

SCHOOL of FORESTRY

Monthly Newsletter

APRIL-JULY 2022



NAU FORESTRY PROGRAM

The NAU forestry program is a vibrant, diverse and active place of learning and research and a feeling of community. Here are just some of the activities this month of our internationally distinguished faculty and researchers.

UPCOMING EVENTS

Aug 24 – Forestry Faculty Retreat

Aug 29 – Start of Fall 22 semester

Meet our **five new faculty** in School of Forestry! (PAGES 4-6)

NAU SCHOOL OF FORESTRY

The School of Forestry is a gateway to a fulfilling forestry career; it's also an invitation to create sustainable solutions for the natural world and outdoor enjoyment for years to come.



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For more information visit
nau.edu/forestry

**PUBLICATIONS:** [NAU Authors in Bold, * Undergraduate Student]

Antoninka, A., P.F. Chuckran, R. Mau, M. Slate, B. Mischler, M. Oliver, K. Coe, L. Stark, K. Fisher, **M. Bowker**. 2022. Novel climates impact biocrust visible communities but not associated soil bacteria. *Frontiers in Microbiology* 28.
<https://doi.org/10.3389/fmicb.2022.821860>

Grady, A.M., **C.D. Crouch**, N.P. Wilhelmi, **R.W. Hofstetter**, and **K.M. Waring**. 2022. Oystershell scale: an invasive threat to aspen conservation. WAA Brief #8: May 2022.
<https://www.azcentral.com/story/news/local/arizona-environment/2022/01/22/wave-tiny-insects-threatens-survival-arizonas-aspens/8833242002/>

Martínez-Fonseca, J. G., R. Mau, **F. M. Walker**, A. Medina-Fitoria, K. Yasuda, and **C. L. Chambers**. 2022. *Vampyrum spectrum* (Phyllostomidae) space use and prey revealed by radio-telemetry and DNA metabarcoding. *PLoS ONE* 17(4): e0265968. <https://doi.org/10.1371/journal.pone.0265968>

McKenna, D. M., Grams, S. E., Barasha, M., **Antoninka, A. J.**, & Johnson, N. C. (2022). Organic and inorganic soil carbon in a semi-arid rangeland is primarily related to abiotic factors and not livestock grazing. *Geoderma* 419: 115844.
<https://doi.org/10.1016/J.GEODERMA.2022.115844>

Lyman, J. A.*, **D. E. Sanchez**, S. N. Hershauer, C. J. Sobek, **C. L. Chambers**, **J. Zahratka**, and **F. M. Walker**. 2022. Mammalian eDNA on herbaceous vegetation? Validating a qPCR assay for detection of an endangered rodent. *Environmental DNA*. <https://doi.org/10.1002/edn3.331>

Saxena, A. (2022). *The Snow Leopard and the Goat: Politics of Conservation in the Western Himalayas* By Shafqat Hussain. Seattle: University of Washington Press, 2019. 240 pp. ISBN: 9780295746579 (paper). *The Journal of Asian Studies*, 81(2), 424-425.
 doi:10.1017/S002191182200033X

**NEW AWARDS:**

Yeon-Su Kim was selected as a USDA HSI E. Kika De La Garza Fellow. The E. Kika De La Garza Fellowship Program links USDA and Hispanic-Serving Institutions to help build awareness in Hispanic communities of USDA services, resources, and employment opportunities. Fellows will spend one week meeting with a host of leaders from different USDA agencies in the Washington, D.C. area, where they can interact directly on national and regional issues, policy making, and research. Following that weeklong session, E. Kika De La Garza Science Fellows will spend an additional week collaborating with top scientists from USDA's Agricultural Research Service (ARS) or the Natural Resources Conservation Service's (NRCS) Soil Survey Center in Lincoln, Nebraska.

Dr. Kristen Waring will be recognized as a new SAF Fellow 2022! The Class of 2022 Fellows will also be publicized in an upcoming issue of the Forestry Source. For those who are not familiar with the SAF Fellow, “The Fellow Award is a prestigious award that recognizes an SAF member for long standing service to forestry at the local, state, and national level. The SAF Fellow is recognized as an ambassador for the advancement of forestry. Awardees are recognized during their local state society meetings and during the SAF National Convention.” https://www.eforester.org/Main/Community/Awards%20Folder/SAF_Fellows.aspx

The past SAF Fellows from the SAF SW chapter include Wally Covington (2020); James Allen (2012), Ernie Kurmes (1994); Al Hendricks (1992); Doug Page (2002), and Mike Wagner (1999).



PRESENTATIONS/OUTREACH:

SOF faculty and graduate students **Kristen Waring, Richard Hofstetter, Connor Crouch and Kelsey Pemberton** are collaborating with the U.S. Forest Service to further understand the effects of oystershell scale (OSS), an emerging and invasive insect, killing quaking aspen and other softwood trees. Learn more here: <https://www.azcentral.com/story/news/local/arizona-environment/2022/01/22/wave-tiny-insects-threatens-survival-arizonas-aspens/8833242002/>

Walker, F.M., C.M. Hepp, B. Brock, M. Valentine, J.R. Upton, L. Van Pelt, L. Hastings, D. Bergman, and D.M. Engelthaler. Toward new methods to track rabies virus in Arizona: non-traditional sample types for rabies virus detection and a tiled amplicon assay for phylogeography.

AZCentral prominently featured NAU (**Andrew Sanchez Meador, Matt Bowker, Pete Fule, Alicia Azpeleta Tarancon, and Catrina Jenkins**) – all speaking about the Rodeo-Chediski Fire 20 years later. <https://www.azcentral.com/in-depth/news/local/arizona-environment/2022/06/20/rodeo-chediski-fire-changed-arizona-forests/7649622001/>



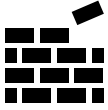
STUDENT HIGHLIGHTS:

Student Association for **Fire Ecology club** goes to Georgia to learn how to burn and about local fire ecology. Undergraduate students **Addie Jones, Steven Longbons, Cole Brant and Austin Cash** and Graduate students **Noah Haarmann and Scott Franz** participated. **Addie Jones** created a [story map](#) of the experience for her class project.

Jennifer Zahratka was selected to attend the São Paulo School of Advanced Science on Ecology of Human Sleep and Biological Rhythms at the University of São Paulo, Brazil in November 2022. The school will bring together renowned researchers from Brazil and around the world, focusing on sleep and circadian rhythms from an ecological perspective. The committee selected 100 international participants to attend based on the candidate’s academic record, letter of recommendation and motivation letter. Jennifer will apply this knowledge to her PhD program with **Dr. Carol Chambers**

that addresses hibernation and physiological ecology of the federally endangered New Mexico meadow jumping mouse.

Sam Ebright (M.S.) was awarded the International Association of Wildland Fire (IAWF) Student Scholarship. His photo and bio are posted on their website. <https://www.iawfonline.org/scholarships/>



NEW SCHOOL OF FORESTRY FACULTY:

Dr. Seafha Ramos will start Spring 2023 as the **Assistant Professor for Indigenous Forestry**. Dr. Ramos is currently a National Science Foundation postdoctoral fellow and a Research Associate in the Department of Wildlife at Cal Poly Humboldt (formerly Humboldt State University) in Arcata, CA. In collaboration with Redwood National Park and the Yurok Tribe, she is conducting research on elk habitat ecology through Yurok Traditional Ecological Knowledge and elk molecular scatology. Dr. Ramos has strong records of research, teaching and Indigenous community engagement. Her research on Yurok forest management practices is very applicable to current forestry research and teaching at NAU. <https://www.seafharamos.com/research.html>.



Dr. Salli Dymond will start Fall 2022 as the **Associate Professor in Ecohydrology/Watershed Management**. Dr. Dymond received her BS in Forestry (2007) and MS in Forest Science (2010), both from Virginia Tech, and her PhD in Forest Hydrology from the University of Minnesota Twin Cities (2014). She was a Postdoctoral Research Hydrologist with the Forest Service Pacific Southwest Research Station before joining the Department of Earth and Environmental Sciences at the University of Minnesota Duluth (UMD) as an assistant professor in 2017. She was promoted to associate professor in 2022. Dr. Dymond is a forest hydrologist, which means her research is at the nexus of the abiotic and biotic worlds. She is particularly interested in how trees interact with and exert control over the hydrologic cycle, especially following environmental disturbance. Her studies on forests and water have taken her to the tops of trees, through soils and snow, and deep into bedrock. She currently serves as chair of the American Geophysical Union's Ecohydrology Technical Committee and is part of the AdvanceGEO *Train the Trainers* team to help scientific communities address microaggressions and workplace bullying. She is the 2022 recipient of the UMD's College of Science and Engineering Young Teacher award

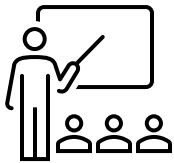


Jill Beckmann will start Fall 2022 as the **Professor of Practice in Forest Management** (and manager of the Centennial Forest). Originally from the Ohio Valley, it was in the Georgia piedmont among a dizzying diversity of oak, hickory, and pine where Jill Beckmann was first drawn to the field of Forest Ecology. Since receiving her BS in Geography from Humboldt State University (2006), her career in ecological stewardship and restoration has ranged from the North Cascades to the Coachella Valley. Jill's passion for fire-adapted landscapes and interfacing with communities has led her to a diverse array of positions over the years with USFS, NPS, BLM, two tribal governments (Quartz Valley Indian Reservation and the Karuk Tribe), a non-profit organization in forest restoration, service on the City Council and Commissioner of Emergency Services in Etna, CA and hands-on experience in wildland and prescribed fire planning and operations. Jill received a MS in Forest Watershed and Wildland Science from Humboldt State University (2019). She came to NAU to work with Andrew Sánchez Meador on a Ph.D. program that explores the effects of spatial patterns, neighborhood effects, tree interactions, and competition and climate interactions on tree growth in the Southwest. Jill will join our faculty as an Assistant Professor of Practice and focus on the management of the Centennial Forest.



Dr. Breanna Powers will be starting fall 2022 as an **Assistant teaching professor** in the School of Forestry. Dr. Powers' background is in ecology and natural resource management. She completed her PhD at the University of Auckland and just finished work as a postdoc at Boise State University and the University of Wyoming. Dr. Powers has taught an array of courses such as environmental science, geography, wildlife science, and urban planning. In her free time, she also enjoys doing outdoor activities including climbing, mountain biking, backpacking, rafting, and skiing.

Dr. Derek Uhey will be starting fall 2022 as an **Assistant teaching professor**. Dr. Uhey received his BS in Environmental Biology (2013) from Fort Lewis College in Durango Colorado before heading to Northern Arizona where he received a MS (2016) and PhD (2022) in Forestry. As a graduate student at NAU, Dr. Uhey taught courses in the forestry and biology departments while also teaching courses at Coconino Community College in Flagstaff and remotely at Oregon State University. His research has focused on insect ecology. During his masters, Dr. Uhey explored connections between climate, vegetation, and insect communities along elevational gradients in northern Arizona. During his PhD, Dr. Uhey examined the ecological roles of seed-harvesting ants in structuring plant communities. His research and recreation interests including hiking and photography have led him into many of the Colorado Plateau's canyon and mountains. Dr. Uhey is particularly interested in sharing his passion for wilderness through conservation education.



We have a new **Online Graduate Certification program in Natural Resource Management** starting Fall 2022. We will be offering the following three courses in Fall 2022, and other courses in Spring 2023. Apply at nau.edu/graduate-college/admissions

FOR 500 ECOSYSTEM SCIENCE AND MANAGEMENT PRINCIPLES

FOR 444 WILDERNESS MANAGEMENT FOR PROFESSIONALS

FOR 525 GIS AND SPATIAL TECHNIQUES IN FORESTRY