

## Description

The Rowe Lab at the University of New Hampshire is seeking a highly-motivated MS or PhD student interested in the population and community dynamics of small mammals. The student will contribute to an ongoing field study at the Bartlett Experimental Forest in the White Mountains of New Hampshire. Here, we pursue basic and applied questions about small mammal response to forest management practices and fluctuations in resource availability. Students will be encouraged to develop unique project components that coincide with the themes of the Rowe Lab. The student will develop leadership skills by overseeing a team of undergraduate researchers during the summer field season and may have the opportunity to mentor undergraduates during the school year. The student will be expected to present results at scientific conferences and to agency personnel, and will lead publications that emerge from this research. Stipend, health insurance, tuition, and all project operating costs will be provided. MS students will be funded predominately through a Teaching Assistantship. PhD students will be funded through a combination of Teaching and Research Assistantships.

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## Qualifications

Applicants must have a bachelor's degree in Ecology (or a related field) and a minimum GPA of 3.0. Previous experience conducting field work is required and experience live-trapping small mammals is preferred. Field work will require long hours outside being physically active and mentally alert, and applicants must be available to begin field work in late May 2021. Applicants should be able to work both independently and cooperatively with other members of the lab. Strong communication and writing skills are desired. Interested individuals should email Rebecca Rowe at [rebecca.rowe@unh.edu](mailto:rebecca.rowe@unh.edu) by October 15th. Please attach a single pdf file that includes a brief description of your background and research interests, a CV (including GRE scores, if available, and GPA), unofficial transcripts, and the contact information for three professional references. Pending this initial review, a formal application will also need to be submitted by January 15th (<https://gradschool.unh.edu/admissions/apply>). Additional information about the Rowe Lab can be found at: <https://mypages.unh.edu/rowelab/home>.

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# Maegan Shanaghan

Narragansett, RI

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(717) 634-4782

Dr. Rebecca Rowe  
University of New Hampshire  
James Hall Rm 136  
Durham, NH 03824

Dear Dr. Rowe,

I am interested in applying to work with you as an MS graduate student working on the small mammal ecology project at the University of New Hampshire. My animal handling experience and my interest in animal response to land use practices make me an excellent candidate for this position.

I will be graduating in December 2020 from the University of Rhode Island with a degree in wildlife and conservation biology. My coursework has allowed me to gain hands on experience in small mammal trapping and tagging. I used Sherman traps to catch small mammals to measure small mammal density in habitats of southern New England forest. I was also able to practice ear-tagging and taking body measurements on *Peromyscus leucopus*. As part of a group project, I designed and performed an experiment using track plates to quantify small mammal diversity in relation to cliff proximity. I am familiar with designing an experiment, testing a hypothesis, analyzing data using statistics, and presenting my findings to an audience. I look forward to explaining this skill set as an MSc student in your lab.

This past summer, I worked for a URI graduate student radio-tracking the American Woodcock across Rhode Island. It was awesome to see real research in action, and to be a part of a decade-long study. In addition to gaining experience in bird banding and radio telemetry, this field season prepared me for the long, arduous days that field work requires. The humidity, insects, and briers do not deter me; it's all part of the process!

My passion for this work grows stronger every day. Over the last four years, I have come to understand that we are in the midst of a global biodiversity crisis. To combat this, we must understand how species impact their environment. It is remarkable that we possess the tools to measure how even small animals have large, measurable impacts on their ecosystems. I am particularly interested in animal responses to varying land use practices. I hope to one day have a career in land acquisition and management.

Thank you for taking the time to review my application. I would love to speak more about my qualifications during an interview. I look forward to hearing from you.

Sincerely,

Maegan Shanaghan

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## Education

University of Rhode Island: B.S. Wildlife and Conservation Biology

Graduation: December 2020

GPA: 3.78 of 4.00

### Relevant Coursework and Experiences

- **Wildlife Management Techniques:** Designed and performed experiment testing whether presence of predator scent influenced nest predation rates.
- **Mammalogy:** Used Sherman traps arranged in a grid system to capture small mammals to measure small mammal density in survey area. Took body measurements of live *Peromyscus leucopus*. Practiced ear-tagging mice specimens. Designed and performed experiment using track plates to measure small mammal diversity.
- **Ornithology:** Learned to identify birds of New England by sight and call. Designed and performed experiment testing flush initiation distance for Sanderlings in the presence of dogs on Narragansett Town Beach.
- **Field Botany:** Learned to identify over 300 native and invasive plant species of the Northeast. Completed vegetation survey capstone project documenting plant species present along a self-designed 30 m transect.
- **Endangered Species Conservation:** Compiled and analyzed literature on African elephant management and recommended future management strategies to reduce human-elephant conflict. Used Microsoft Excel and Google Earth to analyze data on grizzly bear GPS location.
- **Science Writing:** Wrote a report on an invasive fish species for non-science audience.

## Work and Volunteer Experience

**Research Assistant**, McWilliams Lab, University of Rhode Island. Summer 2020.

- Worked in team to mist-net and attach radio transmitters and bands to American Woodcock.
- Radio tracked 12 American Woodcock weekly for 12 weeks.
- Communicated with landowners to secure access to areas of private land.

**Research Assistant**, Gerber lab, University of Rhode Island. Spring 2020.

- Used field guides to identify mammalian species in trail camera photos captured in Vietnam.
- Tagged photos using software program Digikam.

**Land Steward**, Kennebec Estuary Land Trust, Bath, ME. Summer 2019.

- Used GPS and GIS to mark property boundaries and make maps of those properties.
- Worked in a small team to identify and remove invasive plant species from land trust properties.
- Conducted trail maintenance including constructing bridges and trail blazing.
- Led groups of volunteers during bridge building events

**Lifeguard and Swim Instructor**, Tootell Aquatic Center September 2018-current.

- Enforced rules and provided first aid to patrons of the aquatic facility.
- Taught swim lessons to children ages 6 months to 16 years old.
- Tabled events on water and ice safety for the public.
- Employee of the month October 2018 and October 2019.

**Special Skills**

- Chainsaw and power drill operation
- Pennsylvania Boating Safety Education Certificate
- Lifeguard/CPR/First Aid/AED
- Red Cross Water Safety Instructor (WSI)

**References available upon request.**