



C. Alex Hartman/USGS

EVENTS

August 9-14, 2015 (Baltimore, MD)
WERC scientists, including **Jon Keeley**, **Kevin Lafferty**, **Tim Tinker**, and **Erin Boydston**, will have research presented at the **100th Annual Meeting of the Ecological Society of America**.
<http://www.werc.usgs.gov/Event.aspx?ID=219>

October 22, 2015 (Mountain View, CA)
The Biennial **South Bay Science Symposium** will be held at the Computer History Museum in Mountain View, CA
<http://www.werc.usgs.gov/Event.aspx?ID=220>

IN THE NEWS

Scientists Find a Way to Reduce Mercury in Wetlands (*Sacramento Bee*)
Reporter Edward Ortiz interviews **Josh Ackerman** and other USGS authors of a new study testing the use of coagulants to control methylmercury concentrations in wetland waters on Twitchell Island in the Sacramento-San Joaquin Delta.
<http://www.sacbee.com/news/local/environment/article23150115.html>

Ocean Mysteries: Elephant Seals (*Ocean Mysteries with Jeff Corwin*)
Host Jeff Corwin visited Año Nuevo State Park to observe field work by a UC Santa Cruz team that includes Sarah Peterson, whose doctoral research on contaminant bioaccumulation in northern elephant seals is being co-advised by **Josh Ackerman**.
<http://www.hulu.com/watch/789022>



New Tool Available for Estimating Wildlife and Sportfish Mercury Risk in California Lakes

A new tool for estimating wildlife and sport fish risk to mercury exposure is now available from the USGS Western Ecological Research Center. This quantitative tool can be used to predict mercury concentrations in bird blood, bird eggs, and sport fish—with potential applications for Total Maximum Daily Load (TMDL) derivation and for monitoring mercury contamination in California lakes.

The new report and Excel tool was created by **Josh Ackerman**, **Alex Hartman**, **Mark Herzog**, and colleagues at USGS FRESO, the San Francisco Estuary Institute, and Moss Landing Marine Laboratory. The group collaborated with California's Surface Water Ambient Monitoring Program (SWAMP) and the Bioaccumulation Oversight Group (BOG) to assess mercury exposure to wildlife in California lakes and reservoirs, using grebes (*Aechmophrous* spp.) as a model of how mercury levels are magnified through lake ecosystems from prey to predator.

<http://www.werc.usgs.gov/mercuryriskinlakes>
<http://www.werc.usgs.gov/ackerman>

NEW OPEN-FILE REPORTS

Ackerman, JT, CA Hartman, CA Eagles-Smith, **MP Herzog**, J Davis, G Ichikawa, A Bonnema. 2015. **Estimating exposure of piscivorous birds and sport fish to mercury in California lakes using prey fish monitoring: a predictive tool for managers**. U.S. Geological Survey Open-File Report 2015-1106, 48 p., doi:10.3133/ofr20151106
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5277>

NEW JOURNAL ARTICLES

Matchett, JR, PB Stark, SM Ostojka, RA Knapp, HC McKenny, **ML Brooks**, WT Langford, LN Joppa, EL Berlow. 2015. **Detecting the influence of rare stressors on rare species in Yosemite National Park using a novel stratified permutation test**. *Scientific Reports* 5:10702 doi:10.1038/srep10702
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5278>

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NEW JOURNAL ARTICLES (CONT'D)

Lockyer, ZB, [PS Coates](#), [ML Casazza](#), S Espinosa, DJ Delehanty. 2015. Nest-site selection and reproductive success of greater sage-grouse in a fire-affected habitat of northwestern Nevada. *The Journal of Wildlife Management*. doi:10.1002/jwmg.899 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5281>

Farzan, S, DJN Young, AG Dedrick, M Hamilton, EC Porse, [PS Coates](#), G Sampson. 2015. Western juniper management: assessing strategies for improving greater sage-grouse habitat and rangeland productivity. *Environmental Management*. doi:10.1007/s00267-015-0521-1 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5269>

[Bowen, L](#), [AK Miles](#), [S Waters](#), R Meyerson, K Rode, T Atwood. 2015. Gene transcription in polar bears (*Ursus maritimus*) from disparate populations. *Polar Biology*. doi:10.1007/s00300-015-1705-0 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5270>

[Bowen, L](#), [AK Miles](#), J Stott, [S Waters](#), T Atwood. 2015. Enhanced biological processes associated with alopecia in polar bears (*Ursus maritimus*). *Science of the Total Environment* 529:114-120. doi:10.1016/j.scitotenv.2015.05.039 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5279>

[Ackerman, JT](#), TEC Kraus, JA Fleck, DP Krabbenhoft, WR Horwath, SM Bachand, [MP Herzog](#), [CA Hartman](#), PAM Bachand. 2015. Experimental dosing of wetlands with coagulants removes mercury from surface water and decreases mercury bioaccumulation in fish. *Environmental Science and Technology*. doi:10.1021/acs.est.5b00655 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5264>



“Neon Dragons” Cast Away in Fiji

On May 16, a project co-advised by [Robert Fisher](#) released 32 captive-bred Fiji crested iguanas (*Brachylophus vitiensis*) onto Monuriki Island in Fiji—famed as the filming location for the Tom Hanks film *Cast Away*, but now the site of a successful invasive species eradication program. Listed by the IUCN as critically endangered, these radio-tracked young iguanas will help international researchers understand how to design other conservation efforts for island fauna in the Pacific.

<http://www.iucn-iscg.org/latest-news/fijian-crested-iguanas-reintroduction/>

<http://www.fijitimes.com/story.aspx?id=307070>

<http://www.fijitimes.com/story.aspx?id=307954>

IN THE NEWS (CONT'D)

California’s Bishop Pines Are Dying. Is Drought To Blame? (*Morning Edition*)

Reporter Jed Kim sailed to Channel Islands National Park to understand the status of the bishop pines, which may be suffering from water stress and bark beetles. [Kathryn McEachern](#), interviewed as part of the story, explains the critical role of bishop pines as fog harvesters which fuel the island’s water cycle. <http://www.npr.org/2015/06/02/411406467>

Earthquake Expert Live-Tweets ‘San Andreas’ Premiere (*Los Angeles Times*)

Earthquake science might be what USGS is best known to the public for, and as part of publicity for the film *San Andreas*, USGS seismologist and public educator Lucy Jones was invited to a preview screening. The film also partnered with FEMA and Ready.gov to film a public service announcement featuring Dwayne “The Rock” Johnson promoting the “Drop, Cover, and Hold On” safety message. <https://twitter.com/MattHjourn/status/603444234390110210> <https://youtu.be/vRdTalWrpTE>

The screenshot shows the U.S. Climate Resilience Toolkit website. The main heading is "Sediment Strategy Seeks to Save Salt Marsh Species". Below the heading is a paragraph: "One of Southern California's few remaining tidal marshes—and the habitat it provides for marine life and endangered birds—is threatened by sea level rise. A collaborative effort is underway to help these wetlands stay above water." To the right of the text is an image of a black and white bird in a marsh. Below the text is a section titled "Steps to Resilience:" with five numbered steps: 1. Identify the Problem, 2. Determine Vulnerabilities, 3. Investigate Options, 4. Evaluate Risks & Costs, and 5. Take Action. The "Take Action" step is highlighted in orange. The logo "Climate.gov" is in the bottom right corner.

WERC Case Study on Climate.gov

A research program led by [Karen Thorne](#) has been featured as a case study on Climate.gov as part of the [U.S. Climate Resilience Toolkit](#). In recent years, Thorne’s team has been modeling and assessing potential sea level rise impacts to tidal marshes along California, Oregon, and Washington coasts, then helping local management partners strategize solutions. Among Thorne’s sites is Seal Beach National Wildlife Refuge, where a sediment augmentation experiment may help federal and local institutions stay ahead of climate change effects.

<http://toolkit.climate.gov/taking-action/sediment-strategy-seeks-save-salt-marsh-species>