

Crater Lake Currents



On a leash, of course!
Photo by Seth Macey

February 1, 2015

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CALDERA NEWS

Climate Change Perception Visitor Study

In the summer of 2015, Crater Lake will be one of 30 parks across the country, representing each administrative and bioregion, to be surveyed to test various climate change messaging strategies. George Mason University's Climate Change Communication Center has been working with NPS's Climate Change Response Program on a national climate change communication survey project. The group will be customizing climate change messages for each park and will present them to park visitors to find out what makes them relevant for that park.

Silver Spirit Award

By Lauren Jones, Budget Tech
Our park received a Silver Spirit Award from the United Way for our efforts in the 2014 Combined Federal Campaign. We increased our contributions by 61% this year! A big thank you to each and every person who helped make this happen. I was honored to accept this award on behalf of the park at the United Way Awards Luncheon on January 27. I was able to meet representatives

from some local charities, and they expressed their thanks for the support they receive through the CFC. Your contributions do make a difference to people here in Klamath County and across the world. Thanks again for your support!

Squad Notes on the S Drive

Each week, the Management Team meets to discuss issues that affect the park. The meetings are behind closed doors, but notes from each meeting are posted as a matter of record. If you're curious about what is discussed in Squad, feel free to peruse the notes on the S drive under the Squad notes folder.

After the safety meeting on Wednesday, January 28, park staff met to discuss the status of the Crater Lake Employee Association. Staff from all divisions provided great ideas about what we could do to better serve the Crater Lake community. If you'd like to get involved, please contact Lauren Jones or Jenn Evans. The association is very much in need of your ideas and energy.



Status of Introduced Crayfish and Native Mazama Newts in Crater Lake

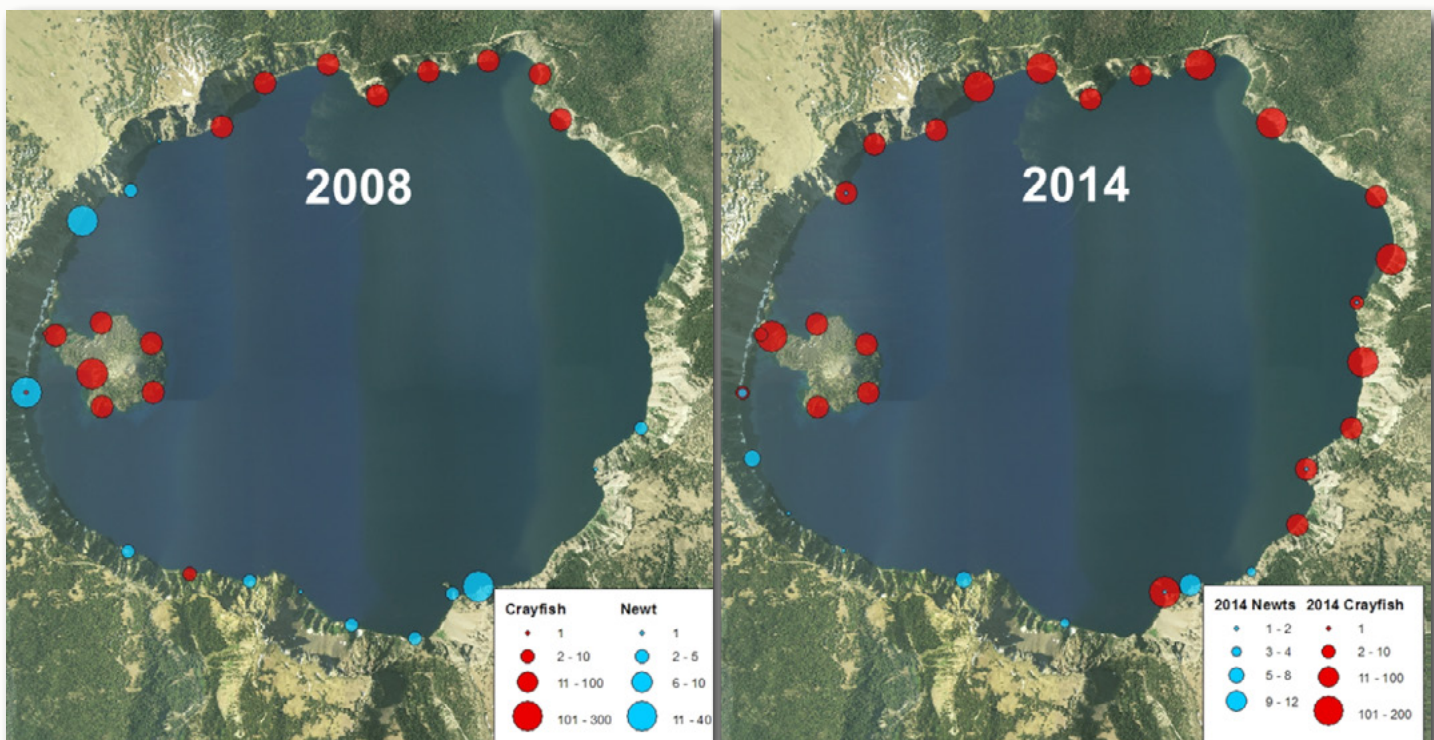
By Scott Girdner, Fisheries Biologist

Nonnative crayfish are particularly damaging invaders of lake and stream systems that have been shown to negatively impact native invertebrates, amphibians, reptiles, and fish. Unfortunately, protected areas like National Parks are not immune to this threat. In Crater Lake, one of the most pristine large bodies of freshwater in the world and protected within the National Park System, signal crayfish (*Pacifastacus leniusculus*) were intentionally introduced in 1915 to provide food for introduced nonnative trout. Now, a century later, crayfish distribution has expanded to encompass more than half of the Crater Lake shoreline and their continued expansion may change important aspects of the lake's nearshore habitat.



Prior to the introduction of trout and crayfish, salamanders in Crater Lake occupied a key ecological niche as the top aquatic predator. A unique native species that appears to be particularly affected by crayfish introduction is a distinct variety of salamander found only in Crater Lake. The Mazama newt is a proposed subspecies of rough-skinned newt (*Taricha granulosa*) that is physically, genetically, and physiologically distinct from newts outside the Crater Lake caldera. Recent genetic investigations have confirmed that Mazama newts have been reproductively isolated within the depths of the Crater Lake caldera for an extended period of time and are now distinct from other rough-skinned newt populations.

Annual shoreline surveys conducted since 2008 at regularly spaced intervals around the lake have found Mazama newts almost entirely absent from sites occupied by crayfish, including Wizard Island and much of the north shore where newts were reported to be common in the 1980s. Nevertheless, newts remain locally abundant in areas where crayfish are absent. The surveys also indicate that crayfish are continuing to expand, from approximately 50% of the lakeshore in 2008 to over 70% in



2014. Concern about the impact of nonnative crayfish led NPS, USGS, and University of Nevada Reno scientists to conduct a series of investigations within Crater Lake to look at the impact of crayfish on newts, including diet overlap and competition for food, newt toxin levels, and predation or behavioral competition. For behavioral studies, newts and crayfish were placed in controlled tanks. Results show that several mechanisms may be at work, including severe competition for shared food resources, newt avoidance behaviors and an associated increase in energy consumption, and direct predation. Newts within Crater Lake may be particularly vulnerable to crayfish and trout predation because they lack protective toxins. When compared to other rough-skinned newt populations in the Pacific Northwest, Mazama newts produce orders of magnitude lower concentrations of tetrodotoxin, a chemical defense normally used to protect from predation. Based on multiple lines of evidence, we believe that crayfish are expanding in distribution and that further expansion will lead to additional declines in Mazama newt abundance and perhaps extirpation of this unique amphibian.

CAN THE CRAYFISH BE REMOVED?

Crayfish are extremely difficult to remove once established in aquatic systems. The task is all the more difficult as water body size and shoreline habitat complexity increase. Crater Lake has 22 miles (31 km) of rocky shoreline. To make matters worse, crayfish in Crater Lake are regularly observed down to a depth of 650 feet (200 m). Crayfish removal trials using baited traps were conducted during the summers of 2012, 2013, and 2014 in an attempt to remove crayfish from the small island known as Phantom Ship (shoreline length 0.2 miles). The three years of intensive removal efforts had no measurable impact on crayfish density at Phantom Ship. Therefore, it is highly unlikely that crayfish can be removed from Crater Lake.



100 YEARS OF NPS!

It's still a year and a half away, but already the park and the service are gearing up to celebrate the hundredth anniversary of the National Park Service. To keep everyone in the loop on Centennial projects (in the park and service-wide), the newsletter will feature a short piece of news about the Centennial each month from now until August 2016.

This month's news comes from the NPS Centennial Office website: "The National Park Service and Tournament of Roses Association are partnering to kick off the centennial with the 2016 Rose Parade in Pasadena, California. The theme for the January 1 parade, "Find Your Adventure," is a nod to "Find Your Park," the two-year public engagement campaign aimed to increase awareness and excitement about the National Park Service Centennial." In 2014, 80 million people watched the parade on tv internationally and 700,000 watched in person.

<https://sites.google.com/a/nps.gov/nps-centennial-office/home/centennial-news/everythingscominguprosesforthe2016centennial>

If you're wondering what the park is doing, Crater Lake Centennial Coordinator **Marsha McCabe** has already started working with WASO, Region, and park staff to begin planning our own Centennial celebration projects. If you would like to be involved, Marsha is looking for ideas and, of course, will need lots of help from all divisions.

Crater Lake Receives Governor's Film Advocate Award



In a ceremony on January 6, 2015, in Portland, Oregon, Crater Lake Superintendent Craig Ackerman accepted the Oregon Governor's Office of Film and Television Film Advocate Award on behalf of all staff for their contributions to advancing the film and television industry in the state. The award specifically highlighted the cooperation and collaboration with the Oregon Film Office and Fox Searchlight Pictures in producing the major motion picture "Wild," a film by award winning director Jean-Marc Vallée, based on the memoir of author Cheryl Strayed's life-changing journey along the Pacific Crest Trail.

The filming was originally scheduled to take place the first week of October 2013, but due to the federal government shutdown crews could not enter the park to complete their work. The park kept in constant contact with the production company, the Governor's office, and Oregon's Congressional delegation to ensure that once the shutdown ended, modifications to the commercial film permit were made that would allow the work to be completed before inclement weather closed the sites at which the takes were made. Senator Wyden provided a letter, read at the presentation that stated in part: "...I want to add my voice to the chorus of Oregonians in honoring the outstanding staff at Crater Lake National Park with the well-deserved Oregon Governor's Film Advocate Award. Their fantastic service to the producers of the movie "Wild" means the entire world can now share in witnessing the matchless beauty of one of Oregon's "Seven Wonders"—the treasure we proudly call Crater Lake. They ensured the movie crew had the access—and the assistance they needed—to film in the national park..."

Author Cheryl Strayed herself presented the award to Superintendent Ackerman and Crater Lake Trust Executive Director Carolyn Hill in front of a large gathering of people from throughout the film and television industry in Oregon, as well as public officials and travel and tourism partners. Ms. Strayed commented that Crater Lake was "perhaps the most spiritual and engaging place I encountered on my difficult journey." She expressed great appreciation to the park staff for their efforts and stated that the film would not have been complete if Crater Lake was not included.

Summer 2015 Hartell Internship

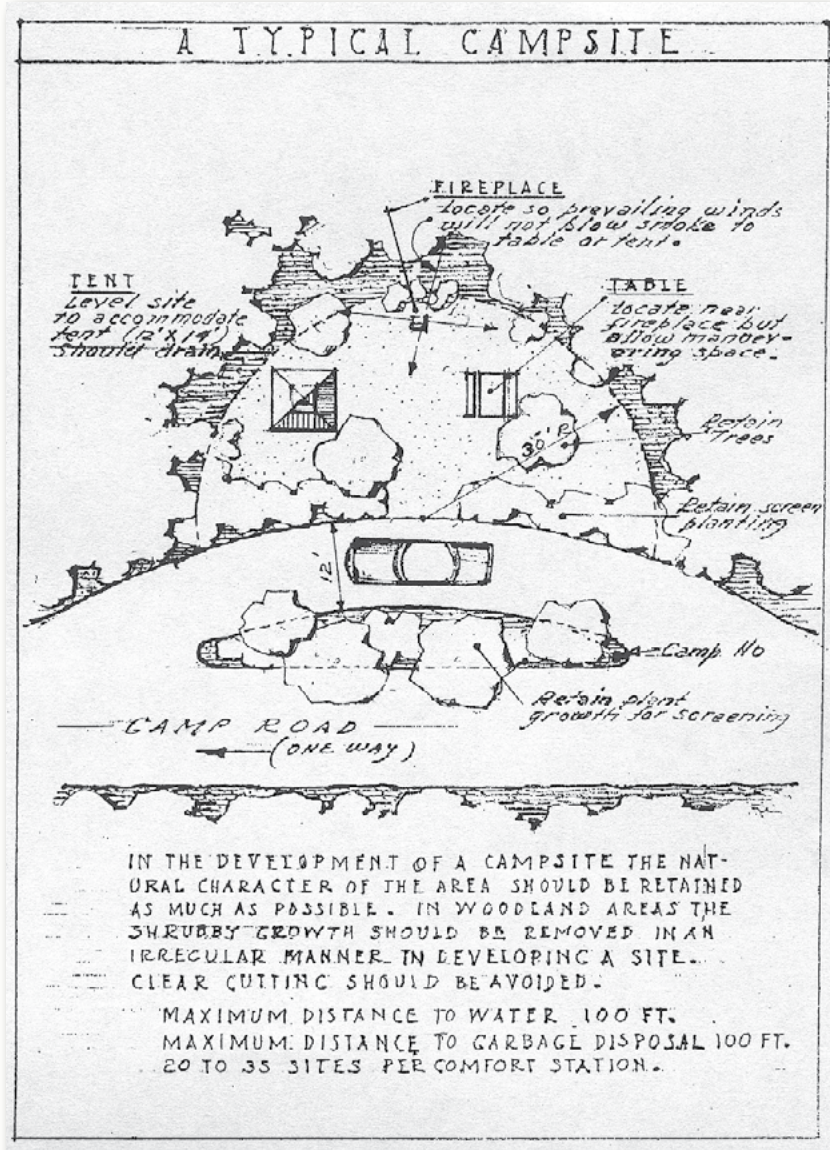
By Steve Mark, Park Historian

Internships are something that gained considerable force in the past two decades as the job market for recent college graduates became tighter. The need to bring younger people into the workforce remains, especially where older employees possess considerable expertise, but could retire or leave without much of that knowledge being transmitted. With the National Park Service designated by Congress as the lead federal agency for historic preservation in the federal government, it is natural that parks and regional offices cultivate this type of knowledge and skill, but also try to transmit these across generational lines.

The Greg Hartell Internship for Historic Preservation began to take shape in 2006 as a memorial to a former park employee who was also a founding member of the Friends of Crater Lake National Park. He helped make the design for rehabilitating facilities at Rim Village and Park Headquarters into reality, bringing some 'lost' skills to modern construction projects but also did some informal teaching along the way. Since the closest formal program in historic preservation is at the University of Oregon in Eugene, an intern from there worked on different cultural resources projects each summer at Crater Lake between 2007 and 2013.

With the internship project so heavily focused on doing archaeological survey in 2014, a wider net had to be cast to locate Brian Harmon from the University of Arizona. This year's main project is quite different—site planning in the form of schematic drawings for illustrating alternatives in future utilization of the old campground/picnic area at Rim Village. A second project is possible, depending upon the intern's abilities. A graduate student with a bachelor's degree in one or more of the following fields is preferred: architecture, landscape architecture, planning, or historic preservation. The stipend available is \$500/week for up to nine weeks.

If you know of someone interested in this opportunity, or simply want more information about the internship, please contact **Steve Mark** at 3094, or by e-mail: steve_mark@nps.gov. The deadline for applications is April 1.



PEOPLE OF THE LAKE

COMING...

Chris Bradley will join the Crater Lake crew as the new Engineering Equipment Operator Supervisor beginning the first of February. Chris comes to us all the way from Assateague Island National Seashore in Maryland. More info on Chris coming soon.

Volunteer in Park **Sarah Dumont** will be joining the Interpretation division for snowshoe hikes and visitor center duty beginning in early February. Sarah is a graduate of Humboldt State University and is coming to us from Joshua Tree, where she has been volunteering in Interpretation since October. Sarah visited CRLA last winter with friends and had such a good time on the ranger-led snowshoe walk that she decided to apply for a position here. The last two summers she has volunteered at Zion, doing backcountry permits and patrols. Sarah was raised in France and moved to the US at the age of 17, so she is not yet allowed to hold a paid NPS job because of her French citizenship, but she looks forward, one day, to an NPS career.

Our other “late winter” volunteer is **Gretchen Conn**, who is enjoying life at CRLA so much that she has decided to stick around until May.

MOVING AROUND...

Administration is going through many changes these days. Budget Analyst **Shawn Parratt** has taken on the role of acting Administrative Officer, after Steve’s retirement in December. And Shawn’s position as Budget Analyst will be temporarily filled by **Lauren Jones** in a detail. Thanks for stepping up and filling the gaps!

SAFETY AND WELLNESS

February is American Heart Health month, so this month’s safety and wellness reminder is to take care of your heart. Here are a few tips that you’ve all heard before, but they warrant repetition:

- Work with your health care team. Get a checkup at least once each year, even if you feel healthy.
- Monitor your blood pressure. High blood pressure often has no symptoms, so be sure to have it checked on a regular basis.
- Get your cholesterol checked. Your health care team should test your cholesterol levels at least once every 5 years.
- Eat a healthy diet. Choosing healthful meal and snack options can help you avoid cardiovascular disease and its complications. Limiting sodium in your diet can lower your blood pressure. Be sure to eat plenty of fresh fruits and vegetables—adults should have at least five servings each day.
- Maintain a healthy weight. Being overweight or obese can increase your risk for cardiovascular disease.
- Exercise regularly. Physical activity can help you maintain a healthy weight and lower cholesterol and blood pressure.
- Don’t smoke. Cigarette smoking greatly increases your risk for cardiovascular disease.
- Limit alcohol use. Avoid drinking too much alcohol, which can increase your blood pressure.
- Manage your diabetes. If you have diabetes, monitor your blood sugar levels closely, and talk with your health care team about treatment options.

Source: <http://www.cdc.gov/features/heartmonth/>

IN THE COMMUNITY

Seed Swap

What: Are you planning your garden? Before ordering a long list of seeds from catalogs you might want to try acquiring seeds locally at North Mountain Park's seed swap. You can save money, grow plants that are adapted to our local climate, and exchange information with other gardeners. It's fun and simple. You may bring seeds you have saved to share.

Where: NMP Nature Center, 620 N Mountain Avenue, Ashland

When: Wednesday, February 4, 7 - 8 p.m.

First Friday Art Walk

What: Stroll downtown Bend and the Old Mill District to enjoy art, wine, music, food, and fun as we celebrate our community and the arts.

Where: Downtown Bend, and the Old Mill District, Bend

When: Friday, February 6, 5:30 p.m.

2015 Winter Wings Festival

What: This festival celebrates the return of bald eagles and waterfowl on the Pacific Flyway in the Klamath Basin. It's the 36th anniversary of the Festival. Produced by the Klamath Basin Audubon Society, the festival offers field trips, workshops, mini-sessions, receptions, and keynote presentations by two nationally recognized leaders in their fields: birding expert Richard Crossley and photographer Jennifer Wu. Find a complete schedule of festival events here: **www.WinterWingsFest.org**.

Where: College Union at the Oregon Institute of Technology, Klamath Falls

When: Thursday - Sunday, February 12 - 15, times vary



Winter Star Party

What: Astronomy outing to observe the winter sky. Highlights will include the Orion nebula, planets Jupiter, Mars and Venus, and many deep-sky objects. Free event.

Where: Liskey Farms, call 541-883-4208 for directions

When: Saturday, February 14, 6 p.m.

Oregon WinterFest

What: In the heart of winter, when Mt. Bachelor beckons adrenaline junkies from all over the region, it's only right to celebrate the adventure-packed season of snow with a massive party of fire and ice. The Oregon WinterFest three-day schedule is jam-packed with events. It is Oregon's party of the winter and 2015 is going to be bigger and better than ever before! See the website for event schedules:

<http://oregonwinterfest.com/>

Where: Old Mill District, Bend

When: Friday - Sunday, February 13 - 15, times vary