

Great Rift Gazette

Summer 2014



The Wilderness Gift



Solitude awaits those that explore the Craters of the Moon Wilderness.

SUN-BLEACHED TUFTS OF GRASS AND SAGEBRUSH sprout from a bed of rust-colored cinders. A line of dark, round-topped cinder cones marches to the horizon. An ever-present wind scours the austere terrain.

Welcome to the Craters of the Moon Wilderness.

Good for Nothing?

Tu'Timaba – or “Black Rock Overpass,” the Shoshone name for this area – has long repelled explorers, the name hinting at the fleeting nature of most visits. Even today only about one hundred people per year venture into the wilderness for an overnight trip. Remarkably, this waterless, rugged area was once thought to

be endangered by overuse.

That threat began on July 20, 1969. One month after Neil Armstrong set foot on the Moon, Apollo astronauts visited the monument. They studied its volcanic features for comparison on future Moon explorations.

Idaho Senator Frank Church feared the monument's suddenly high profile would lure a stampede of crowds. Indeed, a proposed road extension would open a quiet corner of the park to motor traffic. One senator even suggested the area become a test site for simulated moon landings. Clearly, either event would alter Tu'Timaba's character forever.

continued on pg. 2

Rock of Ages

by Emerald Shirley

THE DARK LAVA ROCK OF CRATERS OF THE MOON creates an eerie landscape that draws people from all over the world. This broad expanse holds little vegetation, hinting at the lava's young age. In fact, these black basalt rocks are the youngest in Idaho – some fewer than 2,000 years old.

However, geologists have found that Craters of the Moon also holds secrets of the Earth's much more distant past.

Researchers recently uncovered at Craters of the Moon some of the oldest rocks in North America. These rocks, called xenoliths, are small

continued on pg. 2



Hikers study an ancient xenolith, embedded in much younger lava rock.

Welcome

This year marks the 50th anniversary of the Wilderness Act. Few laws have made as big an impact on Craters of the Moon. In 1970 roughly 80% of the monument received wilderness designation, the first wilderness area established in the National Park System.

Park expansion in 2000 brought an additional 400,000 acres of wilderness-caliber lands within the monument's borders. These Wilderness Study Areas, along with the Craters of the Moon Wilderness, protect some of the last remaining truly wild lands on the 400-mile long Snake River Plain. Simply put, Craters of the Moon is a wilderness park.



The challenge, solitude, and rewards of wilderness await those who go prepared. Preparation begins with water. Surface water is exceedingly rare in the porous lava fields, so carry plenty of water – and food – for the duration of your visit, be it 3 hours or 3 days.

The Craters of the Moon Wilderness alone covers over 43,000 acres but contains less than 6 miles of trails. Primitive skills such as map and compass reading, route-finding, and cross-country travel may be required as you explore. Also, let someone know where you are going and carry a cellphone for use in an emergency. These common-sense measures are prudent even for shorter day hikes in the monument's frontcountry.

Free permits are required for overnight wilderness trips and are available at the Visitor Center. This enables us to manage use and maintain a pristine wilderness experience for all visitors. Knowledgeable park staff are happy to provide information on routes and suggest places to explore and camp.

During your visit we encourage you to enjoy this outstanding resource. Whether you hike deep into the wilderness or simply drive to the edge to look in, with your help we will work to maintain its wild, primeval character for generations to come.

Dan Buckley, NPS Superintendent

Inside

Visitor Information	2
Junior Rangers	3
Walks & Talks	4

Hiking Etiquette

Please consider that these lava flows and features are thousands of years old and easily damaged by off-trail travel. In addition, park regulations prohibit off trail travel around the North Crater Flow and Spatter Cones areas (see maps on trailhead signs to identify specific closure areas).



You are also quite fragile and easily damaged by sharp and abrasive lava rock! Taking a fall will almost certainly result in cuts and scrapes.

5 Steps for Safety

- **Water, water, water.** There is no running water along the Loop Drive. Fill your water bottle at the visitor center or campground and carry plenty of water when you hike.
- **Sturdy shoes (no sandals) and long pants are highly recommended.** Hats provide shade from the sun and some protection from low cave ceilings, as well.
- **Carry a map, GPS or compass, and a cellphone while hiking.** Although cell service is limited, you may be able to pick up a signal from the top one of the cinder cones in the event of an emergency.
- **Avoid hiking alone.** Help can be a long time in coming. If you do hike alone, let someone know your route and time of return.
- **Flashlights are a must for exploring caves.** Take at least one dependable light source with you.

Thank you for helping to protect your Monument and yourself!

General Information

Accessibility

Facilities - Visitor Center, restrooms, amphitheater, and campsite #42

Exhibits - Audio- and video-enhancing assistive devices are available for presentations at the visitor center.

Trails - Campground sidewalk, Snow Cone, and Devil's Orchard.



Emergencies

If the visitor center is closed, contact any employee (park housing is located next to the visitor center) or call 911. A pay phone is available 24 hours at the visitor center, or use a cellphone where service is available.



Pets

Leashed pets are welcome on park roads and in the campground. For the protection of park wildlife and your pet, they may not be taken on park trails, into the backcountry, or left unattended. Please utilize the pet area near the Visitor Center and clean up after your pet.



Recycling

The monument's recycling center is located in the campground across from the entrance station. It accepts:

- Glass
- Plastics #1-5
- Mixed paper (office paper, newspaper, etc.)
- Cardboard
- Aluminum & tin cans



Resource Protection

All natural features are protected by law and are to be left unchanged for others to enjoy. Let photographs and memories be your only souvenirs. Hunting is permitted only within the National Preserve and the BLM Monument in accordance with state law.



Wilderness...

continued from pg. 1

Church argued before the United States Senate that "the monument's astonishing moon-like beauty" deserved protection beyond that already provided as part of the National Park System. Special protection was needed to keep out roads, structures, and other man-made alterations.

Congress agreed. On October 23, 1970, official designation of the 43,243-acre Craters of the Moon Wilderness assured the primeval solitude and unparalleled landscape would be preserved in perpetuity.

Visiting a Hard Land

Decades later, that other-worldly character Senator Church sought to protect remains intact.

The undeveloped nature of wilderness means visitors must be self-reliant and plan trips carefully. But that does not mean visits should be left only to those in peak physical condition. Take the young boy toddling along the Wilderness Trail on a pleasant spring day,



Though remote, the Wilderness Trail's terrain is easy enough for all ages and abilities.

holding his father's hand. The two stroll along at an easy pace, pausing frequently. On tiptoes the boy peers into hollow lava casts, where prehistoric lava flows enveloped an ancient stand of trees.

Next they crouch to examine the faint tracks of a mule deer left in the cinders. Settling in the shade for a leisurely snack, the two seem unconcerned with the time or even any particular destination.

Two generations, one pristine landscape. That is the gift of wilderness.

Rock of Ages...

continued from pg. 1

chunks of rock from the lower levels of the Earth's crust. As magma moved upwards through the crust it ripped away these rock fragments from below and deposited them on the surface during an eruption.



Though rare, xenoliths often stand out compared to the black basalt common at the monument.

These rare treasures act as time capsules, offering a glimpse into Idaho's geologic past – literally bringing lower levels of the crust to light on the surface of the earth. Analysis of these xenoliths at Boise State University, using a method called radiogenic isotope dating, determined their age at more than 3 billion years old!

These ancient rocks are light in color and offer a stark contrast to the black basalt of the "young" lava surface at Craters of the Moon. However, they are only a few inches wide, requiring keen attention to find them.

Explorers searching for xenoliths might better their chances by taking a look in Dewdrop Cave, Indian Tunnel, or on North Crater Trail. However, all visitors must keep in mind that it is illegal to collect or remove anything from the monument, including rocks.

These special resources at Craters of the Moon are a window into the Earth's geologic past. With the discovery of these xenoliths, Craters of the Moon preserves for future generations an experience to see not only the youngest rock treasures of Idaho, but also the oldest!

Monument Partners

Who's responsible for protecting Craters of the Moon? Everyone!
Here are some who deserve special thanks:

	<p>Craters of the Moon Natural History Association (NHA) Since 1959 the NHA has supported "the scientific, educational, historical, and interpretive activities of the National Park Service" through sales of books and other publications. This newspaper is a tangible example of this support. Won't you join us? Inquire about the benefits of membership at the bookstore desk.</p>
	<p>Volunteers Last year 74 volunteers donated over 5700 hours of service to Craters of the Moon. Do you have a talent that you would like to share? Both short and long term opportunities are available. Check out our website (www.nps.gov/crmo/supportyourpark/index.htm) or inquire at the visitor center desk for current opportunities.</p>
	<p>Geological Society of America (GSA) GSA's Geocorps program offers paid geoscience internships on public lands across America. Our understanding of the geologic history and features at Craters of the Moon has benefitted greatly from the work of these bright and motivated young scientists for over a decade.</p>
	<p>Student Conservation Association (SCA) The Student Conservation Association (SCA) is America's conservation corps. Members protect and restore national parks, marine sanctuaries, cultural landmarks and community green spaces in all 50 states. SCA's mission is to build the next generation of conservation leaders and inspire lifelong stewardship of our environment and communities by engaging young people in hands-on service to the land. Craters of the Moon, and many other national parks, have benefitted greatly from the hard work of SCA interns.</p>

Kid's Corner

Take part in our Junior Ranger programs and get the most out of your visit...

Complete the fun activities in our free booklet and become a...



Also, join us for Junior Ranger Programs nightly at 8 p.m. in the campground amphitheater.

Looking for a challenge? Try the Wilderness Explorer program, available for all ages.

LAVA or MAGMA?

Hot, molten rock from deep within the earth is called magma. When magma erupts onto the earth's surface, it is called lava. Lava can cool into many unique shapes and forms. During your visit to Craters of the Moon, see how many different formations you can find. Below are six different lava formations. Match the formation with the correct picture. Put an X next to each type that you see while walking the trails.



1. **AA** (pronounced ah-ah) Flows have a rough, jagged surface and are extremely sharp.



2. **Pahoehoe** (pronounced pah-hoy-hoy) Flows are smooth, billowy flows that often form ropes and coils.



3. **Rafted Blocks**, or monoliths, are sections of a broken crater wall that drift along on a flow.

4. **Lava Tubes** form when the surface of a lava flow cools and forms a crust. Later, the still hot lava drains from underneath the crust and a hollow tube or "cave" forms.

5. **Spatter Cones** are "miniature" volcanoes that form when thick, pasty globs of lava plop to the surface, piling up in the shape of a cone.

6. **Cinder Cone** volcanoes form when lava shoots high into the air and then falls back to form a huge pile of cinders.



From Citizens to Scientists



EVER WANTED TO BE A PARK RANGER? NOW YOU CAN with Craters of the Moon's Citizen Scientist program.

Based on the classic Junior Ranger program, a booklet offers several activities to complete. Like the Junior Ranger program, families can work together to complete each activity.

But here's the twist: While learning about the park, participants collect scientific data used to study park resources.

For example, an activity on soundscapes takes citizen scientists to distinctly different areas of the park. At each location they monitor the type

of sounds, recording every bird call, car engine, and wind gust heard.

Some activities feature wildlife, like the charismatic pika. The park is home to a rare low-elevation population of pika, distant relatives of rabbits and hares. Pikas are part of ongoing scientific studies here and at several national parks because of their sensitivity to climate change. Participants visit at least one of three known pika hangouts. They observe, listen for, and note the presence or absence of this elusive "rock rabbit."

Other activities monitor air quality, cone production on limber pine trees, the flowering stages of common plants, and the prevalence of Clark's nutcrackers. Participants need only complete 3 of the 6 activities to earn their prize – a Craters of the Moon Citizen Scientist sticker. Just as fun is the chance to experience some of the less-obvious "weird and scenic" features beyond the park's volcanic geology.

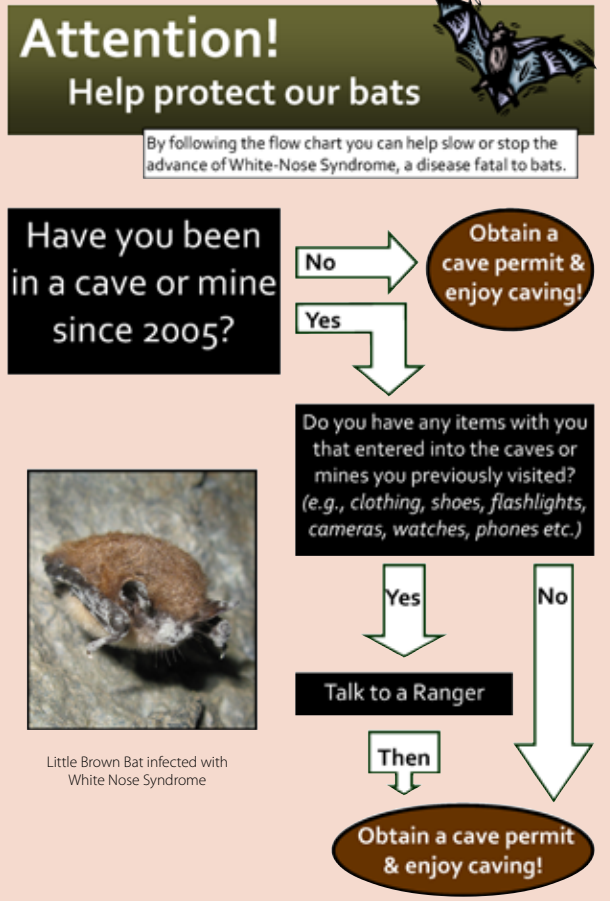


The American Pika.

Collected data is logged annually and over time provides park managers one more tool to better understand and protect resources. Inquire at the visitor center for more information and become a scientist at your park today.

Cave Permits Required

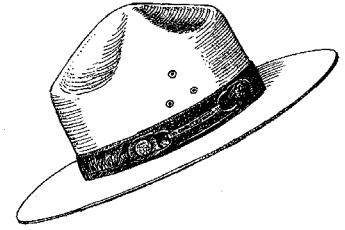
To prevent the spread of White-Nose Syndrome, a fatal disease among bats, screening is required to visit any cave at Craters of the Moon. Free permits are available at the Visitor Center, Entrance Station, or at any ranger program. Prepare for screening by following the flowchart below:



Nearby Businesses			
<p>Pickle's Place On Hwy 20-26 – Arco, ID 208-527-9944 OPEN DAILY FROM 6 A.M. - 9 P.M. (winter) 6 A.M. - 10 P.M. (spring & fall) 6 A.M. - 11 P.M. (summer)</p>	<p>For info and reservations: 1-800-562-3408 Craters of the Moon/Arco KOA 2424 N 3000 W • Arco, ID 83213 email: arcokoa@gmail.com Swimming Pool & Unique Gift Shop</p>	<p>Golden West Cafe Brett & Darla Beard, Owners Enjoy Home Cooking & Grandma Zina's Pudding Open Mon.-Sat. 6 a.m.-9 p.m. (208) 527-8551 • 2431 Highway 20 • Arco</p>	<p>Castle's Corner Sub Sandwiches Pizza Deli Corner Carey, Idaho Wraps Milkshakes</p>
<p>Mountain View R.V. Park 705 W. Grand Ave. ~ Arco, Idaho 83215 208-527-5707</p>	<p>Mello-Dee Steak House 175 Sunset Drive • Arco • 208-541-8294 Fine dining in a relaxed atmosphere Steaks • Seafood • Pasta • Sandwiches Hours: Tuesday- Thursday 4 p.m.- 10 p.m. Friday and Saturday 4 p.m.- 11 p.m.</p>	<p>ADAMSON'S SHELL GAS STATION • PROPANE TIRE AND MECHANIC SHOP SPORTING GOODS • HARDWARE GROCERY STORE LIQUOR AND ICE COLD BEER Snack Bar and Grill (we use fresh ground hamburger ~ NEVER frozen patties) • Free RV Dump Clean Rest Rooms • Travel Information You can stop once and get everything you would ever need! 208-823-4314 • 20481 N. Main St. • Carey, ID</p>	<p>Deli SANDWICH SHOP Open 8:00 a.m. to 9:00 p.m. 7 Days a Week Arco, Idaho 83213 208-527-3757 Fax 208-527-3766 Sandwiches, Soups, Salads, Pizzas, Pitas, Milkshakes, Fruit Smoothies and More! EAT IN OR TAKE OUT DAILY SPECIALS</p>
<p>A&A MARKET Serving Lost River Valleys since 1946 ICE • DELI • GROCERIES • MEAT 218 N. Idaho – Arco, ID 83213 208-527-8594</p>	<p>Jack's Travel Plaza 2437 Hwy 20 • Arco, ID • 208-527-3577 OPEN 7 DAYS A WEEK Gas • Food • Lottery • Grub Owners: Jack & Diana Jensen</p>	<p>Nathans Service Center 217 N. Front St. • Arco, Idaho Chevron Products - Tires Sales & Service Auto Parts - U-Haul Nathan Hjelm 208-527-8959</p>	<p>Bargain Barn GAS • GROCERIES • LOTTERY State Liquor Store 216 S. Front St. – ARCO – 527-3402</p>

Walk & Talks

June 7 - Sept. 1



Make the most of your visit to this volcanic wonderland! Enjoy a film or join a Park Ranger for a talk, guided walk, or evening program. A variety of programs are offered each day.

Activity	Time	Location	Description
Film - A Trip to the Moon	Daily at 9 a.m. to 5 p.m. (25 min.) on the hour	Visitor Center, #1 on map	Begin at the visitor center (open 8 a.m. to 6 p.m. daily) to plan your visit and view exhibits and films to orient you to the area. Pressed for time? View our 7 minute introductory film in the museum.
Film - Among the Craters of the Moon	Daily at 9:30 a.m. to 4:30 p.m. (17 min.) on the half-hour	Visitor Center, #1 on map	
Broken Top Hike	Mon. - Thurs. at 9 a.m. (2 hours, 1.8 miles)	Broken Top Loop Trailhead/Tree Molds parking lot, #6 on map	Hike over, under and around a volcano on this fascinating hike. Bring sturdy shoes, water, a flashlight and a cave permit for exploring Buffalo Caves.
Cave Walks	Daily at 1 p.m. & 4 p.m.; also at 9 a.m. Fri.-Sun. (1.5 hours, 1 mile)	Caves Area Trailhead, #7 on map	Follow the trail through seas of ropy lava into the strange underground world of a lava tube. Wear sturdy close-toed shoes, bring a flashlight, water and a cave permit.
Patio Talks	Daily at 11 a.m., 2:30 p.m., 4:30 p.m. (15 min.)	Visitor Center, #1 on map	Enjoy a short presentation in a shady spot on the visitor center plaza. Check at the visitor center for topics.
Evening Stroll	Nightly at 7 p.m. (30 min., .25 mile)	Campground Amphitheater	Take a short hike to a panoramic view of the North Crater Cinder Cone and surrounding lava landscape.
Junior Rangers	Nightly at 8 p.m. (30 min.)	Campground Amphitheater	Learn to be a Ranger! Fun activities for kids ages 5-12. Parents are welcome too.
Evening Program	Nightly at 9:30 p.m. in June & July; 9 p.m. in August; 8:30 p.m. in September (45 min.)	Campground Amphitheater	Rangers present different programs each night on the natural and cultural history of the park. Check at the visitor center for topics. Bring a jacket and carry a flashlight for the walk back to your campsite.

Special Events

Star Parties

June 27 & 28
September 26 & 27

Gaze into the cosmos under the park's pristine dark skies.



Star gazing.

Wild Saturdays

Explore some of the fascinating features of the Craters of the Moon Wilderness and other areas with a ranger. Check at the Visitor Center for details.



Wilderness hike.

National Public Lands Day

September 27

This year's NPLD will be a celebration of wilderness featuring a Fun Run, puppet show, film festival and more. Fun Run registration fees support field trips for local schools. Park entrance is free for the day.



National Public Lands Day 2010.

Join us for these and other special events throughout the summer. For more details or to reserve a spot, ask at the Visitor Center or visit www.nps.gov/crmo/planyourvisit/events.htm.



Hours of Operation

Craters of the Moon is open every day of the year, 24 hours a day. The visitor center is open daily (except winter holidays) during the following hours:

Memorial Day through Labor Day:
8 a.m. to 6 p.m.

Rest of the year:
8 a.m. to 4:30 p.m.

Craters of the Moon National Monument & Preserve



Superintendent
Dan Buckley

P.O. Box 29
Arco, ID 83213

208.527.1335
crmo_information@nps.gov
www.nps.gov/crmo
"Like Us" on Facebook



Monument Manager
Holly Crawford

400 W. F Street
Shoshone, ID 83352

208.732.7200
id_so_information@blm.gov
www.blm.gov/id/st/en/Districts-Idaho/TFD/shoshone/special_areas/Craters.html