

Than James Boves

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Academic History:

UNIVERSITY OF TENNESSEE

KNOXVILLE, TN

Ph.D. in Wildlife Ecology (College of Natural Resources), December 2011 (GPA: 4.00)

Directed by David A. Buehler

Dissertation title: *Multiple responses by Cerulean Warblers to experimental forest disturbance in the Appalachian Mountains*

BOISE STATE UNIVERSITY

BOISE, ID

M.S. in Raptor Biology, August 2007 (GPA: 4.00)

Directed by James R. Belthoff

Thesis title: *Roadway mortality of Barn Owls in southern Idaho and a study of ornamentation in North American Barn Owls*

NORTH CENTRAL COLLEGE

NAPERVILLE, IL

Teaching Certificate in Secondary Biology, June 2002

UNIVERSITY OF ILLINOIS

URBANA-CHAMPAIGN, IL

B.S. in Biology, December 1998 (GPA: 3.64)

Research Positions

Post-doctoral Research Assistant

January 2012 to Present

UNIVERSITY OF ILLINOIS

DEPT OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES AND ANIMAL BIOLOGY

URBANA-CHAMPAIGN, IL

- Conduct behavioral and genetic research on co-evolutionary relationships between federally endangered Black-capped Vireos (*Vireo atricapilla*) and Brown-headed Cowbirds (*Molothrus ater*).
- Analyze reproductive data from long-term monitoring efforts of Black-capped Vireos on Fort Hood military installation.
- Perform experiments to determine the effect of temperature and food availability on susceptibility to chytrid fungus (*Batrachochytrium dendrobatidis*) infection in American Toads (*Anaxyrus americanus*).

Graduate Research Assistant

January 2008 to December 2011

UNIVERSITY OF TENNESSEE

DEPT OF FORESTRY, WILDLIFE, AND FISHERIES

KNOXVILLE, TN

- Led multi-state, multi-organizational, collaborative project investigating multiple responses of declining eastern songbirds to forest disturbance, with particular interest in the vulnerable Cerulean Warbler (*Setophaga cerulea*).
- Conducted research on ornamentation and parental behavior of Cerulean Warblers in the Cumberland Mountains.
- Organized and maintained museum collection of avian study skins.

Wildlife Biologist
SEVEN ISLANDS WILDLIFE REFUGE
KNOX COUNTY, TN

December 2010 to November 2011

- Designed, implemented, performed, and analyzed data from avian point counts at Seven Islands Wildlife Refuge to evaluate impact of various management strategies on avifauna.

Tennessee Amphibian Monitoring Program Surveyor
TENNESSEE WILDLIFE RESOURCES AGENCY
MONROE AND CUMBERLAND COUNTIES, TN

February 2009 to August 2011

- Performed standardized call surveys for twenty-one species of frogs.

Wildlife Biologist
PACIFICORP ENERGY
KLAMATH FALLS, OR

July 2007 to October 2007

- Assessed safety of power pole configurations to raptors and other large avian species in Klamath Basin.

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

August 2004 to May 2007

- Conducted research to assess the impact of roadway mortality on raptors in southern Idaho.
- Performed investigations concerning the evolutionary relationships between plumage ornamentation and quality in North American Barn Owls (*Tyto alba pratincola*).

Barn Owl Box Project Leader
BOISE STATE UNIVERSITY
BOISE, ID

December 2006 to May 2007

- Built, installed, and monitored Barn Owl nesting boxes in southern Idaho in order to mitigate losses from roadway mortality.

Songbird Bander
IDAHO BIRD OBSERVATORY
LUCKY PEAK BANDING STATION, ID

July 2005 to October 2005

- Mist-netted, banded, and processed songbirds at a major migratory stop-over point in southwestern Idaho.

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

May 2005 to July 2005

- Conducted surveys of Burrowing Owls (*Athene cunicularia*) and other species of concern in central Idaho.

Dragonfly Monitor
CHICAGO ACADEMY OF SCIENCES
COOK COUNTY FOREST PRESERVES, COOK COUNTY, IL

Summers: 2003 to 2005

- Monitored local natural areas for the presence or absence of various species of Odonates.

Breeding Bird Monitor
BIRD CONSERVATION NETWORK/BREEDING BIRD SURVEY
COOK COUNTY FOREST PRESERVES, COOK COUNTY, IL
GRAINGER COUNTY, TENNESSEE

Summers: 2000 to 2011

- Performed avian point counts to monitor changes in local bird populations.

Cardiovascular Diagnostic Specialist
ABBOTT LABORATORIES
ABBOTT PARK, IL

May 1999 to August 2001

- Performed research to improve efficacy of diagnostic assays for cardiac proteins (inc. troponin).

Field Biologist

May 1998 to August 1998

**ILLINOIS NATURAL HISTORY SURVEY
COOK COUNTY FOREST PRESERVES, COOK COUNTY, IL**

- Conducted comprehensive nest searches for all avian species in both restored savannah and unrestored habitat.

Intern/Research Assistant

May 1997 to August 1997

**FIELD MUSEUM OF NATURAL HISTORY
CHICAGO, IL**

- Conducted research concerning mortality of migrating birds over Lake Michigan and the effects of weather on avian migration.

Research Assistant

January 1997 to April 1997

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

- Investigated effects of selective logging on avian populations in tropical rainforest. Worked in conjunction with the British Museum and the Belizean Forestry Department.

Publications

Peer-reviewed

Boves, T.J., D.A. Buehler, and P.B. Hamel. Cerulean Warbler (*Setophaga cerulea*). Birds of North America Online (A. Poole, Ed.). Cornell Lab of Ornithology, Ithaca, NY. (*In Press*)

Sutton, W.B., **T.J. Boves**, and N.E. Boves. *Nerodia sipedon sipedon* (Northern Water Snake) foraging event. Herpetological Review. (*In Press*)

Kutyłowski, 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. (*In Press*)

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. Do different methods provide a similar management application? Comparison of point counts and territory mapping for forest songbirds. Journal of Field Ornithology. (*In Press*)

Boves, T.J., J.A. Kutyłowski, J.H. Sperry, and D.A. Cimprich. A novel behavior in an endangered species: Black-capped vireos reuse a nest after brood parasitism and depredation. American Midland Naturalist. (*In Press*)

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.

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, A. Evans, 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.

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? Ornithologia Neotropical 23:287-290.

Boves, T.J. and J.R. Belthoff. 2012. Roadway mortality of Barn Owls in Idaho, USA. Journal of Wildlife Management 76:1381-1392.

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.

Bush, S.E., Villa, S.M., **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.

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.

Boves, T.J., D.A. Buehler, and P.C. Massey. 2010. Interspecific imitation by a Cerulean Warbler. *Wilson Journal of Ornithology* 122:583-587.

Boves, T.J., D.A. Buehler, A.D. Rodewald, P.B. Wood, P.D. Keyser, J.L. Larkin, and T.B. Wigley. Multiple plumage ornaments convey information about age and within-age-class qualities of a canopy-dwelling songbird, the Cerulean Warbler. *Condor*. (*In Revision*)

Sheehan, J., P.B. Wood, F.L. Newell, **T.J. Boves**, D.A. Buehler, T.A. Beachy, A.D. Rodewald, J.L. Larkin, P.D. Keyser, G.A. George, J. Sheehan, J. Mizel, F.L. Newell, and A. Evans. Avian species and community response to uniform partial harvesting applied experimentally to manage Cerulean Warbler breeding populations. *Forest Management and Ecology*. (*In Revision*)

Boves, T.J., J.H. Sperry, D.A. Cimprich, K. Comolli, and P.J. Weatherhead. Brood parasitism of black-capped vireos: risks, responses, and implications for brown-headed cowbird management. *Behavioral Ecology*. (*In Review*)

Management Guidelines and Technical Reports

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.

Sheehan, J., **T.J. Boves**, D.A. Buehler, P.B. Wood, A.D. Rodewald, J.L. Larkin, P. Keyser, G. George, J. Sheehan, F.L. Newell, M. Bakermans, A. Evans, and M. Wood. 2008, 2009, and 2010. Cooperative Cerulean Warbler Progress Report. U.S. Fish and Wildlife Service and National Fish and Wildlife Foundation.

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.

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

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.

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

Publications in Preparation

Boves, T.J., D.A. Buehler, P.B. Wood, A.D. Rodewald, J.L. Larkin, P.D. Keyser, and T.B. Wigley. Forest disturbance mediates covariation between a eumelanic plumage ornament and condition and influences spatial distribution of phenotypes. *Oecologia*.

Boves, T.J., D.A. Buehler, A.D. Rodewald, P.B. Wood, P.D. Keyser, J.L. Larkin, and T.B. Wigley. Nest provisioning and behavior by Cerulean Warblers on managed forest stands in the Cumberland Mountains. *Condor*.

Boves, T.J. and J.R. Belthoff. Condition, but not fluctuating asymmetry, correlates with eumelanism in North American Barn owls (*Tyto alba pratincola*): evidence for geographic variation in sexual signaling. *Ibis*.

Boves, T.J. and D.A. Buehler. Supercilium presence is not an age-related plumage trait in Cerulean Warblers. *Wilson Journal of Ornithology*.

Boves, T.J., J.H. Sperry, D.A. Cimprich, and P.J. Weatherhead. Climate cycles and fine-scale weather patterns affect nest survival of an endangered songbird. *Journal of Animal Ecology*.

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.

Contributions to Books and Online Resources

- **Animal Behaviour**, published by Oxford University Press (in press; 2013); Contributed avian nest videos.
- **Cerulean Blues** by Katie Sallitt Fallon, published by Ruka Press (October 2011); Contributed avian photos and research information.
- **Cornell Lab of Ornithology's Macauley Library**; Contributed avian nest videos.

Paper Presentations, Posters, and Invited Seminars

Lead Author, Presenter

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 (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, Department 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 Conference (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

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

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

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

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

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

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

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

Popular Press

PhD Research: • Flycatcher Journal – A Message of Rebirth: Hope and Devestation 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)

MS Research: • 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)

Grants

COS/WOS/AFO Student Travel Award – Kearney, NE: \$500 (2011)

University of Tennessee Graduate Research Travel Award: \$450 (2011)

J.B. Owen Avian Conservation Grant, Tennessee Ornithological Society: \$1100 (2008, 2010, 2011)

Olendorff Wildlife Society Grant, The Wildlife Society: \$1000 (2006)

Raptor Research Summer Fellowship, Boise State University: \$2000 (2005, 2006)

Teaching Experience

Post-doctoral Teaching Assistant

January 2011 to Present

UNIVERSITY OF ILLINOIS

DEPT OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES AND ANIMAL BIOLOGY

URBANA-CHAMPAIGN, IL

- Design and instruct Upland Habitat Field Techniques (NRES 285).
- Design and facilitate graduate level reading group entitled “Effective Undergraduate Teaching in the Sciences”.
- Co-supervise and mentor one graduate student and three undergraduate students.

Graduate Teaching Assistant

January 2008 to December 2011

UNIVERSITY OF TENNESSEE

DEPT OF FORESTRY, WILDLIFE, AND FISHERIES

KNOXVILLE, TN

- Instructed and organized laboratory portion of FWF 453 (Wild Bird Ecology and Management) and FWF 463 (Wildlife and Fisheries Management).
- Honored as “Outstanding Graduate Student Teaching Assistant” and received Chancellor’s citation for “Extraordinary Professional Promise” in 2011.
- Responsibilities included: preparing materials for all laboratory sections, lecturing, leading laboratory activities, organizing and leading field trips, assessing lab notebooks and scientific papers, and writing and assessing quizzes.
- Instructed lecture portion of FWF 453 for Dr. David Buehler when required.
- Designed an authentic, inquiry-based, upper level course entitled “Applied Avian Ecology”.
- Hired, trained, supervised, and mentored 18 undergraduate and post-graduate field and lab assistants.

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

August 2004 to May 2007

- Organized and instructed the laboratory portion of BIOL 191 (Introductory biology course for science majors).
- Responsibilities included: preparing materials for all laboratory sections, lecturing, leading laboratory activities, organizing and leading field trips, assessing lab notebooks and scientific papers, and writing and assessing quizzes.
- Revised BIOL 191 laboratory manual.
- Instructed lecture portion of BIOL 191 for Drs. Kevin Feris and Doty Douglas when required.
- Supervised and mentored one undergraduate lab and field assistant.

Native Plants Instructor
FOOTHILLS SCHOOL OF ARTS AND SCIENCES
BOISE, ID

April 2007 to May 2007

- Created, implemented, and instructed a field-based course introducing the native plants of Idaho for kindergarten to 8th-graders.

Ecology and Entomology Instructor
FOOTHILLS SCHOOL OF ARTS AND SCIENCES
BOISE, ID

Summer 2006

- Created, implemented, and instructed inquiry-based ecology and entomology courses for kindergarten to 5th-graders.

Biology Teacher
PROVISO EAST HIGH SCHOOL
MAYWOOD, IL

August 2002 to June 2004

- Instructed biology, honors biology, and AP biology to students in 9, 10, 11, and 12th grades. Provided individualized instruction to a culturally diverse student population with a wide range of abilities and learning styles.
- Created and ran the school's Ecology Club which introduced outdoor activities, as well as recycling, to over 100 students.
- Coached freshman basketball team to a 25-0 record in 2002.

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

Summer 2002

- Taught inquiry-based summer science course to advanced elementary students.

Courses Taught

Graduate

- **Seminar Course: Effective Undergraduate Teaching in the Sciences** (Co-designed and led with Daniel Welsh) – Open to all graduate and post-doctoral assistants in scientific fields at the 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

- **Wild Bird Ecology and Management** (Lab) – Department of Forestry, Wildlife, and Fisheries, University of Tennessee, Knoxville, TN (Spring 2008–2010)

Undergraduate

- **Upland Habitat Field Techniques** (Designed and instructed) – Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL (Spring 2013)
- **Ornithology** (Guest lecturer) – Haywood Community College, Clyde, NC (Summer 2011)
- **Wildlife and Fisheries Management** (Lab) – Department of Forestry, Wildlife, and Fisheries, University of Tennessee, Knoxville, TN (Fall 2008–2009)
- **Wild Bird Ecology and Management** (Guest lecturer) – Department of Forestry, Wildlife, and Fisheries, University of Tennessee, Knoxville, TN – “Avian Anatomy and Physiology” (2009–2010)

- **Biology I** (Head lab) – Department of Biological Sciences, Boise State University, Boise, ID (2004–2007)
- **Biology I** (Guest lecturer) – Department of Biological Sciences, Boise State University, Boise, ID – “Mitosis and Meiosis” (Fall 2006)

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)

Honors and Awards

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, Outreach, and Public Field Trips

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

Science Night Outreach at Local Schools – 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 Excursions (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 – Ross Marble Quarry, Knoxville, TN (14 May 2011)

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

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 Affiliations

National Association of Biology Teachers
Ecological Society of America
American Ornithologists Union
Society for Conservation Biologists
Wilson Ornithological Society
Cooper Ornithological Society
The Wildlife Society

Refereed Manuscripts for

Wilson Journal of Ornithology, Biological Journal of the Linnaean Society

Other Information

- Excellent computer and analytical skills including proficiency in the use of Blackboard, SAS, JMP, NCSS, R, ArcGIS, ArcView, Dreamweaver, Program MARK, NetLogo, and Sigma Plot.
- Conversationally fluent in Spanish and Greek.
- Maintain many professional and personal connections with scientific and educational organizations including: Patuxent Wildlife Research Center (Laurel, MD), Field Museum of Natural History (Chicago, IL), University of Illinois at Urbana-Champaign, Illinois Natural History Survey (Champaign, IL), Smithsonian Migratory Bird Center (Washington, D.C.), Tennessee Ornithological Society, USGS Snake River Field Office (Boise, ID), DuPage Birding Club (IL), Boise State University, US Fish and Wildlife Service, University of Tennessee, Cornell Lab of Ornithology, Tennessee Wildlife Resources Agency, American Bird Conservancy, Idaho Bird Observatory, Ijams Nature Center (Knoxville, TN), US Forest Service, Department of Defense (CERL-ERDC, Army).