

MSc or PhD opportunity on the fluid mechanics of coral feeding

Fully funded at \$22,000 / year for the first 2 years.

Soft corals exhibit dynamic movements in response to ocean waves and eddies. Notably, they experience vortex-induced vibrations as they interact with vortices shed in their wake. Unraveling this complex fluid-structure interaction is essential for quantifying the hydrodynamic stresses they endure, as well as for understanding their filter feeding mechanics. In an era of increasing hurricane frequency and coral reef upheavals due to climate change, soft corals exhibit relative success at adapting to changing environments. We seek to understand the role of their flexibility or “softness” in this success.

This interdisciplinary endeavour involves collaboration among mechanical engineers, biologists, and ecologists, with three objectives: The objective of this project is to **explore the behaviour of polyps in whole-colony motions and fluid-structure interactions.**

Preference will be given to i) Canadian, French or Belgian, ii) SCUBA divers with underwater videography experience, iii) a background in comparative biomechanics, fluid-structure interactions & marine ecology.

Forward your CV, transcripts & statement of interest to prof. Christopher Cameron - c.cameron@umontreal.ca

Preferred start date: September 2024 at l'Université de Montréal, Département de sciences biologiques, followed by winter 2025 at the Reef Systems Unit, National Autonomous University of Mexico (UNAM).

