



K. Kristina Drake/USGS

40th Annual Desert Tortoise Symposium to Cover Health, Management, Ravens, and Mexico Data

USGS Western Ecological Research Center scientist **Kristin Berry** will once again chair the Annual Meeting and Symposium of The Desert Tortoise Council, taking place on February 20th to 22nd in Las Vegas. The lab groups of **Lesley DeFalco** and **Todd Esque** are also presenting research at the meeting, which will encompass desert tortoise biology, conservation methods, vegetation and habitat restoration methods, wildfire impacts, species biogeography, and tortoise recovery methods. **Pete Coates** and his lab group will also organize a session focusing on the predatory effects of human-subsidized common ravens, and potential raven management methods.

<http://www.werc.usgs.gov/Event.aspx?ID=209>

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

NEW JOURNAL ARTICLES

Berry, KH, MB Brown, M Vaughn, TA Gowan, Ma Hasskamp, MC Meléndez Torres. 2015. *Mycoplasma agassizii* in Morafka's desert tortoise (*Gopherus morafkai*) in Mexico. *Journal of Wildlife Diseases* 51(1):89-100. doi: 10.7589/2014-04-083
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5160>

Berry, KH, TA Gowan, DM Miller, **ML Brooks**. 2014. **Models of Invasion and Establishment for African Mustard (*Brassica tournefortii*)**. *Invasive Plant Science and Management* 7:599-616. doi: 10.1614/IPSM-D-14-00023.1
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5155>

Bowen, L, **AK Miles**, **KK Drake**, **SC Waters**, **TC Esque**, **KE Nussear**. 2015. **Integrating gene transcription-based biomarkers to understand desert tortoise and ecosystem health**. *EcoHealth*. doi: 10.1007/s10393-014-0998-8
<http://www.werc.usgs.gov/ProductDetails.aspx?ID=5164>

EVENTS

January 26-30, 2015 (Santa Rosa, CA)
Wetland restoration design studies by **Lacy Smith** and acoustic monitoring of California amphibians by **Patrick Kleeman** were part of the scheduled program for the **2015 Annual Meeting of The Wildlife Society's Western Section**.
<http://www.werc.usgs.gov/Event.aspx?ID=201>

January 27-30, 2015 (Frascati, Italy)
Nathan Stephenson presented at the **European Space Agency's** first-ever BIOMASS Science Workshop, speaking on "Improving Understanding of Environmental Controls of Forest Biomass and Productivity".
<http://www.werc.usgs.gov/Event.aspx?ID=203>

February 4, 2015 (Lodi, CA)
Brian Halstead led demo activities and talked about his Northern California herpetological work for this edition of the **Science Night Live** science café, a public science evening experience hosted by the World of Wonders Science Museum.
<http://www.werc.usgs.gov/Event.aspx?ID=207>

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. Registration due February 20th.
<http://www.werc.usgs.gov/Event.aspx?ID=206>

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NEW JOURNAL ARTICLES (CONT'D)

Crone, EE, MM Ellis, WF Morris, A Stanley, T Bell, P Bierzychudek, J Ehrlen, TN Kaye, TM Knight, P Lesica, G Oostermeijer, PF Quintana-Ascencio, T Ticktin, T Valverde, JL Williams, DF Doak, R Ganesan, **K McEachern**, AS Thorpe, ES Menges. 2013. **Ability of matrix models to explain the past and predict the future of plant populations.** *Conservation Biology* 27:968–978. doi: 10.1111/cobi.12049 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5106>

Esque, TC, PA Medica, DF Shryock, LA DeFalco, RH Webb, RB Hunter. 2015. **Direct and indirect effects of environmental variability on growth and survivorship of pre-reproductive Joshua trees, *Yucca brevifolia* Engelm. (Agavaceae).** *American Journal of Botany* 102(1):85-91. doi: 10.3732/ajb.1400257 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5163>

Jennings, WB, **KH Berry**. 2015. **Desert tortoises (*Gopherus agassizii*) are selective herbivores that track the flowering phenology of their preferred food plants.** *PLOS ONE* 10(1):e0116716. doi: 10.1371/journal.pone.0116716 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5169>

Johnson, LR, T Ben-Horin, **KD Lafferty**, A McNally, E Mordecai, KP Paaijmans, S Pawar, SJ Ryan. 2015. **Understanding uncertainty in temperature effects on vector-borne disease: a Bayesian approach.** *Ecology* 96(1):2013-213. doi: 10.1890/13-1964.1 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5173>

Keeley, JE, AD Syphard. 2015. **Different Fire-Climate relationships on forested and non-forested landscapes in the Sierra Nevada ecoregion.** *International Journal of Wildland Fire* 24:27-36. doi: 10.1071/WF14102 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5174>

Krauss, KW, JA Duberstein, N Cormier, HS Young, **SA Hathaway**. 2015. **Proximity to encroaching coconut palm limits native forest water use and persistence on a Pacific atoll.** *Ecohydrology*. doi: 10.1002/eco.1601 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5165>

Shryock, DF, TC Esque, L Hughes. 2014. **Population viability of *Pediocactus bradyi* (Cactaceae) in a changing climate.** *American Journal of Botany* 101(11):1944-1953. doi: 10.3732/ajb.1400035 <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5166>

NEW WERC PUBLICATION BRIEFS

Comparison of Management Strategies Indicates Protection Benefits Desert Tortoises

Kristin Berry, **Lisa Lyren**, and **Julie Yee** analyzed data on desert tortoises and habitat in three areas of the western Mojave Desert with differing land management and tortoise protection histories. Publishing in *Herpetological Monographs*, they reported that tortoise densities were highest and death rates were lowest in the area with the longest and most comprehensive history of protection. <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5159>

Desert Tortoises Living Closer to Human Populations More Likely to Test Positive for Respiratory Disease

Desert tortoises (*Gopherus agassizii*) within shorter distances of human population centers have a higher prevalence of two respiratory disease pathogens, *Mycoplasma agassizii* and *Mycoplasma testudineum*, according to a study by **Kristin Berry**, **Julie Yee**, **Jeremy Mack**, and **Bill Perry**, published in *The Journal of Wildlife Management*. <http://www.werc.usgs.gov/ProductDetails.aspx?ID=5168>

IN THE NEWS

What Would Happen If All the Parasites Disappeared? (BBC Earth)

Writer Lucy Jones poses this hypothetical question to **Kevin Lafferty** and other ecologists, and ponders the different ways evolutionary processes, food chains, and human disease dynamics would be altered. <http://www.bbc.com/earth/story/20150127-what-if-all-the-pests-vanished>

Insight with Beth Ruyak (Capital Public Radio)

Host Beth Ruyak interviewed **Brian Halstead** about his research on giant gartersnakes and amphibians, including telemetry methods and potential impacts of California's drought. The interview previewed Halstead's appearance at the World of Wonders Science Museum in Lodi later that evening, where he gave a public lecture and led research demos. <http://www.capradio.org/41776>

