



“How Do You Adapt to a Changing Climate If You’re a National Park?”

A feature story from June 29, 2013, by Associated Press reporter Tracie Cone reviews the complex issues facing National Park Service managers in the Sierra Nevada, and interviews USGS Western Ecological Research Center scientist **Nate Stephenson** on climate change implications for protected ecosystems and resources like giant sequoia. Also, WERC scientist **Rob Klinger** shares his research on the response of American pika (*Ochotona princeps*) to climate warming, and cautions against making sweeping assumptions of climate change impacts across ecosystems and species.
<http://www.sacbee.com/2013/06/29/5533503/califs-sierra-a-living-lab-for.html>

NEW JOURNAL ARTICLES

Brehme, CS, JA Tracey, LR McClenaghan, RN Fisher. 2013. **Permeability of roads to movement of scrubland lizards and small mammals.** *Conservation Biology*.
doi: 10.1111/cobi.12081
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4915>

Fellers, GM, PM Kleeman, DAW Miller, BJ Halstead, WA Link. 2013. **Population size, survival, growth, and movements of *Rana sierrae*.** *Herpetologica* 69(2): 147-162.
doi: 10.1655/HERPETOLOGICA-D-12-00045
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4920>

Moreno, JM, I Torres, B Luna, WC Oechel, JE Keeley. 2012. **Changes in fire intensity have carry-over effects on plant responses after the next fire in southern California chaparral.** *Journal of Vegetation Science* 24: 395-404.
doi: 10.1111/j.1654-1103.2012.01466.x
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4914>

EVENTS

July 16, 2013 (Menlo Park, CA)

The USGS Menlo Park Campus will again host the biennial **Salt Ponds Science Symposium**, showcasing the efforts and progress updates of the **South Bay Salt Pond Restoration Project**. This year also marks the 10th anniversary of the project’s inception and continued collaboration.
<http://www.werc.usgs.gov/Event.aspx?ID=156>

July 16, 2013 (Calabasas, CA)

The Santa Monica Mountains National Recreation Area will host the **Fire in the Mountains Day** festival at their visitors center, educating the public on the science of Southern California wildfires. “**Living with Fire**”, a new USGS film showcasing the **Southern California Wildfire Risk Scenario Project**, will be shown to visitors.
<http://www.werc.usgs.gov/Event.aspx?ID=162>

July 31, 2013 (Webinar)

Phil van Mantgem will present an on-line lecture co-hosted by the **Joint Fire Science Program**, on the complexities of climate warming, wildfire and forest mortality in the Western United States.
<http://www.werc.usgs.gov/Event.aspx?ID=159>

IN THE NEWS

Bobcats Face Deadly Disease, Weakened Immune Systems from Exposure to Household Rat Poison (San Gabriel Valley News)

Reporter Steve Scuzillo interviewed **Erin Boydston** and research partners at Santa Monica Mountains National Recreation Area on their collaborative bobcat studies in Southern California. Among their focus is investigating the relationship between notoedric mange and exposure to anticoagulant rodenticides.
http://www.sbsun.com/news/ci_23622867

This Biweekly Update is produced as a service to USGS/WERC staff, colleagues, partners and the interested public. To add your email address to the mailing list or to report errors/suggestions, please contact blandis@usgs.gov. Download this issue at <http://www.werc.usgs.gov/outreach.aspx>.

NEW JOURNAL ARTICLES (CONT'D)

Nogeire, TM, FW Davis, JM Duggan, KR Crooks, **EE Boydston**. 2013. **Carnivore use of avocado orchards across an agricultural-wildland gradient.** *PLoS ONE* 8(7): e68025. doi: 10.1371/journal.pone.0068025
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4918>

Robertson, LS, **GM Fellers**, JM Marranca, **PM Kleeman**. 2013. **Expression analysis and identification of antimicrobial peptide transcripts from six North American frog species.** *Diseases of Aquatic Organisms*. 104: 225-236. doi: 10.3354/dao02601
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4919>

NEW PARTNER REPORTS

Ackerman, JT, MP Herzog, G Herring, **CA Hartman**, J Bluso-Demers, C Robinson-Nilsen. **Impact of salt pond restoration on California gull displacement and predation on breeding waterbirds.** Report prepared for the South Bay Salt Pond Restoration Project and Resources Legacy Fund, 83pp.
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4917>

UPDATED WERC RESEARCH PROFILE

Sea Otter Ecology and Population Trends

This updated factsheet highlights WERC research efforts on **northern and southern sea otters**, led by **Tim Tinker**, **Keith Miles** and their lab teams. Learn more about how USGS is using advance technology, including RNA markers and dive recorders, to study the behavior and ecology of sea otters from California to Alaska, and to unravel the causes to their population trends and ecosystem interactions.
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4328>



IN THE NEWS (CONT'D)

Southern Sea Otters (Wild Lens Blog)
WERC technician Sarah Chinn is also a collaborator with conservation film company Wild Lens. Chinn produced this pair of blogposts and accompanying video about the **Tinker Lab's** research and monitoring project on southern sea otters in the San Luis Obispo region.
<http://www.wildlensinc.org/blog/2013/06/17/southern-sea-otters-part-1/>
<http://www.wildlensinc.org/blog/2013/06/24/southern-sea-otters-part-2/>

FROM OUR BLOG



A Mammal's Take on the 'Rapture Hypothesis' in the Sierra Nevada
With climate change, is it the end of the world as alpine wildlife species know it? Or are they feeling fine? **Rob Klinger** explains his ideas in a recent USGS National Climate Change and Wildlife Science Center webinar, now on YouTube.
<http://www.werc.usgs.gov/outreach.aspx?RecordID=188>



On California's Beaches, Mallard Ducks Have Learned to Surf for Food
Mallards have picked up a new feeding strategy along Santa Barbara beaches—surfing for sand crabs. See what **Kevin Lafferty** and UCSB colleagues reported to *The Wilson Journal of Ornithology*, and find a photo and video of feeding mallards in the blogpost.
<http://www.werc.usgs.gov/outreach.aspx?RecordID=186>

Paved Roadways Can Disrupt Movement of Small Wildlife Species

When does the pocket mouse cross the road? If the road is paved, it may not. A new study by USGS and San Diego State University scientists now demonstrates that paved roads large and small can deter small mammal and reptile species, creating a barrier that may deter them from reaching neighboring habitats. **Cheryl Brehme**, **Jeff Tracey** and **Robert Fisher** reported their findings in *Conservation Biology*. Read more about the findings in a new WERC blogpost and WERC publication brief:
<http://www.werc.usgs.gov/outreach.aspx?RecordID=187>
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=4916>