeral.

LIFE: the promise of something different

Botanists have long delighted in pointing out that Olympic has one of the world's few temperate rain forests. Because of this, a visit to these forests, located chiefly in the westward sloping valleys of the Quinault, Queets, Hoh, and Bogachiel Rivers, will be quite instructive. Those who would find inspiration will also profit by such a visit. The rain forest is often compared to a cathedral—the high arching branches, and soft light being suggestive of that comparison.

The rain forest environment is most conveniently seen at the Hoh Rain Forest Visitor Center. Here the great stands of western hemlock, Sitka spruce, western redcedar, bigleaf maple, and other species are at their best. Overhanging branches are draped with air-loving clubmoss and lichens. Even twigs are green. Everything, in fact, looks green—including the air.

Not unique, but worthy in its own right, is the temperate forest which shares the lowlands with the rain forest. The tree species are the same—only the extreme lushness is lacking. In fact, the forest is less inviting only in comparison. Without the rain forest it would be a genuine attraction in itself.

Proceeding upslope, one soon encounters a mountain forest of Pacific silver fir, western white pine, Douglas-fir, and western hemlock. Growth is less than luxuriant now. Cooler temperatures and less precipitation have forced a transition in tree species and understory plants. This mountain forest, which becomes evident at 600 meters (2,000 feet), is gradually replaced by subalpine forest at about 1,000 meters (3,500 feet). The subalpine forest is parkland in the truest sense of the word. Groves of firs interspersed with wildflower-carpeted meadowlands compelled early visitors to the mountainous West to name these areas "parks." The word remains and seems entirely appropriate.

Above 1,500 meters (about 5,000 feet), the climate becomes intolerable for even the hardy firs. Just beyond the last struggling wind-smashed trees is the alpine zone. The plant life on this tundra environment is highly adapted to severe conditions. Any plant poking higher than 4 or 5 centimeters (2 or 3 inches) above ground level is quickly clipped off by the wind. Moisture is scarce because snow is soon blown off the slopes. Plant growth therefore suffers doubly. Only mosses, lichens, and highly adapted arctic plants survive here. Though the arctic-alpine zone may sound remote, it and the three other vegetative zones can be encountered within an hour's drive from Port Angeles to Hurricane Ridge.

... wildlife as varied as the environment

Like the climate and vegetation, the wildlife in Olympic includes just about every category imaginable—as one writer put it, creatures that may be "furry, feathered, segmented, or scaly." Casual summer visitors shouldn't be surprised at seeing

deer anywhere in the park. Hurricane Ridge, with its alpine meadows, is probably the easiest place to see deer and to be seen by the dozens of marmots which colonize the slope near Hurricane Ridge Lodge. These large burrowing rodents are adept people-watchers.

An animal sharing the marmots' interest in people on a less-frequent basis is the black bear. Curiosity among the bears, however, is motivated by food—in picnic baskets, ice chests, and backpacks. Careless visitors can expect to have their equipment damaged by both the bears and by rodents. Hikers in the backcountry would do well to hang their packs at least 3.5 meters (12 feet) above ground overnight or during side trips.

Roosevelt elk, once nearly exterminated by hunting, are also seen frequently, especially along roads and river trails during the winter. The elk usually group together in small bands. With the onset of warm weather, most elk and deer move into the high country. Even higher in the mountains are small bands of goats. Though visitors to the more open high country can expect to see more animals than forest visitors, goats are a rare sight.

Along rivers, lakes, and the coast is wildlife of a different sort. Harbor seals, river otters, raccoons, and shore birds are common. Migrating gray whales may even be seen off the coast in the spring and fall.

... people and the promise of wilderness

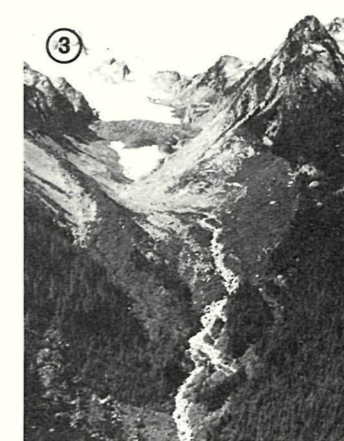
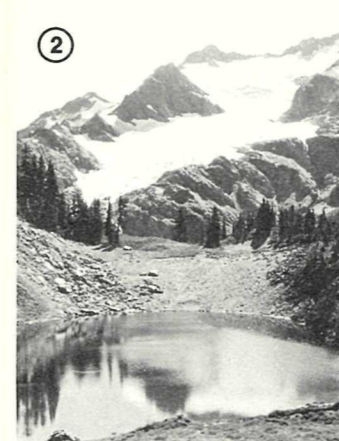
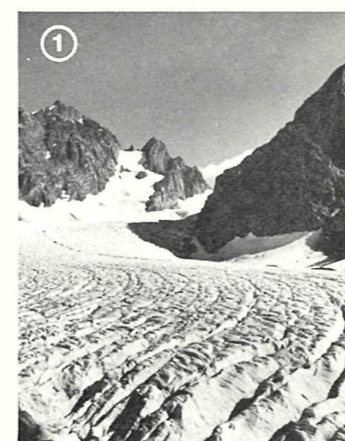
All is not biology in Olympic. A park for the people, this mountain and sea wilderness promises challenges in whatever form man may wish them. Above the alpine zone, on the sharp-faced crags and jagged peaks, those men and women who have learned the ways of mountaineering find their challenges. Favored by many mountaineers is the climb to Mount Olympus, highest peak in the park. Most often, the winter begins at the Hoh Ranger Station 27.1 kilometers (16.6 miles) away in the lowland rain forest. Winding upward through thinning forest, the trail crosses Glacier Meadows and then continues above treeline to Blue Glacier. Climbers crossing the glacier must rope up, as they again must do after climbing the Snow Dome to the summit pinnacle. Typically, the climb is challenging and demands considerable technical skill and practical knowledge.

Less technical, but no less demanding in its relationship with the land, is trail hiking. Olympic is a hikers' park, and as any backpacker will acknowledge, you can never know any large national park, much less this one, until you have been afoot in the backcountry. Mountain building, the water cycle, weather, wildlife, and plant life are then best experienced on the personal level. The end result, of course, is the affect the backcountry has on your soul.

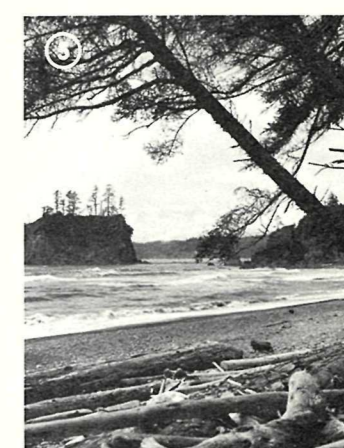
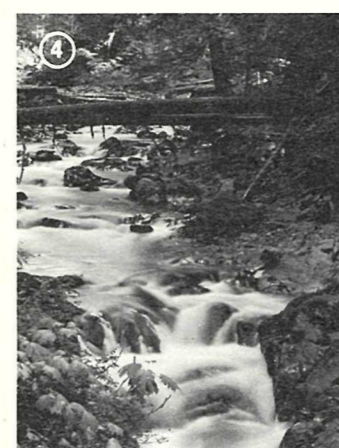
For hikers along beaches there are cliffs, sea stacks, tidepools, and countless beachcombers' delights cast up on the shore by the ceaseless surf. During summer and early autumn, the favorite hiking seasons, the rain forest trails lead along springy, fern-dappled, and moss-draped pathways. In the high country, alpine meadows carpeted with wildflowers and lush with grass invite hikers to marvel in feeling their strength and vigor—their enthusiasm for life—responding to these surroundings.

Motorists at Olympic have the advantages and disadvantages inherent in travel by highway. More places may be seen in a short time, but the chances of in-depth experience increase with the amount of time spent in any one particular place. If your time is limited, spend a few hours in each of a small number of selected places. The decision to see everything is, unfortunately, one that very often leads to superficial park visits.

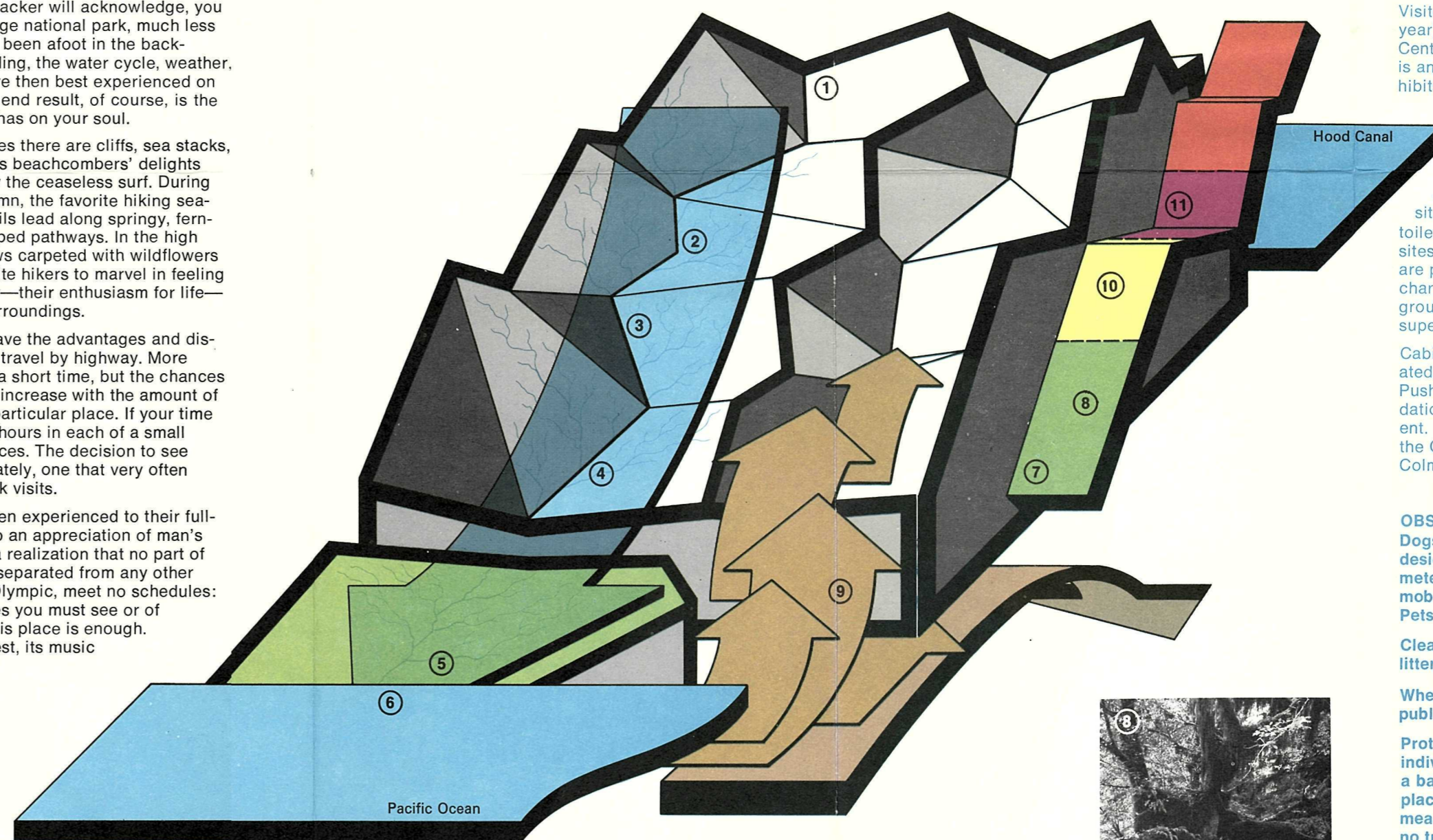
Parks like Olympic, when experienced to their fullest, can bring people to an appreciation of man's bond with the wild; to a realization that no part of life can be completely separated from any other part. Once you are in Olympic, meet no schedules; think not of other places you must see or of things you must do. This place is enough. For those who listen best, its music can be endless.



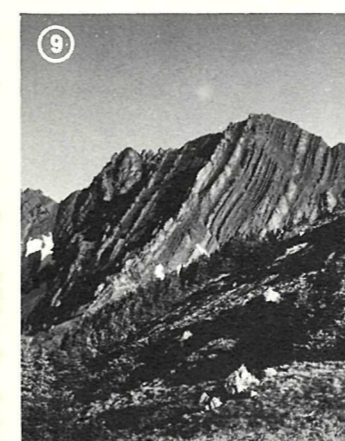
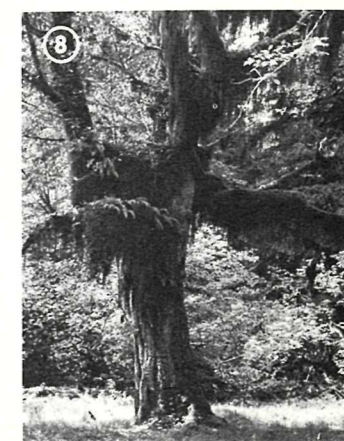
From sky to sea, water in Olympic (1) may first take the form of glacial ice and snow. Sometimes it then (2) pauses in small subalpine lakes before (3) cascading down high valleys only recently vacated by ice. Reaching warmer areas in lower elevations, the water (4) sparkles in countless forest-enclosed streams, and (5) finally merges with the sea.



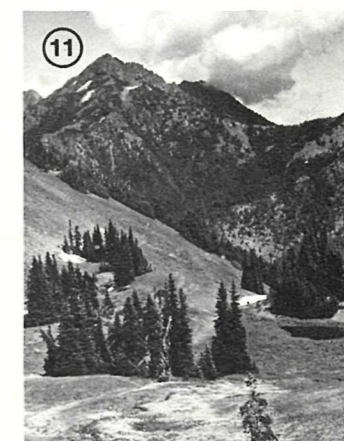
Animal life in Olympic may take forms as widely differing as (6) a starfish in a marine tidepool and (7) an elk in the forest or high country. This variety is a reflection of the park's diverse habitats.



Rain forest trees and temperate-zone plants differ greatly from those at higher elevations. Moss (8) on a bigleaf maple and fungi (10) on hemlocks represent profuse temperate-zone life not found on (11) fir-studded subalpine meadows.



Layers of sediment (9) once part of the sea bottom form the building material for most of Olympic's peaks. The layers are seen here on Mount Angeles.



This information about activities, accommodations, fees, regulations, and sources of information should make your visit more pleasant.

VISITOR ACTIVITIES

Motoring. U.S. 101 provides the main access to the park, with numerous spur roads leading to the rain forest valleys, the higher country, and the Pacific Coast area. Since the main body of the park is dedicated for preservation in its natural state, no roads pass through the rugged heart of the Olympics. Rain forests can be seen along the Hoh, Queets, and Quinault River roads. Hurricane Ridge, accessible to motorists via a paved road, affords visitors an excellent opportunity to look into a superb part of the Olympic wilderness. The Pacific Coast area is accessible from U.S. 101, directly at Kalaloch and by spur roads to the mouth of the Hoh, to La Push, and to Rialto Beach.

Hiking. Trail condition reports are available at visitor centers. Prior to entering the backcountry, please stop at a ranger station to register and obtain a backcountry use permit for all overnight travel. The park's trails vary from those requiring a day or less to wilderness pathways taking up to a week or more. Trail conditions vary from year to year, depending on the severity of the previous winter and the rate of snow-melt in the late spring. Park rangers can tell you about current trail or hazard conditions.

Horseback riding. A list of stables and packers can be obtained at visitor centers or by writing the superintendent. There are restrictions or closures to pack stock in certain sections of the park's backcountry.

Mountaineering. Climbing parties are asked to register at the ranger station nearest their route and to show that they have standard climbing gear. Never engage in off-trail activities alone or attempt technical climbs unless you are with experienced climbers.

Fishing. Licenses are not required, except that a Washington State special punchcard is necessary when fishing for steelhead and salmon. Seasons are generally the same as for waters outside the park. Printed regulations are available at visitor centers and ranger stations.

VISITOR SERVICES

Interpretive program schedules listing evening campfires and nature walks are posted in visitor centers and campgrounds. Request a copy if you need one.

Visitor centers are located at Port Angeles (open all year), at Lake Crescent (the Storm King Visitor Center), and at the Hoh Rain Forest. At Port Angeles is an audiovisual program; all the centers have exhibits and numerous publications and maps.

Self-guiding nature trails, located throughout the park, sample many different life communities.

Campgrounds are listed in the visitor services chart. Most campgrounds consist of individual sites with tables and fireplaces; piped water and toilet facilities are usually near a cluster of campsites. No showers, laundries, or utility connections are provided in these campgrounds. Fees may be charged for camping in all but the primitive campgrounds. For further information, write to the superintendent.

Cabins, lodges, and trailer parks, all privately operated, are located at Soleduck, Lake Crescent, La Push, and Kalaloch. Information on these accommodations can be obtained by writing the superintendent. For information on facilities near the park, write the Olympic Peninsula Resort and Hotel Association, Colman Ferry Terminal, Seattle, WA 98104.

OBSERVE PARK RULES AND REGULATIONS

Dogs and cats are prohibited in the park, except on designated roads and parking areas or within 400 meters (one-quarter mile) of an established automobile campground or concession overnight facility. Pets are not allowed in public buildings.

Clean up your campsite and picnic area. Leave no litter.

Wheeled vehicles are not allowed off of established public automobile roads.

Protection of the backcountry should concern each individual. Do your part by staying on trails, using a backpacking stove, selecting tent sites in dry places away from fragile alpine and subalpine meadows, and using camping techniques that leave no trace of your presence.

ADMINISTRATION

Olympic National Park, which contains 364,000 hectares (900,000 acres), is administered by the National Park Service, U.S. Department of Interior. The superintendent's address is 600 East Park Avenue, Port Angeles, WA 98382.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and historical values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

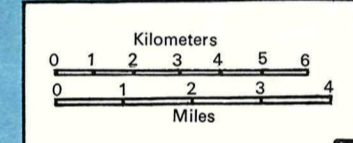
NATIONAL PARK SERVICE
U.S. DEPARTMENT OF THE INTERIOR

FOR A SAFE VISIT

Stay on trails—short cutting causes erosion and is risky. Hike in the company of others, especially on overnight trips into the backcountry. Know your limitations. Be prepared for sudden and extreme weather changes. Backcountry campers should include a tent and a backpacker's stove in their equipment because firewood is scarce at many backcountry campsites. Extinguish cigarettes. Make sure a wood fire is out before you leave it. Ask for current backpacking information. Respect the wildlife. Feeding animals is prohibited and is unhealthy for them. Enjoy animals at a distance; approaching them can be dangerous.

When hiking the beach, round the headlands only on the outgoing tide to avoid being trapped against the headland cliffs by the incoming tide. The tide and cliffs permit no escape.

On the highway, drive slowly. Watch for drivers who are preoccupied with scenery and watch for pedestrians, cyclists, and animals. Allow traffic to pass when you impede its flow.



- Ranger Station (* Summer only)
- Campground
- Picnic Area
- Shelter (Often not available)
- Nature Trail
- Trail
- Primitive Trail
- Paved Road
- Unpaved Road
- Vehicle Ferry

	Ranger Information	Companions	Number of Sites	Vehicle Trails	Visitor Center	Exhibits	Snacks or Meals	Lodges and Cabins	Picnic Sites	Shelters	Restrooms	Dumping Station
* - No fee												
Staircase			63									
Dosewallips			33									
Deer Park*			10									
Port Angeles Visitor Center												
Hurricane Ridge												
Elwha			41									21
Boulder Creek*			50									
Fairholm			87									21
Soleduck*			84									21
Hoh			95									21
Queets*			26									21
Graves Creek			45									21
Ericsons Bay*			15									
July Creek*			31									
Rialto Beach/Mora			91									21
La Push												
Kalaloch			179									21
Heart O' the Hills			105									21
Altaire			29									21
North Fork*			8									

OLYMPIC NATIONAL PARK