



Department of Environmental Science and Ecology

**Description:** I am seeking a MS student for a project focused on classifying the brood-rearing period in female mallards in eastern North America, leveraging high-resolution location and behavior data collected from >1,200 individually marked birds, as well as drone footage of tagged birds with broods. I anticipate the student will examine features of location and behavior data to compile patterns of activity associated with brood rearing and non-brood rearing. The student will use a rule set to determine likely incubating birds, confirm nesting status (success/failure) and operate an unmanned aerial drone to determine brood status. Linking confirmed broods from drones with location and behavior data during the same period will substantially advance our capacity to estimate brood-rearing status retrospectively in hundreds of tagged females that are not directly observed. Extensive travel in New York and surrounding states is likely. The project will also quantify the ecological factors influencing mallard brood habitat selection. There will be immense opportunities to explore additional ecological questions of interest to the student to inform wetland and waterfowl management in the Atlantic Flyway. To date, partners have deployed 640 transmitters on female mallards during the winter from the Maritimes of eastern Canada to South Carolina. We anticipate deploying an additional 600 units over the next three years which will generate tens of millions of GPS and accelerometer data points. This project comprises an international partnership among the Canadian Wildlife Service, Ducks Unlimited, US Fish and Wildlife Service, The State University of New York-Brockport, University of Saskatchewan, and member states of the Atlantic Flyway (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia). I expect the student expected to coordinate with other graduate students and the larger partnership to achieve both scientific and public outreach objectives and the student will have the opportunity to capture, handle, and attach GPS units throughout the Atlantic Flyway.

This project comprises 4 semesters of support which includes some travel costs and a student research assistantship + tuition. While enrolled in classes, the student will be a SUNY Research Foundation employee at SUNY Brockport and must maintain full-time graduate status to receive the full assistantship support.

**Qualifications:** BS degree in ecology, wildlife, zoology, or related field with a minimum GPA of 3.0/4.0. Must be able to drive a university vehicle, and work long hours and days away from campus. Candidates with demonstrated written and oral communication, analytical skills, and strong academic credentials are preferred. Successful applicants will have a strong background in avian ecology and hold a passion for wildlife ecology and conservation. Critical skills include collecting data in the field in adverse conditions. Previous experience with Program R and experience operating a drone are strongly desired.

**Start Date:** January 2024

**Location:** Brockport, NY

**Application Deadline:** 10/15/2023 or until suitable candidate is found.

**To apply for this position:** Candidates need to submit a single PDF file that includes a cover letter outlining experience and research interests, curriculum vitae, unofficial university transcripts, and contact information for two references to Dr. Jacob Straub at [jstraub@brockport.edu](mailto:jstraub@brockport.edu). The successful applicant must also be accepted into the graduate program at SUNY Brockport. Feel free to contact Dr. Straub if you have questions.