



## PhD and MSc positions

### ***Migration Biology & disease susceptibility in juvenile Atlantic salmon***

Applications are being accepted for MSc. and Ph.D. students to work on a large, NSERC Funded project examining the migration biology of Atlantic salmon smolts relative to aquaculture sites in eastern Canada, and the role of pathogen expression on salmon behaviour, physiology, and survival. The supervisory team includes Dr. Glenn Crossin, Dr. Megan Bailey, Dr. Jeff Hutchings, and Dr. Fred Whoriskey at Dalhousie University and the Ocean Tracking Network. Students will also work closely with our partners at DFO and the Atlantic Salmon Federation.

Candidates should have knowledge of acoustic telemetry and fish ecology, and quantitative modelling skills and experience with molecular techniques are desired. Successful candidates will be able to work effectively independently, and as part of a multi-disciplinary team. Candidates should also be dependable and motivated to see projects through to completion, and keen to share their research results within the research group at annual data workshops and meetings with collaborators and partners. There is extensive field work associated with these projects, so willingness to travel to distant areas and a valid driver's licence are required. While based at Dalhousie University, students should be prepared to travel to collaborator laboratories throughout eastern Canada and in British Columbia.



Projects will fall into three main areas of research:

1. The role of naturally occurring pathogens in mediating the migration behaviour and mortality of juvenile salmon in populations throughout the Maritimes, Quebec, and Newfoundland & Labrador.
2. The interactions of wild salmon with aquaculture net-pens throughout the region by quantifying residency patterns, migration pathways, pathogen loads, and mortality.
3. The effects of hatchery rearing on the behaviour and survival of juvenile salmon, via comparisons of migration patterns and pathogen loads between hatchery and wild fish in the same river.

To apply, send a cover letter detailing research experience and interests, a complete CV, academic transcripts (unofficial is sufficient for now), and the names and contact information for three persons willing to provide a letter of reference. Email to Dr. Glenn Crossin ([gtc@dal.ca](mailto:gtc@dal.ca)) as soon as possible. Ideally, some positions will begin as soon as January 2019. Applications will be reviewed until suitable candidates are identified.