

BRYN EVANS

Curriculum vitae

Bryn Elen Hutchins Evans, PhD

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EDUCATION

PhD in Wildlife Ecology, 2021: University of Maine-Orono, Department of Wildlife, Fisheries, and Conservation Biology, Orono ME 04469

MSc in Wildlife Ecology, 2017: University of Wisconsin-Madison, Department of Wildlife and Forest Ecology, Madison WI 53715

BSc in Biological Sciences (Ecology) and Minor in Wildlife, Fish and Conservation Biology, 2009: University of California-Davis, College of Biological Sciences, Davis CA 95616

EXPERIENCE

January – July 2022: Post-doctoral teaching fellow, University of Maine, Orono ME.

Taught *Wildlife-Habitat Relationships* upper division course and co-taught *Wildlife-Habitat Evaluation* laboratory and *Wildlife Field Survey* intensive summer course.

Served as the academic advisor for undergraduate students in the Department of Wildlife, Fisheries and Conservation Biology.

January 2017 – December 2021: Graduate research assistant, University of Maine, Orono ME.

Designed and conducted large-scale surveys using motion-triggered trail cameras to understand occupancy patterns of carnivore species and their response to intensive timber harvest in Maine, USA.

Collaborated with the Maine Department of Inland Fisheries and Wildlife, presented research findings and assisted with design of ongoing monitoring efforts.

Authored or co-authored five peer-reviewed publications.

Supervised field technicians, served on an undergraduate honors thesis committee, and mentored an undergraduate research grant recipient in addition to numerous volunteers.

August 2014 – December 2016: Graduate research assistant, University of Wisconsin, Madison WI.

Evaluated the recovery of semi-aquatic mammal presence following extensive restoration work in the St Louis River Area of Concern. Conducted aerial surveys and motion-triggered trail camera surveys, while working in collaboration with state agencies and multiple stakeholders.

May 2010 – August 2014: Scientific Aid, California Department of Fish and Wildlife, Sacramento, CA.

Black-tailed deer research

Assisted biologists free-range darting adult deer to affix GPS collars, captured and tagged neonatal fawns, located mortalities and performed necropsies, designed and implemented trail camera surveys, performed pellet transects, and managed daily telemetry monitoring. Served as the crew leader.

Mountain lion research

Used Argos GPS data to investigate mountain lion feeding and resting sites, assisted capture efforts using cage traps and hound dogs, prepared deer carcasses for baited cameras.

Tule elk translocation

Organized multi-agency effort to translocate Tule elk relocations; ordered equipment, collaborated with researchers, constructed corral traps, and assisted with darting efforts.

Wildlife Department duties

Operated special drawing wild pig hunts, spearheaded new automated application process, managed the statewide report tag database, prepared annual reports. Designed and implemented multi-agency deer surveys. Conducted black bear hair snare prepared bait, contacted landowners and mapped prospective sites

August – November 2013: Field technician, Sierra Nevada Adaptive Management Project, Oakhurst, CA

Temporary position as an aerial telemetry technician for the University of California, Berkeley's SNAMP fisher project. Performed three fixed-wing flights each week to obtain locations on twenty collared Pacific fishers, and set, checked, and re-baited remote cameras for long-term monitoring.

September 2009 – May 2010: Intern, United States Forest Service, Shaver Lake, CA
Interned with the Kings River Fisher Project. Set Tomahawk live traps and collared fishers, conducted radio telemetry from trucks and snow-tracked ATVs, located rest and den sites, and surveyed for scat with detection dogs.

July – September 2009: Volunteer, University of California-Davis, Mendocino National Forest, CA

Helped to capture and radio tag neonatal fawns, performed daily telemetry, and received training and experience in kill site analysis, tracking, four-wheel drive operation and field research skills.

PUBLICATIONS

- Evans, Bryn E.** and Alessio Mortelliti. 2022. Forest disturbance and occupancy patterns of American ermine (*Mustela richardsonii*) and long-tailed weasel (*Neogale frenata*): results from a large-scale natural experiment in Maine, United States. *Journal of Mammalogy* 93(1):1–12. <https://doi.org/10.1093/jmammal/gyac079>
- Evans, Bryn E.** and Alessio Mortelliti. 2022. Effects of forest disturbance, snow depth, and intraguild dynamics on American marten and fisher occupancy in Maine, USA. *Ecosphere* 13(4):e4027. <https://doi.org/10.1002/ecs2.4027>
- Mortelliti, Alessio, Allison M. Brehm, and **Bryn E. Evans**. 2022. Umbrella effect of monitoring protocols for mammals in the Northeast US. *Scientific Reports* 12:1893. <https://doi.org/10.1038/s41598-022-05791-x>
- Evans, Bryn E.** 2021. Forest Disturbance and Occupancy Patterns of Carnivores: Results of a Large-scale Field Study in Maine, USA. *Dissertation*. University of Maine, Orono ME USA.
- Cove, Michael, Roland Kays, (...) **Bryn E. Evans**, (...) and William McShea. 2021. SNAPSHOT USA 2019: a coordinated national camera trap survey of the United States. *Ecology* 102(6): e03353. <https://doi.org/10.1002/ecy.3353>
- Buyaskas, Michael, **Bryn E. Evans**, and Alessio Mortelliti. 2020. Assessing the effectiveness of attractants to increase camera trap detections of North American mammals. *Mammalian Biology* 100(1):91-100. <https://doi.org/10.1007/s42991-020-00011-3>
- Evans, Bryn E.**, Cory E. Mosby, and Alessio Mortelliti. 2019. Assessing arrays of multiple trail cameras to detect North American mammals. *PLoS ONE* 14(6):e0217543. <https://doi.org/10.1371/journal.pone.0217543>
- Allen, Maximilian L., Beth Wojcik, **Bryn E. Evans**, Emily E. Iehl, Rachel E. Barker, Michael E. Wheeler, Brittany E. Peterson, Regan L. Dohm, Marcus A. Mueller, Lucas O. Olson, Brittany Ederer, Margaret Stewart, Shawn Crimmins, Ken Pemble, Julie Van Stappen, Erik Olson, and Timothy R. Van Deelen. 2018. Detection of Endangered American Martens (*Martes americana*) in Apostle Islands National Lakeshore, Wisconsin. *American Midland Naturalist* 179(2):294-298. <https://doi.org/10.1674/0003-0031-179.2.294>
- Evans, Bryn E. H.** 2017. Recovery of semi-aquatic mammals in the St. Louis River (Minnesota and Wisconsin) Area of Concern. *Thesis*. University of Wisconsin, Madison USA.

Allen, Maximilian L., **Bryn E. Evans**, Michael E. Wheeler, Marcus A. Mueller, Kenneth Pemble, Erik R. Olson, Julie Van Stappen, and Timothy R. Van Deelen. 2016. Survey techniques, detection probabilities, and the relative abundance of the carnivore guild on the Apostle Islands (2014-2016). Final Report to the National Park Service. [Full text via Research Gate](#).

Allen, Maximilian L., **Bryn E. Evans**, and Micaela S. Gunther. 2015. A potential range expansion of the coastal fisher (*Pekania pennanti*) population in California. *California Fish and Game* 101(4):280-285.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=113247&inline>

In preparation

Evans, Bryn E., Amay Bolinjar, Griffin Archambault, Allison M. Brehm, Gabriela F. Dri, and Alessio Mortelliti. XX. American black bear (*Ursus americanus*) occupancy and reproduction in managed timber forests of Maine. *Resubmitted to the Journal of Wildlife Management following revision, October 2022*.

Butler, Andrew, **Bryn E. Evans**, Alessio Mortelliti, and Remington Moll. XX. Forest and snow rather than food or foe limit the distribution of a generalist mesocarnivore in winter. *Submitted to Ecosphere, October 2022*.

POSTERS

2017 **Evans, Bryn E.**, Cory E. Mosby and Alessio Mortelliti. Large scale monitoring for carnivores in Maine. Martes Working Group Symposium, July, Ashland, WI.

2015 **Evans, Bryn E.**, Shawn M. Crimmins, Tim R. Van Deelen and Nathan M. Roberts. Occupancy models to assess the recovery of semi-aquatic mammals in the St. Louis River AOC. The Wildlife Society, National Conference, October, Winnipeg MB, Canada

Evans, Bryn E., Shawn M. Crimmins, Tim R. Van Deelen and Nathan M. Roberts. Semi-aquatic Mammal Populations in the St. Louis AOC. The Wildlife Society, Minnesota / Wisconsin Joint Chapter Meeting, February, Duluth MN
Best graduate student poster

2012 **Evans, Bryn E.**, Maximilian L. Allen, and David S. Casady. Detection of fishers at bait stations in the Mendocino National Forest, California. West Coast Fisher Conservation Symposium, January, Sacramento CA

PRESENTATIONS

- 2022 North American Weasel Working Group, Research summary, October 17, remote
 American Society of Mammalogists, 101st annual meeting, Technical talk, July 2022,
 Tucson AZ
 Augusta Sportsmen Show, MDIFW Furbearer Program Update Meeting, Research
 summary and Q&A, April 1, Augusta ME
 Dissertation defense seminar, January 7, Orono ME
- 2021 Maine Department of Inland Fisheries and Wildlife, Final project report, December
 20, Augusta ME
 USGS Maine Cooperative Fish and Wildlife Research Unit Coordinating Committee
 Meeting, Research summary, December, Orono ME
 American Society of Mammalogists, 100th annual meeting, Technical talk, July,
 remote
- 2020 USGS Maine Cooperative Fish and Wildlife Research Unit Coordinating Committee
 Meeting, Research summary, March, Orono ME
- 2019 Maine Department of Inland Fisheries and Wildlife, Annual project report, November
 22, Augusta ME
 Baxter State Park, Science Committee Meeting, Project update and renewal request
 (approved), April 1, Augusta ME
- 2018 Maine Department of Inland Fisheries and Wildlife, Annual project report, October
 19, Augusta ME
- 2017 Forest Carnivore Working Group Meeting, Project overview, September, remote
 Baxter State Park, Science Committee Meeting, Research project proposal
 (approved), June, Augusta ME
 Doctoral research entrance seminar, April 17, Orono ME
- 2016 Thesis defense seminar, December 16, Madison WI
 North American Congress for Conservation Biology, Technical talk, July, Madison WI
 The Wildlife Society, Wisconsin Chapter Meeting, Technical talk, March, Wausau WI
 St Louis River Summit, Project summary, Superior WI
 Midwest Fish and Wildlife Conference, Technical talk, January, Grand Rapids MI
Fenske Award finalist
 St. Louis River Area of Concern Coordinators Meeting, Superior WI
- 2015 Furbearer Committee Meeting, Minocqua WI
 St. Louis River Area of Concern Coordinators Meeting, Duluth MN
- 2014 Ethics in Engineering course, Santa Clara University, Guest lecture

PROFESSIONAL AFFILIATIONS

The Martes Working Group – Member since 2015
 Science Committee member since 2022
 The North American Weasel Working Group – Member since 2022
 American Society of Mammalogists – Member since 2017
 The Wildlife Society – Member since 2014
 Wisconsin Ecology – Member 2014-2016

PROFESSIONAL SERVICE

Serving on the Science Committee with five other members of the Martes Working Group to prepare for the 8th *International Martes Symposium* to be held in Scotland, September 2023

Peer-reviewer for *The American Midland Naturalist*, *Ecosphere*, *The Journal of Wildlife Management*

Thesis committee member, undergraduate honors candidate Michael Buyaskas, thesis titled “Assessing the Effectiveness of Attractants to Increase Detection Probabilities in Northeastern Mammals” defended Spring 2019

Mentor, Center for Undergraduate Research grant recipient Griffin Archambault, poster titled “Developing a Novel Approach to Estimate Reproductive Success of Black Bears in Maine” presented Spring 2019

Seminar committee member, Department of Wildlife, Fisheries, and Conservation Biology, University of Maine, Spring 2019 and Fall 2020

Graduate representative, Department of Wildlife, Fisheries, and Conservation Biology, University of Maine, Fall 2017

Graduate student representation, Department of Wildlife and Forest Ecology, University of Wisconsin-Madison, Fall 2015

OUTREACH AND VOLUNTEER SERVICE

Popular articles and non-technical talks

The Wisconsin Trapper's Post, Summer 2015 and Fall 2015 issues
 Guest speaker for *The River Talks* series, Vikre Distillery, March 2016, Duluth MN
 Presentation and trail camera demonstration for elementary students at Lake Superior Elementary School, March 2016, Superior WI

Interviews

Interview and camera trapping demonstration with Beth McAvoy, NEWS CENTER Maine, [July 28 2021](#)

Interview with Beth McAvoy, NEWS CENTER Maine, [March 17 2021](#)
 “Carnivores on Camera” by Elyse Catalina, UMaine Today [October 30 2018](#)

Volunteer activities

[UMaine BioBlitz](#), Camera trap demonstration leader, September 2021, Orono ME
[Maine Envirothon](#) Fall Field Day, Wildlife section instructor, October 2021, Orono ME

Penobscot County Conservation Association annual [Eastern Maine Sportsmen's Show](#), UMaine Department of Wildlife Fisheries and Conservation Biology booth staff, March 2019 and March 2020, Orono ME

Graduate Student Government, University of Maine, grant reviewer Spring 2019
 University of Maine Center for Undergraduate Research symposium, evaluator for student posters, April 24 2017, Bangor ME

[Middle School Science Symposium](#), One-on-one mentor, Winter/spring 2016, Madison WI

UW Madison Undergraduate Research Symposia, session moderator, Madison WI
 April 16 2015 and April 14 2016

The Wildlife Society National Conference, evaluator for graduate student oral presentations, October 18-21 2015, Winnipeg MB Canada

Wisconsin Ecology Fall Symposium, volunteer for keynote address by Dr. James Estes, October 14 2015, Madison WI

CERTIFICATES AND TRAINING

Teaching and Diversity, Equity, and Inclusion

Graduate Teaching Academy, Dr. Karen Pelletreau, *University of Maine Center for Innovation in Teaching and Learning*, January-May 2022, Orono ME

- One semester course focused on developing teaching skills in graduate teaching assistants and lecturers
- Student-centered active learning approaches
- In-person and remote-learning instruction and engagement techniques
- Writing, reviewing, and revising individual teaching philosophies
- Peer-review of teaching in action

The Wildlife Society, College and University Education Working Group, *Diversity, Equity and Inclusion* lecture series (remote, ongoing)

- Dr. Eli Typhina, *Indigenous Pedagogy*, November 17 2022
- Dr. Erim Gomez, *Creating inclusive classrooms*, September 29 2022

The Wildlife Society, Colorado Chapter hosted *Racial Equity & Environmentalism Workshop*, by August Ball, October 14 2022 (remote)

Working with Students in Distress, workshop hosted by *University of Maine Counseling Center*, March 2022, Orono ME

Creating a Gender Inclusive Classroom, workshop hosted by *University of Maine Center for Innovation in Teaching and Learning*, Orono ME October 2019

Teaching Science in the College Classroom, Dr. Nick Balster, *University of Wisconsin-Madison*, June-July 2015, Madison WI

- Summer course for graduate students with an interest in pedagogy
- Student-centered learning techniques
- Classroom culture and inclusivity
- Developing curriculum and assessment tools for diverse students

Analytical

Wildlife Modeling Patterns and Dynamics of Species Occurrence, Dr. Darryl MacKenzie, *Proteus Wildlife Research Consultants*, August 24-28 2015, Guelph ON Canada

Field research and workplace safety

- Wilderness First Aid and CPR, *American Red Cross*, May 2013, April 2022
- Sexual Harassment Prevention Training, *University of Maine System Academy*, annually from January 2017-2022
- Information Security Training, *University of Maine System Academy*, annually from January 2017-2022
- Basic Safety Training, *University of Maine System Academy*, annually from January 2017-2022
- Fieldwork Safety Training, *University of Maine System Academy*, annually from January 2017-2021
- Trapper Education, *Wisconsin Department of Natural Resources*, March 2015
- Snowmobile Safety, *Wisconsin Department of Natural Resources*, February 2015
- Boat Safety, *Wisconsin Department of Natural Resources*, September 2014
- Operator safety training, *ATV Safety Institute*, June 2014
- Wildlife Restraint, *California Department of Fish and Wildlife*, May 2011

Graduate Record Exam, August 2013

Verbal Reasoning: 167 (97th percentile)

Quantitative Reasoning: 159 (75th percentile)

Analytical Writing: 5.0 (93rd percentile)

TECHNICAL SKILLS

Classroom and Project Management and Analyses

- BrightSpace learning management software
- Microsoft Office suite; Google products; ArcGIS
- Study design and field logistics
- IACUC approval and annual reports
- Database management and quality control
- Trail camera image review: over 1.5 million images
- Occupancy analyses: dynamic, multi-species, false-positive and multi-state models

Field Research Expertise

- Trail cameras: ten years, over 1,000 sets
- Aerial telemetry: 80+ flight hours
- Aerial surveys: fixed wing (20 hours) and helicopter (8 hours)
- Radio telemetry: four years, three terrestrial mammal species
- Kill site analysis of deer mortalities
- Mountain lion feeding site analysis
- Hair snares for black bear DNA
- Bait preparation: whole and partial deer and beaver carcasses, chicken meat, fermented cattle's blood

Safe Animal Handling Experience

- Black-tailed deer fawn via spot lighting
- Adult black-tailed deer via darting
- Tule elk via darting, helicopter netting
- Mountain lion via hounds, live trapping
- Pacific fisher via Tomahawk traps