

SARAH B. BASSING, PHD

Assistant Professor, Department of Ecology
Montana State University
PO Box 173460
Bozeman, MT 59717

✉ : sarah.bassing@montana.edu ☎ : (406) 994-2026

Website: www.bassinglabecology.org ORCID ID: [0000-0001-6295-6372](https://orcid.org/0000-0001-6295-6372)

FACULTY EXPERIENCE

Assistant Professor, Montana State University, Department of Ecology (2025 – present)

Graduate students advised:

1. Chase Dart, MSc, Cooperative breeder group size and population dynamics (2025 – present)
2. Ashlyn Hemmah, MSc, Black-tailed prairie dog colony dynamics and management (2025 – present)

Graduate student committees served:

1. Caralie Brewer, PhD, Occurrence and migration patterns of *Myotis septentrionalis* (2025 – present)
2. Parker Levinson, PhD, Weddel seal demographics (2025 – present)
3. Jayden Skelly, MSc, Pronghorn winter movements (2025 – present)
4. Noah Starling, MSc, Predicting human-wildlife conflict (2025 – present)

Affiliate Faculty, University of Idaho, Department of Fish and Wildlife Sciences

Graduate student committees served:

1. Koryna Boudinot, PhD, Cooperative breeder group stability and harvest (2024 – present)

EDUCATION

PhD in Environmental and Forest Sciences, December 2022

University of Washington, School of Environmental and Forest Sciences, Seattle, WA

Academic advisor: Dr. Beth Gardner, Quantitative Ecology Lab

Dissertation title: “Spatial and Temporal Patterns of Predator-Prey Interactions in a Large Mammal Community in Eastern Washington”

MSc in Wildlife Biology, May 2017

University of Montana, Wildlife Biology Program, Montana Cooperative Wildlife Research Unit (MTCWRU), Missoula, MT

Academic advisor: Dr. Mike Mitchell, Unit Leader (retired) of the MTCWRU

Thesis title: “Harvest & Persistence of Wolf Populations: Variable Effects of Harvest on Wolf Packs”

BSc in Wildlife Biology with High Honors, December 2008

University of Montana, Wildlife Biology Program, Missoula, MT

PUBLICATIONS

Underline: Student

Italics: Agency/tribal collaborator

[†]invited manuscript

23. Bassing, S.B., D.E. Ausband, M.A. Mumma, J.A. Baumgardt, S. Thompson, M.A. Hurley, and M.R. Falcu. Disentangling the web of species interactions in a multi-predator, multi-prey community. *Submitted*.

22. Rebholz, P., **S.B. Bassing**, L. Waits, and D.E. Ausband. Linking age and social status of cooperative breeders to vulnerability throughout the harvest season. *Journal of Wildlife Management*. 89:e70024.

21. Bassing, S.B., J.K. Oakleaf, J.W. Cain III, A.R. Greenleaf, C.M. Gardner, and D.E. Ausband. Predicting pup-rearing habitat for Mexican wolves. *Journal of Wildlife Management*. 89:e70017.

20. **Bassing, S.B.**, D.E. Ausband, M.A. Mumma, S. Thompson, M.A. Hurley, and M.R. Falcu. 2025. Mammalian predator co-occurrence affected by prey and habitat more than competitor presence at multiple time scales. *Ecological Monographs* 95:e1648.
19. **Bassing, S.B.**, L. Satterfield, T.R. Ganz, M. DeVivo, B.N. Kertson, L.R. Prugh, T. Roussin, A.J. Wirsing, B. Gardner. 2024. Predator-prey interactions and landscape features influence movement behaviors in a large-mammal community. *Ecology* 105:e4448.
18. Sanderfoot, O.V., M.W. Tingley, **S.B. Bassing**, J.K. Vaughan, N.A. June, and B. Gardner. 2024. Wildfire smoke alters soundscapes in dry forests of central and eastern Washington. *Global Ecology and Conservation (Special Issue: Through smoke and haze: the indirect impacts of wildfires on wildlife and ecosystems)* 54:e03044.
17. Ausband, D.E. and **S.B. Bassing**. 2024. Helpers show plasticity in their responses to breeder turnover. *Behavioral Ecology* 35:arae048.
16. Ganz, T.R., **S.B. Bassing**, M. T. DeVivo, B. Gardner, B.N. Kertson, L.C. Satterfield, L.A. Shipley, B.Y. Turnock, S.L. Walker, D. Abrahamson, A.J. Wirsing, and L.R. Prugh. 2024. White-tailed deer population dynamics in a multi-predator landscape shaped by humans. *Ecological Applications* 35:e3003.
15. **Bassing, S.B.**, C. Ho, and B. Gardner. 2024. Anthropogenic activities influence spatiotemporal patterns of predator-prey interactions. *Global Ecology and Conservation* 53:e03017.
14. Ganz, T.R., M.T. DeVivo, A.J. Wirsing, **S.B. Bassing**, B.N. Kertson, S.L. Walker, and L.R. Prugh. 2024. Cougars, wolves, and humans drive a dynamic landscape of fear for elk. *Ecology* 105:e4255.
13. Ayars, J., R.L. Emmet, **S.B. Bassing**, O. Sanderfoot, S. Raby, A. Karambelas, E.P. James, R. Ahmadov, and B. Gardner. 2023. Camera traps link population-level activity patterns with wildfire smoke events for mammals in eastern Washington State. *Fire Ecology* 19:49.
12. **Bassing, S.B.**, M. DeVivo, T.R. Ganz, B.N. Kertson, L.R. Prugh, T. Roussin, L. Satterfield, R.M. Windell, A.J. Wirsing, B. Gardner. 2023. Are we telling the same story? Comparing inferences made from camera trap and telemetry data for wildlife monitoring. *Ecological Applications* 33:e2745.
11. Sells, S.N., K.M. Podruzny, J.J. Nowak, T.D. Smucker, T.W. Parks, D.K. Boyd, A.A. Nelson, N.J. Lance, R.M. Inman, J.A. Gude, **S.B. Bassing**, K.E. Loonam, and M.S. Mitchell. 2022. Integrating basic and applied research to estimate carnivore abundance. *Ecological Applications* 32:e2714.
10. †Sanderfoot, O.V., **S.B. Bassing**, J.L. Brusa, R.L. Emmet, S.J. Gillman, K. Swift, B. Gardner. 2021. A review of the effects of wildfire smoke on the health and behavior of wildlife. *Environmental Research Letters* 16:123003.
9. **Bassing, S.B.**, D.E. Ausband, M.S. Mitchell, M.K. Schwartz, J.J. Nowak, G. Hale, L.P. Waits. 2020. Immigration does not offset harvest mortality in groups of a cooperatively breeding carnivore. *Animal Conservation* 23:750-761.
8. Ausband, D.E., **S.B. Bassing**, M.S. Mitchell. 2020. Environmental and social factors influencing wolf (*Canis lupus*) howling behavior. *Ethology* 126:890-899.
7. **Bassing, S.B.**, D.E. Ausband, M.S. Mitchell, P. Lukacs, A. Keever, G. Hale, L. Waits. 2019. Stable pack abundance and distribution in a harvested wolf population. *Journal of Wildlife Management* 83:577-590.
6. Mitchell, M.S., S.N. Sells, K.J. Barker, **S.B. Bassing**, A.C. Keever, S.C. Forshee, J.W. Goerz. 2018. Testing a priori hypotheses improves reliability of wildlife research. *Journal of Wildlife Management* 82:1568-1571.
5. †Mitchell, M.S., S.N. Sells, **S.B. Bassing**, K.J. Barker, A.C. Keever, S.C. Forshee, J.W. Goerz. 2018. Explicitly reporting tests of hypotheses improves communication of science. Guest Editorial. *Journal of Wildlife Management* 82:671-673.

4. Sells, S.N., **S.B. Bassing**, K.J. Barker, S.C. Forshee, A.C. Keever, J.W. Goerz, M.S. Mitchell. 2018. Increasing scientific rigor will improve reliability of research and effectiveness of management. *Journal of Wildlife Management* 82:485-494.

3. Ausband, D.E., M.S. Mitchell, **S.B. Bassing**, A. Morehouse, *D. Smith*, *D. Stahler*, and J. Struthers. 2016. Individual, group, and environmental influences on helping behavior in a social carnivore. *Ethology* 122:963-972.

2. Ausband, D.E., M.S. Mitchell, **S.B. Bassing**, M. Nordhagen, *D. Smith*, and *D. Stahler*. 2016. Dog days of summer: Influences on decision of wolves to move pups. *Journal of Mammalogy* 97:1282-1287.

1. Ausband, D.E., M.S. Mitchell, **S.B. Bassing**, and *C. White*. 2013. No trespassing: Using a biofence to manipulate wolf movements. *Wildlife Research* 40:207-216.

In Preparation

Bassing, S.B. and B. Gardner. Temporal responses to risky places and risky times in a multi-predator, multi-prey system. In final stages of preparation.

TEACHING

Montana State University

2025 **Instructor of Record.** *Introduction to Structured Decision Making* (BIOE 591: 1 CR, 5-student graduate-level course).

University of Idaho

2023 **Invited Instructor.** *Ecological Modeling* (WLF 552: 3 CR, 12-student graduate-level course, hybrid). *Bayesian Analysis in Ecology* (WLF 504: 2 CR, 11-student graduate-level course, hybrid).

2023 **Guest Lecturer.** *Terrestrial Vertebrate Ecology* (WLF 314: 40-student undergraduate-level course). Predator competition and co-occurrence. Instructor: Dr. Jocelyn Aycrigg.

University of Montana

2023 **Guest lecturer.** *Statistical Applications in Wildlife Biology* (WILD 542: 8-student graduate-level course). Multi-species occupancy modeling. Instructor: Dr. Sarah Sells.

2016 **Teaching Assistant.** *Upshot: Applied Wildlife Management* (WILD 480: 3 CR, 25-student capstone undergraduate course). Instructor: Dr. Mike Mitchell.

2014 **Teaching Assistant.** *Careers in Natural Resources* (NRSM 180: 2 CR, 150-student undergraduate-level course). Instructor: Dr. Victoria Dreitz.

University of Washington

2021 **Guest Lecturer.** *Environmental and Resource Assessment* (ESRM 304: 50-student undergraduate-level course). Non-invasive sampling with camera traps. Instructors: Dr. Aaron Wirsing and Dr. Dan Vogt.

PROFESSIONAL EXPERIENCE

Research Scientist
Sept 2022 – June 2025

Idaho Cooperative Fish and Wildlife Research Unit, University of Idaho,
Moscow, ID

Led research in collaboration with the **Idaho Department of Fish and Game** and the Northern Idaho Predator-Prey Project to investigate patterns and processes that influence carnivore populations using camera trap data. Research goals included estimating co-occurrence and relative abundance of unmarked species and assessing influences of interspecific interactions on occurrence and abundance patterns. A second study, conducted in collaboration with the **U.S. Fish and Wildlife Service, U.S. Geological Survey, Arizona Fish & Game Department, New Mexico Department of Game & Fish, and University of New Mexico**, developed predictive models of Mexican gray wolf habitat selection to inform state and federal management decisions. Additional research conducted with the [Gray Wolf Research Group](#) investigated group structure after perturbations to the group (e.g., loss of a breeder), acoustic survey design and wolf communication. Finally, a project conducted in collaboration with the **U.S. Fish and Wildlife Service** developed a functioning prototype of a Bayesian belief network (BBN) to be used as a decision-support tool to help inform future caribou reintroduction decisions.

Graduate Research Assistant
Sept 2017 – Dec 2022

University of Washington, School of Environmental and Forest Sciences,
Seattle, WA

Led research in collaboration with the **Washington Department of Fish and Wildlife** and the [Washington Predator-Prey Project](#) to investigate how predator-prey interactions and anthropogenic activities influence patterns of space-use and activity across the wildlife community. Research goals included establishing and maintaining a large-scale, 3-year camera trap monitoring program, assessing the influence of sampling design on inferences derived from ecological data, and exploring the effects of predator traits, perceived predation risk, and anthropogenic activities on animal movement, habitat use, and activity patterns. Applied for and received >\$80,000 in internal/external funding to support myself and field technicians. Additional research included assisting with designing and conducting acoustic monitoring for wolves and songbirds in eastern Washington, as well as banding and acoustic monitoring of seabirds in Tetiaroa, French Polynesia.

Graduate Research Assistant
Aug 2014 – May 2017

University of Montana, Wildlife Biology Program,
Missoula, MT

Led research in collaboration with **Alberta Environment and Parks** and **Idaho Department of Fish and Game** to study the effects of public harvest of wolf populations in the Northern Rocky Mountains. Research goals included testing an occupancy modeling framework for wolf monitoring in southwest Alberta, estimating harvest effects on the abundance and distribution of wolf packs, and investigating whether dispersal into wolf packs compensated for harvest pressure in Idaho and Alberta. An additional project focused on conducting a review of the history and philosophy of science and the scientific method.

Research Assistant
June 2010 – Aug 2014

Montana Cooperative Wildlife Research Unit, University of Montana,
Missoula, MT

Project Crew Lead (2012-2014): Responsible for supervising field crews and managing wolf monitoring project in southwestern Alberta, Canada. Duties included training technicians, managing project logistics and data, communicating and collaborating with

landowners and **Alberta Environment and Parks** personnel, preparing project deliverables, and contributing to published research investigating wolf behavior at homesites and testing the efficacy of using “biofences” to manipulate wolf movement. *Field Technician (2010-2012)*: conducted field experiments, howl surveys, and collected non-invasive genetic data from wolf scats in northern and central Idaho.

Research Assistant
Aug 2011 – May 2012

U.S. Fish and Wildlife Service Grizzly Bear Recovery Program, University of Montana, Missoula, MT

Responsible for collecting, cataloging, and summarizing camera trap data as part of highway underpass monitoring project to document grizzly bear presence and other wildlife use of highway crossings. Provided final deliverables to project collaborator and funders.

GRANTS & FELLOWSHIPS Total awarded: \$280,245

- 2025 Bassing, S.B., Spatial ecology of black-tailed prairie dog colonies and testing predation risk as a tool for managing colony expansion. Turner Enterprise Inc.
- 2022 Bassing, S.B., Graduate Student Completion Fellowship, U. of Washington
- 2021 Gardner, B. and S.B. Bassing. McIntire-Stennis Cooperative Forestry Research 1-Year Projects, USDA National Institute of Food and Agriculture, U. of Washington (PI: Dr. Beth Gardner)
- 2019 Gardner, B. and S.B. Bassing. Aquatic Land Enhancement Account Volunteer Grant, WA Dept. Fish & Wildlife (PI: Dr. Beth Gardner)

AWARDS & SCHOLARSHIPS Total awarded: \$8,750

Honors & Scholarships

- 2021 Graduate Student of the Year, School of Envi. & Forest Sciences, U. of Washington
- 2018 John Pierce Outstanding Graduate Student Award, Washington Cooperative Fish and Wildlife Research Unit
- 2016 & 2017 Research & Creative Scholarship Fund, U. of Montana
- 2014 George & Mildred Cirica Student Support Fund Scholarship, U. of Montana
- 2005 Cal Murphy Residence Hall Scholarship, U. of Montana

Travel Awards

- 2022 Graduate Student Meeting & Travel Award, U. of Washington
- 2022 Graduate Student Travel Grant, The Wildlife Society 29th Annual Conference
- 2019 Spatial Ecology and Telemetry Working Group Student Travel Grant, The Wildlife Society Spatial Ecology and Telemetry Working Group
- 2017 TWS Biometrics Working Group Student Travel Grant, The Wildlife Society Biometrics Working Group
- 2015 & 2016 Wildlife Biology Program Travel Funds, U. of Montana

PRESENTATIONS

Refereed Presentations

15. **Bassing, S.B.**, D.E. Ausband, M.A. Mumma, J. Baumgardt, S. Thompson, M. Hurley, and M. Falcy. 2025. Disentangling the web of species interactions in Northern Idaho's large mammal community. Idaho Chapter of The Wildlife Society Annual Meeting (Moscow, ID)
14. **Bassing, S.B.**, D. Ausband, M. Mumma, S. Thompson, M. Hurley, and M. Falcy. 2024. Predator co-occurrence affected by prey and habitat more than competitor presence at multiple time scales. Idaho Chapter of The Wildlife Society – Washington Chapter of The Wildlife Society – Northwest Partners in Amphibian and Reptile Conservation Joint Meeting (Coeur d'Alene, ID)
13. **Bassing, S.B.**, L. Satterfield, T.R. Ganz, M. DeVivo, B.N. Kertson, L.R. Prugh, T. Roussin, A.J. Wirsing, and B. Gardner. 2023. Predator – prey space-use and landscape features influence animal movement in a large-mammal community. Poster, *Gordon Research Seminar and Conference 2023 Movement Ecology of Animals* (Lucca, Italy)
12. **Bassing, S.B.**, D. Ausband, M. Mumma, M. Falcy. 2023. Spatial patterns of predator interactions in northern Idaho: Preliminary findings. *Idaho Chapter of The Wildlife Society Annual Meeting* (Boise, ID)
11. **Bassing, S.B.**, T. Roussin, C. Ho, B. Gardner. 2022. Anthropogenic impacts on the occurrence patterns of predators and prey in eastern Washington. *The Wildlife Society Annual Conference* (Spokane, WA)
10. **Bassing, S.B.**, M. Devivo, T.R. Ganz, B.N. Kertson, L.R. Prugh, T. Roussin, L. Satterfield, R.M. Windell, A.J. Wirsing, B. Gardner. 2022. Apex predator presence alters movement behaviors of three ungulate species in eastern Washington, USA. *SEFS Graduate Student Symposium* (Seattle, WA)
9. **Bassing, S.B.**, T. Ganz, L. Prugh, L. Satterfield, A. Wirsing, & B. Gardner. 2019. Potential biases in camera trap data when monitoring multiple species. *The Wildlife Society Annual Conference* (Reno, NV)
8. **Bassing, S.B.**, B. Gardner. 2018. Spatiotemporal dynamics of predator-prey interactions as wolves recolonize Washington. *SEFS Graduate Student Symposium* (Seattle, WA)
7. **Bassing, S.B.**, D.E. Ausband, M.S. Mitchell, P.M. Lukacs, M.K. Schwartz, G. Hale, L.P. Waits. 2017. Harvest and persistence of wolf populations: Variable effects on wolf packs. *The Wildlife Society Annual Conference* (Albuquerque, NM)
6. **Bassing, S.B.**, D.E. Ausband, M.S. Mitchell, M.K. Schwartz, L.P. Waits. 2017. Immigration as a compensatory mechanism to offset harvest mortality in wolf populations. *Montana Chapter of The Wildlife Society Annual Meeting* (Helena, MT)
5. **Bassing, S.B.**, D.E. Ausband, M.S. Mitchell, M.K. Schwartz, L.P. Waits. 2017. Immigration as a compensatory mechanism to offset harvest mortality in wolf populations. *Idaho Chapter of The Wildlife Society Annual Meeting* (Boise, ID)
4. **Bassing, S.B.**, D.E. Ausband, M.S. Mitchell, M.K. Schwartz, L.P. Waits. 2016. Immigration as a compensatory mechanism to offset harvest mortality in wolf populations. *The Wildlife Society Annual Conference* (Raleigh, NC)
3. **Bassing, S.B.**, M.S. Mitchell, P.M. Lukacs, D.E. Ausband, L.P. Waits, G. Hale. 2016. Wolf pack distribution in relation to heavy harvest in southwest Alberta. *Montana Chapter of The Wildlife Society Annual Meeting* (Missoula, MT)
2. **Bassing, S.B.**, M.S. Mitchell, D.E. Ausband, P.M. Lukacs, L.P. Waits, G. Hale. 2015. Developing a monitoring framework to estimate wolf occupancy dynamics in southwest Alberta. *The Wildlife Society Annual Conference* (Winnipeg, MB, Canada)
1. **Bassing, S.B.**, M.S., Mitchell, D.E. Ausband, L.P. Waits, G. Hale. 2015. Developing a monitoring framework to estimate wolf distribution and abundance in southwest Alberta. *Montana Chapter of The Wildlife Society Annual Meeting* (Helena, MT)

Invited Talks

- 15. Bassing, S.B.**, 2025. Interspecific interactions in Northern Idaho. *Invited speaker for the Idaho Department of Fish and Game All Hands Research Meeting* (Moscow, ID)
- 14. Bassing, S. B.**, 2024. Are we telling the same story? Comparing sampling perspectives for wildlife monitoring. *Invited speaker for Ecology and Evolutionary Graduate Program Seminar Series at Rutgers University* (New Brunswick, NJ – virtual)
- 13. Bassing, S. B.**, 2024. Are we telling the same story? Comparing sampling perspectives for wildlife monitoring. *Invited speaker for Department of Fish and Wildlife Sciences Seminar at the U. of Idaho* (Moscow, ID)
- 12. Bassing, S.B.**, L. Satterfield, T.R. Ganz, M. DeVivo, B.N. Kertson, T. Roussin, A.J. Wirsing, and B. Gardner. 2024. Predator-prey space-use and landscape features influence movement behaviors in a large-mammal community. *Invited talk in the “Fur, Fangs, and Fear” Special Session at the Idaho Chapter of The Wildlife Society – Washington Chapter of The Wildlife Society – Northwest Partners in Amphibian and Reptile Conservation Joint Meeting* (Coeur d’Alene, ID)
- 11. Bassing, S.B.** 2023. Predator interactions & space-use in northern Idaho. *Invited speaker for Environmental & Natural Resource Sciences Graduate Student Seminar at Washington State University* (Pullman, WA – virtual)
- 10. Bassing, S.B.** 2023. Predator interactions & space-use in northern Idaho. *Invited speaker for Department of Fish and Wildlife Sciences Seminar (WLF 501) at the U. of Idaho* (Moscow, ID)
- 9. Bassing, S.B.** 2023. Predator – prey space-use and landscape features influence animal movement in a large-mammal community. *5-min lightning talk, Gordon Research Conference 2023 Movement Ecology of Animals* (Lucca, Italy)
- 8. Bassing, S.B.** 2023. Influence of harvest & species interactions on carnivore populations. *Invited speaker for BIOL 4762: Field Behavioral Ecology* (upper-level undergraduate course). Instructor: Dr. Ahva Potticary. *U. of Virginia, Mountain Lake Biological Station, VA* (virtual)
- 7. Bassing, S.B.** 2023. Patterns and processes in a multi-predator community in northern Idaho. *Project update at 2023 cooperator’s meeting, hosted by Idaho Cooperative Fish & Wildlife Research Unit* (Moscow, ID)
- 6. Bassing, S.B.** 2023. Introduction to the WA predator-prey project & spatial and temporal patterns of predator-prey interactions in eastern WA. *Research summary for the Washington Department of Fish and Wildlife* (Wenatchee, WA – virtual)
- 5. Bassing, S.B.** 2022. Anthropogenic impacts on the occurrence patterns of predators and prey in eastern Washington. *Research summary for the Washington State Fish and Wildlife Commission* (Clarkston, WA – virtual)
- 4. Bassing, S.B.** 2021. Are we telling the same story? Comparing inferences made from camera trap and telemetry data for wildlife monitoring. *Invited speaker at Washington Cooperative Fish and Wildlife Research Unit Annual Student Symposium* (Seattle, WA – virtual)
- 3. Bassing, S.B.** 2021. Immigration, Harvest, & Wolves. *Invited speaker for Endangered Species Coalition* (virtual)
- 2. Bassing, S.B.**, T. Ganz, L. Prugh, L. Satterfield, A. Wirsing, & B. Gardner. 2019. Potential biases in camera trap data when monitoring multiple species. *Invited speaker at U. of Washington Fish and Wildlife Ecology Seminar* (Seattle, WA)
- 1. Bassing, S.B.**, B. Gardner. 2018. WA’s Predator-Prey Project: Species co-occurrence across a human-dominated landscape. *Invited speaker at Washington Cooperative Fish and Wildlife Research Unit Annual Student Symposium* (Seattle, WA)

Public Outreach

5. **Bassing, S.B.** 2023. Spatial and temporal patterns of predator-prey interaction in a human dominated landscape. *Co-hosted by the Methow Conservancy and Wenatchee River Institute* (Winthrop, WA – virtual)
4. **Bassing, S.B.** 2022. Preliminary findings from camera trapping and species interaction research. *Hosted by the Chewelah Public Library* (Chewelah, WA)
3. **Bassing, S.B.** 2020 – 2021. Recurring guest lectures for the Transition Program for adults with developmental disabilities (8 – 12 students ages 18 – 22). Instructor: Kathy Linch. *Poway Unified School District, Poway, CA* (virtual)
2. **Bassing, S.B.** 2016. Gray wolves in southwestern Alberta. *Hosted by Beauvais Lake Provincial Park for their Summer Interpretive Program* (Alberta, Canada)
1. **Bassing, S.B.** 2015 & 2016. Wolves on the move. *Hosted by Waterton Lakes National Park for their Waterton Wildlife Weekend* (Alberta, Canada)

PROFESSIONAL SERVICE & DEVELOPMENT

Service

- 2024 **Structured Decision Making (SDM) Facilitator** for River Recreation Advisory Council SDM with Montana Fish, Wildlife & Parks (Oct. 17 – 19)
- 2023 - present **Associate Editor**, *Ecology and Evolution*
- 2022 **Symposium co-organizer** for The Wildlife Society 2022 Annual Conference, “Emerging research from multiple-predator multiple-prey systems in working landscapes of the Pacific Northwest”, Spokane WA
- 2020 – 2021 **Graduate Student Representative** of the search committee for the Assistant Unit Leader of the WA Cooperative Fish & Wildlife Research Unit, U. of Washington
- 2019 – 2020 **Graduate Student Representative** of the School of Environmental and Forest Sciences Curriculum Committee, U. of Washington
- 2018 - present **Peer review** for *Arctic, Ecological Applications, Ecology, Ecological and Environmental Statistics, Ecology and Evolution, Ecosphere, Food Webs, Heredity, Journal of Animal Ecology, Journal of Mammalogy, Journal of Wildlife Management, Oecologia, Proceedings of the Royal Society B, Science of the Total Environment*, and FSP review for the U.S. Geological Survey
- 2016 **Elected member of the Executive Leadership Committee**, Wildlife Biology Graduate Student Association, U. of Montana

Memberships

- 2019 – present Ecological Society of America
- 2014 – present The Wildlife Society

Development

- 2025 FieldFutures Harassment Prevention Training Workshop, Department of Ecology, Montana State University, Bozeman, MT, Instructor: FieldFutures
- 2025 Structural Equation Modeling Workshop, Montana Chapter of The Wildlife Society Annual Meeting, Billings, MT, Instructor: Thomas Riecke, University of Montana

- 2020 Multi-Species Occupancy Modeling Workshop, The Wildlife Society Annual Conference (virtual), Instructors: Christopher Rota, Arielle Parsons, & Kenneth Kellner, TWS Biometrics Working Group
- 2020 NIMBLE Workshop, University of Washington, Seattle, WA, Instructor: Chris Paciorek, University of California – Berkeley
- 2018 Graduate Student Science Communication Workshop, University of Washington College of the Environment, Seattle, WA, Instructor: John Meyer, University of Washington
- 2015 Modelling Patterns and Dynamics of Species Occurrence Workshop, University of Guelph, Ontario, Canada, Instructor: Darryl MacKenzie, Proteus Research & Consulting Ltd.

ADDITIONAL MENTORSHIP

University of Idaho

- 2024 - 2025 **Research Fellow Mentor.** 1 fellow, International Wolf Center Dr. David L. Mech Fellowship. *Mentor research fellow through study design, data collection and analysis, and presentation of results. Fellowship aims to reduce barriers to allow undergraduates and recent graduates from diverse backgrounds to directly engage in wolf research*
- 2024 - 2025 **Undergraduate Research Supervisor/Mentor.** 2 students, Senior thesis (WLF 497) and research experience (BIOL 401). *Mentor undergraduate students through proposal writing, data collection and analysis, and final paper and presentation*

University of Washington

- 2018 - 2022 **Undergraduate Research Mentor.** 10 students, co-supervised with Dr. Beth Gardner and Dr. Alex McInturff, Senior thesis (ESRM 496) and project (ESRM 495). *Mentored undergraduate students through proposal writing, data collection and analysis, and final paper and presentation*
- 2018 – 2022 **Image Processing Internship Supervisor.** 111 undergraduate students. *Trained and supervised undergraduate students on data collection, species identification, and use of image processing software. Students earned independent study credit if desired. Coauthored manuscript with student, published in Global Ecology and Conservation*

OTHER PROFESSIONAL EXPERIENCE

- Field Technician**
Jan – May 2010 **Arizona Bald Eagle Management Program, Arizona Fish & Game Department,**
Phoenix, AZ
Monitored bald eagle nests, conducted behavioral observations on nesting eagles, conducted public outreach about bald eagle conservation and generated final report
- Field Technician**
May – Aug 2009 **Sierra Nevada Adaptive Management Program, University of California Berkeley,**
Oakhurst, CA
Conducted camera trapping, live-trapping, and telemetry surveys to monitor Pacific fisher population and document responses to forest management treatments
- Field Technician**
June – Aug 2008 **Yellowstone Wolf Project, Yellowstone National Park,**
Mammoth WY
Collected demographic data and biological samples from wolf kills to study patterns of summer wolf predation in Yellowstone National Park

- Student Intern**
May – Aug 2007
Aug – Dec 2008
- Montana Fish, Wildlife & Parks Wolf Program, Montana Fish, Wildlife, & Parks,**
 Missoula, MT
 Assisted with collaring and monitoring wolves across west-central Montana, worked with livestock producers to reduce wolf-livestock conflict, and maintained databases on livestock depredations and wolf sightings
- Field Technician**
May – Aug 2006
- Point Reyes National Seashore Cooperative Tule Elk Project, University of California Berkeley,** Point Reyes Station, CA
 Monitored survival and movement of telemetered tule elk, assisted with neonatal captures, and conducted behavioral observations and fecal collection to study population dynamics, nutrition, and behavior of elk
- Student Intern**
Aug – Sept 2004
- Channel Island Fox Captive Breeding and Recovery Program, Institute for Wildlife Sciences,** Santa Cruz Island, CA
 Responsible for feeding, monitoring, and mitigating disease transmission among endangered Santa Cruz Island foxes in captive breeding enclosures

ADDITIONAL SKILLS

Computer programs/languages: ArcGIS, GENECLASS2, Google Earth Engine, JAGS, Kaleidoscope, ML-RELATE, PRESENCE, R, STUCTURE, Timelapse2, WinBUGS