

# Tyler J. Hoecker

Ph.D. Student

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## Professional Preparation

- 2017-            Ph.D., Zoology (Integrative Biology)  
University of Wisconsin, Madison, Wisconsin
- 2014-2017      M.S., Systems Ecology  
University of Montana, Missoula, Montana  
Thesis: *Understanding patterns and drivers of Alaskan fire-regime variability across spatial and temporal scales*. Advisor: Dr. Philip Higuera
- 2007-2011      B.A., Environmental Science  
Willamette University, Salem, Oregon  
Thesis: *Coarse woody debris and management history at Zena Forest in the Willamette Valley, Oregon*. Advisor: Dr. Karen Arabas

## Research and Professional Experience

- 2014-2017      Graduate Research Assistant  
PaleoEcology and Fire Ecology Lab, Missoula, Montana
- 2012            Research Technician  
Quantitative Consultants Inc., McCall, Idaho
- 2011-2012      Spatial Analyst and Research Technician  
USDA Forest Service, Logan, Utah

## Teaching Experience

- Fall 2017       Teaching Assistant, *Animal Biology (101)*  
University of Wisconsin, Dept. of Integrative Biology
- Fall 2014       Teaching Assistant, *Fire Ecology and Management (326)*  
University of Idaho, Dept. of Forest, Rangeland and Fire Sciences
- 2006-2010      Program Director, Wilderness Trip Leader, Naturalist  
YMCA Camp Olson, Longville, Minnesota

## Professional Presentations

Hoecker, T.J., P.E. Higuera, R. Kelly, F.S. Hu. 2017. "Variability and synchrony in 10,000

years of Alaskan fire history: Using paleoecological data to understand the controls and implications of fire-regime change.” Annual Meeting, Ecological Society of American. *Oral presentation.*

Mickelsen, M.B., **T.J. Hoecker**. 2017. “Mixed-severity landscapes: Fire in the Bitterroot ecosystem.” Missoula, MT. *Fine art opening.*

**Hoecker, T.J.**, P.E. Higuera, R. Kelly, F.S. Hu. 2016. “Understanding variability in paleofire regimes across the Alaskan boreal forest.” University of Washington Graduate Climate Conference. Seattle, WA. *Oral presentation.*

**Hoecker, T.J.**, P.E. Higuera, R. Kelly, F.S. Hu. 2015. “Spatiotemporal trends in late-Holocene fire regimes in arctic and boreal Alaska.” Fall Meeting, American Geophysical Union. San Francisco, CA. *Oral presentation.*

Arabas, K.B., J. Bowersox, K. Copes-Gerbitz, **T.J. Hoecker**, K. Rigsby. 2011. “Placed-Based Undergraduate Research Experiences at Willamette University's Zena Forest and Farm.” Annual Meeting, Association of American Geographers. Seattle, WA. *Panel.*

### Grants and Awards

- 2016 Collaborative Challenge Research Grant, University of Montana Interdisciplinary Collaborative Network, \$1000.
- 2015 Outstanding Student Paper Award in Biogeosciences, AGU Fall Meeting
- 2015 National Lacustrine Core Facility (LacCore) Visiting Graduate Student Award, National Science Foundation and University of Minnesota, \$1,000.
- 2009 Willamette University Carson Undergraduate Research Grant, “*Ursus arctos* and the ecology of roads and encroachment in the MKMA, British Columbia.” \$3,000.

### Workshops and Courses

- 2016 *PaleoEcological Observatory Network (PalEON) Summer Course*  
Participated in intensive workshop covering paleoecological field and laboratory methods, Bayesian statistical inference, and ecosystem modeling hosted by the NSF-funded PalEON project.
- 2015 *International Arctic Research Center (IARC) Summer Course*  
Developed successful permafrost modeling project with student and faculty collaborators.
- 2012 *Scientific Protocol for Salmonid Habitat Surveys*  
Trained in NOAA Marine Fisheries Columbia River basin-wide habitat status and trends monitoring program.
- 2011 *Effectiveness Monitoring for Streams and Riparian Areas*  
Trained in USDA Forest Service sampling protocol for stream channel attributes.

## **Service**

- 2017 *Madison School & Community Recreation Adult Role Models in Science*  
Instructor for afterschool science club for 4<sup>th</sup> and 5<sup>th</sup> grade students; planned and guided weekly session about astrobiology from October-December.
- 2016 *Target Range School Annual Science Fair*  
Evaluated and provided feedback on research projects by Target Range School students for annual intramural science fair.
- 2015 *Confluence Project Youth Water Summit*  
Evaluated and provided feedback on research projects by area high school students as part of annual symposia of water resources research.
- 2009-2011 *Willamette University Sustainability Council*  
Served as Student Chair. Attended weekly meetings, organized Sustainability Day, supported development of campus-wide organic waste composting infrastructure, participated in annual sustainability training.

## **Professional Memberships**

Ecological Society of America