

University of New Brunswick Fredericton

MSC GRADUATE PROJECT OPPORTUNITY: POPULATION GENETICS

I am seeking a graduate student to join a collaborative research program (funded by an NSERC Strategic Grant) on the ecology of the Bay of Fundy mudflats. These mudflats are densely inhabited by amphipods (*Corophium volutator*), which are the major prey of migrating shorebirds and fish. The successful candidate will join a multi-disciplinary collaboration between researchers at UNB, Carleton University, and Mount Allison University. Our aim is to model the environmental interactions between climate driven processes and the population dynamics of *C. volutator* throughout the mudflats in the Bay of Fundy.

The project will use DNA sequence variation to assess the level of genetic subdivision and patterns of gene flow among populations of *C. volutator*. This research will enhance our ability to model this system by providing indirect estimates of the scale to which mudflats are demographically independent. By extending the analysis to include populations of *C. volutator* throughout its geographic range (east and west Atlantic), this research will also provide deep insights into the evolutionary history of this species during the major glacial events of the Pleistocene.

The research will combine fieldwork with molecular data generation (mtDNA and nuclear DNA sequencing). Successful candidates should have a strong background in ecology and evolution, interests in population genetics and statistics, and preferably some experience with molecular techniques (but not required).

Applications will be accepted until a suitable candidate is found. The anticipated start date is May 2010.

For enquires, or to apply, email a CV or resume, a letter of interest, unofficial transcripts and contact information for 2 references to Dr. Jason Addison (jaddison@unb.ca)

For more information about the Biology Department and Graduate Studies, see:

<http://www.unb.ca/fredericton/science/biology/>

<http://www.unb.ca/fredericton/science/biology/Faculty/addison/addison.html>

<http://www.unb.ca/gradschl/>

