

# Virginie ROLLAND

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## EDUCATION

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- 2008                      Ph.D. in Ecology and Population Dynamics  
                                 University Pierre and Marie Curie Paris VI, France  
                                 Centre d'Études Biologiques de Chizé, Chizé, France
- 2005                      M.S. in Ecology, Evolution, Biometry  
                                 University Claude Bernard Lyon I, France  
                                 University of Leicester, UK (Erasmus program)
- 2003                      B.S. in Population Biology  
                                 University Claude Bernard Lyon I, France  
                                 Emphasis in Biostatistics

## PROFESSIONAL EXPERIENCE

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- 2022 – present              Full Professor of Quantitative Wildlife Ecology  
                                 Department of Biological Sciences  
                                 Arkansas State University, Jonesboro, AR
- 2017 – 2022                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

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Note: Underlined names are students (<sup>U</sup> if undergraduate). Asterisks indicate corresponding authors.

### In Review/Revision

42. Kearny V., Perry R., Rish T., and **Rolland V.**\* Microhabitat of *Myotis leibii* summer roosts in west-central Arkansas. In Review for the *Canadian Journal of Zoology*.
41. Miller S.J., Dykstra C.R.\* , Simon M.M., Hays J.L., **Rolland V.**, and Bednarz J.C. Influence of hatching asynchrony and feeding rates on sibling aggression of nesting red-shouldered hawks, *Buteo lineatus*. In Revisions for Raptor Research.

### Refereed Journal Articles

- 2022              40. Harrod S.E.\*, and **Rolland V.** Using citizen science to determine if songbird nesting parameters fluctuate in synchrony. *Plos One* 17: e0277656

39. Scherman S.S., Risch T.S., and **Rolland V\***. Fall and winter activity of two bat species in response to winter flooding and decreasing temperature. *Global Ecology and Conservation* 38: e02276.
38. Kearny V.M., Perry, R.W., Risch T.S., and **Rolland V\***. Distribution and roost site selection of eastern small-footed bats (*Myotis leibii*) in mountains of west-central Arkansas. In press for *Southeastern Naturalist* 21: 74–92.
37. Hampton R.M., Atungulu G., **Rolland V.**, Wilson, S.A., and McKay T\*. Effects of infrared radiation on germination of long grain rice. *Applied Engineering in Agriculture* 38: 129–133.
36. **Rolland V.\***, Schratz S.A, Istvanko D.R., and Harrod S.E. Evening bats (*Nycticeius humeralis*) use bird nest boxes as day roosts in Northeastern Arkansas. *American Midland Naturalist* 187: 84–89.
- 2021 35. Harrod S.E.\*, De Bellis C., Trusty A.<sup>U</sup>, and **Rolland V.** Eastern Bluebirds (*Sialia sialis*) rear four broods to apparent fledging in northeastern Arkansas. *The Wilson Journal of Ornithology* 133: 358–364.
34. Wynia A.L.\*, **Rolland V.** and Bednarz J.C. Rat snakes, cowbirds, and vines lower passerine nest survival in remnant bottomland hardwood forests in east-central Arkansas, USA. *Avian Conservation and Ecology* 16: 19.
33. Polyakov A.Y.\*, Tietje W.D., Srivathsa A., **Rolland V.**, Hines J.E., and Oli M.K. Multiple coping strategies maintain stability of a small mammal population in resource-restricted environments. *Ecology and Evolution* 11: 12529–12541.
32. Chaudhary V\*, Tietje W.D., Polyakov A.Y., **Rolland V.**, and Oli M.K. Factors driving California pocket mice (*Chaetodipus californicus*) population dynamics. *Journal of Mammalogy* 102: 1353–1354.
31. **Rolland V.\***, Tietje W.D., Polyakov A.Y., Chaudhary V., and Oli M. (2021) Climatic factors and population demography in big-eared woodrat, *Neotoma macrotis*. *Journal of Mammalogy* 102: 731–742.
30. Smart W.A., Collier N, and **Rolland V\***. (2021) Non-native rats detected on uninhabited southern Grenadine islands with seabird colonies. *Ecology and Evolution* 11: 4172–7181.
29. Harrod S.E.\*, and **Rolland V.** (2021) Factors associated with attitudes and knowledge of first-semester college students toward climate change. *BioScience*. 71: 415–425.
- 2020 28. Moseley S.C.<sup>U</sup>, Harrod S.E., and **Rolland V.\*** (2020) Tufted Titmice rear a mixed brood to apparent fledging in Northeast Arkansas. *Wilson Journal of Ornithology* 132: 197–202.
27. Smart W.A., Collier N., and **Rolland V.\*** (2020) A survey of Grenadians on seabird harvest in the Grenada Grenadines. *Journal of Caribbean Ornithology* 33: 67–77.
26. Harrod S.E.\*, and **Rolland V.** (2020) Demographic responses of Eastern Bluebirds to climatic variability in Northeastern Arkansas. *Population Ecology* 62: 317–331.
25. **Rolland V.**, Nepshinsky M., Windhoffer E.D., Liechty J.S., Minor A.K., and Pierce A.R.\* (2020) Foraging areas and movements of Royal Tern *Thalasseus maximum* breeding at

the Isles Dernieres Barrier Islands Refuge, Louisiana, USA. *Marine Ornithology* 48: 162–169.

- 2019
24. Wynia A.L.\*, **Rolland V.**, and Jiménez J.E. (2019) Improved Campephiline detection: An experiment conducted with the Magellanic Woodpecker. *Ecology and Evolution* 9: 11724–11733.
23. Kwon Y., Doty A.C.\*, Huffman M.L., **Rolland V.**, Istvanko D.R., and Risch T.S. (2019) Implications of forest management practices for sex-specific habitat use by *Nycticeius humeralis*. *Journal of Mammalogy* 100: 1263–1273.
22. **Rolland V.\***, Furfey B.C., and Pierce A. (2019) Foraging movements of Black Skimmer (*Rynchops niger*) nesting on the Isles Dernieres Barrier Island Refuge, Louisiana. *Waterbirds* 42: 95–99.
21. Hampton R.M., Atungulu G.G., Odek Z., **Rolland V.**, Siebenmorgen T.J., Wilson S.A., and McKay T.\* (2019) Assessment of *Rhyzopertha dominica* (F.) progeny and feeding damage on rice dried with infrared radiation. *Journal of Stored Products Research* 81: 69–75.
20. Srivathsa A., Tietje W.D., **Rolland V.**, Polyakov A.Y., and Oli M.K.\* (2019) Climatic drivers of pinyon mouse *Peromyscus truei* population dynamics in a resource-restricted environment. *Population Ecology* 61: 122–131.
- 2018
19. Tietje W.D., Polyakov A.Y., **Rolland V.**, Hines J.E., and Oli M.K.\* (2018) Climatic influences on demography of the California mouse (*Peromyscus californicus*) in semi-arid oak woodland. *Journal of Mammalogy* 99: 1149–1158.
- 2017
18. Schratz S.\*, **Rolland V.**, Phillips J., Crosset R., Richardson D., and Risch T.S. (2017) Bat Occupancy Estimates and Species Richness at Cache River National Wildlife Refuge. *Journal of Arkansas Academy of Science* 71: Article 20.
17. Moore P.M., Morris K., Risch T.S., and **Rolland V.\*** (2017) Habitat Use of Female Gray Bats Assessed using Aerial Telemetry. *Journal of Wildlife Management* 81: 1242–1253.
- 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: 133–1344.
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 Stutzner & 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.

### Other

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

### PRESENTATIONS

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Note: \*presenter; student; <sup>U</sup>Undergraduate student; <sup>^</sup>student award.

### Oral Presentations

- 2022
49. Lamb A.\*, Perry R.W., and Rolland V. Tricolored bats overwinter in box culverts in an Arkansas region without caves. *Arkansas Karst and Bat Conservation Meeting, Cave Spring, Arkansas*, November 3–4, 2022.
  48. Lamb A.\*, Perry R.W., and Rolland V. Tricolored bats overwinter in box culverts in an Arkansas region without caves. *Arkansas Wildlife Action Plan Symposium, Mount Magazine, Arkansas*, September 13–14, 2022.
  47. Lamb A.\*, Perry R.W., and Rolland V. Tricolored bats overwinter in box culverts in an Arkansas region without caves. *Joint International Bat Research Conference and North American Society for Bat Research Symposium, Austin, Texas*, August 7–12, 2022.
  46. Rolland V.\* Are bluebirds equipped to face climate change? Invited talk at the *University of Mississippi seminar series, Virtual*, February 4, 2022.
- 2021
45. De Bellis C.R.\*, Campbell S.P., Beaudry F., Stuyck C., Heath J., Speicher J., DeMent S.H., Fischer L.K., and **Rolland V.** Have North American birds been shrinking over time? A test of Bergmann's rule in the context of climate change. *American Ornithological Society conference, Virtual*, August 9–13, 2021.
  44. De Bellis C.\* and **Rolland V.** The Relationship between North American Birds and Bergmann's rule in the context of climate change. *create@astate, Virtual*, April 19-21, 2021
  43. De Bellis C.\* and **Rolland V.** Does Bergmann's rule apply to North American birds in the context of climate change? *Arkansas Chapter of The Wildlife Society. Virtual, Arkansas*, March 11, 2021.
  42. Kearny V.\*, Perry R., Risch T., and **Rolland V.** Distribution and day roost preferences of Eastern Small-Footed Bats in the Ouachita Mountains of Arkansas. *Arkansas Chapter of The Wildlife Society. Virtual, Arkansas*, March 11, 2021. **\*\*Best Student Oral Presentation\*\***
- 2020
41. Kearny V.\*, Perry R., Risch T., and **Rolland V.** Distribution and Day Roost Preferences of Eastern Small-Footed Bats in the Ouachita Mountains of Arkansas. *4th Annual Arkansas Karst and Bat Conservation Meeting, Virtual Meeting hosted by The Nature Conservancy*, October 29, 2020.
  40. Kearny V.\*, and **Rolland V.** Searching for Small-footeds: Distribution and Roost Preferences of *Myotis leibii*. *Fall meeting of the Arkansas Audubon Society. Virtual Zoom meeting*, October 24–26, 2020.
  39. Kearny V.\*, Perry R., Risch T., and **Rolland V.** Distribution and day roost preferences of Eastern Small-footed Bats in the Ouachita Mountains of Arkansas. *Arkansas Chapter of The Wildlife Society. Little Rock, Arkansas*, March 5-6, 2020.
- 2019
38. Hampton R., Attungulu G., **Rolland V.**, Wilson S., and McKay T.\* Effects of infrared radiation on germination of long grain rice. *Entomological Society of America, St Louis, Missouri*, November 17-20, 2019.
  37. Harrod S.\* and **Rolland V.** Contrasting demographic responses of Eastern Bluebird populations to climatic variability. *American Ornithological Society. Anchorage, Alaska*, June 24-28, 2019.

- 2018
36. Scherman S.\*, Risch T.S, and **Rolland V.** Southeastern Myotis and Rafinesque’s Big-Eared Bats Switch their Roosting Habits Seasonally in Arkansas Bottomlands. *North American Society for Bat Research*, Puerto Vallarta, Mexico, October 23-27, 2018.
  35. Scherman S., Risch T.S, and **Rolland V.\***. Fall and winter roosting ecology of Rafinesque’s big-eared bats and Southeastern bats. *Arkansas Wildlife Action Plan symposium*, Mount Magazine, Arkansas, September 10-11, 2018.
  34. **Rolland V.\***, Tietje W.D., Srivathsa A., Polyakov A.Y., and Oli M.K. Season-specific effects of climatic variables on the population demography of the big-eared woodrat in coastal-central California. *American Society of Mammalogists conference*, Manhattan, Kansas, June 25-29, 2018.
  33. Harrod S.\* and **Rolland V.** Demographic responses of Eastern Bluebirds to temporal climate variability. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, Arkansas, March 1-2, 2018.
  32. Scherman S.\*, Risch T, and **Rolland V.** Southeastern myotis and Rafinesque’s big-eared bats switch their roosting habits seasonally in Arkansas bottomlands. *Arkansas Chapter of The Wildlife Society Meeting*, Little Rock, Arkansas, March 1-2, 2018.
- 2017
31. Smart W.\*, Collier N., and **Rolland V.** Applied research for seabird conservation: nesting performance, human harvest and introduced predators. *Birds Caribbean*, 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. *97<sup>th</sup> 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.<sup>U\*</sup>, **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 101<sup>st</sup> 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. *129<sup>th</sup> 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. *16<sup>th</sup> 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

- 2022 41. Sharrow T.\*, **Rolland V.**, and Boves T. American kestrels as pest control agents in an agriculturally dominated landscape of northeast Arkansas. *Association of Field Ornithologists* annual meeting, Plymouth, Massachusetts, October 11–13, 2022.
40. Reusche M.\*<sup>^</sup>, Johnson R.L., and **Rolland V.** Has the endemic Ozark pocket gopher (*Geomys bursarius ozarkensis*) expanded its distribution? *Annual Meeting of the Southeastern Bat Diversity Network and Colloquium on the Conservation of Mammals in the Southeastern United States*, Virtual (gather.town), March 9–10, 2022. \*\*Best Student Poster Presentation\*\*
39. Lamb A.\*, Perry R.W., and **Rolland V.** Tricolored bats overwinter in culverts in caveless southern Arkansas. *Annual Meeting of the Southeastern Bat Diversity Network and Colloquium on the Conservation of Mammals in the Southeastern United States*, Virtual (gather.town), March 9–10, 2022.
- 2021 38. Garred T.\*<sup>U</sup>, Wilson C.<sup>U</sup>, **Rolland V.**, and Boves T.J. Providing breeding areas for American Kestrels to repopulate agricultural areas. *SUPERB (Students United in*

*Preserving, Exploring, and Researching scholarship program) summer institute, Cadiz, Kentucky, August 8-11, 2021.*

37. Bulice T.\*, Neuman-Lee L., and **Rolland V.** Environmental Stress Factors Influencing Antler Fluctuating Asymmetry in White-tailed Deer (*Odocoileus virginianus*) in Arkansas. *SUPERB (Students United in Preserving, Exploring, and Researching scholarship program) summer institute, Cadiz, Kentucky, August 8-11, 2021.*
36. De Bellis C.R.\* and **Rolland V.** Does size matter? A test of Bergmann's rule in the context of climate change. *SUPERB (Students United in Preserving, Exploring, and Researching scholarship program) summer institute, Cadiz, Kentucky, August 8-11, 2021.*
35. Kearny V.\*, Perry R., Risch T., and **Rolland V.** Summer roost habitat and distribution of Eastern Small-footed bats in the Ouachita Mountains, of Arkansas. *Southeastern Bat Diversity Network. Virtual (gather.town), February 25, 2021.*
34. Bulice T.\*, Neuman-Lee L., and **Rolland V.** Environmental Stress Factors Influencing Antler Fluctuating Asymmetry in White-tailed Deer (*Odocoileus virginianus*) in Arkansas. *Southeast Deer Study Group Meeting. Virtual, February 22-24, 2021.*
- 2020 33. Kearny V.\*, Perry R., Risch T., and **Rolland V.** Eastern Small-footed bats roost in high-elevation, narrow crevices of talus slopes in the Ouachitas, Arkansas. *Southeastern Bat Diversity Network. Athens, Georgia, February 12-14, 2020.*
- 2019 32. Tietje W.\*, Polyakov A., **Rolland V.**, and Oli M. Age-specific survival and probability of reproduction among juvenile and adult big-eared woodrats in a California oak woodland. *Joint Conference of the American Fisheries Society and The Wildlife Society. Reno, Nevada, September 30-October 3, 2019.*
31. Wynia A.L.\*, **Rolland V.**, and Jiménez J.E. A novel device to best detect key woodpeckers: an experiment with the Magellanic Woodpecker. *American Ornithological Society. Anchorage, Alaska, June 24-28, 2019.*
30. Harrod S. and **Rolland V.**\* Factors affecting knowledge and beliefs of college freshmen towards climate change. *National Council for Science and the Environment Annual Conference. Washington, DC, January 7-10, 2019.*
- 2018 29. McKay T.\*, Hampton R., Atungulu G., Odek Z., Siebenmorgen T., Rolland V., and Wilson S. Post-treatment effects of infrared radiation on lesser grain borer (*Rhyzopertha dominica*) development. *Joint Meeting of the Entomological Society of America and the Entomological Society of Canada. Vancouver, Canada, November 2018.*
28. Beaird C.<sup>U</sup>\*, **Rolland V.**, McKay T., and Boves T. Attracting barn owls and American kestrels to agricultural areas of northeast Arkansas to provide pest control services. *SUPERB (Students United in Preserving, Exploring, and Researching scholarship program) summer institute, Cabondale, Illinois, August 7-10, 2018.*
27. Scherman S., Risch T.S., and **Rolland V.**\* Southeastern myotis and Rafinesque's big-eared bats switch their roosting habits seasonally in Arkansas bottomlands. *American Society of Mammalogists, Manhattan, Kansas, June 25-29, 2018.*
26. Trusty M.<sup>U</sup>\* and **Rolland V.** Does axle grease effectively protect bluebird nests from predators? *create@astate, Jonesboro, April 16-18, 2018.*

25. Trusty A.<sup>U\*</sup> and **Rolland V.** Does frequently visiting a bluebird nest increase predation risk? *create@astate*, Jonesboro, April 16-18, 2018.
24. Harrod S.\* and **Rolland V.** Factors affecting knowledge and beliefs of college freshmen toward climate change. *American Ornithological Society*, Tucson, AZ, April 10-15, 2018.
23. Scherman S.\*, Risch T.S., and **Rolland V.** Southeastern myotis and Rafinesque's big-eared bats make seasonal switches in their roosting habit in Arkansas bottomlands. *The 102<sup>nd</sup> annual meeting of Arkansas Academy of Science*, Jonesboro, AR, April 6-7, 2018.
22. Trusty M.<sup>U\*</sup> and **Rolland V.** Does axle grease effectively protect bluebird nests from predators? *The 102<sup>nd</sup> annual meeting of Arkansas Academy of Science*, Jonesboro, AR, April 6-7, 2018.
21. Trusty A.<sup>U\*</sup> and **Rolland V.** Does frequently visiting a bluebird nest increase predation risk? *The 102<sup>nd</sup> annual meeting of Arkansas Academy of Science*, Jonesboro, AR, April 6-7, 2018.
20. Trusty M.<sup>U\*</sup> and **Rolland V.** Does axle grease effectively protect bluebird nests from predators? *STEM Posters at the Capitol*, Little Rock, AR, February 14, 2018.
19. Trusty A.<sup>U\*</sup> and **Rolland V.** Does frequently visiting a bluebird nest increase predation risk? *STEM Posters at the Capitol*, Little Rock, AR, February 14, 2018.
- 2017 18. Scherman S.\*, Risch T.S., and **Rolland V.** Southeastern myotis and Rafinesque's big-eared bats make seasonal switches in their roosting habit in Arkansas bottomlands. *North American Society for Bat Research*, Knoxville, TN, October 18-22, 2017.
17. **Rolland V.**, Tietje, W.D.\*, Srivathsa A., Polyakov A.Y., and Oli M.K. Environmental factors and population demography of the big-eared woodrat in coastal-central California. *97<sup>th</sup> Annual Meeting of the American Society of Mammalogists*, Moscow, ID, June 20-24, 2017.
16. Scherman S.\*, Risch T.S., and **Rolland V.** Southeastern myotis and Rafinesque's big-eared bats make seasonal switches in their roosting habit in Arkansas bottomlands. *create@astate*, Jonesboro, AR, April 20-21, 2017.
15. 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. *Southeastern Bat Diversity Network conference*, Asheville, NC, February 16-17, 2017.
14. Nepshinsky M.\*, Liechty J., Minor A., Windhoffer E., **Rolland V.**, and Pierce A. Foraging movement patterns of breeding royal terns (*Thalasseus maximus*) on the Isles Dernieres Barrier Islands Refuge in southern Louisiana. *Gulf of Mexico Oil Spill and Ecosystem Conference*, New Orleans, LA, February 6-9, 2017.
- 2016 13. Smart W., Collier N., and **Rolland V.**\*. Seabird colony decline, nesting performance, human harvest, and invasive predators in the southern Grenadine Islands. *23<sup>rd</sup> Annual Conference of The Wildlife Society*, Raleigh-Durham, NC, October 15-19, 2016.
- 2015 12. Nepshinsky M.\*, Liechty J., Minor A., Windhoffer E., **Rolland V.**, and Pierce A. Foraging movement patterns of breeding royal terns (*Thalasseus maximus*) on the Isles Dernieres Barrier Islands Refuge in southern Louisiana. *Southeastern Partners In Flight Annual Meeting*, Lafayette, LA. November 2-5, 2015.

11. Schratz S.\*, **Rolland V.**, and Risch T.S. Characteristics of roost trees of Southeastern myotis and Rafinesque's big-eared bats in the bottomlands of Arkansas. *North American Joint Bat Working Group Meeting*, Monterey, CA. October 28-31, 2015.
10. Nepshinsky M.^\*, Liechty J., Minor A., Windhoffer E., **Rolland V.**, and Pierce A. Foraging movement patterns of breeding royal terns (*Thalasseus maximus*) on the Isles Dernieres Barrier Islands Refuge in Southern Louisiana. *Louisiana Chapter of the Wildlife Society Meeting*, Baton Rouge, LA, August 20-21, 2015 \*\*\*2<sup>nd</sup> place award\*\*\*
9. Smart W.\*, Collier N., and **Rolland V.** Seabirds' nesting performance in the Grenadines. *20<sup>th</sup> International Birds Caribbean meeting*, 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.<sup>U\*</sup> and **Rolland V.** Eastern Bluebird diet, behavior, and water content of prey items. *create@astate*, Jonesboro, AR. April 10, 2014.
6. Cansler B.<sup>U\*</sup> and **Rolland V.** Eastern Bluebird diet, behavior, and water content of prey items. *98<sup>th</sup> 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

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- 2022 Harrod and Rolland's (2022) publication featured in the Cornell Lab of Ornithology NestWatch blog as [Staying steady when faced with environmental change](#).
- 2021 Science Riot from the Denver Press Club. Standup comedy for the science festival, October 15, 2021. I explained [how climate change is creating aliens](#) at minutes 26:37 through 32:41.
- 2019 Climate change and plastic pollution: factors, consequences, and solutions. Interview by Cross County High School students (Gabrielle M Hively & Madison Butler), December 4, 2019, for a C-SPAN video national contest.

[The east coast is going to get Arkansas-ified](#). The Atlantic, February 12, 2019.

- 2016 [Newly trained transboundary Grenadines citizen scientists unite to form Seabird Volunteer Patrol group](#). BirdsCaribbean, August 27, 2016.
- [Lookout for A-State students working on bluebird project](#). Region 8 News (KAIT8), June 24, 2016.
- 2015 [Going batty! Researcher study the foraging habits of gray bats at Crystal cave](#). Arkansas Democrat Gazette (ArkansasOnline), August 2, 2015.
- 2014 [A Killer in the Dark](#). Arkansas Life, May 2014.

## GRANTS, FELLOWSHIPS, and AWARDS

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### Research Grants Accepted and Funded

- 2022 **Arkansas BioScience Institute** (\$70,000) Improving human health and eco-agricultural integration in the Mississippi Delta via integrative pest control. PI: Boves, A-State; Co-PIs: Rolland and McKay, A-State.
- National Science Foundation – CAREER** Understanding the mechanisms that mediate the effects of local ecology on geographic mosaics of host-parasite interactions. PI: Knutie, UConn; Collaborator: Rolland et al. Collaborators receive \$10,000 to support undergrads.
- Memphis Zoo - Conservation Action Network** (\$3,912) Health and demographics of freshwater turtles within the Memphis Zoo. PI: Neuman-Lee, A-State; Co-PIs: Poo and Janney, Memphis Zoo; Rolland and Terry, A-State.
- Arkansas INBRE (IDeA Network of Biomedical Research Excellence) - Core Facility Voucher** (\$4,992) Genetic diversification and evolution of ectoparasites of Ozark pocket gophers. PI: Rolland; co-PIs: Johnson, A-State; Sweet, A-State; Reusche, A-State.
- 2021 **Arkansas Audubon Society - Conservation Trust** (\$1,056) Natural selection on morphological characteristics of Eastern Bluebirds during severe winter weather. PI: Rolland
- 2020 **Arkansas Game and Fish Commission - State Wildlife Grant** (\$81,720) Fall dispersal and genetic diversity of Ozark pocket gopher. PI: Rolland; Co-PI: Johnson, A-State; Connor, NWACC.
- 2019 **Arkansas Game and Fish Commission - State Wildlife Grant** (\$59,245) Winter roosting ecology of tricolored bats in southern Arkansas. PI: Rolland; Co-PI: Perry, USFS.
- National Science Foundation** (\$299,937) STEM Writing to Read. PI: Grippo, A-State. Invited as co-investigator in May 2019 and relayed as PI in 2021.
- 2018 **Arkansas Game and Fish Commission - State Wildlife Grant** (\$66,323) Distribution and day roost preferences of eastern small-footed bats (*Myotis leibii*) in the Ouachita Mountains. PI: Rolland; co-PI: Risch, A-State; Partner: Perry, USFS.
- 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) 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 (*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**

2019 **Arkansas Game and Fish Commission** (\$181,358) Assessing population structure, status, and health of target turtles in the delta region of Arkansas: implications for commercial harvest. PI: Neuman-Lee, A-State; Co-PI: Rolland. (*Ranked highest but another was 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 Grants**

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

### **Fellowships and Awards**

- 2020 \* Faculty Achievement Award for excellence in teaching (\$2,500)
- 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**

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### **Undergraduate Academic Advising**

Serving the *Wildlife, Ecology and Management* program, now called *Wildlife and Fisheries Conservation*  
Graduated: one (Dec. 2021), three (May 2021), one (Dec. 2020), six (May 2020), three (Dec. 2019), one (Aug. 2019), one (May 2018), one (Dec. 2017), two (May 2017)  
Currently advising: 29.

### **Undergraduate Student Mentoring**

- 2021 – present      Joe Schroeder (B.S. Wildlife, Fisheries, and Conservation)  
Volunteer in nest monitoring as well as bird banding and processing in assistance with natural selection project  
Worker in the mammal museum collection (PI: K. Gustafson)  
Research 1: A case of structural leucism in Eastern Bluebirds  
Research 2: Nest site fidelity in second-year Eastern Bluebirds
- 2021                      Abby Barlow (B.S. Wildlife, Fisheries, and Conservation)  
Ozark pocket gopher trapping for genetic and ectoparasite analysis  
Bluebird nest monitoring
- 2020 – 2021          Taylor Fiedor (B.S. Wildlife, Fisheries, and Conservation)  
Tricolored bat survey in road culverts of southern Arkansas
- 2020                      Cameron Rhoden (B.S. Wildlife, Fisheries, and Conservation)  
Bat day-roost searching, acoustic monitoring
- 2019 – 2021          Samantha Burnett (B.S. Wildlife, Fisheries, and Conservation)  
Bat day-roost searching, acoustic monitoring, mist-netting  
Research: Pre-harvest demography of mud turtles.  
Olivia Sitzes (B.S. Wildlife, Fisheries, and Conservation)  
Research: Factors influencing tree frog use of bluebird nest boxes  
Chase Simpson (B.S. Environmental Science)  
Research: Age-specific content of fecal sacs in cavity-nesting species.  
Received \$648 of funding from the Arkansas Audubon Society (2020)
- 2017 – present      Amanda and Michael Trusty (B.S. Wildlife, Fisheries, and Conservation)  
Nest monitoring, species identification, bird banding techniques  
Research: Predator guard, inspection frequency, and nest success  
Amanda works for the Crowley’s Ridge Nature Center, Jonesboro, AR (2018)
- 2019 – 2020          Shelby Moseley (B.S. Wildlife, Fisheries, and Conservation)  
Nest monitoring, species identification, bird banding techniques  
Research: Note published about tufted titmice raising eastern bluebirds  
Best Wildlife & Fisheries Conservation student award (2020)
- 2017 – 2019          Micah Mitchell and Jenny Rohrer (B.S. Wildlife, Fisheries, and Conservation)  
Radio-tracking, tree species identification and measurements, bat mist-netting and harp-trapping, exit counts, bridge surveys, and measurements in ArcGIS.
- 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)  
Research: Water content and prey selection in bluebirds  
Poster presentations and prepared publication  
Director of San Angelo Nature Center, TX (2016)  
Graduate coordinator of Arkansas State University (2017)  
Animal Care Facility Manager, A-State (2018)
- 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)  
Inspector, Arkansas Department of Environmental Quality (2017)  
Biologist, Arkansas Game & Fish Commission, Mammoth Spring, AR (2018)
- 2012 – 2013 Emily Mizell (B.S. Wildlife Ecology and Management)  
Nest monitoring, species identification, bird banding techniques  
Research: Bluebird site and mate fidelity  
Graduated from University of Arkansas School of Law (2016)  
Attorney at Rose Law Firm, Little Rock, AR (2017)  
Attorney at Connors and Winters, Fayetteville, AR (2018)

### **Graduate Student Mentoring**

- 2022 – present Ty Sharrow (M.S. Biology)  
Thesis: American kestrels and barn owls as pest control agents in agricultural systems in northeastern Arkansas.  
Co-advised with Dr. Than Boves  
Received \$1,100 of funding from the Arkansas Audubon Society
- 2021 – present Jen Terry (Ph.D Environmental Sciences)  
Dissertation: Integrated population model for red-eared sliders.  
SUPERB Scholar; Co-advised with Dr. Lori Neuman-Lee
- 2021 – present Monica Reusche (M.S. Biology)  
Thesis: Fall dispersal and genetic diversity of Ozark pocket gophers  
SUPERB Scholar; Co-advised with Dr. Ron Johnson  
Received \$700 of funding from the Arkansas Audubon Society  
Best student poster presentation, joint meeting of southeastern bat diversity network and conservation on mammals of the southeastern US (2022)
- 2020 – present Anneka Lamb (M.S. Environmental Sciences)  
Started October 2020 as a field technician, MS student since January 2021.

Research project: Roosting ecology of tricolored bats in road culverts  
SUPERB Scholar

- 2020 – present      Tristan Bulice (M.S. Biology)  
Thesis: Biotic and abiotic stress factors influencing antler fluctuating asymmetry in white-tailed deer (*Odocoileus virginianus*) in Arkansas  
SUPERB Scholar; Co-advised with Dr. Lori Neuman-Lee
- 2019 – 2022      Perry Galloway, formerly Caitlin De Bellis (M.S. Biology)  
Thesis: Does Bergmann’s rule apply to North American birds in the context of climate change?  
SUPERB Scholar  
Received \$1,200 of funding from the Arkansas Audubon Society (2020&2021)
- 2019 – 2021      Valerie Kearny (M.S. Biology)  
Thesis: Distribution and day roost preferences of eastern small-footed bats (*Myotis leibii*) in the Ouachita Mountains  
Received \$1,120 of funding from the Arkansas Audubon Society (2020)  
Interned for Carlsbad Caverns (2020-21) and USFWS (DFP 2021)  
Best student oral presentation, AR Wildlife Society meeting (2021)  
Best MS Biology student (class 2021-22)  
Now: GIS Analyst, Kent County, Delaware (2021–22); Fish biologist, Georgia (2022–Present)
- 2015 – 2020      Sara Harrod (Ph.D. Environmental Sciences)  
Dissertation: Bluebird population dynamics in response to climatic variability at longitudinally contrasting regions  
Received ~\$3,000 of funding from three ornithological organizations (2016) and the Arkansas Environmental Federation (2017)  
Best 2021 PhD EVS student award.  
Now: Natural resource specialist (GS-9) for the US Army Corps of Engineer, Lamar, CO (2021–22); Wildlife biologist (GS-11) for USFS, Stevensville, MT (2022–Present)
- 2016 – 2019      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 (2017)  
Intern for National Park Service (Summer 2018),  
Workshop Conservation Leaders for Tomorrow (Spring 2019)  
Now: Biologist for South Carolina Department of Park, Recreation, and Tourism
- 2015 – 2019      Wayne Smart (M.S. Environmental Sciences)  
Thesis: Assessing human harvest and invasive predation on Grenadine seabird nesting performance  
Received a \$6,500 of funding from two ornithological organizations and the National Geographic Young Explorer (\$5,000)  
Interviewed by The Chronicle of St George University, Grenada (2017)  
Now: Contractor for Biodiversity and Protected Areas Management (BIOPAMA) and Environment and Climate Change Canada (ECCC)
- 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 at other institutions in Arkansas  
Received the one annual Southern Bat Diversity Network travel award (2015)

Now: Senior bat biologist for Environmental Solutions and Innovations, 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 funding from three ornithological organizations  
Now: Science teacher at Stony Point High School in Texas

### **Student Committees**

#### ***Dissertations***

- 2019 – 2020 Annabelle McKie-Voerste (Ph.D. Environmental Sciences)  
Dissertation: A test of the egg color sexually selected hypothesis in Eastern Bluebirds (*Sialia sialis*). Chair: Risch.  
Now: Assistant Professor at Dalton College, Georgia.
- 2016 – 2020 Ashley Schulz (Ph.D. Environmental Sciences)  
Dissertation: An assessment of non-native species' mechanisms of invasion, impact, management, and policy. Chair: Marsico.  
Now: Post-Doc at Colorado State University
- 2014 – 2020 Amy Wynia (Ph.D. Biology, University of North Texas)  
Dissertation: Magellanic woodpecker dynamics on Navarino island, Chile. Chair: Jiménez (University of North Texas).  
Now: Online instructor (post-doc canceled due to COVID19)
- 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.
- 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.
- 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: Sikkel.  
Now: Lecturer in A-State Department of Biological Sciences.

#### ***Theses***

- 2022 – present Brandon Dunnahoo (M.S. Biology)  
Thesis: Nightjar interspecific competition, non-breeding movements, and landscape-level habitat use in Arkansas. Chair: Boves.
- 2019 – 2022 Geoffrey Payne (M.S. Biology)  
Thesis: Evaluation of wood chip bioditch reactors as a nutrient reduction conservation strategy. Chair: Farris.

Now: Works for the USDA.

- 2016 – 2022 Jimmy Gore (M.S. Biology)  
Thesis: Habitat Occupancy Modeling for Chiropteran Species of Concern on the Buffalo National River. Chair: Risch.  
Now: Bat biologist for Environmental Solutions and Innovations, Inc.
- 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.
- 2019 – 2021 Heather Custer (M.S. Biology)  
Thesis: Post-emergence migration patterns and habitat associations of female Indiana bats (*Myotis sodalis*) in Arkansas. Chair: Risch.
- 2018 – 2021 Jennifer Terry (M.S. Biology)  
Thesis: Immune and endocrine tradeoffs throughout the activity season in Red-eared Sliders. Chair: L. Neuman-Lee.  
Starting a PhD degree in August 2021 in Neuman-Lee and Rolland labs.
- 2018 – 2020 Crystal Griffin (M.S. Biology)  
Thesis: Foraging behavior of Rafinesque’s big-eared bats from a colony in rural Arkansas. Chair: Risch.
- 2017 – 2020 Joe Youtz (M.S. Biology)  
Thesis: Bergmann’s rule and occupancy of songbirds in a fragmented landscape. Chair: Boves.  
Now: Ph.D. student at Louisiana State University.
- 2016 – 2019 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.  
Now: Ph.D. student at University of Alaska, Fairbanks
- 2017 – 2018 Megan Buckley (M.S. Biology)  
Thesis: Habitat selection and use by *Nycticeius humeralis* in north-central Arkansas. Chair: Risch. Involved since 2015 but only officially on committee since 2017.  
Now: Instructor at A-State Jonesboro at Newport.
- 2015 – 2018 Rachel Hampton (M.S. Biology)  
Thesis: Effects of Infrared Radiation on Rice and Stored-Product Insects. Chair: McKay.  
Now: Research Assistant at the Arkansas Bioscience Institute
- 2015 – 2018 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.  
Now: Vet Student at St George University, Grenada.
- 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: Bat biologist for SWCA Environmental Consultants (2019-present).
- 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.  
Now: Biologist for the Oregon Department of Fish and Wildlife. OR.
- 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.
- 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.  
Now: Biologist 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: Research Biologist III with Fisheries and Oceans Canada at the Great Lakes Laboratory for Fisheries and Aquatic Sciences
- 2012 – 2013 Jonathan Elston (M.S. Biology)  
Thesis: Turtle usage of urban streams in an expanding northeastern Arkansas city. Chair: Trauth.
- Practica**
- 2016 – 2022 Jennifer Reed (M.S. Biology)  
Practicum: Collection biases and plant species richness misrepresentations in an agriculture-dominated landscape. Chair: Marsico.
- 2018 – 2020 Dylan DeRouen (M.S. Biology)  
Practicum: Assessing vascular plant species richness and composition across anthropogenic systems and level IV ecoregions in the Crittenden and Mississippi counties of Arkansas. Chair: Marsico.
- 2013 Greg Robinson (M.A. Biology)

Practicum: 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.

## COURSES TAUGHT

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*Undergraduate-level courses are coded 1000-4000, whereas graduate-level courses are coded 5000-7000.  
\*New course I have developed; <sup>CT</sup>Co-taught course, <sup>IR</sup>Lab for which I have supervised a teaching assistant;  
<sup>GL</sup>Guest lectures. Non-traditional courses (e.g., Independent Study, Thesis hour, Internship) are not listed.*

### Arkansas State University, 2011 – present

BIO 1001	Biological Sciences Lab	every semester since 2012 <sup>IR</sup> , F20
BIO 1301	Biology of Animals Lab	almost every semester since 2012 <sup>IR</sup>
BIO 3673	Human Dimensions of Natural Resources*	F13 <sup>CT</sup> , F15, F17 <sup>CT</sup>
BIO 4663	Wildlife Investigation Techniques	Sp13, Sp15, Sp17, Sp19, Sp20, Sp22
BIO 4661	Wildlife Investigation Techniques Lab	Sp13 <sup>CT</sup> , Sp15, Sp17, Sp19, Sp20
BIO 4043	Biometry*	Sp14, Sp16, Sp18, F19–22
BIO 5043	Biometry*	Sp16, Sp18, F19–22
BIO 5444	Wildlife Population Modelling*	F12, F14, F16, F18, F22
BIO 5684	Biological Data Analyses*	every spring since 2012
BIO 6003	Scientific Methods & Research Design	F12, F16–19 <sup>CT</sup> ; F13–15, F21–22
ESCI 7121	Ecological Aspects of Climate Change*	F11

### 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)
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### University of Florida, 2010

WIS 6455	Wildlife Population Ecology <sup>GL</sup>
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### Centre d’Études Biologiques de Chizé, France, 2005-2008

Workshop	<i>Basic statistical tests and generalized linear models using R</i> 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; <i>Global change ecology</i> for students of Melle High School.

## PROFESSIONAL DEVELOPMENT

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### Workshops

2021	Project-based Learning Institute, Worcester Polytechnic Institute, Virtual.
2020	A-State R Users Group short workshops on RMarkdown and maps in R.
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**

<sup>J</sup>*Judge for student poster/oral presentations*

American Ornithologists' Union	2013, 2014
American Society of Mammalogists	2018
Arkansas Academy of Science	2014, 2017
Arkansas Audubon Society	2013, 2014
Arkansas Chapter of The Wildlife Society	2011–2015, 2016-17 <sup>J</sup> , 2018-19, 2020 <sup>J</sup> , 2021-22
Arkansas Wildlife Action Plan	2018, 2020, 2022
British Ornithological Union	2020
National Council for Science and the Environment	2019
North American Ornithologist Conference	2012
North American Society for Bat Research	2015, 2017, 2018 <sup>J</sup> , 2020
Ozark Karst and Bat Conservation	2020, 2021
Southern Bat Diversity Network	2015 <sup>J</sup> , 2017, 2020 <sup>J</sup> , 2021-22
Southeast Deer Study Group	2015
Strategic Quail Management Plan	2016
The Wildlife Society	2011, 2016, 2017

**PROFESSIONAL SERVICE**

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

**Professional memberships**

2018, 2022	American Society of Mammalogists
2015, 17–18, 22	North American Society for Bat Research
2015 – present	Southeastern Bat Diversity Network
2014, 2017	Arkansas Academy of Science
2013 – present	North American Bluebird Society
2013 – present	Arkansas Audubon Society
2013 – present	American Ornithologist Society
2013 – 2018	Association of Field Ornithologists
2013 – 2020	Cornell Lab of Ornithology
2012 – present	The Wildlife Society (national and Arkansas chapter)
2018 – present	Southeastern Section of The Wildlife Society
2019 – 2022	Sigma Xi

**Service to The Wildlife Society (TWS)**

2021 – present Chair of the Conservation Review Committee for the Arkansas Chapter of TWS

2018 – present Arkansas Representative on the Southeastern Conservation Affairs Committee of TWS  
2017 – 2019 Secretary-Treasurer of the Arkansas Chapter of TWS  
2018 Reviewer of student travel awards for TWS annual conference  
2016 – 2017 Judge for student presentations at the Arkansas Chapter of TWS meetings  
2014 Coordinated and Hosted the Arkansas TWS meeting at A-State – Jonesboro campus

**AR Quail Council**

2016 – 2017 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 – 2016 Judged grade 7-12 projects for local and regional science fairs

**UNIVERSITY SERVICE**

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**Department**

2021 – present Long-range Planning Committee member  
2020 – 2021 Animal Welfare Committee, Chair  
2019 – 2020 Search Committee member for Disease in Nature cluster hirer  
2019 Environmental Sciences program Policy (ad hoc) Committee member  
2018 – present Promotion, Retention, and Tenure Committee member (until 2021), Chair (2022)  
2017 – 2020 Faculty Grievance Committee member  
2017 – 2020 Graduate Program Committee member  
2013 – present Curriculum Committee member (until 2020), Chair (since 2021)  
2013 – 2019 New Student Registration advisor  
2013 – 2015 Long-term Strategic Planning Committee member  
2012 – 2020 Student Award Committee member (until 2017), Chair (since 2018)  
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

**College**

2022 – present Promotion, Retention, and Tenure Committee member  
2022 – present Curriculum Committee member  
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.  
2012 – present Wildlife and Fisheries student club co-advisor since 2012  
Women in Science student club advisor since 2013  
Outing student club advisor (2019-20)

**University**

2022 Served on a women in science panel following *Picture a Scientist* film hosted by the Women in Science club and sponsored by the Arkansas Science Festival.  
2018 Served on a women in science panel following *Silent Sky* show directed by Dr. Marc Williams.  
2014 – 2020 Institutional Review Board Committee member  
2016 – 2017 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: *Attracting birds in your backyard* and *Salsa dancing for beginners*.  
2012 – 2013 Undergraduate Graduation & Academic Credit Appeals Committee substitute

