

David Wolfson

University of Minnesota | 1351 Lafond Ave | Saint Paul, MN 55104 | 574-360-9723 | wolfs064@gmail.com

EDUCATION AND AWARDS

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

- PhD in Wildlife Ecology and Management
- Department of Fisheries, Wildlife, and Conservation Biology
- Minnesota Cooperative Fish and Wildlife Research Unit

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

- M.S. in Wildlife Ecology and Management
- Department of Fisheries, Wildlife, and Conservation Biology
- Minnesota Cooperative Fish and Wildlife Research Unit

Earlham College: Richmond, Indiana 2001 – 2005

- B.S. in Biology; Graduated with College Honors
- Passed Senior Comprehensive Exams with Honors
- Received Departmental Honors for Senior Capstone Research Project
- Millard S. Markle Award for excellence in Biology

RELEVANT FIELD EXPERIENCE

Graduate Research Assistant July 2019 – present

University of Minnesota: St. Paul, Minnesota

- Captured, marked and GPS-tagged Trumpeter Swans in Minnesota
- Collected blood and feather samples for lead concentration and genetic analysis
- Maintain a project website including interactive maps of GPS locations for public engagement

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 database of 10 million wildlife images collected from a long-term monitoring network of camera trap station

Graduate Research Assistant April 2014 - May 2017

University of Minnesota: St. Paul, Minnesota

- Captured, marked and GPS-tagged Sandhill Cranes in Minnesota
- Conducted aerial nest surveys by helicopter
- Supervised multiple field crews
- Collected blood and feather samples for genetic analysis
- Used nightlighting, rocket-nets, and netlaunchers to catch Sandhill Cranes

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
- Monitored Sierra Nevada red fox presence using scat surveys, hair snares and camera traps
- Performed DNA extraction, PCR, and genetic sequencing in the 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
- Conducted trapping and collaring of 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
- Fieldwork contributed to a long-term landscape genomics study of carnivores in the Cascades
- Performed database management and logistical planning when not in the backcountry

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
- Conducted 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 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 logistic

Backcountry Point Count Research Technician*May - August 2009 and 2010**Institute for Bird Populations: Olympic/Rainier/North Cascades National Parks, Washington*

- Conducted independent point counts for birds in Pacific Northwest national parks
- Required to know 120 bird species by sight and sound
- 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 surveys for bobcat, lynx, coyote, mountain lion, wolf and black bear using hair snares, remote cameras, rub pads and scat detection dog teams

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

PUBLICATIONS

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>

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. University of Minnesota Digital Conservancy. <https://doi.org/10.13020/D6BH7B>

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>.

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.

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.

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.

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. University of Minnesota Digital Conservancy. <https://doi.org/10.13020/D64P42>

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

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.

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

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.

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.

Stock, G., J. Roche, M. Buhler, S. Stock, **D. W. Wolfson**, and L. Cline. 2012. Looking Downstream Draft 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

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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

Tabak, M., R. Miller, **D. Wolfson**, M. Norouzzadeh, E. Newkirk, K. VerCauteren and J. Clune. 2020. Automated species identification of camera trap images to improve invasive species control. 2020 International Wild Pig Conference. Jacksonville, Florida.

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.

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.

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.

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.

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.

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.

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

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.

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.

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.

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

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

Wolfson, D. W. 2014. Sandhill cranes in Minnesota. Brainerd Lakes Audubon Society. Brainerd, Minnesota.

TEACHING EXPERIENCE

2020 Graduate Teaching Assistant. Analysis of Populations. University of Minnesota, St. Paul, MN
2016 Graduate Teaching Assistant. Biometry. University of Minnesota, St. Paul, MN
2005 Instructor. Conservation Biology Projects. Earlham College, Richmond, IN
2005 Instructor. Trail Building and Invasive Species Control. Earlham College, Richmond, IN
2004 Undergraduate Teaching Assistant. Cells, Genes, and Inheritance. Earlham College, Richmond, IN
2003 Undergraduate Teaching Assistant. Ecological Biology. Earlham College, Richmond, IN
2002 Undergraduate Teaching Assistant. Ecological Biology. Earlham College, Richmond, IN

PROFESSIONAL MEMBERSHIP

- The Wildlife Society (2011-present)
- The Wildlife Society Minnesota Chapter (2014-present)
- The Wildlife Society Spatial Ecology and Telemetry Working Group (2014-present)
- The Wildlife Society Biometrics Working Group (2017-present)

GRANTS RECEIVED

Wally Dayton in Wildlife Research. 2020. *Evaluation of genomic diversity of Trumpeter Swans*. University of Minnesota Department of Fisheries, Wildlife and Conservation Biology Department. \$2,000.

CERTIFICATIONS AND SKILLS

Certifications

- DOI Motorboat Operator Certification Course
- Wilderness First Aid
- Basic First Aid and CPR

Analytical Skills

- Knowledge of R for data manipulation, visualization and statistical analysis
- Working knowledge of Python, SQL, Unix and Git

JOURNAL REVIEWS

Biological Conservation, Journal of Raptor Research (2), Condor (2), Avian Research