

# SCOTT HOTALING

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## EDUCATION and TRAINING

Updated: June 2021

2017-present	<b>Postdoctoral Research Associate</b> , School of Biological Sciences, Washington State University, Pullman, WA Advisor: Joanna L. Kelley
2017	<b>Ph.D.</b> , Department of Biology, University of Kentucky, Lexington, KY Advisor: David W. Weisrock
2010	<b>B.S.</b> , Zoology, North Carolina State University, Raleigh, NC Advisor: Nicholas M. Haddad

## GRANTS and FELLOWSHIPS

**Summary:** 32 awards; **Total as PI:** \$157,777 (**Overall:** \$982,991); **Pending:** \$1,160,675

### Significant funding:

<i>Pending</i>	NSF, Division of Integrative Organismal Systems (\$1,160,675); Senior Personnel, co-wrote and developed proposal with PI A. Woods
2020-2021	Seattle City Light Research Grant (\$44,683)
2019-2022	NSF, Office of Polar Programs (\$825,214); Co-wrote and developed proposal with PI J. Kelley
2018	Antarctic Science International Bursary Research Grant (\$8,500)
2016	Wyoming Governor's Office Research Grant (\$11,000)
2015-2021	University of Wyoming-National Park Service Research Grants (\$35,000; spread over seven awards)
2015	University of Kentucky Gertrude Flora Ribble Graduate Fellowship (\$23,249)

### Other funding:

2010-2021	20 awards totaling \$35,345
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## PUBLICATIONS

**Summary:** 41 publications (25 as lead author); **Mean impact factor:** 5.7.

[Google Scholar](#): >620 total citations (>175 in 2020), *h*-index = 13.

### Published

41. **Hotaling S<sup>#</sup>**, Lutz S, Dial RJ, Anesio AM, Benning LG, Fountain AG, Kelley JL, McCutcheon J, Skiles SM, Takeuchi N, Hamilton TL<sup>#</sup>. (In press) Biological albedo reduction on ice sheets, glaciers, and snowfields. *Earth-Science Reviews*. <sup>#</sup>corresponding author
40. **Hotaling S<sup>\*</sup>**, Borowiec ML<sup>\*</sup>, Lins LSF, Desvignes T, Kelley JL. (2021) The biogeographic history of eelpouts and related fishes: linking phylogeny, environmental change, and patterns of dispersal in a globally distributed fish group. *Molecular Phylogenetics and Evolution*.  
<sup>\*</sup>contributed equally
39. Deemer BD<sup>\*</sup>, **Hotaling S<sup>\*</sup>**, Poulson-Ellestad K, Falkenberg LJ, Cloern JE, Soranno PA. (2021) Engaging the next generation of editorial talent through a hands-on fellowship model. *Ecology Letters*. <sup>\*</sup>contributed equally

38. Everson KM, Gray LN, Jones AG, Lawrence NM, Foley ME, Sovacool KL, Kratovil JD, **Hotaling S**, Hime PM, Storfer A, Parra-Olea G, Aguilar-Miguel X, O'Neill EM, Zambrano L, Shaffer HB, Weisrock DW. (2021) Life history strategy does not reflect genetic differentiation in the tiger salamander species complex. *PNAS*.
37. **Hotaling S**\*,# , Shah AA\* ,# , Dillon ME, Giersch JJ, Tronstad LM, Finn DS, Woods HA, Kelley JL. (2021) Cold tolerance of mountain stoneflies (Plecoptera: Nemouridae) from the high Rocky Mountains. *Western North American Naturalist*. \*contributed equally; #corresponding author
36. Brighenti S\*, **Hotaling S**\*,# , Finn DS, Fountain AG, Hayashi M, Herbst D, Saros JE, Tronstad LM, Millar CI. (2021) Rock glaciers and related landforms: overlooked climate refugia for mountain biodiversity. *Global Change Biology*. \*contributed equally; #corresponding author
35. Elser JJ, Wu C, Gonzalez AL, Shain DH, Smith HJ, Sommaruga R, Williamson CE, Brahney J, **Hotaling S**, Vanderwall J, Aizen E, Aizen V, Battin T, Camassa R, Dong Z, Feng X, Jiang H, Li J, Lu L, Qu JJ, Ren Z, Tan W, Wen J, Wen L, Woods HA, Xiong X, Xu J, Yu G, Yu, J, Harper JT, Saros JE. (2020) Key rules of life and the fading alpine cryosphere: Impacts in alpine lakes and streams. *Global Change Biology*. DOI: 10.1111/gcb.15362
34. Deemer BR, **Hotaling S**, Poulson-Ellestad K, Falkenberg LJ, Cloern JE. (2020) Virtual networking between editors and early career researchers: benefits, silver linings, and lessons learned. *Limnology and Oceanography Bulletin*. DOI: 10.1002/lob.10407.
33. Tronstad LM\*, **Hotaling S**\*, Giersch JJ, Wilmot OJ, Finn DS. Headwaters fed by subterranean ice: potential climate refugia for alpine stream communities? (2020) *Western North American Naturalist*. 80, 11. \*contributed equally
32. **Hotaling S**#, Kelley JL, Frandsen PB#. (2020) Aquatic insects are dramatically underrepresented in genomic research. *Insects*. DOI: 10.3390/insects11090601 #corresponding author
31. Birrell JH, Shah AA, **Hotaling S**, Giersch JJ, Williamson CE, Jacobsen D, Woods HA. (2020) Insects in high-elevation streams: life in extreme environments imperiled by climate change. *Global Change Biology*. DOI: 10.1111/gcb.15356
30. **Hotaling S**\*,# , Shah AA\* ,# , McGowan KL, Tronstad LM, Giersch JJ, Finn DS, Woods HA, Dillon ME, Kelley JL. (2020) Mountain stoneflies may tolerate warming streams: evidence from organismal physiology and gene expression. *Global Change Biology*. 26, 5524-5538. \*contributed equally; #corresponding author
29. **Hotaling S**#. Simple rules for concise scientific writing. (2020) *Limnology & Oceanography Letters*. DOI: 10.1002/lol2.10165; #corresponding author  
*\*Highest Altmetric score (965) and most downloaded article all-time for Limnology & Oceanography Letters (60,000+ downloads since publication in June 2020).*
28. Tronstad LM, Wilmot OJ, Thornburgh D, **Hotaling S**. (2020) To composite or replicate: how sampling method and protocol differences alter stream bioassessment metrics. *Environmental Monitoring and Management*. 192, 1-15.
27. Muhlfeld CC, Cline TJ, Giersch JJ, Peitzsch E, Florentine C, Jacobsen D, **Hotaling S**. (2020) Specialized meltwater biodiversity persists despite widespread deglaciation. *PNAS*. 117, 12208-12214.
26. **Hotaling S**, Bartholomaeus TC, Gilbert SG. (2020) Rolling stones gather moss: Movement and longevity of moss balls on an Alaskan glacier. *Polar Biology*. 43, 735-744.  
*\*Highest Altmetric score all-time (931) for Polar Biology. Featured on NPR's "Morning Edition" national radio show.*

25. Shah AA, Dillon ME, **Hotaling S**, Woods HA. (2020) High elevation insect communities face shifting ecological and evolutionary landscapes. *Current Opinion in Insect Science*. 41, 1-6.
24. Stibal M, Bradley JA, Edwards A, **Hotaling S**, Zawierucha K, Cameron KA, Kohler TJ, Mikucki JA, Lutz S, Šabacká M, Anesio AM, Rosvold J. (2020) Glacial ecosystems are essential to understanding biodiversity responses to glacier retreat. *Nature Ecology & Evolution*. 4, 686-687.
23. Poulson-Ellestad K, **Hotaling S**, Falkenberg L, Soranno P. (2020) Illuminating a black box of the peer review system: demographics, experiences, and career benefits of associate editors. *Limnology and Oceanography Bulletin*. 29, 11-17.
22. **Hotaling S**<sup>#</sup>, Wimberger PH, Kelley JL, Watts HE. (2020) Macroinvertebrates on glaciers: a key resource for terrestrial food webs? *Ecology*. 101, e02947. <sup>#</sup>corresponding author
21. Jordan S, Hand BK, **Hotaling S**, DeVecchia A, Malison R, Nissley C, Stanford J, Luikart G. (2020) Genomic data reveal similar genetic differentiation in aquifer species with different dispersal capacities and life histories. *Biological Journal of the Linnean Society*. 129, 315-322.
20. Ren Ze\*, Martyniuk N\*, Oleksy IA\*, Swain A\*, **Hotaling S**<sup>#</sup>. (2019) Ecological stoichiometry of the mountain cryosphere. *Frontiers in Ecology & Evolution*. 7, 360. \*contributed equally and all early career researchers; <sup>#</sup>corresponding author
19. **Hotaling S**<sup>#</sup>, Shain DS, Lang SA, Bagley RK, Tronstad LM, Weisrock DW, Kelley JL. (2019) Long-distance dispersal, ice sheet dynamics, and mountaintop isolation underlie the genetic structure of glacier ice worms. *Proceedings of the Royal Society B*. 286. <sup>#</sup>corresponding author
18. **Hotaling S**<sup>#</sup>, Kelley JL, Weisrock DW. (2019) Nuclear and mitochondrial genomic resources for the meltwater stonefly, *Lednia tumana* (Ricker 1952). *Aquatic Insects*. 40, 362-369. <sup>#</sup>corresponding author
17. **Hotaling S**<sup>#</sup>, Foley ME, Zeglin L, Finn DS, Tronstad LM, Giersch JJ, Muhlfeld CC, Weisrock DW. (2019) Microbial assemblages reflect environmental heterogeneity in alpine streams. *Global Change Biology*. 8, 2576-2590. <sup>#</sup>corresponding author
16. **Hotaling S**, Kelley JL. (2019) The rising tide of high-quality genomic resources. *Molecular Ecology Resources*. 19, 567-569.
15. **Hotaling S**<sup>#</sup>, Giersch JJ, Finn DS, Tronstad LM, Jordan SP, Serpa LE, Call RG, Muhlfeld CC, Weisrock DW. (2019) Congruent population genetic patterns but differing depths of divergence for three alpine stoneflies with similar ecology, geographic distributions, and climate change threats. *Freshwater Biology*. 64, 335-347. <sup>#</sup>corresponding author
14. **Hotaling S**, Quackenbush CR, Bennett-Ponsford J<sup>1</sup>, New DD, Rodriguez LA, Tobler M, Kelley JL (2019) Bacterial diversity in replicated hydrogen-sulfide rich springs. *Microbial Ecology*. 77, 559-573.
13. **Hotaling S**<sup>#</sup> (2018) Publishing papers while keeping everything in balance: Practical advice for a productive graduate school experience. *Ideas in Ecology & Evolution*. 11, 35-46. <sup>#</sup>corresponding author
12. Weisrock DW, Hime PM, Nunziata SO, Jones KS, Murphy MO, **Hotaling S**, Kratovil JD (2018) Surmounting the large-genome problem for genomic data generation in salamanders. In: Population Genomics: Wildlife, Editors: Hohenlohe P, Rajora O. Springer, New York
11. **Hotaling S**<sup>#</sup>, Muhlfeld CC, Giersch JJ, Miller MR, Ali OA, Jordan SP, Luikart G, Weisrock DW (2018) Demographic modeling reveals a history of divergence with gene flow for a glacially-tied stonefly in a changing post-Pleistocene landscape. *Journal of Biogeography*. 45, 304-317. <sup>#</sup>corresponding author

10. **Hotaling S**, Tronstad LM, Bish JC (2017) Macroinvertebrate diversity is lower in high-elevation lakes versus nearby streams: evidence from Grand Teton National Park, Wyoming. *Journal of Natural History*. 51, 1657-1669.
9. **Hotaling S\***, Slabach BS\*, Weisrock DW (2017) Next-generation teaching: a template for bringing genomic and bioinformatic tools into the classroom. *Journal of Biological Education*. 1, 1-13. \*contributed equally
8. Tronstad LM, **Hotaling S** (2017) Long-term trends in aquatic insect bioassessment metrics are not influenced by sampling method: empirical evidence from the Niobrara River. *Knowledge and Management of Aquatic Ecosystems*. 418, 12.
7. **Hotaling S**, Hood E, Hamilton TL (2017) Microbial ecology of mountain glacier ecosystems: biodiversity, ecological connections, and implications of a warming climate. *Environmental Microbiology*. Invited. 19, 2935-2948.
6. **Hotaling S\*#**, Finn DS\*, Giersch JJ, Weisrock DW, Jacobsen D. (2017) Climate change and alpine stream biology: progress, challenges, and opportunities for the future. *Biological Reviews*. 92, 2024-2045. \*contributed equally; #corresponding author
5. Giersch JJ, **Hotaling S**, Kovach RP, Jones LA, Muhlfeld CC (2017) Climate-induced glacier and snow loss imperils alpine stream insects. *Global Change Biology*. 23, 2577-2589.
4. Hime PM\*, **Hotaling S\***, Grewalle RE, O'Neill EM, Voss SR, Shaffer HB, Weisrock DW (2016) The influence of locus number and information content on species delimitation: an empirical test case in an endangered Mexican salamander. *Molecular Ecology*. 25, 5959-5974. \*contributed equally
3. **Hotaling S**, Foley M, Lawrence NM, Bocanegra J, Kappeler P, Yoder A, Weisrock DW (2016) Species discovery and validation in a cryptic radiation of endangered primates: coalescent-based species delimitation in Madagascar's mouse lemurs. *Molecular Ecology*, 25, 2029-2045. \*5<sup>th</sup> highest Altmetric score (248) all-time for *Molecular Ecology*.
2. Tronstad LM, **Hotaling S**, Bish JC (2016) Longitudinal change in stream invertebrate assemblages of Grand Teton National Park, Wyoming. *Insect Conservation and Diversity*. 9, 320-331.
1. Jordan S, Giersch JJ, Muhlfeld CC, **Hotaling S**, Fanning L, Luikart G (2016) Low genetic diversity and strong subdivision in an endemic alpine stonefly threatened by climate change. *PLOS ONE*. 11, e0157386.

**In review** (in review or revision as noted; available upon request)

**Hotaling S**, Sproul JS, Heckenhauer J, Powell A, Larracuenta AM, Pauls SU, Kelley JL, Frandsen P. Long-reads are revolutionizing 20 years of insect genome sequencing. In revision, *Genome Biology and Evolution*.

Bell CM, Tronstad LM, **Hotaling S**. Evaluating bee sampling protocols: vane traps, bee cups, and netting are not equal. In revision, *Journal of Insect Conservation*.

Marks RA, **Hotaling S**, Frandsen PB, VanBuren R. Lessons from 20 years of plant genome sequencing: an unprecedented resource in need of more diverse representation. In review, *Nature Plants*.

## POPULAR PRESS

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### ARTICLES AUTHORED

2019 **Hotaling S**. A Sea of Red in a World of Ice. *Out There Magazine*.

- 2018 **Hotaling S.** Glacier Ice Worms: An Alpine Enigma. *Out There Magazine*.
- 2016 **Hotaling S.** Melting Mountains: Glaciers, Climate Change, and Biodiversity in the Teton Range. *Drive: The Magazine from Subaru*.
- 2013 **Hotaling S.** This Is Our Mountain. *Drive: The Magazine from Subaru*.

#### RADIO INTERVIEWS

- 2019 Live interview, "On The Island with Gregor Craigie". CBC Radio Victoria. 19 June 2019.
- 2018 "[Scientists race to research stonefly species threatened by climate change.](#)" Wyoming Public Radio.
- 2017 "[Why study stoneflies? Climate change biologist Scott Hotaling explains.](#)" 89.3 WFPL Louisville.

#### PHOTOGRAPHY CREDITS

- 2007-present 75+ photograph credits in regional, national, and international publications including 10 cover images. See my online portfolio at [www.lightofthewild.com](http://www.lightofthewild.com).

#### AWARDS and HONORS

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- 2019 WoodStoich4 Invitation and Travel Award
- 2019 Joint China-USA Fading Cryosphere Working Group Invitation and Travel Award
- 2018 Best Poster, Washington State University Postdoctoral Showcase
- 2018 Association for the Sciences of Limnology and Oceanography Early Career Travel Award
- 2017, 2018 Travel Awards, NSF Polar Genomics Workshop (both years)
- 2016 Runner-up, Best Oral Presentation in Applied Research, Society for Freshwater Science Annual Meeting
- 2013 U. of Kentucky College of Arts & Sciences Outstanding TA Award
- 2013 3<sup>rd</sup> Place Oral Presentation, Kentucky Academy of Sciences Meeting
- 2012-2017 U. of Kentucky Graduate School Travel Awards
- 2012-2017 U. of Kentucky Department of Biology Ribble Travel Awards
- 2012 People's Choice Award, Appalachian Mountain Photography Competition
- 2010 Sigma Xi Outstanding Undergraduate Research Award
- 2010 Dean's List, North Carolina State University
- 2007- 2012 Multiple 1<sup>st</sup> place awards, NC Wildlife Nature Photography Competition

#### INVITED SEMINARS

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- 2020 University of British Columbia, Comparative Physiology Group, Vancouver, BC, Canada. Virtual.
- 2020 University of Wyoming, Department of Zoology and Physiology, Laramie, WY, USA. *Canceled due to Covid-19.*
- 2020 Western Kentucky University, Department of Biology, Bowling Green, KY, USA. *Canceled due to Covid-19.*
- 2019 University of Montana, Division of Biological Sciences, Missoula, MT, USA.
- 2019 Washington State University, College of Veterinary Medicine, Pullman, WA, USA.
- 2019 Pacific Biosciences Webinar.
- 2019 University of Puget Sound, Department of Biology, Tacoma, WA, USA.

- 2019 Washington State University, School of Biological Sciences, Pullman, WA, USA.
- 2018 Western Washington University, Department of Biology, Bellingham, WA, USA.
- 2018 Oregon State University, Dept. of Integrative Biology, Corvallis, OR, USA. \*Research-focused
- 2018 Oregon State University, Dept. of Integrative Biology, Corvallis, OR, USA. \*Teaching-focused
- 2018 Palouse Ecology, Evolutionary, and Systematics Group, Moscow, ID, USA.
- 2017 Washington State University, Department of Entomology, Pullman, WA, USA.
- 2017 IdeaFestival. Louisville, KY, USA. Online: <https://www.ket.org/episode/KSTAM%20000210/>
- 2017 University of Kentucky, Department of Entomology, Lexington, KY, USA.
- 2017 Wildlands Social Club, Lexington, KY, USA.
- 2017 Missouri State University, Department of Biology, Springfield, MO, USA.
- 2016 U. of Kentucky Department of Biology Doctoral Candidate Symposium, Lexington, KY, USA.
- 2014 EcoLunch, University of Kentucky, Department of Biology, Lexington, KY, USA.
- 2013 Glacier National Park 'Brown Bag' Series, Glacier National Park, West Glacier, MT, USA.
- 2013 Paradise Inn, Mount Rainier National Park, WA, USA.
- 2013 Cougar Rock Campground, Mount Rainier National Park, WA, USA.
- 2013 Freshman Honors College Speaker Series, North Carolina State University, Raleigh, NC, USA.

## INVITED CONFERENCE TALKS

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- 2020 Plant & Animal Genome XXVIII. San Diego, CA, USA.
- 2019 Society for Freshwater Science Annual Meeting. Salt Lake City, UT, USA.
- 2019 China-USA Fading Cryosphere Meeting. Flathead Lake Biological Station, Polson, MT, USA.
- 2018 MtnClim Bi-Annual Meeting. Gothic, CO, USA.
- 2018 Palouse STEAM Summit, Pullman, WA, USA.
- 2018 Assoc. for the Sciences of Limnology & Oceanography Annual Meeting, Victoria, BC, Canada.
- 2016 Society for Freshwater Science Annual Meeting, Milwaukee, WI, USA

## CONTRIBUTED PRESENTATIONS

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### Oral

- 2013-2020 10 oral presentations at local, regional, and international conferences including *Evolution*, *Society for Freshwater Science*, and *Association for the Sciences of Limnology & Oceanography*
- 2013-2020 12 co-authored oral presentations at local, regional, and international conferences including *Evolution*, *Ecological Society of America*, and *American Geophysical Union*, *Society for Freshwater Science*

### Poster

- 2010-2018 4 posters at local and regional conferences [see example conferences above].
- 2013-2019 8 co-authored posters at local, regional, and international conferences [see example conferences above].

## GRADUATE COMMITTEES

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Karen L. Jorgenson	M.S.	University of Wyoming, Dept. of Zoology & Physiology
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## STUDENTS MENTORED

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In addition to leading an undergraduate research course (BIO 199, see below) and developing teaching tools designed to give students research experience, I have closely mentored a number of undergraduate and graduate students. I have published 4 manuscripts with 7 undergraduate co-authors.

- 2018-present      **Jordan Boersma.** I have mentored Jordan, a graduate student at WSU, in many ways, primarily relating to his professional development. Specifically, I guided Jordan through preparation and revision of his first lead-author publication (now published in *Behavioral Ecology*) and in preparing postdoctoral position applications.
- 2015-2017      **Angela Jones.** Taught a variety of computational and laboratory skills. We have a co-authored manuscript in revision. Angela is received a Barry M. Goldwater scholarship and is now a graduate student at Duke University.
- 2015      **Kelly Sovacool.** Mentored in modern species delimitation and computational techniques. Kelly is now a PhD student at the University of Michigan. We have a co-authored manuscript in revision.
- 2015-2016      **Nicolette Lawrence.** Taught molecular skills including PCR. We have co-authored one manuscript together.
- 2014-2015      **Richard Grewalle.** Taught how to collect multi-locus genetic data in the laboratory and advised in computational tools relating to genome assembly and species delimitation. We have co-authored one manuscript together. Richard is now a PhD student at Stanford University.
- 2012-2015      **Mary Foley.** Mentored in a variety of molecular tools relating to both systematic and microbiological research. We have co-authored two manuscripts together. Mary is now a PhD student at the University of Kentucky.

## TEACHING EXPERIENCE and INNOVATION

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**Innovation:** In collaboration with Drs. David Weisrock and Brittany Slabach, I led an effort to develop a course-based undergraduate research experience (“CURE”) in microbial ecology, genomics, and bioinformatics. We implemented this CURE in 2014 and it has remained in use annually since. Complete details are reported in Hotaling *et al.*, (2017) *Journal of Biological Education*.

- 2020      Guest Lecture, Course: Climate Change Biology, Roosevelt College. *Canceled due to Covid-19.*
- 2020      Guest Lecture, Course: Professional Communication in Biology, Washington State University.
- 2018-2020      Guest Lectures (x3), Course: Ecology, University of Iowa.
- 2017      Evolution (TA: spring semester). University of Kentucky. I revised existing course materials and developed new lessons under the supervision of the course coordinator (Dr. Madhu Srinivisan).
- 2016      Honors Introductory Biology (TA: fall semester). University of Kentucky.
- 2016      Scholars Biology Research (co-instructor). University of Kentucky. I guided 11 students in an undergraduate research experience studying stream microbial.
- 2015      Principles of Genetics (TA: spring semester). University of Kentucky.
- 2014      Honors Introductory Biology (TA: fall semester). University of Kentucky.

2014	Principles of Genetics (TA: spring semester). University of Kentucky.
2013	Principles of Genetics (TA: fall semester). University of Kentucky.
2013	Introduction to Biology (TA: spring semester). University of Kentucky.
2012	Introduction to Biology (TA: fall semester). University of Kentucky.
2012	Introduction to Biology (TA: spring semester). University of Kentucky.
2011	Introduction to Biology (TA: fall semester). University of Kentucky.
2009-2016	Led nature photography tours which included extensive backcountry travel in harsh conditions with natural history and photo instruction.

## **OUTREACH and SERVICE**

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2021-present	Guest Associate Editor, <i>Limnology &amp; Oceanography Letters</i>
2019-present	In 2019, I created the <i>Limnology &amp; Oceanography Letters</i> Early Career Publication Honor to provide a means for early career researchers, and particularly those from underrepresented groups, to publish their work in an open access journal. We solicited applications in summer 2020 and 13 honorees were awarded in September 2020. If their manuscripts are accepted for publication in <i>Limnology &amp; Oceanography Letters</i> , their open-access fees will be covered by the award (a \$2500 value per honoree). We have plans for a 2 <sup>nd</sup> call for applications in 2021.
2020	External Referee, The Rufford Foundation
2020	External Grant Reviewer, Swiss National Science Foundation, Division of Biology and Medicine
2019-present	Member, Early Career Development Committee, Society for Freshwater Science
2019	External Grant Reviewer, Universidad de Las Américas, Direccion de Investigacion
2019	Session Organizer & Chair, "Climate change in high-gradient mountain streams," Society for Freshwater Science Annual Meeting, Salt Lake City, UT.
2018-present	Founder, Evolutionary Education in the Inland Northwest ("EvoEd-IN"), a network to connect high school teachers with biologists to broaden exposure to evolutionary research in rural communities.
2018	Expert contributor, Ask Dr. Universe blog, Washington State University.
2017-present	External manuscript reviewer, U.S. Geological Survey
2017-present	Founder/Coordinator, Palouse Science Happy Hour
2016	President, University of Kentucky Biology Graduate Student Association.
2016	Member, U. of Kentucky Dept. of Biology Chair Re-Appointment Committee.
2016	Session Organizer, Society for Freshwater Science Annual Meeting.
2015	Session Chair, Society for Freshwater Science Annual Meeting.
2014-2017	Founder/Coordinator, University of Kentucky Science Happy Hour
2014-present	<b>Reviewer:</b> <i>Arctic, Antarctic, and Alpine Research; Biological Journal of the Linnean Society; Comparative Biochemistry and Physiology Part A: Molecular &amp; Integrative Physiology; Diversity and Distributions; Ecology; Ecology &amp; Evolution; Ecosphere; Freshwater Biology; Freshwater Science; GigaScience; Global Change Biology; Insects; Insect Systematics and Diversity; iScience;</i>



*Journal of Biogeography; Journal of Biological Education; Limnology & Oceanography; Limnology & Oceanography Letters; Molecular Ecology; Molecular Ecology Resources; PLoS Genetics; PLoS ONE; River Research and Applications; Royal Society Open Science; Science of the Total Environment; Systematic Biology*

2007-present

Many photographs donated to conservation and outreach causes.

2007-2013

Gave 14 lectures on landscape photography, natural history, and global change biology to audiences across the United States.