

PhD Position to Study

American Lobster Foraging Biology

Are you interested in:

- aquatic animal behaviour or fisheries biology?
- foraging cues and adaptive social behaviours?
- blending of basic research with practical, real-world relevance to real people?

Do you want to build expertise in:

- community collaboration with a diverse group of people?
- ethological video capture and analysis?
- bridging the gap between ecology and individual responses to stimuli?



[Dr. Russell Wyeth](#) in the [Biology Department at St. Francis Xavier University \(StFX\)](#) and [Dr. Iain McGaw](#) at [Department of Ocean Sciences \(DOS\), Memorial University of Newfoundland \(MUN\)](#) are accepting applications for a PhD student position to start September 1, 2020 (or earlier).

Our research aims to better understand foraging responses of the American lobster to both natural prey and baits used in the lobster fishery. The lobster fishery is currently thriving, but it crucially depends on the bait placed in traps. The sustainability of the bait supplies for the fishery are thus a critical issue for long-term sustainability of the lobster fishery as whole. However, there is surprisingly little is known about American lobsters' basic foraging responses to either natural prey or baits. This project will fill that gap, using arrays of video cameras to document lobster responses to both natural prey items and bait, without the complicating factor of traps. Consequently, the research is focused on expanding our basic understanding of lobster foraging behaviours, social interactions and ecology while also gathering information and developing methods to compare the attractiveness of different baits.

Under a special inter-university collaboration agreement, the PhD student will be based at StFX (in Antigonish, Nova Scotia) while completing the Marine Biology program at MUN's DOS (in St. John's, Newfoundland). At the outset of the program one or (possibly) two semesters of course work will need to be completed in St. John's, with the fieldwork and data analysis completed in Antigonish. Additional lab-based behavioural work at the DOS MUN may also be possible later in the program, depending on the outcomes of the field work, student interest and funding. The position is fully funded for 4 years at \$21,500, with additional support available to facilitate splitting time between the institutions. The application will be made to the Marine Biology program at MUN, where fees will also be paid.

Applicants should have an MSc in ethology, fisheries, or a related field. Experience with any of the following will be assets: small boat operation, SCUBA, video recording and analysis, marine field work, ethograms, and modern statistical analyses. The candidate will be expected to work with a diverse group of people, including a team of 3 or 4 students and local lobster harvesters and bait providers. Periods with long hours in the field under adverse weather conditions are also possible.

For further information or to apply, contact Dr. Russell Wyeth: rwyeth@stfx.ca

Please include a transcript (unofficial is acceptable initially), CV, and names of two academic references.