Queen Elizabeth Scholars Program
Marine Affairs Program, Dalhousie University
Ocean and Coastal Livelihood and Governance in the Caribbean Region
Internship Placement Description 2018

Position Title:	**Marine Monitoring Officer – Nutrient Pollution Study**
Country:	Based on Union Island, Saint Vincent and the Grenadines. Operating in Saint Vincent and the Grenadines and Grenada.
Internship host	Sustainable Grenadines Inc. (SusGren)
Placement description	The Grenadines contains the most extensive coral reefs in the southeastern Caribbean. Coral health surveys conducted in 2015 using the Atlantic and Gulf Rapid Reef Assessment method found that these reefs are still in relatively good condition compared with elsewhere in the Caribbean. Live coral cover in particular scored relatively highly. However, this desirable situation is fragile because other elements of the coral reef ecosystem have been compromised. Biomass of herbivorous fish (necessary for reducing algae, which compete with corals for space on the reef) is low, while algal cover is moderate to high. This suggests that overfishing and nutrient pollution are threats to coral health in the Grenadines. In order to inform the design of strategies to protect coral reef health, SusGren needs to know to what extent nutrient pollution is a threat to coral health and which sources of nutrients are to blame (e.g. yachts discharging sewerage, domestic waste-water, soaps and detergents, agro-chemicals, soil erosion, etc.). We seek a Dalhousie University graduate student to conduct a study to quantify/estimate nutrient flows from various sources into the near-shore marine environment around one or more Grenadine islands, examine the factors affecting these flows and the impacts they may be having on coral reefs. It is envisaged that the role will involve: a) Desk research into nutrient pollution, its effects on coral reef health and feasible means of controlling it, focused on the Grenadines; b) Surveys of stakeholders (e.g. farmers, householders, yachters) and interviews with key informants (e.g. Central Water and Sewerage Authority, Ministry of Agriculture, etc.) to gather data on waste management practices, agricultural practices etc.; c) Measuring nutrient concentrations in environmental samples (sea water, soil and/or surface water) to identify / quantify sources of pollution; d) Writing a report that uses available data and “best guesses” to estimate nutrient flows into the marine environment and highlights the priority information gaps; e) Designing subsequent empirical studies to address priority data gaps. The exact nature of the placement can be modified and further elaborated by the student in collaboration with SusGren.
Qualifications	• Canadian citizen or permanent resident and 35 years of age or under at time of application • Graduate or senior undergraduate student enrolled at Dalhousie University in good academic and financial standing

	• Registered in a course for which the student will gain academic credit for the internship placement during the term of the internship

Application deadline – noon February 5, 2018

Application form available at
https://www.dal.ca/academics/programs/graduate/mmm/funding---support.html

Submit the application to:
Becky Field, Administrator
Marine Affairs Program, Marine.affairs@dal.ca