



NDOW

People, Sheep, Rams, and Lambs

For some scientists, every year is the Year of the Ram. The desert bighorn sheep (*Ovis canadensis nelsoni*) is a study species of great interest in the American Southwest, with many lessons to be learned from these highly mobile, large herbivores, which must navigate multiple human and natural factors intersecting their landscape to survive. USGS Western Ecological Research Center scientist **Kathy Longshore** with **Chris Lowrey** has been working on a suite of studies teasing apart desert bighorn population trends against drought, water supply, urban barriers, and human activity, providing data for local, state, and federal partners. Learn about the research:

<http://www.werc.usgs.gov/desertbighornWUI>

<http://www.werc.usgs.gov/desertbighornJOTR>

<http://www.deserttortoise.org/longshore>

NEW OPEN FILE REPORTS

Matchett, EL, JP Fleskes, JP, CA Young, CA, DR Purkey. 2015. **A framework for modeling anthropogenic impacts on waterbird habits—Addressing future uncertainty in conservation planning:** U.S. Geological Survey Open-File Report 2015-1017, 40 p., doi:10.3133/ofr20151017
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5171>

Ackerman, JT, MP Herzog, CA Hartman, J Isanhart, G Herring, S Vaughn, J Cavitt, CA Eagles-Smith, H Browsers, and J Vest. 2015. **Mercury and selenium contamination in waterbird eggs and risk to avian reproduction at Great Salt Lake, Utah:** U.S. Geological Survey Open-File Report 2015-1020. doi:10.3133/ofr20151020
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5170>

Ackerman, JT, MP Herzog, CA Hartman. 2014. **Effects of human disturbance on waterbird nesting and reproductive success at restoration pond SF2, south San Francisco Bay, California:** U.S. Geological Survey Open-File Report 2014-1223, 16 pp. doi:10.3133/ofr20141223
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5162>

EVENTS

February 25, 2015 (Webinar)

Joe Fleskes and **Elliott Matchett** will be discussing their research on the projected impacts of climate, urbanization, and water supply management on Central Valley waterbirds in this webinar hosted by the **California Landscape Conservation Cooperative**.

<http://www.werc.usgs.gov/Event.aspx?ID=208>

February 25-26, 2015 (Minden, NV)

Pete Coates will be presenting greater sage-grouse and habitat decision-making research at the **Bi-State Pinyon Juniper Expansion Forum** for federal, state, nonprofit, and private stakeholders.

<http://www.werc.usgs.gov/Event.aspx?ID=206>

March 25-27, 2015 (Berkeley, CA)

Nate Stephenson and **Adrian Das** are scheduled to attend the **Science for Parks, Parks for Science** summit hosted by UC Berkeley, the National Park Service, and National Geographic Society.

<http://www.werc.usgs.gov/Event.aspx?ID=210>

March 27-29, 2015 (Seattle, WA)

Tim Tinker and others will join researchers from around the world to discuss updates in sea otter biology and nearshore marine ecology research at the **Sea Otter Conservation Workshop IX**, to be held at the Seattle Aquarium.

<http://www.werc.usgs.gov/Event.aspx?ID=211>

March 29-April 3, 2015 (Oakland, CA)

Phil van Mantgem is scheduled to attend the **2015 George Wright Society Conference on Parks, Protected Areas, and Cultural Sites**, discussing long-term fire effects data and research opportunities.

<http://www.werc.usgs.gov/Event.aspx?ID=212>

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 www.werc.usgs.gov/outreach.aspx.

NEW OPEN FILE REPORTS (CONT'D)

Ackerman, JT, CA Hartman, MP Herzog, LM Smith, SM Moskal, SEW De La Cruz, JL Yee, JY Takekawa. 2014. **The critical role of islands for waterbird breeding and foraging habitat in managed ponds of the South Bay Salt Pond Restoration Project, South San Francisco Bay, California:** U.S. Geological Survey Open-File Report 2014-1263, 118p., doi:10.3133/ofr20141263
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5154>

Ackerman, JT, CA Eagles-Smith, GH Heinz, SEW De La Cruz, JY Takekawa, AK Miles, TL Adelsbach, MP Herzog, JD Bluso-Demers, SA Demers, G Herring, DJ Hoffman, CA Hartman, JJ Willacker, TH Suchanek, SE Schwarzbach, TC Maurer. 2014. **Mercury in birds of San Francisco Bay-Delta, California: trophic pathways, bioaccumulation, and ecotoxicological risk to avian reproduction:** U.S. Geological Survey Open-File Report 2014-1251, 222 pp. doi:10.3133/ofr20141251
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5161>

NEW JOURNAL ARTICLES

Rao, LE, JR Matchett, ML Brooks, RF Johnson, RA Minnich, EB Allen. 2014. **Relationships between annual plant productivity, nitrogen deposition and fire size in low-elevation California desert scrub.** *International Journal of Wildland Fire* 24(1): 48-58. doi:10.1071/WF13152
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5188>

Klinger, R, M Cleaver, S Anderson, P Maier, J Clark. 2015. **Implications of scale-independent habitat specialization on persistence of a rare small mammal.** *Global Ecology and Conservation* 3:100-114. doi:10.1016/j.gecco.2014.10.003
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5189>

NEW BOOK CHAPTERS

Tinker, MT. 2015. **The Use of Quantitative Models in Sea Otter Conservation.** In: S Larson, G VanBlaricom and J Bodkin (eds). *Sea Otter Conservation*, Elsevier, Inc., NY, 57-300 p.
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5156>

NEW WERC PUBLICATION BRIEFS

Health Assessments and Mycoplasmosis Data for Morafka's Desert Tortoise in Mexico

Kristin Berry and colleagues from U.S. and Mexico conducted the first health evaluations of wild and captive Morafka's desert tortoises (*Gopherus morafkai*) in Mexico, reporting their findings in the *Journal of Wildlife Diseases*. Formerly lumped with *Gopherus agassizii*, these tortoises are distributed primarily in the Sonoran Desert and Tropical Deciduous Forest, and have different habitat preferences than their Mojave Desert relatives.
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5186>

Desert Tortoises Track the Seasonal Flowering Patterns of Preferred Food Plants

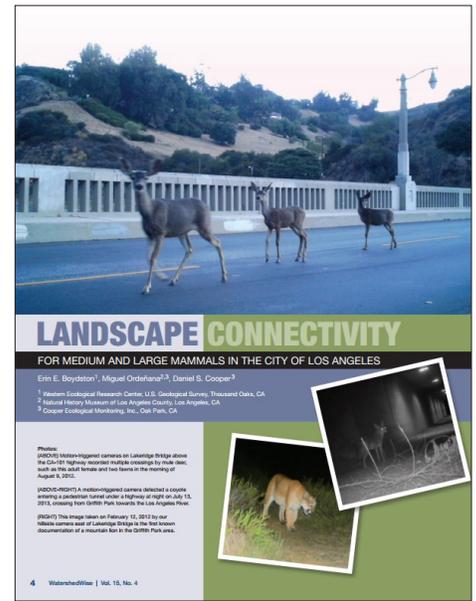
Desert tortoises (*Gopherus agassizii*) are known to be selective herbivores, altering their diet according to the availability of preferred food plants at different times of the year. However, a new study published in *PLOS ONE* coauthored by Kristin Berry found that tortoises account for the spatial and temporal variability in the abundance of their preferred food plants during the spring season.
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5178>

IN THE NEWS

Scientists Target Mercury in Cache Creek (*The Davis Enterprise*)

Reporter Elizabeth Case toured field sites with Josh Ackerman and other USGS scientists studying mercury contamination in Cache Creek, California.

<http://www.davisenterprise.com/local-news/sunday-best/scientists-target-mercury-contamination-in-cache-creek/>



Landscape Connectivity for Medium and Large Mammals in the City of Los Angeles (*WatershedWise*)

Erin Boydston and colleagues discuss their research tracking the movements of mountain lions, deer, coyotes, and other wildlife from Griffith Park over CA-101 in Southern California, looking at how mammals are using tunnels and roadways to access isolated habitats. See page 4.
<http://www.watershedhealth.org/publications/watershedwise.aspx>

Can We Restore the Aquatic Biota in the Upper Los Angeles River Watershed? (*WatershedWise*)

Adam Backlin, Liz Gallegos, and Robert Fisher discuss their surveys of native and nonnative aquatic species in the Upper Los Angeles River Watershed, an effort that will help restoration projects assess the likelihood of restoring historically present fish and amphibian species, and challenges from introduced predators. See page 10.
<http://www.watershedhealth.org/publications/watershedwise.aspx>