David Wolfson

University of Minnesota **|**Saint Paul, Minnesota, USA **|** wolfs064@gmail.com

EDUCATION

University of Minnesota: St. Paul, Minnesota *2019 - present*

- PhD in Wildlife Ecology and Management

University of Minnesota: St. Paul, Minnesota *2014 - 2017*

- M.S. in Wildlife Ecology and Management

Earlham College: Richmond, Indiana *2001 – 2005*

- B.S. in Biology**;** Graduated with College Honors

PUBLICATIONS

[9] Miller, R. S., M. A. Tabak, **D. W. Wolfson**, and C. L. Burdett. 2023. Transient population dynamics drive the spread of invasive wild pigs and reveal impacts of management in North America. Biological Invasions, 1–16.

[8] **Wolfson, D. W.**, D. E. Andersen, and J. R. Fieberg. 2022. Using piecewise regression to identify biological phenomena in biotelemetry datasets. Journal of Animal Ecology 91(9): 1755–1769.

[7] Severud, W. J., **D.W. Wolfson**, J. R. Fieberg, and D. E. Andersen. 2022. Sandhill crane colt survival in Minnesota. Journal of Fish and Wildlife Management https://doi.org/10.3996/JFWM-21-097

[6] Tabak, M. A., M. S. Norouzzadeh, **D. W. Wolfson**, E. J. Newton, R. K. Boughton, J. S. Ivan, E. A. Odell, E. S. Newkirk, R. Y. Conrey, J. L. Stenglein, F. Iannarilli, J. Erb, R. K. Brook, A. J. Davis, J. S. Lewis, D. P. Walsh, J. C. Beasley, K. C. Vercauteren, J. Clune, R. S. Miller. 2020. Improving the accessibility and transferability of machine learning algorithms for identification of animals in camera trap images: MLWIC2. Ecology and Evolution https://doi.org/10.1002/ece3.6692

[5] **Wolfson, D. W.**, J. R. Fieberg, and D. E. Andersen. 2019. Juvenile sandhill cranes exhibit wider ranging and more exploratory movements than adults during the breeding season. Ibis https://doi.org/10.1111/ibi.12786.

[4] Tabak, M. A., M. S. Norouzzadeh, **D. W. Wolfson**, S. J. Sweeney, K. C. VerCauteren, N. P. Snow, J. M. Halseth, P. A. Di Salvo, J. S. Lewis, M. D. White, B. Teton, J. C. Beasley, P. E. Schlichting, R. K. Boughton, B. Wight, E. S. Newkirk, J. S. Ivan, E. A. Odell, R. K. Brook, P. M. Lukacs, A. K. Moeller, E. G. Mandeville, J. Clune, and R. S. Miller. 2018. Machine Learning to classify animal species in camera trap images: applications in ecology. Methods in Ecology and Evolution 10(4): 585–590.

[3] Pepin, K. M., **D. W. Wolfson**, R. S. Miller, M. A. Tabak, N. P. Snow, K. C. VerCauteren, and A. J. Davis. 2019. Accounting for heterogeneous invasion rates reveals management impacts on the spatial expansion of an invasive species. Ecosphere 10(3):e02657.

[2] **Wolfson, D. W.**, T. Cooper, J. Lawrence, J. Fieberg, and D.E. Andersen. 2017. Range overlap between Mid-Continent and Eastern sandhill cranes revealed by GPS-tracking. Wildlife Society Bulletin 41: 489–498.

[1] Iverson, J. B., S. A. Muhrer, M. M. Nardi, and **D. W. Wolfson**. 2007. *Pituophis catenifer sayi* (Bullsnake): nesting. Herpetological Review 38:92.

TECHNICAL REPORTS/THESES

[5] Dirsmith, K. L., M. A. Tabak, **D. W. Wolfson**, and R. S. Miller. 2018. New Mexico Feral Swine Litter Size and Pregnancy Report: 2010-2016. USDA-APHIS Center for Epidemiology and Animal Health.

[4] **Wolfson, D. W.** 2018. MS Thesis. Migratory Ecology and Movement Patterns of Mid-Continent and Eastern Sandhill Cranes. University of Minnesota.

[3] **Wolfson, D. W.**, and J. Fieberg. 2017 Final Report. Delineating Sandhill Crane Populations in Minnesota. Research Work Order 101, Minnesota Cooperative Fish and Wildlife Research Unit.

[2] **Wolfson, D. W.**, D. E. Andersen, and J. Fieberg. 2017. Sandhill Crane Populations and Management in Minnesota. M.L. 2014 Work Plan Final Report to the Environment and Natural Resources Trust Fund of Minnesota.

[1] Stock, G., J. Roche, M. Buhler, S. Stock, **D. W. Wolfson**, and L. Cline. 2012. Looking Downstream 2011-2012 Update: Physical and ecological responses to river flow downstream of Hetch Hetchy Reservoir, Yosemite National Park. Report to San Francisco Public Utility Commission.

ORAL PRESENTATIONS

[26] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2023. Using piecewise regression to identify phenomena in biotelemetry datasets. Gordon Research Conference for Animal Movement. Lucca, Italy.

[25] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2022. Interior Population Trumpeter Swan annual movement and migration patterns. The 29th Annual Conference of The Wildlife Society. Spokane, Washington.

[24] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2022. Interior Population Trumpeter Swan annual movement and migration patterns. The 7th International Swan Symposium and 26th Conference of the Trumpeter Swan Society. Jackson, Wyoming.

[23] Panchaud, C., **D. W. Wolfson**, J. Signer, J. Fieberg, and S. Muff. Accounting for GPS error in habitat-selection studies. International Statistical Ecology Conference. Cape Town, South Africa.

[22] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2022. Using piecewise regression to identify phenomena in biotelemetry datasets. The 82nd Midwest Fish and Wildlife Conference. (virtual)

[21] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2021. Using piecewise regression to identify phenomena in biotelemetry datasets. The 28th Annual Conference of The Wildlife Society. (virtual)

[20] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2021. Using piecewise regression to identify phenomena in biotelemetry datasets. The 7th International Bio-Logging Symposium. (virtual)

[19] **Wolfson, D. W.**, R. Knapik, J. Fieberg, and D.E. Andersen. 2021. A range-wide assessment of Interior Population Trumpeter Swan migration patterns. The 81st Midwest Fish and Wildlife Conference. (virtual)

[18] Lewis, J., P. Schlichting, R. Boughton, B. Wight, **D. Wolfson**, K. VerCauteren and R. Miller. 2020. The removal of invasive wild pigs increases populations of white-tailed deer. 2020 International Wild Pig Conference. Jacksonville, Florida. (virtual)

[17] Miller, R. S, M. Tabak, M. S. Norouzzadeh, **D. Wolfson**, E. S. Newkirk, J. M. Halseth, R. K. Boughton, J. C. Beasley, P. E. Schlichting, K. C. VerCauteren, and J. Clune. 2020. Automated species identification of camera trap images to improve invasive species control. 2020 International Wild Pig Conference. Jacksonville, Florida. (virtual)

[16] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2020. Interior Population of Trumpeter Swans: where are they going next? Annual Meeting of the Minnesota Chapter of The Wildlife Society. Willmar, Minnesota.

[15] **Wolfson, D. W.**, D. Andersen, T. Cooper, S. Cordts, J. Fieberg, C. Henderson, C. Herwig, J. Moriarty, M. Smith, D. Arsnoe, B. Avers, A. Duffiney, R. Knapik, and D. Luukkonen. 2020. Interior Population Trumpeter Swan migration ecology and conservation. The 80th Midwest Fish and Wildlife Conference. Springfield, Illinois.

[14] **Wolfson, D. W.**, D. Andersen, T. Cooper, S. Cordts, J. Fieberg, C. Henderson, C. Herwig, J. Moriarty, M. Smith, R. Knapik, and D. Luukkonen. 2019 Interior Population Trumpeter Swan migration ecology and conservation. The 25th Conference of the Trumpeter Swan Society. Alton, Illinois.

[13] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2019. Age-related movement patterns of sandhill cranes: higher displacement and lower revisitation by juveniles during the breeding season. American Fisheries Society & The Wildlife Society 2019 Joint Annual Conference. Reno, Nevada.

[12] Schlichting, P., **D. W. Wolfson**, B. S. Teton, M. S. White, R. K. Boughton, M. Farnsworth, K. C. VerCauteren, R. Miller, and J. Lewis. 2019. Comparison of abundance indices and density estimates in wild pigs using camera traps. American Fisheries Society & The Wildlife Society 2019 Joint Annual Conference. Reno, Nevada.

[11] Smith, B., R. Boughton, B. Wight, **D. Wolfson**, N. Gomez-Casanovas, C. Bernacchi, E. Delucia, J. Sparks, H. Swain, and E. Boughton. 2019. The effects of time since fire on cattle use and foraging behavior in a subtropical grassland. The 72nd Society for Range Management International Meeting. Minneapolis, Minnesota.

[10] Tabak, M. A., **D. W. Wolfson**, C. T. Webb, C. L. Burdett, and R. S. Miller. 2018. Predicting wild pig population establishment following introduction into a new location. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[9] Pepin, K. M., A. J. Davis, **D. W. Wolfson**, R. S. Miller, M. A. Tabak, N. P. Snow, and K. C. VerCauteren. 2018. A method for evaluating progress of the APHIS National Feral Swine Damage Management program using management data to estimate prevention of spatial spread. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[8] Miller, R. S., M. Joseph, A. J. Davis, K. M. Pepin, **D. W. Wolfson**, M. A. Tabak, and J. Lewis. 2018. Estimating feral swine abundance at the national, state, and county scales for the United States using agency removal data. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[7] Wells, E. D., B. M. Ballard, S. L. Oldenburger, D. P. Collins, D. A. Brandt, A. T. Pearse, H. L. Perotto-Baldivieso, and **D. W. Wolfson**. 2018. Autumn and Wintering Movement Ecology of Gulf Coast Subpopulation Sandhill Cranes. The 54th Annual Meeting of the Texas Chapter of The Wildlife Society. Dallas, Texas.

[6] **Wolfson, D. W.**, M. Tabak, and R. Miller. 2017. Evaluating the roles of propagule size, life history, and environmental conditions on the establishment success of an invasive species using transient dynamics models. 2017 Annual Meeting of The Wildlife Society. Albuquerque, New Mexico.

[5] **Wolfson, D. W.**, J. Fieberg, T. Cooper, J. Lawrence, and D.E. Andersen. 2017. When worlds collide: A current assessment of two formerly distinct sandhill crane populations in Minnesota. Annual Meeting of the Minnesota Chapter of The Wildlife Society. Callaway, Minnesota.

[4] **Wolfson, D. W.**, D. E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2017. Range overlap between Mid-Continent and Eastern sandhill cranes revealed by GPS-tracking. The 77th Midwest Fish and Wildlife Conference. Lincoln, Nebraska.

[3] **Wolfson, D. W.**, D. E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2017. A comparison of movements between adults and juvenile sandhill cranes during spring and summer: Evidence for prospecting? 14th North American Crane Workshop. Chattanooga, Tennessee.

[2] **Wolfson, D. W.**, D. E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2015. Spatial ecology of sandhill crane populations in Minnesota. Joint Meeting of the Minnesota and Wisconsin Chapters of The Wildlife Society. Duluth, Minnesota.

[1] Quinn, C. B., **D. W. Wolfson**, and B. N. Sacks. 2014. A natural experiment in inbreeding depression in an isolated population of montane red fox. The Ecological Society of America Annual Meeting. Sacramento, California.

POSTER PRESENTATIONS ——————————————————————————————

[8] **Wolfson, D. W.**, R. Knapick, J. Fieberg and D.E. Andersen. 2020. Interior Population Trumpeter Swan migration ecology and conservation. The Wildlife Society Annual Meeting, Louisville, Kentucky (virtual).

[7] Buckley, C., R. Miller, B. Wight, P. Schlichting, J. Lewis, **D. Wolfson**, K. VerCauteren and R. Boughton. 2020. Compensatory responses of wild pig populations under pulsed removal efforts. 2020 International Wild Pig Conference. Jacksonville, Florida.

[6] **Wolfson, D. W.**, M. A. Tabak, M. S. Norouzzadeh, R. S. Miller, E. S. Newkirk, J. M. Halseth, R. K. Boughton, J. C. Beasley, P. E. Schlichting, K. C. VerCauteren, and J. Clune. 2018. Solutions for big data: Harnessing the power of machine learning to automate the identification of camera trap images. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[5] **Wolfson, D. W.**, M. A. Tabak, and R. S. Miller. 2018. The influence of environmental conditions on the litter size and survival of native and non-native wild pigs. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[4] Dirsmith, K. L, **D. W. Wolfson**, M. A. Tabak, B. V. Archuleta, and R. S. Miller. 2018. New Mexico feral swine litter size and body weight: 2010-2016. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[3] VanNatta, E., **D. W. Wolfson**, M. A. Tabak, S. J. Sweeney, N. P. Snow, B. V. Archuleta, R. K. Boughton, R. K. Brook, E. L. Covington, R. S. Miller, K. C. VerCauteren. 2018. Morphometric measurements and body weights of wild pigs in North America. 2018 International Wild Pig Conference. Oklahoma City, Oklahoma.

[2] **Wolfson, D. W.**, D.E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2016. Spatial ecology of sandhill crane populations in Minnesota. Minnesota Chapter of The Wildlife Society Annual Meeting, Mankato, Minnesota.

[1] **Wolfson, D. W.**, D.E. Andersen, T.R. Cooper, J. Lawrence, and J. Fieberg. 2016. Spatial ecology of sandhill crane populations in Minnesota. 76th Midwest Fish and Wildlife Conference, Grand Rapids, Michigan.

INVITED PUBLIC PRESENTATIONS

[9] **Wolfson, D. W.** 2023. Interior Population Trumpeter Swan annual movement and migration trends. The Wildlife Society's Wetland Working Group Student Research Webinar.

[8] **Wolfson, D. W.** 2022. Trumpeter Swan ecology and movements. Minnesota Master Naturalists Research Seminar. (virtual)

[7] **Wolfson, D. W.** 2021. Trumpeter Swan ecology and movements. Iowa Young Birders. (virtual)

[6] **Wolfson, D. W.**, D.E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2016. Minnesota sandhill crane population affiliation and migration ecology. Minnesota Prairie Chicken Society Annual Meeting. Fertile, Minnesota.

[5] **Wolfson, D. W.**, D.E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2016. Minnesota sandhill crane population affiliation and migration ecology. Minnesota Department of Natural Resources, Northwest Regional Wildlife Meeting, Thief River Falls, Minnesota.

[4] **Wolfson, D. W.**, D.E. Andersen, T. Cooper, J. Lawrence, and J. Fieberg. 2016. Minnesota sandhill crane population affiliation and migration ecology. Minnesota Department of Natural Resources, Waterfowl Committee, Saint Paul, Minnesota.

[3] **Wolfson, D. W.** 2016. Migration and movement ecology of sandhill cranes in Minnesota. Maplewood Nature Center, Maplewood, Minnesota.

[2] **Wolfson, D. W.** and J. Fieberg. May 21, 2016. An Exposure to the Field of Wildlife Biology. Pike Lake Elementary School, New Brighton, Minnesota.

[1] **Wolfson, D. W.** 2014. Sandhill cranes in Minnesota. Brainerd Lakes Audubon Society. Brainerd, Minnesota.

PROFESSIONAL SERVICE

- University of Minnesota, Department Representative to the Council of Graduate Students. 2022-2023.
- University of Minnesota, Fisheries, Wildlife, and Conservation Biology Department, Presidential Postdoctoral Fellowship Search Committee. 2022-2023.
- University of Minnesota Fisheries, Wildlife, and Conservation Biology Department, Kolshorn Lecture Planning Committee. 2022
- University of Minnesota, Department Representative to the Graduate Student Board. 2021-2022.
- University of Minnesota, Graduate Student Board Grants Committee. 2021-2022.
- University of Minnesota, Conservation Sciences Association of Graduate Students Board Member 2021-2022.
- University of Minnesota, Friend in STEM mentoring program. 2020.
- University of Minnesota, Conservation Sciences Seminar Series Committee. 2020.

Journal Reviewer: Methods in Ecology and Evolution, The Auk/Journal of Ornithology, Avian Conservation and Ecology, Avian Research, Biological Conservation, Condor/Ornithological Applications, Environmental Data Science, Journal of Raptor Research, Waterbirds, Wilson Journal of Ornithology

Reviewer Profile: https://www.webofscience.com/wos/author/record/AAJ-3485-2020

AWARDS AND GRANTS

- University of Minnesota Council of Graduate Students Conference Travel Grant. **$900**. 2022
- University of Minnesota Council of Graduate Students Research Grant. **$500**. 2022
- University of Minnesota DDF Conference Presentation Grant. **$1,000**. 2022
- University of Minnesota Graduate Student Board Professional Development Grant. **$500**. 2022
- The Wildlife Society Wetland Working Group Travel Grant. **$275**. 2022
- University of Minnesota Doctoral Dissertation Fellowship. **$25,000**. 2022
- Best Student Presentation. Annual Meeting of The Wildlife Society. 2021
- University of Minnesota Graduate Student Board Research Fellowship. **$1,000**. 2021
- Wally Dayton Fellowship in Wildlife Research. **$2,000**. 2020
- Minnesota Chapter of The Wildlife Society Research Grant. **$500**. 2020
- University of Minnesota Graduate Student Board Research Fellowship. **$1,000**. 2020
- Millard S. Markle Award for Excellence in Biology. Earlham College. **$500**. 2005
- Earlham College Departmental Honors for Senior Capstone Research Project. 2005

MENTORING EXPERIENCE

Peter Luntz, undergrad, University of Minnesota, collaborating on analysis of avian flight patterns during different wind conditions, (2021-present)
Shyanne Hall, undergrad, University of Minnesota, provide mentorship in lab techniques for DNA extraction, PCR, and study design, (2021–present)
Sophia Waddell, undergrad, University of Minnesota, FRIENDS IN STEM program, monthly meetings to discuss professional development and career options (2021)
Kaia Hilgendorfer-Roost, undergrad, University of Minnesota, Research Apprenticeship Program, provided mentorship in study design, data management, and statistical analysis (2020-2022)
Katherine Dirsmith, Veterinary grad student, USDA APHIS, provided daily mentorship in data management, statistical modeling, and programming, collaborated on technical report and poster presentation (2017-2018)

TEACHING EXPERIENCE

2023 Guest Instructor. **Contemporary Problems in Conservation Biology**. University of Minnesota
2022 Invited Panelist. **Principles of Wildlife Management**. South Dakota State University
2022 Guest Instructor. **Contemporary Problems in Conservation Biology**. University of Minnesota
2020 Graduate Teaching Assistant. **Analysis of Populations**. University of Minnesota
2016 Graduate Teaching Assistant. **Biometry**. University of Minnesota
2005 Course Instructor. **Conservation Biology Projects**. Earlham College
2005 Course Instructor. **Trail Building and Invasive Species Control**. Earlham College
2004 Undergraduate Teaching Assistant. **Cells, Genes, and Inheritance**. Earlham College
2003 Undergraduate Teaching Assistant. **Ecological Biology**. Earlham College
2002 Undergraduate Teaching Assistant. **Ecological Biology**. Earlham College

OPEN ACCESS DATA AND CODE

[5] **Wolfson, D. W.** 2023. Comparison of daily activity patterns across seasons using GPS telemetry and camera trap data for a widespread mammal (v1.0). Zenodo. https://doi.org/10.5281/zenodo.7908800.

[4] **Wolfson, D. W.**, D.E. Andersen, and J. Fieberg. 2022. Data and R code supporting: Using piecewise regression to identify biological phenomena in biotelemetry datasets. Retrieved from the Data Repository for the University of Minnesota. https://doi.org/10.13020/qbha-bs48

[3] Severud, W. J., **D.W. Wolfson**, J. R. Fieberg, and D. E. Andersen. 2021. R code and data supporting: Survival of sandhill crane colts in Minnesota. Retrieved from the Data Repository for the University of Minnesota. https://doi.org/10.13020/qy1k-8269

[2] **Wolfson, D. W.**, J. Fieberg, and D.E. Andersen. 2019. Data and R code supporting: Juvenile sandhill cranes exhibit wider ranging and more exploratory movements than adults during the breeding season. Retrieved from the Data Repository for the University of Minnesota. https://doi.org/10.13020/D6BH7B

[1] **Wolfson, D. W.**, T. Cooper, J. Lawrence, J. Fieberg, and D.E. Andersen. 2017. Data, R code, and output supporting: Range overlap between Mid-Continent and Eastern sandhill cranes revealed by GPS-tracking. Retrieved from the Data Repository for the University of Minnesota. https://doi.org/10.13020/D64P42

RELEVANT PROFESSIONAL FIELD EXPERIENCE

Graduate Research Assistant *July 2019 – present*

University of Minnesota: St. Paul, Minnesota

- GPS-tagged and collected biological samples from Trumpeter Swans in Minnesota for research questions related to annual movement and migration, ecotoxicology, and population genetics
- Maintained a project website including interactive maps of GPS locations for public engagement
- Supervised the logistical coordination of 5 state wildlife agencies and one Canadian province collaborating in all aspects of project fieldwork

Biologist *January 2017 - July 2019*

USDA, Center for Epidemiology and Animal Health: Fort Collins, Colorado

- Modeled drivers of feral swine invasion in North America including demographic vital rates, environmental conditions, and socio-ecological variables
- Oversaw the data management and processing of a ~4 million photo database of wildlife images collected from a long-term monitoring network of camera trap stations

Graduate Research Assistant *April 2014 - May 2017*

University of Minnesota: St. Paul, Minnesota

- Used nightlighting, rocket-nets, and netlaunchers to capture and GPS-tag Sandhill Cranes
- Supervised multiple field crews

Sierra Nevada Red Fox Research Assistant *April 2013 - April 2014*

Mammalian Ecology and Conservation Unit, UC Davis: Bridgeport, California

- Conducted winter trapping for Sierra Nevada red fox
- Year-round non-invasive monitoring of carnivore presence using scat surveys, hair snares and camera traps
- Performed DNA extraction, PCR, and genetic sequencing in the UC Davis/MECU genetics lab

Pacific Fisher Research Technician *December - April 2013*

University of Berkeley/Sierra Nevada Adaptive Management Project: Oakhurst, California

- Used baited camera stations and ground telemetry to detect fisher occupancy
- Conducted weekly aerial telemetry flights using fixed-wing aircraft to locate collared fishers

Carnivore Research Technician *October - November 2012*

Cascades Carnivore Project: Hood River, Oregon

- Conducted non-invasive surveys (scat surveys/camera traps) for Cascade red fox and wolverines

Wildlife Research Technician *April - October 2012*

Yosemite National Park: El Portal, California

- Conducted point counts, nest searching, mist netting, and banding for songbirds
- Conducted occupancy surveys for great gray owls and acoustic monitoring for bats
- Conducted non-invasive sampling using baited camera stations for carnivores
- Conducted line-distance sampling and point counts for alpine mammals
- Authored technical project reports incorporating GIS and data analysis

Mojave Desert Tortoise Research Technician *March - April 2012*

Institute for Wildlife Studies: Mojave Desert, Nevada

- Conducted line distance sampling mark-recapture for Mojave Desert tortoises

Backcountry Point Count Crew Leader *April - August 2011*

Institute for Bird Populations: Yosemite/Sequoia Kings Canyon National Parks, California

- Led crews conducting avian point counts in Yosemite and Sequoia National Parks
- Coordinated pre-season intensive training, and backcountry logistics during the field season

Backcountry Point Count Research Technician *May - August 2009 and 2010*

Institute for Bird Populations: Olympic/Rainier/North Cascades National Parks, Washington

- Conducted point counts for 120+ species of birds in Pacific Northwest national parks
- Extended backpacking trips were required to navigate to survey points in the backcountry.

Carnivore Survey Technician *August - October 2009*

Montana State University: Northern Cascades National Park, Washington

- Conducted occupancy surveys for carnivores using non-invasive methods and scat detection dogs

Marbled Murrelet Research Technician *May - August 2008*

Turnstone Environmental Consultants: Coos Bay, Oregon

- Conducted surveys for Marbled Murrelet occupancy and nest success

Northern Spotted Owl Research Technician *April - August 2006*

Center for Conservation Biology, University of Washington: Covelo, California

- Conducted surveys for Northern Spotted Owls to determine nest status and occupancy
- Conducted intensive behavioral observation, data collection, and physiological sampling.

Herpetological Research Assistant *May - July 2005*

Earlham College: Sandhills Region of Nebraska

- Mark/recapture study of turtles using drift fences, fyke nets, VHF telemetry, nest excavation, pond-seining, data collection and preparation