

Curriculum Vitae

Timon Theodor Keller

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EDUCATION

2021-	Ph.D. Candidate	Integrative Biology. Minor in Ecological Change & Landscape Conservation University of Wisconsin-Madison. <u>Advisor</u> : Dr. Monica G. Turner
	Dissertation:	Places, processes, and perceptions of Northern US Rocky Mountain subalpine forests throughout the 21st century
2018-20	M.E.M.	Global Sustainability Western Colorado University. <u>Advisor</u> : Dr. Jessica Young
	Thesis:	Global forest conservation – A comparison of forest restoration initiatives in the global north and the global south
2014-18	B.S.	Biology. Minor in Sustainability Principia College. <u>Advisors</u> : Dr. Scott Eckert, Dr. Karen Eckert
	Honors Thesis:	Amur honeysuckle density may determine white oak seedling abundance

RESEARCH INTERESTS

Forest ecology, forest management, ecological modeling, landscape ecology, natural
disturbances, fire ecology, ecosystem ecology, nutrient cycling

ACADEMIC AND PROFESSIONAL EXPERIENCE

2022-	Research Assistant	Department of Integrative Biology, University of Wisconsin-Madison
2021-24	Course Coordinator & Teaching Assistant	BOT 460 (Coordinator Fall 2024, TA Spring 2022 & Fall 2023) ZOO 879 (TA Spring 2024), BIO 151 (TA Fall 2021), UW-Madison
2024	Visiting Scholar	Ecosystem Dynamics & Forest Management Group, School of Life Sciences, Technical University of Munich, Freising, Germany Supervisor: Prof. Dr. Rupert Seidl. January 15-27, 2024
2019-21	Land Manager & Outdoor Educator	Promotion to Land Manager in 2020; 100 Elk Outdoor Center at the Adventure Unlimited Ranches, Buena Vista, CO
2018-20	Program Coordinator	LEAD Sustainability, Western Colorado University, Gunnison, CO
2018-19	Research Fellow	Mountain Resilience Coalition, Western Colorado University
2016-18	Research Assistant	Department of Biology & Natural Resources, Principia College; & National Great Rivers Research & Education Center, Alton, IL

PEER-REVIEWED PUBLICATIONS

IN PREPARATION

9. Keller, T.T. and M.G. Turner. Picture this: visualizing future landscapes heightens perceptions of climate
change. *In prep for* Frontiers in Ecology and the Environment

8. Schattenberg, C., [26 additional co-authors, including **T.T. Keller**], and R. Seidl. Patterns and drivers of tree regeneration across temperate forest landscapes with varying disturbance regimes.
In prep for Journal of Ecology

IN REVIEW OR REVISION

7. **Keller, T.T.**, and M. G. Turner. Fire and forest recovery in rugged terrain: Does topographic complexity enhance subalpine forest resilience to wildfire?
In review at Landscape Ecology
6. **Keller, T.T.**, C.C. Cleveland, R.E. Heumann, A.C. Link, L.T. McGuire, and M.G. Turner. Nitrogen dynamics 35 years after stand-replacing fire: Aboveground pools grow as surface soil pools remain unchanged.
In review at Ecology

PUBLISHED

5. Dollinger, C., M. G. Turner, W. Rammer, **T. T. Keller**, A. S. Mori, K. F. Suzuki, and R. Seidl. 2026. Forest reorganization sustains carbon sequestration under climate change.
Global Biogeochemical Cycles, 40:e2025GB008970. <https://doi.org/10.1029/2025GB008970>
4. Knowlton, G. J., **T. T. Keller**, R. Seidl, and M. G. Turner. 2025. Postfire tree regeneration suggests reorganization of Greater Yellowstone subalpine forests during the 21st century.
Ecosphere, 16:e70415. <https://doi.org/10.1002/ecs2.70415>
3. **Keller, T.T.**, D.C. Abendroth, K.H. Brazianus, C. Dollinger, G.J. Knowlton, P.R. Hood, R. Seidl, and M. G. Turner. 2025. Can fire exclusion zones enhance postfire tree regeneration? A simulation study in subalpine conifer forests.
Ecological Applications, 35:e70121. <https://doi.org/10.1002/eap.70121>
2. Dollinger, C., W. Rammer, K. F. Suzuki, K. H. Brazianus, **T. T. Keller**, Y. Kobayashi, J. Mohr, A. Mori, M. G. Turner, and R. Seidl. 2024. Beyond resilience: Responses to changing climate and disturbance regimes in temperate forest landscapes across the Northern Hemisphere.
Global Change Biology 30:e17468. <https://doi.org/10.1111/gcb.17468>
1. Lovseth, J. T., J. W. Groninger, C. M. Ruffner, B. Bookout, **T. Keller**, K. Silcox, and D. Schnaitman. 2021. Using floristic analysis and dendrochronology to plan ecological restoration within a forest–prairie ecotone.
Natural Areas Journal 41:238–248. <https://doi.org/10.3375/20-53>

PRESENTATIONS (First-authored only; *Invited)

- ***Keller, T.T.** 2025. The dynamic fire module in iLand.
iLand North America monthly user meeting. Virtual, 11/18
- Keller, T.T.**, Cleveland, C.C., Heumann, R.E., Link, A.C., McGuire, L.T., and Turner, M.G. 2025. Nitrogen dynamics in young lodgepole pine forests 35 years after stand-replacing fire.
Annual Meeting of the Ecological Society of America, Baltimore, MD. 08/10 - 15
- ***Keller, T.T.**, Link, A.C., Heumann, R.E. 2025. Nitrogen dynamics in young, postfire lodgepole pine forests in the Greater Yellowstone Ecosystem. Presentation to cross-agency (BLM, FS, NPS, EPA) FARM team. Virtual, 02/12/25
- ***Keller, T.T.**, and Knowlton, G.J. 2025. Yellowstone's fiery future: Using simulation models to understand, communicate, and manage wildfire and forest change in America's oldest national park. UW-Madison SEEDS chapter, 02/06/25

Keller, T.T., Abendroth, D.C., Braziunas, K.H., Dollinger, C., Hood, P.R., Knowlton, G.J., Seidl, R., and Turner, M.G. 2024. Too much fire, too few seed sources? A simulation study of fire refugia as a RAD management strategy.

16th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, Big Sky, MT. 09/3-5

Keller, T.T. and Turner, M.G. 2024. Envisioning the future: Photorealistic representations of Greater Yellowstone landscapes in a warmer world with more fire. (Poster)

- Annual Meeting of the Ecological Society of America, Long Beach, CA. 08/4 – 9.

- 16th Biennial Scientific Conference on the Greater Yellowstone Ecosystem, Big Sky, MT. 09/3-5.

- Joint Graduate Recruitment Poster Session, Departments of Integrative Biology & Botany, UW-Madison 02/13/25

***Keller, T.T.**, Braziunas, K.H., Dollinger, C., Knowlton, G.J., Turner, M.G. 2023. Can managing for fire refugia slow 21st century forest change? A simulation study in the Greater Yellowstone Ecosystem. Annual Meeting of the Ecological Society of America, Portland, OR. 08/6 – 10

Keller, T. T. 2020. Forest restoration lessons from the Global North and South (Poster). 26th Annual Conference of the International Society of Tropical Foresters, New Haven, CT 01/30-02/01

TEACHING & GUEST LECTURES (+Instructor of record, *Invited)

University of Wisconsin-Madison

2024 **+Course Coordinator**

- General Ecology (BOT 460), Fall 2024

2021-24 **Teaching Assistant**

- Advanced Landscape Ecology (ZOO 879), Spring 2024

- General Ecology (BOT 460), Spring 2022 & Fall 2023

- Introductory Biology (BIO 151), Fall 2021

2023-25 ***Guest Speaker**

- Intro to Ecology Research (ZOO 953), Fall 2023, 2024, & 2025

100 Elk Outdoor Center at the Adventure Unlimited Ranches

2019-21 **Outdoor Educator &
Lead Ecology Teacher**

Developed & lead field-based ecology lessons for 5th – 12th grade students. Trained staff to teach ecology lessons.

Western Colorado University

2018-19 **Guest Lecturer***

- Environmental Management (ENVS 390), Fall 2019

- Business and the Environment (BUAD 363), Spring 2019

- Academic Writing and Inquiry (COM 202), Spring 2019

- Intro to Environment & Sustainability, (ENVS 100) Fall 2018

- Inquiry into Sustainability (ROE 351), Fall 2018

Principia College

2016-18 **Teaching Assistant**

- Introductory Zoology (BNR 112), Spring 2018

- Intro to Ecology (BNR 191), Spring 2016 & Spring 2018

- Field and Natural History (BNR 161), Fall 2016

MENTORSHIP

University of Wisconsin-Madison

- 2025-26 Collin Cheney. Senior thesis: “Does increased nitrogen availability enhance tree growth in young lodgepole pine forests?”
- 2025 Sunshine Prost. BOT 460 Final project poster. “The facilitative impact of drought on the allelopathic effects of *Rhamnus cathartica* on *Lactuca sativa* germination and growth”
Poster presented at: UW-Madison Undergraduate Research Symposium
- 2025 Faye Nichols. BOT 460 Final project poster. “The facilitative impact of drought on the allelopathic effects of *Rhamnus cathartica* on *Lactuca sativa* germination and growth”
Poster presented at: National Conference on Undergraduate Research
- 2025 Owen Plate. Lab technician, assisted with sample preparation and analysis (tree cores, soils)
- 2024 Ashley Cheung, Callan Lapinskas, Alex Orn, Jill Storms, Denisa Voshtina.
BOT 460 Final Project poster: “Assessing the ability of biochar pyrolyzed at different temperatures to absorb heavy metals”
Poster presented at: UW-Madison Undergraduate Research Symposium
- 2024 Collin Cheney, Ella Cagle. Summer field technicians assisting with field campaign to assess postfire tree regeneration in topographically complex terrain.
- 2023 Lucy McGuire. Summer field technician assisting with data collection for National Park visitor survey in Grand Teton and Yellowstone National Parks.
- 2022 Lucy McGuire, Delaney Arend, Julia Warren. Summer field technicians assisting with field campaign assessing recovery of nitrogen stocks after stand replacing fire.

100 Elk Outdoor Center at the Adventure Unlimited Ranches

- 2021 Luke Laningham, summer ecological restoration intern
- 2020 Alex Reyes and Spencer Christensen, summer ecological restoration interns
- 2019 Dylan Sheets and Nicholas Jacobs, summer ecological restoration interns

Western Colorado University

- 2018-19 CJ Gooderham, Maria Agazio, Ariston Awitan, Morgan Eitemiller. Mentored while serving as LEAD Sustainability Program Coordinator. Projects included installing and writing a manual for rocket composter at Western Colorado University’s dining hall, managing free thrift store “FreeCycle”, monitored waste audits on Western’s campus.

COMPETITIVE GRANTS & FELLOWSHIPS

- 2023-25 Fire and forest recovery in rugged terrain: Does topographic complexity enhance forest resilience? With Monica G. Turner. Joint Fire Science Program, Graduate Research Innovation Award. 23-1-01- 10. (\$25,000)
- 2021-24 Collaborative forest restoration at Gametrails HOA and AU Ranches. With Steven Murray. Colorado State Forest Service, SB 17-050 Forest Restoration & Wildfire Risk Mitigation Grant Program. (\$91,500)
- 2021-24 Forest thinning and fuels reduction at AU Ranches. With Steven Murray. Colorado State Forest Service, SB 17-050 Forest Restoration & Wildfire Risk Mitigation Grant Program. (\$90,000)

INTERNAL FUNDING

- 2023-26 John Jefferson Davis Travel Award, Integrative Biology, UW-Madison. Travel awards for:
 -Annual Meeting of the International Association for Landscape Ecology-North America, Athens, GA (\$900)
 -Annual Meeting of the Ecological Society of America, Baltimore, MD (\$900)
 -Annual Meeting of the Ecological Society of America, Long Beach, CA (\$700)
 -Annual Meeting of the Ecological Society of America, Portland, OR (\$700)
- 2023-24 Student Research Grants Competition, UW-Madison Graduate School. Research visit with Prof. Dr. Rupert Seidl Technical University of Munich, Freising, DE (\$1,500)
- 2018-20 School of the Environment & Sustainability fellowships, Western Colorado University (\$15,000)

AWARDS & HONORS

- 2026 Student Travel Award, International Association for Landscape Ecology North America (IALE-NA). Awarded to attend 2026 conference, Athens, GA.
- 2025 Photo Competition, Association for Fire Ecology. "After the Fire" category. See the photo [here](#).
- 2020 Staff Member of the Year, Adventure Unlimited Ranches
- 2018 Henry Merritt Paulson Award. "Awarded for general excellence & advancement in the field of biology", Principia College
- 2018 Helen D. Reid Fellowship. "Awarded for [...] graduate studies in international relations or related fields & contributing to a better international understanding", Principia College

PANELS, WORKSHOP & CONFERENCE ORGANIZATION

- 2025-26 **Co-Organizer**, Undergraduate Job Fairs. Center for Ecology & the Environment, UW-Madison
- 2025 **Panelist**, Graduate Student Panel and Q&A, Undergraduate Zoological Society, UW-Madison
- 2024 **Panelist**, Tomorrow's Yellowstone: Yellowstone, climate change, & the importance of sharing science. Crossroads of Ideas, Wisconsin Institute for Discovery, Madison, WI
- 2023 **Co-Organizer**, Shared Challenges: Novel Ecosystem Responses to Changes in Historically Climate-limited Fire Regimes. Annual Meeting of the Ecological Society of America, Portland, OR. August 6 – 10.
- 2021 **Panelist**, Career paths after graduate school. Second Year MEM Student Intensive, Western Colorado University
- 2019 **Host**, Forest Restoration & Fire Mitigation Workshop, AU Ranches
- 2019 **Facilitator**, Community Visioning & Engagement Workshops, City of Gunnison, CO

PROFESSIONAL, DEPARTMENTAL, AND COMMUNITY SERVICE

- 2025 **Poster Fair Judge**, Integrated Sciences 100: Exploring Biology, UW-Madison
- 2025 **Department Rep.**, National Diversity in STEM Conference, Society for Advancement of Chicanos/ Hispanics & Native Americans in Science (SACNAS). 10/29 – 31. Columbus, OH.
- 2024- **Peer-reviewer**: Journal of Ecology, Global Change Biology, Forest Ecology and Management, Earth Stewardship
- 2024- **Grad Student Rep.**, Executive Committee, Center for Ecology & the Environment. UW-Madison

2024 - 25 **Member**, Search Committee, Assistant Professor of Climate Change Ecology, Department of Integrative Biology, UW-Madison.

PROFESSIONAL TRAININGS & CERTIFICATIONS

2025	Research Mentor Training, Delta Program, UW-Madison
2025	14 CFR Part 107 Small Unmanned Aircraft Systems, Federal Aviation Administration, Madison, WI (Remote pilot)
2021	Colorado Fire Camp, Salida, CO (felling boss)
2021	S-212 Wildland Fire Chainsaws, Colorado Fire Camp, Salida, CO (B Sawyer/Faller 2)
2017	PADI, Grand Turk, Turks and Caicos Islands. Advanced Open Water Diver (2017)
2016	North American Dendroecological Field Week, Eatonville, WA

PROFESSIONAL AFFILIATIONS

2025-	Association for Fire Ecology
2021-	Ecological Society of America
2021-	International Association for Landscape Ecology – North America