

Joanna Robin Bernhardt

Department of Integrative Biology
University of Guelph
50 Stone Road E
Guelph, Canada N1G 2W1

joey.bernhardt@uoguelph.ca
Twitter @joeybernhardt
Github <https://github.com/joeybernhardt>
www.zoology.ubc.ca/~jbernar/home/

Professional Positions

Assistant Professor | June 2022 -
Department of Integrative Biology
University of Guelph

NSERC and Hutchinson Postdoctoral Fellow | 2020-2022
Yale University and University of British Columbia

Nereus Postdoctoral Fellow | 2018-2020
Swiss Federal Institute for Aquatic Science & Technology (Eawag) & McGill University

Ecosystem Services Analyst | 2010-2011
The Natural Capital Project
Stanford University

Education

University of British Columbia | Sept 2018
PhD, Zoology
Dissertation: Thermal ecology of populations and ecosystem services in a changing world.
Advisor: Mary O'Connor

Brown University | May 2009
Sc.B. Honours, Biology, *Magna cum Laude*
Honours thesis: Substrate size mediates thermal stress in the rocky intertidal.
Advisor: Heather Leslie

Fellowships & Grants (\$1,004,099 total)

2020 NSERC Postdoctoral Fellowship \$90 000 (deferred to 2021)

2020 Hutchinson Postdoctoral Fellowship \$124 000 + \$10 000 for research
2019 CIEE Working Group Funds (as PI) \$13 349
2018 Nereus Postdoctoral Fellowship \$110 000 + \$7000 for research
2016 Ocean Leaders Fellowship \$5000
2016 University of British Columbia Zoology Graduate Fellowship \$16 000
2013 NSERC Michael Smith Foreign Study Supplement \$5000 (declined)
2012 NSERC Vanier Canada Graduate Scholarship \$150 000
2012 NSERC Canada Graduate Scholarship-D \$105 000 (declined due to Vanier)
2011 University of British Columbia Four Year Fellowship \$80 000
2011 National Defense Science & Engineering Fellowship (declined) \$125 000
2011 NSF Graduate Research Fellowship (declined), \$120 000
2011 NSERC Julie Payette Research Scholarship, \$25 000
2009 Brown University Harold Ward Research Collaboration Award \$1000
2008 NSF-EPsCOR Summer Undergraduate Research Fellowship \$3500
2008 Brown Undergraduate Research Assistantship (declined) \$3000
2006 NSERC Undergraduate Summer Research Award \$5625
2005 NSERC Undergraduate Summer Research Award \$5625

Honours & Awards

2022 Early Career Award, Canadian Society for Ecology and Evolution
2020 L'Oréal-UNESCO for Women in Science Award \$10 000
2017 Best student talk, UBC-SFU-UVic Eco-Evo Retreat
2017 Ecological Society of America, Aquatic Ecology student travel award \$250
2017 Canadian Society for Ecology & Evolution, Excellence in Doctoral Research, Hon. mention
2012 Samantha Hicks Memorial Prize, University of British Columbia \$500
2012 Best student talk, Pacific Ecology and Evolution Conference
2011 Best student talk, 2nd place, Coastal & Estuarine Research Federation
2011 Best student talk, honourable mention, Salish Sea Conference
2010 Biodiversity Ecosystem Services Training (BESTNet) award \$1500
2009 Environmental Change Initiative Brown University, travel award \$500
2009 Center for Environmental Studies Brown University, travel award \$250
2009 Swearer Community Service Award, Brown University
2009 Magna cum Laude, Brown University
2009 Kidwell Prize in Population Biology, Brown University \$1000

Peer-reviewed publications [\[link to Google Scholar\]](#)

Total citations from Google Scholar as of July 23, 2022: 4045 citations, h-index 21

* denotes student mentee

27. Twining, C., **Bernhardt, J.R.**, Derry, A., Hudson, C., Ishikawa, A., Kabeya, N., Kainz, M., Kitano, J., *Kowarik, C., Ladd, S., Leal, M., Scharnweber, K., Shipley, J., Matthews, B. 2021. The evolutionary ecology of fatty-acid variation: implications for consumer adaptation and diversification. *Ecology Letters*.

26. Srivastava, D.S., Cristine, L., Angert, A.L., Bontrager, M., Amundrud, S., Williams, J., Yeung, A.C.Y., de Zwaan, D.R., Thompson, P.L., Aitken, S.N., Sunday, J.M., O'Connor, M.I., Whitton, J., Brown, N.E.M., MacLeod, C.D., Wegener Parfrey, L., **Bernhardt, J.R.**, Carrillo, J., Harley, C.D.G., Martone, P.T., Freeman, B.G., Tseng, M., Donner, S.D, 2021. Wildcards in climate change biology. *Ecological Monographs*.

25. Marshall, K.E., Anderson, K.M., Brown, N.E., Dytner, J.K., Flynn, K.L., **Bernhardt, J.R.**, Konecny, C.A., Gurney-Smith, H. and Harley, C.D., 2021. Whole-organism responses to constant temperatures do not predict responses to variable temperatures in the ecosystem engineer *Mytilus trossulus*. *Proceedings of the Royal Society B*, 288(1947). [[link to paper](#)]

24. **Bernhardt, J.R.** and O'Connor, M.I., 2021. Aquatic biodiversity enhances multiple nutritional benefits to humans. *Proceedings of the National Academy of Sciences*, 118(15). [[link to paper](#)]

Selected press coverage:

- [The best healthy seafood diet depends on one critical factor](#) (Inverse)
- [Variety in the sea and on our plates](#) (Nature Food)
- [Researchers connect the dots between aquatic biodiversity and human nutrition](#) (Anthropocene)
- [Wildlife biodiversity is a boon to human health, seafood nutrition](#) (Terra Daily)
- [Biodiversity's healthy byproduct – nutrient rich seafood](#) (Yale News)
- [Aquatic biodiversity key to sustainable, nutrient rich diets](#) (Science Daily)

23. **Bernhardt, J.R.**, O'Connor, M.I., Sunday, J.M, and A. Gonzalez, 2020. Life in fluctuating environments. *Philosophical Transactions of the Royal Society B*. [[link to paper](#)]

F1000 Recommended (<https://facultyopinions.com/prime/738965893>)

22. Eddy, T.D., **Bernhardt, J.R.** Blanchard, J. L., Colléter, M., Cheung, W. W. L., Du Pontavice, H., Fulton, E. A., Gascuel, D., Kearney, K. A, Petrik, C. M., Roy, T., Rykaczewski, R. R, Selden, R., Stock, C. A., Wabnitz, C. C. C., Watson, R. A, 2020. Energy flow through marine ecosystems: confronting trophic transfer efficiency. *Trends in Ecology and Evolution*. [[link to paper](#)]

21. Brown, N.E.M, **Bernhardt, J.R.** and C.D.G Harley, 2020 Energetic context determines species and community responses to ocean acidification. *Ecology*. [[link to paper](#)]

20. **Bernhardt, J.R.**, Kratina, P, *Pereira, A, Tamminen, M., Thomas, M.K.T, and A. Narwani, 2020. The evolution of competitive ability for essential resources. *Philosophical Transactions of the Royal Society B*. 375: 20190247. [[link to paper](#)]

19. Tseng, M., **Bernhardt J.R.** and *Z. Chila, 2019. Species interactions mediate thermal evolution. *Evolutionary Applications*. [[link to paper](#)]

18. Singh, G. Hilmi, N.; **Bernhardt J.R.**, Cisneros Montemayor, A; Cashion, M; Ota, Y; Acar, S; Brown, J; Cottrell, R; Djoundourian, S; Gonzalez-Espinosa, P; Lam, V; Marshall, N, Neumann, B; Pascal, N; Reygondeau, G, Rocklov, J; Safa, A; Virto, L; Cheung, W., 2019. Climate impacts on the ocean are making the Sustainable Development Goals a moving target traveling away from us. *People and Nature*. 1: 317– 330 [[link to paper](#)]

- *Singh et al. 2019 was incorporated into the 2019 Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) report.*

17. **Bernhardt, J.R.**, Sunday, J.M., Thompson, P.L. and M.I. O'Connor, 2018. Nonlinear averaging of thermal experience predicts population growth rates in thermally variable environments. *Proceedings of the Royal Society B*. 285(1886), 20181076 [[link to paper](#)]

16. **Bernhardt, J.R.**, Sunday, J.M. and M.I. O'Connor, 2018. Metabolic theory and the temperature-size rule explain the temperature dependence of population carrying capacity. *The American Naturalist*. 192(6), 687-697 [[link to paper](#)]

F1000 Recommended (<https://f1000.com/prime/734415582>)

15. Brown, N.E., **Bernhardt, J.R.**, Anderson, K.M. and Harley, C.D., 2018. Increased food supply mitigates ocean acidification effects on calcification but exacerbates effects on growth. *Scientific Reports*, 8(1), p.9800. [[link to paper](#)]

14. O'Connor MI, **Bernhardt, J.R.**, 2018. The metabolic theory of ecology and the cost of parasitism. *PLoS Biology* 16(4): e2005628. [[link to paper](#)]

13. Osmond, M.M., Barbour, M.A., **Bernhardt, J.R.**, Pennell, M.W., Sunday, J.M. and O'Connor, M.I., 2017. Warming-Induced Changes to Body Size Stabilize Consumer-Resource Dynamics. *The American Naturalist*, 189(6). [[link to paper](#)]

12. S.M.W. Reddy, G. Guannel, R. Griffin, J. Faries, T. Boucher, M. Thompson, J. Brenner, **Bernhardt, J.R.**, G. Verutes, S.A. Wood, J. Silver, J. Toft, A. Rogers, A. Maas, A. Guerry, J. Molnar, J.L. DiMuro, 2015. Evaluating the role of coastal habitats and sea-level rise in hurricane risk mitigation: an ecological economic assessment method and application to a business decision. *Integr. Environ. Assess. Manag.* [[link to paper](#)]

11. Cockrell, M.L., **Bernhardt, J.R.** and H.M. Leslie, 2015. Recruitment, abundance, and predation on the blue mussel (*Mytilus edulis*) on northeastern estuarine rocky shores. *Ecosphere*. 6 (1): 1-24. [[link to paper](#)]

10. Arkema, K.K., Verutes, G., **Bernhardt, J.R.**, Clarke, C., Rosado, S., Canto, M., Wood, S.A., Ruckelshaus, M., Rosenthal, A., McField, M. and De Zegher, J., 2014. Assessing habitat risk from human activities to inform coastal and marine spatial planning: a demonstration in Belize. *Environmental Research Letters*, 9(11), p.114016. [[link to paper](#)]

9. McKenzie, E., Posner, S., Tillmann, P., **Bernhardt, J. R.**, Howard, K., & Rosenthal, A. 2014. Understanding the use of ecosystem service knowledge in decision making: lessons from international experiences of spatial planning. *Environment and Planning C: Government and Policy*, 32(2), 320-340. [[link to paper](#)]
8. Ruckelshaus, M., McKenzie, E., Tallis, H., Guerry, A., Daily, G., Kareiva, P., Polasky, S., Ricketts, T., Bhagabati, N., Wood, S., and **J. R. Bernhardt** 2013. Notes from the field: Lessons learned from using ecosystem service approaches to inform real-world decisions. *Ecological Economics* 115, 11-21 [[link to paper](#)]
7. Raymond, C.M., Singh, G., Benessaiah, K., **Bernhardt, J.R.**, Levine, J., Nelson, H., Turner, N.J., Norton, B., Tam, J., and K.M.A. Chan, 2013. Ecosystem Services and Beyond: Using Multiple Metaphors to Understand Human–Environment Relationships, *BioScience*. 63(7): 536-546. [[link to paper](#)]
6. **Bernhardt, J.R.** and H.M. Leslie 2013. Resilience to climate change in coastal marine ecosystems. *Annual Review of Marine Science*. 5 (1). [[link to paper](#)]
5. C-K Kim, J.E. Toft, M. Papenfus, G. Verutes, K.A. Arkema, **Bernhardt, J.R.**, G. Guannel, A.D. Guerry, M.H. Ruckelshaus, S.A Wood, M.W. Beck, F. Chan, K. Chan, B.S. Halpern, P.S. Levin, M.L. Pinsky, M.L. Plummer, S. Polasky and H. Tallis, 2012. Catching the Right Wave: Evaluating Wave Energy Resources and Potential Compatibility with Existing Marine and Coastal Uses. *PLoS One*. 7 (11), e47598 [[link to paper](#)]
4. Guerry, AD, MH Ruckelshaus, K Arkema, **J.R. Bernhardt**, G Guannel, CK Kim, M Marsik, M Papenfus, ML Pinsky, JE Toft, G Verutes, SA Wood, M Beck, F Chan, KMA Chan, G Gelfenbaum, BD Gold, BS Halpern, WB Labiosa, SE Lester, PS Levin, M McField, M Plummer, S Polasky, P Ruggiero, DA Sutherland, H Tallis, A Day, J Spencer, 2012. Modelling Benefits from Nature: Using ecosystem services to inform coastal and marine spatial planning. *International Journal of Biodiversity Science, Ecosystem Services & Management*. 8:1-2, 107-121 [[link to paper](#)]
3. Gedan, K., **Bernhardt, J.R.**, Bertness, M.D. and H.M. Leslie, 2011. Substrate size mediates thermal stress in the rocky intertidal. *Ecology* 92(3): 576-582. [[link to paper](#)]
2. Rosenfeld, J.S., Campbell, K., Leung, E.S, **Bernhardt, J.R.**, and J. Post, 2011. Habitat effects on depth and velocity frequency distributions: Implications for modelling hydraulic variation and fish habitat suitability in streams. *Geomorphology* 131(1): 127-135. [[link to paper](#)]
1. Leung, E.S., Rosenfeld, J.S., and **J.R. Bernhardt**, 2009. Habitat effects on invertebrate drift in a small trout stream: implications for prey availability to drift-feeding fish. *Hydrobiologia* 623: 113-125. [[link to paper](#)]

Book chapters

O'Connor, M.I., **Bernhardt, J.R.**, Stark, K., and Usinowicz, J., and M.A. Whalen, 2022. Experimental Evidence for How Biodiversity Affects Ecosystem Functioning. In *The Ecological and Societal Consequences of Biodiversity Loss*. Eds. Loreau, M., Hector, A. and F. Isbell. ISTE.

Bernhardt J.R., 2019. Linking individual performance to population persistence in a changing world. In *Predicting Future Oceans: Sustainability of Ocean and Human Systems Amidst Global Environmental Change*. Eds. Cheung, W.W.L., Ota, Y., and A. Cisneros-Montemayor. Elsevier. [[link to chapter](#)]

O'Connor, M.I., **Bernhardt, J.R.** and N.C. Caulk, 2015. Food Webs. Oxford Bibliographies. D. Gibson. New York: Oxford University Press.

Policy briefs and decision-support tools

I harness ecological understanding to help decision-makers plan for people and nature, with the aim of bringing science to the resolution of conflicts among different interests, and making implicit decisions explicit. I contribute to the development of decision-support tools and the science-policy process by co-producing policy briefs with resource managers.

Robinson, C., Boutillier, J., Biffard, D., Finney, J., Gregr, E. Foreman, M., Barrie, V., Bodker, K., Smith, J., **Bernhardt, J.R.**, Spencer, J., and T. Therriault, 2012. A framework for the application of ecological classification and modeling systems used to describe marine biodiversity in Pacific Canada bioregions. CSAP Working Paper, 2012/P45. [[link to paper](#)]

Day, A, Okey T., and **Bernhardt, J. R.** 2012. How will West Coast Aquatic identify and evaluate risk to, and vulnerability of, the health and wealth of the West coast of Vancouver Island Social-ecological system? Briefing Note, West Coast Aquatic. [[link to paper](#)]

McKenzie, E., Rosenthal A., **Bernhardt, J.R.**, Girvetz, E., Kovacs, K., Olwero, N., and J. Toft, 2012. Developing Scenarios to Assess Ecosystem Service Tradeoffs. World Wildlife Fund, Washington, D.C. [[link to paper](#)]

Tallis, H.T., Ricketts, T., Guerry, A.D., Nelson, E., Ennaanay, D., Wolny, S., Olwero, N., Vigerstol, K., Pennington, D., Mendoza, G., Aukema, J., Foster, J., Forrest, J., Cameron, D., Lonsdorf, E., Kennedy, C., Verutes, G., Kim, C.K., Guannel, G., Papenfus, M., Toft, J., Marsik, M., **Bernhardt, J.R.**, Wood, S.A., and Sharp, R. 2011. InVEST 2.1 beta User's Guide. The Natural Capital Project, Stanford University. [[link to paper](#)]

I wrote the blue carbon model and the habitat risk assessment model that are part of InVEST (Tallis et al. 2011).

Teaching

2022 Instructor, Living Data Tutorials, Canadian Institute for Ecology and Evolution

2021 Guest Lecture, Scientific Collaboration in Ecology and Evolution, University of Regina

2021 Instructor, Introduction to Synthesis Research, Canadian Institute for Ecology and Evolution
2021 Guest Lecture, Advances in Aquatic Ecology, McGill University
2020 Instructor, Introduction to Synthesis Research, Canadian Institute for Ecology and Evolution
2019 Instructor, Introduction to Git and Github (workshop), Eawag, Switzerland
2019 Instructor, Aquatic Ecology, University of Zurich
2017 Guest Lecture. STAT545, UBC
2017 Guest Lecture. Aquatic Ecology, UBC
2017 TA, STAT545, Data Visualization and Analysis
2016 TA, Aquatic Ecology, UBC
2016 TA, Data Wrangling (UBC Masters of Data Science program)
2015 TA, Ecological Methodology, UBC
2014 TA, Advanced Ecology, UBC
2009 TA Foundations of Living Systems, Brown University
2008 TA Evolutionary Biology, Brown University

Mentoring

I have mentored 20 undergraduate students informally by supporting their honours thesis research as well as a primary mentor for summer undergraduate research.

2021-22 Lisa Younes, Yale University, Undergraduate research assistant
2021-22 Tina Wu, Yale University, Undergraduate research assistant
2020 Nicole Moore, McGill University, Undergraduate NSERC USRA student
2020 Grace Wells, University of British Columbia, Undergraduate USRA student
2020 Maggie Slein, Reed College, Undergraduate researcher
2019 Aaron Pereira, Eawag, Switzerland, Scientific assistant
2019 Carolina Carvalho, Eawag, Switzerland, Scientific assistant
2019 Lenka Rihakova, University of Strasbourg, Undergraduate Independent Study
2016-18 Keila Stark, UBC, Undergraduate Independent Study
2017 Sachiko Ouchi, UBC, Undergraduate thesis
2017 Kimmy Hofer, UBC, Undergraduate Independent Study
2017 Amir Gohari, UBC, Undergraduate Independent Study
2016-17 Jane Yangel, University of British Columbia, Undergraduate thesis
2016 Cameron Gutjahr, UBC, Undergraduate Independent Study
2016 Sandra Emry, UBC, Undergraduate USRA student
2016-17 Zander Chila, UBC, Undergraduate Independent Study
2016-17 William Ou, UBC, Undergraduate Independent Study
2016-17 Dominik Bahlburg, University of Oldenburg, Undergraduate researcher
2016 Georgia Medeiros, Undergraduate researcher, University of Rio de Janeiro
2009 Kristen Sebasky, Brown University undergraduate honours research

Invited talks at international conferences and universities

2022 Ecological Society of America, Annual Meeting, August 2022

Invited symposium speaker

Navigating life in fluctuating environments using feedbacks and feedforwards.

2022 Society for Experimental Biology, Montpellier, France, June 2022

Invited symposium speaker

Life in fluctuating thermal environments

2022 Society for Integrative and Comparative Biology, Invited symposium speaker

Causal mechanisms of metabolic scaling patterns

2020 Unifying Ecology Across Scales Gordon Research Conference, NH, USA.

Linking individual performance to population persistence in a changing world (*postponed to 2022 due to COVID19*).

2020 Ocean Global Change Gordon Research Conference, New Hampshire, USA.

Life in fluctuating environments. (*postponed to 2022 due to COVID19*)

2019 TraitSpace Workshop, Milton Keynes, UK.

The evolution of competitive ability for essential resources.

2019 University of Oldenburg, Oldenburg, Germany.

Symposium on Functional Marine Biodiversity

Linking individual performance to population persistence in fluctuating environments.

Invited departmental seminars

2022 University of California, Irvine, Department of Ecology and Evolutionary Biology

2022 University of Wisconsin-Madison, Department of Integrative Biology

2022 Memorial University of Newfoundland, Department of Geography

2022 University of California, Santa Barbara, Bren School

2021 University of Victoria, Department of Biology

2021 Rutgers University, Department of Marine and Coastal Sciences

2021 Brown University, Department of Ecology, Evolution and Organismal Biology

2021 University of Guelph, Department of Integrative Biology

2021 Pennsylvania State University, Department of Ecosystem Science and Management

2021 University of California, Davis, Department of Environmental Science and Policy

2021 University of New South Wales, Centre for Marine Science & Innovation

2021 Mount Allison University, Canada.

2021 McGill University, Conservation, Evolution, Ecology and Behaviour Seminar Series.

2021 University of Minnesota, Conservation Sciences Seminar Series.

2021 Institute for Oceans and Fisheries, University of British Columbia, Canada.

2020 Yale Institute for Biospheric Studies, Yale University, USA.

2020 University of Sheffield, Sheffield, UK (*cancelled due to COVID-19*).

2019 Eawag, Kastanienbaum, Switzerland.

2018 University of Aberdeen, Aberdeen, Scotland.

2018 University of Zurich, Zurich, Switzerland.

2017 Swiss Federal Institute for Aquatic Science and Technology, Switzerland.

2017 University of British Columbia, Vancouver, Canada.

Invited talks, other

2021 Simon Fraser University, Department of Biological Sciences, Les Ecologistes Seminar Series

2020 Rice University, Department of BioSciences.

2020 University of Minnesota, Department of Fisheries, Wildlife and Conservation Biology.

2020 MIT, Department of Earth, Atmospheric and Planetary Sciences.

Presentations (17 talks at international conferences)

Life in fluctuating environments

American Society of Naturalists, January 2021.

Population growth in thermally variable environments

Gordon Research Conference, Unifying Ecology Across Scales, Biddeford, Maine.

Association for the Sciences of Limnology & Oceanography (ASLO), Victoria, B.C., 2018.

UBC-SFU-UVic Eco-Evo Retreat, Brackendale, B.C. 2017

Aquatic biodiversity enhances nutritional benefits to humans.

(Invited) Ecological Society of America, Portland, OR | August 2017

Salish Sea Ecosystem Conference, Vancouver, B.C. | May 2016

Western Society of Naturalists, Tacoma, WA | Nov 2014

Linking individual performance to population persistence in a changing world

Canadian Society for Ecology and Evolution, Victoria, B.C. | May 2017

(Invited) UBC Biodiversity Internal Seminar Series, Vancouver, B.C | April 2017

Nutrient limitation constrains food web dynamics under warming

(Poster) Gordon Research Conference, Unifying Ecology Across Scales, Biddeford, Maine.

Ecological Risk Assessment to Support Marine Spatial Planning

Ecological Society of America, Minneapolis, MN | August 2013

Ecological Society of America, Portland, OR | August 2012

Coastal and Estuarine Research Federation (CERF), Daytona Beach, FL | November 2012

Salish Sea Ecosystem Conference, Vancouver, B.C. | November 2012

Calming the waves of marine spatial planning: Modelling ecosystem services on the West Coast of Vancouver Island, Canada

Ecological Society of America, Austin, TX | August 2011

International Marine Conservation Congress (IMCC), Victoria, Canada | May 2011

The role of substrate size in shaping the thermal landscape of rocky shores

Ecological Society of America, Albuquerque, NM | August 2009

Invited Panel Discussions

Bernhardt, J.R. Changing mean and variance in ecosystems under global change. Expert Panelist. AQUACOSM webinar series on Consequences of Global Change on Aquatic Ecosystems. Oldenburg, Germany October 2020.

Symposia Organized

Temperature dependence of consumer-resource interactions (ASLO 2018)

Species interactions, Discussion Leader (Gordon Research Conference, July 2018)

Unifying Ecology with Data, Discussion Leader (Gordon Research Seminar, July 2018)

Synergistic activities

2018 - 2022 Chair (elected), Gordon Research Seminar on Unifying Ecology Across Scales.

As the Chair of the Gordon seminar, I am developing the scientific program, inviting speakers and raising funds to support childcare and diverse participation.

2021 - 2022 Member of working group: sRealm. Oldenburg, Germany. (invited participant, PI: Malin Pinsky)

2019 - 2020 Working group co-organizer: How does life deal with uncertainty in fluctuating environments? Canadian Institute for Ecology and Evolution, Montreal, Canada. (PIs: Joey Bernhardt, Jennifer Sunday, Mary O'Connor and Andrew Gonzalez)

2019 - 2020 Member of working group: Evolutionary ecology of fatty acids. Lucerne, Switzerland. (invited participant, PI: Blake Matthews)

2018 - 2020 Member and co-organizer of working group: Rate summation approaches to predicting organismal performance in fluctuating environments, VectorBiTE Research Coordination Network, Verona, Italy. (Co-Lead, Lead PI: Courtney Murdock)

2018 - 2019 Member of working group: Incorporating phenotypic variation of thermal tolerance to improve projections of climate responses in Canada, Canadian Institute for Ecology and Evolution, Montreal, Canada. (invited participant, Lead PI: Jennifer Sunday)

2018 Member of working group: Global synthesis of climate impacts on fish distribution and growth and implications for Scottish fisheries, Fisheries Innovation Scotland, Aberdeen, Scotland. (invited participant, PI: Tara Marshall)

2017 Member of working group: Wildcards in Climate Change Biology, University of British Columbia, Vancouver, British Columbia (invited participant, PI: Diane Srivastava)

2013 Member of working group: Synthesizing top-down and bottom-up approaches to ecological energetics. National Centre for Ecological Analysis and Synthesis, Santa Barbara, USA (invited participant, PI: Jane Shevtsov)

Workshops and training organized

I have organized and led a range of training opportunities for decision makers and practitioners to learn how to use conservation decision support tools (e.g. in California, Brazil and Canada), and also for students to learn key skills to help them communicate and work effectively at the science-policy interface.

Women in Science Power Hour (Gordon Research Conference workshop on women in science)
Biddeford, Maine | July 2018

Storytelling for scientists (with Ocean Leaders program)
University of British Columbia | October 2017

Student Perspectives on the Science Policy Interface
Ecological Society of America | August 2013

Integrated Valuation of Ecosystem Services and Trade-offs (InVEST) Training
Stanford University, CA | May 2012

New tools for informing and facilitating marine spatial planning
Tofino, B.C., Canada | June 2011

Practical science for incorporating ecosystem services into corporate decision-making
Sao Paulo, Brazil | September 2011

Service

Moderator

ECR2 - Evolution Community Resources for Early Career Researchers (2020)
Strategies for Responding to Harassment and Bullying: Improving Workplace Climate
NSF Workshop for ECRs

Departmental committees, University of British Columbia

Ecology faculty search committee | October 2017
Eco-Evo Retreat organizing committee | October 2017
Biodiversity Postdoctoral Fellow search | Jan 2016

Student Section, Ecological Society of America

Chair 2012-2013
Vice Chair 2011-2012

As Chair of the Student Section of ESA, I raised funds and facilitated mentoring opportunities.

Reviewer

American Naturalist, Proceedings of the National Academy of Sciences, Ecology Letters, Frontiers in Ecology and the Environment, PLoS ONE, Oikos, Journal of Animal Ecology, Frontiers in Ecology and Evolution, Proceedings of the Royal Society B., Philosophical Transactions of the Royal Society, B., Functional Ecology, Oecologia, PloS Biology.

Software

Singer A data package for teaching and learning R [Github](#)

Outreach

Data Literacy Day at Science World, Science Literacy Week
Organizing Team and Instructor, 2017

UBC R Study Group
Organizer, 2015-2017

Software Carpentry, UBC
Volunteer Instructor, 2016-2017

BioTalks Series, UBC Biological Sciences Society
Invited Speaker, 2016

Modules in Ecology and Evolution Program (MEED)
University Hill Elementary School, 2014
Invited teacher

Women in Science and Engineering, Brown University
Mentor, 2007-09

Brown Environmental Leadership Labs
Outdoor education instructor, 2007-09

AfterZone Urban Science Explorers Program
Co-Founder and Teacher, Providence, RI, 2007-2009

Providence Science Outreach Program
Elementary school science teacher, 2007-2009

References

1. Dr. Mary O'Connor

Department of Zoology
University of British Columbia
Vancouver, British Columbia, Canada
Relationship: PhD supervisor

oconnor@zoology.ubc.ca

2. Dr. Jennifer Sunday

Department of Biology
McGill University
Montreal, Quebec, Canada
Relationship: Postdoc mentor

jennifer.sunday@mcgill.ca

3. Dr. Andrew Gonzalez

Department of Biology
McGill University
Montreal, Quebec, Canada
Relationship: Collaborator

andrew.gonzalez@mcgill.ca

4. Dr. David Vasseur

Department of Ecology and Evolutionary Biology
Yale University
New Haven, CT
Relationship: Postdoc mentor

david.vasseur@yale.edu