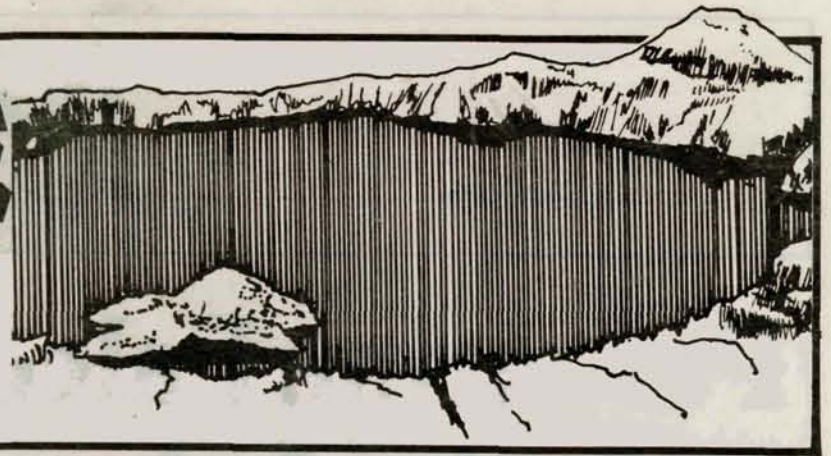


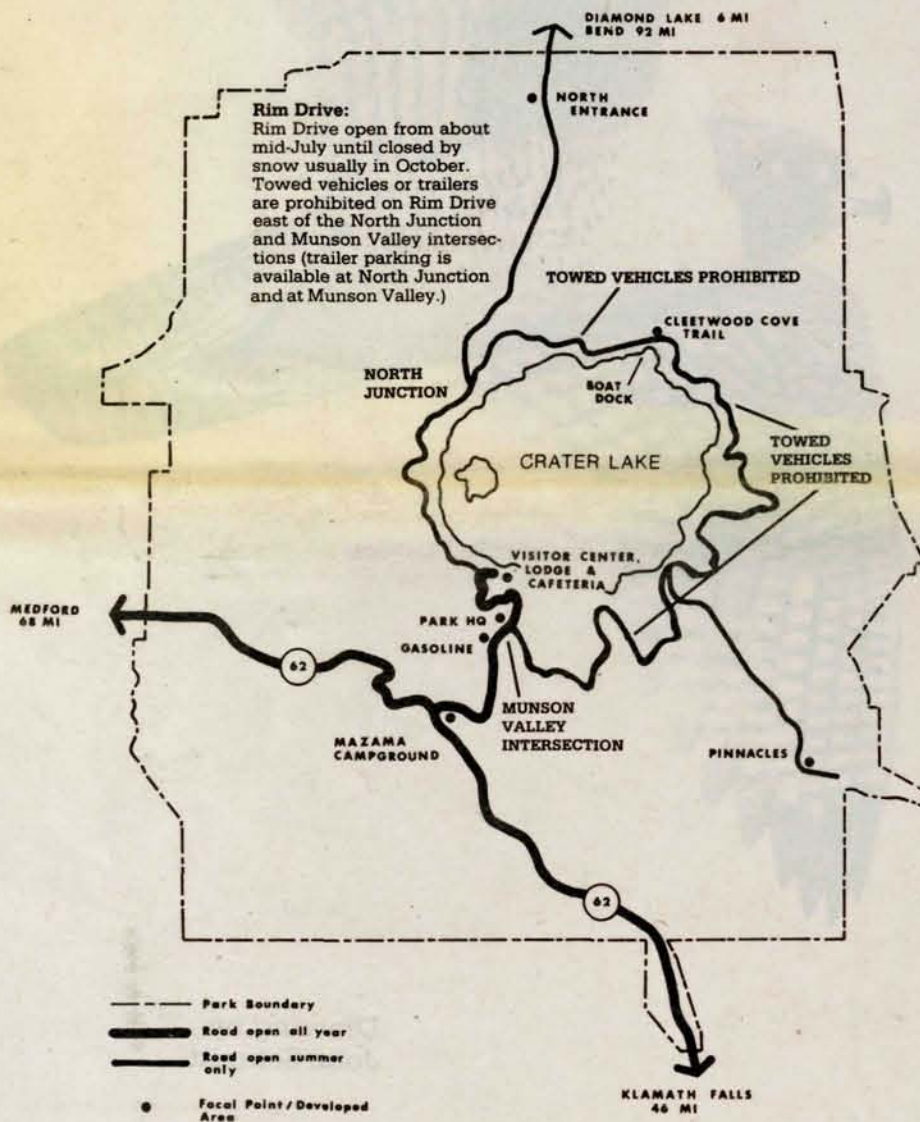
CRATER LAKE REFLECTIONS



CRATER LAKE NATURAL HISTORY ASSOCIATION

VOLUME 13, SUMMER 1987

Entire Length of Rim Drive is Now Open to Two-Way Traffic



This year, all of Rim Drive around Crater Lake is open to 2-way traffic. Visitors travelling through the park can choose the direction they wish to drive around the lake. We encourage all visitors to drive completely around the lake and enjoy the different views from the many vantage points along Rim Drive. It is important that all drivers travelling along Rim Drive be alert to oncoming traffic. Please do not stop your vehicle on the road, blocking a lane of traffic. It

is a safe practice to stop only at designated overlooks.

For traffic safety reasons, towed trailers and vehicles are restricted from the eastern portion of Rim Drive between North Junction and the Munson Valley Intersection. Space for parking towed trailers or vehicles is available at North Junction and at Munson Valley near the intersections that provide access to the eastern section of Rim Drive (see map).

WELCOME TO CRATER LAKE NATIONAL PARK!

This year, you're paying an increased entrance fee to visit the park. This extra money that is collected is being spent here in the park on projects which will help preserve and protect our unique resource. Further research on the clarity of the water in Crater Lake is an example of what is being made possible. The most obvious and immediate benefit to you from the higher fees is the increase in the number of interpretive presentations which we hope will enhance your understanding and appreciation of Crater Lake. All during the day, short talks about the lake and its geological history will be given by

Rangers near the Rim Village parking lot overlooking the lake. We will increase the number of showings of the Crater Lake movie in the Rim Center Building at Rim Village. Children's programs will be offered daily. Guided walks through the historical district in Munson Valley will be presented to tell the story of the National Park Service at Crater Lake. And, if something unusual or rare occurs in the park, we plan to have a Ranger there to tell you about it. Thank you for coming and I hope you enjoy your visit.

Robert E. Benton
Superintendent



William G. Steel Center

The "Steel Center" is the recently renovated old Ranger Dorm located in the Munson Valley headquarters complex. Great care was taken to preserve the exterior appearance of this building. Many of the features and fixtures of the old Ranger Dorm have been preserved as part of the newly remodeled interior. The building now serves as the park's winter visitor center and as the permanent headquarters for the Division of Interpretation. The building is named for William G. Steel, who played a very

important role in convincing the government of the United States to set aside Crater Lake as a national park in 1902.

The building is open to the public daily from 8:00 AM to 5:00 PM. During the summer season, guided walks through the historic district surrounding the Steel Center begin here at 11:00 AM. The Crater Lake movie, park information, permits, book sales and restrooms are available here year round.

Pour les visiteurs de Parc qui ne connaissent pas l'anglais, une brochure imprimée en français est disponible au Centre des Visiteurs. Nous espérons qu'elle contribuera à rendre votre séjour dans le Parc plus intéressant et nous vous souhaitons une visite agréable et sans accident à Crater Lake.

Information
Weather, Road Conditions, Snow Amounts-Crater Lake National Park Headquarters: (503) 594-2211 (8 a.m. to 5 p.m. daily, recorded message after hours) National Park Service-Ranger-Led Programs, Tour Information: (503) 594-2211 For Emergency Only: 911 from inside the park, 800-452-5021 from outside the park.

Für Besucher aus Deutschland, die nicht englisch sprechen, ist eine Broschüre, in deutsch, im Besucherzentrum erhältlich. Wir hoffen, dass dieses Informationsblatt Ihnen zu einem interessanten, sicheren und angenehmen Besuch verhelfen wird.

SEE BACK PAGE FOR SCHEDULE OF RANGER-LED ACTIVITIES



Peregrine Falcons at Crater Lake

PEREGRINE FALCONS AT CRATER LAKE — a rare and beautiful sight for those lucky enough to catch a glimpse of this magnificent bird.

The peregrine falcon is a crow-sized bird of prey that feeds primarily upon smaller, air-borne birds. Historically peregrine falcons were found throughout the world. Concern began to develop in the early 1950's, as bird lovers and biologists alike began to notice the disappearance of the peregrine.

The rapid decline was due to the pesticide DDT, and its metabolite DDE. Peregrines acquired the pesticide through consumption of other birds already contaminated by DDT. Over time, increasingly higher concentrations of the pesticide accumulated in the fatty tissues of the falcons, altering the female peregrine's ability to deposit calcium in the eggshells. As a result, the thin shelled eggs were often broken or crushed by the incubating falcons, and populations began to decline worldwide.

The use of DDT was banned nationwide in 1972, yet mortality due to eggshell thinning and breakage remains a persistent problem. This is because DDT remains in the ecosystem long after it has been applied. In addition, peregrines ingest prey species contaminated with DDT that migrate up to the United States from Latin American countries, where DDT is still used.

CRATER LAKE NATIONAL PARK was, until recently, the only known active historic peregrine falcon nest site in all of Oregon; now it is one of two. In the 1930's there were 39 known active nest sites in Oregon.

Peregrines have been observed at Crater Lake from the late 1800's to the present, and nest sites have been noted in park records. There was a great deal of excitement in 1979 when a pair of peregrines were observed, and their nest site was located and found to contain two young. It was later discovered that the pair had produced a total of three eggs, one of which failed to hatch.

In 1980, this nest was found to be occupied, but all eggs failed to hatch. These eggs were collected, analyzed, and found to have excessively thin shells due to pesticide contamination, causing the eggs to fail to hatch.

The park staff met with the Oregon Department of Fish and

Wildlife and the U.S. Fish and Wildlife Service and agreed that the park, in cooperation with the State of Oregon, would begin an active manipulation program.

In 1981, the park began manipulating the nest site with the assistance of the Predatory Bird Research Group (PBRG), Santa Cruz, California, through a technique known as direct fostering. This is the process whereby peregrine eggs are pulled from the nest shortly after the onset of incubation, and replaced temporarily with ceramic, dummy eggs for the duration of incubation; these dummy eggs are then removed and replaced with chicks. Sometimes, chicks are fostered into the nest at the time the initial eggs are removed. Surprisingly, the adult peregrines quickly accept dummy eggs, and continue to incubate them as if they were their own. The parents also readily accept chicks, whether added at the onset or end of incubation. Meanwhile, the thin-shelled peregrine eggs are artificially incubated at the PBRG facility under controlled laboratory conditions; surviving chicks are later fostered into wild nests. In 1982, the nest site manipulation was repeated successfully.

In 1983, no viable eggs were produced at the nest. As a result, an alternative plan to direct fostering known as hacking was employed. This is the process whereby peregrine chicks can be raised to independence without the presence of adult peregrines. It involves the placement of a "hack box" atop a cliff or tower, in suitable peregrine falcon habitat; during the summer months, chicks are placed in the box, observed and fed by the two PBRG hack site attendants.

After one week in the box, the chicks are ready to take their first flight, and the front of the box is removed. The final six weeks of the operation involve daily feeding, 24-hour monitoring, and constant protection of each falcon from progressive predators, such as golden eagles and great horned owls.

In 1983, 1984 and 1985 three peregrines were successfully released each year in Crater Lake through hacking.

In 1986, two courting peregrine falcons occupied the nest but the female was too young to produce eggs. Three peregrines were released during the summertime hacking operation. Unfortunately, only one survived to reach in-



Drawing by
John Schmitt

dependence; the other two were lost to predators. Despite these losses, Crater Lake feels the overall hacking operation has been a success: in four years of hacking ten peregrines have been successfully released.

It is believed the same courting pair from 1986 returned again this past winter to nest. The female successfully laid four eggs.

The park, with the assistance of PBRG and the Oregon Department of Fish and Wildlife, conducted a site manipulation using the technique of direct fostering as in 1981 and 1982. The parents readily accepted the chicks. At about the

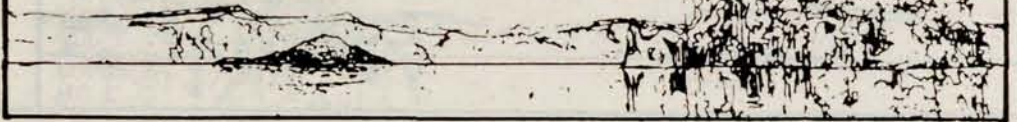
time the chicks were fledging (leaving the nest), one was killed by a predator. Now staff members are anxiously monitoring the remaining chick as it matures.

Three of the four eggs sent to PBRG hatched. They were used in other wild nest sites, other than the park's, for similar nest manipulations.

With a little luck and a pair of binoculars, you may have the good fortune to catch a glimpse of this rare and beautiful bird during your spring or summertime visit to Crater Lake National Park.



Park Resources



Fishing

Fish were first introduced to Crater Lake in 1888. Stocking was discontinued in 1941. About 1.6 million German Brown trout, cut-throat trout, steelhead trout, rainbow trout and silver (kokanee) salmon were planted. It is believed that originally the lake had no fish. Initial stocking efforts were done by William Steel, who was later successful in obtaining national park status for the lake. Steel hand-carried fish in a bucket from lower elevation streams.

Kokanee salmon, a landlocked form of the sockeye salmon, is the most abundant and apparently best adapted Crater Lake fish species. Rainbow are less common but are a favorite with fishermen because of their large size. Average catches for rainbow trout are about 17 to 21 inches while the largest have been measured between 30 and 35 inches.

A fishing license is NOT required. Successful anglers may possess a limit of 10 fish. Fish under six inches must be immediately released. No more than five fish may be more than 12 inches long. Regulations prohibit the use of live or dead bait or nonpreserved eggs. Digging for bait is not allowed. No private boats are permitted on the lake so fishing must be done from shore areas near Cleetwood Cove or Wizard Island, which can be reached by concession-operated tour boats.

Please help the National Park Service by completing a creel census card, available at Cleetwood Cove or Park Headquarters. The information provided will give biologists valuable data on the fish population in Crater Lake.

Clean Air

On a clear day, you can expect to see geographic features over 200 kilometers (125 miles) away. Clean air allows the spectacular views of the surrounding Cascades and the Klamath Basin.

The National Park Service takes an active role in protecting the air over the park from pollutants by monitoring changes in air quality. The park staff monitors the air quality in the park by sampling the particles in the air for chemical analysis, measuring the distance geographic features can be seen and photographing specific points on the horizon. This information assists the park in determining if pollutants are entering the park from outside sources.

Lake Research

Congress passed a law in the autumn of 1982 which established a ten year study of Crater Lake. This legislation is permitting a sustained monitoring program that is accumulating baseline data on chemical, biological and physical features of this spectacular resource. The information should help to establish whether or not any significant long-term changes are taking place in the lake. If there are any manmade changes, corrective action can be taken to arrest the process(es). Changes in the lake that are brought about by natural phenomena such as weather, geothermal heating, etc., would be studied to add to our knowledge of limnological processes. (Limnology is the study of fresh water.)

The principal investigator for

OBSERVATION

Location _____

Date (Month, Day, Year) _____ Time (a.m., p.m.) _____ Weather _____

Description, Behavior, Number, Sketch, Map, Etc. (Use reverse if necessary.)

BE ACCURATE - DO NOT GUESS

Park: _____ Observed by: _____

Wildlife Sightings

Park Resource Management Staff are interested in recording your observations of unusual animals seen in the park. Deer, Jays, ground squirrels and nutcrackers are commonly seen, their presence is well documented and need not be reported.

However, we would like you to report sightings of bear, elk, eagles, hawks, coyotes, wolves, wolverines, falcons, mountain lions or other animals you may observe during your visit. Please be specific as to the location, description and whether you are confident in the positive identification. Your observations will help the park in confirming the presence of certain rare animals. We may need to contact you so please include your telephone number and address on the form.

Fire Management

During your visit to Crater Lake this summer, you may see smoke billowing from the forest. This may be from a natural lightning fire being allowed to burn, or a fire deliberately set by the National Park Service.

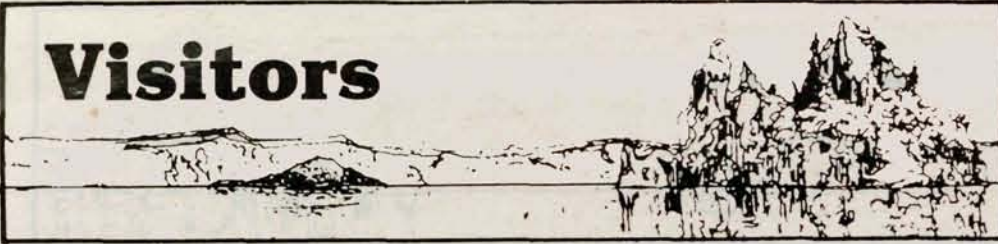
From the early 1900's to the 1970's, fire was excluded from the park. This has created an unnatural fuel buildup on the forest floor and allowed an excessive number of fire sensitive and shade tolerant species to crowd out the native trees. The tall, stately Ponderosa pine is one species which is very fire resistant, but reproduces

poorly in shade. In addition, a series of controlled prescribed fires reduces the fuels to help prevent large catastrophic fires in the future. Evidence of one of these prescribed fires can be seen along Highway 62 just inside the park's south boundary.

A primary objective of the National Park Service in managing natural areas is the maintenance of ecosystem and processes rather than the preservation of single features or species. Fire is recognized as a necessary process and is managed accordingly.



Visitors



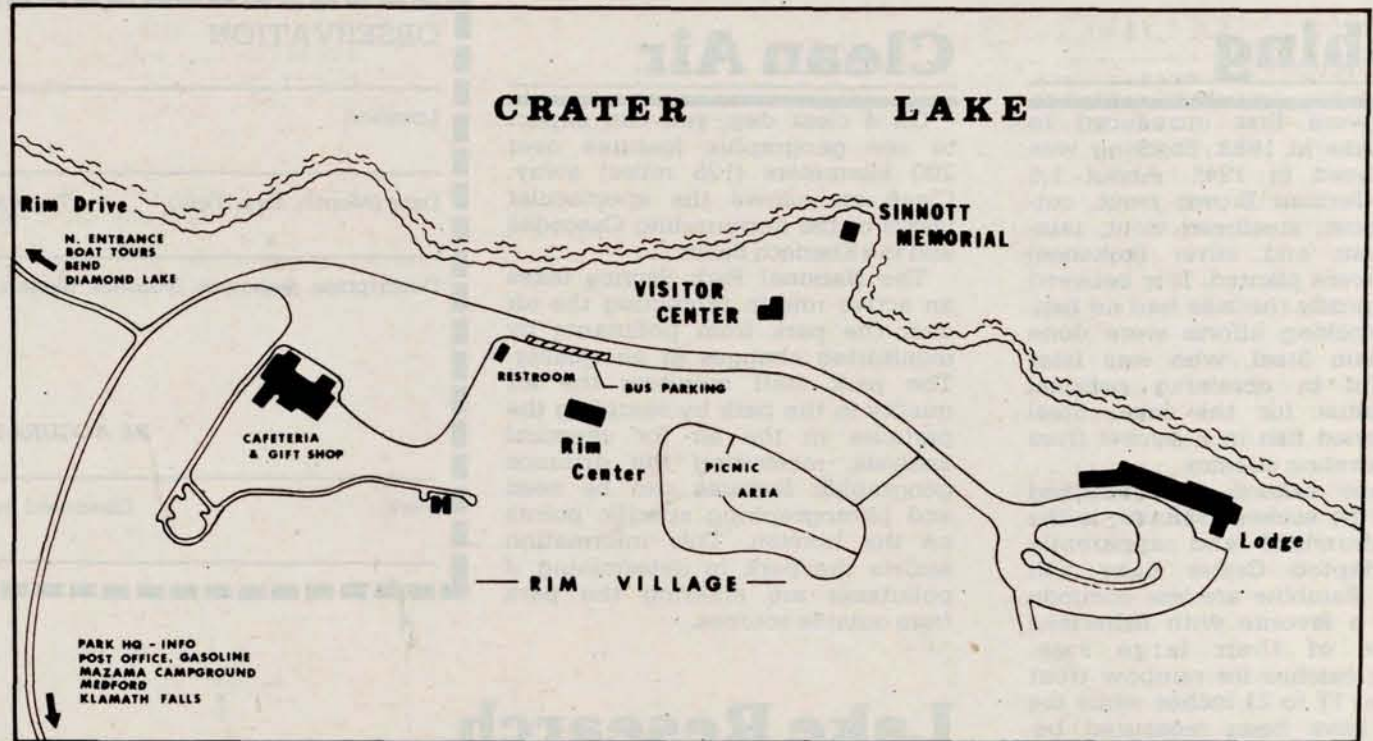
For detailed information about Crater Lake and assistance for making the most of your time here, plan to stop early at the Rim Village Visitor Center. It is located at Rim Village, midway between the cafeteria and Crater Lake Lodge, on the Crater Lake rim (see map).

The Center is open daily from 8 a.m. to 7 p.m. June 28 through Sept. 7 and from 8:30 a.m. to 5 p.m. May 30 through June 27 and Sept. 8 through Sept. 30.

At the Visitor Center you will find:

- Friendly rangers who will answer your questions.
- Books, maps and posters for purchase.
- Backcountry camping permits and wilderness trip planning help.
- First aid assistance.

A unique panoramic view of Crater Lake is from the Sinnott Memorial Overlook, perched on the caldera wall. It is accessible from the Visitor Center via a rock stairway.



FOR YOUR SAFETY

Dogs-

Pets frighten wildlife, disturb others and occasionally fall over the rim. Keep pets on a leash, out of all buildings, and only on pavement.

Falls-

Travel within the caldera rim is prohibited except at the Cleetwood Trail. Beware of snow cornices and be especially careful to watch children near crumbling cliff edges.

Altitude-

Rim Village is 7100 feet above sea level. High altitude puts extra strain on your heart and lungs. Limit your activities to your personal condition.

Animal Bites-

Feeding wild animals is illegal and is also an invitation to be bitten. Rodents are potential sources of several diseases that can be transmitted to pets and humans. Avoid

close contact with rodents and their burrows.

Speed Limits-

Observe posted speed limits and watch for loose rock and wildlife on roadways.

Volcanic Rock-

This is unstable and poorly suited for rock climbing. Travel within the Crater Lake rim is forbidden except at Cleetwood Cove.

Water-

Use caution when drinking water in the backcountry. An intestinal parasite from surface water can cause diarrhea in pets and humans. Chemical treatment is not as reliable as boiling the water for 5 minutes to prevent water borne disease. Tap water is safe. If you're backcountry camping, boil water at mealtimes for next day use.

On Your Own

In addition to the ranger-led programs, you may want to explore the wonders of Crater Lake National Park on your own.

The lake, with its incredibly blue water, is the most spectacular sight awaiting visitors along Rim Drive. A grander sense of the lake's immensity and its environs can be gained from Rim Drive and the many day hiking trails located around the rim. Stay on the trails and take your time. The elevations range from 6,000 to 9,000 feet. Carry water and snacks with you.

Rim Drive is the 33.4 mile loop that encircles Crater Lake.

One may proceed in either a clockwise or counter-clockwise direction around the lake.

Excellent viewpoints are established in several areas along rim drive. The view from Kerr Notch is one of the best for seeing the Phantom Ship.

Also in Kerr Notch is a 7-mile spur road to the unusual spirelike formations known as the Pinnacles. Whichever direction you proceed, please drive within the posted speed limits. The road is narrow and has many sharp curves. Drivers are often distracted by views and wildlife. Again, PLEASE DRIVE WITH CARE!

1. Watchman Peak Trail-8 mile (one way). One hour. Trailhead: Watchman Overlook. Moderately steep. After the snows melt hike to Watchman Peak, topped by a fire lookout. Wizard Island dominates the view from the Watchman.

2. Cleetwood Cove Trail-1 mile (one way). Half-hour to 1 hour. Trailhead: parking area on Rim Drive. Steep. Descend to the surface of Crater

Lake for fishing, boat tours and access to Wizard Island.

3. Mount Scott Trail-2.5 miles (one way). 2 1/2 to 3 hours. Trailhead: parking area on Rim Drive. Moderately steep to steep. Many small animals and birds can be seen while hiking to the peak. A fire lookout sits on the summit. Spectacular 360 degree view. Gnarled whitebark pines. Avoid snowbanks.

4. Garfield Peak Trail-1.7 miles (one way). One hour. Trailhead: Caldera rim east of Crater Lake Lodge. Moderately steep. Hike past beautiful wildflower displays and spectacular lake views to the summit. The panorama of Crater Lake from 1,888 feet above its waters is impressive. Watch for eagles and hawks. Usually open by mid-July. Avoid snowbanks.

5. Castle Crest Wildflower Trail-4 mile (loop). Half-hour to hour. Trailhead: half-mile from Park Headquarters. Easy to moderate. A self-guiding trail booklet is available. Spectacular wildflower displays usually begin in mid-July.

6. Godfrey Glen Trail-One mile (loop). Half-hour to hour. Trailhead: parking area south park road. Easy. Self-guiding trail booklet available. Walk through a forest of mountain hemlocks and Shasta red firs to a steep-sided canyon with pinnacle formations.

7. Annie Creek Trail-1.7 miles (loop). 1 to 1/2 hours. Trailhead: Mazama Campground amphitheater. Easy to moderately steep. Descend to the bottom of Annie Creek Canyon.

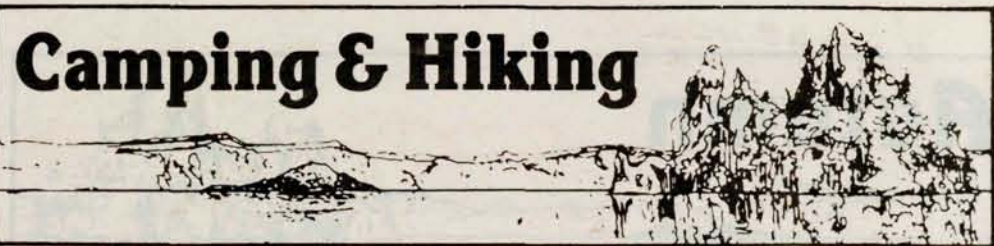
Use Theft Repellent

Don't let your vacation be spoiled by having valuable property stolen while you are at Crater Lake. Campgrounds and trailheads are prime targets.

- Mark your property with your driver's license number; record serial numbers and keep your gear out of sight. Get to know your neighbors. Watch their camp and ask them to watch yours.

- Reduce opportunities by taking valuable items with you when hiking, when away from camp and when sleeping in your tent. Locked cars and trunks are not completely safe. The first place checked by a thief is under the passenger seat for a ladies purse.





Campgrounds

There are two developed campgrounds at Crater Lake. Mazama Campground, with 198 sites, is near Annie Springs Entrance Station. Lost Creek Campground is on the pinnacles spur road from east rim drive. This 12 site campground, for tents only, opens in late July after Rim Drive is plowed free of snow. No fees are charged. The sites fill up in early afternoon during the summer months, so campers should select sites soon after arriving in the park.

Mazama Campground is operated by the Crater Lake Lodge Company. Rates are \$6.50 per site. Sites are available on a first come, first served basis. Reservations are not taken. There are no utility hookups, but fresh water, flush toilets, dump station and telephones are available.

Firewood is available for purchase at the campground entrance. Campers are allowed to collect dead and down firewood. The collection of wood between Rim Drive and the lake is not allowed, to protect the rim's scenic value. Fires are permitted only in fireplaces.

PLEASE REMEMBER:

- Quiet hours are 10 P.M. to 6 A.M.
- Pets must be kept on leashes at all times when outside of vehicles. Pets are not allowed on trails, ranger-led activities or at evening campfire programs.
- Waste water must be collected in closed containers and disposed of at the comfort station or sanitary dump in Loop C of Mazama Campground. No trenching for any purpose is allowed.

- Roadside camping is not allowed.
- There is a 14-day restriction on camping. Sites are limited to six people or one family unit. The park has facilities for group camping.
- Store all food in a vehicle trunk. If no trunk is available, keep food and food containers covered and out of sight inside the vehicle.
- Clean dishes and utensils immediately after use.

- Deposit all garbage in the nearest refuse container.
- Do not store food in tents; do not leave food, food containers, cooking utensils or table scraps in the open.

Camping opportunities are also available and more numerous, outside the park at Diamond Lake, Union Creek and Fort Klamath. Check the map below for locations.

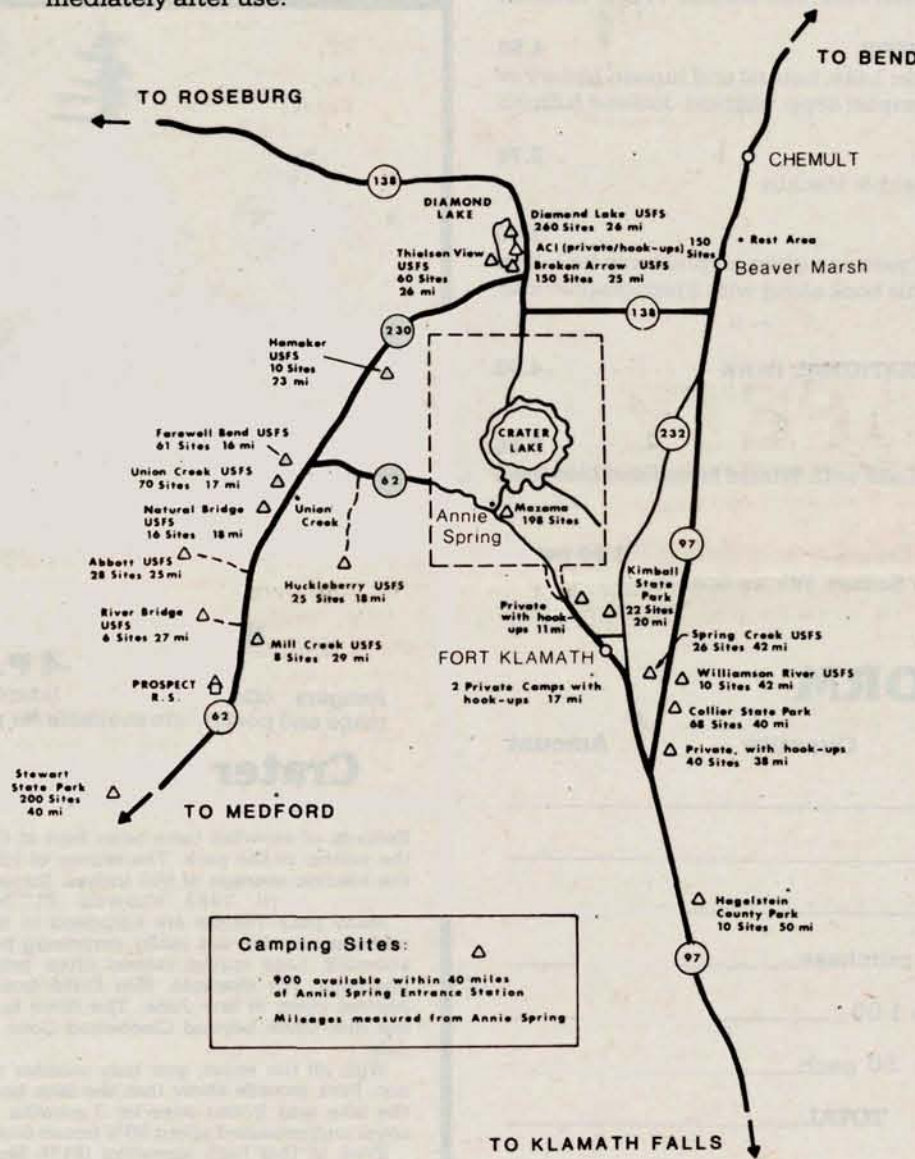
Backcountry

More than 100 miles of maintained trails provide access to Crater Lake's backcountry. Topographic maps and Crater Lake Trails books are available for sale at the Steel Center or the Visitor Center. The trails book suggests many destinations and suitable campsites.

Free backcountry use permits are required for all backcountry overnight stays. Permits are available at the Steel Center, the Visitor Center and on the Pacific Crest Trail where it enters the park.

Horses are permitted on backcountry trails except Mt. Scott and between Rim Drive and Crater Lake. Carry and use feed pellets on all overnight stock trips as grazing is not permitted. Obtain other park stock use regulations at park headquarters. A horse camp is located west of the PCT on Bybee Creek. Dogs are allowed on the PCT but not on any other backcountry trail.

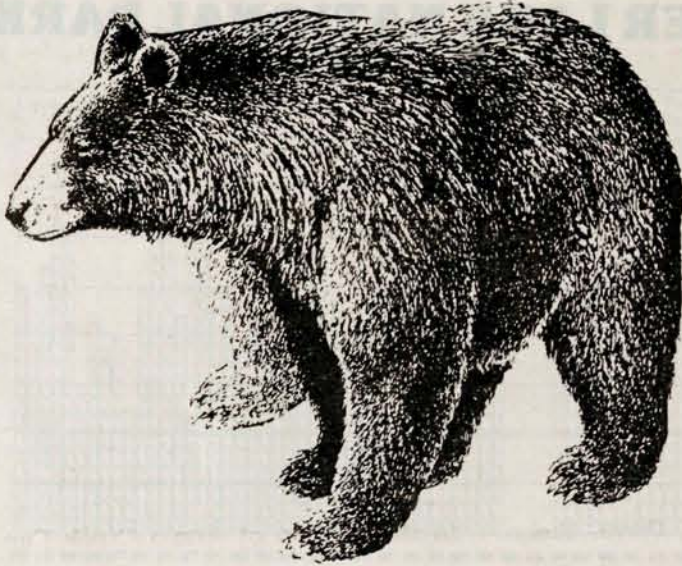
Park rangers can offer many suggestions to help you enjoy your experience and to leave as little human impact as possible on the environment. Preservation and enjoyment of Crater Lake's backcountry depends upon your careful and considerate use.



Camping Sites:
 • 900 available within 40 miles of Annie Spring Entrance Station
 • Mileages measured from Annie Spring



For a quality experience in your national parks... **PLAN AHEAD! SLOW DOWN! PLAY IT SAFE!**
 PACIFIC NORTHWEST REGION NATIONAL PARK SERVICE



Beware of Bears

Every year there are incidents involving bears and visitors, incidents that could lead to the removal or the destruction of the bears. Bears often make early evening visits to Mazama Campground for one reason — food. Ice chests and food boxes are instantly recognized and smashed open. Bears will even remove car windows to get to visible food. Campers have a responsibility to prevent bears from becoming a problem. never consciously or unconsciously store ice chests or food items in the open. Such temptations can cause injuries to campers and bears. Park rangers deal strongly with people who provide food for bears. To protect property, and

- yourself, follow these rules:
- Store all food in a vehicle trunk. If no trunk is available, keep food and food containers covered and out of sight inside the vehicle.
 - Clean dishes and utensils immediately after use.
 - Deposit all garbage in the nearest refuse container.
 - Do not store food in tents; do not leave vehicles unattended with windows open; do not leave food, food containers, cooking utensils or table scraps in the open.
- Bears are a part of Crater Lake National Park's natural systems. Enjoy bears from a distance, don't feed them.



Crater Lake Publications Natural History Association

- A GUIDE TO CRATER LAKE - THE MOUNTAIN THAT USED TO BE** 4.95
Filled with beautiful color photography, this new book introduces the geologic, natural and human history of Crater Lake. A guide to Rim Drive and popular hikes makes this a useful tool to help organize, enjoy and remember a visit to Crater Lake. 48 pp. Warfield
- CRATER LAKE - GEM OF THE CASCADES** 5.95
The in-depth geological story of Crater Lake National Park. 2nd edition. 111pp. Cranson
- CRATER LAKE, THE STORY BEHIND THE SCENERY** 4.50
Gives a story of Mount Mazama, formation of Crater Lake, natural and human history of this scenic wonder. Filled with superb color photographs! 48pp. Warfield, Juillerat & Smith
- DISCOVERING NORTHWEST VOLCANOES** 2.75
A fun and informative book for young readers. Field & Machlis
- CRATER LAKE NATIONAL PARK TRAILS** 2.00
Introduces the more than 140 miles of trails in the park and gives helpful hints for hikers and backcountry users. We suggest that you use this book along with a topographic map of the park. 48 pp. Toops
- USGS TOPOGRAPHIC MAP OF CRATER LAKE NATIONAL PARK** 4.00
Scale 1:62,500. Available folded.
- CRATER LAKE WINTER POSTER** 5.95
Beautiful color print 22x28 inches. View of Crater Lake with Wizard Island and Llafo Rock covered with snow.
- 35mm Slides** 1.50 per set
Five in a set: Geology, Summer Flowers, Summer Scenes, Winter Scenes

ORDER FORM

| Items | Quantity | Amount |
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|-------|----------|--------|

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Total purchase _____

Postage/Handling 1-3 items 1.50 _____

4 or more .50 each _____

TOTAL _____

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Make Checks Payable to:
Crater Lake Natural History Association
P.O. Box 157, Crater Lake, OR 97604

(U.S. Funds only)

Or, on orders of 8.00 or more,
charge my Mastercard VISA

Expiration date: _____

Signature (necessary for MC/VISA) _____

Telephone number _____

Please allow 4-5 weeks for delivery.

(Listing and Prices subject to change.)

Reflections

The Crater Lake Reflections is published for park visitors by the Crater Lake Natural History Association in cooperation with the National Park Service. The Crater Lake Natural History Association is a non-profit organization working with the National Park Service to provide programs of interpretation, education and research in Crater Lake National Park.

To help Crater Lake visitors to better understand, appreciate and protect the park, Association sales outlets at the visitor center and park headquarters offer selected publications and maps. To become a member write to: Crater Lake Natural History Association, P.O. Box 157, Crater Lake, OR 97604.



VISITOR CENTER

8 A.M. to 7 P.M. Daily June 28-Sept. 7
9:00 A.M.-4 P.M. early June & Sept.

Rangers offer assistance, information, backcountry permits. Publications, maps and posters are available for purchase.

Crater Lake Accumulative Snowfall

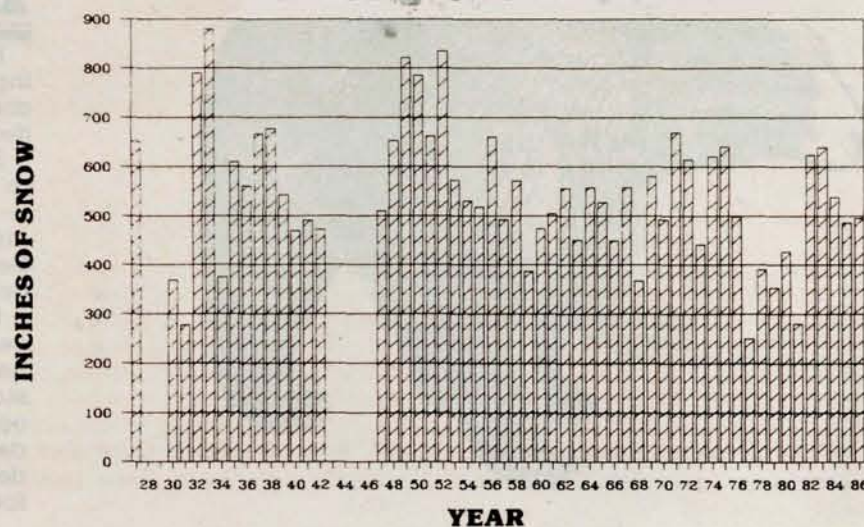
Records of snowfall have been kept at Crater Lake since 1926, when the first ranger spent the winter in the park. The winter of 1932/1933 provided 878 inches of snowfall, far above the historic average of 550 inches. Snow on the ground of 14 foot depth is common by late winter. April 1983 showed 21 feet (252 inches) of snow on the ground.

Many park visitors are surprised to find so much snow remaining at the park, even in mid-summer. It's not really surprising because the park annually receives about 45 feet of snowfall. Late spring storms often bring many feet of snow delaying road and facility openings. For example, Rim Drive from park headquarters to North Entrance usually is plowed open in late June. The drive to Cleetwood Cove is usually opened by July 4, but the Rim Drive beyond Cleetwood Cove to park headquarters may remain closed until late July.

With all the snow, you may wonder whether the lake freezes in winter. Usually it does not. Park records show that the lake has frozen over only four times this century. In 1949, the lake was frozen over for 3 months. In January, 1985, the lake surface had a skim ice cover and remained about 90% frozen over into early February.

Even at this high elevation (6176 feet above sea level) why the lake doesn't freeze is simple - it's too deep. Water below the 328 foot level is a constant 38°F, which is warmer in winter than the surface water. Heat, given off by the warmer water, rises toward the surface and retards ice formation. Because of this depth - 1932 feet, and average 1500 feet - Crater Lake stores a great amount of heat.

CRATER LAKE NATIONAL PARK ANNUAL SNOWFALL





Lodging

The Crater Lake Lodge is located on the Rim and offers views of the lake and surrounding mountains. Construction of the lodge began in 1909 and after five summers the first structure was completed. Additions to the lodge were built between 1923 and 1953. The massive rock and log construction and the rustic lobby are in keeping with the spirit of an earlier time. Since the lodge was built during a bygone era, some of the amenities that we take for granted weren't included. The lodge has no elevators; some rooms don't have baths; and some rooms lack plumbing altogether. The lodge also features a rustic dining room and a 35 seat lounge for T.V. and games. Accommodations available June 6 to September 20. Reservations are suggested. (503) 594-2511.

The full bath, Ponderosa cottages are two individual quad structures and are the most modern accommodations in the park. Located behind the Cafeteria/Gift Shop building, the cabins are available from late May to early September. Check-in at the lodge front desk during peak season and at the Employee Dorm building during spring and fall. Reservations are suggested. (503) 594-2511.

Food and Drink

The CRATER LAKE DINING ROOM offers dining in the rustic atmosphere of the Crater Lake Lodge. Open June 14 to September 13. Breakfast: 7 A.M. to 9 A.M. featuring trout, omelettes and pancakes. Dinner: 5:30 P.M. to 9 P.M. including steaks and seafood.

CALDERA LOUNGE - in the lodge; open 4 P.M. to 11 P.M.; serves spirits, wine and beer.

CAFETERIA - Adjacent to Gift Shop - Breakfast, Lunch and Dinner - 7 A.M. - 8 P.M., 6 P.M. after September 13.

WATCHMAN DELI LOUNGE - located above the Cafeteria - open noon to 11 P.M. informal food and atmosphere. Open June 15-September 7.

MOUNTAIN FOUNTAIN - located in Gift Shop - open 11 A.M. to 7 P.M. during summer. Hamburgers, hotdogs and french fries. Open to 5 P.M. after September 1.

CAMPER STORE - located adjacent to Gift Shop - grocery, camping needs, Oregon food products, and wines.

Gifts & Souvenirs

CRATER LAKE GIFT SHOP - located in Cafeteria/Gift Shop at Rim Village - open year round; summer hours: 8 A.M. to 8 P.M. through September 10. A wide selection of gifts, jewelry, souvenirs and Pacific Northwest handicrafts.



Tours

The Rim Drive bus departs Crater Lake Lodge at 10 A.M. and 2 P.M., weather and road conditions permitting. The two hour tours focus on the geological and natural wonders of the park. Tickets available at Lodge.

Boat Tours leave hourly 9 A.M. to 3 P.M. from Cleetwood Cove dock for 2 hour tour of Crater Lake (July thru Sept.)

Visitor Services

Post Office

Located in the Steel Center lobby. Window service June through September - Monday-Friday 9 A.M. to 5 P.M.; Saturday 9 A.M. to noon. Mail slot available 7 days a week from 8 A.M. to 5 P.M.

Worship Services

Interdenominational worship services are offered on Sundays between June 27 and September 6 by a Christian Ministry in the National Parks. Services are held at the Mazama Campground amphitheater and at the Rim Center building in Rim Village. Check bulletin boards for times. Catholic Mass is provided on Saturdays from June 20 to September 6 at 6:30 P.M. in the Rim Center building.

Telephones

Public phones available at the Steel Center, Cafeteria, lodge, Rim Village restroom and Mazama Campground.

Oregon Caves National Monument

Oregon Caves National Monument, established in 1909, is located 149 miles from Crater Lake on SR 199 in Southwest Oregon. The cave is situated in a marble outcropping, amid the timeless forest of the rugged Siskiyou mountains. The cave interpreters focus on the natural and human history of the cave and the surrounding area. The restoration of the cave, begun in November, 1985, has exposed beautiful long hidden formations, returned rooms and passages to their original size and splendor, and shown us how to better preserve the cave in a near natural state. Outside the cave are trails that take you through one of the oldest temperate climate forests in the world and over mountains that are rich in gold and lore. Tours are conducted throughout the year. In summer tours are from 8 A.M. to 7 P.M.

Oregon Caves Chateau offers accommodations from June to September. The Chateau, which was completed in 1934, rises among waterfalls six stories from the floor of a wooded glen. The Chateau lobby attains its unique character from two large marble fireplaces, frequently in use during cool summer evenings, and from the huge fir timbers that frame it. The dining room has been well complimented by the public and the press.

Lost & Found

Contact a park ranger at the Visitor Center or Steel Center.

First Aid

Stations located at park headquarters or Rim Village Visitor Center or contact any patrol ranger in a marked vehicle. To report emergencies or fires, call 911.

Disabled Visitors

Most viewpoints are accessible for persons in wheelchairs. Ramps are in place at the Visitor Center, Rim Center, Crater Lake Lodge and Rim Village Cafeteria-Gift Shop. Mazama Campground amphitheater has paved walkways. Restrooms at Mazama Campground, The Steel Center, and Rim village are accessible for wheelchairs.

Service Station

Gasoline, oil and limited automotive needs are available near park headquarters. Open May 23 to September 27. Call (503) 594-2511.



PROGRAMS FOR VISITORS

INFORMATION

Rim Village Visitor Center; 8:00 AM - 7:00 PM daily
Steel Center; 8:00 AM - 5:00 PM daily.

CRATER LAKE MOVIE

Rim Center at Rim Village; 10:30 AM, 11:30 AM, 12:30 PM, 1:30 PM, 3:30 PM, 4:30 PM.

Steel Center; upon request daily from 8:00 AM to 4:30 PM (limited seating)

GUIDED TOURS AND TALKS

Crater Lake Talks at Rim Village; Continuously from 9:00 AM to 5:00 PM.

Crater Lake Boat Tours; 9:00 AM, 10:00 AM, 11:00 AM, 12:00 NOON, 1:00 PM, 2:00 PM, 3:00 PM.

Munson Valley Historical Tours; 11:00 AM daily.

CHILDREN'S PROGRAMS

Rim Center at Rim Village; 2:30 PM daily.

Mazama Campground... 9:00 AM on Mon. thru Sat.

EVENING PROGRAMS

Rim Center at Rim Village... 8:00 PM daily

Mazama Campground Amphitheater... 9:00 PM daily thru Aug. 2; 8:30 PM daily after Aug. 2



The Constitution Of The United States



...200 Years Old

In 1987, all Americans will celebrate the 200th anniversary of the writing of our Constitution. This document has established the basic relationship between the citizens of the United States and their government. It has preserved our freedoms, and at the same time provided enough power for the Federal Government to carry out its responsibilities as a strong central government.

The Constitution of the United States has had a direct impact upon the national parks. First of all, it is under the authority of the Constitution that the federal government can establish and maintain all area of the National Park System. Also, the idea of national parks as pleasuring grounds for the enjoyment of all the public follows the democratic concepts of the Constitution.

The National Park System includes most of the unique natural and cultural resources of America which this generation will pass on to the next. These lands should and must be protected. Together we can insure their continued protection and availability for future public use if we care for them today. Let's take pride in our public lands and TAKE PRIDE IN AMERICA!

BOAT TOURS

June 27-July 3 — 9, 11, 1 and 3 P.M.

July 4-Sept. 7 — Hourly 9 A.M. to 3 P.M.

Leave Cleetwood Cove dock hourly for 2 hour Ranger-narrated tours around Crater Lake. A fee of \$8.50 for adults and \$5.00 for children under age 12. Children 18 months and under are admitted free. Fees are charged by the Crater Lake Lodge Company. Allow at least 1 hour to drive from Rim Village to Cleetwood Cove Parking area on Rim Drive and hike down the 1 mile trail. A stop is made at Wizard Island where visitors may spend time on the island and return on a later boat (space available).

Bring jackets, drinking water and snacks. Restrooms are available near trailhead and near dock. For more information check at Visitor Center or Gift Shop.

NOTE: The trail is very strenuous and is recommended for those in good physical condition.

BICYCLING AT CRATER LAKE

Cycling around the rim of Crater Lake can be a very rewarding experience.

The entire circle is 33 miles and there are no shoulders along the route. There are numerous LONG, STEEP grades. The highest point you will cross is 7,700 feet near the base of Mount Scott. The road is narrow and two-laned.

The entire Rim Drive is opened to two-way traffic. All park traffic laws for vehicles must be adhered by the cyclists.

Due to frequent rockfalls on the road, heavy traffic and high speeds on the downhill stretches, we strongly recommend that you wear a helmet. There is no water along the rim except at Rim Village. Bicycles are not permitted on trails in the national park.

For more information, contact a park ranger at the Visitor Center or Steel Center.

CRATER LAKE MOVIE

An 18 minute movie on Crater Lake will be shown 10:30, 11:30, 12:30, 1:30, 3:30 and 4:30 daily at the Rim Center at Rim Village, located diagonally across the road from the Visitor Center.

This movie is also shown on request at the Steel Center from 8:00 A.M. to 4:30 P.M.

CRATER LAKE TALKS 9 A.M. to 5 P.M.

Meet a park ranger at the Rim Village Lake Overlook for 10 to 15 talks about Crater Lake. Talks begin 9 A.M. Last talk will begin at 5 P.M.

WILLIAM G. STEEL CENTER

Open Daily 8 A.M. to 5 P.M. The Steel Center offers visitor information, permits, exhibits and Crater Lake Natural History Association bookstores. The Steel Center is located 3 miles south of Rim Village at the park headquarters complex.

SINNOTT MEMORIAL OVERLOOK

Open daily 9 A.M. to 6 P.M. (unattended). Located inside the Crater Lake Caldera near the Visitor Center at Rim Village, the Sinnott Memorial offers a panoramic view of Crater Lake. The exhibit room is open at times when a ranger is present.

EVENING PROGRAMS

8 P.M. daily from June 28 to September 7, 1987. 45 minute presentations on aspects of Crater Lake National Park. Topics change nightly and are posted. Held in the Rim Center at Rim Village.

CAMPFIRE PROGRAM

9 P.M. daily from June 27 to August 1 and 8:30 P.M. from August 2 through September 7. 45 minute presentation on aspects of Crater Lake National Park. Topics change nightly and are posted. Held at the Mazama Campground Amphitheater located at Mazama Campground between loops D and E.

CHILDREN'S PROGRAMS

9 AM daily (except Sunday) at Mazama Campground and 2 PM daily at Rim Center at Rim Village 1/2 hour to 45 minute presentations specially for children ages 6 to 12.

RANGER GUIDED WALKS 11 A.M. daily.

Meet at the Steel Center near park Headquarters (3 miles south of Rim Village). 1/2 hour to 45 minute walk to some of the park's historic structures.