Liam Berigan, PhD

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Resume objective: Quantitative ecologist with a doctorate in wildlife ecology and 7 years of experience coordinating multi-state field projects while working with 46+ federal, state, and nonprofit collaborators. Expertise in deploying satellite and radio transmitters on birds and using a variety of quantitative methods (machine learning, frequentist & Bayesian statistics, hierarchical modeling) to address questions regarding wildlife demographics, habitat use, and movement ecology.

Education

Doctor of Philosophy / Wildlife Ecology

University of Maine, Orono, ME | June 2020 – May 2024
Dissertation: "*Full annual cycle analysis of American woodcock (Scolopax minor) distribution, habitat use, and migration ecology*"
Advisors: Erik Blomberg & Amber Roth

Master of Science / Biology

Kansas State University, Manhattan, KS | August 2017 – December 2019
Thesis: *"Dispersal, reproductive success, and habitat use by translocated lesser prairie-chickens"*
Advisor: David Haukos

Bachelor of Science / Biological Sciences

Cornell University, Ithaca, NY | September 2013 – May 2017
Honors: Distinction in Research

Professional appointments

Quantitative ecologist

Kansas State University, Manhattan, KS (working remotely).
June 2024 – Present
Focus: Avian population dynamics and habitat connectivity

Publications

Peer reviewed journal articles

Berigan LA, Aulicky CSH, Teige EC, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Schultz KA, Rice M, Tanner E. 2024. Lesser prairie-chicken dispersal after translocation: implications for restoration and population connectivity. *Ecology and Evolution* 14:e10871.

Slezak CR, Blomberg EJ, Roth AM, **Berigan LA**, Fish AC, Darling RL, and 21 other coauthors. 2024. Unconventional life history in a migratory shorebird: desegregating reproduction and migration. *Proceedings of the Royal Society B* 291:20240021.

Clements SJ, **Berigan LA**, Fish AC, Darling RL, Roth AM, Blomberg EJ, and 22 other coauthors. 2024. Satellite tracking of American Woodcock reveals a gradient of migration strategies. *Ornithology* 141:ukae008.

Fish AC, Roth AM, Balkcom G, **Berigan LA**, Brunette KL, Clements SJ, and 15 other coauthors. 2024. American woodcock (Scolopax minor) migration phenology in Eastern North America: implications for hunting season timing. *Journal of Wildlife Management* 88(4):e22565.

Teige EC, **Berigan LA**, Aulicky SH, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG. 2023. Assessment of lesser prairie-chicken translocation through survival and lek counts. *Wildlife Society Bulletin* e1493.

Blomberg EJ, Fish AC, **Berigan LA**, Roth AM, Rau R, Clements SJ, and 15 other coauthors. 2023. The American woodcock singing ground survey largely conforms to the phenology of male woodcock migration. *Journal of Wildlife Management* 87(8):e22488.

Berigan LA, Aulicky SH, Teige EC, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA, Ricketts AM. 2022. Availability of lesser prairie-chicken nesting habitat impairs restoration success. *Wildlife Society Bulletin* e1379.

Berigan LA, Greig EI, Bonter DN. 2020. Urban house sparrow (Passer domesticus) populations decline in North America. *Wilson Journal of Ornithology* 132:248–250.

Akerlof, KL et al. (including **Berigan LA**). 2019. A collaboratively derived international research agenda on legislative science advice. *Palgrave Communications* 5:108.

Manuscripts in press

Berigan LA, Clements SJ, Darling RL, Fish AC, Roth AM, Balkcom G, and 18 other coauthors. Low migratory flight altitudes may explain increased collision risk for American Woodcock. *Ornithological Applications*.

Harrison, AL et al. (including **Berigan LA**). The collective application of shorebird tracking data to conservation. *Conservation Biology*.

Technical publications

Berigan LA, Fish AC, Darling R, Clements S, Slezak CR, Filkins K, Blomberg EJ, Roth AM, McWilliams SR, Straub J. 2022. Annual report. Eastern Woodcock Migration Research Cooperative.

Berigan LA, Fish AC, Slezak C, Filkins K, Blomberg EJ, Roth AM, McWilliams SR. 2021. Annual report. Eastern Woodcock Migration Research Cooperative.

Analytical research products

Developed the W-PAST decision support tool for woodcock management in Pennsylvania in collaboration with the Pennsylvania Game Commission. 2022. Available at woodcock.shinyapps.io/W-PAST.

Created interactive web applications for public access to Eastern Woodcock Migration Research Cooperative data. 2020. Available at www.woodcockmigration.org/migration.html and www.woodcockmigration.org/explore-data.html.

Created and maintained a public repository for Eastern Woodcock Migration Research Cooperative codebase, 2022 – present. Available at github.com/EWMRC.

Expanded and updated the website for the Eastern Woodcock Migration Research Cooperative, 2020 – 2022. Available at www.woodcockmigration.org.

Updated and maintained a public repository for Eastern Woodcock Migration Research Cooperative data, 2020 – 2022. Available at www.movebank.org.

Research grants

Year	Grant	Award
2022	Canadian-American Center Fieldwork Grant: Tracking woodcock migration over the Gulf of Maine. **Berigan LA**, Blomberg EJ, Roth AM. UMaine Canadian-American Center.	$963
2021	Webless Migratory Game Bird Program Grant: Merging genomics, stable isotopes, and satellite-telemetry to delineate range-wide population structure of American woodcock. Blomberg EJ, Roth AM, Jahner JP, Buerkle CA, Sullins DS, **Berigan LA**, Fish AC. U.S. Fish and Wildlife Service.	$49,978
	Total:	**$50,941**

Travel grants

Year	Grant	Award
2023	Conference travel grant. American Ornithological Society.	$346
2019	Conference travel grant. American Ornithological Society.	$490

2019	Registration scholarship. Kansas Chapter of The Wildlife Society.	$50
2018	Registration scholarship. Kansas Chapter of The Wildlife Society.	$50
2018	Conference travel grant. Kansas Chapter of The Wildlife Society.	$450
2018	Conference travel grant. K-State Graduate Student Council.	$400
2018	Conference travel grant. K-State College of Arts and Sciences.	$800
2016	Morley Student Research Fund Grant. Cornell Lab of Ornithology.	$250
	Total:	**$2,836**

Fellowships and awards

Year	Fellowship/Award	Award
2024	Outstanding Graduate Student Award. UMaine Graduate Student Government.	-
2024	Outstanding Service Award. UMaine College of Earth, Life, and Health Sciences.	$1,500
2023	Howard L. Mendall Memorial Scholarship. UMaine Department of Wildlife, Fisheries, and Conservation Biology.	$600
2023	Susan J. Hunter Presidential Teaching Fellowship. University of Maine.	$10,000
2022	New England – Atlantic Provinces – Quebec Fellowship. UMaine Canadian-American Center.	$28,931
2019	Student of the year. Kansas Cooperative Fish and Wildlife Research Unit.	-
	Total:	**$41,031**

Teaching experience

Teaching (instructor of record)

- Wildlife Population Dynamics Lab. 2023. 2 sections, University of Maine.

Teaching assistantships

- Principles of Biology. 2017–2019. 4 sections, Kansas State University.
- Introductory Biology: Ecology and the Environment. 2017. 1 section, Cornell University.
- Field Ornithology. 2016. 1 section, Shoals Marine Lab.

Workshops taught

Introduction to scientific analysis of data for the Cobscook Institute. Fall 2022. Half day interactive workshop focused on teaching scientific skills to high school students.

R Coding Club, UMaine. 2022–2023. Taught three 60-minute lectures on best coding practices and conducted 20 hours of one-on-one mentorship with graduate and undergraduate students.

Professional development

Graduate Teaching Academy. 2022. Center for Innovation in Teaching and Learning, University of Maine. 22 hours.

Workshop: Teaching using active learning methods. 2017. Division of Biology, Kansas State University. 3 hours.

Graduate and undergraduate mentorship

Annie Stupik (M.S., graduated 2024)

- Tutored in R coding skills, aided in the design of methods to detect overlap in moose home ranges between seasons.

Zoe Pavlik (B.S., graduated 2024)

- Guided through an analysis of woodcock habitat use in relation to urban areas as a part of an undergraduate honors thesis. Included mentorship on using R to manage spatial data.

Kyle Smelter (B.S., graduated 2023)

- Assisted in implementing a step-selection function to assess turkey movements in relation to roads and land cover as a part of an undergraduate capstone project. Mentorship primarily focused on implementation of frequentist statistical methods in R.

Megan Vhay (M.S., graduated 2022)

- Tutored in R coding skills, assisted in creation of landscape-scale datasets reflecting distribution of lesser prairie-chicken habitat.

Teaching evaluations

Wildlife Population Dynamics Lab, University of Maine (2023)

Student evaluation of teaching scores

"Overall, how would you rate the instructor?"

- Mean = 4.93 (scale 1–5, n = 15)

“Did the instructor show respect for questions and opinions of the students?”

- Mean = 5.0 (scale 1–5, n = 15)

“Did the instructor inspire confidence in his or her knowledge?”

- Mean = 4.93 (scale 1–5, n = 15)

Selected comments

“Both Liam and [TA] were great instructors. They answered questions in a way that facilitated student learning, and explained rather complicated concepts clearly and concisely.”

“Liam and [TA] were amazing. Any question that I had they could answer fully, and without just giving me the answer. As for grades and attendance, they were very understanding and not too lenient (i.e., they stuck by the syllabus but did not impose guilt when I had to miss class or resubmit an assignment). They were both very approachable throughout the semester. I also appreciated that they made an effort to learn everyone's names – it made it easier to approach them with any troubles since they knew who I was and even said hi in the halls. Liam and [TA] are two men that I and very appreciative of for helping me learn throughout this course and are both people who I am very glad to have in our [department] community.”

“Liam was a great professor, I had mental health and academic struggles this semester and he was extremely understanding and accommodating. He was also very friendly, respectful, and helpful in the classroom and knows the content he's teaching.”

Contributed presentations and posters

Berigan LA, Aulicky CSH, Teige EC, Sullins DS, Fricke KA, Reitz JH, Rossi LG, Schultz KA, Rice MB, Tanner EP, Fuhlendorf SD, Haukos DA. 2024. [Oral Presentation] The Wildlife Society Annual Conference, Baltimore, MD.

Berigan LA, Clements SJ, Darling RL, Fish AC, Roth AM, Blomberg EJ. 2024. Functional responses in American Woodcock habitat selection throughout the full annual cycle. [Oral Presentation] Western Hemisphere Shorebird Group Meeting, Sackville, NB.

Berigan LA, Clements SJ, Darling RL, Fish AC, Slezak CR, McWilliams SR, Roth AM, Blomberg EJ. 2023. Adapting hidden Markov models to data from small GPS transmitters. [Oral Presentation] American Ornithological Society Annual Meeting, London, ON.

Berigan LA, Fish AC, Roth AM, Williams LM, Duren KR, Blomberg EJ. 2022. Using joint life-stage-specific species distribution models to facilitate habitat conservation for American Woodcock in Pennsylvania. [Poster] Maine Chapter Meeting of The Wildlife Society, Orono, ME.

Berigan LA, Fish AC, Roth AM, Slezak CR, McWilliams SR, Blomberg EJ. 2022. Revisiting the role of stopover when assessing migratory connectivity: an American Woodcock case

study. [Oral Presentation] American Ornithological Society Annual Meeting, San Juan, PR.

Berigan LA, Fish AC, Roth AM, Blomberg EJ. 2021. Widespread use of satellite transmitters reveals the dynamic nature of American Woodcock migration timing. [Oral Presentation] Maine Chapter Meeting of The Wildlife Society, Orono, ME.

Berigan LA, Fish AC, Roth AM, Williams LM, Duren KR, Blomberg EJ. 2021. Site prioritization for American Woodcock management by comparing breeding and migratory habitat distribution models. [Oral Presentation] The Wildlife Society Annual Conference, virtual.

Berigan LA, Aulicky CSH, Teige EC, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA. 2019. Dispersal, habitat use, and eventual settlement of translocated lesser praire-chickens. [Oral Presentation] Prairie Grouse Technical Council, Bartelsville, OK.

Berigan LA, Aulicky CSH, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA. 2019. Overcoming post-release dispersal to successfully translocate lesser prairie-chickens. [Oral Presentation] The Wildlife Society Annual Conference, Reno, NV.

Berigan LA, Aulicky CSH, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA. 2019. Landscape composition explains high rates of dispersal in translocated lesser prairie-chickens. [Oral Presentation] American Ornithological Society 2019 Meeting, Anchorage, AK.

Berigan LA, Aulicky CSH, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA. 2019. Conservation implications of lesser prairie-chicken habitat selection on the Cimarron and Comanche National Grasslands. [Oral Presentation] Kansas Natural Resources Conference 2019, Manhattan, KS.

Berigan LA, Aulicky CSH, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA. 2018. Translocation of lesser prairie-chickens: does lek presence limit dispersal? [Oral Presentation] The Wildlife Society Annual Conference, Cleveland, OH.

Berigan LA, Aulicky CSH, Sullins DS, Haukos DA, Fricke KA, Reitz JH, Rossi LG, Schultz KA. 2018. Role of natal habitat preference induction in prairie-grouse translocation success. [Oral Presentation] 14th International Grouse Symposium, Logan, UT.

Berigan LA, Aulicky CSH, Haukos DA, Sullins DS, Fricke KA. 2018. Lesser prairie-chicken translocation: Minimizing dispersal to ensure translocation success. [Oral Presentation] Kansas Natural Resources Conference 2018, Manhattan, KS.

Berigan LA, Bonter DN. 2016. Citizen science provides insights into the decline of House Sparrows in North America. [Poster] North American Ornithological Conference 2016, Washington D.C.

Service

2024–present	Avian Research and Collections Volunteer, Delaware Museum of Nature and Science (~60 hours to date). - Ageing/sexing specimens, collecting biometrics and tissue samples, and study skin preparation
2024	Volunteer for TWS Biometrics Working Group's "Ask a Biometrician" event.
2021–2024	Event Coordinator, Student Affairs Committee, Department of Wildlife, Fisheries, and Conservation Biology, UMaine. - Developed, budgeted, and organized an offsite for graduate students (20 participants) - Designed and implemented a department-wide community building event (60 participants)
2022–2023	Seminar Committee, Department of Wildlife, Fisheries, and Conservation Biology, UMaine. - Recruited and facilitated two seminar speakers for the department seminar series - Hosted a workshop, led by one of the speakers, on diversity initiatives in wildlife (20 participants)
2021	Senator, UMaine Graduate Student Government. - Led a community mobilization effort to prevent reimbursements for work-related expenses from being distributed as taxable income
2017–2018	Travel Grant Committee, K-State Biology Graduate Students Association.

Affiliations

The Wildlife Society (TWS)
TWS Biometrics Working Group
American Ornithological Society
Delaware Ornithological Society

Peer reviewer

The Journal of Wildlife Management, Restoration Ecology, Wilson Journal of Ornithology, Journal of Ornithology, U.S. Geological Survey.

References

David Haukos

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Erik Blomberg

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Title	Associate Professor
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Amber Roth

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