

Liam Berigan

Graduate Research Assistant

Department of Wildlife, Fisheries, and Conservation Biology

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Education

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| 2020 – 2024 | Ph.D. | Wildlife Ecology (Ancillary Study: Collegiate Teaching) University of Maine, Department of Wildlife, Fisheries, and Conservation Biology Dissertation title: “ <i>Full annual cycle analysis of American woodcock (Scolopax minor) distribution, habitat use, and migration ecology</i> ” Advisors: Erik Blomberg & Amber Roth |
| 2017 – 2019 | M.S. | Biology Kansas State University, Division of Biology Thesis title: “ <i>Dispersal, reproductive success, and habitat use by translocated lesser prairie-chickens</i> ” Advisor: David Haukos |
| 2013 – 2017 | B.S. | Biology (Concentration: Ecology and Evolutionary Biology) Cornell University, College of Agriculture and Life Sciences <i>Distinction in Research</i> due to completion of an honors thesis |

Publications and research products

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

Manuscripts in review

Berigan LA, Fish AC, Roth AM, Williams LM, Duren KR, Blomberg EJ. Joint life-stage-specific species distribution models better facilitate habitat conservation for a short distance migratory bird. *In review at Biological Conservation*.

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

Manuscripts in preparation

Berigan LA, Clements SJ, Darling RL, Fish AC, Roth AM, Blomberg EJ, and 18 other coauthors. Adapting hidden Markov models to data from small GPS transmitters for tracking migratory birds. *In preparation for submission to Ornithological Applications*.

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. 2021. 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.

Fellowships, grants, and awards

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| 2024 | Outstanding Graduate Student Award , UMaine Graduate Student Government | |
| 2024 | Outstanding Service Award , UMaine College of Earth, Life, and Health Sciences | \$1,500 |
| 2024 | Howard L. Mendall Memorial Scholarship | \$600 |
| 2023 | Outstanding Graduate Student Award , UMaine Department of Wildlife, Fisheries, and Conservation Biology | \$600 |
| 2023 | Susan J. Hunter Presidential Teaching Fellowship | \$10,000 |
| 2022 | Canadian-American Center Fieldwork Grant | \$963 |

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| 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 | |
| 2019 | Conference travel grant, American Ornithological Society | \$490 |
| 2018 – 2019 | Registration scholarships, Kansas Chapter of The Wildlife Society | \$100 |
| 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 funding secured: | | \$45,084 |

Teaching experience

Teaching (instructor of record)

2023 Wildlife Population Dynamics Lab (2 sections; UMaine)

Teaching assistantships

2017 – 2019 Principles of Biology (4 sections; K-State)

2017 Introductory Biology: Ecology and the Environment (1 section; Cornell)

2016 Field Ornithology (1 section; Shoals Marine Lab)

Professional development

Spring 2022 Graduate Teaching Academy (21 hours; UMaine)
Focusing on student-centered learning and inclusive teaching

Fall 2017 Active learning workshop (3 hours; K-State)

Workshops taught

- Fall 2022 Introduction to scientific analysis of data for the Cobscook Institute
Half day interactive workshop focused on teaching scientific skills to high school students
- 2022 – 2023 R Coding Club, UMaine
- Three 60-minute lectures on best coding practices
- 20 hours of one-on-one mentorship with graduate & undergraduate students

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 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.

Evaluations

Wildlife Population Dynamics Lab, University of Maine (2023)

Student evaluation of teaching scores:

“Overall, how would you rate the instructor?”:

$\bar{x} = 4.93$ (scale 1–5, $n = 15$)

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

$\bar{x} = 5.0$ (scale 1–5, $n = 15$)

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

$\bar{x} = 4.93$ (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, 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, Sullins DS, Haukos DA, Fricke K, Reitz J, Rossi L, Schultz K. 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 K, Reitz J, Rossi L, Schultz K. 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 K, Reitz J, Rossi L, Schultz K. 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 K, Reitz J, Rossi L, Schultz K. 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 K, Reitz J, Rossi L, Schultz K. 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 K. 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 presentation] North American Ornithological Conference 2016, Washington D.C.

Additional research experience

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| 2016 | Herring Gull and Common Eider survival and spatial ecology. Intern with Dr. David Bonter at Shoals Marine Lab. |
| 2016 | Verdin paternity testing and response to playback. Field technician in Arizona with Dr. Emma Greig. |
| 2016 | Golden-winged Warbler geolocator application. Field technician in Guatemala with Dr. Ruth Bennett. |
| 2015 | Atlantic Puffin and Common/Arctic/Roseate Tern demographic estimates. Field technician with Project Puffin. |

Outreach activities

Public presentations

Berigan LA, Filiberti E. 2023. *Migratory Marvels: Understanding Woodcock and Golden-winged Warbler Migration*. [Oral presentation] Downeast Audubon, Ellsworth ME.

Berigan LA. 2022. *Meet the Timberdoodle!* [Oral presentation] Friends of Missisquoi National Wildlife Refuge & Green Mountain Audubon Society, Swanton VT.

Berigan LA. 2022. *What can woodcock teach us about bird migration?* [Oral presentation] Harris Center for Conservation Education, Hancock NH.

News articles

Liam Berigan: Can-Am fellow researching bird migration on the East Coast. *UMaine Canadian-American Center*, Nov. 17th 2022.

Study finds even the common house sparrow is declining. *Cornell College of Agriculture and Life Sciences*, Feb. 11th 2022. Circulated by ScienceDaily, Phys.org, and the Grand Forks Herald.

Service

Committee & service work

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| 2023 | The Wildlife Society Diversity Award Review Committee |
| 2021 – 2024 | Event Coordinator, DEI Committee, Department of Wildlife, Fisheries, and Conservation Biology, UMaine <ul style="list-style-type: none">- Developed, budgeted, and organized an offsite for graduate students (20 participants)- Designed and implemented a department-wide community building event (60 participants) |
| 2022 – 2023 | Education Committee, Maine Chapter of The Wildlife Society |
| 2022 – 2023 | Co-coordinator, R Coding Club, UMaine <ul style="list-style-type: none">- Three 60-minute lectures on best coding practices- 20 hours of one-on-one mentorship with graduate & undergraduate students |
| 2022 – 2023 | Seminar Committee, Department of Wildlife, Fisheries, and Conservation Biology, UMaine <ul style="list-style-type: none">- Recruited and facilitated two seminar speakers for the department seminar series- Hosted a workshop, led by one of the speakers, on DEI in wildlife (20 participants) |
| 2021 – 2022 | DEI Committee, UMaine Graduate Student Government |
| 2021 | Senator, UMaine Graduate Student Government <ul style="list-style-type: none">- Led a community mobilization effort to prevent travel grant assistance from being distributed as taxable income |

2017 – 2018 Travel Grant Committee, K-State Biology Graduate Students Association

Membership in professional societies and working groups

- The Wildlife Society
 - Maine Chapter
 - Diversity, Equity, and Inclusion Working Group
- American Ornithological Society

Peer reviewer

Wilson Journal of Ornithology (1 manuscript).

References

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2. *Amber Roth*
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3. *Dave Haukos*
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