

# 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

### *In review or revision*

- Dunham, K.D., P.K. Devers, **A.J. Lawson**, J.E. Lyons, C.P. McGowan, J.A. Royle. *In revision*. Strategic monitoring to minimize misclassification errors from conservation status assessments. Biological Conservation.

### *Published and in press*

- [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***

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. Estimating American Kestrel population vital rates at a broad geographic scale.

### **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.

### **TECHNICAL REPORTS**

- 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](https://www.fws.gov/ES/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](https://www.fws.gov/ES/0007-0002)
- Allstadt, A.J., **A.J. Lawson**, E. Bjerre, J. Riens, A. Galt, M. Knutson, D. Larson, S. Myerchin, S. Papon, B. Walker, J.E. Lyons, M.C. Runge, A.M. Romito. 2020. Wetland Restoration and Sediment Removal. Case Study from the Adaptive Management Review Workshop, U.S. Fish and Wildlife Service, National Conservation Training Center. La Crosse, Wisconsin, USA.

### **DATA AND SOFTWARE RELEASES**

- [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>.

## RESEARCH GRANTS AND CONTRACTS (AS PI, CO-PI, OR AUTHOR: \$2,686,923)

Grant source, Title, Years Active, Role

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
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.	\$82,702
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. <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.	\$112,356
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.	\$275,000

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
Greenville Zoo Conservation Fund, <i>Long-term American alligator foraging behavior in coastal South Carolina</i> , 2018, Author and co-investigator (PI Patrick Jodice)	\$1,000
Belle Baruch Foundation, <i>American alligator home range and movement patterns in coastal South Carolina</i> , 2016–2017, Co-author and co-investigator (PI Thomas R. Rainwater)	\$3,800
Georgia Cooperative Fish & Wildlife Research Unit, United States Geological Survey, <i>Developing innovative methods to survey alligator populations in complex habitat</i> , 2015, Co-author and co-investigator with Tara Gancos Crawford (PI Clinton T. Moore)	\$2,500
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

## 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)

2014–16      Travel Grants, Clemson Natural Resources Graduate Student Association (2 total: \$350)  
 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)  
 2011          Travel Grant, The Wildlife Society, Western Section (\$300)  
 2007          Outstanding Graduating Senior Leadership Award, University of California, Davis

## **TEACHING EXPERIENCE**

### ***Graduate Courses***

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

### ***Undergraduate Courses***

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

### ***Invited Guest Lectures***

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***

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.

## **GRADUATE 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. Student, New Mexico State University, May 2021 – Present

### **Post-Doctoral Associates**

[3] Chris Vennum, April 2023 – Present

[2] Erica Christensen, October 2022 – Present

[1] Kristin Davis, October 2022 – Present

### Graduate Committee Membership

#### Current

[3] Guilio Del Piccolo, M.S., New Mexico State University, Oct. 2021 – Present

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

[1] Kelley Boland, M.S., New Mexico State University, Oct. 2021 – Present

#### Completed

[2] John Smith, M.S., New Mexico State University, April 2021 – April 2023; Thesis: *Evaluation of Sampling Designs for the Long-term Monitoring of Crayfish in Lentic and Lotic Systems*

[1] Anthony Ciocco, M.N.R., Oregon State University, May 2021 – Feb. 2022; Thesis: *Structured decision making for Bureau of Indian Affairs Agricultural Resource Management Plans*

### 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.

### CONFERENCE PRESENTATIONS

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

**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 rose-breasted grosbeak 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.
- Lawson, A.J.**, T. G. Crawford, and C. T. Moore. 2019. Development of an American alligator adaptive harvest management framework: what can be learned from waterfowl management? *Joint Conference of American Fisheries Society and The Wildlife Society*, Reno, Nevada; 29 September–3 October 2019.
- Lawson, A.J.** 2016. Interannual variation in American alligator home ranges in impounded wetlands. *Ecotoxicology of the American Alligator Biennial Symposium*, NASA Kennedy Space Center, Florida; November 2016.
- Lawson, A.J.**, P.G.R. Jodice, T.R. Rainwater, M.P. Guillette, K.W. McFadden, and P.M. Wilkinson. 2016. American alligator home range and movement patterns in coastal South Carolina. *The Wildlife Society South Carolina Chapter*, Georgetown, South Carolina; April 2016.
- Lawson, A.J.** and K.W. McFadden 2014. Monitoring South Carolina Alligator Populations: Challenges and Opportunities. *The Wildlife Society South Carolina Chapter*, Florence, South Carolina; November 2014.

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

- †Boland, K.C., **A.J. Lawson**, and M.J. Desmond. 2023. Comparing detection methods to quantify mass avian mortality on the White Sands Missile Range. *Chihuahuan Desert Conference*; El Paso, Texas. November 15-17, 2023.
- †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.
- Dunham, K.D., P. Devers, **A.J. Lawson**, J.E. Lyons, C.P. McGowan, and A. Royle. 2023. Strategic monitoring to minimize misclassification errors from conservation status assessments. *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.

- Lawson, A.J.**, P.G.R. Jodice, and C.T. Moore. 2019. Synthesizing monitoring data to estimate abundance and detection probability in American alligators in South Carolina. *Southeastern Association of Fish & Wildlife Agencies*; Hilton Head, South Carolina. October 2019.
- Lawson, A.J.**, C.T. Moore, T.R. Rainwater, F.M. Nilsen, P.M. Wilkinson, R.H. Lowers, L.J. Guillette Jr., K.W. McFadden, and P.G.R. Jodice. 2019. Non-linear mercury bioaccumulation patterns in American alligators are a function of predicted age. *Joint Conference of American Fisheries Society and The Wildlife Society*; Reno, Nevada. September 29 – October 3, 2019.
- Lawson, A.J.**, C.T. Moore, T.R. Rainwater, F.M. Nilsen, P.M. Wilkinson, R.H. Lowers, L.J. Guillette Jr., K.W. McFadden, and P.G.R. Jodice. 2019. Nonlinear mercury bioaccumulation patterns in American alligators are a function of predicted age. *Palmetto Alligator Symposium*; Georgetown, South Carolina. March 2019.
- Lawson, A.J.**, C. T. Moore, B. E. Ross, and P. G. R. Jodice. 2018. Synthesizing multiple data streams to estimate abundance and detection probability in a highly wary, long-lived apex predator: an integrated modeling approach. *The Wildlife Society Annual Conference*; Cleveland, Ohio. October 7–11, 2018.
- Lawson, A.J.**, C.T. Moore, and P.G.R. Jodice. 2018. Synthesizing multiple data streams to estimate abundance and detection probability in a highly wary, long-lived apex predator: an integrated modeling approach. *International Statistical Ecology Conference*; St. Andrews, Scotland. July 2–6, 2018.
- Lawson, A.J.**, P.G.R. Jodice, T. Rainwater, K. McFadden. 2017. Evaluating American alligator home range size and site fidelity patterns in artificial wetlands. *International Congress for Conservation Biology*; Cartagena, Colombia. July 2017.
- Lawson, A.J.**, P.G.R. Jodice, T.R. Rainwater, M.P. Guillette, K.W. McFadden, and P.M. Wilkinson. 2016. American alligator home range and movement patterns in coastal South Carolina. *South Carolina Alligator Research Symposium*; Georgetown, South Carolina. April 2016.
- Lawson, A.J.**, P.G.R. Jodice, C.T. Moore. 2015. Using Seasonal Abundance Patterns to Improve Monitoring Programs and Conservation Decision-Making: An American Alligator Example. Annual Meeting of the Southeastern Association of Fish and Wildlife Agencies; Asheville, North Carolina. November 1–4, 2015.
- Lawson, A.J.**, P.G.R. Jodice, and C.T. Moore. 2015. Integrative alligator population ecology: population dynamics, habitat selection, and foraging patterns. *South Carolina Alligator Research Symposium*; Ft. Johnson, South Carolina. March 15, 2015.
- Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2013. Does density dependence influence local recruitment and population growth of Common Goldeneyes? *The Wildlife Society Annual Conference*; Milwaukee, Wisconsin. October 2013.
- Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2013. Life history patterns of breeding Common Goldeneyes in the northern boreal forest. *Sixth North American Duck Symposium and Workshop*; Memphis, Tennessee. January 2013.
- Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2011. Life on the edge: apparent survival in a subarctic population of Common Goldeneyes. *The Wildlife Society Annual Conference*; Kona, Hawai'i. November 2011.
- Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2011. Life on the edge: apparent survival in a subarctic population of Common Goldeneyes. *International Sea Duck Symposium*; Seward, Alaska. September 2011.

**POSTER PRESENTATIONS** (Presenter underlined if not first author, † student or postdoc author)

- †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.
- Lawson, A.J.** and P.M. Wilkinson. 2017. Long-term survival patterns in South Carolina's top predator: the American alligator. *Clemson University Graduate Research and Discovery Symposium*; Clemson, South Carolina. April 2017.
- Lawson, A.J.**, P.G.R. Jodice, and K.W. McFadden. 2015. Does harvest pressure influence body size class composition in American alligator populations? *The Wildlife Society Annual Conference*; Winnipeg, Manitoba. October 2015.
- Lawson, A.J.** and K.W. McFadden. 2014. Optimizing alligator nightlight survey designs for complex habitat: evaluating seasonal variation in abundance and detectability in South Carolina. *The Wildlife Society Annual Conference*; Pittsburgh, Pennsylvania. October 2014. **Winner–Best PhD poster**
- Lawson, A.J.** and K.W. McFadden. 2014. Optimizing survey designs for complex habitat: evaluating seasonal variation of alligator abundance estimates derived from nightlight surveys in South Carolina. *Crocodile Specialist Working Group Meeting*; Lake Charles, Louisiana. May 2014.
- Lawson, A.J.**, 2014. Land cover influence on South Carolina American alligator densities derived from nightlight surveys (1971–2013). *Clemson University Graduate Research and Discovery Symposium*; Clemson, South Carolina. April 2014. **Winner–Best poster in college**
- Lawson, A.J.** and K.W. McFadden. 2013. Influence of habitat on American alligator densities in coastal South Carolina derived from nightlight surveys (1971-2012). *The Wildlife Society Annual Conference*; Milwaukee, Wisconsin. October 2013.
- Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2013. Does density dependence influence local recruitment of Common Goldeneyes? *Sixth North American Duck Symposium and Workshop*; Memphis, Tennessee. January 2013.
- Lawson, A.J.**, J.S. Sedinger, and E.J. Taylor. 2011. Estimating recruitment in a subarctic Common Goldeneye population: a hierarchical approach. *The Wildlife Society Annual Conference*; Kona, Hawai'i. November 2011.

#### TECHNICAL AND STAKEHOLDER MEETING PRESENTATIONS (ALL LEAD PRESENTER)

- 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*.
- 2019 American alligator monitoring and harvest management: final recommendations. *South Carolina Department of Natural Resources, Charleston, SC*.  
Alligator snapping turtle Species Status Assessment Recommendation Team Meeting, Version 1.0. *U.S. Fish and Wildlife Service, Region 4, Atlanta, GA*.
- 2018 American alligator population ecology in South Carolina: project update. *U.S. Geological Survey South Carolina Cooperative Fish and Wildlife Research Unit Annual Cooperator Meetings*. *Clemson, SC*.
- 2015 American alligator adaptive management in South Carolina. *James C. Kennedy Waterfowl and Wetlands Center, Technical Advisory Meeting*. *Georgetown, SC*.
- 2013 South Carolina alligator adaptive management strategies: population dynamics, habitat utilization, and conservation threats. *Annual Coordinating Committee Meeting*, *South*

- Carolina Department of Natural Resources and U.S. Fish and Wildlife Service. Santee, SC.
- 2011 Preliminary sagebrush ecosystem findings for the Nevada Wildlife Action Plan. *Sagebrush Technical Advisory Team Meeting, Reno, NV.*

## COACHING AND FACILITATION EXPERIENCE

**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*

- Manuscripts: I have served as a reviewer for 24 manuscripts since September 2016 for the following journals (>1 review indicated parenthetically): Animal Conservation, Avian Conservation and Ecology (2), BioScience, Chelonian Conservation Biology (4), Chemosphere (2), Condor (2), Conservation Science and Practice (2), Hydrobiologia (2), Global Ecology and Conservation (3), Journal of Animal Ecology, Journal of Avian Biology (2), Journal of Wildlife Management (2). I also provide internal review for the U.S. Geological Survey (3) and U.S. Fish and Wildlife Service Species Status Assessments. [Publons profile](#)
- 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–present), Graduate Women in Science (2020)

### *Organized Symposia*

- 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*

2022–2023	<b>Decision Analyst</b> , National Park Service, Development of evaluation criteria for coastal infrastructure investments
2021–2022	<b>Decision Analyst</b> , Rosy Finch Working Group, Research prioritization using qualitative value of information
2019–Present	<b>Core Team Member</b> , USFWS Species Status Assessments for the alligator snapping turtle and Suwannee alligator snapping turtle
2016–Present	<b>Crocodile Specialist Group</b> , 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
2013–15	<b>Technical Expert</b> , Alligator Public Harvest Program Structured Decision Making Interagency Working Group

### *University Service*

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
2019–16, 2013–14	Coordinator, Speaker Series in Ecology and Natural Resources, Clemson University
2017	Graduate Student Representative, Faculty Search Committee, Clemson University Panel Member, Applying to Graduate School in Natural Resources, Clemson University
2015–17	Alpha Epsilon Lambda, Graduate Student Honor Society, Clemson University Poster Judge, Clemson Biological Sciences’ Annual Student Symposium
2013–17	Poster Judge, Undergraduate Research Symposium, Clemson University
2015–16	Secretary of Communication, Clemson University Graduate Student Government
2013–15	Dean's Graduate Student Advisory Board, College of Agriculture, Forestry, and Environmental Sciences, Clemson University
2013	Moderator, Biology Bowl, South Carolina High School Biology Merit Exam

### *Professional Service*

2022–Present	<b>Member</b> , Digital Measures Working Group, U.S. Geological Survey Cooperative Research Unit Program
2021–Present	<b>Chair-Elect/Chair/Past-Chair</b> , Biometrics Working Group, The Wildlife Society
2021, 2022	<b>Invited Panel Member</b> , 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	<b>Interview Panel Member</b> , USFWS Branch of SSA Science Support batch hire
2019–2020	<b>Board Member</b> , Biometrics Working Group, The Wildlife Society
2016	<b>Social Media Policy Committee</b> , 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	<b>Session Moderator</b> , Conservation and Management of Birds. The Wildlife Society Annual Conference. Milwaukee, WI
2011	<b>Judge</b> , Nevada State Waterfowl Junior Stamp Competition, U.S. Fish and Wildlife Service

## PROFESSIONAL DEVELOPMENT AND QUALIFICATIONS

### *Workshops and Courses*

- 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, Python (beginner)

**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

## 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
- 2014 Clemson University Wildlife Society

### *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](#)
- 2015 WCIV ABC Charleston ([monitoring](#), [telemetry](#)), [Charleston Post & Courier](#), [Tech Insider](#)
- 2014 [NPR EETV Your Day](#)

### ***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](#)
- 2013 [Clemson researchers to design South Carolina alligator strategy](#)

### **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.