



EVENTS

November 4-8, 2015 (Sacramento, CA)
Todd Esque, Robert Fisher, Kathy Longshore, Diego Johnson, Matt Simes, and Jeff Tracey will have their research presented at the **2015 Raptor Research Foundation Conference**.
<http://www.werc.usgs.gov/Event.aspx?ID=224>

IN THE NEWS

Bird Populations Doubled Since 2003 in Vast Salt Pond Restoration Area (*San Jose Mercury News*)

Paul Rogers, a reporter with the *San Jose Mercury News*, quotes **Susan De La Cruz** in an online article that opens with her findings that overall bird numbers have doubled across **South Bay Salt Pond Restoration Project** lands since 2003.
http://www.mercurynews.com/science/ci_29008935/san-francisco-bay-bird-populations-doubled-since-2003

Shark Attacks Still Take a Bite Out of Sea Otter Population (*Santa Cruz Sentinel*)

Writer Samantha Clark interviewed **Tim Tinker** on the annual California Sea Otter Census' findings that sea otter numbers have increased in central regions but declined in northern and southern regions.
<http://www.santacruzsentinel.com/environment-and-nature/20150917/survey-shark-attacks-still-take-bite-out-of-sea-otter-population>

Drought Stressing California's Giant Sequoias (*The Associated Press*)

An article from *The Associated Press* quotes **Adrian Das** as he describes how studying drought stress in giant sequoias can help researchers create a map of the groves that are most vulnerable to the combined effects of drought and wildfire.
<http://bigstory.ap.org/article/05697342fa4f4ac2a95bd0ce0c72418a/scientists-drought-stressing-californias-giant-sequoias>

The 2015 South Bay Science Symposium

Over a decade after 15,100 acres of industrial salt ponds were purchased from Cargill Inc., the **South Bay Salt Pond Restoration Project** brought together biologists, ecologists, geologists, and the public for its **Biennial Science Symposium**. The project aims to restore 50 to 90% of the salt ponds to tidal wetlands by 2053. To reach this goal, managers began enhancing ponds for water birds like ducks and shorebirds, and have been studying which management practices attract and benefit the most birds. The Biennial Science Symposium was an opportunity for project managers and audience members to take stock of how the project has progressed, and how researchers' findings will determine its path forward.

USGS Western Ecological Research Center (WERC) scientists including **Josh Ackerman, Alex Hartman, and Susan De La Cruz** presented their research on highly toxic methylmercury in the restored wetlands, birds' use of artificial islands in the remaining enhanced, managed ponds, and those enhanced ponds' effects on bird abundances. Their results show that birds have high levels of methylmercury, but may return to pre-restoration levels; long and slender islands are better than round islands as bird nesting habitat; and overall bird numbers have doubled across the managed ponds since the project's genesis in 2003.

<http://www.werc.usgs.gov/southbayrestoration>
<http://www.southbayrestoration.org/science/2015symposium/index.html>

NEW JOURNAL ARTICLES

Meyer, MD, SL Roberts, R Wills, **ML Brooks**, EM Winford. 2015. **Principles of effective USA Federal fire management plans**. *Fire Ecology* 11(2): 59-83. doi:10.4996/fireecology.1102059
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5340>

Millar, CI and **NL Stephenson**. 2015. **Temperate forest health in an era of emerging megadisturbance**. *Science* 349:823-826. doi:10.1126/science.aaa9933
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5348>

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NEW JOURNAL ARTICLES CONT'D

Halstead, BJ, SM Skalos, GD Wylie, ML Casazza. 2015. **Terrestrial ecology of semi-aquatic giant gartersnakes (*Thamnophis gigas*).** *Herpetological Conservation and Biology* 10(2):633-644.
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5383>

Carver, S, Bevins, SN, Lappin, MR, Boydston, EE, Lyren, LM, Alldredge, MW, Logan, KA, Sweanor, LL, Riley, SPD, Serieys, LEK, Fisher, RN, Vickers, TW, Boyce, WM, McBride, R, Cunningham, MC, Jennings, M, Lewis, JS, Lunn, T, Crooks, KR, VandeWoude, S. *In press*. **Pathogen exposure varies widely among sympatric populations of wild and domestic felids across the United States.** *Ecological Applications*. doi:10.1890/15-0445.1
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5349>

van Mantgem, P and DA Sarr. 2015. **Structure, diversity, and biophysical properties of old-growth forests in the Klamath Region, USA.** *Northwest Science* 89(2): 170-181. doi:10.3955/046.089.0208
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5387>

Casazza, ML, PS Coates, CT Overton, KB Howe. 2015. **Intra-annual patterns in adult band-tailed pigeon survival estimates.** *Wildlife Research* 42(5): 454-459.
doi:10.1071/WR14199
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5391>

NEW DATABASE REPORTS

Tinker, MT, and B Hatfield. 2015. **Southwest U.S. Southern sea otter annual range-wide census results:** U.S. Geological Survey Data Release, doi:10.5066/F7F47MFC
<https://www.sciencebase.gov/catalog/item/55e6043de4b05561fa2087c6>



Nate Stephenson Talks Giant Sequoias on National TV

Nate Stephenson appeared on PBS News Hour on October 14 to talk about his research on drought stress in Sierra Nevada giant sequoias. The current drought in California has caused significant diebacks in the sequoias' foliage. Despite this, the sequoias are surviving the heat, unlike other, less hardy species like firs, pines, and oaks. The researchers are studying the drought's effects on sequoias to pinpoint which groves of these gargantuan trees are most vulnerable to drought stress.

<http://www.werc.usgs.gov/stephenson>
<http://video.pbs.org/video/2365583339/>

IN THE NEWS CONT'D

California Drought Crippling the Mighty Sequoias (*Al Jazeera America*)
Nate Stephenson describes the effects of the unprecedented California drought and warming temperatures on giant sequoias in an online news piece. While the stressed sequoias are losing many of their leaves, other tree types in the Sierra Nevada show more worrying trends.
<http://america.aljazeera.com/watch/shows/live-news/2015/9/california-drought-crippling-the-mighty-sequoias.html>

OUTREACH NEWS

New Teaser Video on USGS-Nevada National Security Site Work with Cougars and Bighorn Sheep
Biologists from the USGS and Nevada National Security Site (NNSS) are collaborating to study predator-prey dynamics between cougars and bighorn sheep on NNSS lands. WERC ecologist David Choate and others team up to track, capture, and place radio collars on cougars to learn more about them.
<http://gallery.usgs.gov/videos/949#Vjp6rX6rRhE>



Phil van Mantgem: Can Our Forests Take the Heat?

On Friday night, October 23, 40 people packed into the Arcata Marsh Interpretive Center in Arcata, CA, to attend a free, public lecture given by ecologist Phil van Mantgem. The talk was part of the center's Forest Ecology Fall Lecture Series and gave the audience a preview of what might happen to forests exposed to the combined effects of drought and climate change. van Mantgem's research with WERC investigates how a changing climate might affect forests across northern California and southern Oregon, and hones in on ways to preserve these and other groves across the western U.S.

<http://www.werc.usgs.gov/vanmantgem>
<http://www.cityofarcata.org/node/2282>