

Crater Lake Reflections



The Newspaper of Crater Lake National Park

Summer 2001

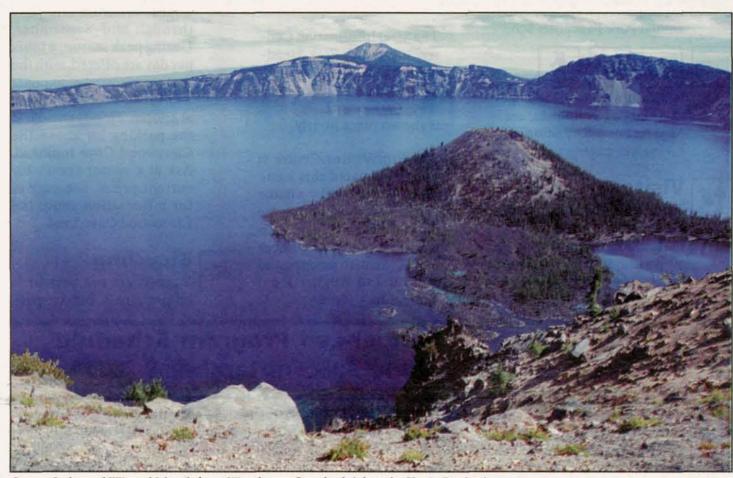
A Century of Stewardship

Crater Lake National Park protects some of the world's most spectacular and awe-inspiring scenery. Generations of people, from American Indians with deep roots in the land to modern tourists visiting from the far reaches of the globe, have looked out over this landscape and wondered at its beauty.

Visitors this summer will see evidence of the National Park Service's ongoing stewardship of Crater Lake. Rim Village will be busier than usual, as renovation proceeds on four historic structures built in the 1920s and 30s. A temporary visitor center will fill in while the old one is restored. Meanwhile, National Park Service trail crews, assisted by the Northwest Youth Corp, will work to make the Godfrev Glen Trail accessible to all visitors. This project is funded by the park's entrance fees through the recreation fee demonstration project.

Visitors will see reminders this year that southern Oregon is experiencing a severe drought. Water and electricity are short, and your help in conserving these resources is greatly appreciated. A regional crisis such as this is a reminder that responsible stewardship does not stop at the park boundary.

If you attend a ranger-led program, you may learn about new research conducted in Crater Lake just last August. The lake bottom was mapped for the first time in 41 years, producing the most detailed map ever made of the lake basin. The



Crater Lake and Wizard Island, from Watchman Overlook (photo by Kevin Bacher)

study has given scientists new insights into this volcano's history and potential future. Meanwhile, ongoing studies continue to remind us of Crater Lake's significance as one of the world's most pristine lakes, and its importance as a natural laboratory.

Next year Crater Lake will mark one hundred years as a national park. Mark your calendars, as plans are underway for a summer full of special activities to celebrate this event.

For one hundred years, the National Park Service and its predecessors have held this place in trust—the most recent caretakers of a land-

scape that has been important for generations. We celebrate this heritage, and a landscape that, with careful stewardship, will continue to inspire and educate the people of the world for centuries to come.

Chuck Lundy, Superintendent



Inside

Planning Your Visit
Construction in Rim Village
Help Us Conserve Water
Jr. Ranger Activities 4-
Centennial Plans
Mapping Crater Lake

Crater Lake NHA8
Northwest Youth Corp9
Friends of Crater Lake9
Exploring Park Trails10
Exploring the Backcountry 11
Visitor Services12

Park Information

(541) 594- 2211 Ext. 402 www.nps.gov/crla

Planning Your Visit

Summer 2001 Page 2



Entrance Fees

The entrance fee for Crater Lake National Park is \$10 per family car. The rate is higher for commercial vehicles. An annual Park Pass costs \$50.









For information on lodging, camping, and supplies, see page 12. For information on hiking, see pages 10-11.



Visitor Centers

There are two visitor centers at Crater Lake National Park. Both are fully accessible and staffed by park rangers who can assist you with park information, trip planning, weather forecasts, and backcountry permits. Books, maps, posters, and other educational materials are sold at both locations.

The Steel Information Center, located at Park Headquarters, is open 9:00am -5:00pm daily. A 16-minute film, *The Crater Lake Story*, is shown twice hourly.

The Rim Visitor Center is being renovated this summer. A temporary visitor center is located next to the Cafeteria in Rim Village. It is open in June and September from 9:30am to 5:00pm, and in July and August from 9:00am to 5:30pm.



Boat Tours

The Crater Lake Lodge Company offers I hour and 45 minute ranger- narrated boat tours from late June through mid-September. During peak season, 9 tours per day are offered, with the first tour leaving at 10:00am and the last tour departing at 4:30pm. Tickets are sold at the parking lot above the Cleetwood Cove trailhead. Ask at a visitor center for current prices. See page 10 for information about the Cleetwood Cove Trail.



Pets

bright clothing.

Pets are prohibited in the backcountry and on all trails. Pets on a leash or otherwise physically restrained are permitted within 50 feet of roads and established parking areas, campgrounds, and picnic areas.

mitted on all roads. Park

roads are narrow with lim-

ited sight distance. Cyclists

should wear helmets and



Fishing

Fishing is permitted in Crater Lake with artificial lures. Pick up a brochure on fishing at either visitor center.



Bicycling

Bicycles are not permitted on park trails, but are per-



Ranger-Led Program Schedule June 30 - September 3, 2001

Sun Mon Tue Wed Thu Fri Sat

Hot Topics (11:00am Monday and Friday) - Our understanding of Crater Lake National Park continues to grow, even as we face increasingly complex challenges. Learn about current issues or recent research. Meet on the back porch of the Crater Lake Lodge. (30 minutes)		1				>	17 N
Circle of Life (11:00am Wednesday and Saturday) - All things are connected! Join a ranger to learn about the plants and animals of Crater Lake. The species featured will vary. Meet on the back porch of the Crater Lake Lodge. (30 minutes)		due) (100) (100)	1	Jude Death Starr		1
Discovering Crater Lake (1:30pm and 3:00pm daily) - Learn about the special qualities and features of the "Jewel of the Cascades," and how it came to be. Meet on the back porch of the Crater Lake Lodge. (20 minutes)		1	1	1	1	1	1
Junior Ranger Program (5:00pm daily) - Visitors from 6 to 12 years old may become "Junior Rangers" by participating in this activity! Meet at the Mazama Campground amphitheater (between D and E loops). (1 hour)			1	1	1	1	1
Evening Campfire Program (Nightly, 9:00pm in July, 8:30pm in August, 8:00pm in September) - Relax under the stars and learn more about Crater Lake National Park during these slide presentations. Topics vary nightly. Programs are held at the Mazama Campground amphitheater (between D and E loops). (1 hour)			1	1	1	1	1

Beyond the Pavement

Discovery Point Hike (9:30am Sunday and Thursday) - Hike to the place where Crater Lake was "discovered" by prospectors in 1853. Meet at the temporary visitor center in Rim Village. (2 miles, 3.2 km, 2 hours)	1	177 1 14 21	-	E and	1	hao.	eux Ului
Garfield Peak Hike (9:30am Tuesday and Saturday) - Enjoy spectacular views and wildflowers as you hike up this beautiful peak. Meet on the back porch of the Crater Lake Lodge. (3.4 miles, 5.5 km, 2 hours)		ligari alta E	1				1
Annie Creek Canyon Hike (2:00pm Saturday and Sunday) - Enjoy a cool mountain stream in a beautiful canyon. Meet at the Mazama Campground amphitheater (between D and E loops). (1.7 miles, 2.7 km, 1½ hours)	1		1017	SLA			1
Watchman Peak Sunset Hike (Friday and Sunday, 8:00pm in July, 7:30pm August 1-21, 7:00pm August 22- September 4) - Take a twilight hike with a park ranger to this breathtaking viewpoint. Meet at the Watchman Trailhead parking area, and bring a flashlight. (1.4 miles, 2.3 km, 1½ hours)	1					1	

Planning Your Visit

Summer 2001 Page 3

Finding Your Way Around Rim Village

This summer, four historic buildings at Rim Village will be renovated and restored to their historic appearance. Construction will make Rim Village more crowded than usual, and some services will be moved temporarily to new locations.

Visitor Information

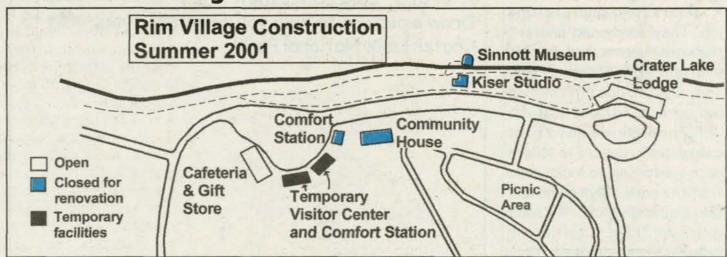
The Rim Visitor Center (Kiser Studio) and Sinnott Memorial Overlook are both closed for renovation. A temporary visitor center is located next to the cafeteria and gift store.

Bathrooms

The Rim Comfort Station is closed. Temporary facilities are located next to the temporary visitor center.

Lodging, Food, and Gifts

The Crater Lake Lodge, Gift Store, Watchman Restaurant, and Llao Rock Café are open as usual.



The four structures being renovated were built in the 1920s and 30s. The Rim Visitor Center (Kiser Studio) was originally a photographic studio. The Sinnott Memorial Overlook and Museum offers one of the most spectacular views in Rim Village, as well as exhibit space. The Community House was

used for many years to host activities including evening slide shows and children's programs. These three structures and the Rim Comfort Station were designed to fit in architecturally with the natural environment around them. All have suffered the stresses of time. The Community House and Sinnott

Museum, in fact, have not been used for many years.

We ask for your patience during this summer's construction. The result will be greatly improved services, and facilities that have been restored to their historic character.

Please Help Us Conserve Water and Electricity

The winter of 2000- or has been one of the driest on record in southern Oregon. Little snow in the winter means less water and electricity during the summer. You can help by conserving water and power during your visit to Crater Lake.

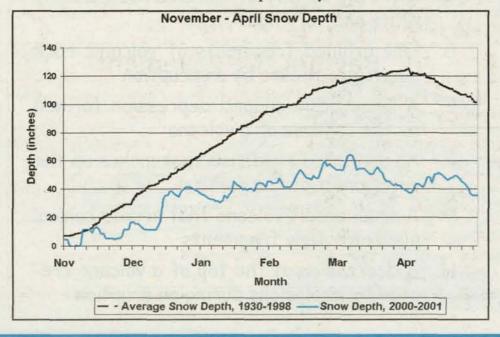
Crater Lake National Park's snowpack, usually more than ten feet deep by late March, reached only half of that this year. Total snowfall was also barely half of the average.

Our 44 feet of snowfall is an important source of water during the summer. Most years, the snow pack lingers at high elevations until July. The melting snow, gradually draining through underground aquifers and supplying springs with water, keeps rivers flowing and reservoirs filled throughout the summer. People in the Klamath Basin and Rogue and Umpqua Valleys depend in part on snow melting within Crater Lake National Park for the water they drink and use to irrigate their crops. Wildlife in rivers and marshes depends on the water as well. A significant percentage of Oregon's

power is hydroelectric, produced Park has been implementing by water in reservoirs.

In anticipation of this summer's drought, emergency measures have been put in place throughout southern Oregon. Lawns will go brown and cars unwashed. Farmers will leave fields fallow.

The National Park Service is dedicated to conserving water and power as well. Crater Lake National conservation measures for several years. Those efforts have been redoubled. Rangers use leak detection equipment to find and mend small breaks in the park's water lines. Low-flow shower heads and toilets and spring-loaded faucets have been installed throughout the park. Measures such as these have reduced water usage by almost 15% over the past five years.



What you can do

- □ Take shorter showers
- □ Turn off lights
- ☐ Turn off the air conditioning
- ☐ Turn down the thermostat on the furnace
- Skip the car wash
- Reuse hotel linens
- Don't leave the water running

You, too, can make a difference. Take shorter showers, and don't leave the water running as you brush your teeth. Turn off lights when you aren't using them. Turn down your thermostat and turn off the air conditioning. If you stay more than one night in a hotel, ask that your linens not be washed every day.

This summer, Oregon's residents, wildlife, and visitors will share the same limited supply of water. With careful effort, we can all do our part to make sure there's enough to go around.

Summer 2001 Page 4

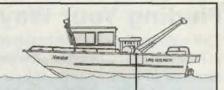
Dark Rangers have a very interesting and exciting job. They study and protect the water, plants, and animals at Crater Lake National Park. They also provide information and services to many visitors. Unfortunately, we don't have enough park rangers to talk to each visitor, or to make sure that the park stays clean and the animals stay safe. We need your help! These activities will help you learn more about Crater Lake. You'll still need to complete a Jr. Ranger booklet (available at park visitor centers) to become an official Jr. Ranger and receive a badge, but these activities will help you learn more about this exciting place. Once you know more about the park you can help us protect it. Good luck. We're counting on you!

A Crater Lake Snapshot

Draw a picture to help you remember your visit to Crater Lake National Park!

My favorite place in Crater Lake National Park

•



One of the devices scientists use to measure the clarity of Crater Lake's water is a "Secchi disk," an eight-inch metal disk painted black and white for better visibility. The disk is lowered over the side of a boat on a cable until it can no longer be seen; then the cable is measured. Scientists commonly see the disk more than 100 feet beneath the surface of Crater Lake, and in 1997, set a world record with a reading of 142 feet!

How far is 144 feet? Use the ruler on the next page to measure the length of your stride. Then figure out how many steps you'd have to take to go 142 feet. Pace off the distance and you'll see how clear the water in Crater Lake is!

Volcano Word Match

Match each word with its correct meaning:

- 1. ____ Pumice
 2. ____ Caldera
- 3. ___ Cinder Cone
- 4. ____ Magma
- 5. ____ Volcanic Ash
- 6. ____ Tectonic Plate
- 7. ____ Volcanologist
- 8. ____ Crater

- A. A scientist who specializes in studying vol-
- B. Molten rock below the earth's surface
- C. A frothy variety of volcanic rock, usually white and very light
- D. Fine-grained fragments of volcanic rock blown into the air by an eruption
- E. A large basin-shaped depression formed by the collapse of a volcano
- F. An enormous rigid slab that makes up the outer crust of the earth
- G. A small basalt volcano that erupts conical piles of bubbly fragments
- H. A depression at the top of a volcano created by explosions during an eruption

Jr. Rangers

	Summer 2001		Page 5
11	The Anim	nals Need Your Help	Celebra
10	Wild animals are and seeds that repeople still feed and for people. Me for winter. When long and rots before	conly supposed to eat wild food (like grass naturally grow in the park). Unfortunately, them. Feeding animals is bad for animals lany animals store their food and save it they store "people food" it doesn't last the animals can eat it. With their stored arve during winter. Also, animals do bite	
9	the hands the	at feed them. In order to protect people we try to stop people from feeding them.	Notice of the Indiana Section of the Indiana
	We need to	make a sign that lets everyone know it is feed wild animals. Can you draw a sign that	Jan
8		awind set me	- B
	WildlifeWatch		ada: food water shalter and space
7	There are many types of habitats. National Park. All living things inter	nal lives that provides it with everything it ne Forests, meadows, streams, and mountains of act with other living things in their habitat. E Types of habitat for the animals you see, then	re all habitats found in Crater Lake verything is connected in the web of
6	Animal	<u>Habitat</u> <u>B</u>	ehavior Address of the control of th
	- 6:		ned lo showwords not specifically of
5		Valv stality	ptol synt squ
	Scavenger Hunt!	answers to	Nord Match: 1C, 2E, 3G, 4B, 5D, 6F, 7A, 8H
4	Locate the following 6 items. Draw	a picture of each item in the boxes below, lab ortant part of Crater Lake National Park. The ove them from the park.	
	a ground squirrel	a fire lookout	
3	a piece of lichen	a waterfall	W
	a park ranger	a hemlock cone	S
2	The state of the s	in I rough add to gammon Command to the command of the command to the comm	To regard day # 1 and stagic Plans William select
1	Langeror Contractor Services	to the second of	or reservoires and property and build

Centennial Plans

Summer 2001 Page 6

Celebrating a Century of Stewardship

For generations, Crater Lake has been a place of beauty and mystery. Almost one hundred years ago it became one of America's first national parks. Next year we will celebrate that anniversary, and the landscape itself that has inspired so many for so long.

Numerous projects have been proposed as part of our centennial celebration. Sponsors are still needed for many projects, so this list should be considered tentative and subject to revision.

Will Steel's Dream: The Crater Lake Legacy

A video program will document the efforts of William Steel, who labored for seventeen years to encourage the establishment of Crater Lake National Park. The program will be produced by Southern Oregon Public Television.

Crater Lake History Book

Crater Lake has been significant in the lives of people for thousands of

"...to forever

and cultural

appreciation

inspiration."

- Crater Lake

National Park

Strategic Plan

education, and

foster

preserve the beauty

of Crater Lake and

its unique ecological

understanding and

through enjoyment,

years. Several Native American groups have long considered Crater Lake central to their cultures. European-American explorers re- discovered the lake in the heritage, and to mid 1800s, and in 1902, the lake and its surroundings became one of America's first national parks. This book will explore the history of Crater Lake from its origins to the present day.

William Steel Drama

William Steel spent seventeen years building support in Congress and among the public to establish Crater Lake National Park. He helped found the park's first concession company, then served as its second



superintendent. He played an active - and sometimes controversial role in the management of the park until his death in 1934. A one-man

drama is being written to commemorate Steel and his role in the park's history. A traveling exhibit will accompany the drama as it tours throughout the state of Oregon during the centennial year.

Artists-in-the-Park Program From October 2000 to October 2001,

for residencies of 2-12 weeks at Cra-

ter Lake National Park. Artists stay in park housing and are provided studio space. The artworks they produce will be included in an exhibition at the Schneider Museum of Art in 2002.

William Steel

Centennial Celebration, May 2002

The bill establishing Crater Lake National Park was signed into law by President Theodore Roosevelt on May 22, 1902. To commemorate the 100th anniversary of this date, receptions

have been proposed in the gateway communities of Klamath Falls, Medford, and Roseburg.

Centennial Celebration, August 25,

Since Crater Lake National Park

typically has more than five feet of snow on the ground in late May, our primary centennial celebration will be held in August, on the anniversary of the founding of the National Park Service in 1916. Suggested events include a park rededication ceremony and an antique car show.

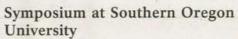
Crater Lake National Park Employee Reunion

Hundreds of individuals have served at Crater Lake National Park over the past century. An employee reunion will invite all current and past employees to return to celebrate one hundred years of service.

Special Issue, Journal of the Shaw Historical Library

The Shaw Historical Library will publish a special issue of their journal

artists have been invited to compete in recognition of the park's centen-



For more than a century, scientists and educators have investigated the unique ecology and geology of Crater Lake, and artists have inter-

preted its beauty. An interdisciplinary symposium jointly sponsored by Southern Oregon University and the Oregon Institute of Technology will celebrate the many ways that Crater Lake continues to inspire us.

Crater Lake Science and Learning Center The Crater Lake Sci-

ence and Learning Center is intended to bring together scientists, artists, and educators to work toward a common goal of effective natural and cultural resources stewardship and education. The Center will provide support for individual

Dates to Remember

May 2002

Anniversary of the establishment of Crater Lake National Park; receptions in Klamath Falls, Medford, and Roseburg

August 25, 2002

Centennial Celebration and Rededication at Crater Lake National Park

October 4-6, 2002

Symposium at Southern Oregon University, Ashland; Crater Lake Centennial art exhibit opens at the Schneider Museum of Art, Ashland

researchers and educators ranging from K-12 through the nation's university system. Its emphases will be to attract high quality, focused investigations, and to incorporate information from scientific research into management decisions, interpretive programs, and educational materials.

Centennial License Plate

A license plate featuring Crater Lake National Park has been proposed in recognition of the park's 100th anniversary. The license plate would focus attention on Oregon's only national park, and would give Oregon

> vehicle owners way to show support for park programs. The special license plate would also promote travel to Crater Lake and the state of Or-



The historic superintendent's residence may house part of the proposed Science and Learning Center

egon through its use by Oregon motorists.

An Act of the Oregon Legislature will be needed in order to establish a Crater Lake Centennial License Plate program.

Mapping the Lake

Summer 2001 Page 7

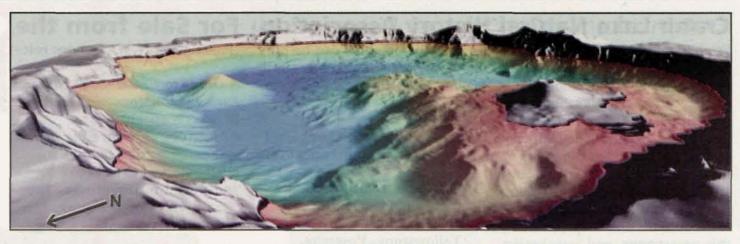
Getting to the Bottom of Crater Lake

Tom McDonough

Ever wonder what's on the bottom of Crater Lake? Scientists do, and last summer they took a close look without even removing any of the water. Using the latest echo-sounding technology, researchers unveiled details on the bottom of Crater Lake never before seen, and discovered that our lake is even deeper than previously believed.

The lake partially fills a 3,900 foot deep caldera that formed 7,700 years ago following a major eruption of Mount Mazama. About 12 cubic miles of mountaintop disappeared as the summit of the volcano collapsed into its magma chamber. During the following centuries smaller eruptions occurred above the collapsed mountain even as water began to accumulate.

The base of Wizard Island and a series of overlapping lava flows immediately to the east, called the Central Platform, appear to have formed at the same time. North of the Central Platform is a volcano slightly larger than Wizard Island



called Merriam Cone. Except for Wizard Island, all of these volcanoes have been concealed by hundreds of feet of water for at least 7,400 years.

Last summer, scientists from the U.S. Geological Survey and the University of New Hampshire, cooperating with the National Park Service, used the most accurate sounding equipment available to look at the bottom of the lake. A high-resolution multi-beam sonar scanner was attached to the underside of a research boat and flown by a helicopter to the lake. As the boat traveled across the surface of the lake, sound waves were transmitted from it. A computer converted the sound echoes into images of the bottom. More than 16 million soundings were used to construct the most accurate picture yet of the lake basin.

Underwater features have been explored before. During the summers of 1988 and 1989, scientists used a small submarine to visit the bottom of the lake. Before this, core samples of sediment had been extracted. But last summer's exploration was the most comprehensive examination so far of the lake bottom. Not only was the entire basin pictured but objects as small as three feet across could be identified.

In the pictures on this page, you can distinguish deeper regions of the lake (colored blue) from shallower areas (colored orange). The Central Platform is to the east of Wizard Island. On its northeast side is a depression that looks like an eroded crater. Lava channels are clearly visible radiating from the depression. Where these channels meet the ancient shoreline surrounding the Central Platform, the lava flow fractured and rolled downward into the deepening lake. This has left the Platform, and the plateau beneath Wizard Island, with very steep sides.

Several lava shelves appear along the slope of the Wizard Island plateau. Here again, lava entering the lake marked the ancient lakeshore. The volcanoes were growing as the lake depth was rapidly increasing. The vertical distance between each of these shelves probably marks breaks in the volcanic activity.

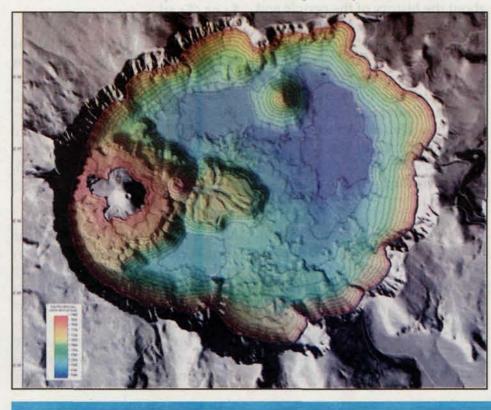
Merriam Cone likely formed a little later than the other volcanoes, its lava cooling completely underwater. Visual evidence comes from the absence of a summit crater and its perfectly symmetrical shape.

High- resolution sonar recorded the results of a massive avalanche at Chaski Bay. The uneven topography extending northward from the south lake basin are blocks of lava that fell into the lake long ago. Some of these boulders are 650 feet long. Similar aprons of rock debris can be seen at other locations like Danger Bay and Cloudcap Bay on the east side of the lake.

The sonar equipment was also able to re-measure the lake's depth. The high-resolution scanner collected 16 million soundings and was accurate to within 4 feet. Based on these measurements, the official depth of Crater Lake is now 1,947 feet.

Reporting lake depth can be a confusing exercise. With evaporation and seepage, the depth of any lake can change from season to season. Don't be surprised if you see a variety of lake depths reported in park folders and interpretive signs. We expect it will take a while before the new number becomes official everywhere. The important point is that Crater Lake is still the nation's deepest lake, the seventh deepest in the world.

This latest sonar sounding continues to reveal new information about the mysterious past of this beautiful lake. Results are still being analyzed but already scientists are gaining a better understanding of how events in the past unfolded. By essentially "removing" the water in the caldera, researchers have revealed more of the hidden details that contribute to the already amazing story of Crater Lake.



Supporting the Park

Summer 2001 Page 8

Crater Lake Natural History Association

Established in 1942, the Crater Lake Yearly memberships can be pur-Natural History Association (NHA) is a non-profit organization dedicated to advancing educational and scientific activities within Crater Lake National Park. The NHA invests funds generated from sales of items purchased at our visitor centers back into the park, providing services such as publishing parkrelated books and maps, printing this newspaper, and purchasing equipment and materials for educational and scientific research programs. The NHA also supports Oregon Caves National Monument in Cave Junction, Oregon.

Become a member of the Crater Lake Natural History Association and learn more about the park's natural and cultural resources.

chased at park visitor centers or by mailing in the form below. Members receive benefits including:

- ☐ A 15% discount on books, videos, maps, and other sales items.
- □ Discounts from most park associations including those Grand Canyon, Yellowstone, Yosemite, and Mt. Rainier.
- A subscription to our park's semi-annual newspaper.
- ☐ The satisfaction of assisting the important educational and scientific programs of Crater Lake National Park.

(Italics denote NHA member price) ing with kids safely and fostering a A Guide to Crater Lake National

Park and the Mountain That Used to Be. Warfield, 48pp. Beautiful photographs and excellent descriptions tell the story of Crater Lake and give the reader an over-

> view of the park. \$5.95 (\$5.06)

Lodge of the Imagination: The Crater Lake Lodge Story. Juillerat, 18pp. The history of the construction and renovation of Crater Lake Lodge. Historic photos illuminate the undertaking from its inception

For Sale from the Crater Lake NHA

in the early 1900s to its rehabilitation in 1995. \$4.95 (\$4.21)

Crater Lake Trails Illustrated Topo Map. National Geographic, 1:62,500 scale. Waterproof/Tearproof. 100% plastic material. \$9.95 (\$8.46)

Crater Lake National Park Trails. Toops, 46pp. A good basic guide to the hiking trails of Crater Lake National Park. \$3.95 (\$3.36)

Walking Tour. Mark & Hyde, 14pp. Take a stroll on this 1- mile loop trail around the Crater Lake National Park Headquarters. A guided hike about the history of the people and buildings of the late 1920s and early 1930s. \$2.00 (\$1.70)

Crater Lake 3- Scene Poster. Wizard Island, Phantom Ship, and Crater Lake, 24 x 36 inches, vertical. A nice poster bordered in black with gold lettering. Looks great framed. \$12.95 (\$11.01)

100 Hikes in Southern Oregon. Sullivan, 240pp. A guide to hikes in Southern Oregon and adjacent Northern California. \$12.95 (\$11.01)

and Central Oregon. Henderson, 255pp. A guide to hikes and overnight trips for families. Tips on hikwilderness ethic. \$14.95 (\$12.71)

Oregon. Alt & Hyndman, 278pp. Take a geologic tour on the roads of Oregon. Informative yet easy to read. \$15.00 (\$12.75)

Roadside Geology of

Fire Mountains of the West. Harris, 38opp. A study of the Cascade Volcanoes one major peak at a time from one end of the range to the other. This book tells the history, current status, and future possibilities for eruptions of each volcano. \$18.00 (\$15.30)

Hiking Oregon's Geology. Bishop & Allen, 221pp. A guide to hikes in Oregon's most scenic and geologically interesting places, including Mount Hood, Crater Lake, Oregon Caves, Kalmiopsis Wilderness, Newberry National Volcanic Monument, and Eastern Oregon. \$16.95 (\$14.41)

Discovering Crater Lake. Field & Machlis, 32pp. Make the magic of Crater Lake come alive for children with this activity book. Designed for children who want to learn more about the park and its resources. \$4.95 (\$4.21)

Coyote In Love. Dwyer, 32pp. The Native American legend of how

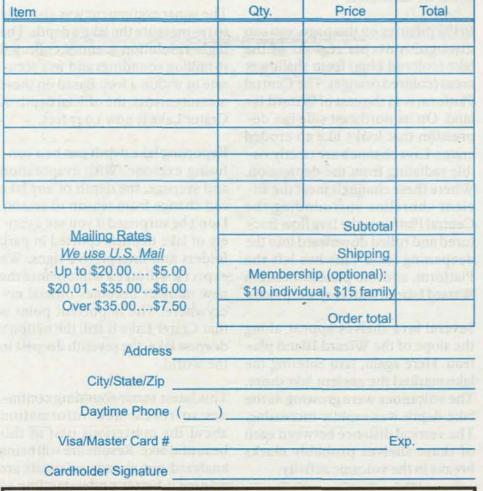
> Crater Lake was formed by a flood of tears from a heartbroken covote. Illustrated in whimsical watercolors. The perfect gift. Hardbound \$15.95 (\$13.56)



Crater Lake Natural History Association

P.O. Box 157 Best Hikes With Children in Western Crater Lake, OR 97604 (541) 594-2211 ext. 499 (541) 594-2299 FAX

Nature Notes from Crater Lake, an annual publication produced by park staff, contains original research and observations for anyone wanting more than a fleeting glimpse of the park. Authors include employees of the National Park Service, volunteers, and members of the Friends of Crater Lake. \$2.50 (\$2.13)



Supporting the Park

Summer 2001 Page.9

Annual NHA Membership Drive

drive will be held on July 28th at the Steel Information Center and the temporary Rim Visitor Center. Sign up as a member of the Crater Lake Natural History Association, and receive an autographed copy

Our second annual membership of Lodge of the Imagination: The Crater Lake Lodge Story, written by Lee Juillerat!

> Membership funds will be used to assist Crater Lake's interpretive and resource management programs.



The Northwest Youth Corp works on the Godfrey Glen Trail, summer 2000

Welcome, Northwest Youth Corp

During the summer of 2000, Crater trail projects. Last summer the Lake National Park formed a productive new partnership with the Northwest Youth Corp. The park staff is pleased to welcome the crews back again this season.

The Northwest Youth Corp (NYC) is a non-profit job training and youth development agency. The NYC operates four different kinds of programs: YouthWorks, Outdoor School, six different Youth Corp programs and an AmeriCorp program. These programs promote conservation stewardship while helping Northwest youths to develop the skills and confidence they need to face life's challenges.

With NYC's help, Crater Lake National Park is able to accomplish the majority of work on two separate

crews helped to rehabilitate sections of the Pacific Crest Trail. This year visitors may encounter NYC crews during August on the Godfrey Glen Trail or at their campsite at Lost Creek Campground. We encourage everyone to talk with them and thank them for all their excellent work.

The modification work at Godfrey Glen will fulfill an important need by providing the Crater Lake trail system with an accessible trail to accommodate visitors with mobility, visual, and/or hearing impairments. With assistance from the NYC crews, we are hoping to complete the field work this season and provide full usage and interpretive opportunities by the 2002 summer season.

Reflections is funded and published semi-annually by the Crater Lake Natural History Association.

Friends of Crater Lake National Park

Founded in 1993 by interested citizens, the Friends of Crater Lake National Park is a non-profit organization that cooperates with the National Park Service in the stewardship of the natural and cultural resources of Crater Lake. The group helps by building and maintaining trails, constructing footbridges, staffing information desks and fire lookouts, helping to restore vegetation, and participating at numerous community events like Earth Day to provide information about Crater Lake National Park. The group participates in the Adopt- a- Highway program and offers nature walks, and is helping to plan events and fund projects for the park's rooth Anniversary Celebration.

The Friends need your support. Please consider joining the Friends of Crater Lake. For further informa-

tion about the group and its activities, contact Greg Reddell or Greg Hartell at the address listed below, or visit the Friends of Crater Lake web site.

Program activities for 2001 include:

Summer Project Weekend-Each summer the Friends of

Crater Lake help maintain or build Join the Friends! Help the Friends a trail in the park. Past projects have included helping to reroute the Pacific Crest National Scenic Trail, building an interpretive trail at Park

Headquarters, and rehabilitating trails and overlooks throughout the park. Projects for all skills and abilities are available. Tasks include painting, moving plants, digging and moving dirt, construction, cutting and sawing, and helping around camp. The next Trail Project Weekend will be August 17-19, 2001.

Adopt- a- Highway - The Friends of Crater Lake have adopted a highway to help keep roads to Crater Lake litter free. Cleanup dates are Saturday mornings May 19, July 28 and September 15, 2001.

Winter Rim Information Desk -Many Friends have enjoyed staffing the desk in the cafeteria at Rim Village during winter weekends. Following the training in mid- November the friends assist at the Rim desk until April.



support Crater Lake! Membership brochures are available at park visitor centers or by writing to the address below.

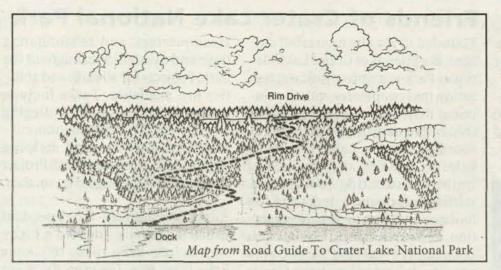


Friends of Crater Lake National Park

P.O. Box 88 Crater Lake, OR 97604 greddell@cvc.net http://www.halcyon.com/rdpayne/foclnp.html

Exploring Park Trails..

Summer 2001 Page 10



Hiking the Cleetwood Cove Trail

The Cleetwood Cove Trail, located on the north side of Crater Lake, is the only safe and legal access to the shore of Crater Lake. It is one mile (1.6 km) in length, one-way, and drops 700 feet (210 meters) as you descend from the East Rim Drive trailhead to the lakeshore. On your return trip, this is comparable to climbing 65 flights of stairs! The Cleetwood Cove hiking trail is recommended only for those in good physical condition and should not

be attempted by visitors with heart, breathing, or walking problems. It is not accessible for visitors with mobility impairments. Hikers should wear closed-toe shoes and bring plenty of water, sunscreen, and mosquito repellent. Toilets are available at both the trailhead and the boat dock area. Due to the park's heavy snow conditions, the trail typically does not open until sometime in June, and closes in early October.

Enjoying the Park Safely

To preserve park resources and

Bicycles are not allowed on park protect yourself, please observe the following regulations and safety reminders:

- caldera is prohibited. Conditions within the caldera are very dangerous. The Cleetwood Trail is the only safe and legal access to the lake's shore.
- Pets are prohibited in the backcountry and on all trails. Pets on a leash or otherwise physically restrained are permitted within 50 feet of roads and established parking areas, campgrounds, and picnic areas.
- ☐ Feeding wild animals, including birds, is prohibited. Feeding animals is dangerous for you, bad for them, and harmful for the ecosystem.
- □ Observe posted speed limits along park roads, and watch for wildlife, visitors, and bicyclists.

- trails. Bicycling is permitted on paved roads and the Grayback Drive. Wear a helmet at all times.
- ☐ Hiking or climbing inside the ☐ Smoking is prohibited on all trails.
 - Shortcutting on trails is prohibited to protect vegetation and other visitors and to prevent erosion.
 - ☐ Free backcountry permits are required for spending a night in the backcountry. Permits are available at park visitor centers.
 - ☐ Be prepared! Equip yourself with water, food, warm clothing, rain gear, sunscreen, and anything else appropriate to the trail you take. Know the weather forecast, and avoid exposed places during thunderstorms.
 - □ All park resources (rocks, plants, animals and artifacts) should be left undisturbed.

Destination/Trail Name	Distance	Difficulty	Trail Highlights
Sun Notch Viewpoint	0.5 mile (0.8 km) round-trip	Short stroll Allow 30 minutes	Overlook of Crater Lake and Phantom Ship
Castle Crest Wildflower Garden	0.5 mile (0.8 km) loop trail	Short stroll Allow 30 minutes	Beautiful brook; display of wildflowers in July
Godfrey Glen	1 mile (1.6 km) loop trail	Gentle level hike Allow 45 minutes	Overlook of Annie Creek Canyon old growth forest
Discovery Point	1.3 miles (2.1 km) one way	Moderate ups and downs Allow 1 hour	Views of the lake between Rim Village and Discovery Point
Watchman Peak	1.4 miles (2.3 km) round-trip	Moderate climb; 500 feet (150 m) elevation gain. Allow 1 hour	Historic fire tower; overlook of Wizard Island
Annie Creek Canyon	1.7 mile (2.7 km) loop trail	Moderate climb out of canyon Allow 1 1/2 hours	Deep stream-cut canyon; wildflowers and wildlife
Cleetwood Cove	2.2 miles (3.5 km) round-trip	Strenuous climb; 700 feet (215 m) elevation gain. Allow 2 hours	Guided boat tours; fishing; see details in article above
Garfield Peak	3.4 miles (5.5 km) round-trip	Strenuous; 1,000 feet (300 m) elevation gain. Allow 2 to 3 hours	Panoramic views; overlook of Phantom Ship
Mt. Scott	5 miles (8 km) round-trip	Strenuous; 1,500 feet (460 m) elevation gain. Allow 3 hours	Highest peak in park; outstanding views; historic fire tower
Crater Peak	5 miles (8 km) round-trip	Moderate climb; 615 feet (190 m) elevation gain. Allow 3 hours	Forest, panoramic views (but no view of the lake), wildlife

...and the Backcountry

Summer 2001 Page 11

Leave No Trace

John Broward

Crater Lake National Park is a special place worthy of protection.
With so little federal land protected as wilderness, we must do everything we can to ensure there will be something left for future generations. To help us maintain the natural ecosystems of this magnificent wilderness, please follow the "Leave No Trace" (LNT) guidelines listed below. By living these principles you will help us maintain Crater

- 1) Plan Ahead and Prepare: Know the area and what to expect. Careless hikers not prepared for the conditions may damage sections of the park. For example, hikers on Garfield Peak have eroded fragile meadows in their efforts to avoid crossing snowfields. Learn the special regulations designed to protect Crater Lake's backcountry. Select appropriate equipment. For example, waterproof boots and gaiters will help keep you on the trail when it is muddy. Repackage food to eliminate unintentional litter. Prepare for extreme weather and other dangers.
- Camp and Travel on Durable Surfaces: Durable surfaces include established trails and campsites. Camp at least 200 feet from streams. Avoid areas where damage is just beginning. Avoid camping in sensitive areas such as meadows and near the rim. Concentrate use on existing trails and campsites. Stay on trail and do not shortcut. Walk single file in the middle of the trail, even when it is wet or muddy. Remember: good campsites are found, not made. Altering a site is not necessary.
- 3) Properly Dispose of What You Can't Pack Out: Dispose of human waste responsibly and

pack out toilet paper. Minimize soap and food scraps in wastewater. Avoid contaminating

water sources when washing.

If you can pack in full food containers, you should be able to pack them out 7) empty. Do not leave trash in fire rings. People mistakenly believe aluminum and tin will melt. It won't! Inspect your campsite or rest area for litter or spilled foods.

- Lake for this and future generations.

 1) Plan Ahead and Prepare:

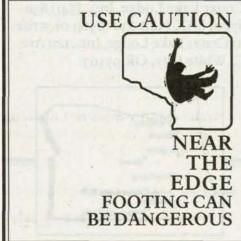
 Know the area and what to expect. Careless hikers not prepared for the conditions may damage sections of the park. For example, hikers on Garfield Peak have eroded fragile mead
 4) Leave What You Find: Minimize site alterations. Avoid damaging live trees and plants. Leave natural objects and cultural artifacts for future generations to enjoy. Do not build structures or furniture or digutations to enjoy. The second damage sections of the park. For example, hikers on Garfield wildlife.
 - 5) Minimize Use and Impact from Campfires: Decide whether you should even have a fire. Sometimes the wilderness can be enjoyed more without a fire. Use a camp stove and candle for cooking and light. If you decide to have a fire, be aware of regulations and weather conditions. Use small sections of dead wood and burn them completely. In high use areas, use existing fire rings. For remote areas, learn to use appropriate LNT fire techniques. Make sure fires are out cold and remove non-designated fire rings.
 - 6) Respect Wildlife: Enjoy wildlife at a distance. Minimize disturbance as much as possible. Do not feed, harass, approach or follow any wildlife. Be aware of the special considerations for bear country. Hang food 15 feet off the ground and keep a clean camp to avoid attracting bears. Exposing animals to human food damages their health, alters natural behaviors, and makes them more vulnerable to preda-

tors. Do NOT bring pets into the backcountry. Dogs especially harass wildlife. All wildlife at Crater Lake is protected by law.

Respect Other Visitors: Use discretion in camp location. Reduce your impact on other visitors by being out of sight and sound of park trails when camping. Reduce noise and overly bright colored clothing. Make your campsite look like nobody has ever been there. Step to the down hill side of the trail when

encountering pack stock. Let nature's sounds prevail. Avoid loud voices and noises.

For further information on Leave No Trace, ask to watch the LNT video at the Steel Information Center; call the LNT information line at 1-800-332-4100; or visit www.LNT.org on the World Wide Web. If you are interested in a free group presentation in the Crater Lake area, contact Park Ranger John Broward c/o Crater Lake National Park, P.O. Box 7, Crater Lake, OR 97604.



Please be cautious near the rim of the caldera. The Cleetwood Cove Trail is the only safe and legal access to the lake. Climbing inside the caldera is strictly prohibited.

Exploring the Backcountry

Opportunities for wilderness camping are abundant at Crater Lake National Park. All overnight campers must obtain a free backcountry permit, available from a ranger at any information desk during regular hours of operation. The ranger on duty will inform you of the current weather forecast, parking information, and any special conditions you may need to know about.

Please observe the following regulations in the backcountry:

- ☐ Groups are limited to 8 people.
- □ Open fires are allowed only if "dead and down" wood is used. Wood may be collected below an elevation of 6,800 feet. If possible, use an existing fire ring.

- Pack stock is permitted only in certain parts of the backcountry.
 Ask at an information desk for details.
- Pets, firearms, bicycles, and motorized vehicles are not permitted in the backcountry.
- Camping and open fires are prohibited within a mile of any paved road; within 100 feet of any water source, trail, or other camping party, except when using a designated campsite; between the Rim Drive and Crater Lake; on Wizard Island, Mt. Scott, or Garfield Peak; or in the vicinity of Sphagnum Bog.
- □ Pack out all garbage and leave a clean camp.

Visitor Services

Summer 2001 Page 12

Dining and Gifts

The Llao Rock Cafe, the Watchman Restaurant, and a gift store are all located at Rim Village on the south rim of Crater Lake. During peak season (June 16 - September 3, 2001), their hours are:

 Cafe
 8:00am - 5:00pm

 Restaurant
 5:00pm - 10:00pm

 Gift Store
 8:00am - 8:00pm

A formal dining room is located inside the Crater Lake Lodge. Its hours of service are:

Breakfast 7:00am - 10:30am Lunch 11:30am - 2:00pm Dinner 5:00pm - 10:00pm

Camper Services

A campground, the Mazama Motor Inn, a camper services store, laundry, showers, and gasoline are all available at Mazama Village, located near the south entrance station off Highway 62. During peak season, the camp store is open from 7:00am to 10:00pm.

Crater Lake National Park

Lodging

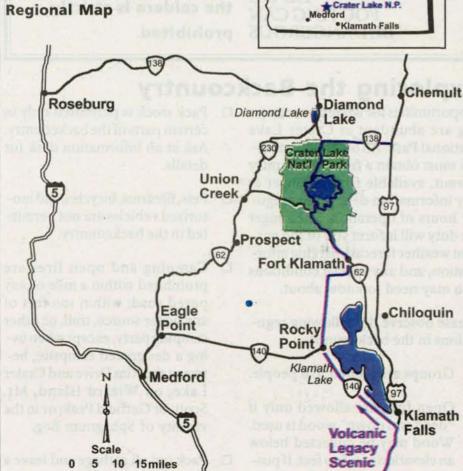
There are two facilities for overnight lodging inside the park:

Crater Lake Lodge (71 rooms) is located at Rim Village, overlooking the lake. It will be open for the summer season from May 19 through October 20, 2001. Reservations are highly recommended well in advance.

Mazama Village Motor Inn (40 units) is located seven miles south of the lake in Mazama Village. It will be open from May 26 through October 7, 2001.

To make reservations for either of these accommodations, contact the Crater Lake Lodge, Inc., (541) 830-8700, FAX (541) 830-8514; or write to Crater Lake Lodge, Inc., 1211 Ave. C, White City, OR 97503.





Camping

There are two campgrounds inside Crater Lake National Park:

Mazama Campground contains 213 sites and is operated by the park's concessioner from May 26 through early October, 2001. Reservations are not taken, but generally there are plenty of sites available. The campground offers running water, fire rings, picnic tables, and flush toilets. Wheelchair- accessible sites are available. Evening campfire programs are offered nightly from June 30 through September 3. Fee: \$15.50 tent site; \$17.00 RV/trailer site (no hookups).

Lost Creek Campground is operated by the National Park Service from July through mid-September. It contains 16 sites for tent camping only, and is located in the southeast corner of the park on the spur road to the Pinnacles Overlook. Fee: \$10/site

Emergencies

DIAL 911 to report medical, police, or fire emergencies, 24 hours a day. First aid is available at either park visitor center and at the ranger station at Park Headquarters.

Lost and Found

If you lose an item while visiting the park, contact a park ranger at either visitor center or call the park dispatch office, (541) 594-2211 Ext. 347, to report your loss. Found items may be turned in to any park visitor center.

Postal Services

A U.S. Post Office is located in the foyer of the Steel Information Center. During the summer, it is open Monday through Saturday from 10:00am to 12:00pm and from 1:00pm to 3:00pm.

All rates and times are subject to change without notice.

Getting to the Park

During the summer, Crater Lake National Park may be entered either from the north via Highway 138 or from the south via Highway 62. Spring and Fall travelers should note that during an average snowfall year, the north entrance to the park opens for the season in mid-June and closes in October when the winter snowfall begins.

Traveling Crater Lake's Rim Drive

The 33- mile (53- km) Rim Drive circles Crater Lake inside the park. More than 30 overlooks are located along this scenic two- lane road. Allow two hours to travel completely around the lake. A seven- mile (11- km) spur road departs from the Rim Drive on the east side of the lake, and provides access to the Pinnacles Overlook, Lost Creek Campground, and Grayback Drive. While enjoying the spectacular views found along Rim Drive, watch out for deer and other wildlife crossing the road, and be aware that icy road conditions may be present at any time of the year. Obey the posted speed limits at all times.

Driving Distances in Summer:

Klamath Falls	60 miles	100 km
Medford	80 miles	130 km
Roseburg	100 miles	160 km
Bend	105 miles	170 km
Eugene	140 miles	225 km
Portland	250 miles	400 km
San Francisco	450 miles	725 km