

Than James Boves

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Education

UNIVERSITY OF TENNESSEE

KNOXVILLE, TN

Ph.D. in Natural Resources (Wildlife Ecology), December 2011

BOISE STATE UNIVERSITY

BOISE, ID

M.S. in Raptor Biology, August 2007

NORTH CENTRAL COLLEGE

NAPERVILLE, IL

Teaching Certificate in Secondary Biology, June 2002

UNIVERSITY OF ILLINOIS

URBANA-CHAMPAIGN, IL

B.S. in Biology, December 1998

Appointments and Relevant Experience

Associate Professor of Ecology

August 2018 to Present

ARKANSAS STATE UNIVERSITY

DEPT OF BIOLOGICAL SCIENCES

JONESBORO, AR

Assistant Professor of Ecology

August 2013 to July 2018

ARKANSAS STATE UNIVERSITY

DEPT OF BIOLOGICAL SCIENCES

JONESBORO, AR

Post-doctoral Fellow

January 2012 to August 2013

UNIVERSITY OF ILLINOIS

DEPTS OF NATURAL RESOURCES and ANIMAL BIOLOGY

URBANA-CHAMPAIGN, IL

Graduate Teaching Assistant

January 2008 to December 2011

UNIVERSITY OF TENNESSEE

DEPT OF FORESTRY, WILDLIFE, AND FISHERIES

KNOXVILLE, TN

Wildlife Biologist

July to October 2007

PACIFICORP ENERGY

KLAMATH FALLS, OR

Instructor

April to May 2007

FOOTHILLS SCHOOL OF ARTS AND SCIENCES

BOISE, ID

Graduate Teaching Assistant
BOISE STATE UNIVERSITY
DEPT OF BIOLOGICAL SCIENCES
BOISE, ID

August 2004 to May 2007

Barn Owl Box Project Leader
BOISE STATE UNIVERSITY
BOISE, ID

December 2006 to May 2007

Songbird Bander
IDAHO BIRD OBSERVATORY
LUCKY PEAK BANDING STATION, ID

July to October 2005

Field Biologist
US BUREAU OF LAND MANAGEMENT / BOISE STATE UNIVERSITY
SHOSHONE, ID

May to July 2005

Biology Teacher
PROVISO EAST HIGH SCHOOL
MAYWOOD, IL

August 2002 to June 2004

Science Teacher
COLLEGE OF DUPAGE – SUMMER GIFTED PROGRAM
GLEN ELLYN, IL

Summer 2002

Cardiovascular Diagnostics Specialist
ABBOTT LABORATORIES
ABBOTT PARK, IL

May 1999 to August 2001

Field Biologist
ILLINOIS NATURAL HISTORY SURVEY
COOK COUNTY FOREST PRESERVES, COOK COUNTY, IL

May 1998 to August 1998

Intern/Research Assistant
FIELD MUSEUM OF NATURAL HISTORY
CHICAGO, IL

May to August 1997

Research Assistant
MANOMET CENTER FOR CONSERVATION SCIENCES
CHIQUIBUL FOREST RESERVE, CAYO DISTRICT, BELIZE

January to April 1997

Publications

Peer-reviewed (*Indicates student co-author)

42) Youtz, J. *, R. Raibley*, and **T.J. Boves**. Evaluating Multiple-Scale Habitat Features Related to Avian Occurrence in Fragmented Woodlots in the Lower Mississippi Alluvial Valley of Northeastern Arkansas. *Journal of Wildlife Management*. *In Review*.

41) Wessels, J.L. * and **T.J. Boves**. Cerulean Warbler breeding ecology, survival, and habitat selection in the Ozark region of Arkansas. *Journal of Field Ornithology*. *In Review*.

40) Worm, A.J.* and **T.J. Boves**. 2020. Western Kingbird (*Tyrannus verticalis*) with a bill deformity in Memphis, Tennessee, USA. *Wilson Journal of Ornithology*. *In Press*.

- 39) Jones, T.M. *, J.D. Brawn, I.J. Ausprey, A.C. Vitz, A.D. Rodewald, D.W. Raybuck *, **T.J. Boves**, C.J. Fiss *, D.J. McNeil *, S.H. Stoleson, J.L. Larkin, W.A. Cox, A.C. Schwarzer, N. Horsley, E.M. Trumbo *, and M.P. Ward. 2020. Parental benefits and offspring costs reflect parent-offspring conflict over the age of fledging among songbirds. *Proceedings of the National Academy of Sciences. In Press.*
- 38) Youtz, J. *, K. Miller *, E.K. Bowers, S.L. Rogers *, L.P. Bulluck, M. Johnson, B.D. Peer, K.L. Percy, E.I. Johnson, E.M. Ames *, C.T. Tonra, and **T.J. Boves**. 2020. Bergmann's rule is followed at multiple stages of post-embryonic development in a long-distance migratory songbird. *Ecology and Evolution* 1–15. DOI: 10.1002/ece3.6721.
- 37) Elmore, J.A. *, S.R. Loss, **T.J. Boves**, R.S. Cooper *, et al. 2020. Correlates of bird collisions with buildings across three North American countries. *Conservation Biology. In Press.* DOI: 10.1111/cobi.13569
- 36) Bryant, L.C. *, T.A. Beachy, and **T.J. Boves**. 2020. Hemlock wooly adelgid invasion has mixed associations with Louisiana Waterthrush habitat selection and fitness in the southern Appalachians. *Condor* 122:1-16. DOI: 10.1093/condor/duaa027
- 35) Raybuck, D.W. *, J.L. Larkin, S.H. Stoleson, and **T.J. Boves**. 2020. Radio tracking reveals movements and habitat selection of post-fledging Cerulean Warblers in a managed forest landscape. *Condor* 122:1-15. DOI: 10.1093/condor/duz063
- 34) Reese, J.A., C.T. Tonra, **T.J. Boves**, E. Johnson, R.R. Wilson, C.D. Viverette, M.D. Johnson, E.M. Ames, A.E. Matthews *, M.C. Slevin *, J. Reese, K.C. Percy, P.P. Marra, N. Bayly, and L.P. Bulluck. 2019. Using stable isotopes to estimate migratory connectivity for a patchily distributed, wetland-associated Neotropical migrant. *Condor* 121:1-15. DOI: 10.1093/condor/duz052
- 33) Worm, A.J. and **T.J. Boves**. 2019. Bringing Home the Bacon: A Loggerhead Shrike (*Lanius ludovicianus*) Caches an Anthropogenic Food Item in an Urban Environment. *Southeastern Naturalist* 18(4) DOI: 10.1656/058.018.0412
- 32) Desaix, M.G., L.P. Bulluck, A.J. Eckert, C.B. Viverette, **T.J. Boves**, J.A. Reese, C.M. Tonra, and R.J. Dyer. 2019. Population assignment reveals low migratory connectivity in a weakly structured songbird. *Molecular Ecology* 28: 2122-2135.
- 31) Tonra, C.T., M.C. Hallworth, **T.J. Boves**, L.P. Bulluck, R.R. Wilson, C.D. Viverette, M.D. Johnson, E.M. Ames, A.E. Matthews *, M.C. Slevin *, J.A. Reese, K.C. Percy, E. Johnson. 2019. Range-wide migratory connectivity estimation reveals concentration of a widespread breeding population in a few critically important non-breeding locations. *Condor* 121:1-15.
- 30) Slevin, M.C. *, L.P. Bulluck, A.E. Matthews *, and **T.J. Boves**. 2019. Spatial variation in carotenoid plumage coloration and relationships between female Prothonotary Warbler (*Protonotaria citrea*) coloration and quality. *Auk* 136:1-16.
- 29) Worm, A.M. *, D.V. Roeder, M.S. Husak, B.L. Fluker, and **T.J. Boves**. 2019. Characterizing patterns of introgressive hybridization between two species of *Tyrannus* following concurrent range expansion. *Ibis* 161:770-780.
- 28) Hernandez, F.A., A.E. Matthews *, and **T.J. Boves**. 2018. Four new Amerodectes Valim and Hernandez (Acariformes: Proctophylloidae) species from New World warblers (Passeriformes: Parulidae) in the USA. *Systematic and Applied Acarology* 23:946-968.
- 27) Buxton, V., W.M. Schelsky, **T.J. Boves**, S. Summers, P.J. Weatherhead, and J.H. Sperry. 2018. Effects of drought on brood parasite body condition, follicle development, and parasitism: Implications for host-parasite dynamics. *Auk* 135:908-918.
- 26) Slevin, M.C. *, A.E. Matthews *, and **T.J. Boves**. 2018. Prothonotary Warbler breeding ecology and nest site selection of natural and artificial cavities in bottomland forests of Arkansas, USA. *Avian Conservation and Ecology*. 13:5. DOI: 10.5751/ACE-01235-130205.

- 25) Matthews, A.E.* , P.B. Klimov, H.C. Proctor, A.P.G Dowling, L. Diener, S.B. Hager, J.L. Larkin, D.W. Raybuck*, C. Fiss, D.J. McNeil*, and **T.J. Boves**. 2018. Cophylogenetic assessment of New World warblers (Parulidae) and their symbiotic feather mites (Proctophylloidae). *Journal of Avian Biology* 49. DOI:10.1111/jav.01580.
- 24) Bryant, L.C.* and **T.J. Boves**. 2018. Louisiana Waterthrush (*Parkesia motacilla*) successfully defends nest from juvenile ratsnake. *Wilson Journal of Ornithology* 130:531-535.
- 23) Matthews, A.E.* , J.L. Larkin, D.W. Raybuck*, M.C. Slevin*, S.H. Stoleson, and **T.J. Boves**. 2018. Feather mite abundance varies but symbiotic nature of mite-host relationship does not differ between two ecologically dissimilar warblers. *Ecology and Evolution* 1–12. DOI: 10.1002/ece3.3738.
- 22) Hager, S.B., R.S. Cooper*, **T.J. Boves** et al. 2017. Continent-wide analysis of how urbanization affects bird-window collision mortality in North America. *Biological Conservation* 212:209-215.
- 21) Raybuck, D.W.* , J.L. Larkin, S.H. Stoleson, and **T.J. Boves**. 2017. Response to Streby and Kramer: Additional considerations for explaining differences in return rates of geolocator-tagged and control Cerulean Warblers. *Condor* 119:852-854.
- 20) Raybuck, D.W.* , J.L. Larkin, S.H. Stoleson, and **T.J. Boves**. 2017. Mixed effects of geolocators on reproduction and survival of Cerulean Warblers, a canopy-dwelling, long-distance migrant. *Condor* 119:289-297.
- 19) Matthews, A.E.* , M.C. Slevin*, A.J. Worm*, and **T.J. Boves**. 2016. Female Prothonotary Warblers (*Protonotaria citrea*) sing during mate acquisition period in Arkansas, USA. *Ibis* 159:221–224.
- 18) **Boves, T.J.**, G.D. Fairhurst, C.S. Rushing, and D.A. Buehler. 2016. Feather corticosterone levels are related to age and body condition, but not to subsequent fitness, in a declining migratory songbird. *Conservation Physiology* 4: cow041; DOI:10.1093/conphys/cow041.
- 17) Slevin, M.C.* , D.W. Raybuck*, and **T.J. Boves**. 2016. Prothonotary Warblers (*Protonotaria citrea*) break their beaks during attacks on wooden conspecific decoys. *Wilson Journal of Ornithology* 128:193-197.
- 16) **Boves, T.J.**, A.D. Rodewald, D.A. Buehler, P.B. Wood, P.D. Keyser, J.L. Larkin, and T.B. Wigley. 2015. Habitat quality from individual- and population-level perspectives and implications for management. *Wildlife Society Bulletin* 43:439-444.
- 15) **Boves, T.J.**, J.H. Sperry, K. Comolli, and P.J. Weatherhead. 2014. Brood parasitism of Black-capped Vireos: frontline and post-laying behavioral responses and effects on productivity. *Journal of Field Ornithology* 85:364-378.
- 14) Sheehan, J. , P.B. Wood, D.A. Buehler, P.D. Keyser, J.L. Larkin, A.D. Rodewald, T.B. Wigley, **T.J. Boves**, G.A. George, M.H. Bakermans, T.A. Beachy, A. Evans, M.E. McDermott, F.L. Newell, and M. White. 2014. Avian response to timber harvesting applied experimentally to manage Cerulean Warbler breeding populations. *Forest Management and Ecology* 321:5-18.
- 13) **Boves, T.J.**, D.A. Buehler, P.B. Wood, A.D. Rodewald, J.L. Larkin, P.D. Keyser, and T.B. Wigley. 2014. Multiple plumage ornaments convey information about age and within-age-class qualities of a canopy-dwelling songbird, the Cerulean Warbler. *Auk* 131:20-31.
- 12) Newell, F.L., J. Sheehan, P.B. Wood, A.D. Rodewald, D.A. Buehler, P.D. Keyser, J.L. Larkin, T.A. Beachy, M.H. Bakermans, **T.J. Boves**, A. Evans, G.A. George, M.E. McDermott, K.A. Perkins, M. White, and T.B. Wigley. 2013. Do different methods provide a similar management application? Comparison of point counts and territory mapping for forest songbirds. *Journal of Field Ornithology*. 84:270-286.
- 11) Buehler, D.A., P.B. Hamel, and **T. J. Boves**. 2013. Cerulean Warbler (*Setophaga cerulea*). *Birds of North America Online* (A. Poole, Ed.). Cornell Lab of Ornithology, Ithaca, NY. <http://bna.birds.cornell.edu/bna/species/511>

- 10) Kutylowski, J.A. *, **T.J. Boves**, and D.A. Cimprich. 2013. First breeding record of American Woodcock (*Scolopax minor*) in Coryell County, Texas. Could this be further evidence for regular woodcock breeding in Central Texas? Texas Ornithological Society Bulletin 45:30-32.
- 9) **Boves, T.J.**, J.A. Kutylowski *, J.H. Sperry, and D.A. Cimprich. 2013. A novel behavior in an endangered species: Black-capped Vireos reuse a nest after brood parasitism and depredation. American Midland Naturalist 170:191-195.
- 8) **Boves, T.J.**, D.A. Buehler, J. Sheehan, P.B. Wood, A.D. Rodewald, J.L. Larkin, P.D. Keyser, F.L. Newell, A. Evans, G.A. George, and T.B. Wigley. 2013. Spatial variation in breeding habitat selection by Cerulean Warblers throughout the Appalachian Mountains. Auk 130:46-59.
- 7) **Boves, T.J.**, D.A. Buehler, J. Sheehan, P.B. Wood, A.D. Rodewald, J.L. Larkin, P.D. Keyser, F.L. Newell, G.A. George, M.H. Bakermans, A. Evans, T.A. Beachy, M.E. McDermott, K.A. Perkins, M. White, and T.B. Wigley. 2013. Emulating natural disturbances for declining late-successional species: A case study of the consequences for cerulean warblers (*Setophaga cerulea*). PLoS ONE 8: e52107.
- 6) Larkin, J.L., P.B. Wood, **T.J. Boves**, J. Sheehan, D.A. Buehler, P.D. Keyser, A.D. Rodewald, T.A. Beachy, M.H. Bakermans, A. Evans, G.A. George, M.E. McDermott, F. L. Newell, K.A. Perkins, M. White, and T.B. Wigley. 2012. Breeding season concerns and response to forest management: Can forest management produce more breeding birds? Ornitologia Neotropical 23:287-290.
- 5) **Boves, T.J.** and J.R. Belthoff. 2012. Roadway mortality of Barn Owls in Idaho, USA. Journal of Wildlife Management 76:1381-1392.
- 4) **Boves, T.J.** and D.A. Buehler. 2012. Breeding biology, ecology, and behavior of *Setophaga cerulea* in the Cumberland Mountains of Tennessee. Southeastern Naturalist 11:319-330.
- 3) Bush, S.E., S.M. Villa, **T.J. Boves**, D. Brewer, and J.R. Belthoff. 2012. Influence of bill and foot morphology on ectoparasite load in barn owls. Journal of Parasitology 98:256-261.
- 2) **Boves, T.J.**, D.A. Buehler, and N.E. Boves. 2011. Conspecific egg destruction by a female Cerulean Warbler. Wilson Journal of Ornithology 123:401-403.
- 1) **Boves, T.J.**, D.A. Buehler, and P.C. Massey *. 2010. Interspecific imitation by a Cerulean Warbler. Wilson Journal of Ornithology 122:583-587.

Management Guidelines and Technical Reports

Buehler, D.A., D.W. Raybuck, J.A. Lehman, P.D. Keyser; **T.J. Boves**, and J.L. Larkin. 2019. Forest management for Golden-winged and Cerulean Warblers—lessons learned from forest management experiments. e-Gen. Tech. Rep. SRS-237. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station.

Wilcox, J. and **T.J. Boves**. 2016. Bottomland Hardwood Forest Management to Improve Habitat Quality for Understory Breeding Bird Species of Conservation Concern. U.S. Fish and Wildlife Service and Arkansas Game and Fish Commission Report.

Wood, P.B., J.S. Sheehan, P.D. Keyser, D.A. Buehler, T.A. Beachy, J.L. Larkin, A.D. Rodewald, S. Stoleson, T.B. Wigley, J. Mizel, **T.J. Boves**, M.H. Bakermans, A. Evans, M.E. McDermott, F.L. Newell, K.A. Perkins, and M. Wood. 2013. Management recommendations for enhancing Cerulean Warbler breeding habitat in Appalachian hardwood forests. American Bird Conservancy. The Plains, VA. 28 pp.

Buehler, D.A., B. Smith, M. Welton, S. Somershoe, and **T.J. Boves**. 2010. Recommendations on Cerulean Warblers for the Northern Cumberlands Forest Resources Habitat Conservation Plan (NCFRHCP). NCFRHCP Report to Tennessee Wildlife Resources Agency.

Belthoff, J.R., **T.J. Boves**, and B. Puschner. 2010. Role of organophosphorus and carbamate insecticides in roadway mortality of Barn Owls in southern Idaho. United States Fish and Wildlife Service Report.

Boves, T.J. and J.R. Belthoff. 2008. Barn Owl box installation and reproductive success in central Idaho. Idaho Department of Transportation Report.

Belthoff, J.R. and **T.J. Boves**. 2005. Establishment of Burrowing Owl Point-Count Routes within Land Administered by BLM Shoshone Field Office and Results of 2005 Breeding Season Surveys. United States Bureau of Land Management Report.

Boves, T.J. 1997. The Effects of Selective Logging on *Schiffornis turdinus* in the Chiquibul Forest Reserve. Belizean Forest Service Report.

Popular Articles and Opinions

Lands Unsuitable for Mining Petition in the Cumberland Mountains: An Historic Moment in Avian Conservation in Tennessee – Knoxville Ornithological Society Newsletter. April 2011.

Grants

Kays Foundation (PI): \$8,400 (2020-21) – Uncovering the factors associated with host-switching of specialized parasites

Arkansas State University Department of Assessment Mini-Grant (PI): \$2,000 (2019-20) – Using standardized tests to assess learning outcomes of undergraduate students in biological sciences

Arkansas State University College of Science and Mathematics Seed Grant (PI): \$15,000 (2019-20) – Assessing the importance of spatial variation in cophylogenetic studies between feather mites and their avian hosts

Arkansas Game and Fish Commission/US Fish and Wildlife Service, State Wildlife Grant (PI): \$112,000 (2020-22) – Assessing occurrence and effects of neonicotinoid pesticides on Loggerhead Shrike body condition, immunocompetence, survival, and reproduction

NASA/Arkansas Space Grant Consortium Research Infrastructure Grant (PI): \$15,500 (2017-19) – Symbiotic relationships in a changing world: Evaluating feather mite-warbler associations across temperature clines

Arkansas Biosciences Institute (PI): \$79,900 (2017-18) – Improving ecological-agricultural integration in the Lower Mississippi Alluvial Valley with respect to a top predator of Greatest Conservation Concern, the Loggerhead Shrike

National Science Foundation (Co-PI): \$4,998,672 (Division of Undergraduate Education; 2016-23) – COLLABORATIVE RESEARCH: Upper Delta Region Biodiversity Scholarship

Faculty Research Award, Arkansas State University (PI): \$4,274 (2016-17) – Exploring Ectosymbioses: Warblers and their Feather Mites

Provost's Seed Grant Scholar's Award, Arkansas State University (PI): \$4,597 (2015-16) – Hybridization and Sympatric Range Expansions: The Unique Case of Scissor-tailed Flycatchers and Western Kingbirds

Arkansas Science and Technology Authority Basic Research Grant (PI): \$48,184 (2014-15) – Full-Life Cycle Conservation of Cerulean Warblers: Filling in the Critical Knowledge Gaps (Arkansas Portion)

Pennsylvania Game Commission/US Fish and Wildlife Service, Pittman-Robertson Grant (PI): \$219,552 (2014-16) – Cerulean Warbler response to species-specific forest management guidelines and post-fledgling habitat use and survival in managed forests

Arkansas Game and Fish Commission/US Fish and Wildlife Service, State Wildlife Grant (PI): \$84,218 (2014-16) – Bottomland Forest Management to Improve Habitat Quality for Disturbance-dependent Bird Species of Greatest Conservation Concern

Faculty Research Award, Arkansas State University (PI): \$8,786 (2014-15) – Discovering Migratory Connectivity of Prothonotary Warbler to Advance Full Life-Cycle Conservation

Presentations and Invited Seminars

Lead Author, Presenter

Audubon Society of Central Arkansas – Virtual (2020) – *Testing Bergmann's Rule in Prothonotary Warblers: A Study of Size across Space and Time*

Loggerhead Shrike Working Group Annual Meeting – Birmingham, AL (2019) – *Eco-Ag Integration: Loggerhead Shrikes in the Lower Mississippi Alluvial Valley*

University of Arkansas Seminar Series – Fayetteville, AR (2018) – *Exploring Symbioses: Feather Mites and New World Warblers (Invited Seminar)*

Memphis Chapter of the Tennessee Ornithological Society – Memphis, TN (2018) – *Range Expansion and Hybridization of Scissor-tailed Flycatchers and Western Kingbirds (Invited Seminar)*

International Ornithological Congress – Vancouver, British Columbia, Canada (2018) – *Exploring Symbioses: The Case of Feather Mites and New World Warblers (Oral)*

Arkansas Technological University Biology Seminar Series – Russellville, AR (2018) – *Exploring Symbioses: The Case of Feather Mites and New World Warblers (Invited Seminar)*

Loggerhead Shrike Working Group Annual Meeting – Nashville, TN (2018) – *Exploring Loggerhead Shrike non-breeding ecology in the Lower Mississippi Alluvial Valley (Oral)*

University of Memphis Biology Seminar Series – Memphis, TN (2017) – *Understanding and Conserving Birds across their Full Life Cycle (Invited Seminar)*

American Ornithological Union/Cooper's Ornithological Society Annual Meeting – University of Oklahoma, Norman, OK (2015) – *Effects of geolocators on within-season survival, nestling provisioning, reproductive success, and annual return rates of male Cerulean Warblers (Poster)*

Memphis Chapter of the Tennessee Ornithological Society – Memphis, TN (2015) – *Understanding birds across their annual cycle: Cerulean Warblers (Invited Seminar)*

Southeastern Partner's in Flight Annual Conference – Lafayette, LA (2015) – *Evaluating corticosterone-mediated carry-over effects, and the dependency of age, in a declining migratory songbird (Oral)*

Arkansas State University Biology Seminar Series (2015) – Jonesboro, AR – *Birds across their full annual cycles: Studying seasonal carry-over effects using feathers (Invited Seminar)*

Bradley University, Dept. of Biology Seminar (2015) – Peoria, IL – *Exploring and conserving birds across their full life cycles (Invited Seminar)*

Arkansas Audubon Society Annual Meeting (2014) – Jonesboro, AR – *Black and Blue: The life and times of the Black-capped Vireo and the Cerulean Warbler (Invited Seminar)*

Arkansas State University Science Seminar Series (2013) – Jonesboro, AR – *Information content of multiple plumage ornaments and the influence of habitat in an avian signaling system (Invited Seminar)*

5th International Partner's in Flight Conference (2013) – Snowbird, UT – *Black-capped Vireos and brood parasitism: Risks, responses, and implications for management and conservation (Poster)*

North American Ornithological Conference (2012) – Vancouver, British Columbia – *Information content of multiple plumage ornaments and habitat contingency in the Cerulean Warbler, Setophaga cerulea* (Poster)

University of Illinois Bird Lab (2012) – Urbana, IL – *Information content and habitat contingency of multiple plumage ornaments in the Cerulean Warbler* (Oral)

University of Tennessee, Dept. of Forestry, Wildlife, and Fisheries Seminar (2011) – Knoxville, TN – *Information content and habitat contingency of multiple plumage ornaments in the Cerulean Warbler* (Oral)

Tennessee Ornithological Society Annual Meeting (2011) – Chattanooga, TN – *Information content and habitat contingency of multiple plumage ornaments in a canopy-dwelling songbird Cerulean Warbler Setophaga cerulea* (Oral)

Knoxville Chapter of the Tennessee Ornithological Society (2011) – Knoxville, TN – *Disturbance in the forest: how species respond to experimental timber harvests in multiple ways* (Oral)

WOS/COS/AFO Joint Conference (2011) – Kearney, NE – *Cerulean Warbler response to forest management in the Appalachian Mountains* (Oral)

Southeastern Partners in Flight Conference (2011) – Lexington, KY – *Cerulean Warbler (Dendroica cerulea) response to forest management in the Appalachian Mountains* (Oral)

Greater Kansas City Audubon Society (2011) – Kansas City, MO – *High in the tree tops: The life and times of a declining species, the Cerulean Warbler* (Invited Seminar)

North Cumberland Forest Resource Habitat Conservation Plan Cerulean Warbler Summit (2010) – Knoxville, TN – *Cerulean Warbler response to experimental forest management in the Cumberland Mountains* (Invited Seminar)

Raptor Rhapsody Celebration, Cumberland Gap National Historic Park (2010) – Middlesboro, KY – *High in the tree tops: The life of the Cerulean Warbler* (Invited Seminar)

Appalachian State University, Dept. of Biology Seminar Series (2010) – Boone, NC – *Anthropogenic disturbance and a declining species: Cerulean Warbler response to experimental forest management in the Appalachian Mountains* (Invited Seminar)

Ijam's Nature Center (2009) – Knoxville, TN – *The Cerulean Warbler: A species in decline* (Invited Seminar)

Knoxville Chapter of the Tennessee Ornithological Society (2009) – Knoxville, TN – *Relationships among ornamentation, quality, and habitat in Cerulean Warblers* (Invited Seminar)

American Ornithological Union Annual Meeting (2009) – Philadelphia, PA – *Effects of forest management on reproductive success and density of Cerulean Warblers in the Appalachian Mountains* (Poster)

North Cumberland Forest Resource Habitat Conservation Plan Science Advisory Committee (2008, 2009, and 2010) – Crossville, TN – *Effects of forest management on Cerulean Warblers in the Cumberland Mountains* (Oral)

Cerulean Warbler and Golden-winged Warbler Summit (2008) – Bogota, Colombia, S.A. - *Effects of forest management on Cerulean Warblers in the Appalachian Mountains* (Poster)

Idaho Conservation League (2007) – Stanley, ID – *Effects of roadway mortality on Barn Owls in southern Idaho* (Invited Seminar)

AAAS NW Regional Conference (2007) – Boise, ID – *Relationships between quality and ornamentation in North American Barn Owls* (Poster)

Golden Eagle Audubon Society (2007) – Boise, ID – *Effects of roadway mortality on Barn Owls in southern Idaho and Ornamentation patterns in North American Barn Owls* (Invited Seminar)

The Wildlife Society NW Regional Conference (2006) – Boise, ID – *Effects of roadway mortality on Barn Owls in southern Idaho (Oral)*

North American Ornithological Conference (2006) – Veracruz, Mexico – *Effects of roadway mortality on Barn Owls in southern Idaho (Oral)*

Raptor Research Foundation Conference (2005) – Green Bay, WI – *Effects of roadway mortality on Barn Owls in southern Idaho (Poster)*

American Ornithological Union Conference (1997) – Minneapolis, MN – *Effect of weather events on songbird migration over Lake Michigan (Poster)*

Co-Author (*Student presenter; +Garnered student award)

Arkansas Audubon Society Fall Meeting – Virtual (2020) – *Cerulean Warbler breeding ecology, survival, and habitat selection in the Ozark region of Arkansas (Oral)**

Arkansas Audubon Society Fall Meeting – Virtual (2020) – *Environmental context mediates the functional relationship between feather mites and their hosts (Oral)**

North American Ornithological Conference – Virtual (2020) – *Bergmann's rule is followed at multiple stages of development in a migratory songbird, but climate change may be altering the classic latitude-size relationship (Oral)**

North American Ornithological Conference – Virtual (2020) – *Cerulean Warbler breeding ecology, survival, and habitat selection in the Ozark region of Arkansas (Poster)**

Association of Field Ornithologists/Wilson Ornithological Society Joint Meeting – Cape May, NJ (2019) – *Bergmann's rule is followed at all stages of development in a migratory songbird, but climate change may soften this relationship (Oral)**

Association of Field Ornithologists/Wilson Ornithological Society Joint Meeting – Cape May, NJ (2019) – *Winter behavior and diet of Loggerhead Shrikes (*Lanius ludovicianus*) in an intensive agricultural area of northeast Arkansas (Oral)**

Association of Field Ornithologists/Wilson Ornithological Society Joint Meeting – Cape May, NJ (2019) – *Integrating next-generation sequencing and ecology to understand host specialization and coevolution of symbiotic feather mites (Poster)**

Association of Field Ornithologists/Wilson Ornithological Society Joint Meeting – Cape May, NJ (2019) – *Cerulean Warbler habitat selection, breeding biology, survival, and movements in the Ozark region (Oral)**

Association of Field Ornithologists/Wilson Ornithological Society Joint Meeting – Cape May, NJ (2019) – *Environmental context mediates the functional relationship between feather mites and their hosts (Oral)**

Association of Field Ornithologists/Wilson Ornithological Society Joint Meeting – Cape May, NJ (2019) – *Range-wide migratory connectivity estimation reveals concentration of a widespread breeding population in a few critically important non-breeding locations (Oral)*

SUPERB Summer Institute – Morrilton, AR (2019) – *Bergmann's rule is followed at multiple stages of development in a migratory songbird, but climate change may be altering the classic latitude-size relationship (Poster)*+*

SUPERB Summer Institute – Morrilton, AR (2019) – *Integrating next-generation sequencing and ecology to understand host specialization and coevolution of symbiotic feather mites (Poster)**

SUPERB Summer Institute – Morrilton, AR (2019) – *What Factors are Related to Feather Mite Abundance Within, and Among, Species of Parulid Warblers? (Poster)**

SUPERB Summer Institute – Morrilton, AR (2019) – *Non-breeding habitat selection and survival of the “Butcherbird” in agricultural landscapes (Poster)**

SUPERB Summer Institute – Morrilton, AR (2019) – *Cerulean Warbler habitat selection, breeding biology, survival, and movements in the Ozark region (Poster)**

SUPERB Summer Institute – Morrilton, AR (2019) – *Does off-host survival and dispersal differ between specialist and generalist symbiotic feather mites? (Poster)**

SUPERB Summer Institute – Morrilton, AR (2019) – *Attracting barn owls and American kestrels to agricultural areas of NE Arkansas to provide pest control services (Poster)**

American Ornithological Society Annual Meeting – Anchorage, AK (2019) – *Cerulean Warbler (*Setophaga cerulea*) Habitat Selection, Breeding Biology, Survival, and Movements in the Ozark Region (Poster)**

American Ornithological Society Annual Meeting – Anchorage, AK (2019) – *A Range-wide Geolocator Project Fills Critical Knowledge Gaps of our Understanding of the Full Annual Cycle of Cerulean Warblers (Oral)**

American Ornithological Society Annual Meeting – Anchorage, AK (2019) – *Survival and non-breeding habitat selection of Loggerhead Shrikes in agricultural landscapes of Arkansas (Poster)*+*

American Ornithological Society Annual Meeting – Anchorage, AK (2019) – *What Factors are Related to Feather Mite Abundance Within, and Among, Species of Parulid Warblers? (Poster)**

American Ornithological Society Annual Meeting – Anchorage, AK (2019) – *Non-breeding time budget and diet of Loggerhead Shrikes in Northeastern Arkansas (Oral)**

Society for the Preservation of Natural History Collections – Chicago, IL (2019) – *Why ‘mite’ feather mites be important? And how can collections help guide research? (Poster)**

Society for the Preservation of Natural History Collections – Chicago, IL (2019) – *Amerodectes jonesborensis: Who “mite” that be? (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2019) – *Occupancy of fragmented woodlots by migratory and cavity-nesting avian species in the Lower Mississippi Alluvial Valley of northeastern Arkansas (Oral)*+*

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2019) – *Cerulean Warblers in the Ozarks: Habitat selection, breeding biology, survival, and space use (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2019) – *Non-breeding time budget and diet of Loggerhead Shrikes in northeastern Arkansas (Oral)*+*

SUPERB Summer Institute – Carbondale, IL (2018) – *Does off-host survival and dispersal differ between specialist and generalist symbiotic feather mites? (Poster)*

SUPERB Summer Institute – Carbondale, IL (2018) – *Attracting barn owls and American kestrels to agricultural areas of NE Arkansas to provide pest control services (Poster)*

American Ornithological Society Annual Meeting – Tucson, AZ (2018) – *Non-breeding ecology of a declining grassland bird in agricultural landscapes: the loggerhead shrike (Poster)**

American Ornithological Society Annual Meeting – Tucson, AZ (2018) – *Evaluating relationships between eastern hemlock decline and Louisiana Waterthrush demographics and behavior in Great Smoky Mountains National Park (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2018) – *Winter ecology of Loggerhead Shrikes in the Lower Mississippi Alluvial Valley (Oral)** +

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2018) – *Evaluating relationships between eastern hemlock decline and Louisiana Waterthrush demographics and behavior in Great Smoky Mountains National Park (Oral)**

XV Congreso para el Estudio y Conservación de las Aves de México (CECAM) – Morelia, Mexico (2017) – *¿Cómo afecta la urbanización la mortalidad de las aves que colisionan con ventanas en América del Norte? (Oral)*

International Partners in Flight meeting – San Jose, Costa Rica (2017) – *Evidence for diffuse migratory connectivity for Prothonotary Warblers from geolocator and stable isotope data (Oral)**

International Partners in Flight meeting – San Jose, Costa Rica (2017) – *Full life cycle conservation for the Cerulean Warbler (Setophaga cerulea): State of knowledge and future directions (Oral)*

Oak Symposium: Sustaining Oaks in the 21st Century through Science-based Management – Knoxville, TN (2017) – *Forest management for Golden-winged and Cerulean Warblers- lessons learned from forest management experiments (Oral)*

Pineywoods Audubon Society – Nagadoches, TX (2017) – *Co-ecology and co-evolution of warblers and feather mites (Invited)**

Ornithological Congress of the Americas – Puerto Iguazu, Argentina (2017) – *Uso del hábitat por el alcaudón verdugo (Lanius ludovicianus) en el valle aluvial del bajo Mississippi*

Ornithological Congress of the Americas – Puerto Iguazu, Argentina (2017) – *Asociaciones mixtas entre el declive de las poblaciones del Abeto del Este y la selección de hábitat y la aptitud de Chipe Arroyero en Tennessee**

American Ornithology Conference 2017 – East Lansing, MI (2017) – *Investigating potential breeding season and annual fitness effects of geolocators on Cerulean and Golden-winged Warblers**

American Ornithology Conference 2017 – East Lansing, MI (2017) – *Assessing coevolution between feather mites and warbler hosts**

Tennessee Ornithological Society Annual Meeting – Nashville, TN (2017) – *Loggerhead Shrikes in the Lower Mississippi Alluvial Valley*

Arkansas Audubon Society Spring Meeting – Mount Magazine State Park, AR (2017) – *Trees, and bugs, and birds! Oh my! The Impacts of Eastern Hemlock Decline on Louisiana Waterthrush (Invited)**

Audubon Society Spring Meeting – Mount Magazine State Park, AR (2017) – *Co-evolutionary Patterns Between Feather Mites and Warblers (Invited)**

Create@State Research Symposium – Arkansas State University, Jonesboro, AR (2017) – *Hemlock decline is differentially associated with Louisiana Waterthrush habitat selection and fitness in Great Smoky Mountains National Park (Oral)**

Great Smoky Mountains National Park Research Colloquium – Gatlingburg, TN (2017) – *Hemlock decline is differentially associated with Louisiana Waterthrush habitat selection and fitness in Great Smoky Mountains National Park (Oral)**

North American Ornithological Conference – Washington, D.C. (2016) – *Short-term Changes in Breeding Bird Community Following Variable Timber Harvest in Bottomland Forests of Arkansas (Oral)**

North American Ornithological Conference – Washington, D.C. (2016) – *Is Louisiana Waterthrush habitat selection and fitness related to Eastern Hemlock decline in Great Smoky Mountains National Park? (Poster)**

North American Ornithological Conference – Washington, D.C. (2016) – *Prothonotary Warbler nest selection, survival, and demographic rates in east-central Arkansas (Oral)*⁺*

North American Ornithological Conference – Washington, D.C. (2016) – *Differential Habitat Selection Behavior in an Expanding Songbird Population (Oral)**

North American Ornithological Conference – Washington, D.C. (2016) – *Feather mite abundance varies by ecological context, but symbiotic nature of mite-host relationship does not differ in two warbler species (Oral)**

North American Ornithological Conference – Washington, D.C. (2016) – *Radio-tracking reveals movements and habitat selection of post-fledging Cerulean Warblers in a managed forest landscape (Oral)**

North American Ornithological Conference – Washington, D.C. (2016) – *Urbanization shapes the effect of building size on bird-window collisions (Poster)*

North American Ornithological Conference – Washington, D.C. (2016) – *Assessing Migratory Connectivity of Prothonotary Warblers using Light-Level Geolocators (Oral)*

Annual Meeting of the Eastern Bird Banding Association – Davis, WV (2016) – *Using color-banding to assess the effects of geolocators on Cerulean Warblers (Oral)*

Create@State Research Symposium – Arkansas State University, Jonesboro, AR (2016) – *Nest site selection and nest survival of Prothonotary Warblers (*Protonotaria citrea*) in east-central Arkansas (Oral)*⁺*

Create@State Research Symposium – Arkansas State University, Jonesboro, AR (2016) – *Exploring Symbiotic Relationships Between Feather Mites and Warblers (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2016) – *Nest site selection and nest survival of Prothonotary Warblers (*Protonotaria citrea*) in east-central Arkansas (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2016) – *Impacts of Eastern Hemlock decline on a riparian obligate songbird, the Louisiana Waterthrush, in Great Smoky Mountains National Park (Oral)*⁺*

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2016) – *Exploring Symbiotic Relationships Between Feather Mites and Warblers (Oral)*⁺*

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2016) – *Short-term Changes in Breeding Bird Community Following Variable Timber Harvest Strategies in Bottomland Forests of Arkansas (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2016) – *Interspecific Reproduction between Scissor-tailed Flycatchers and Western Kingbirds at the Edge of their Ranges (Oral)**

Arkansas Wildlife Society Annual Meeting – Little Rock, AR (2016) – *Filling in Critical Knowledge Gaps of our Understanding of the Full Annual and Life Cycle of the Cerulean Warbler (Oral)**

Arkansas Tech University Fisheries and Wildlife Sciences Seminar Series – Russellville, AR (2016) – *Short-term Changes in Breeding Bird Community Following Variable Timber Harvest Strategies in Bottomland Forests of Arkansas (Invited Seminar)**

Southeastern Partner's in Flight Conference – Lafayette, LA (2015) – *Impacts of Eastern Hemlock decline on a riparian obligate songbird, the Louisiana Waterthrush, in Great Smoky Mountains National Park (Poster)**

Southeastern Partner's in Flight Conference – Lafayette, LA (2015) – *Habitat selection, nest survival, and demographic rates of Prothonotary Warblers in bottomland forests of LMAV (Poster)**

Southeastern Partner's in Flight Conference – Lafayette, LA (2015) – *Short-term changes in breeding bird communities following variable timber harvest strategies in bottomland forests of Arkansas (Poster)**

Midwest Landbird Migration Monitoring Network Conference – Port Washington, WI (2015) – *A preliminary assessment of the building and landscape factors influencing bird-window collisions in North America with a focus on Fish and Wildlife Region 3 – Midwest (Poster)*

Natural Areas Annual Meeting – Little Rock, AR (2015) – *Effects of geolocators on within-season survival, nestling provisioning, reproductive success, and annual return rate of male Cerulean Warblers (Poster)*⁺*

American Ornithological Union/Cooper's Ornithological Society Annual Meeting – University of Oklahoma, Norman, OK (2015) – *Wild Turkey hen survival in the Ouachita National Forest in NW Arkansas (Poster)**

American Ornithological Union/Cooper's Ornithological Society Annual Meeting – University of Oklahoma, Norman, OK (2015) – *Feather mites and Parulid associations (Poster)**

American Ornithological Union/Cooper's Ornithological Society Annual Meeting – University of Oklahoma, Norman, OK (2015) – *No relationship between density and reproductive performance in Prothonotary Warblers (*Protonotaria citrea*) breeding in bottomland forests of Arkansas (Poster)**

American Ornithological Union/Cooper's Ornithological Society Annual Meeting – University of Oklahoma, Norman, OK (2015) – *Measuring habitat characteristics for avian breeding studies: Does timing matter? (Poster)**

American Ornithological Union Annual Meeting – University of Oklahoma, Norman, OK (2015) – *Hybridization between two sympatric *Tyrannus* species on the periphery of their ranges: A unique range expansion-induced hybrid zone (Poster)**

Association of Field Ornithologists/Wilson Ornithological Society Annual Meeting – Acadia University, Wolfville, Nova Scotia, Canada (2015) – *Effects of geolocators on nestling provisioning and fledgling success of male Cerulean Warblers (Oral)*

Pennsylvania Wildlife Society Annual Meeting – Bradford, PA (2015) – *Effects of geolocators on annual return rates, nestling provisioning, and reproductive success of male Cerulean Warblers (Oral)*

Second International Conference on Biodiversity in Forest Ecosystems and Landscapes (2012) – Cork University, Ireland – *Cerulean Warbler response to forest management in the Appalachian Mountains (Oral)*

18th Central Hardwoods Forest Conference (2012) – Morgantown, WV – *Avian Community Response to Hardwood Forest Management for Cerulean Warblers (Oral)*

– *Cerulean Warbler Response to Hardwood Forest Management in the Central Appalachians (Oral)*

IXth Neotropical Ornithological Congress (2011) – Cusco, Peru – *Cerulean Warbler response to forest management in the Appalachian Mountains (Oral)*

The Wildlife Society Annual Meeting (2011) – Honolulu, HI – *Cerulean Warbler response to forest management in the Appalachian Mountains (Oral)*

WOS/COS/AFO Joint Conference (2011) – Kearney, NE – *Avian community and species response to hardwood forest management for Cerulean Warblers (Oral)*

WOS/COS/AFO Joint Conference (2011) – Kearney, NE – *From research to management: Development of best management practices for Cerulean Warblers (Oral)*

Northeastern Bird Conservation Conference (2010) – Plymouth, MA – *Avian community response to forest management for Cerulean Warblers in the central Appalachians (Poster)*

American Ornithological Union Conference (2009) – Philadelphia, PA – *Initial songbird response to Cerulean Warbler silvicultural prescriptions in the Appalachian Mountains (Oral)*

Contributions to Books, Movies, and Online Resources

- [The Southern Wildlife Watcher: Notes of a Naturalist](#) (August 2020) by Rob Simbeck, published by University of South Carolina Press; Contributed scientific expertise
- [The Loggerhead Shrike](#) (2017 Documentary) by Larry McPherson; Contributed scientific expertise and field assistance
- [Exploring the Big Woods: A Guide to the Last Great Forest of the Arkansas Delta](#) (2016) by Matt Moran, published by The University of Arkansas Press; Contributed avian photos
- [Animal Behavior](#), published by Oxford University Press (September 2013); Contributed avian nest videos
- [Cerulean Blues](#) by Katie Sallitt Fallon, published by Ruka Press (October 2011); Contributed avian photos and scientific expertise
- [Cornell Lab of Ornithology's Macauley Library](#); Contributed avian nest videos

Popular Press and Media Attention

- KAFU (NPR Affiliate) – [North American Birds Are Vanishing, New Research Indicates](#) (2019)
- KASU (NPR Affiliate) – [Create@State Podcast Features A-State Bird Observatory](#) (2019)
- Washington Post – [Songbird migration study finds a tiny, vulnerable winter range](#) (2019)
- Audubon Magazine – [Saving Colombia's Forests Is Crucial to Protect Prothonotary Warblers](#) (2019)
- [Ephemeral By Nature](#) by Stephen Lyn Bales (University of Tennessee Press; 2018)
- The Wildlife Society – [Birds at greater risk of hitting windows in rural areas](#) (2017)
- Anthropocene – [An unappreciated threat to birds: window collisions in rural areas](#) (2017)
- Audubon Magazine – [Proposed Federal Law Could Save Countless Birds From Death by Glass](#) (2017)
- Jonesboro Sun – Bird Banding at Arkansas State University (2017)
- Audubon Magazine – [Do the Benefits of Tracking Devices Outweigh the Risks?](#) (2017)
- Science Daily – [Tracking devices reduce warblers' chances of returning from migration](#) (2017)
- Science Friday – [The Ups and Downs of Bird Tracking](#) (2017)
- Birdwatching.com – [Eye on conservation: Cerulean Warbler migration plotted](#) (2017)
- American Bird Conservancy – [Mapping Migration](#) (2016)
- American Bird Conservancy – [Meet Elmer, the Cerulean Warbler](#) (2016)
- Audubon Magazine – [New Research Warblers' Mystery Trek](#) (2015)
- Wildlife Society – [Where Do You Go, Little Warbler, When It Snows?](#) (2015)
- Arkansas State University Herald – [Students seek to clarify a mystery: Why do birds fly into windows?](#) (2014)
- USA Today – [Bird deaths from car crashes number in millions](#) (2014)
- Flycatcher Journal – [A Message of Rebirth: Hope and Devastation on the Cumberland Plateau](#) (2011)
- University of Tennessee Ag Institute Magazine – Life, Land, and Science (2011)
- UT Quest Magazine, Scholar Spotlight – [A Paperclip Less Than a Pair of Nickels](#) (2010)
- Knoxville News Sentinel – [Wild Blue Wonder](#) (2010)
- Halftime show at Lady Vols' game – Quest interview video (2010)
- UT Ag Institute Research News Video – Songbirds in Decline (2010)
- NPR – This Living Earth – [Raptor Ruin](#) (2007)
- High Country News, Denver, CO (2006)
- Idaho Statesman, Boise, ID – I-84 a Death Strip for Barn Owls (2006)
- [Deseret News](#), Salt Lake City, UT (2006)

Courses Taught

Graduate

- **Seminar Course: Ecosystem Services of Wildlife** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2019)
- **Seminar Course: Habitat Selection and Resource Use by Animals** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2016)
- **Methods in Advanced Avian Ecology** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2015)
- **Seminar Course: Effective Undergraduate Teaching in the Sciences** (Co-designed and led with Daniel Welsh) – University of Illinois, Urbana-Champaign (Fall 2012)
- **Urban Landscape and Sustainability** (Guest lecturer) – Department of Architecture and Design, University of Tennessee, Knoxville, TN – “Natural Designs: The Form and Function of Bird Nests” (Spring 2011)

Undergraduate/Graduate

- **Conservation Biology** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2015, 2017, 2018)
- **Ornithology and Lab** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2014, 2016, 2018)=
- **Independent Study: Avian Ecology and Physiology** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2014)
- **Special Problems: Bird-Window Collisions** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Fall 2014)
- **Animal Ecology and Lab** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Fall 2013, 2015, 2017, 2019)
- **Wild Bird Ecology and Management** (Lab) – Department of Forestry, Wildlife, and Fisheries, University of Tennessee, Knoxville, TN (Spring 2008–2010)

Undergraduate

- **Introduction to Ornithological Applications** (Designed and instructed with grad students; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Spring 2016)
- **Biology of Animals (Honors and Regular)** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Fall 2014–18; Spring, Summer 2017)
- **Tropical Ecology** (Field Instructor in Panama) – Virginia Commonwealth University, Richmond, VA (January 2015)
- **Wildlife Management** (Designed and instructed; Instructor of Record) – Department of Biological Sciences, Arkansas State University, Jonesboro, AR (Falls 2014, 2016)
- **Upland Habitat Field Techniques** (Designed and instructed) – Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL (Spring 2013)

Secondary

- **AP Biology** – Proviso East High School, Maywood, IL (2003–2004)
- **General Biology (Honors)** – Proviso East High School, Maywood, IL (2002–2004)
- **Biology** (Student Teacher) – Wheaton North High School, Wheaton, IL (2002)

Primary

- **Botany/Native Plants of Idaho** – Foothills School of Arts and Sciences, Boise, ID (Spring 2007)
- **Ecology** – Foothills School of Arts and Sciences, Boise, ID (Summer 2006)
- **Entomology** – Foothills School of Arts and Sciences, Boise, ID (Summer 2006)
- **General Science** – College of DuPage Summer Gifted Program, Glen Ellyn, IL (Summer 2001)

Graduate Students – Major Advisor

Arkansas State University –

William Guy (MS Environmental Sciences; Begin 2021) – Investigating the benefits of various agricultural practices related to burning and flooding for birds and greenhouse gas emissions

Emily Donahue (PhD Molecular Biosciences; 2020–Present) – Prevalence and effects of neonicotinoid pesticides on Loggerhead Shrikes

Alix Matthews (PhD Molecular Biosciences; 2019–Present) – Understanding host-switching in an obligate symbiont-host system (co-advised with Asela Wijeratne)

Kevin Krajcir (MS Biology; 2018–Present) – Variation in the relationship between feather mites and warblers

Emily Donahue (MS Biology; 2017–Fall 2020) – Agriculture and Loggerhead Shrike Non-Breeding Ecology in the LMAV

Joseph Youtz (MS Biology; Spring 2020) – Bergmann’s Rule and Landscape effects on Prothonotary Warblers (Currently PhD student at Louisiana State University in Baton Rouge, LA)

Jacob Wessels (MS Biology; Spring 2020) – Cerulean Warblers of the Ozarks: Breeding Ecology and Female Habitat Use

Lee Bryant (MS Biology, Spring 2018) – Effects of Eastern Hemlock loss on Louisiana Waterthrush in Great Smoky Mountains NP (Currently teaching biology at Coconino Community College in Flagstaff, AZ)

Alex Worm (MS Biology, Fall 2017) – Range expansion and hybridization in Western Kingbirds and Scissor-tailed Flycatchers (Currently teaching at Arkansas State University in Jonesboro, AR)

Jennifer Wilcox (MS Biology, Fall 2017) – Bottomland forest management for understory species of conservation concern (Currently working as a wildlife biologist with SWCA Consulting in Las Vegas, NV)

Alix Matthews (MS Biology, Spring 2017) – Bird-mite coevolution and effects of mites on avian fitness (Currently conducting research on leaf-cutter ants at University of Texas in Tyler, TX)

Morgan Slevin (MS Biology, Summer 2017) – Prothonotary Warbler geographic variation in color, provisioning, and demographics (Currently a PhD student in Neurobiology at Florida Atlantic University in Boca Raton, FL)

Doug Raybuck (MS Biology, Fall 2016) – Post-fledgling habitat use and migratory connectivity in Cerulean Warblers (Currently a PhD student in Wildlife Ecology at University of Tennessee in Knoxville, TN)

Undergraduate Students – Major Advisor

Arkansas State University –

Elizabeth Corbin (Spring 2020–Present) – Prey choice in Loggerhead Shrikes

Bill Page (Fall 2019–Present) – Loggerhead shrike breeding ecology

Tryniti Garred (Fall 2019–Present) – Feather mites and avian color

Cody Barnett (Fall 2017–Spring 2020) – Biology and behavior of feather mites

Rhett Raibley (Fall 2015–Summer 2020) – Patterns of parental care by migrant birds; Loggerhead Shrikes

Alex Harken (Spring 2019–Fall 2019) – Feather mite diversity and collection curation

Ian Bacic (Spring 2019–Fall 2019) – Variation in feather mite abundance across climates

Callie Wilson (Fall 2017–Spring 2019) – Physiology of feather mites

Ammar Taqi (Spring 2017–Fall 2018) – Avian and nature photography

Emily “Gracie” Orfanos (Fall 2016–Spring 2017) – Loggerhead Shrike habitat use in NE Arkansas

Kara Oliver (Fall 2016–Spring 2017) – Loggerhead Shrike habitat use in NE Arkansas

Kassidy Richardson (Spring 2016) – Feather mites of warblers/Bird-window collisions

Courtney Francois (Fall 2015–Spring 2016) – Avian mite diversity

Mitchell Curtis (Fall 2015–Spring 2016) – Nest behavior of Prothonotary Warblers

Sarah Wilcox (Spring 2014–Fall 2015) – Avian feather mite coevolution and Bird-window collisions

Breaunna Jackson (Fall 2014) – Provisioning of Prothonotary Warblers in natural cavities and nest boxes

Luke Methvin (Fall 2014) – Effects of forest management on nest behavior

Arin Vann (Fall 2014) – Factors driving bird-window collisions

Erica Olney (Fall 2014) – Factors driving bird-window collisions

Brent Wagner (Fall 2014) – Factors driving bird-window collisions

Leevi Haas (Spring 2014) – Comparative study of biliverdin and Prothonotary Warbler nest box project

Peter Hasik (Summer 2014) – Range expansion of Western Kingbirds and Scissor-tailed Flycatchers

Jennifer Reed (Fall 2013) – Testing for carry-over effects of stress using feather CORT

University of Illinois –

Alex Fillak (Fall 2012) – Effects of temperature and food availability on susceptibility of American Toads to Chytrid fungus

Andrew Cooper (Fall 2012) – Effects of temperature and food on susceptibility of American Toads to Chytrid fungus

Kelsey Low (Spring 2012) – Effects of temperature and food on susceptibility of American Toads to Chytrid fungus

Graduate Students – Committee Member

Arkansas State University –

Alyssa Hartzheim (MS Biology; 2020–Present)

Caitlin DeBellis (MS Biology; 2019–Present)

Jen Terry (MS Biology; 2018–Present)

Dylan DeRouen (MA Biology; Spring 2020)

Kyle Edmonds (MS Biology; Summer 2020)

James Gore (MS Biology; 2016–Present)

Sarah Harrod (PhD Environmental Science; Spring 2020)

Wayne Smart (MS Biology; Spring 2019)

Bob Vernocy (PhD Environmental Science; 2014–Present)

Sam Schratz (MS Biology; Spring 2018)

Chris Thigpen (MS Biology; Spring 2016)

University of Tennessee –

Doug Raybuck (PhD Wildlife Ecology; 2018–Present)

University of Arkansas –

Connor Gale (PhD Biology; 2020–Present)

Undergraduate Student Honors Committees

Arkansas State University –

Elizabeth Corbin (Advisor, 2020–Present)

Emily Orfanos (Advisor, 2016–17)

Geoffrey Payne (2014–15)

Student Research Grant Proposals Advised and Awarded

Arkansas Audubon Society Trust: \$1132; Alix Matthews (Spring 2020) – Exploring mechanisms and consequences of feather mite-avian symbiotic relationship

Arkansas Audubon Society Trust: \$932; Alix Matthews (Fall 2019) – Investigating the brood parasite facilitation hypothesis as a potential mechanism driving host-switching of feather mites

Arkansas Audubon Society Trust: \$1,200; Kevin Krajcir (Fall 2019) – Exploring the physiological effects of feather mites on their avian hosts

Association of Field Ornithologists: \$1,500; Jacob Wessels (Spring 2019) – Cerulean Warbler habitat selection, breeding biology, survival, and movement in the Ozark region

Arkansas Audubon Society Trust: \$1,000; Kevin Krajcir (Fall 2018) – New World Warblers (Parulidae) and their ectosymbiotic feather mites

Arkansas Audubon Society Trust: \$760; Emily Donahue (Fall 2018) – Winter ecology and physiology of Loggerhead Shrike populations in the agricultural landscape of the Lower Mississippi Alluvial Valley

Arkansas Audubon Society Trust: \$800; Joseph Youtz (Fall 2018) – Occupancy of isolated woodlots by migratory and cavity nesting avian species in the Lower Mississippi Alluvial Valley of NE Arkansas

Arkansas Audubon Society Trust: \$1,200; Jacob Wessels (Fall 2018) – Cerulean Warbler habitat selection, breeding biology, survival, and movements in the Ozarks

Arkansas Audubon Society Trust: \$5,000; Jacob Wessels (Fall 2017) – Breeding biology and movement of Cerulean Warblers in the Ozarks

Arkansas Audubon Society Trust: \$1,200; Joe Youtz (Fall 2017) – Woodlot use by birds in the Lower Mississippi Alluvial Valley

Arkansas Audubon Society Trust: \$780; Emily Donahue (Fall 2017) – Non-breeding physiology of Loggerhead Shrikes in the Lower Mississippi Alluvial Valley

Arkansas Audubon Society Trust: \$1,333; Alix Matthews (Fall 2016) – Coevolution of warblers and feather mites

Arkansas Audubon Society Trust: \$864; Lee Bryant (Fall 2016) – Effect of Eastern Hemlock decline on an obligate riparian specialist, the Louisiana Waterthrush

Association of Field Ornithologists: \$1,500; Lee Bryant (Spring 2016) – Effect of Eastern Hemlock decline on an obligate riparian specialist, the Louisiana Waterthrush

Tennessee Ornithological Society: \$450; Lee Bryant (Spring 2016) – Effect of Eastern Hemlock decline on an obligate riparian specialist, the Louisiana Waterthrush

Arkansas Audubon Society Trust: \$778; Lee Bryant (Fall 2015) – Effect of Eastern Hemlock decline on an obligate riparian specialist, the Louisiana Waterthrush

Knoxville Chapter of the Tennessee Ornithological Society J.B. Owen Award: \$750; Lee Bryant (Fall 2015) – Effect of Eastern Hemlock decline on an obligate riparian specialist, the Louisiana Waterthrush

Arkansas Audubon Society Trust: \$858; Alex Worm (Fall 2014) – Documenting mtDNA introgression by hybridization in Scissor-tailed Flycatchers and Western Kingbirds

Arkansas Audubon Society Trust: \$1,200; Alix Matthews (Fall 2014) – Effects of feather mites on avian species of concern in Arkansas

Arkansas Audubon Society Trust: \$853; Morgan Slevin (Fall 2014) – Differential reproductive performance of Prothonotary Warblers (*Protonotaria citrea*) nesting in boxes versus natural cavities

Arkansas Audubon Society Trust: \$747; Jennifer Wilcox (Fall 2014) – Neotropical migrant use of alternatively managed bottomland hardwood forests of east central Arkansas

Arkansas Audubon Society Trust: \$250; Alex Worm (Fall 2013) – Hybridization and range expansion in Scissor-tailed Flycatchers and Western Kingbirds in eastern Arkansas

Honors and Awards

Faculty Scholarship Achievement Award College Nominee, Arkansas State University (2019, 2020)

Elective Member of the American Ornithological Society (2018)

Honor's College Professor of the Year Nominee, Arkansas State University (2017, 2020)

Partner's In Flight Research Award – Snowbird, UT (2013)

University of Tennessee Chancellor's Citation "Extraordinary Professional Promise" (2011)

University of Tennessee CASNR "Outstanding Graduate Teaching Assistant" (2011)

SE Partners in Flight "Best Student Presentation Award" – Lexington, KY (2011)

Cooper Ornithological Society – Student Membership Award (2010–2011)

Field Museum of Natural History Summer Research Intern (1997)

Service

Departmental and College

Arkansas State University, Dept. of Biological Sciences: Director – Assessment (2018–2020), Field Stations (2019–Present); **Chair** – Cluster Hire for 3 Faculty in Disease in Nature (Fall 2019), Recruitment (2014–Present), and Biology Seminar Series (2018–Present); **Member** – Long-term strategic planning (2013–Present), Class evaluation (2013–Present), Herpetology Faculty Search Committee Member (2017),

Curator, Arkansas State University Museum (Bird and Feather Mite Collection) – (2013–Present)

University and Campus

University Strategic Planning Committee Task Force: Research (Fall 2019–Present)

Search Committee Member – Dean of College of Sciences and Mathematics (Spring 2019)

Institutional Animal Care and Use Committee – Arkansas State University (2018–2019)

Founder and Director of the Arkansas State Bird Observatory (2016–Present) – Organize and lead banding operation for students of all ages to learn about, and gain hands-on experience with, birds

Faculty Senator, Arkansas State University – (2018–Present)

Advisor, Avian Ecology and Wildlife Clubs, Arkansas State University – (2013–Present)

Graduate Student Senator – University of Tennessee (2009–2010)

Community and Regional

Expert Habitat Suitability Consultant for US Fish and Wildlife Service: Prothonotary Warblers (2020–Present)

Local science outreach: Conserving Birds at Delta School, Wilson, AR (April 2018), Science Night Outreach at Health and Wellness Magnet School, Jonesboro, AR (Feb 2018); Valley View Elementary School, Jonesboro, AR (Nov 2018), International Studies Magnet School, Jonesboro, AR (Oct 2019)

Organizer and Compiler; White River Christmas Bird Count (2016–Present)

Bearitage Field Station Bioblitz – Helped organize and guide local high school students, undergrads, and members of the public on bird walks and bird banding at an Arkansas State University field station (2016–19)

NE Arkansas Science Fair Judge – Reviewed and judged junior high and high school student science projects (2015)

Science Night Outreach at Local Schools (Champaign, IL) – Visited local underserved elementary schools and presented information on avian research and conservation. Presentations designed to excite, engage, and develop intellectual curiosity (Fall 2012)

Teaching Evolution Workshops – Organized workshops and trained middle and high school teachers in methods of teaching evolution, Boise State University and University of Tennessee (May 2005 and January 2012)

Cerulean Warbler Public Field Trips (w/ KTOS and Ijam's Nature Center) – Royal Blue Wildlife Management Area, Campbell County, TN (20 May 2008, 27 May 2009, 24 May 2010, 29 May 2011)

Migratory Bird Walks and Owl Prowls (w/ Ijam's Nature Center) – Various locations in the greater Knoxville metropolitan area, TN (2009–2011)

Ijam's Bioblitz – Helped organize and guided local high school students and volunteers on bird walk at Ross Marble Quarry, Knoxville, TN (14 May 2011)

Foothills School of Arts and Sciences Yellowstone Retreat – Taught entomology and ecology to 1st– 3rd graders in the Yellowstone ecosystem (May 2006)

College of DuPage Field Trips – Led nature and birding hikes at many locations (with Professor Harold Cohen), Chicago metropolitan area (1993–2001)

Professional

Arkansas Audubon Society Trust Board Member (2014–Present) – Review and judge undergraduate and graduate research grant proposals

American Ornithological Union/Society – Student/Post-doc Awards Committee (2017–Present); **Student Presentation Judge** (2016–Present); **Early Professionals Committee Member: Chair** – Social (2013–2015), Online Resources (2015–17)

Science Advisory Committee for Arkansas Wildlife Action Plan (2013–Present)

Panelist for International Ornithological Congress roundtable “Emerging Issues in Ornithology (August 2018)

National Science Foundation GRFP Panelist (2017–19) – Review and judge graduate student proposals for National Science Foundation.

Member of Prothonotary Warbler (2012–Present), **Cerulean Warbler** (2009–Present), and **Loggerhead Shrike** (2014–Present) **Working Groups**– Organizations focused on collaborating and coordinating efforts to improve conservation of declining avian species.

Science Advisory Committee for North Cumberlands Habitat Conservation Plan (2008–2013) – Collected and organized scientific data used for the preparation of the Northern Cumberland HCP. Presented data and made recommendations to interested HCP parties

Refereed Manuscripts for

Nature Communications, Frontiers in Ecology and the Environment, Canadian Journal of Zoology, Bird Study, PLOS One, The Auk, Climatic Change, Economic Entomology, Biological Conservation, Journal of Animal Ecology, Wilson Journal of Ornithology, Biological Journal of the Linnaean Society, Northeastern Naturalist, American Midland Naturalist, The Condor, Studies in Avian Biology, Expert Opinion in Environmental Biology, Journal of Wildlife Management, ARDEA, Southeastern Naturalist, Southwestern Naturalist, Journal of the Arkansas Academy of Sciences, Journal of Field Ornithology, Journal of Avian Biology

Professional Affiliations

International Ornithologists’ Union
Ecological Society of America
American Ornithological Society
Society for Conservation Biologists
American Field Ornithologists
The Wildlife Society
National Association of Biology Teachers
Ecological Research as Education Network