

PhD Student Opening in Stable Isotope Biogeochemistry

Department of Earth & Environmental Sciences, Dalhousie University



The Department of Earth and Environmental Sciences at Dalhousie University seeks applicants for a funded PhD position in the field of stable isotope biogeochemistry, to begin **spring/summer 2024.**

Project: Working under the supervision of Dr. Owen Sherwood, the student will develop and apply biogeochemical proxies recorded in deep-water corals, sediment traps, and/or sediments to investigate long-term changes in the sources and compositions of marine export productivity. The geographic focus is the eastern Canadian margin, from the Gulf of Maine to Baffin Bay. This broad region is undergoing rapid changes in ocean circulation and biological productivity, with unknown consequences for carbon export and sea floor ecosystems. The project leverages a large existing collection of deep-water corals, sediment trap materials, cored sediments, and water samples. The student may also have opportunities to go on oceanographic expeditions to collect new samples and data. The student will utilize cutting-edge techniques in compound characterization and amino acid-specific stable isotope analysis in the Sherwood lab at Dalhousie University. The lab is fully equipped with state-of-the-art instrumentation, including GC/MS, GC-IRMS, LC-Orbitrap-MS, and associated peripheral equipment.

Qualifications: Prospective candidates should have completed a MSc degree with a minimum GPA of 4.0/4.3 ("A" equivalent) and have excellent analytical and English-language writing skills. The ideal candidate will have experience with Gas Chromatography, Isotope Ratio Mass Spectrometry, or similar analytical chemistry methods. Other desirable skills include experience with statistical programming and GIS.

Funding: The funding package covers tuition, medical insurance, fees, and a minimum guaranteed stipend for living expenses. TA earnings are over and above the stipend amount. The student will be expected to apply for competitive scholarships.

Deadline for the application is 1 January 2024, and the selected candidate is expected to begin their PhD on 1 May 2024 or 1 September 2024.

To apply please send an email to <u>owen.sherwood@dal.ca</u> (subject line: PhD search) with a curriculum vitae, academic transcripts, and cover letter.

Dalhousie University is Atlantic Canada's leading research-intensive University. The main campus is situated in Halifax, Nova Scotia – a city known for its youthful spirit, rich history, and scenic waterfront. Information about the Earth and Environmental Sciences department may be found at: <u>https://www.dal.ca/faculty/science/earth-environmental-sciences.html.</u>