

ABIGAIL J. LAWSON, PH.D.

Assistant Unit Leader – Wildlife and Affiliate Assistant Professor
U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit
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EDUCATION

- 2019 **Ph.D. in Wildlife and Fisheries Biology**, Clemson University, Clemson, South Carolina
2012 **M.S. in Natural Resources and Environmental Sciences**, University of Nevada, Reno
2007 **B.S. in Wildlife, Fish, and Conservation Biology**, University of California, Davis

PROFESSIONAL HISTORY

- 2021 – Present **Assistant Unit Leader – Wildlife (GS-13)**, U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit, New Mexico State University
2020 – 2021 **Postdoctoral Research Ecologist (GS-12)**, U.S. Geological Survey, Patuxent Wildlife Research Center
2019 – 2020 **Postdoctoral Fellow**, School of Forestry and Wildlife Sciences, Alabama Cooperative Fish and Wildlife Research Unit, Auburn University
2013 – 2019 **Graduate Research Assistant**, Dept. of Forestry and Environmental Conservation, South Carolina Cooperative Fish and Wildlife Research Unit, Clemson University
2010 – 2012 **Graduate Research Assistant**, Dept. Natural Resources and Environmental Sciences, University of Nevada, Reno

ACADEMIC APPOINTMENTS

- 2022 – Present Affiliate Assistant Professor, Department of Biology, New Mexico State University
2021 – Present Affiliate Assistant Professor, Department of Fish, Wildlife, and Conservation Ecology, New Mexico State University
2021 – Present Member of Graduate Faculty, New Mexico State University
2021 – Present Affiliate Faculty, Department of Ecosystems and Society, Oregon State University

REFEREED PUBLICATIONS († Mentored student or postdoc)

In review or revision

Howell, P.E., †K.P. Davis, G. Zimmerman, H. White, **A.J. Lawson**, M.J. Eaton, M.A. Boggie, O.J. Robinson, K. Madden, B. Millsap. *In revision*. American kestrel population trend and vital rates at the continental scale. *Ecosphere*.

Published and in press

- [10] †Christensen, E.M., **A.J. Lawson**, E. Rivenbark, P.K. London, D. Castellanos, J.C. Culbertson, S.M. DeMay, C. Eakin, B. Firmin, L.S. Pearson, K. Soileau, J.H. Waddle, and C.P. McGowan. 2024. Accounting for multiple uncertainties in a population viability assessment using expert judgement. *Biological Conservation* 299:110811. doi: [10.1016/j.biocon.2024.110811](https://doi.org/10.1016/j.biocon.2024.110811)
- [9] Stantial, M.L., A.M.V. Fournier, **A.J. Lawson**, B. Marcot, M.S. Woodrey, and J.E. Lyons. 2024. Establishment of a resilience-experimentalist adaptive management framework to understand the effects of prescribed fire on threatened and hunted species in high marshes of the Gulf of Mexico. *Frontiers in Conservation Science* 5. doi: [10.3389/fcosc.2024.1426646](https://doi.org/10.3389/fcosc.2024.1426646).
- [8] Dunham, K.D., P.K. Devers, **A.J. Lawson**, J.E. Lyons, C.P. McGowan, and J.A. Royle. 2023. Strategic monitoring to minimize misclassification errors from conservation status assessments. *Biological Conservation* 286:110260. doi: [10.1016/j.biocon/2023.110260](https://doi.org/10.1016/j.biocon/2023.110260)
- [7] Stantial, M.L., **A.J. Lawson**, A.M.V. Fournier, P. Kappes, C. Kross, M.C. Runge, M. Woodrey, and J.E. Lyons. 2023. Qualitative value of information: A transparent and repeatable method for prioritizing learning about conservation and management actions. *Ecological Applications* 33:e2824. doi: [10.1002/eap.2824](https://doi.org/10.1002/eap.2824).
- [6] **Lawson, A.J.**, P.G.R. Jodice, T.R. Rainwater, K.D. Dunham, M. Hart, J.W. Butfiloski, P.M. Wilkinson, K.W. McFadden, and C.T. Moore. 2022. Hidden in plain sight: Integrated population models to resolve partially observable latent population structure. *Ecosphere* 13:e4321. doi: [10.1002/ecs2.4321](https://doi.org/10.1002/ecs2.4321)
- [5] **Lawson, A.J.**, K. Kalasz, M.C. Runge, A.C. Schwarzer, M.L. Stantial, M. Woodrey, and J.E. Lyons. 2022. Application of qualitative value of information to prioritize conservation actions for eastern black rail population recovery. *Conservation Science and Practice* 4:e12732. doi: [10.1111/csp2.12732](https://doi.org/10.1111/csp2.12732)
- [4] **Lawson, A.J.**, B. Folt, A.M. Tucker, F.T. Erickson, and C.P. McGowan. 2021. Decision context as an essential component of population viability assessment. *Conservation Biology* 35:1683–1685. doi: [10.1111/cobi.13818](https://doi.org/10.1111/cobi.13818)
- [3] **Lawson, A.J.**, C.T. Moore, T.R. Rainwater, P.M. Wilkinson, F.M. Nilsen, L.J. Guillette Jr., R.H. Lowers, K.W. McFadden, and P.G.R. Jodice. 2020. Minimum age predicts non-linear mercury bioaccumulation patterns in adult American alligators. *Science of the Total Environment* 707:135103. doi: [10.1016/j.scitotenv.2019.135103](https://doi.org/10.1016/j.scitotenv.2019.135103)
- [2] **Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2017. Identifying demographic and environmental drivers of recruitment and population growth in a cavity nesting sea duck population. *Journal of Avian Biology* 48:1394–1405. doi: [10.1111/jav.001359](https://doi.org/10.1111/jav.001359)
- [1] **Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2017. Life history patterns, individual heterogeneity, and density dependence in breeding common goldeneyes of the northern boreal forest. *Journal of Avian Biology* 48:597–610. (**Cover Article**) doi: [10.1111/jav.00975](https://doi.org/10.1111/jav.00975)

In prep – fully drafted

- †Davis, K.P., M.J. Eaton, E.R. Bjerre, M.A. Boggie, K.K. Madden, O.J. Robinson, H.M. White, C.W. Boal, J.H. Herner-Thogmartin, **A.J. Lawson**. Collaborative research prioritization for potential drivers of population declines for the American kestrel in the United States. Target: in final coauthor review for fall submission to *Conservation Biology*.
- †Boland, K.C., **A.J. Lawson**, †D.M. Osterhaus, P.L. Cutler, G.A. Davidson, M.J. Desmond. Detection rates and driving factors for human and dog carcass surveyors. Target: in final coauthor review for fall submission to *Animal Conservation*.
- †Osterhaus, D.M. †K.C. Boland, **A.J. Lawson**, K.G. Horton, B.M. Van Doren, P.L. Cutler, T.F. Wright, M.J. Desmond. Migrating birds alter behavior around localized artificial light at night. In initial coauthor review.

THESES AND BOOK CHAPTERS

- Lawson, A.J.** 2019. Reducing uncertainties in conservation decision-making for American alligators. Dissertation. Clemson University, Clemson, SC, USA. 233 pp.
- Lawson, A.J.**, B.A. Strickland, and A.R. Rosenblatt. 2018. Patterns, drivers and effects of alligator movement behavior and habitat use. *In* American Alligators: Habitats, Behaviors, and Threats. S.E. Henke and C.B. Eversole, Editors. Nova Science Publishers, Hauppauge, NY, USA.
- Lawson, A.J.** 2012. Life history patterns and population dynamics of Common Goldeneyes in the northern boreal forest. Thesis. The University of Nevada, Reno. Reno, NV, USA. 136 pp.

PEER-REVIEWED GOVERNMENT REPORTS

- Christensen, E.M., **A.J. Lawson**, and C.P. McGowan. *In press*. Appendix I. Alligator snapping turtle future conditions model methods and results. *In* U.S. Fish and Wildlife Service, Species status assessment report for the alligator snapping turtle (*Macrochelys temminckii*), Version 1.3. Atlanta, GA, USA.
- Lawson, A.J.** 2021. Appendix E. Future conditions and population viability of the alligator snapping turtle. *In* U.S. Fish and Wildlife Service, Species status assessment report for the alligator snapping turtle (*Macrochelys temminckii*), Version 1.2. Atlanta, GA, USA. Document ID: [FWS-R4-ES-2021-0115-0002](#)
- Lawson, A.J.** 2021. Appendix C. Future conditions and population viability of the Suwannee alligator snapping turtle. *In* U.S. Fish and Wildlife Service, Species status assessment report for the Suwannee alligator snapping turtle (*Macrochelys suwanniensis*), Version 1.1. Atlanta, GA, USA. Document ID: [FWS-R4-ES-2021-0007-0002](#)

DATA AND SOFTWARE RELEASES

- [5] Christensen, E.M., **A.J. Lawson**, C.P. McGowan. 2024. Alligator snapping turtle population simulation model developed in support of the Species Status Assessment. Version 1.0.0; U.S. Geological Survey software release. Reston, VA. <https://doi.org/10.5066/P1LHWZFU>
- [4] **Lawson, A.J.**, K.D. Dunham, and C.T. Moore. 2022. American alligator growth simulation and integrated population model for Georgetown County, South Carolina, USA. U.S. Geological Survey software release, <https://doi.org/10.5066/P92I95YE>
- [3] **Lawson, A.J.**, P.G.R. Jodice, T.R. Rainwater, K.D. Dunham, M. Hart, J.W. Butfiloski, P.M. Wilkinson, and C.T. Moore. 2022. American alligator demographic and harvest data from Georgetown County, South Carolina, 1979–2017. U.S. Geological Survey data release, <https://doi.org/10.5066/P9AEXW1Z>
- [2] **Lawson, A.J.**, and Lyons, J.E. 2022, Elicited qualitative value of information scores for eastern black rail uncertainties on the Atlantic Coast from a 2020 adaptive management workshop U.S. Geological Survey data release, <https://doi.org/10.5066/P9FUQ7VT>.
- [1] **Lawson, A.J.**, and Jodice, P.G.R., 2019, Mercury concentrations in American alligators in South Carolina, 2010–2017: U.S. Geological Survey data release, <https://doi.org/10.5066/P98XHBCY>

SELECTED RESEARCH GRANTS AND CONTRACTS (\$3.80M AWARDED AS PI, CO-PI, OR AUTHOR)

Grant source, Title, Years Active, Role

U.S. Fish and Wildlife Service, Migratory Bird Management, Southwest Region. <i>Ducks in the desert: Behavioral interactions and space use of wetlands by Mexican Ducks and Mallards in the arid Southwest</i> . Principal Investigator; Co-PI: Tim Wright.	\$36,924
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Tracy Aviary. <i>Investigating population structure and effects of recreational disturbance on vocal activity in Rosy-Finches</i> . 2024–2026. Principal Investigator; Co-author: Whitney Watson.	\$14,000
U.S. Bureau of Reclamation. <i>Decision support tools to guide environmental flows and habitat management in the middle Rio Grande River</i> . 2024–2028. Principal Investigator; Co-PI: Kasey Pregler.	\$797,480
U.S. Fish and Wildlife Service, Ecological Services, Southwest Region. <i>Conservation of imperiled species in New Mexico</i> . 2023–2028. Principal Investigator.	\$45,342
U.S. Fish and Wildlife Service, Migratory Bird Management, National Raptor Program. <i>Modeling raptor population status, trends, and take rates</i> . 2023–2025. Co-PI with: Fitsum Abadi (PI) and Jay Gedir.	\$1,056,558
U.S. Fish and Wildlife Service, Ecological Services, Southeast Region. <i>Developing and evaluating tools for expert elicitation integration with population viability models</i> . 2023–2027. Co-PI with Conor McGowan (PI).	\$250,514
National Park Service. <i>Developing an evaluation framework to inform NPS coastal infrastructure investment decisions</i> . 2023. Co-PI with: Mitch Eaton, Karen Jenni, Simeon Yurek. (Received as subaward via U.S. Geological Survey Southeast Climate Adaptation Science Center)	\$11,275
New Mexico Department of Game and Fish, Share With Wildlife. <i>Inferring Brown-capped Rosy-Finch demography and breeding distribution trends from long-term wintering data in New Mexico</i> . 2023–2024. Principal Investigator; Co-PIs: Corrie Borgman, Steve Cox.	\$81,368
U.S. Geological Survey, South Central Climate Adaptation Science Center. <i>Decision Support for Sustainable Raptor Take Limits in a Changing Climate</i> . 2023–2025. Principal Investigator; Co-PIs: Paige E. Howell, Brian A. Millsap, Mitch Eaton, Orin J. Robinson, Imtiaz Rangwala. (Total includes \$60K in matching funds from NMSU)	\$292,972
U.S. Fish and Wildlife Service, Migratory Bird Management, Southwest Region. <i>Inferring Rosy-Finch demography and breeding distribution trends from long-term wintering data in New Mexico</i> . 2022–2026. Principal Investigator; Co-PIs: Corrie Borgman, Steve Cox.	\$41,225
U.S. Fish and Wildlife Service, Ecological Services. <i>Reconciling range-wide uncertainties in alligator Snapping turtle population viability using expert elicitation</i> . 2022–2024. Principal Investigator; Co-PI: Conor McGowan.	\$138,601
U.S. Department of Agriculture-National Institute of Food and Agriculture Hispanic Serving Institutions Education Grants Program. 2022–2026. <i>Prepping for disaster ecology: HSI-based training for managing climate change impacts on migratory birds</i> . Co-PI with: Timothy F. Wright (PI), Martha Desmond, Jeanne Fair.	\$270,000

Turner Ecoagriculture Institute. <i>Survivorship and habitat use of reintroduced Bolson tortoises in southern New Mexico</i> . 2022–2025. Principal Investigator; Co-PIs: Carter, Kruse, Christiane Wiese, L. Scott Hillard, Shawn Sartorius, Debra Hill, Vance Wolf.	\$172,000
U.S. Fish and Wildlife Service, Science Support Partnerships. <i>Identifying environmental and demographic drivers of American kestrel population declines to inform conservation actions</i> , 2022–2023. Principal Investigator; Co-PIs: Paige E. Howell, Matthew A. Boggie, Brian A. Millsap, Guthrie S. Zimmerman, Kristin Madden, and Orin J. Robinson.	\$147,719
U.S. Fish and Wildlife Service, Science Applications. <i>Identifying Mechanisms of Reintroduction Outcomes: White-tailed Ptarmigan in New Mexico</i> , 2021–2024, Principal Investigator.	\$98,175
New Mexico Department of Game and Fish, <i>Reintroduction Ecology at a Species Distributional Boundary: White-tailed Ptarmigan in New Mexico</i> , 2021–2024, Principal Investigator.	\$181,700
U.S. Fish and Wildlife Service, <i>Evaluating Survey Protocols and the Influence of Management and Ecological Drivers on Eastern Black Rail Abundance and Occupancy</i> , 2020–2021, Co-Principal Investigator (Co-PI: Jim E. Lyons)	\$40,000
Yawkey Foundation I, <i>Habitat selection of an opportunistic predator in a fragmented landscape: American alligator movement ecology in coastal South Carolina</i> , 2015, Author, co-investigator (PI Patrick G.R. Jodice)	\$24,000
South Carolina Department of Natural Resources, <i>Coastal South Carolina American alligator movement ecology</i> , 2014–2016, Author, co-investigator (PI Kate W. McFadden)	\$98,600

SELECTED FELLOWSHIPS, HONORS, AND AWARDS

- 2022 USGS STAR Award, Digital Measures Working Group
- 2018 Travel Grant, Biometrics Working Group, The Wildlife Society (\$700)
- 2017–18 Wade Stackhouse Fellowship, Clemson University (\$15,000)
- 2017–18 Marion E. Bailey Assistantship, Clemson University (\$7000)
- 2013–18 Professional Enrichment Grants, Clemson University (8 total: \$8,923)
- 2017 Stephen L. Potts Memorial Award, Clemson University (\$1000)
- 2017 Graduate Student Scholarship, South Carolina Wildlife Federation (\$500)
- 2014 First Place, Poster Presentation Life Science, Clemson University (\$300)
- 2014 First Place, PhD Research in Progress Poster, The Wildlife Society Annual Conference
- 2012 Student Travel Award, Sixth North American Duck Symposium and Workshop (\$700)
- 2011–12 Travel Grants, University of Nevada, Reno Graduate Student Association (2 total: \$900)

- 2011 Dennis G. Raveling Scholarship, California Waterfowl Association (\$1000)
- 2007 Outstanding Graduating Senior Leadership Award, University of California, Davis

TEACHING EXPERIENCE

Graduate Courses

Model Selection and Multimodel Inference in Ecology (FWCE 535: 1 CR), New Mexico State University, Spring 2024 (6 students)

Structured Decision Making in Fish and Wildlife Management (FWCE 535: 3 CR), New Mexico State University, Spring 2023 (5 students), 2025 (*scheduled*)

Undergraduate Courses

Introduction to Natural Resources (ENR 1010: 1 CR), Clemson University, Fall 2017 (94 students)

Short Courses

Introduction to Structured Decision Making (ALC3171). National Conservation Training Center, U.S. Fish and Wildlife Service. September 2024, March 2025 (*scheduled*)

Invited Guest Lectures

Current Topics in Biology (BIOL 510), New Mexico State University. Insights for Pursuing a Research Career With the Federal Government. November, 2024.

Value-Added Conservation: Qualitative Value of Information to Prioritize Uncertainties in Avian Conservation, U.S. Fish and Wildlife Service, Introduction to Structured Decision Making. September 2022.

Bayesian Modeling for Conservation Science (WILD 8370, 3 credits), University of Georgia. Hidden in Plain Sight: Identifying Latent Population Structure with Bayesian Population Models. April 2020, 2022.

Population Ecology, Cesar Kleberg Wildlife Research Institute, Texas A&M University. Species Status Assessments: Applied Population Ecology and Decision Analysis. April 2021.

Graduate Seminar in Natural Resources (FNR 8080, 1 credit), Clemson University. Science Communication and Social Media in Graduate School. October 2017, April 2018.

Natural Resource Measurements (ENR 3020, 2 credits), Clemson University. South Carolina American Alligator Population Ecology. March 2017, 2018.

Applied Population Dynamics (WFB 8610, 3 credits), Clemson University. Management of Harvested Populations. March 2014.

Workshop Instructor

Productivity and Time Management in Graduate School, New Mexico State University. November 2024. In collaboration with Dr. Jeanne Fair.

Quantitative Techniques for Species Status Assessments, USFWS Training Course. December 2019.

How to Successfully Apply for a Professional Enrichment Grant. Natural Resources Graduate Student Association, Clemson University. August 2016.

STUDENT AND POST-DOCTORAL ADVISING

Graduate Students – As Advisor

[4] Coral Matos-Sepulveda, M.S. Student, (Co-advised by Tim Wright), New Mexico State University, January 2023 – Present

- [3] Whitney Watson, Ph.D. Student, New Mexico State University, January 2023 – Present
- [2] Heather Zimba, M.S. Student, New Mexico State University, May 2022 – Present
- [1] James Lee, M.S. (non-thesis) Student, New Mexico State University, May 2021 – Present

Post-Doctoral Associates

Current

- [2] Dr. Hyun Seok Yoon, August 2024 – Present
- [1] Dr. Chris Vennum, April 2023 – Present

Completed

- [2] Dr. Kristin Davis, October 2022 – July 2024; Currently a postdoc at the University of California, Berkeley
- [1] Dr. Erica Christensen, October 2022 – January 2024; Currently a biologist with USGS Fort Collins Science Center

Graduate Committee Membership

Current

- [1] Dylan Osterhaus, Ph.D., New Mexico State University, Oct. 2021– Present

Completed

- [4] Kelley Boland. An evaluation of avian mortality on White Sands Missile Range and carcass survey techniques. M.S. Thesis, New Mexico State University. Completed: 2024.
- [3] Guilio Del Piccolo, Habitat Use, Movement, and Population Viability of the Chihuahua Chub in the Mimbres River, New Mexico. M.S. Thesis, New Mexico State University. Completed: 2023.
- [2] John Smith. Evaluation of Sampling Designs for the Long-term Monitoring of Crayfish in Lentic and Lotic Systems. M.S. Thesis, New Mexico State University. Completed: 2023; Thesis:
- [1] Anthony Ciocco. Structured decision making for Bureau of Indian Affairs Agricultural Resource Management Plans. M.N.R. Capstone, Oregon State University. Completed: 2022.

Undergraduate Research Fellows

Current

- [3] Emma Varela, New Mexico State University, 2024 – Present
- [2] Kadence Presser, New Mexico State University, 2024 – Present
- [1] Leona Crowl, New Mexico State University, 2023 – Present

Completed

- [1] Cynthia Dunkleberger, New Mexico State University, 2023; *Intra-feather variation of hydrogen stable isotope ratios in Brown-capped Rosy-finch feathers*; Currently a biologist with USFWS Valle de Oro National Wildlife Refuge

INVITED RESEARCH SEMINARS

- Lawson, A.J.** 2022. Confronting uncertainty in wildlife conservation with decision support science for data deficient species. Department of Biological Sciences, New Mexico State University; 13 October, 2022.
- Lawson, A.J.** 2020. Uncertainty is inevitable, suffering is optional: application of ecological theory and statistical modeling to improve management decision making. Department of Fish, Wildlife, and Conservation Ecology, New Mexico State University, Virtual; 20 November, 2020.

SCIENTIFIC CONFERENCE PRESENTATIONS – Last five years

Invited Presentations (Presenter underlined if not first author, † student or postdoc author)

- Lawson, A.J., and M.C. Runge. 2024. Constructed value of information to prioritize critical uncertainties. *The Wildlife Society Annual Conference*; Baltimore, Maryland. October 19–23, 2024.
- Lyons, J.E., M.L. Stantial, A.J. Lawson, A. Fournier, M.C. Runge, M. Woodrey. 2024. Constructed Value of Information in the Context of Adaptive Management: Reducing Uncertainty About Prescribed Fire and Birds in Salt Marshes of the Gulf of Mexico. *The Wildlife Society Annual Conference*; Baltimore, Maryland. October 19-23, 2024.
- Watson, W.A., C.C. Borgman, S.C. Cox, E. Duvuvuei, T.F. Wright, A.J. Lawson. 2024. Inferring Breeding Origins of Rosy-finches Overwintering in Northern New Mexico Using Stable Hydrogen Isotopes. *American Ornithological Society Annual Conference*; Estes Park, Colorado. October 1–5, 2024.
- Lawson, A.J., E. Rivenbark, C.P. McGowan. 2022. Reconciling and propagating uncertainty from expert elicited data into decision support population viability analyses. *The Wildlife Society Annual Conference*, Spokane, Washington. November 6–10, 2022.
- McGowan, C.P., A.J. Lawson, B.A. Crawford, R.A. Katz. 2022. Application of expert elicitation to inform conservation decision making. *The Wildlife Society Annual Conference*, Spokane, Washington. November 6–10, 2022.
- Stantial, M.L., A.M.V. Fournier, A. Godar, A.J. Lawson, J.E. Lyons. 2022. Using an expert-based Bayesian network to inform the use of prescribed fire in high marshes of the Gulf of Mexico. *The Wildlife Society Annual Conference*, Spokane, Washington. November 6–10, 2022.
- Lawson, A.J., J.H. Gardner, M.L. Stantial, and C.S. Rushing. 2022. Value added conservation: prioritizing critical uncertainties for rosy-finch conservation in a warming world. *Institute for Operations Research and Management Sciences*, Indianapolis, Indiana. October 16–19, 2022.
- Stantial, M.L., A.J. Lawson, A.M.V. Fournier, P. Kappes, C. Kross, M.C. Runge, M. Woodrey, J.E. Lyons. 2022. Application of qualitative value of information for identifying critical uncertainties regarding the use of prescribed fire in the Gulf of Mexico. *Institute for Operations Research and Management Sciences*, Indianapolis, Indiana. October 16–19, 2022.
- Lawson, A.J., J.H. Gardner, J.E. Lyons, C.S. Rushing, M.L. Stantial, M.C. Runge. 2022. Value-added conservation: Prioritizing critical uncertainties in avian conservation using value of information. *Wilson Ornithological Society*, Santa Fe, New Mexico. July 17–20, 2022.
- Stantial, M.L., A.J. Lawson, A.M.V. Fournier, P. Kappes, C. Kross, M.C. Runge, M. Woodrey, J.E. Lyons. 2021. Qualitative Value of Information Provides a Transparent and Repeatable Method for Identifying Critical Uncertainty Regarding the Use of Prescribed Fire to Benefit Black Rails and Other Marshbirds. *American Geophysical Union Fall Meeting*, Virtual; 13–17 December 2021.
- Lawson, A.J., M.L. Stantial, M.D. Correll, M. Hartley, K. Kalasz, M.C. Runge, A. Schwarzer, C. Watson, A. Weldon, and J.E. Lyons. 2021. Reducing uncertainties in eastern black rail conservation: qualitative value of information to identify field experiments in a resilience-experimentalist adaptive management framework. *The Wildlife Society Annual Conference*, Virtual; 1–5 November 2021.
- Correll, M.D., A.J. Lawson, M. Hartley, M.L. Stantial, C. Watson, A. Weldon, and J.E. Lyons. 2021. Reducing uncertainties in eastern black rail conservation: identifying species and management needs for a rare and highly cryptic marsh bird. *The Wildlife Society Annual Conference*, Virtual; 1–5 November 2021.
- Lawson, A.J., M.L. Stantial, A.D. Smith, and J.E. Lyons. 2021. Best-case scenario planning: evaluating tradeoffs among abundance and occupancy monitoring frameworks to detect eastern black rail population trends in optimal habitat. *The Wildlife Society Annual Conference*, Virtual;

1–5 November 2021.

Lyons, J.E., **A.J. Lawson**, M.L. Stantial, A. Weldon. 2021. Ecology and conservation of Eastern black rail: Road to recovery through management. *The Wildlife Society Annual Conference*, Virtual; 1–5 November 2021.

Stantial, M.L., **A.J. Lawson**, A.M.V. Fournier, P. Kappes, C. Kross, M.C. Runge, M. Woodrey, J.E. Lyons. 2021. Qualitative Value of Information Provides a Transparent and Repeatable Method for Identifying Critical Uncertainty Regarding the Use of Prescribed Fire to Benefit Black Rails and Other Marshbirds. *The Wildlife Society Annual Conference*, Virtual; 1-5 November 2021.

Lawson, A.J., J.E. Lyons, K. Kalasz, M.C. Runge, M. Woodrey. 2020. Application of Value of Information to Prioritize Conservation Actions for the Eastern Black Rail. *Institute for Operations Research and Management Sciences*, Virtual; 8-13 November 2020.

Contributed Presentations (Presenter underlined if not first author, † student or postdoc author)

Vennum, C.R., M.J. Eaton, P.E. Howell, B.A. Millsap, I. Rangwala, O.J. Robinson, **A.J. Lawson**. 2024. Incorporating Climate Uncertainty into Integrated Population Models for Raptors with Contrasting Migration Strategies. *Raptor Research Foundation*; Charlotte, North Carolina. October 22-27, 2024.

Lawson, A.J., J.H. Gardner, M.L. Stantial, T. Regan, C.S. Rushing. 2024. Value added conservation: prioritizing critical uncertainties for collaborative conservation of Rosy-Finches in a warming world. *The Wildlife Society Annual Conference*; Baltimore, Maryland. October 19-23, 2024.

Vennum, C.R., M.J. Eaton, P.E. Howell, B.A. Millsap, I. Rangwala, O.J. Robinson, **A.J. Lawson**. 2024. Incorporating Climate Uncertainty into Integrated Population Models for Raptors with Contrasting Migration Strategies. *The Wildlife Society Annual Conference*; Baltimore, Maryland. October 19-23, 2024.

†Boland, K.C., P.L. Cutler, G.A. Davidson, **A.J. Lawson**, †D.M. Osterhaus, M.J. Desmond. 2024. Comparing detection methods to quantify mass avian mortality on the White Sands Missile Range. *American Ornithological Society Annual Conference*; Estes Park, Colorado. October 1–5, 2024.

†Osterhaus, D.M., K.C. Boland, **A.J. Lawson**, K.G. Horton, D.M. Van Doren, T.F. Wright, M.J. Desmond. 2024. Small lights, big problems? Behavioral alteration in migrating birds around artificial light at night. *American Ornithological Society Annual Conference*; Estes Park, Colorado. October 1–5, 2024.

†Watson, W.A., C.C. Borgman, S. Cox, T.F. Wright, **A.J. Lawson**. 2024. Rosy-finch survival estimation based on long-term wintering data in New Mexico. *Joint Annual Meeting of Arizona/New Mexico Chapters of The Wildlife Society*; Flagstaff, Arizona. February 1–3rd, 2024.

†Zimba, H., M. McCaffery, C. Wiese, S. Hillard, **A.J. Lawson**. 2024. Burrow site selection of translocated juvenile Bolson tortoises. *Joint Annual Meeting of Arizona/New Mexico Chapters of The Wildlife Society*; Flagstaff, Arizona. February 1–3rd, 2024.

†Vennum, C.R., M.J. Eaton, P.E. Howell, B.A. Millsap, I. Rangwala, O.J. Robinson, and **A.J. Lawson**. 2023. Incorporating Dynamic Climate Effects into Decision Support Models to Inform Raptor Take Limits for Swainson’s Hawks in the Central Flyway. *Chihuahuan Desert Conference*; El Paso, Texas. November 15–17, 2023.

†Watson, W.A., C.C. Borgman, S. Cox, T.F. Wright, **A.J. Lawson**. 2023. Inferring demographic trends of Rosy-finches from long-term wintering data in New Mexico. *Chihuahuan Desert Conference*; El Paso, Texas. November 15–17, 2023.

†Zimba, H., M. McCaffery, C. Wiese, S. Hillard, **A.J. Lawson**. 2023. Daily Activity Patterns and Home Range of Translocated Bolson Tortoises. *Chihuahuan Desert Conference*; El Paso, Texas. November 15–17, 2023.

- †Christensen, E., C.P. McGowan, D. Castellanos, J. Culbertson, C. Eakin, B. Firmin, P.K. London, L. Pearson, E. Rivenbark, **A.J. Lawson**. 2023. Evaluating Sensitivity of Expert Elicited Parameters Within Decision Support Population Viability Analyses. *The Wildlife Society Annual Conference*; Louisville, Kentucky. November 5–9, 2023.
- †Davis, K.P., E.R. Bjerre, C.W. Boal, M.A. Boggie, M.J. Eaton, J.H. Herner-Thogmartin, P.E. Howell, K. Madden, B. Millsap, O.J. Robinson, H. White, G. Zimmerman, **A.J. Lawson**. 2023. Collaborative Research Prioritization to Evaluate Potential Drivers of Population Declines for the American Kestrel in North America. *The Wildlife Society Annual Conference*; Louisville, Kentucky. November 5–9, 2023.
- Lawson, A.J.**, M. Correll, K.D. Dunham, A.D. Smith, M.L. Stantial, and J.E. Lyons. 2023. Accounting for model convergence failure when evaluating tradeoffs in meta-population monitoring program designs for cryptic species. *The Wildlife Society Annual Conference*; Louisville, Kentucky. November 5–9, 2023.
- †Davis, K.P., E.R. Bjerre, C.W. Boal, M.A. Boggie, M.J. Eaton, J.H. Herner-Thogmartin, P.E. Howell, K. Madden, B. Millsap, O.J. Robinson, H. White, G. Zimmerman, **A.J. Lawson**. 2023. Collaborative Research Prioritization to Evaluate Potential Drivers of Population Declines for the American Kestrel in North America. *Raptor Research Foundation*; Albuquerque, New Mexico. October 17–22, 2023.
- Howell, P.E., †K.P. Davis, G. Zimmerman, H. White, **A.J. Lawson**, M.J. Eaton, M.A. Boggie, O.J. Robinson, K. Madden, B. Millsap. 2023. Estimating American Kestrel population vital rates at a broad geographic scale. *Raptor Research Foundation*; Albuquerque, New Mexico. October 17–22, 2023.
- †Boland, K.C., **A.J. Lawson**, M.J. Desmond. 2023. Comparing detection methods to quantify mass avian mortality on the White Sands Missile Range. *New Mexico Ornithological Society*; Carlsbad, New Mexico. April 29-30, 2023.
- †Lee, J.B., D.J. Vargo, J. Bulger, E. Goldstein, M.A. Boggie, **A.J. Lawson**. 2022. Reintroduction of white-tailed ptarmigan in New Mexico. *Wilson Ornithological Society Meeting*; Virtual. July 2022.
- Stantial, M.L., A.M.V. Fournier, A.J. Godar, **A.J. Lawson**, P.K. Kappes, C.S. Kross, M.S. Woodrey, J.E. Lyons. 2022. Informing the use of prescribed fire in an adaptive management framework for Gulf of Mexico high marshes using an expert-based Bayesian decision network. *Gulf of Mexico Conference*; Baton Rouge, Louisiana. April 25-28, 2022.
- †Lee, J.B., †D.J. Vargo, J. Bulger, E. Goldstein, M.A. Boggie, **A.J. Lawson**. 2022. Reintroduction of white-tailed ptarmigan in New Mexico. *New Mexico Ornithological Society Meeting*; Virtual. March 2022.
- Lawson, A.J.**, J.E. Lyons, K. Kalasz, M.C. Runge, A. Schwarzer, M.L. Stantial, M. Woodrey. 2020. Application of Value of Information to Prioritize Conservation Actions for the Eastern Black Rail on the Atlantic Coast. *The Waterbirds Society Meeting*; Virtual. November 3–13 2020.
- Lawson A.J.**, DeMay SM, Rivenbark E, Soileau K, London K, Waddle JH, Yarborough L, Coppola C, and McGowan, CP, 2020, Accounting for Multiple Uncertainties to Evaluate Population Viability of the Alligator Snapping Turtle for the Species Status Assessment. *The Wildlife Society Annual Conference*; Virtual. October 2020.

POSTER PRESENTATIONS – Last five years (Presenter underlined if not first author, † student or postdoc author)

- †Crowl, L.S. †K.P. Davis, **A.J. Lawson**. 2024. Is nest defense behavior in American Kestrels is positively associated with higher nest success? *American Ornithological Society Annual*

Conference; Estes Park, Colorado. October 1–5, 2024.

- †Matos-Sepulveda, C., T.F. Wright, D.P. Collins, P. Lavretsky, **A.J. Lawson**. 2024. Movement and home range of Mexican Ducks and Mallards in southeastern Arizona. *American Ornithological Society Annual Conference*; Estes Park, Colorado. October 1–5, 2024.
- †Presser, K., †W.A. Watson, C.C. Borgman, S. Cox, E. Duvuvuei, **A.J. Lawson**. 2024. Intra-feather variation in stable hydrogen isotopes of rosy-finch feathers. *American Ornithological Society Annual Conference*; Estes Park, Colorado. October 1–5, 2024.
- Wright, T.F., **A.J. Lawson**, J.M. Fair, M.J. Desmond. 2024. Prepping for disaster ecology: the Avian Migration Program at New Mexico State University. *American Ornithological Society Annual Conference*; Estes Park, Colorado. October 1–5, 2024.
- Fair, J.M., **A.J. Lawson**, T.F. Wright, M.J. Desmond. 2024. Ecological Security and Ecological Disasters: Defining the Fields and Applications for the Future Environmental and Climate Resilience. *Symposium on Climate Security*; Santa Fe, New Mexico. June 26-27, 2024.
- †Matos-Sepulveda, C., T.F. Wright, D.P. Collins, and **A.J. Lawson**. 2023. Stock tank use by Mallard and Mexican Ducks in arid southeastern Arizona. *Chihuahuan Desert Conference*; El Paso, Texas. November 15-17, 2023.

TECHNICAL AND STAKEHOLDER MEETING PRESENTATIONS – Last five years

- 2024 Alligator snapping turtle Species Status Assessment Recommendation Team Meeting, Version 1.3. *U.S. Fish and Wildlife Service, Region 4, Virtual*.
- 2021 Alligator snapping turtle Species Status Assessment Recommendation Team Meeting, Version 1.2. *U.S. Fish and Wildlife Service, Region 4, Atlanta, GA*.
- Eastern black rail adaptive management on the Atlantic Coast and Gulf of Mexico: Stakeholder Webinar. *USFWS Atlantic Coast Joint Venture, National Atmospheric and Oceanic Administration*.
- 2020 Suwannee alligator snapping turtle Species Status Assessment Recommendation Team Meeting. *U.S. Fish and Wildlife Service, Region 4, Atlanta, GA*.

COACHING AND FACILITATION EXPERIENCE

Decision Consultant, ‘Ask a Decision Analyst’ session at The Wildlife Society Annual Conference: 2023, 2024.

Co-coach and co-organizer, Atlantic Coast Eastern Black Rail Adaptive Management Workshop, Titusville, Florida, January 2020, March 2021.

Facilitator, NOAA Firebird Gulf of Mexico Adaptive Management Workshop (Virtual), September 2020, 2022.

Co-coach, U.S. Fish and Wildlife Service Adaptive Management Double-Loop Review Workshop, Upper Midwest Environmental, Science Center, February 2020.

PROFESSIONAL ACTIVITIES

Invited Reviewing

Journals: Animal Conservation, Avian Conservation and Ecology, BioScience, Chelonian Conservation Biology, Chemosphere, Condor, Conservation Science and

Practice, Hydrobiologia, Global Ecology and Conservation, Journal of Animal Ecology, Journal of Applied Ecology, Journal of Avian Biology, Journal of Wildlife Management. I also provide internal review for the U.S. Geological Survey and U.S. Fish and Wildlife Service Species Status Assessments.

Conferences: The Wildlife Society (2014–present), North American Congress for Conservation Biology (2016–present)

Fellowships: U.S. Fish and Wildlife Service Sea Duck Joint Venture Graduate Student Fellowship (2021), Graduate Women in Science (2020)

Organized Symposia

2024 Value of information: tools to identify the uncertainties that matter to decision makers. The Wildlife Society Annual Conference, Baltimore, Maryland

2022 Ask the experts: Applications and future directions of using expert elicitation to improve wildlife management decisions. The Wildlife Society Annual Conference, Spokane, Washington

Moving the needle on avian conservation in the southwestern US: grand challenges and opportunities, Wilson Ornithological Society Annual Conference, Santa Fe, New Mexico

2021 Ecology and conservation of Eastern Black Rail: Road to recovery through management. The Wildlife Society Annual Conference, Virtual

2019 Merging Practice & Life-history Theory for Gamebird Populations: Applied and Basic Solutions to Complex Management Problems. The Wildlife Society Annual Conference, Reno, Nevada

2017 Structured Decision Making: A Vehicle for Navigating the Crossroads of Cultures in Wildlife Management. The Wildlife Society Annual Conference. Albuquerque, New Mexico

2016 Applications of Decision Analysis in Wildlife Population Management. The Wildlife Society Annual Conference. Raleigh, North Carolina

Technical Assistance

2023–Present **Steering Committee Member**, USFWS Bolson Tortoise Reintroduction Team

2022–2023 **Decision Analyst**, National Park Service, Development of evaluation criteria for coastal infrastructure investments

2021–2022 **Decision Analyst**, Rosy Finch Working Group, Research prioritization using qualitative value of information

2019–Present **Core Team Member**, USFWS Species Status Assessments for the alligator snapping turtle and Suwannee alligator snapping turtle

2016–Present **Crocodile Specialist Group**, Species Survival Coalition, International Union for the

Conservation of Nature – Provided input on statistical analysis and study design for twelve satellite telemetry and five nightlight survey studies in four countries

2013–2015 **Technical Expert**, Alligator Public Harvest Program Structured Decision Making Interagency Working Group

University Service (as faculty only)

2023–Present Chair, Diversity, Equity, Inclusion, and Justice, Committee, Dept. of Fish, Wildlife, and Conservation Ecology, New Mexico State University

2022 Search Committee for Assistant Unit Leader–Fisheries, USGS New Mexico Cooperative Fish and Wildlife Research Unit, New Mexico State University

2022 Search Committee for Wildlife Ecologist Faculty, Dept. of Fish, Wildlife, and Conservation Ecology, New Mexico State University

Professional Service

2024 **Invited Panel Member**, Fitting in with the Feds: How We Became U.S. Federal Employees (and how you can too!), The Wildlife Society Annual Conference

2022–2023 **Member**, Digital Measures Working Group, U.S. Geological Survey Cooperative Research Unit Program

2021–Present **Chair-Elect/Chair/Past-Chair**, Biometrics Working Group, The Wildlife Society

2021, 2022 **Invited Panel Member**, A Future PI Training Session: How Do I get the Job, And What Do I do Once I have it, The Wildlife Society Annual Conference

2021 **Interview Panel Member**, USFWS Branch of SSA Science Support batch hire

2019–2020 **Board Member**, Biometrics Working Group, The Wildlife Society

2016 **Social Media Policy Committee**, USGS South Carolina Cooperative Research Unit Created first-ever official social media policy for a USGS Coop. Unit, now used as a national template

2013 **Session Moderator**, Conservation and Management of Birds. The Wildlife Society Annual Conference. Milwaukee, WI

2011 **Judge**, Nevada State Waterfowl Junior Stamp Competition, U.S. Fish and Wildlife Service

PROFESSIONAL DEVELOPMENT AND QUALIFICATIONS

Workshops and Courses

2024 **Advanced Structured Decision Making Practicum**, USFWS National Conservation Training Center

Scientific Collaboration, Jeanne Fair, Los Alamos National Lab

- 2023 **Stable Isotopes in Nutritional Ecology**, The Wildlife Society Annual Conference
- 2023 **Elicitation and Facilitation in Structured Decision Making**, USFWS National Conservation Training Center
- 2022 **ctmm R Package**, The Wildlife Society
- 2021 **Structured Decision Making Tools**, USFWS National Conservation Training Center
- 2021 **Best Practices in Facilitating Virtual Meetings**, PTR Training
- 2020 **Decision Analysis in Natural Resources Certificate Program**, USFWS National Conservation Training Center
- 2019 **Integrated Population Modeling Workshop** New Mexico State University
- 2018 **Version control with Git/GitHub** Clemson University
- Introduction to Tableau** Clemson University
- 2017 **Introduction to Linux and high performance computing** Clemson University
- 2016 **Data Management Fundamentals for Long-term Wildlife Studies** The Wildlife Society Annual Conference
- Spatial Capture-Recapture Workshop** University of Georgia
- 2015 **Applied Hierarchical Modeling Workshop** Patuxent Wildlife Research Center
- 'rhr' R Package Workshop** The Wildlife Society Annual Conference
- 2014 **Occupancy Modeling Workshop** Clemson University
- Structural Equation Modeling Workshop** Clemson University
- Structured Decision Making in Natural Resources**, Oregon State University e-campus

Technical Skills

Programming: R (advanced), WinBUGS, JAGS

Software: R, MARK, ArcGIS, Netica, Tableau, Sigma Plot, Microsoft Access, Adobe products

Operating Systems: Linux, High-Performance Cluster Computing

Certifications and Licenses

CPR/AED, Red Cross (*Exp. March 2025*)

Wilderness First Aid, Red Cross (*Exp. March 2025*)

NSC Defensive Driving II, U.S. Department of the Interior (*Exp. Sep. 2024*)

B3 Combination Helicopter/Airplane Safety Module, U.S. Department of the Interior

ATV Operator Certification, U.S. Department of the Interior

Hunter Safety Education, Nevada Department of Wildlife

SELECTED PUBLIC OUTREACH AND MEDIA COVERAGE

Outreach Presentations

- 2018 Congaree National Park
- 2016 Nemours Wildlife Foundation
- 2015 Belle W. Baruch Institute of Coastal Ecology and Forest Science
Coastal Explorations – South Carolina Dept. of Natural Resources

Selected Media Appearances

- 2023 [Audubon Magazine](#)
- 2018 [New York Times](#), [NOLA.com](#)
- 2017 [National Geographic](#), [SciComm Monday](#)
- 2016 [Savannah Now](#), [Charleston Post & Courier](#), [National Geographic](#)

Press Releases

- 2021 [Forces of Nature, ACES Magazine](#)
- 2017 [35-year South Carolina alligator study uncovers mysteries about growth and reproduction](#)
- 2016 [Clemson student finds alligator movements may be related to water drawdowns](#)
- 2014 [Clemson researchers begin tracking alligators](#)

PROFESSIONAL MEMBERSHIPS

The Wildlife Society (2009–present); Biometrics Working Group (2014–present)
 IUCN Crocodile Specialists Group (Appointed; 2016–present)
 Ecological Society of America (2013–2018); Statistical Ecology Section (2015–2016)
 Society for Conservation Biology (2014–2017)

TECHNICIAN AND FIELD EXPERIENCE

Graduate Research Assistant, Clemson University

Alligator population ecology, Ph.D. field work. Operated motorized watercraft, ATVs, 4WD trucks to conduct alligator nightlight population surveys, captured and handled alligators (blood, urine, and scute sample collection, morphometrics), attached satellite transmitters to adult alligators, performed extensive lab work (stable isotope sample preparation and weighing using a microbalance, operating a freeze-dryer and Direct Mercury Analyzer [DMA-80]), supervised technicians and interns, planned and coordinated field work with agency cooperators, responsible for IACUC, sampling/collection permits, and report writing. January 2013–2018.

Volunteer, U.S. Fish and Wildlife Service, Yukon-Delta National Wildlife Refuge, Alaska

Annual YKD NWR nest plot survey; accessed sites via float plane and outboard motor boat, lived in a remote setting, monitored avian nesting activities. June 2011.

Volunteer, U.S. Fish and Wildlife Service, Nelson Lagoon, Alaska

Steller's Eider avian influenza monitoring; captured eiders using drive traps, banded, swabbed, and bled captured birds, non-motorized watercraft operation, lived and worked on a remote island. September 2008, 2010.

Biological Sciences Technician, U.S. Fish and Wildlife Service, Fairbanks, Alaska

Common Goldeneye breeding biology, M.S. field work. Captured, marked, and measured nesting females, monitored incubation, marked hatched ducklings; constructed and maintained nest boxes, supervised technicians, maintained banding databases, lived in a remote setting. April–Aug. 2009, 2010.

Biological Sciences Technician, U.S. Geological Survey, Dixon, California

Migratory waterfowl spring food habits and body condition; independently performed proximate analysis of waterfowl specimens (morphometrics, dissection, lipid extraction via soxhlets), collected and processed soil cores. January–April 2009.

Research Technician, Delta Waterfowl and Montana State University, Red Rock Lakes NWR, Montana

Lesser Scaup stable isotope ecology; assisted with captures and radio transmitter surgeries, nest searching, ATV and non-motorized watercraft operation, stable isotope sample preparation. May–September 2008.

Biological Sciences Technician, U.S. Geological Survey, Dixon, California

Wintering waterfowl habitat use and body condition; conducted time budget surveys, proximate analysis of waterfowl specimens (morphometrics, molt scoring, dissection, lipid extraction), determined age/sex from harvested waterfowl wings, rocket-net trapping. September 2007–April 2008.

Undergraduate Assistant, University of California, Davis

Moist soil management for watergrass seed production; vegetation surveys, collected seed head and soil cores, managed irrigation treatments. June–September 2007.