

Chhaya M. Werner

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PROFESSIONAL APPOINTMENTS

Assistant Professor Southern Oregon University Department of Environmental Science, Policy, & Sustainability	2022 - Present
USDA NIFA Postdoctoral Fellow project coordinated through the University of Wyoming Advisors: Lauren Hallett and Lauren Shoemaker	2021 - 2022
Postdoctoral Associate University of Wyoming Modelscape project Advisor: Lauren Shoemaker	2020 - 2021
Postdoctoral Researcher German Centre for Integrative Biodiversity Research project coordinated by University of Oulu, Finland and Helmholtz Centre for Environmental Research, Germany Advisor: Anu Eskelinen	2019 - 2020

EDUCATION

PhD in Population Biology University of California Davis Advisors: Truman Young and Susan Harrison	2014 - 2018
B.A. in Ecology and Evolutionary Biology Princeton University, <i>magna cum laude</i> Advisor: Stephen Pacala	2010 - 2014

PUBLICATIONS

Werner, CM, LM Hallett, LG Shoemaker. Fluctuation-dependent mechanisms promote coexistence for stage structured species and in mixed annual and perennial communities. *American Naturalist*, special issue contribution in prep.

Werner, CM, TP Young, KL Stuble. Year effects drive beta diversity, but unevenly across plant community types. *Ecology*, accepted.

LM Hallett, L Aoyama, G Barabas, B Gilbert, L Larios, N Shackelford, **CM Werner**, ... LG Shoemaker. Restoration ecology through the lens of coexistence theory. *Trends in Ecology and Evolution*, accepted.

Ebel, CR, MF Case, **CM Werner**, LM Porensky, KE Veblen, HBM Wells, DM Kimuyu, RE Langendorf, TP Young, LM Hallett. 2022. Herbivory and Drought Reduce the Temporal Stability of Herbaceous Cover by Increasing Synchrony in a Semi-arid Savanna. *Frontiers in Ecology and Evolution* 10.3389

Weiss-Lehman, CP*, **CM Werner***, CH Bowler, LM Hallett, MM Mayfield, O Godoy, L Aoyama, G Barabas, C Chu, E Ladouceur, L Larios, LG Shoemaker. 2022. Disentangling key species interactions

in diverse and heterogeneous communities: a Bayesian sparse modeling approach. *Ecology Letters* 25:1263-1276.

Young, TP, D Kimuyu, E LaMalfa, **CM Werner**, C Jones, P Masudi, R Ang'ila, and R Sensenig. 2022. The effects of large mammalian herbivory, previous fire, and year of burn on fire behavior in an African savanna. *Ecosphere* 13:e3980.

Werner, CM, M Tuomi, and A Eskelinen. 2021. Trait-based responses to cessation of nutrient enrichment in a tundra plant community. *Oecologia* 197:675-684.

Werner, CM, SP Harrison, HD Safford, GN Bohlman, and R Serata**. 2021. Extreme pre-fire drought decreases shrub regeneration on fertile soils. *Ecological Applications* 10.1002:e2464.

Werner, CM. 2021. Prescribed fire highlights the effects of zebra, elephants, cattle, and previous burns on savannah heterogeneity. *ESA Bulletin* 102:e01851 *annotated photo gallery*

Werner, CM, D Kimuyu, K Veblen, E LaMalfa, R Sensenig, and TP Young. 2021. Synergistic effects of herbivores and previous fire on fine-scale heterogeneity of prescribed grasslands burns. *Ecology* 102:e03270

Werner, CM, KL Stuble, AM Groves, and TP Young. 2020. Year Effects: Inter-annual variation as a driver of community assembly dynamics. *Ecology* 101:e03104

MJ Koontz, MP North, **CM Werner**, SE Fick, and AM Latimer. 2020. Local forest structure variability increases resilience to wildfire in dry western US coniferous forests. *Ecology Letters* 23:483-494

Werner, CM, DJN Young, HD Safford, and TP Young. 2019. Decreased snowpack and warmer temperatures reduce the negative effects of interspecific neighbors on regenerating conifers. *Oecologia* 191:731-743

Young, DJN, **CM Werner**, KR Welch, TP Young, HD Safford, and AM Latimer. 2019. Post-fire forest regeneration shows limited climate tracking and potential for drought-induced type conversion. *Ecology* 100:e02571

North, MP, JT Stevens, DF Greene, M Coppoletta, EE Knapp, AM Latimer, ... **CM Werner**, P Wyrsh. 2019. Reforestation for Resilience in Dry Western Forests. *Forest Ecology and Management* 432:209-224

Young, TP, KL Stuble, JA Balachowski, ME Lulow, **CM Werner**, and K Wolf. 2017. Experimental approaches to addressing climate change challenges in prairie restoration. *Grasslands special issue: Climate change and grasslands*. 27:10-15

Young, TP, KL Stuble, JA Balachowski, and **CM Werner**. 2017. Using priority effects to manipulate competitive relationships in restoration. *Restoration Ecology* 25:S114-S123

Werner, CM, KJ Vaughn, KL Stuble, K Wolf, and TP Young. 2016. Persistent asymmetrical priority effects in a California grassland restoration experiment. *Ecological Applications* 26:1624-1632

co-first authors* *Undergraduate mentee*

GRANTS, FELLOWSHIPS, AND AWARDS

USDA NIFA Postdoctoral Fellowship Program	\$165,000	2021 - 2023
NSF Graduate Research Fellowship Program	\$138,000	2016 - 2018
UC Davis Plant Sciences MacDonald Fellowship	\$80,000	2014 - 2018
Henry A. Jastro graduate research scholarships	\$7850	2015 - 2018
University of California ISEECI graduate student research fellowship	\$11,500	2016
University of California Natural Reserve System research grant	\$1200	2016

Ben A. Madson scholarship \$1000	2015
Leslie Kilman Johnson senior thesis award	2014

WORKING GROUPS AND CONFERENCES

Klamath River Restoration Research Group <i>organizing committee</i>	2023 - present
sDiv working group "sPriority: Mechanisms and quantification of priority effects" <i>participant</i>	2021 - present
sDiv working group "sToration" <i>participant</i>	2020 - present
Klamath River Restoration Research Conference <i>participant</i>	2023

COURSES TAUGHT

Southern Oregon University

Environmental Science, Policy, & Sustainability

Ashland, OR

- ES 480 Fire Ecology 2022
- ES 483 Restoration Ecology 2023
- ES 349 Maps and Cartography 2022
- ES 310 Science Writing 2023
- ES 230/430/530 Eco-Adventure 2023
- ES 102L Intro Environmental Science Lab 2023

German Centre for Integrative Biodiversity

yDiv

Leipzig, Germany

- Fire Ecology graduate-level course 2020

SERVICE AND DEI WORK

UW Biology Department DEI Committee

Committee Member

Current

Laramie, WY

- Working with inaugural DEI committee for the Biology Department at University of Wyoming to improve access to field safety training and gear, recommend equitable graduate student application and hiring practices, and provide resources for reporting and preventing harassment.

Women of Color in Ecology and Evolutionary Biology

Advisory Board

Current

Slack Network

- Advisory board member for a Slack networking and support group for women of color in ecology and evolutionary biology. Helped draft a code of contact, onboard new members, and organize peer mentoring groups.

Natural Areas Conference

Student and Volunteer Committee Chair

2016

Davis, CA

- Served on the organizing committee for the 43rd Natural Areas Conference. Recruited student participants, and organized activities, awards, and volunteer opportunities for student attendees.

SELECTED PRESENTATIONS

University of California Santa Barbara EEMB department. October 11, 2021. **Invited Talk:** *Plant community dynamics in a variable world*

University of Wyoming Department of Botany. February 4, 2021. **Invited Talk:** *Plant community dynamics in a variable world*

Ecological Society of America 106th Annual Meeting, virtual. August 2021. **Talk:** *Improving insight and predictability of community dynamics through a sparse modeling framework*

Ecological Society of America 105th Annual Meeting, virtual. August 2020. **Talk:** *Plant traits predict persistence of nutrient enrichment in arctic tundra*

British Ecological Society. Belfast, Northern Ireland. December 12, 2019. **Talk:** *Recovery of tundra communities from nutrient deposition*

German Centre for Integrative Biodiversity Research seminar. Leipzig, Germany. March 6, 2019. **Invited Talk:** *Priority promotes coexistence in a grassland restoration experiment*

Oikos Finland Conference on Ecology and Evolutionary Biology. Oulu, Finland. February 5, 2019. **Talk:** *Extreme pre-fire drought decreases shrub regeneration after fire*

Ecological Society of America 103rd Annual Meeting, New Orleans, LA. August 8, 2018. **Talk:** *Post-fire regeneration on harsh soils is more resilient to climate change.*

Ecological Society of America 102nd Annual Meeting, Portland, OR. August 9, 2017. **Poster:** *Post-fire recruitment of two conifer species under manipulated drought and shrub competition conditions*

Northwest Science Association 88th Annual Meeting, Ashland OR. May 31, 2017 **Invited Talk:** *Post-fire climate as a driver of forest community regeneration*

Northwest Science Association 88th Annual Meeting, Ashland OR. May 30, 2017. **Poster:** *Spatial and temporal contingency in rapid primary succession following removal of the Elwha River dams*

Center for Population Biology seminar series, University of California Davis. November 22, 2016. **Talk:** *Plant community responses to post-fire drought*

Natural Areas Conference 43rd Annual Meeting, Davis CA. October 19, 2016. **Talk:** *Post-fire climate as a driver of forest community regeneration*

Princeton Environmental Institute's Discovery Day. Princeton, NJ. May 2014. **Poster:** *Restoration, regrowth, and invasion in the drained Elwha River reservoirs*

TECHNICAL STRENGTHS

Main Computer Language	R
Experience with	Stan, GIS, MATLAB, Javascript, LaTeX
Other Tools	Arduino, Google Earth Engine, LANDIS-ii, ImageJ