

## Kristin H. Braziunas

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### EDUCATION

- 2018-Present **Ph.D.**, University of Wisconsin-Madison, Department of Integrative Biology (major), Quantitative Ecology and Modeling (minor)  
Dissertation: *Operationalizing resilience of social-ecological systems to changing climate and fire in US Northern Rocky Mountain forests*  
Phi Kappa Phi. Advisor: Dr. Monica G. Turner
- 2016-2018 **M.S.**, University of Wisconsin-Madison, Department of Integrative Biology  
Thesis: *Looking beyond the mean: Drivers of variability in postfire stand development of Rocky Mountain conifers*  
Phi Kappa Phi. Advisor: Dr. Monica G. Turner
- 2004-2008 **B.A.**, Oberlin College, Environmental Studies (major), Philosophy (minor)  
Phi Beta Kappa, Sigma Xi. Advisor: Dr. John E. Petersen

### ACADEMIC EXPERIENCE

- 2017-Present Graduate Research Assistant, Integrative Biology, University of Wisconsin-Madison
- 2016-2017 Graduate Teaching Assistant, Integrative Biology, University of Wisconsin-Madison
- 2016 Research Specialist, Zoology, University of Wisconsin-Madison  
Project: *Parameterizing the process-based model iLand for forests in Yellowstone*
- 2007-8 Senior Operator, Living Machine, Environmental Studies, Oberlin College  
Project: *Measuring wastewater metabolism and nutrient concentrations*
- 2007 Tutor/Grader, Philosophy, Oberlin College. Courses tutored: Deductive Logic

### PROFESSIONAL EXPERIENCE

- 2008-16 Lieutenant/EMT, Oberlin Fire Department, Oberlin, OH  
Promoted in 2013 (hired as Firefighter/EMT)
- 2014-15 Program Director, Cleveland Water Alliance, Cleveland, OH
- 2010-14 Assistant Director, The Oberlin Project, Oberlin, OH  
Promoted in 2011 (hired as Energy Policy Committee Fellow)
- 2008-11 Program Coordinator, Providing Oberlin With Efficiency Responsibly (POWER), Oberlin, OH

## PUBLICATIONS

- Braziunas, K. H.**, D. C. Abendroth, and M. G. Turner. In review. Young forests and fire: Using LiDAR to explore relationships between fuels and fire severity in a subalpine forest reburn. *Ecosphere*.
- Turner, M. G., **K. H. Braziunas**, W. D. Hansen, T. J. Hoecker, W. Rammer, Z. Ratajczak, A. L. Westerling, and R. Seidl. In press. The magnitude, direction and tempo of mountain forest change in a warmer world with more fire. *Ecological Monographs*.
- Rammer, W., **K. H. Braziunas**, W. D. Hansen, Z. Ratajczak, A. L. Westerling, M. G. Turner, and R. Seidl. 2021. Widespread regeneration failure in forests of Greater Yellowstone under scenarios of future climate and fire. *Global Change Biology* 27:4339-4351.
- Braziunas, K. H.**, R. Seidl, W. Rammer, and M. G. Turner. 2021. Can we manage a future with more fire? Effectiveness of defensible space treatment depends on housing amount and configuration. *Landscape Ecology* 36:309-330.
- Albrich, K., W. Rammer, M. G. Turner, Z. Ratajczak, **K. H. Braziunas**, W. D. Hansen, and R. Seidl. 2020. Simulating forest resilience: a review. *Global Ecology and Biogeography* 29(12): 2082-2096.
- Turner, M. G., **K. H. Braziunas**, W. D. Hansen, and B. J. Harvey. 2019. Short-interval severe fire erodes the resilience of subalpine lodgepole pine forests. *Proceedings of the National Academy of Sciences* 116(23): 11319-11328.
- Braziunas, K. H.**, W. D. Hansen, R. Seidl, W. Rammer, and M. G. Turner. 2018. Looking beyond the mean: Drivers of variability in postfire stand development of conifers in Greater Yellowstone. *Forest Ecology and Management* 430: 460-471.
- Hansen, W. D., **K. H. Braziunas**, W. Rammer, R. Seidl, and M. G. Turner. 2018. It takes a few to tango: Changing climate and fire regimes can cause regeneration failure of two subalpine conifers. *Ecology* 99(4): 966-977.

## RESEARCH GRANTS AND FELLOWSHIPS

- 2020-Present “Less fuel for the fire: How will drought amplify effects of short-interval fire?”, Joint Fire Science Program Graduate Research Innovation Award (\$25,000). Student PI.
- 2020-Present P.E.O. Ventura Neale Trust Endowed Scholar Award, International Chapter of the P.E.O. Competitive fellowship for women doctoral/medical students. (\$15,000)
- 2019-Present “Anticipating and Envisioning Future Landscapes of Greater Yellowstone”, Camp Monaco Prize 2019, Prince Albert II of Monaco Foundation (\$100,000). Graduate student participant.
- 2018-2020 “Testing LiDAR for mapping canopy and surface fuels in Grand Teton National Park”, National Park System Cooperative Research and Training Programs Grant, United States Department of the Interior (\$56,400). Student PI.
- 2016-17 Incoming Student Graduate Research Fellowship, Zoology, University of Wisconsin-Madison (\$20,000)

2008 Blank Fellowship, Environmental Studies, Oberlin College (\$3,000)

### AWARDS AND HONORS

- 2019 Student Research Grants Competition, Graduate School, University of Wisconsin-Madison (\$1,200)
- 2019 Graduate Summer Research Award, Integrative Biology, University of Wisconsin-Madison (\$3,500)
- 2017 Phi Kappa Phi
- 2017 Honorable Mention, Graduate Research Fellowship Program, National Science Foundation
- 2016-18 John Jefferson Davis Travel Award, Zoology, University of Wisconsin-Madison (Received five times: \$3,000)
- 2010 Firefighter of the Year, Oberlin Fire Department
- 2009 Chill Out: Campus Solutions to Global Warming, National Wildlife Federation. Project: *Oberlin Light Bulb Brigade*
- 2008 Joyce Gorn Memorial Prize in Environmental Studies, Oberlin College
- 2008 Phi Beta Kappa
- 2008 Sigma Xi

### INVITED TALKS

- 2021 “Sources of ignition: Becoming a fire ecologist.” 3 invited talks, Philanthropic Educational Organization (P.E.O.) Madison Chapter DH, Madison Chapter DV, and Annual Convention of Wisconsin State Chapter.
- 2021 “Young forests and fire: Using LiDAR-imagery fusion to explore fuels and fire severity in a subalpine forest reburn.” Webinar, Co-presenter: Diane Abendroth, Northern Rockies Fire Science Network. Recording: <https://www.nrfirescience.org/event/young-forests-and-fire-using-lidar-imagery-fusion-explore-fuels-and-fire-severity-subalpine>
- 2019 “Western forests in an uncertain future: How will changing climate and increasing fire activity affect forested and human landscapes in the Greater Yellowstone Ecosystem?” Public Talk, Environmental Studies and Biology, Oberlin College.

### CONTRIBUTED PRESENTATIONS (presenting author only)

- Braziunas, K. H.**, D. Abendroth, and M. G. Turner. 2020. Young forests and fire: Using LiDAR to explore relationships between fuels and fire severity in a subalpine forest reburn. (Virtual ePoster presentation\*). IALE-North America Annual Meeting, Virtual Remote Conference, May 10-14. \*Originally oral presentation, format changed due to COVID19.
- Braziunas, K. H.**, R. Seidl, W. Rammer, and M. G. Turner. 2019. Can we manage a future with more fire? Fuels treatments dampen increasing fire risk in the wildland urban interface. (Oral presentation). US-IALE Annual Meeting, Fort Collins, CO, April 7-11.

- Braziunas, K. H.,** R. Seidl, W. Rammer, A. R. Rissman, and M. G. Turner. 2018. Can we manage a future with more fire? Effects of defensible space and spatial configuration on local and landscape-level fire severity. (Poster). Ecological Society of America Annual Meeting, New Orleans, LA, August 5-10.
- Braziunas, K. H.,** W. D. Hansen, R. Seidl, W. Rammer, and M. G. Turner. 2018. Looking beyond the mean: Drivers of variability in postfire stand development of Rocky Mountain conifers. (Poster). US-IALE Annual Meeting, Chicago, IL, April 8-12.
- Braziunas, K. H.,** W. D. Hansen, R. Seidl, W. Rammer, and M. G. Turner. 2017. Age alone is not enough: Multiple drivers control postfire stand development in Rocky Mountain conifers. (Oral presentation). Ecological Society of America Annual Meeting, Portland, OR, August 6-11.
- Braziunas, K. H.,** W. D. Hansen, R. Seidl, and M. G. Turner. 2017. Adapting the process-based model iLand to simulate subalpine forest dynamics in Greater Yellowstone. (Poster). Wisconsin Ecology 20<sup>th</sup> Annual Spring Symposium, Madison, WI, April 4-5. (*Winner best content*)
- Braziunas, K. H.,** W. D. Hansen, R. Seidl, and M. G. Turner. 2016. Adapting the process-based model iLand to simulate subalpine forest dynamics in Greater Yellowstone. (Poster). 13<sup>th</sup> Biennial Scientific Conference on the Greater Yellowstone Ecosystem, Grand Teton National Park, October 4-6.
- Braziunas, K.,** J. E. Petersen, C. Frantz, and R. Shammin. 2008. Compact fluorescent light bulb exchange programs as a potentially cost effective and socially beneficial approach to offsetting carbon emissions locally. (Oral presentation). Association for the Advancement of Sustainability in Higher Education, Raleigh, NC, October 11.

## TEACHING EXPERIENCE

### *Teaching Assistant*

2016, 2017    Introductory Biology, University of Wisconsin-Madison (2 semesters)

### *Guest Lectures*

- 2021            “Subalpine forest ecology and fire dynamics.” Wildfire, Erosion, and Hazard. Geology and Geological Engineering, Colorado School of Mines.
- 2019            “Introduction to landscape ecology.” Systems Ecology, Environmental Studies Program, Oberlin College.
- 2019            “Ecosystem modeling.” Principles of Landscape Ecology, Forest and Wildlife Ecology, University of Wisconsin-Madison.

## MENTORING

### *Graduate student mentorship*

2019-2020    Zoology Introductions for New Grads (ZING) mentor for first-year MS/PhD students (Katherine Charton, PhD Student, University of Wisconsin-Madison)

### *Supervised undergraduate field and research assistants*

2019-2020 Claire Finucane, University of Wisconsin-Madison

## **PROFESSIONAL CERTIFICATIONS**

2019 Remote Pilot Certificate, Part 107 for Unmanned Aerial Systems (UAS),  
Federal Aviation Administration

2015 Blue Card Incident Commander

2015 Fire Investigation Technician, International Association of Arson Investigators

2014 Fire Safety Inspector, Ohio Department of Public Safety

2013 Fire Officer I, Cuyahoga Community College

2012 Firefighter II, Ohio Department of Public Safety

2010 Firefighter I, Ohio Department of Public Safety

2010 Emergency Medical Technician-Basic, Ohio Department of Public Safety

2009 Volunteer Firefighter, Ohio Department of Public Safety

## **SERVICE AND APPOINTMENTS**

2020-Pres. Member, Racial Justice Task Force, Integrative Biology Graduate Student  
Organization, University of Wisconsin-Madison

2020-Present Member, IALE-North America Equity, Inclusion, and Diversity Committee

2017-Present Peer Reviewer: Conservation Letters, Ecology, Flora, Forest Ecology and  
Management, Forests, Global Environmental Change, Landscape Ecology, PLOS  
One, Proceedings of the National Academy of Sciences, Proceedings of the Royal  
Society B: Biological Sciences, Science of the Total Environment

2014-Present Steering Committee Member and Fellowship Subcommittee Chair, Oberlin  
Environmental Education Alumni Association, Oberlin College, Oberlin, OH

2020 Student Representative, IALE-North America Online Conference Organizing  
Committee, 2020 IALE-North America Annual Meeting

2019-2020 Graduate Student Representative, Polar/Arctic Ecosystems and Ecological  
Modeling Faculty Search Committee, University of Wisconsin-Madison

2018-2020 Graduate Student Representative, IALE-North America Executive Committee

2018-19 Nominations Committee, Phi Beta Kappa, University of Wisconsin-Madison

2016-17 Treasurer, Zoology Graduate Student Organization, University of Wisconsin-  
Madison

2009-16 Treasurer, Board of Directors, Bill Long Foundation, Oberlin, OH

2015 Vice Chair, Public Utilities Commission, City of Oberlin, OH

2014-15 Member, Northeast Ohio Regional Sewer District External Advisory Committee,  
Cleveland, OH

2013-15 Commissioner, Public Utilities Commission, City of Oberlin, OH

2012-15 Board member, Providing Oberlin With Efficiency Responsibly (POWER), Oberlin, OH

### **OTHER PROFESSIONAL ACTIVITIES AND TRAINING**

- 2020-Present Invited member, Working Group on “Creating a unified approach to evaluate regime shift detection methods”, Funded by Canadian Institute of Ecology and Evolution
- 2020 “A call to action: Striving for racial justice in academic biology”, 7-part webinar series, Society for the Advancement of Biology Education Research (SABER)
- 2020 “LANDIS-II Training”, 4-day virtual workshop, The Landis-II Foundation
- 2020 “Bystander Intervention: Stepping in With Care and Confidence”, UW-Madison Office of Human Resources
- 2020 “Understanding Your Experiences and Identities”, Foundational diversity and inclusion training, UW-Madison Office of Human Resources
- 2019 “Searching for Excellence and Diversity: Faculty Search Workshop”, Women in Science & Engineering Leadership Institute (WISELI), UW-Madison
- 2019 “Geospatial Modeling with NASA Earth Observations using Google Earth Engine and R”, Led by NASA DEVELOP, Workshop at US-IALE annual meeting in Fort Collins, CO
- 2018 “From Drone to Landscape – UAS Data Processing” Workshop, Led by Center for Geospatial Analytics, North Carolina State University, Workshop at US-IALE annual meeting in Chicago, IL
- 2018 “Basics of LiDAR Data Workshop”, 2-day workshop, Wisconsin State Cartographer’s Office, Held at UW-Milwaukee
- 2016 “Graduate Assistants’ Equity Workshop”, Division of Diversity, Equity, and Educational Achievement, UW-Madison
- 2016 National Ecological Observatory Network (NEON) Data Institute (6-day training on working with NEON and other spatio-temporal data), Boulder, CO

### **PROFESSIONAL MEMBERSHIPS**

Ecological Society of America

North American Regional Association of the International Association for Landscape Ecology (IALE-North America)