

# Great Rift Gazette

Summer 2013



## Bat Surveys Keep Biologists Busy

If you're a biologist at Craters of the Moon, the only thing harder than finding a needle in a haystack may be finding a bat in a cave. The journey to find that bat likely began with boiling your shoes and ended with a flat-on-your-stomach crawl over jagged rocks through the damp innards of a cave. You'd be forgiven for wondering if all the challenges are worth the effort. For the biologist studying these elusive creatures of the night, the greatest challenge may be the race against time.



**Scientists conduct mid-winter surveys of bats in a lava tube cave. Disposable suits minimize the risk of contaminating bat hibernacula with White-nose syndrome, a fatal disease for bats.**

Some obstacles to studying bats are obvious: their small size and nighttime activity make them difficult to spot. With 11 different species at the monument, identifying individuals is difficult even for experts.

A bat's home of choice – a lava tube cave – adds more challenges. Caves offer bats shelter from predators and moderate temperatures throughout the year, a subterranean refuge from a hostile world.

For humans the dark, cavernous passageways mottled with cracks and shadows can be hard to get to, let alone explore. Yet caves remain popular with people for the cool shade they provide on a hot day and the chance to experience something out of the ordinary. That's also why biologists study bats with a sense of urgency right now.

In 2005 a cold-loving fungus known to science as *Geomyces destructans* appeared in a cave in upstate New York. Likely hitchhiking from Europe on an unsuspecting visitor's shoes or clothing, the biological intruder causes White-nose syndrome (WNS) in bats. In less than ten years it has killed an estimated 5 million bats across 22 states and 5 Canadian provinces, the equivalent of a smallpox epidemic for the bat world.

WNS poses additional challenges for biologists studying bats. During winter surveys of caves where bats hibernate – known as hibernacula – biologists donned disposable body suits and painstakingly decontaminated gear afterwards, including sterilizing their shoes in a 122° F water bath. These steps minimized the risk of

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## Reading the Past

Outside the cave a bitter January wind scrapes at the treeless plain. In the shadowed recesses of the cave a handful of children huddle on a mat of sagebrush branches. Their mothers layer them with blankets against the damp cold.

Near the cave entrance a mound of broken lava rock blocks some of the cold and wind. With methodical quickness men work in the half light, using the sharpened edge of a volcanic rock to cut through the hides of several bison. Soon all will enjoy a meal together, a small victory in the daily struggle against land and elements on the Snake River Plain.

Or so it is imagined by archaeologists today, a scene

built from evidence at hand in the mouth of a remote lava tube cave centuries later: flakes of obsidian scattering the cave floor; a half-finished rock wall near the entrance; mats of dried sagebrush in a distant corner; and bones of a dozen animals, everything from bison to rabbits among them.



**These rock rings, built by Shoshone and Ban-nock Indians, mark the entrance of Indian Tunnel.**

Given the challenging elements at Craters of the Moon – harsh even by high-desert standards – the long and varied human history of the area is all the more remarkable. Most visitors, from Oregon Trail emigrants to Apollo astronauts to vacationing families, pause for only fleeting exploration of the lava fields. Precious

*"Reading the Past" continues on page 2*

## Keep In Touch

It used to be the only way to experience a national park was to physically travel to it. Usually far from major cities and towns, a long car ride resulted in an entirely new experience in a novel setting. Places like Craters of the Moon continue to offer these outstanding experiences in an "unearthly" setting.

Today, social media offers an exciting new way to keep in touch with parks long before—and after—you set foot on the trail. Last year Craters of the Moon launched its own Facebook page. Posts run the gamut: practical information on trail conditions and ranger programs are mixed with wildlife pictures, a photo from the historic archives, or updates on current research.

The monument recently announced an exciting wildlife discovery – the first wolf sighting in the monument's 89-year history – not through a press release but with a Facebook post. Our page also hosted a poetry contest in February, and you can see some of the winning entries inside this newspaper.

Craters of the Moon's Flickr page, launched this spring, is another way to get a feel for the park before you arrive. Images of trails and features will help you make the most of your time. You can even share pictures of your experiences when your visit is complete. Also just in time for spring is the free Craters of the Moon wildflower app to help you identify and learn about the park's surprising array of wildflowers. Available now for iPads and iPhones, with a version coming soon for other smartphones.

Not to be overlooked is the park website, which has the most complete information on the monument. You can always contact us via the website for timely answers to specific questions you may have.

The best part is these new media shift communication from a one-way broadcast to a conversation. While still remote physically, national parks like Craters of the Moon can be a part of your everyday world. You can share, learn, and reflect on "America's best idea" anytime and anywhere. Please keep in touch so that we may better serve you and this national treasure.

Dan Buckley, Superintendent

[www.facebook.com/CratersoftheMoonNational-Monument](http://www.facebook.com/CratersoftheMoonNational-Monument)

[www.flickr.com/CratersoftheMoonNPS](http://www.flickr.com/CratersoftheMoonNPS)

[www.nps.gov/crmo](http://www.nps.gov/crmo)



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**Emergencies**

If the visitor center is closed, contact any employee or call 911 from the pay phone in the visitor center or by cell phone where reception is available.

**Recycling**

The monument's recycling center is located in the campground across from the entrance station. Please recycle the following materials there:

- 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.



**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.



**Accessibility**

The visitor center, restrooms, and amphitheater are wheelchair accessible. Audio-visual presentations at the visitor center are also accessible for hearing and visually impaired people. The campground sidewalk, Snow Cone, and Devil's Orchard Trails are wheelchair accessible. There is also a wheelchair accessible campsite in the campground. Signs at each trailhead provide additional information about accessibility.



**Before You Step Off the Trail . . . .**

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/Big Craters 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. When hiking on trails we encourage you to slow down and use caution. Sturdy shoes (no sandals) and long pants are highly recommended. When exploring caves a hat or helmet for head protection and a flashlight are a must. Thank you for helping to protect your Monument and yourself!



**Reading the Past**

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An archaeologist searches for artifacts among the volcanic rock. Artifacts provide clues about the lives of those who lived at Craters of the Moon long ago.

few except the Shoshone and Bannock Indians have spent enough time here to call it home.

Evidence of their explorations are scattered surprisingly far throughout the monument. Pottery sherds and hunting blinds made from loose lava rock are common. Flakes of volcanic glass known as obsidian, used to make projectile points, suggest they hunted wildlife in the area. Some of these artifacts are on display and carefully maintained in the museum collection. Others still stand where they were erected, like the series of rock rings near Indian Tunnel's entrance that give the lava tube its name.

Though Shoshones visited lava tube caves they likely did so for reasons different from today's visitors. Refuge from the harsh desert climate is welcome any season, but caves also offer one of the few places water can be found year round, essential for survival.

The cool, constant temperatures of some southern Idaho caves may have made them an ideal place to store extra meat from a hunt – a sort of natural refrigerator – judging by the piles of discarded bones found.

Given the lack of written record, the distant human past at Craters of the Moon will continue to be based on one part evidence and one part speculation. As part of the national park system, this area will be managed in perpetuity to preserve



**Do You Haiku?**

Craters of the Moon's stark volcanic landscape inspires an array of responses. Some of those were captured recently by visitors in haiku, a stark form of poetry in which a completed poem is just 17 syllables. A sampling of poems submitted in February's contest, led off by Matthew Durrant's winning entry:

Ice meets ancient fire  
White snow falls on black basalt  
Silence meets fury

Ice caves in summer  
Grant a cool reprieve and rest  
The guide says "Let's go."

Snow falls on lava  
Forming a cool head on top  
Of a still warm heart

Once, ribbons of red  
Now, crumpled, jagged and black  
Future? Renaissance

Astronauts were here  
They thought they were on the moon  
Training for greatness

the volcanic features so that future generations may interact with this intriguing landscape.

Actions taken today will undoubtedly leave clues for future archaeologists to observe and ponder. What stories will they reconstruct, what motivations will they infer tomorrow, from our interaction with the lava fields today?

**Monument Partners**

Who's responsible for protecting Craters of the Moon? Everyone!

Here are some people who deserve special thanks:

	<p><b>Craters of the Moon Natural History Association (NHA)</b> 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><b>Volunteers</b> Last year 142 volunteers donated almost 3600 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 (<a href="http://www.nps.gov/crmo/supportyourpark/index.htm">www.nps.gov/crmo/supportyourpark/index.htm</a>) or inquire at the visitor center desk for current opportunities.</p>
	<p><b>Geological Society of America (GSA)</b> 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><b>Student Conservation Association (SCA)</b> 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>

# Craters of the Moon is an out of this world place to be a kid!

Where else can you climb a volcano and explore a lava tube cave all in an afternoon? We invite you to get the most out of your visit to the "moon" by participating in our Junior Ranger programs.

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



*The only Lunar Ranger program in the Universe!*

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



*Learn to be a Ranger by doing the things that Rangers do!*

## Craters of the Moon

T	E	N	O	I	T	P	U	R	E	V	L
E	F	L	A	V	A	F	L	O	W	M	A
R	A	I	R	O	C	K	H	R	I	O	V
U	M	M	R	T	N	E	V	E	T	N	A
S	G	B	T	T	O	T	N	D	H	U	T
S	A	E	V	H	A	R	M	N	E	M	U
I	M	R	A	A	E	E	N	I	P	E	B
F	S	P	A	T	T	E	R	C	O	N	E
M	P	I	K	A	H	M	E	G	O	T	E
A	O	N	A	C	L	O	V	E	S	N	C
M	C	E	I	P	T	L	A	S	A	B	E
M	T	L	E	I	O	D	C	P	N	O	V

lava flow  
spatter cone  
pahoehoe  
aa  
tree mold  
eruption  
lava tube  
cinder  
basalt  
Great Rift  
vent  
cone  
magma  
volcano  
monument  
cave  
fissure  
lichen  
rock  
pika  
limber pine

## Bat Surveys...

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introducing WNS into bats' winter homes, when they are especially vulnerable.

The upshot of all the effort: Three new hibernacula were found, confirming the monument's caves provide important year-round habitat to several species of bats.

Monitoring continues this summer, presenting yet another challenge: bats that are active and perhaps widely dispersed or in maternity colonies, where mothers rear



*Bat calls are recorded as bats enter and exit a cave. Calls are then analyzed with the help of special software that identify individual species. Scientists can then determine which species are present in each cave.*



*Townsend's big-eared bats live in caves at Craters of the Moon year round. Image courtesy of Michael Durham.*

their young. Fortunately, biologists have a new technology to help find and identify them. Acoustic monitoring devices set up near cave entrances will record bat calls and new software can analyze those calls to aid in species identification.

Fortunately WNS is not yet a reality for bats at Craters of the Moon. Biologists will use this time to better understand the role of bats in the monument's ecosystem, and several caves remain open to visitors who have been screened for WNS and receive a cave permit. That way, even if you never go looking for a bat in a cave you can help provide them a safe home for years to come.

Like to try your hand at wildlife monitoring or learn more about resource issues at Craters of the Moon? Ask about the Citizen Science program at the Visitor Center.

### How You Can Help

To prevent the spread of WNS 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. Be prepared to answer the following questions:

Have you been in a cave or mine since 2005?

If so, are you wearing or carrying anything that has also been in a cave since then (ie, shoes, clothes, backpacks, flashlights, watches, phones, jewelry, etc.)?

If the answer is yes to both these questions, contact a ranger for more information. To find out more about bats at Craters of the Moon, scan here:



## Nearby Businesses

<p><b>Pickle's Place</b> 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 &amp; fall) 6 A.M. - 11 P.M. (summer)</p>	<p>For info and reservations: 1-800-562-3408 </p>	<p><b>Golden West Cafe</b> Brett &amp; Darla Beard, Owners Enjoy Home Cooking &amp; Grandma Zina's Pudding Open Mon.-Sat. 6 a.m.-9 p.m. (208) 527-8551 • 2431 Highway 20 • Arco</p>	<p><b>Castle's Corner</b> Sub Sandwiches Burgers Pizza Deli Corner Wraps Milkshakes Carey, Idaho</p>
<p><b>Mountain View R.V. Park</b> 705 W. Grand Ave. ~ Arco, Idaho 83213 208-527-3707</p>	<p><b>Craters of the Moon/ Arco KOA</b> 2424 N 3000 W Arco, ID 83213 email: arcokoa@gmail.com Swimming Pool &amp; Unique Gift Shop</p>	<p><b>ADAMSON'S GENERAL STORE</b> 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><b>Deli SANDWICH SHOP</b> 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><b>A&amp;A MARKET</b> Serving Lost River Valleys since 1946 ICE • DELI • GROCERIES • MEAT 218 N. Idaho - Arco, ID 83213 208-527-8594</p>	<p><b>Jack's Travel Plaza</b> 2437 Hwy 20 • Arco, ID • 208-527-3577 OPEN 7 DAYS A WEEK Gas • Food • Lottery • Grub Owners: Jack &amp; Diana Jensen</p>	<p><b>Nathans Service Center</b> 217 N. Front St. • Arco, Idaho Chevron Products - Tires Sales &amp; Service Auto Parts - U-Haul Nathan Hjelm 208-527-8959</p>	<p><b>Bargain Barn</b> GAS • GROCERIES • LOTTERY State Liquor Store 216 S. Front St. - ARCO - 527-3402</p>

# Walks and Talks June 7 – August 10



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.

**Films** Visitor Center, #1 on map  
 "A Trip to the Moon" - Daily at 9:00 a.m. to 5:00 p.m. on the hour (25 min.)  
 "Among the Craters of the Moon" - Daily at 9:30 a.m. to 4:30 p.m. on the half-hour (17 min.)

Begin at the visitor center (open 8 a.m. to 6 p.m. daily) to plan your visit and view exhibits and films that orient you to the area. Pressed for time?...View our new 7 minute introductory film in the museum.

**Patio Talks** Visitor Center, #1 on map  
 Daily at 2:15 p.m. and 4:15 p.m.; also at 11 a.m. Fri.-Sun. (15 min.)

Enjoy a short presentation in a shady spot on the visitor center plaza. Check at the visitor center for topics.

**Cave Walks** Caves Area Trailhead, #7 on map  
 Daily at 1:00 p.m. and 4:00 p.m.; also at 9:00 a.m. Fri.-Sun. (1½ hours, 1 mile)

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.

**Broken Top Hike** Broken Top Loop Trailhead/Tree Molds parking lot, #6 on map  
 Mon. - Thurs. at 9:00 a.m. (2 hours, 1.8 miles)

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.

**Evening Stroll** Campground amphitheater  
 Nightly at 7:00 p.m. (30 min., .25 mile)  
 Take a short hike to a panoramic view of the North Crater Cinder Cone and the lava landscape that surrounds it.

**Junior Rangers** Campground amphitheater  
 Nightly at 8:00 p.m. (30 min.)  
 Learn to be a Ranger! Fun activities for kids ages 6-12. Parents are welcome too.

**Evening Program** Campground amphitheater  
 Nightly at 9:30 p.m.; 9:00 p.m. in August and 8:30 p.m. in September (45 min.)

Rangers present different presentations 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 Programs** Various locations  
 Saturdays throughout the summer (times and distances vary)  
 Explore the Craters of the Moon Wilderness, enjoy a hike beneath the full moon or join other volunteers for a service project. Sign up for these special hikes and events by giving us a call or stopping by the Visitor Center.

- Star Party – June 7 & 8
- Wildflower Walk – June 8 & 15
- Nature Photography presentation & Teachers Workshop – June 14-16
- Full Moon Hike – June 22
- Book Signing and Reading – June 22
- Wilderness Hike – June 29
- Service Saturday – July 6
- Pioneer Mountains Hike – July 13
- Geology Teacher's Workshop – July 13 & 14
- Full Moon Hike – July 20
- Geology Hike – July 27
- Evening Hike – August 3
- National Park Service Birthday (Fee Free) – August 25
- Star Party – September 13 & 14
- National Public Lands Day (Fee Free) – September 28
- Run the Rift Fun Run – September 28
- Veteran's Day Weekend (Fee Free) – November 9-11

## U.S. Department of the Interior Craters of the Moon National Monument and Preserve



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 Holly Hampton

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 "Like Us" on Facebook

[http://www.blm.gov/id/st/en/Districts-Idaho/TFD/shoshone/special\\_areas/Craters.html](http://www.blm.gov/id/st/en/Districts-Idaho/TFD/shoshone/special_areas/Craters.html)

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