

MATTHEW WATERHOUSE
Professor of Biology at College of the Sequoias
915 S. Mooney Blvd. Visalia, CA 93277
(559) 909-9094 • mattwaterhouse@icloud.com

EDUCATION

Ph.D. Biology Department of Biology, University of British Columbia Okanagan Advisor: Dr. Michael Russello Thesis title: Biological consequences of rapid environmental change in the American pika (<i>Ochotona princeps</i>)	2013 – 2017 Kelowna, BC
M.Sc. Natural Resources <i>Summa Cum Laude</i> College of Natural Resources, University of Wisconsin – Stevens Point Advisor: Dr. Brian Sloss Thesis title: The relation between demographics and genetic integrity of walleye (<i>Sander vitreus</i>) populations in northern Wisconsin	2009 – 2011 Stevens Point, WI
B.Sc. Environmental Science <i>Cum Laude</i> Biology Department, University of Maine at Farmington	2001 – 2005 Farmington, ME

TEACHING EXPERIENCE

Professor of Biology , College of the Sequoias, Visalia, CA <ul style="list-style-type: none">• Human Ecology (BIOL 25)• Animal Biology (BIOL 22 lab and lecture)• Frontiers in Biology (BIOL 20 lab and lecture)• Principles of Biology 2 (BIOL 2 lab and lecture)	08/2021 – Current
College Professor , Okanagan College, Kelowna, BC <ul style="list-style-type: none">• Biology for Science Majors I (BIOL 111 lab and lecture)• Biology for Science Majors II (BIOL 121 lecture)• Introduction to Ecology (BIOL 203 lab and lecture)• Labs: Anatomy and Physiology (BIOL 131), Principles of Genetics (BIOL 224) Evolution and Ecology (BIOL 112), and Physiology of Multicellular Animals (BIOL 122)	08/2019 – 05/2021
Sessional Lecturer , University of British Columbia Okanagan, Kelowna, BC <ul style="list-style-type: none">• Molecular Approaches in Ecology and Evolution (BIOL 468/568)	01/2020 – 5/2020
Teaching Fellow , Quest University Canada, Squamish, BC <ul style="list-style-type: none">• Biodiversity of British Columbia (LIF 2017)• Cornerstone (IND 2100)• Evolution (LIF 2110)• Behavioral Ecology (LIF 3009)• Biological Invasions (LIF 3024)• Ecological Genomics (LIF 3111)	10/2017 – 07/2019

PUBLICATIONS

- Beever, A., J. Wilkening, **M. Waterhouse** et al. (2023). Geographic and taxonomic variation in adaptive capacity among mountain-dwelling small mammals: Implications for conservation status and actions. *Biological conservation* 282:109942.
- Schmidt, D., **M. Waterhouse**, B. Sjodin, M. Russello (2021). Genome-wide analysis reveals associations between climate and regional patterns of adaptive divergence and dispersal in American pikas. *Heredity*, 127:443-454
- Smith, A., E. Beever, A. Kessler...**M. Waterhouse** et al. (2019). Ecoregional context, genetic affinity and within-species variation in response to climate. *Nature Climate Change* 9:787-794.
- Waterhouse, M.**, L. Erb, E. Beever, and M. Russello (2018). Adaptive population divergence and directional gene flow across steep elevational gradients in a climate-sensitive mammal. *Molecular Ecology*, 27:2512-2528.
- Waterhouse, M.**, B. Sjodin, C. Ray, L. Erb, J. Wilkening, and M. Russello (2017). Individual-based analysis of hair corticosterone reveals factors influencing chronic stress in the American pika. *Ecology and Evolution*, 12:4099-4108.
- Waterhouse, M.**, C. Blair, K. Larsen, and M. Russello (2017). Generic variation and fine-scale population structure in American pika across a human-modified landscape: a legacy of reclamation? *Conservation Genetics*, 18:825-835.
- Russello, M.A., **M. Waterhouse**, P. Etter, and E. Johnson (2015). From promise to practice: pairing non-invasive sampling with genomics in conservation. *PeerJ*, 3, e1106.
- Vendettuoli, J., D. Orwig, J.A. Krumins, **M. Waterhouse**, and E.L. Preisser (2015). Hemlock woolly adelgid alters fine root bacterial abundance and mycorrhizal associations in eastern hemlock. *Forest Ecology and Management*, 339:112-116.
- Waterhouse, M.**, B. Sloss, D. Isermann (2014). Relationships among walleye population characteristics and genetic diversity in northern Wisconsin lakes. *Transactions of the American Fisheries Society*, 143:744–756.

TECHNICAL REPORTS

- Kraft, G.J., D.J. Mechenich, C. Mechenich, **M.D. Waterhouse**, J. McNelly, J. Dimick, and J. Cook (2014). Grand Portage National Monument: assessment of natural resource condition. Natural Resource Report NPS/GRPO/NRR-2014/783. National Park Service, Fort Collins, Colorado.

RESEARCH PRESENTATIONS

- Waterhouse, M.**, L. Erb, E. Beever, and M. Russello. Assessing genomic divergence in American pika along elevational transects to gain insights on thermal adaptations. Oral presentation at *Evolution*, June 23-27, 2017; Portland, OR
- Waterhouse, M.**, C. Blair, K. Larsen, and M. Russello. Genetic evidence for restricted dispersal in American pika across a human-modified landscape. Poster presented at the *UBCO Biology Graduate Symposium*, Best PhD Student Poster Award; September 11, 2015; Kelowna, BC

- Waterhouse, M.,** C. Blair, K. Larsen, and M. Russello. Genetic evidence for restricted dispersal in American pika across a human-modified landscape. Oral presentation at the *3rd Conference of the North American Pika Consortium*, Best Student Presentation Award; April 16-18, 2015; Golden, CO
- Waterhouse, M.,** L. Erb and M. Russello. Genetic divergence in American pika populations along elevational transects: responses to climate change? Poster presented at the *British Columbia EcoEvo Retreat*; November 7-9, 2014; Brackendale, BC
- Waterhouse, M.,** L. Erb and M. Russello. Genetic divergence in American pika populations along elevational transects: responses to climate change? Poster presented at the *American Genetics Association Meeting*; June 27-29, 2014; Seattle, WA
- Waterhouse, M.** and B. Sloss. Demographic variables, stocking, and the genetic characteristics of walleye populations in northern Wisconsin. Oral presentation at the *American Fisheries Society Walleye Technical Committee Meeting*; July 27-28, 2011; Dubuque, IA

EDUCATIONAL LEADERSHIP AND SERVICE

Curriculum Committee member, COS	2023 - Present
Alliance of Biological and Chemical Scientists, Faculty Advisor, COS	2022 - 2024
Curriculum Outcome and Assessment Committee member, COS	2023
Founder, UBCO Wildlife Mentorship Program	2016 – 2017
Founding Member and Outreach Coordinator, The Wildlife Society	2016 – 2017
Invigilator for Distance Examinations, UBCO Enrolment Services	2016 – 2017
Chief invigilator for final examinations, UBCO Enrolment Services	2016 – 2017
Chair and Judge, 11th Undergraduate Research Conference, UBCO	2016
Executive Member of the Biology Graduate Students Society, UBCO	2015 – 2016
Volunteer Educational Development, ScienceLIVE	2015 – 2016
Science Educator, Science Works, Ashland, OR	2006
Founding Member of the Science Club, University of Maine at Farmington	2004 – 2005
Volunteer Advocate, Maine Campus Compact, Farmington, ME	2004

AWARDS AND FELLOWSHIPS

Graduate Student Travel Grant, UBCO, \$1,000 CAD	2017
Graduate Deans Thesis Fellowship, UBCO, \$6,000 CAD	2017
University Graduate Fellowship, UBCO, \$12,000 CAD (total)	2013 – 2016
Teaching Assistant and Tutor Excellence Award, \$600 CAD	2015
Best PhD student poster, Biology Graduate Research Symposium, UBCO, \$300 CAD	2015
Best student presentation, 3rd Conference of the North American Pika Consortium	2015

Graduate Entrance Scholarship , UBCO, \$6,000 CAD	2012
Graduate Travel Grant , University of Wisconsin Stevens Point, \$500 USD	2011
Graduate Student Research Fund , University of Wisconsin Stevens Point, \$500 USD	2010
Dean's List , University of Maine at Farmington	2002 – 2005
Academic Achievement Award , University of Maine at Farmington	2003

FIELD RESEARCH EXPERIENCE

Bottom Fish Research Technician , University of Hawaii at Manoa, HI	2012 – 2013
Conservation Aide , Department of Marine Resources, Hallowell, ME	2008 – 2009
Conservation Aide , Maine Natural Areas, Augusta, ME	2008
Fox Technician , Turner Endangered Species Fund, Bad River Ranch, SD	2007
Research Assistant , University of Montana, Missoula, MT	2007
Biological Technician (GS-4) , USDA Forest Service, Shaver Lake, CA	2005
Research Technician , Harvard Forest, Petersham, MA	2004

INVITED REVIEWER

Biodiversity and Conservation	2016
North American Journal of Fisheries Management	2011

WORKSHOPS AND CONFERENCES

- AAAS Annual Meeting**, Denver, CO, February 15 – 17, 2024
- National Conference on Race & Ethnicity in Higher Education**, New Orleans, LA, May 30 – June 3, 2023
- Mental Health First Aid**: 7-hour training on performing mental health first aid on youth. College of the Sequoias, Visalia, CA, August 10, 2022
- BC Bio**: a meeting for biology instructors from British Columbia and Yukon colleges and universities, University of British Columbia, May 8, 2019 and June 24, 2020
- Society for the Study of Evolution Education Committee Workshop**: Professional development for undergraduate educators, *Evolution Conference*, June 23, 2017
- 12th Annual Learning Conference**: Engaging and learning in authentic environments, Kelowna, BC, May 4-5, 2016
- ConGen**: A bioinformatics analysis workshop, Flathead Lake Biological Station, MT, August 31-September 5, 2015