

CRATER LAKE

NATIONAL PARK • OREGON



UNITED STATES
DEPARTMENT OF THE
INTERIOR

Harold L. Ickes, *Secretary*



NATIONAL PARK SERVICE
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Historic Events

- 1853 John Wesley Hillman and a group of prospectors discovered the lake and named it Deep Blue Lake.
- 1862 Chauncey Nye and party of prospectors, unaware of the previous discovery, accidentally visited the lake, naming it Blue Lake.
- 1865 Soldiers from Fort Klamath, without knowledge of previous discoveries, visited the lake and named it Lake Majesty.
- 1869 J. M. Sutton with a party from Jacksonville visited the lake and named it Crater Lake.
- 1873 First photograph, a daguerrotype, taken of Crater Lake by Peter Britt, southern Oregon pioneer.
- 1883 J. S. Diller, geologist, and Everett Hayden, of the United States Geological Survey, visited the lake.
- 1885 William Gladstone Steel, with Prof. Joseph Le Conte, Capt. Clarence E. Dutton, J. M. Breck, Jr., and others, visited Crater Lake. Mr. Steel suggested that a national park be established and a petition was sent to President Cleveland.
- 1886 The President issued a proclamation withdrawing 10 townships, including Crater Lake. Lake surveyed and sounded by the United States Geological Survey.
- 1888 First fish planted in Crater Lake by William Gladstone Steel.
- 1896 Mazamas visited Crater Lake and christened the ancestral mountain of which only the caldera and lower slopes remain, Mount Mazama.
- 1902 Crater Lake National Park created by Congressional action.
- 1907 First automobile driven to the rim of Crater Lake by Charles True, from Medford, Oreg. The *Wocus*, the first boat used in rendering a launch service to visitors, placed on the lake.
- 1912 Crater Lake Lodge, the oldest structure now in the rim area, was built.
- 1931 Sinnott Memorial dedicated.



ACCESSIBLE
ALL
YEAR

Crater Lake

NATIONAL
PARK

OREGON

PHANTOM SHIP.

CRATER LAKE NATIONAL PARK, on the crest of the Cascade Range in southern Oregon, has a high place among the Nation's most scenic wonderlands. At Crater Lake visitors observe beauty in its truest sense and experience a profound inspirational appeal. Tranquillity now prevails where once relentless volcanic power was displayed.

The lake rests in the heart of a mighty mountain whose destruction resulted in the formation of a vast crater in which the waters accumulated. It is 6 miles wide, 1,996 feet deep, covers an area of 20 square miles, and has a shoreline of 20 miles, with multi-colored cliffs rising 500 to 2,000 feet above it.

Trails lead to high points on the rim and to the shore of the lake. Launches and rowboats are available for scenic trips and trout fishing. Daily launch trips are scheduled around the lake and to Wizard Island. A paved road extends around the crater rim, a distance of 35 miles, presenting scores of

enthraling views of the lake. The ever-changing color of lava cliffs and blue water are beautiful beyond description.

Crater Lake National Park, established May 22, 1902, embraces an area of 250.52 square miles.

DISCOVERY AND HISTORY

History says that the Klamath Indians knew of, but seldom visited, Crater Lake before its discovery by white men. The Indians regarded the lake and the mountain as the battleground of the gods.

Crater Lake was discovered on June 12, 1853, by John Wesley Hillman, a young prospector leading a party in search of the "Lost Cabin Mine." Having failed in their efforts, Hillman and his party returned to Jacksonville, a mining camp in the Rogue River Valley, and reported their discovery which they had named Deep Blue Lake.

This incident was apparently forgotten in the excitement of gold discoveries and Indian wars. On October 21, 1862,

Chauncey Nye, leading a party of prospectors from eastern Oregon to Jacksonville, happened upon the lake. Thinking that they had made a discovery, they named it Blue Lake. A third "discovery" was made on August 1, 1865, by two soldiers stationed at Fort Klamath, who called it Lake Majesty. In 1869 this name was changed to Crater Lake by visitors from Jacksonville.

Before 1885 Crater Lake had few visitors and was not widely known. On August 15 of that year William Gladstone Steel, after 15 years of effort to get to the lake, stood for the first time on its rim. Inspired by its beauty, Judge Steel conceived the idea of preserving it as a national park. For 17 years, with much personal sacrifice, he devoted time and energy to this end. Success was realized when the park was established on May 22, 1902. Steel devoted the remainder of his life to development of the park, serving as its second superintendent and later as park commissioner, which office he held until his death in 1934.

THE GEOLOGIC STORY OF CRATER LAKE

Origin of the Mountain.—Geologists say that the slope, which visitors ascend to view the lake, and the crater wall rising 500 to 2,000 feet above the water are the remnant of a mountain, which stood more than 12,000 feet high. This ancient peak, now destroyed, is known as Mount Mazama.

In comparatively recent geologic time, numerous volcanic peaks were formed near the western edge of a vast lava plateau covering portions of Ore-

gon, Washington, Idaho, Montana, Nevada, and California. These make up the Cascade Range, of which Mount Mazama was one of the commanding peaks. It was built by successive lava flows with some accumulation of volcanic ash. The cone thus formed was modified by streams and glaciers which carved valleys in its sides and deposited rock debris on its flanks. The layered character and different formations of the mountain are now clearly exposed in numerous places within the crater wall.

Forming of Dikes.—In addition to broad surface flows, it is common for molten lava to be squeezed into cracks, or fissures, that develop in a volcano. Such filling results in dikes, or walls, frequently harder than the enclosing rock. At Crater Lake the destruction of the mountain and subsequent erosion have exposed numerous dikes in the wall, of which the Devil's Backbone on the west side of the crater is the outstanding example.

Action of Streams and Glaciers on the Mountain in the Course of Its Building.—In the layers forming the crater wall there is evidence of the action of water. In some places this is shown by the cutting of valleys; in others, by the accumulation of water-carried gravel and boulders.

Glacial ice, carrying sand, pebbles, and boulders, scratches and polishes rock surfaces over which it moves. Glacial polish and thick beds of glacial debris are common around the mountain. They occur on the surface rock and between earlier layers, showing that glaciers existed at various stages in the history of the mountain.



RANGER NATURALIST WITH PARTY OF VISITORS
ON THE RIM OF CRATER LAKE.

Grant Photo

U-shaped valleys, such as Kerr Notch, Sun Notch, and Munson Valley on the southeast slope of Mount Mazama, are evidence of glaciation. The lava flow forming Llao Rock filled an ancient glacial notch.

Forming of the Crater.—Many geologists have concluded that the basin occupied by the lake resulted from the collapse and subsidence of the volcanic cone of Mount Mazama. This explanation was first proposed by J. S. Diller, of the U. S. Geological Survey, who considered that the support of the summit was weakened by drainage of great quantities of molten rock through sub-

terranean cracks. The pit thus formed grew progressively larger in all directions, as is indicated by the broken edges exposed around its rim today. Extensive study by Prof. Howel Williams of the University of California, led him to practically the same conclusion.

In his delightful, popular, and scientifically accurate book, "Crater Lake, The Story of Its Origin," Williams describes great quantities of pumice extending more than 80 miles northeast of Mount Mazama. This amounts to more than 10 cubic miles of material, thought to have been blown from the mountain in a catastrophic event and

carried northeastward by the prevailing winds. Analysis shows that this is material derived from the heart of the volcano and not finely divided fragments of the original mountain walls.

Following this eruption, the crater is believed literally to have boiled over, pouring out great quantities of frothy material as a series of glowing avalanches. These avalanches must have traveled at a terrific speed down the valleys, for those to the south and west did not begin to deposit their load until they had reached a distance of 4 to 5 miles. The greater quantity flowed down the mountain to the south and southwest for distances up to 35 miles from the source.

Accompanying these eruptions, cracks developed in the flanks of the mountain so that the top collapsed, being engulfed in the void produced by the ejection of the pumice and lava and the withdrawal of 10 cubic miles of molten rock into swarms of cracks that opened parallel to the axis of the Cascade Range. Thus was formed the great pit as we see it today.

By projecting the slopes of the mountain remnant upward, conforming to the slopes of similar volcanoes, it has been estimated that approximately 17 cubic miles of the upper part of ancient Mount Mazama was destroyed by the collapse.

The Growth of Wizard Island.

After the destruction of the peak, volcanic activity within the crater produced Wizard Island and perhaps other cones. These cones rise above a relatively flat floor, the lowest part of which is almost 2,000 feet below the surface of the present lake. Its flatness indicates

that the crater may at times have been occupied by wide stretches of molten lava.

Origin of the Lake.—The water of Crater Lake is derived from rainfall and snowfall, also from the snow blown into the depression. The lake has no inlet and no outlet, except by seepage. Evaporation, seepage, and precipitation are in a state of balance which maintain an approximately constant water level. If the basin lake were at a different altitude, or in a different location, the lake might not have been formed.

Color an Outstanding Character of Crater Lake.—The color of Crater Lake is generally recognized as the most attractive feature of this region. Among spectacular lakes of the world there are none in which the depth of color and brilliance of blue are more striking.

The deep blue of the lake is believed to be caused chiefly by the scattering of sunlight in water of exceptional depth and clearness, the blue rays of sunlight being reflected from the water, rays of other colors being absorbed.

The extraordinary beauty of the lake arises in part from its great depth, the clearness of the water and of the atmosphere above it, the multicolored towering walls, and from the favorable viewpoints on the rim.

NATURALIST SERVICE

During the summer months free daily guide service on trails, boat trips, and auto caravans is scheduled by the National Park Service. These naturalist activities, which also include talks at Sinnott Memorial two or more times

daily and evening programs at the lodge and Community House, are in response to a public demand for the popular presentation of the geological, biological, and historical story of Crater Lake.

Schedules of the naturalist program are posted at several public places in the park. Except the boat trip, which starts at the foot of the rim trail, all regularly scheduled naturalist activities start from the Information Building, although visitors are invited to join at any place along routes traveled.

PLACES OF INTEREST

Sinnott Memorial.—This structure, with its broad terrace looking over the lake, serves as an orientation point. Field glasses focused on important features help visitors to understand the geologic history and to appreciate the relationship between scenic and scientific values. Pictorial displays in the exhibit room portray artists' conceptions of the varying moods of the lake. A large relief map of the region is located on the terrace. Talks are scheduled twice daily at the Memorial. A visit to the Sinnott Memorial soon after arrival in the park is recommended. It is located close to the lodge and the Rim Campground.

Information Building.—This building is on the crater rim just west of the lodge. Visitors are invited to make use of the information service and examine the exhibits.

Rim Drive.—A highway encircles the Crater, affording many spectacular views from numerous observation points. Auto caravans are conducted by the naturalist staff along this road,

stops being made at important scenic, scientific, and historic points. All caravan trips start from the Information Building. Time of departure is announced on bulletin boards and at lectures.

Wizard Island.—This is a symmetrical cinder cone rising 780 feet above the surface of the lake. It is reached by boat. A trail leads from the shore to the crater, which is approximately 90 feet deep and 450 feet in diameter.

The Phantom Ship.—This island rises 169 feet above the waters of the lake. Its shape suggests a ship under sail. The best views of the Phantom Ship are obtained from the launches and from Kerr Notch along the Rim Drive.

Garfield Peak.—With an altitude of 8,060 feet, this peak is easily reached by a 1.7 mile trail east of the lodge. From the summit there is a magnificent view of the lake and surrounding region.

The Watchman.—This peak, on the west rim, is of interest not only because of its height, but because of the fire lookout station on its summit. It may be reached by a half-mile trail from the rim road. A rare panorama of the park and surrounding country may be viewed from this point, 8,025 feet above sea level and 1,861 feet above the lake.

Cloudcap.—This excellent viewpoint on the east rim rises to an elevation of over 8,000 feet and is almost 2,000 feet above the lake. The coloring of the lake and a vast expanse of mountain scenery beyond the park are well observed from Cloudcap.

Mount Scott.—East of Cloudcap is Mount Scott, the highest point in the park, reaching an altitude of nearly 9,000 feet. Its summit, on which there is a fire lookout station, is accessible by a 2.5 mile trail from the rim road.

The Pinnacles.—In Wheeler Creek, near the east entrance of the park, are slender spires of pumice. Some of the needles are 200 feet high. In Sand Creek Canyon and Godfrey's Glen in Annie Creek Canyon there are other spires and fluted columns carved out of the soft volcanic material by water erosion.

Other Places of Interest in the Park and Vicinity.—Park visitors desiring information about other interesting places in the park and vicinity are invited to inquire at park headquarters and the Information Building.

WILDLIFE

Mammals.—The park abounds in the smaller species that are of great interest to the visitor because of their friendly inquisitiveness. The large mammals, including black bears, are fairly common.

Members of the squirrel family are numerous along roads and trails and at any place where people congregate. Most abundant and approachable are the golden-mantled ground squirrels. Two species of chipmunks are also numerous. The marmot stoddgily makes his way among the rocks or basks on one of them in the warm sunshine. Many of these small animals are tame. It is wisest to enjoy them without actual contact, however, for some rodents have been known to carry dangerous diseases.

The saucy pine squirrel is common, and the porcupine is frequently observed. The shrill note of the cony, or pika, may often be heard on rocky slopes. Badgers, gray squirrels, and snowshoe rabbits are numerous, but mink, flying squirrels, martens, and several species of mice are seldom seen. The worm-like tunnels of gophers are frequently seen in the soft topsoil, a colony of beaver makes its home in the park.

Bears may be seen in many parts of the park. They are usually black individuals, but a few are of the brown color phase. **Do not let bears approach too closely**, as they are dangerous. Many people have been painfully clawed. In the interest of safety, **it is unlawful to feed, tease, or molest the bears.**

Of the deer species, the Columbian blacktail is most common. Rocky Mountain mule deer are seen in the grassy, watered meadows along the roads to the east and south entrances. Elk have been noted along the eastern side of the park.

Other large animals in the park are the cougar, or mountain lion, the coyote, and the red fox.

Because of the general elevation of the area, there are few reptiles. Salamanders are common on the lake shore and frogs and toads along the creeks.

Birds.—More than 120 species of birds have been seen in the park. Eagle Craggs have furnished nesting places for the golden eagle and the southern bald eagle; Llao Rock is the home of falcons. Ospreys have been seen, and the dusky horned owl forages nightly. California

gulls visit the park; Farallon cormorants perch on the masts of the Phantom Ship and take to wing whenever a launch or rowboat approaches too near. There are ravens and half a dozen species of hawks. The Sierra grouse inhabits the timberlands; Clark's nutcrackers and crested and gray jays are among the most noticeable birds upon the rim.

Smaller birds frequently seen are the mountain bluebirds, solitaires, juncos, siskins, creepers, red-breasted nuthatches, chickadees, and evening grosbeaks. There are golden and ruby-crowned kinglets, robins, wrens, western tanagers, spotted and green-tailed towhees, purple and rosy finches, chipping and other sparrows, two varieties of thrushes, and six varieties of warblers. Occasionally a hummingbird is seen.

FORESTS AND WILD FLOWERS

The virgin forests and wild flower meadows mantling the slopes, which one ascends to view Crater Lake, are outstanding attractions enhancing the scenic value of the lake. Scattered through the forests of predominantly cone-bearing trees are a few broad-leaved species. Around numerous springs forming the sources of many creeks on the outer slope of the mountain, the forests give way to colorful meadows of alpine wild flowers.

Plants characteristic of four zones of vegetation are found within the park, yielding over 570 species of ferns and flowering plants. Patches of Douglas firs, typical of the humid division of the upper Transition Zone, occur in the region of the park lying on the

western slope of the Cascade Range. The semihumid division of the zone, characterized by the ponderosa pines, may be found at the south entrance of the park. Associated with it are sugar pines, white firs, and western white pines, the latter furnishing the largest individual tree in the park. Above the Transition is the Canadian Zone in which occur lodgepole pines, Shasta red firs, alpine firs, and mountain hemlocks.

In the rim area around Crater Lake, Hudsonian Zone species are found. These include mountain hemlocks, the most predominant tree in the park, alpine firs, Shasta red firs, and white-bark pines.

Stunted whitebark pines predominate on the slopes of Mount Scott, the summit being in the Alpine-Arctic Zone.

During July and August visitors find nature's colorful displays of alpine wild flowers on the road between park headquarters and the Rim Village and along the trails on the crater rim. These displays change with each week of the short flowering season.

Castle Crest Garden, located at park headquarters, is one of the most attractive and ideal places for viewing and studying Crater Lake flora.

Throughout the summer months visitors may study the exhibits of fresh and pressed flowers displayed at the Information Building in the Rim Village.

FISHING

Angling amid the scenic beauty of Crater Lake is an experience long to be remembered. In recent years only rainbow trout and silverside salmon have been planted. Crater Lake is

recognized as one of the best fishing lakes in the national park system. Trolling has proved to be the most successful method of catching the daily limit of 12 fish per person. From July 1 to September 5 rowboats are available. Shore fishing is usually available from the latter part of June until late September, depending on weather conditions. No license is needed to fish in Crater Lake. Creel censuses made during the past 4 years indicate the fish caught vary from one-half pound to 6 pounds in weight.

CAMPING

There are four free public campgrounds within the park.

The Rim Campground located in the Rim Village is equipped with stoves, water and sanitary conveniences, including hot and cold showers and laundry trays. This campground is in close proximity to all Rim Village facilities and services. Naturalists conduct evening campfire programs in the Community House on the edge of the campground.

Three campgrounds are located along entrance roads: Lost Creek, 3½ miles inside the east entrance; Cold Springs, 7 miles inside the south entrance; and Annie Spring at the junction of the south and west entrance roads. All campgrounds are supplied with free firewood. Camping is limited to 30 days.

WINTER SPORTS

The park is open the year around. Visitors may now enjoy the scenic values of Crater Lake in winter and participate in winter sports amid a

fantasy of snowy splendor. Steep and gradual slopes, according to speeds desired, are numerous in the park and are ideal for skiing. Professional ski meets are not encouraged, but special attention is given to amateur sports.

The west and south entrance roads to the Rim Village area are open to motor travel. Chains, tow rope, and shovel are necessary accessories for motorists. Meals and limited overnight accommodations and emergency auto service are provided at park headquarters during the winter months. Warming room facilities are available at the Rim Village. Rangers are on duty to render service to visitors.

ADMINISTRATION AND PARK HEADQUARTERS

The park is administered by the National Park Service of the Department of the Interior. The superintendent is in immediate charge, with offices in the administrative center, 3 miles from the Rim Village. The POST OFFICE address is Crater Lake, Ore. Long distance TELEPHONE and TELEGRAPH service is available at park headquarters.

RIM VILLAGE

In the Rim Village on the south side of the lake are the lodge, rental cabins, cafeteria, store, emergency mechanical service, campground, Community House, Information Building, and Sinnott Memorial. The lake is accessible by trail from the Rim Village.

ACCOMMODATIONS AND EXPENSES

The Crater Lake National Park Co. offers accommodations for park visitors.



SKIERS ON RIM OF CRATER LAKE.

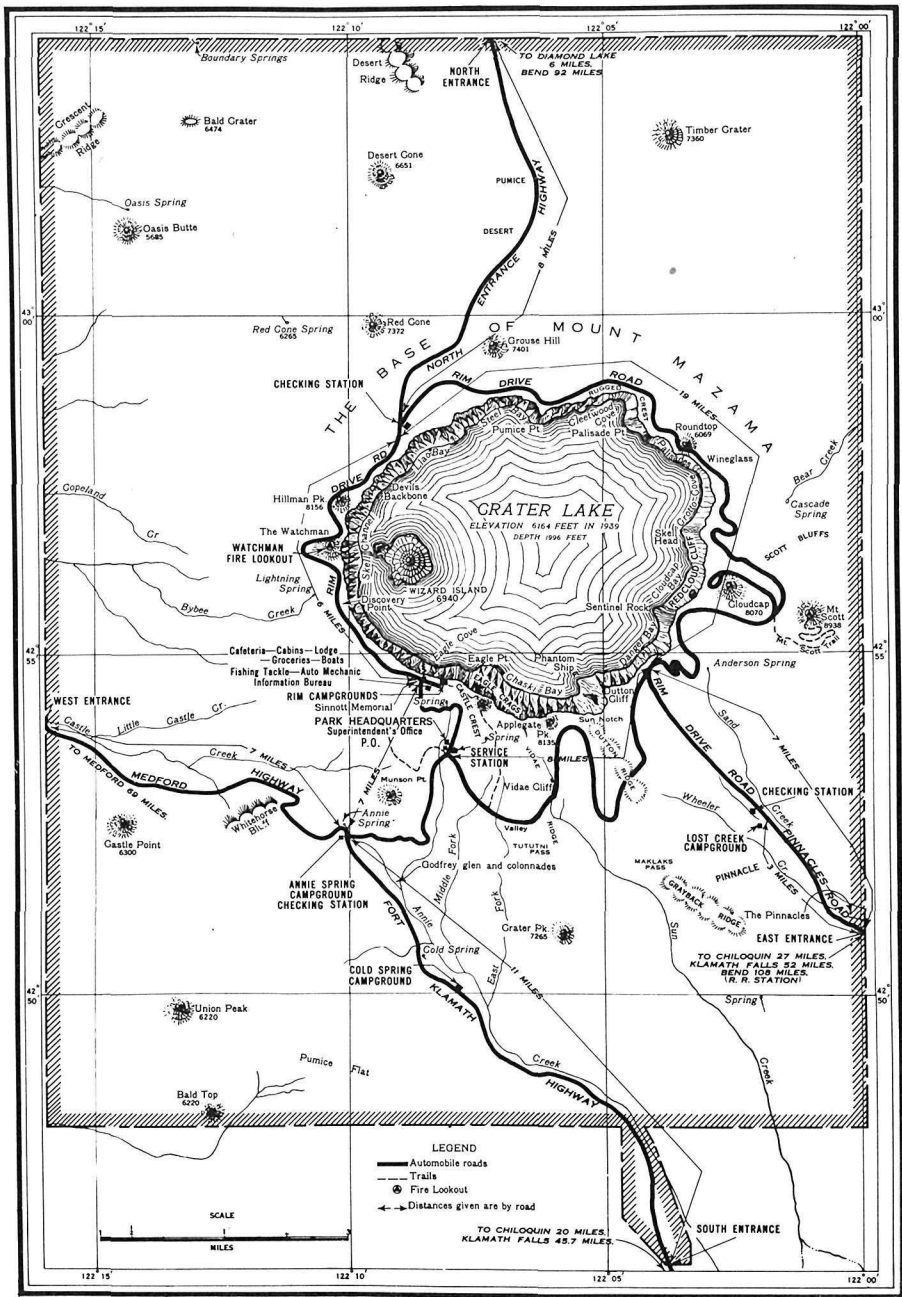
Rates for rooms at the lodge range from \$2.75 to \$5.50 single and \$3.25 to \$7.50 double, European plan. American plan rates are \$3.50 per day higher for each person. Children under 8 years, half rates. Cabins rent for \$1.75 per day without linen and blankets, or \$2.50 with bedding. Because available cabins are limited at the height of the season, it is advisable to make cabin reservations well in advance. Cafeteria and store facilities are available until September 19.

Motor Transportation. — Daily automobile service from Grants Pass and Klamath Falls to Crater Lake Lodge is maintained by the Crater Lake National Park Co. from July 1 to September 19. The round-trip cost is \$8

a person, and only round-trip tickets are sold. A visitor may enter by way of Grants Pass and leave by way of Klamath Falls. The trip requires 2½ hours from Klamath Falls and 3 hours from Grants Pass.

Launches and Rowboats.—Rowboats may be hired at 50 cents per hour. Scheduled trips are made daily by launch to Wizard Island and the Phantom Ship, about 15 miles, at a cost of \$2 a person. Hourly trips are made to Wizard Island for \$1 a person. Fishing tackle may be rented or purchased at the boat landing.

One of the popular attractions is the launch trip around the lake, leaving the boat landing at 9 o'clock each morning during the travel season. A ranger



MAP OF CRATER LAKE NATIONAL PARK.



CRATER LAKE LODGE.

Grant Photo.

naturalist describes to the launch passengers the points of scenic and scientific interest. The trip has been carefully planned and is available at the cost of \$2 a person, with no surcharge for the services of the naturalist which are furnished free by the National Park Service.

Rates mentioned herein may have changed slightly since issuance of this booklet, but the latest rates approved by the Secretary of the Interior are on file with the superintendent and park operator.

HOW TO REACH THE PARK

By Common Carrier. — The Southern Pacific Railroad and several motor coach lines serve Klamath Falls

and Grants Pass, Oreg., to connect with stages of the Crater Lake National Park Co. daily from July 1 to September 19.

Overnight, as well as scenic daylight, airplane service from practically all parts of the United States to Crater Lake are now possible, and those interested in air travel to Crater Lake should contact the park operator, travel agent, or the airline serving their city.

By Automobile. — Paved State highways connect with the highway system of the park at all entrances. Highway 62 to the west entrance of the park connects, through Medford, with U. S. Highways Nos. 101, 199, and 99. It also connects U. S. 97 with the park highway system at the south entrance.

Connections with U. S. 97 are also made by State Highway 232 to the east entrance, or by 230 and 209 to the north entrance. The roads through the west and south entrances to the rim are maintained as all-year roads, the others being closed to traffic during the winter months.

INTERESTING BRIEFS OF CRATER LAKE NATIONAL PARK

Crater Lake was discovered June 12, 1853.

The area was established as a national park in 1902.

The lake has an area of 20 square miles, the crater 27 square miles.

The greatest diameter of the lake is 6 miles, the shoreline circumference being approximately 20 miles.

The lake, sounded in 1886, has a maximum depth of 1,996 feet.

Crater Lake is the deepest lake on the continent of North America and fifth deepest lake in the world.

The lake has no direct inlet and outlet, yet it is a body of fresh water.

The lake derives its water from snow and rain falling within the crater. Annual loss of water is by seepage and evaporation.

Average annual snowfall at Crater Lake is 53 feet; annual precipitation is 72 inches.

In 1932-33, the annual snowfall was 73 feet.

Lake level varies 1 to 3 feet annually, being highest in spring, lowest in fall.

In 1941, the lake level was approximately 6,163 feet above sea level.

Due to the great depth and moderate winter temperatures the lake does not freeze.

Wizard Island rises 780 feet above the lake and covers approximately one square mile.

Hillman Peak, 8,156 feet, is highest point on crater rim, rising 1,996 feet above the lake.

Palisade Point, Kerr Notch, and Wineglass are low points on the rim, being slightly more than 500 feet above the lake.

The lodge and Rim Village area are at an elevation of 7,100 feet, approximately 950 feet above the lake.

The lake was devoid of fish until 1888 when the first fish were planted. Fish are planted annually.

Over 570 species of ferns and flowering plants have been identified in the park.

The park's check-list of birds includes 120 species.

Large and small mammals found in the park include approximately 60 species.

Crater Lake National Park is an outstanding blend of scenic and scientific values.

The crater cupping the lake was probably formed within the past 5,000 years by the collapse of the peak of an ancient volcano.

OREGON CAVES

NATIONAL MONUMENT,
OREGON

Oregon Caves National Monument, 160 miles southwest of Crater Lake, is one of the scenic attractions of south-

ern Oregon, administered by the superintendent of Crater Lake National Park. The monument is in the heart of the Siskiyou Mountains and is easily accessible by paved highways.

The Caves, also known as "The Marble Halls of Oregon," offer visitors an opportunity to explore several miles of winding passageways and large rooms, which nature has decorated with fantastic formations, weird in their eerie beauty. Guide service through the electrically lighted caverns is available throughout the year.

In the 480 acres of the monument there are several miles of excellent trail, affording visitors an opportunity to enjoy views of the mountains mantled with a virgin Douglas fir type forest and to study the wildlife.

Lodging and meal service are available approximately from May 1 to October 15 at the well appointed Oregon Caves Chateau, located near the entrance to the Caves. During the summer season park rangers and the crew at the Chateau present a campfire program each evening.

LAVA BEDS

NATIONAL MONUMENT,
CALIFORNIA

In northern California, 105 miles south of Crater Lake, the Lava Beds National Monument, administered by the Crater Lake National Park staff since 1933, covers an area of 45,967 acres. It is noteworthy for volcanic, historical, and archeological features of distinctive importance.

The monument is open to travel the

entire year from points along the Klamath Falls, Oregon-Alturas, California Highway. Administrative headquarters of the monument are maintained at Indian Well, with a park ranger in charge. A small museum of old war relics and volcanic specimens is maintained here. A campground is nearby. No gasoline, food, or other accommodations are available in the monument, but these can be procured within 20 miles of the area at Merrill, Ore. or Tulelake, Calif.

The area includes a vast field for geologic study. During recent geologic time volcanic activity poured rivers of molten lava from numerous fissures and vents. Cinder cones rise above the sloping lava terrain. There are scores of lava tubes or caves, some of which are open to visitors.

Within the monument are the important battlefields of the famous Modoc War of 1872-3. The Stronghold, a natural fortification in which 53 Modoc warriors defended themselves against the attacks of nearly 1,000 United States troops, is an attraction of the monument.

At Petroglyph Point numerous petroglyphs are carved in rock, and in caves pictographs appear—two types of the symbolic writing of prehistoric Indians.

During the winter and spring months, mule deer are seen in large numbers. Small mammals and numerous species of birds are common. The cliffs of Petroglyph Point offer an exceptional opportunity for the study of birds of prey. Along the north boundary of the monument thousands of water fowl may be seen feeding in the Tulelake Bird Refuge.

RULES AND REGULATIONS

[Briefed]

The Park Regulations are designed for the protection of the natural features and for the comfort and convenience of visitors. The following synopsis is for the guidance of visitors.

Fires.—Light carefully and only in designated campgrounds. Extinguish completely before leaving camp, even for temporary absence. Do not guess your fire is out—KNOW IT.

Camps. — Use designated campgrounds. Keep the campgrounds clean. Combustible rubbish shall be burned on camp fires, and other refuse of all kinds shall be placed in garbage cans or pits provided for the purpose. Firewood is provided free of charge.

Trash.—Do not throw paper, lunch refuse, film cartons, chewing gum paper, or other trash over the rim, on walks, trails, roads, or elsewhere. Carry until you can burn in camp or place in receptacle.

Trees, Flowers, and Animals.—The destruction, injury, disturbance, or removal in any way of the trees, flowers, birds, or animals is prohibited.

Noises.—Be quiet in camp after others have gone to bed. Many people come here for rest.

Automobiles.—Careful driving is required at all times. Your car must be equipped with good brakes, horn, and lights. Passing on curves is prohibited. Obey traffic rules. A gasoline station is maintained on the main highway at park headquarters. The fee for automobile permit is \$1; housetrailer \$1 additional.

Dogs.—Dogs are not permitted between the road and the rim at any time. When not in an automobile, dogs must be on leash at all times.

Warning About Bears.—Do not feed, touch, tease, or molest the bears. Bears will enter or break into automobiles if food that they can smell is left inside. They will also rob your camp of unprotected food supplies.

Fishing.—The limit is 12 fish per day for each person fishing. No fishing license is necessary.

Park Staff.—The staff is here to help and advise you. Men in uniform at the Information Building, park headquarters, and the several stations will be glad to help you plan your activity while in Crater Lake National Park and to explain the regulations.

Complete rules and regulations are available at park headquarters.

*Let no one say, and say it to your shame,
That all was beauty here until you came.*