

Virginie ROLLAND

Department of Biological Sciences
PO Box 599
State University AR 72467

Tel: (870)-972-3194
Email: vrolland@astate.edu
Website: virginierolland.wixsite.com/rollandlab

EDUCATION

- 2008 Ph.D. in Ecology and Population Dynamics
University Pierre and Marie Curie Paris VI, France
Centre d'Études Biologiques de Chizé, Chizé, France
Dissertation: *Impact of climate change and industrial fisheries on population dynamics of threatened albatrosses in the Southern Ocean*
Committee: Henri Weimerskirch (Advisor), Christophe Barbraud (Co-advisor), Jean-Dominique Lebreton, Daniel Oro, Bernard Cazelles, John Croxall
- 2005 M.S. in Ecology, Evolution, Biometry
University Claude Bernard Lyon I, France
University of Leicester, UK (Erasmus program)
Thesis: *Role of individual variability and climate change on breeding tactics (case of Norwegian white sheep)*
Committee: Jean-Michel Gaillard (Advisor) and all faculty members involved in the program
- 2003 B.S. in Population Biology
University Claude Bernard Lyon I, France
Emphasis in Biostatistics

PROFESSIONAL EXPERIENCE

- 2017 – present Associate Professor of Quantitative Wildlife Ecology
Department of Biological Sciences
Arkansas State University, Jonesboro, AR
- 2011 – 2017 Assistant Professor of Quantitative Wildlife Ecology
Department of Biological Sciences
Arkansas State University, Jonesboro, AR
- 2009 – 2010 Postdoctoral Research Associate
Department of Wildlife Ecology and Conservation
University of Florida, Gainesville, FL
- 2008 – 2009 Research Associate
Centre d'Études Biologiques de Chizé, Chizé, France

PUBLICATIONS

Note: Underlined names are students (^U if undergraduate). Asterisks indicate corresponding authors.

Refereed Journal Articles

- In Press 18. Schratz S., **Rolland V.***, Phillips J., Crosset R., Richardson D., and Risch T.S. (In Press) Bat Occupancy Estimates and Species Richness at Cache River National Wildlife Refuge. *Journal of Arkansas Academy of Science*.
17. Moore P.M., Morris K., Risch T.S., and **Rolland V.*** (In Press) Habitat Use of Female Gray Bats Assessed using Aerial Telemetry. *Journal of Wildlife Management*.

- 2016
 16. Istvanko D., Risch T.S., and **Rolland V.*** (2016) Sex-specific foraging habits and roost characteristics of the evening bat (*Nycticeius humeralis*) in an intensively managed forest in north-central Arkansas. *Journal of Mammalogy* 97: 1336-1344.
 15. Elston J., **Rolland, V.*** and Trauth S.E. (2016) Urban ditch characteristics associated with high turtle abundance and species richness. *Herpetological Conservation & Biology* 11: 132-141.
 14. Dodd K.*, **Rolland V.**, and Oli M.K. (2016) Consequences of individual removal on persistence of a protected population of long-lived turtles. *Animal Conservation* 19:369-379.
- 2015
 13. Fowler Neal J.A. and Rolland V.* (2015) A Potential Case of Brood Parasitism by Eastern Bluebirds on House Sparrows. *Southeastern Naturalist* 14: N31-N34.
- 2014
 12. Bobowski M.M.*, **Rolland V.**, and Risch T.S. (2014) Abundance and distribution of overwintering Red-tailed Hawks and American Kestrels in an agricultural landscape in northeastern Arkansas. *Journal of Raptor Research* 48: 273-279.
- 2012
 11. Barbraud C.*, **Rolland V.**, Jenouvrier S., Nevoux M., Delord K., and Weimerskirch H. (2012) Effects of climate change and fisheries bycatch on Southern Ocean seabirds: a review. *Marine Ecology Progress Series* 454: 285-307.
 10. Brischoux F.*, **Rolland V.**, Bonnet X., Caillaud M., and Shine R. (2012) Effects of oceanic salinity on body condition in sea snakes. *Integrative and Comparative Biology* 52: 235-244.
- 2011
 9. Cooke S.*, Casper, A., Brischoux F., Catford J., Bonada N., Schäfer R., Arlinghaus R., and **Rolland V.** (2011) Perspectives from early career researchers on the publication process in ecology – a response to Statzner & Resh (2010). *Freshwater Biology* 56: 2405-2412.
 8. **Rolland V.***, Hostetler J.A., Hines C., Johnson F., Percival F., and Oli M. (2011) Effect of harvest and climate on population dynamics of northern bobwhites in south Florida. *Wildlife Research* 38: 396-407.
 7. **Rolland V.***, F., Hostetler J.A., Hines C., Percival F., and Oli M. (2011) Factors influencing reproductive performance of northern bobwhite in south Florida. *European Journal of Wildlife Research* 57: 717-727.
- 2010
 6. Barbraud C.*, Rivalan P., Inchausti P., Nevoux M., **Rolland V.**, and Weimerskirch H. (2010) Contrasted demographic responses facing future climate change in Southern Ocean seabirds. *Journal of Animal Ecology* 80: 89-100.
 5. **Rolland V.***, Johnson F., Hostetler J.A., Hines C., Percival F., and Oli M. (2010) Impact of harvest on survival of a heavily hunted game bird population. *Wildlife Research* 37: 392-400.
 4. **Rolland V.***, Weimerskirch H., and Barbraud C. (2010) Relative influence of fisheries and climate on the demography of four albatross species. *Global Change Biology* 16: 1910-1922.
- 2009
 3. **Rolland V.***, Barbraud C., and Weimerskirch H. (2009) Assessing the impact of fisheries, climate and disease on the dynamics of the Indian Yellow-nosed Albatross. *Biological Conservation* 142: 1084-1095.

2. **Rolland V.***, Nevoux M., Barbraud C., and Weimerskirch H. (2009) Respective Impact of Climate and Fisheries on the Growth of an Albatross Population. *Ecological Applications* 19: 1336-1346.
- 2008 1. **Rolland V.***, Barbraud C., and Weimerskirch H. (2008) Combined effects of fisheries and climate on a migratory long-lived marine predator. *Journal of Applied Ecology* 45: 4-13.

Under Review or In Revision

Rolland V.*, Cansler B.^U, and McKay T. (Under Review) Interplay between weather conditions, prey availability, and diet of a non-opportunistic generalist's nestlings. *Southeastern Naturalist*.

Tietje W.T., Polyakov A.Y., **Rolland V.**, Hines J.E., and Oli M.K. (Under Review) Population ecology of the California mouse (*Peromyscus californicus*) in semi-arid oak woodland. *Journal of Mammalogy*.

Rolland V.* and Johnson R.L. (In Revision) Post-Nesting Microspatial Patterning of Adult and Juvenile Eastern Bluebirds. *Ibis*.

In Preparation

Rolland V., Tietje W.T., Srivathsa A., Polyakov A.Y., and Oli M. K. (In Preparation) Environmental factors and population demography in big-eared woodrat, *Neotoma macrotis*.

Rolland V.*, Furfey B.C., and Pierce A. (In Preparation) Foraging and spatial use patterns of Black Skimmers (*Rynchops niger*) nesting on the Isles Dernieres Barrier Island Refuge, Louisiana.

Fowler Neal J.A., Johnson R.L., and **Rolland, V.** (In Preparation) Genetic and social relationships among Eastern Bluebirds roosting in nest boxes during the winter.

Fowler Neal J.A. and **Rolland V.***. (In Preparation) Quantifying winter nest box use by cavity nesters.

Other

Rolland V.* and Fowler Neal J.A. An eastern bluebird laid an egg in house sparrow nest. (2015) *Bluebird* 37: 10-11.

PRESENTATIONS

Note: *presenter; student; ^UUndergraduate student; ^student award.

Oral Presentations

- 2017 31. Smart W.*, Collier N., and **Rolland V.*** Applied research for seabird conservation: nesting performance, human harvest and introduced predators. *BirdsCaribbean*, Tolles de Collantes, Cuba, July 13-17, 2017.

30. Tietje W.D.*, Polyakov A.Y., **Rolland V.**, Hines J., and Oli M.K. Population ecology of the California mouse (*Peromyscus californicus*) in semi-arid oak woodland. *97th Annual Meeting of the American Society of Mammalogists*, Moscow, ID, June 20-24, 2017.
29. Smart W.*, Collier N., and **Rolland V.** Grenadine Seabird Productivity: Nesting Performance, Human harvests and Introduced Predators. *create@astate*, Jonesboro, AR, April 20-21, 2017.
28. Harrod S.*, and **Rolland V.** Demographic responses of eastern bluebirds to temporal climate variability. *create@astate*, Jonesboro, AR, April 20-21, 2017.
27. Langley E.^{U*}, **Rolland V.**, and Johnson R. Genetic Analysis of Adult and Juvenile Eastern Bluebirds in Northeast Arkansas. *create@astate*, Jonesboro, AR, April 20-21, 2017.
26. Schratz S., **Rolland V.***, Phillips J., Crosset R., Richardson D., and Risch T.S. Bat Occupancy Estimates and Species Richness at Cache River National Wildlife Refuge. *The 101st annual meeting of Arkansas Academy of Science*, Conway, AR, April 7-8, 2017.
25. Scherman S.*, Risch T.S., and **Rolland V.** Southeastern Myotis and Rafinesque's Big-Eared Bats Make Seasonal Switches In Their Roosting Habits In Arkansas Bottomlands. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, Arkansas, March 2-3, 2017.
24. Smart W.*, Collier N., and **Rolland V.** Grenadine Seabirds: Nesting Performance, Human Harvest, and Invasive Predators. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, Arkansas, March 2-3, 2017.
- 2016 23. Smart W.*, Collier N., and **Rolland V.** Seabird Colony Decline, Nesting Performance, Human Harvest, and Invasive Predators in the Southern Grenadine Islands. *6th North American Ornithology Conference*, Washington DC, August 16-20, 2016.
22. **Rolland V.**, Tietje W.D.*, Srivathsa A., Polyakov A.Y., and Oli, M.K. Environmental factors and population demography in big-eared woodrat, *Neotoma macrotis*. *96th Annual Meeting of the American Society of Mammalogists*, Minneapolis, MN, June 24-28, 2016.
21. Srivathsa A.*, Polyakov A.K.*, Tietje W.D., **Rolland V.**, and Oli M.K. Population demography and environmental drivers in brush mouse, *Peromyscus boylii*. *96th Annual Meeting of the American Society of Mammalogists*, Minneapolis, MN, June 24-28, 2016.
20. Dodd K., **Rolland V.***, and Oli M.K. Consequences of individual removal on persistence of a protected population of long-lived turtles. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, AR, March 3-4, 2016.
19. Moore P.*, Risch, T.S., and **Rolland V.** Home range and habitat use of foraging Myotis grisescens from five maternity sites in Northern Arkansas using aerial tracking. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, AR, March 3-4, 2016.
18. Schratz S.^{^*}, **Rolland V.**, and Risch T.S. Roost tree selection of the southeastern myotis and Rafinesque's big-eared bat the in the Cache River National Wildlife Refuge, Arkansas. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, AR, March 3-4, 2016. **3rd Best Student Oral Presentation**

17. Moore P.*, Risch, T.S., and **Rolland V.** Methods of aerial tracking using "home range and habitat use of foraging gray bats (*Myotis grisescens*) from five maternity sites in Northern Arkansas" as a case study. *Southeastern Bat Diversity Network*, Lake Guntersville State Park, Guntersville, AL, February 18-19, 2016.
16. Schratz S.*, **Rolland V.**, and Risch T.S. Roost tree selection of the southeastern myotis and Rafinesque's big-eared bat the in the Cache River National Wildlife Refuge, Arkansas. *Southeastern Bat Diversity Network*, Lake Guntersville State Park, Guntersville, AL, February 18-19, 2016.
- 2015 15. Moore P.*, Morris, K., Risch T.S., and **Rolland V.** Home range and habitat use of foraging gray bats (*Myotis grisescens*) from five maternity sites in Northern Arkansas. *North American Society for Bat Research Meeting*, Monterey, CA, October 28-31, 2015.
14. **Rolland V.***. Eastern Bluebirds in Jonesboro. *University Heights Lions Club*, Jonesboro, AR. April 7, 2015. ***Invited Talk by Erick Grant***
13. Istvanko D.^*, Risch T.S., and **Rolland V.** Sex-specific foraging habits of the evening bat (*Nycticeius humeralis*) in the ozark region of north-central Arkansas. *North American Joint Bat Working Group Meeting*, St. Louis, MO. March 3-6, 2015. **Best Student Oral Presentation**
12. Moore P.*, Risch T.S, and **Rolland V.** Home range and habitat use of foraging gray bats (*Myotis grisescens*) from four maternity sites in Northern Arkansas. *North American Joint Bat Working Group Meeting*, St. Louis, MO. March 3-6, 2015.
11. Fowler Neal J.A. and **Rolland V.*** How do Eastern Bluebirds choose their roost mates during the winter? *North American Ornithologists' Union*, Estes Park, CO. September 23-27, 2014.
- 2014 10. Istvanko D.*, Risch T. S., and **Rolland V.** Roost characteristics of Evening bats. *Arkansas Chapter of The Wildlife Society* Fall meeting, Jonesboro, AR. Sept 11, 2014.
9. Fowler J.A.* and **Rolland V.** Winter roosting habits of Eastern Bluebirds in NE Arkansas. *Arkansas Audubon Society meeting*, Jonesboro, AR, May 3, 2014.
- 2012 7. **Rolland V.*** Climate change, Overexploitation, and Bird Populations. *Smithsonian Conservation Biology Institute*, Front Royal, VA. July 25, 2012. ***Invited Talk by Vicky McDonald***
- 2011 6. **Rolland V.***, Oli M.K., Johnson F., Percival F., Hostetler J.A., and Hines C. Bobwhite population dynamics. *129th American Ornithologists' Union Meeting*, Jacksonville, FL. July 14-15, 2011.
- 2009 5. **Rolland V.***, Hostetler J.A., Dimmick R., Brinkley S., Hines C., Percival F., and Oli M.K. Survival and cause-specific mortalities of Northern Bobwhite in South Florida. *16th annual conference of The Wildlife Society*, Monterey, CA. Sept 24-29, 2009.
- 2008 4. **Rolland V.**, Barbraud C.*, and Weimerskirch H. Comparative demography of four southern albatross species in relation to fisheries and climate. *International Albatross and Petrel Conference*, Cape Town, South Africa. August 2008.
- 2007 3. **Rolland V.***, Barbraud C., and Weimerskirch H. Influence des changements climatiques et des pêcheries sur la dynamique de population des albatros. Multidisciplinary meeting on polar research, *Comité National Français des Recherches Arctiques et Antarctiques*, Paris, France, Oct 5-6, 2007.

2. **Rolland V.***, Barbraud C., and Weimerskirch H. Assessing the impact of different threats on population dynamics of albatrosses. *The Buffon Legacy conference*, Dijon, France. Sept 3-9, 2007.
1. **Rolland V.***, Weimerskirch H., and Barbraud C. Combined effects of climate and fisheries on albatross demography. *Ecology & Behaviour meeting*, Montpellier, France. March 2007.

Poster Presentations

- | | |
|------|--|
| 2017 | <ol style="list-style-type: none"> 18. <u>Scherman S.*</u>, Risch T.S., and Rolland V. Southeastern Myotis and Rafinesque's Big-Eared Bats Make Seasonal Switches in their Roosting Habit in Arkansas Bottomlands. <i>North American Society for Bat Research</i>, Knoxville, TN, October 18-22, 2017. 17. Rolland V., Tietje, W.D.*, <u>Srivathsa A.</u>, <u>Polyakov A.Y.</u>, and Oli M.K. Environmental factors and population demography of the big-eared woodrat in coastal-central California. <i>97th Annual Meeting of the American Society of Mammalogists</i>, Moscow, ID, June 20-24, 2017. 16. <u>Scherman S.*</u>, Risch T.S., and Rolland V. Southeastern Myotis and Rafinesque's Big-Eared Bats Make Seasonal Switches in Their Roosting Habit in Arkansas Bottomlands. <i>create@astate</i>, Jonesboro, AR, April 20-21, 2017. 15. <u>Scherman S.*</u>, Risch T.S., and Rolland V. Southeastern Myotis and Rafinesque's Big-Eared Bats Make Seasonal Switches In Their Roosting Habits In Arkansas Bottomlands. <i>Southeastern Bat Diversity Network conference</i>, Asheville, NC, February 16-17, 2017. 14. <u>Nepshinsky M.*</u>, <u>Liechty J.</u>, <u>Minor A.</u>, <u>Windhoffer E.</u>, Rolland V., and Pierce A. Foraging Movement Patterns of Breeding Royal Terns (<i>Thalasseus maximus</i>) on the Isles Dernieres Barrier Islands Refuge in Southern Louisiana. <i>Gulf of Mexico Oil Spill and Ecosystem Conference</i>, New Orleans, LA, February 6-9, 2017. |
| 2016 | <ol style="list-style-type: none"> 13. <u>Smart W.</u>, Collier N., and Rolland V.*. Seabird Colony Decline, Nesting Performance, Human Harvest, and Invasive Predators in the Southern Grenadine Islands. <i>23rd Annual Conference of The Wildlife Society</i>, Raleigh-Durham, NC, October 15-19, 2016. |
| 2015 | <ol style="list-style-type: none"> 12. <u>Nepshinsky M.*</u>, <u>Liechty J.</u>, <u>Minor A.</u>, <u>Windhoffer E.</u>, Rolland V., and Pierce A. Foraging Movement Patterns of Breeding Royal Terns (<i>Thalasseus maximus</i>) on the Isles Dernieres Barrier Islands Refuge in Southern Louisiana. <i>Southeastern Partners In Flight Annual Meeting</i>, Lafayette, LA. November 2-5, 2015. 11. <u>Schratz S.*</u>, Rolland V., and Risch T.S. Characteristics of roost trees of Southeastern myotis and Rafinesque's big-eared bats in the bottomlands of Arkansas. <i>North American Joint Bat Working Group Meeting</i>, Monterey, CA. October 28-31, 2015. 10. <u>Nepshinsky M.*</u>, <u>Liechty J.</u>, <u>Minor A.</u>, <u>Windhoffer E.</u>, Rolland V., and Pierce A. Foraging movement patterns of breeding royal terns (<i>Thalasseus maximus</i>) on the Isles Dernieres Barrier Islands Refuge in Southern Louisiana. <i>Louisiana Chapter of the Wildlife Society Meeting</i>, Baton Rouge, LA, August 20-21, 2015 ***2nd place award*** 9. <u>Smart W.*</u>, Collier N., and Rolland V. Seabirds' nesting performance in the Grenadines. <i>20th International Birds Caribbean meeting</i>, New Kingston, Jamaica. July 25-29, 2015. |

8. Schratz S.*, **Rolland V.**, and Risch T.S. Characterization of Roost Trees of the Southeastern Myotis in the Bottomlands of Arkansas. *North American Joint Bat Working Group Meeting*, St. Louis, MO. March 3-6, 2015.
- 2014 7. Cansler B.^{U*} and **Rolland V.** Eastern Bluebird diet, behavior, and water content of prey items. *create@astate*, Jonesboro, AR. April 10, 2014.
6. Cansler B.^{U*} and **Rolland V.** Eastern Bluebird diet, behavior, and water content of prey items. *98th annual meeting of the Arkansas Academy of Science*, Searcy, AR, April 4, 2014.
5. Istvanko D.*, Risch T.S. and **Rolland V.** Sex-specific Foraging Habits of *Nycticeius humeralis* in an Intensely Managed Forest. *Southern Bat Diversity Network meeting*, Nacogdoches, TX, February 13-14, 2014.
- 2013 4. Fowler J.A.* and **Rolland V.** Winter nest box use and roost composition in Eastern Bluebirds in NE Arkansas. *American Ornithologists' Union meeting*, Chicago, IL. August 13-15, 2013.
3. Fowler J.A.* and **Rolland V.** Effects of temperature on Eastern Bluebird winter nest box use. *Association of Field Ornithologists meeting*, Venice, FL. March 28-30, 2013.
2. Moore P.* and **Rolland V.** Elevation and Female Bat Foraging Distribution in a Low Mountainous Region. *Southern Bat Diversity Network meeting*, Pikeville, TN. February 14-15, 2013.
- 2012 1. Bobowski M.M*, Bednarz J., Risch TS., Marsico T, and **Rolland V.** Foraging behavior and decision strategies by overwintering Red-tailed Hawks and American Kestrels in relation to prey density and patch-site characteristics. *North American Ornithology Conference*, Vancouver, Canada. August 15-18, 2012.

In the MEDIA

- 2016 Newly trained transboundary Grenadines citizen scientists unite to form Seabird Volunteer Patrol group. BirdsCaribbean, August 27, 2016. <http://www.birdscaribbean.org/2016/08/transboundary-grenadines-citizen-science-seabird-volunteer-patrol-group/>
- Lookout for A-State students working on bluebird project. Region 8 News (KAIT8), June 24, 2016. <http://www.kait8.com/story/32300600/lookout-for-a-state-students-working-on-bluebird-project>
- 2015 Going batty! Researcher study the foraging habits of gray bats at Crystal cave. Arkansas Democrat Gazette (ArkansasOnline), August 2, 2015. <http://arkansaslife.com/a-killer-in-the-dark/#/>
- 2014 A Killer in the Dark. Arkansas Life, May 2014. <http://arkansaslife.com/a-killer-in-the-dark/#/>

GRANTS, FELLOWSHIPS, and AWARDS

Research Grants Accepted and Funded

- 2016 **College Science and Mathematics GRADE** (\$6,025) Seabird colony decline, nesting performance, human harvest, and invasive predators in the Southern Grenadine islands. PI: Rolland.

US Fish and Wildlife Service - Gulf Coast Joint Venture (\$10,299.01) Foraging ecology of Black Skimmers (*Rynchops niger*) in Coastal Louisiana. PI: Rolland; co-PI: Pierce, Nicholls State University.

2015 **Arkansas Game and Fish Commission - State Wildlife Grant** (\$85,084) Fall and Winter Roosting Ecology of Rafinesque's Big-Eared Bats (*Corynorhinus rafinesquii*) and Southeastern Bats (*Myotis austroriparius*). PI: Rolland; co-PI: Risch, A-State.

2013 **US Fish and Wildlife Service** (\$53,460) Two-year mist-net and acoustical survey of Indiana bats on the Cache River National Wildlife Refuge. PI: Risch, A-State; co-PI: Rolland.

Arkansas Game and Fish Commission (\$ 99,037) Home range and habitat use of foraging gray bats from four maternity sites in northern Arkansas. PI: Risch, A-State; co-PI: Rolland.

2012 **Arkansas State University - Faculty Research Award** (\$ 2,000) Bird diet in relation to prey abundance and water content. PI: Rolland, co-PI: McKay, A-State.

Research Grants Accepted but not Funded

2012 **Arkansas Game and Fish Commission** (\$ 98,817) Home range and habitat use of foraging gray bats from four maternity sites in northern Arkansas. PI: Risch, A-State; co-PI: Rolland.

Arkansas Game and Fish Commission (\$ 254,900) The Effects of Burn Patch Size on the Reproductive Success and Survival of Northern Bobwhite. PI: Bednarz, A-State (at the time); co-PI: Rolland

Education Grant Accepted and Funded

2015 **Arkansas Humanities Council** (\$17,708) The History and Culture of Quail in Arkansas. PI: Miller, A-State; Collaborator: Rolland.

Research Grants Applications Denied

2017 **National Science Foundation – Integrative Organismal System** (pre-proposal) Physiological and genetic mechanisms underlying changes in phenology in response to climate change. PI: Grindstaff, Oklahoma State University (OSU); co-PIs: DuRant (OSU), Campbell (OSU), Siefferman (Appalachian State University), Rolland.

National Science Foundation – National Research Trainee: Traineeship Track (letter of intent) Developing an interdisciplinary core course and internship program to prepare Masters and PhD students for collaborative careers in environmental science. PI: McKay, A-State; co-PIs: Sikkell (A-State), Greene (A-State), Rolland.

Arkansas Game and Fish Commission - State Wildlife Grant (\$26,176) Development of a Statewide Freshwater Mussel Monitoring Program in Arkansas. PI: Rolland, co-PIs: Fluker (A-State), Harris (A-State).

Arkansas Game and Fish Commission - State Wildlife Grant (\$55,992) Distribution of the eastern small-footed bat in the Ouachita Mountains of Arkansas. PI: Risch (A-State), co-PI: Rolland.

2016 **The Curtis and Edith Munson Foundation** (\$35,760) Community-based conservation of seabird in the Grenadine Islands. PI: Rolland, co-PI: Collier (Environmental Protection in the Caribbean [EPIC]).

Kays Foundation (\$31,603) Community-based conservation of seabirds in the Grenadine Islands. PI: Rolland.

National Science Foundation – Population and Community Ecology (pre-proposal) Climate change and large-scale population dynamics of a wide-ranging North American passerine species. PI: Rolland; Collaborators: Grindstaff (Oklahoma State University), Guinan (Radford University), Siefferman (Appalachian State University).

2014 **Arkansas Game and Fish Commission - State Wildlife Grant** (\$148,295) Pre-white nose syndrome assessment of body condition and use of foraging and roosting sites in tricolored bats in NW Arkansas. PI: Rolland, co-PIs: Risch (A-State); Collaborator: Klotz (A-State).

2013 **National Science Foundation – CAREER** (\$580,502) Quantifying spatiotemporal impacts of climate change on population dynamics and potential for adaptation. PI: Rolland.

National Geographic – Conservation Trust (\$35,402) Seabirds in the Grenadines: socioeconomic value and impact of human harvest and alien predation. PI: Rolland; co-PI: Collier (Environmental Protection in the Caribbean [EPIC]).

2012 **SeaWorld and Busch Gardens – Conservation Fund** (\$35,402) Harvest and predation of declining seabirds: impacts and solutions. PI: Collier (Environmental Protection in the Caribbean [EPIC]); co-PI: Rolland.

Lawrence Foundation (\$9,705) Harvest and predation of declining seabirds: impacts and solutions. PI: Collier (Environmental Protection in the Caribbean [EPIC]); co-PI: Rolland.

Gulf of Mexico Research Initiative (\$488,937) Ecological and population response of black skimmers to a major oil spill in the Gulf of Mexico: identification of vital use areas and recommendations to enhance population recovery. PI: Bednarz (A-State, at the time); co-PIs: Pierce (Nicholls State University), Rolland.

Fellowships and Awards

- 2016 * You Made a Difference Academic Advisor Award (nominated)
- 2014 * Council for Undergraduate Research: Beginning a Research Program in the Natural Sciences at a Predominantly Undergraduate Institution Institute, Greensboro, NC, Nov 21-23, 2014
- 2013 * Women Evolving in the Biological Sciences Symposium, Raleigh-Durham, NC, October 16-19, 2013
- * Institute for Research Development, A-State, Jonesboro, AR, May 13-30, 2013
- * A-State Outstanding Graduate Faculty Mentor Award (nominated)
- 2009 * Summer school on Arctic climate, Abisko Scientific Research Station, Sweden
- 2006 * Summer school on Biodemography, Max Planck Institute, Rostock, Germany
- * Travel Award, Institut Paul Émile Victor, France
- 2005 * Ministry of National Education Fellowship, France
- 2003 * Erasmus Région Rhône-Alpes Fellowship, France

ADVISING and MENTORING EXPERIENCE

Undergraduate Academic Advising

Advised 11 *Wildlife, Ecology and Management* Majors; two graduated May 2017

Undergraduate Student Mentoring

- 2017 – present Amanda and Michael Trusty (B.S. Wildlife, Fisheries, and Conservation)
Nest monitoring, species identification, bird banding techniques
Research project: Predator guard, inspection frequency, and nest success
- 2015 – 2017 Erin Langley (B.S. Biology, Pre-professional emphasis).
Honors Thesis: Genetic Analysis of Adult and Juvenile Eastern Bluebirds in
Arkansas. Chair: Johnson (A-State)
Summer Undergraduate Research Fellowship (\$3,950) PI: Rolland; co-PI: Johnson
Best Pre-professional student award (2017); Admitted to Vet School in Texas.
- 2016 - 2017 Tyler Foster and Karen Wright (B.S. Wildlife Ecology and Management)
Radio-tracking, tree species identification and measurements, bat mist-netting and
harp-trapping, exit counts, bridge surveys
- 2012 – 2017 Shaena Howell, Ashley Hart, Erica Olney, Emily Green, Trevor Grubb, Gracie Orfanos,
Gunnar Muckleberg (B.S. Wildlife Ecology and Management); Emily Reynolds and
Candice Ashley (B.S. Biology, Pre-professional emphasis).
Nest monitoring, species identification, bird banding techniques
- 2014 – 2015 Michael Gates (B.S. Biology, Pre-professional emphasis)
Winter nest box monitoring, Bird banding techniques
- 2014 Morgan Tripod (B.S. Biology, Pre-professional emphasis)
Ring-collaring for nestling diet sampling, pitfall trapping, sweep-netting techniques
Best Pre-professional student award (2016); Admitted to Med School in Arkansas.
- 2013 – 2015 Brandi Cansler (B.S. Wildlife Ecology and Management)
Nest monitoring, Ring-collaring for nestling diet sampling
Poster presentations and publication under review
Director of San Angelo Nature Center, TX (2016)
Graduate coordinator of Arkansas State University (2017)
- 2013 LeeVi Haas (B.S. Wildlife Ecology and Management)
Nest box maintenance, Winter box monitoring techniques
Graduated from A-State with a M.S. in Biology (2017)
- 2012 – 2013 Emily Mizell (B.S. Wildlife Ecology and Management)
Nest monitoring, species identification, bird banding techniques
Research project: Bluebird site and mate fidelity
Graduated from University of Arkansas School of Law (2016)
Now attorney at Rose Law Firm, Little Rock, AR.

Graduate Student Mentoring

- 2015 – present Sara Harrod (Ph.D. Environmental Sciences)
Dissertation: Bluebird population dynamics in response to climatic variability at
longitudinally contrasting regions
Received \$1,500 of funding from two ornithological organizations (2016).
- 2016 – present Stacy Scherman (M.S. Biology)
Thesis: Fall and winter roosting ecology of Rafinesque's big-eared and Southeastern
bats
Received a \$5,000 grant from Riverbanks Zoo & Garden in 2017.

- 2015 – present Wayne Smart (M.S. Environmental Sciences)
Thesis: Assessing human harvest and invasive predation on Grenadine seabird nesting performance
Received a \$500 travel award from North American Ornithological Conference
Received grants from National Geographic Young Explorer (\$5,000) and BirdsCaribbean (~\$1,000).
- 2012 – 2016 Patrick Moore (M.S. Biology)
Thesis: Aerial telemetry to assess foraging habitat of female gray bats from four maternity colonies in Arkansas
Invited to give talks to other institutions in Arkansas
Received the one annual Southern Bat Diversity Network travel award (2015)
Now bat biologist for Environmental Solutions Inc.
- 2012 – 2015 Daniel Istvanko (M.S. Environmental Sciences)
Thesis: Sex-specific foraging and roosting habits of Evening bats in north-eastern Arkansas
Best student oral presentation, Southern Bat Diversity Network meeting (2015)
Best 2015 EVS student award.
Now wildlife diversity biologist for the Tennessee Wildlife Resources Agency
- 2012 – 2014 Jessica Fowler (M.S. Environmental Sciences)
Thesis: Eastern bluebird winter roosting habits
Received research award from North American Bluebird Society
Received a membership award from American Ornithologists' Union (AOU)
Received two travel awards (AOU and American Field Ornithologists conferences)
Now science teacher at a high school in Texas

Student Committees

- 2016 – present Ashley Schulz (Ph.D. Environmental Sciences)
Dissertation: An assessment of non-native species' mechanisms of invasion, impact, management, and policy. Chair: Marsico.
- 2016 – present Jennifer Reed (M.S. Biology)
Thesis: Collection biases and plant species richness misrepresentations in an agriculture-dominated landscape. Chair: Marsico.
- 2016 – present Hazel Berrios (M.S. Biology)
Thesis: Diversity and morphology patterns of vascular epiphytes along an elevation gradient in the tropical montane forest of Volcán Maderas, Nicaragua. Chair: Marsico.
- 2016 – present Jimmy Gore (M.S. Biology)
Thesis: Habitat Occupancy Modeling for Chiropteran Species of Concern on the Buffalo National River. Chair: Risch.
- 2015 – present Rachel Hampton (M.S. Biology)
Thesis: Effects of Infrared Radiation on Rice and Stored-Product Insects. Chair: McKay.
- 2015 – present Sofija Todorovic (M.S. Biology)
Thesis: Potential vectors of heartworm (*Dirofilaria immitis*) in Arkansas and a model to predict seasonal transmission for the United States. Chair: McKay.
- 2014 – present Amy Wynia (Ph.D. Biology, University of North Texas)

Dissertation: Magellanic woodpecker dynamics on Navarino island, Chile. Chair: Jimenez (University of North Texas).

- 2013 – present Bob Vernocy (Ph.D. Environmental Sciences)
Dissertation: The effects of prescribed burning on the eastern wild turkey (*Meleagris gallopavo*) habitat use and demography in a shortleaf pine bluestem grass ecosystem. Chair: Bednarz then Risch.
- 2013 – present Lauren Helton (M.S. Biology)
Thesis: Use of fish farms and Wetland Reserve Program properties by Least Terns and shorebirds during migration through eastern Arkansas. Chair: Bednarz then Risch.
Currently biologist for the Institute for Bird Populations, CA.
- 2014 – 2016 Katie Kilmer (Ph.D. Environmental Sciences)
Dissertation: Water quality of the cache river watershed, arkansas: impairments and implications for lead toxicity. Chair: Bouldin.
Now assistant professor of Biology and Environmental Health at Missouri Southern State University since August 2016.
- 2014 – 2016 Doug Raybuck (M.S. Biology)
Thesis: Migration and the post-fledging period: examining two critical stages of the Cerulean Warbler life cycle. Chair: Boves.
Now Ph.D. student at University of Tennessee, Knoxville.
- 2014 – 2016 Sam Schratz (M.S. Biology)
Thesis: Presence and roosting ecology of the Southeastern myotis and Rafinesque's big-eared bat in the Cache River National Wildlife Refuge. Chair: Risch.
Now wildlife biologist for the Forest County Potawatomi Tribe, WI.
- 2013 – 2016 John Artim (Ph.D. Environmental Sciences)
Dissertation: Habitat and community associations and the population dynamics of a temporary coral-reef fish ectoparasite. Chair: Sikkell.
- 2014 – 2015 Martine Toko Bowombe (M.S. Biology)
Thesis: Abundance and distribution of *Tribolium castaneum* (Coleoptera: Tenebrionidae) in rice mills and on-farm storage facilities. Chair: McKay
- 2013 – 2014 Phillip Jordan (M.S. Biology)
Thesis: Single-unit turbines and bat mortality in Arkansas. Chair: Risch
Now bat biologist for the US Forest Service, Hot Springs, AR.
- 2012 – 2014 Brehan Furfey (M.S. Biology)
Thesis: Nesting and foraging ecology of Black Skimmers in Louisiana pre-/post-BP oil spill. Chair: Bednarz then Risch.
Field Ecologist for the Avian Research & Conservation Institute, Florida (until 2016)
Now biologist for the Florida Fish and Wildlife Commission
- 2013 Greg Robinson (M.A. Biology)
Major project: Examination of femoral pore asymmetry in two sympatric lizard species based on behavioral differences; Minor project: Meet the snakes of your backyard – Outreach at Crowley's Ridge Nature Center. Chair: Trauth.
Now assistant professor of Biology at Gulf Coast State College, FL.
- 2012 – 2013 Amy Wynia (M.S. Biology)

Thesis: Effects of nest-site selection, brood parasitism, and predation on the nesting success of passerines breeding in bottomland hardwood forests in East-Central Arkansas. Chair: Bednarz then Risch.
Now Ph.D. student at University of North Texas.

- 2012 – 2013 Sara Johnson-Miller (M.S. Biology)
Thesis: The effects of sibling aggression and landscape on dispersal patterns of a suburban Red-shouldered Hawk population in Cincinnati, OH. Chair: Bednarz then Risch.
Wildlife biologist for the Florida Fish and Wildlife Commission (until early 2017).
Now works for the Royal Society for the Protection of Birds, UK.
- 2012 – 2013 Melissa Bobowski (M.S. Biology)
Thesis: Foraging behavior and decision strategies by overwintering Red-tailed Hawks and American Kestrels in relation to prey density and patch-site characteristics. Chair: Bednarz then Risch.
- 2012 – 2013 Karl Lamothe (M.S. Biology)
Thesis: Florida bass stocking protocol assessment in Arkansas reservoirs using microsatellites. Chair: Johnson.
Now Ph.D. student at University of Toronto, Canada.
- 2012 – 2013 Jonathan Elston (M.S. Biology)
Thesis: Turtle usage of urban streams in an expanding northeastern Arkansas city.
Chair: Trauth.

COURSES TAUGHT

*Undergraduate-level courses are coded 1000-4000, whereas graduate-level courses are coded 5000-7000.
*New course I have developed; ^{CT}Co-taught course, ^{IR}Lab for which I have supervised a teaching assistant;
^{GL}Guest lectures.*

Arkansas State University, 2011 – present

BIO 1001	Biological Sciences Lab ^{IR}	every semester since 2012
BIO 1301	Biology of Animals Lab ^{IR}	every semester since 2012
BIO 3673	Human Dimensions of Natural Resources*	F2013 ^{CT} , 2015, 2017 ^{CT}
BIO 4663	Wildlife Investigation Techniques	Sp2013, Sp2015, Sp2017
BIO 4661	Wildlife Investigation Techniques Lab	Sp2013 ^{CT} , Sp2015, Sp2017
BIO 404V	Biometry*	Sp2014, Sp2016
BIO 504V	Exploring Data Analysis*	Sp2016
BIO 5444	Wildlife Population Modelling*	F2012, F2014, F2016
BIO 5684	Biological Data Analyses*	every spring since 2012
BIO 6003	Scientific Methods & Research Design	F2012 ^{CT} , F2013-F2015, F2016-F2017 ^{CT}
ESCI 7121	Ecological Aspects of Climate Change*	F2011

U.S. Fish and Wildlife Service National Conservation Training Center, 2012 – 2013

ALC 3193 Climate Academy (a monthly webinar for natural resource managers and conservation professionals)

University of Florida, 2010

WIS 6455 Wildlife Population Ecology^{GL}

Centre d'Études Biologiques de Chizé, France, 2005-2008

Workshop *Basic statistical tests and generalized linear models using R* for graduate students.

Lectures Various topics relating to demography, conservation, and climate change for undergraduate students of Universities of La Rochelle, Tours, Poitiers and Angers; *Global change ecology* for students of Melle High School.

PROFESSIONAL DEVELOPMENT

Workshops

- 2014 Council for Undergraduate Research: Beginning a Research Program in the Natural Sciences at a Predominantly Undergraduate Institution Institute, Greensboro, NC
- 2013 Women Evolving in the Biological Sciences Symposium, Raleigh-Durham, NC
- 2013 Institute for Research Development, A-State, Jonesboro, AR
- 2013 Mist-netting, Bird Extraction, and Bird Banding, Missouri River Bird Observatory, Marshall, MO
- 2012 Creating a Climate of Mentorship–Developing a Viable Program, A-State, Jonesboro, AR
- 2011 NSF Day in Arkansas, Little Rock, AR
- 2011 Teaching Local and International Students, A-State, Jonesboro, AR
- 2011 Analysis and Management of Vertebrate Populations and Communities, University of Florida, Gainesville, FL.
- 2010 Information Theoretic, University of Florida, Gainesville, Florida
- 2008 Demographic responses of vertebrate populations to climatic changes, Chizé, France
- 2005 Analysis of multistate capture-recapture data: Modelling incomplete individual histories, Centre d'Écologie Fonctionnelle et Évolutive, Montpellier, France

Professional Meetings Attended

^J*Judge for student poster/oral presentations*

American Ornithologists' Union	2013, 2014
Arkansas Academy of Science	2014, 2017
Arkansas Audubon Society	2013, 2014
Arkansas Chapter of The Wildlife Society	2011– 2015, 2016 ^J , 2017 ^J
North American Ornithologist Conference	2012
North American Society for Bat Research	2015
Southern Bat Diversity Network	2015 ^J , 2017
Southeast Deer Study Group	2015
Strategic Quail Management Plan	2016
The Wildlife Society	2011, 2016

PROFESSIONAL SERVICE

Reviewer

Grant proposals

National Science Foundation (2), Fonds de Recherche Quebec Nature et Technology (16), DoD's Strategic Environmental Research And Development Program (5)

Scientific papers

Ardea (1), Arkansas Academy of Science (1), Auk: Ornithological Advances (1), Biological Conservation (1), Condor: Ornithological Applications (2), Ecological Applications (2), Ecology (2), Endangered Species Research (1), European Journal of Wildlife Research (1), Frontiers (1), Ibis (1), Herpetological Conservation and Biology (1), Journal of Animal Ecology (1), Journal of Applied Ecology (1), Journal of Field Ornithology (1), Journal of Mammalogy (2), Journal of Ornithology (2), Journal of Wildlife Management (1), Marine Biology (1), Marine Ecology Progress Series (1), Nature – Climate Change (1), Northeastern Naturalist (1), Oecologia (1), Oikos (2), Proceedings of Quail VII (1), Southwestern Naturalist (1), Wilson Journal of Ornithology (1), Wildlife Society Bulletin (1)

Professional memberships

2015 – present	Southeastern Bat Diversity Network
2014 – present	Arkansas Academy of Science
2013 – present	North American Bluebird Society
2013 – present	Arkansas Audubon Society
2013 – present	North American Ornithologists' Union
2013 – present	Cornell Lab of Ornithology
2012 – present	The Wildlife Society (national and Arkansas chapter)

Arkansas Chapter of the Wildlife Society

2017 – present	Secretary-Treasurer
2016 – 2017	Judge for student presentations
2014	Coordinated and Hosted meeting at A-State – Jonesboro campus

AR Quail Council

2016 – present	Technical Committee member
----------------	----------------------------

Christmas Bird Count

2013 – present	National Audubon Society Registered compiler for the Jonesboro circle
2011 – present	Participated in Jonesboro counts

Science Fair Judge

2011 – present	Judged grade 7-12 projects for local and regional science fairs
----------------	---

UNIVERSITY SERVICE

Department

2017 – present	Faculty Grievance Committee member
2017 – present	Graduate Program Committee member
2013 – present	Curriculum Committee member
	New Student Registration advisor
2013 – 2015	Long-term Strategic Planning Committee member
2012 – present	Student Award Committee member
2012 – 2013	Search Committee member for Ornithology tenure-track position
	Search Committee member for a Rice Mills Research Assistant
2011 – present	Statistical service to students and faculty
	Participated in recruitment events

College

2016	Taught an introduction to statistics for Bridge, a program to help students from underrepresented groups to bridge from a BS degree in STEM to graduate school.
2013 – present	Women in Science student club advisor
2012 – present	Wildlife and Fisheries student club co-advisor

University

2014 – present	Institutional Review Board Committee member
2016 – present	create@astate Committee member (a committee that organizes a campus-wide scholar conference)
2013	Offered two workshops for the Department of Continuing Education and Community Outreach: <i>Attracting birds in your backyard</i> and <i>Salsa dancing for beginners</i> .
2012 – 2013	Undergraduate Graduation & Academic Credit Appeals Committee substitute

COLLABORATORS

Non-student collaborators for the past 3 years

- Jason Davis (Radford University, VA)
- C. Ken Dodd Jr. (University of Florida, FL)
- Michael Dougan (emeritus, history, A-State, AR)
- Jen Grindstaff (Oklahoma State University, OK)
- Judy Guinan (Radford University, VA)
- Ron Johnson (A-State, biology, AR)
- Tanja McKay (A-State, biology, AR)
- Cynthia A. Miller (A-State, education, AR)
- Madan K. Oli (University of Florida, FL)
- Aaron Pierce (Nichols State University, LA)
- Tom S. Risch (A-State, biology, AR)
- Lynn Siefferman (Appalachian State University, NC)
- William Tietje (University of California, Berkeley, CA)
- Keith Morris (A-State, agriculture, AR)
- Stan Trauth (A-State, biology, AR)
- Jason Phillips (USFWS, AR)
- Richard Crosset (USFWS, AR)
- Dave Richardson (USFWS, AR)

REFERENCES

Dr. Maureen Dolan

Colleague and co-teacher

Assoc. Professor of Molecular Biology

Dept. Biological Sciences

Arkansas State University

Jonesboro, AR

mdolan@astate.edu

870-680-4359

Dr. Aaron Pierce

Collaborator

Assoc. Professor of Environmental Biology

Dept. Biological Sciences

Nicholls State University

Thibodaux, LA

aaron.pierce@nicholls.edu

985-493-2628

Dr. Tanja McKay

Colleague and collaborator

Professor of Entomology

Dept. Biological Sciences

Arkansas State University

Jonesboro, AR

tmckay@astate.edu

870-972-3240 (On sabbatical in Australia until Jan 2018)

Dr. Than Boves

Colleague

Assist. Professor of Ornithology

Dept. Biological Sciences

Arkansas State University

Jonesboro, AR

tboves@astate.edu

870-972-3320