

ERIN E. POSTHUMUS

Outreach Coordinator and Liaison to the USFWS
National Coordinating Office, USA National Phenology Network
School of Natural Resources and the Environment, University of Arizona
erin@usanpn.org, 520-314-7883

EDUCATION

- 2013 M.S. Wildlife Conservation and Management, School of Natural Resources and the Environment, University of Arizona, Advisor: Dr. John Koprowski
Thesis: *Do red squirrel middens influence vertebrate species diversity?*
- 2005 B.A. in Environmental, Population and Organismic Biology, University of Colorado, Boulder; Summa cum laude; Study abroad at University of Wollongong, AUS (2003)

PROFESSIONAL EXPERIENCE

Outreach Coordinator & Liaison to the US Fish & Wildlife Service, USA National Phenology Network, School of Natural Resources and the Environment, University of Arizona: lead outreach and engagement of partners and citizen scientist participants of *Nature's Notebook* plant and animal observation program; work with National Wildlife Refuges to establish phenology monitoring programs to meet Refuge management and outreach objectives (2013-Present)

Outreach Assistant, USA National Phenology Network, School of Natural Resources and the Environment, University of Arizona: conducted outreach and communications related to *Nature's Notebook* program (2010-2013)

Buffelgrass Outreach Coordinator, Tucson Clean & Beautiful: conducted outreach and engagement to local partners and community members on invasive species for environmental non-profit in Tucson, AZ (2013)

Graduate Research Assistant, School of Natural Resources and the Environment, University of Arizona: conducted research on the montane vertebrate community of the Mt Graham red squirrel (2010-2013)

Graduate Assistant, Arizona State Museum, University of Arizona: compiled information on wildlife ecology in the sky islands to be used in interpretive displays in Chiricahua NM and Coronado NM (2013)

Peace Corps Environmental Conservation Advisor, Vanuatu, South Pacific: advised the Vanuatu government's Environment Unit on land management and resource conservation (2007-2009)

GRANTS, AWARDS, AND HONORS

Principal Investigator, Cooperative Ecosystem Studies Unit (CESU): Phenology Monitoring Technical Assistance – *Nature's Notebook* Citizen Science for Engagement and Management, US Fish & Wildlife Service (2019-2023), \$688k to the University of Arizona

Co-Investigator, Phenology for Resource Management and Decision Making, US Fish & Wildlife Service (2016-2019), \$332k to the University of Arizona

Co-Investigator, Phenology for Resource Management and Decision Making, US Fish & Wildlife Service (2014-2016), \$334k to the University of Arizona

Outstanding Thesis Award, School of Natural Resources and the Environment, University of Arizona (2014)

Student Leadership Award, School of Natural Resources and the Environment, University of Arizona (2013)

Graduate Diversity Scholarship, University of Arizona (2010, 2011, 2012), \$3k

Peace Corps Coverdell Fellows/USA, University of Arizona (2010-2013), full tuition scholarship to University of Arizona

European Union's Community Water and Sanitation Programme Grant, Vanuatu (2008), \$10k

Summa cum laude, University of Colorado, Boulder (2005)

National Science Foundation's Research Experiences for Undergraduates, University of Colorado, Boulder (2004), \$3500

SERVICE AND LEADERSHIP

Board Member, Jefferson Park Neighborhood Association, Tucson, AZ (2016-Present)

Volunteer, Desert Tortoise Adoption Program, Arizona-Sonora Desert Museum (2017-Present)

Volunteer, Humane Society of Southern Arizona, Tucson, AZ (2014-2020)

Partnerships Committee Chair, AZ Master Naturalists, Pima County Chapter (2017-2018)

Volunteer, Tucson Wildlife Center, Tucson, AZ (2014)

Mentor, Tucson Women in STEM Program, University of Arizona (2013-2014)

Chair, Natural Resources Graduate Student Organization, University of Arizona (2012-2013)

Committee Member, American Society of Mammalogists' Conservation Committee (2012-2013)

Graduate student representative, School of Natural Resources and the Environment's Awards Committee, University of Arizona (2013)

Graduate student representative, School of Natural Resources and the Environment's Web Task Force Committee, University of Arizona (2012-2013)

Graduate student representative, School of Natural Resources and the Environment's Strategic Planning Committee, University of Arizona (2011-2012)

Co-Chair, Natural Resources Graduate School Organization, University of Arizona (2011-2012)

Mentor, Peace Corps Coverdell Fellows Program, University of Arizona (2011-2013)

PEER-REVIEWED PUBLICATIONS AND BOOK CHAPTERS

Rosemartin, AR, TM Crimmins, KL Gerst, **EE Posthumus**, AR Ramirez, CSA Wallace, and TL Morelli. 2023. Lessons learned in knowledge co-production for climate-smart decision-making. *Environmental Science & Policy* 141: 178-187. <https://doi.org/10.1016/j.envsci.2023.01.010>

Crimmins, TM, EG Denny, **EE Posthumus**, AH Rosemartin, R Croll, M Montano, and H Panci. 2022. Science and management advancements made possible by the USA National Phenology Network's *Nature's Notebook* platform. *BioScience* 72(9): 908-920.

Crimmins, TM and **EE Posthumus**. 2022. Do carefully-timed email messages increase accuracy and precision in citizen scientists' reports of events? *Citizen Science Theory and Practice* 7(1):1-11.

Gerst, KL, AH Rosemartin, **EE Posthumus**, and TM Crimmins. Successes and challenges on a spectrum of stakeholder engagement. 2022. Pages 149-160 in: Neary, D.G. and Gottfried, G.J., eds. Collaboration Now for the Future: Biodiversity and Management of the Madrean Archipelago VI meeting proceedings, Tucson, Arizona, May 14-18, 2018. Proceedings RMRS-P-79. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 495 p. <https://doi.org/10.2737/RMRS-P-79>

Gerst, KL, TM Crimmins, **EE Posthumus**, RL Marsh, J Switzer, C Wallace. 2021. The USA National Phenology Network's Buffelgrass Green-up Forecast map products. *Ecological Solutions and Evidence* e12109:1-6. doi.org/10.1002/2688-8319.12109

Bates, A, RB Primack, B Biggar, ... **EE Posthumus**, ... and CM Duarte. 2021. Global COVID-19 lockdown highlights humans as both threats and custodians of the environment. *Biological Conservation* 263:109175. doi.org/10.1016/j.biocon.2021.109175

Crimmins, TM, **EE Posthumus**, SN Schaffer, and KL Prudic. 2021. COVID-19 impacts on participation in large scale community science projects in the United States. *Biological Conservation* 256:109017. doi.org/10.1016/j.biocon.2021.109017.

Gerst, KL, TM Crimmins, **EE Posthumus**, AH Rosemartin, and M.D. Schwartz. 2020. How well do the Spring Indices predict phenological activity across plant species? *International Journal of Biometeorology*. doi.org/10.1007/s00484-020-01879-z

Crimmins, TM, KL Gerst, DG Huerta, RL Marsh, **EE Posthumus**, AH Rosemartin, J Switzer, JF Weltzin, L Coop, N Dietschler, DA Herms, S Limbu, RT Trotter III, M Whitmore. 2020. Short-term forecasts of insect phenology inform pest management. *Annals of the Entomological Society of America* 113(2): 139-148. doi.org/10.1093/aesa/saz026

Taylor, RV, W Holthuijzen, A Humphrey, and **E Posthumus**. 2020. Using phenology data to improve control of invasive plant species: A case study on Midway Atoll NWR. *Ecological Solutions and Evidence* 1:1-7. doi:10.1002/2688-8319.12007

Gerst, KL, TM Crimmins, **EE Posthumus**, A Rosemartin, & M Schwartz. 2020. How well do the Spring Indices predict phenological activity across plant species? *International Journal of Biometeorology*. doi.org/10.1007/s00484-020-01879-z

Posthumus, EE, L. Barnett, TM Crimmins, E Stancioff, J Einerson, PL Warren. Building local resilience to climate change through citizen science, environmental education, and decision-making. In: *Addressing Climate Change at*

the Community Level in the United States. 2018. Eds. P.R. Lachapelle and D.E. Albrecht. New York: Routledge/Taylor & Francis.

EK Waller, TM Crimmins, JJ Walker, **EE Posthumus**, JF Weltzin. 2018. Differential changes in the onset of spring across US National Wildlife Refuges and North American migratory bird flyways. *PLOS One*. doi.org/10.1371/journal.pone.0202495

Posthumus, EE, JL Koprowski, RJ Steidl. 2015. Red squirrel middens influence abundance but not diversity of other vertebrates. *PLOS ONE* 10(4):e0123633. doi:10.1371/journal/pone.0123633

Derbridge, JD, **EE Posthumus**, HL Chen, JL Koprowski. 2015. *Solenodon paradoxus*. *Mammalian Species*.

Rosemartin, AH, TM Crimmins, C Enquist, KL Gerst, JL Kellerman, **EE Posthumus**, JF Weltzin, EG Denny, P Guertin, LR Marsh. 2013. Organizing phenological data resources to inform natural resource conservation. *Biological Conservation*. doi:10.1016/j.biocon.2013.07.003

Koprowski, JL, SL Dumas, MJ Merrick, B Oleson, **EE Posthumus**, TG Jessen, and RN Gwinn. 2013. It's lonely at the top: Biodiversity at risk to loss from climate change. In Gottfried, Gerald J.; Ffolliott, Peter F.; Gebow, Brooke S.; Eskew, Lane G.; Collins, Loa C., comps. 2013. Merging science and management in a rapidly changing world: Biodiversity and management of the Madrean Archipelago III and 7th Conference on Research and Resource Management in the Southwestern Deserts; 2012 May 1-5; Tucson, AZ. Proceedings. RMRS-P-67. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 593 p.

Posthumus, EE, L Barnett, TM Crimmins, G Kish, W Sheftall, E Stancioff, P Warren. 2013. *Nature's Notebook* and Extension: Engaging citizen-scientists and 4-H youth to observe a changing environment. *Journal of Extension*. 51(1).

Posthumus, EE, A Cruz, J Chase. 2010. Influence of habitat type on bird diversity in the Colorado subalpine. *Colorado Birds* 44(4):227-237.

SELECTED REPORTS

Posthumus, EE, MP Miller, and TM Crimmins. 2020. *Nature's Notebook*—A tool for recording the timing of seasonal activity of plants and animals: U.S. Geological Survey Fact Sheet 2020–3022, 4 p., doi.org/10.3133/fs20203022

USA-NPN National Coordinating Office. 2019. Phenology for Resource Management and Decision Making: Phase III and IV Program Evaluation and Final Report. USA-NPN FWS Series 2019-001. Available online at www.usanpn.org/fws. 25 pp.

Hudson, AM, JJ Minor, and EE Posthumus. 2013. Stories of the Sky Islands: Exhibit Development Resource Guide for Biology and Geology at Chiricahua National Monument and Coronado National Memorial. Final Report to National Park Service, Cooperative Ecosystems Studies Unit Agreement H1200-05-0003, Task Agreement J8680090020. May 17, 2013: 92 pp.

PROFESSIONAL MEMBERSHIP

The Wildlife Society (2010-Present)

Tucson Cactus and Succulent Society (2016-Present)