



## Funded Masters of Environmental Studies Research Opportunity: **Understanding barriers to, and modelling of opportunities to expand blue mussel culture in the North Atlantic**

*Are you interested in sustainable seafood systems, how they may be scaled up, and the challenges of doing so? Are you interested in marine spatial planning? Are you thinking about grad school?*



Many seafood systems are recognized as relatively climate-friendly sources of highly nutritious food – two attributes essential if we are to address the climate crisis while feeding all of humanity well. Amongst the most nutritious, least impactful are farmed blue mussels (*Mytilus edulis*) that are widely cultured in coastal waters around the North Atlantic. Despite the relative benefits of blue mussel culture, opportunities to expand production in many traditionally important production regions are limited either by less favorable growing conditions, or increasingly by opposition from coastal residents or other industries.

As part of a joint Sweden-Canada project, Dalhousie Professors Ramón Filgueira (Marine Affairs Program) and Peter Tyedmers (School for Resource and Environmental Studies), are looking to recruit a keen thesis-based Masters student for the Fall of 2024 (or 2025 if the position remains unfilled). The student's project would first use expert knowledge to identify factors that limit the expansion of blue mussel culture in major production centers around the North Atlantic. The student will then model the mussel culture expansion potential in one or more case study areas based on the factors identified by experts together with known marine environmental characteristics that favour mussel culture such as depth, wave exposure, currents, temperature and primary production. Results will help inform the extent to which future blue mussel culture could be expanded in key regions of the North Atlantic.

The ideal student will have a strong academic background in a relevant program (marine biology, biology, environmental studies, oceanography, etc.) that ideally included some exposure to geographic information system (GIS) or marine spatial data analysis. An enthusiasm for creative problem-solving is always an asset.

The stipend support for this project is \$30,000 per annum for two years. Strong candidates will be expected to pursue additional scholarship support. The selected student will enroll in the Master of Environmental Studies program (<http://www.dal.ca/faculty/management/sres/programs.html>).

If interested, please e-mail both Ramón Filgueira ([Ramon.Filgueira@dal.ca](mailto:Ramon.Filgueira@dal.ca)) and Peter Tyedmers ([Peter.Tyedmers@dal.ca](mailto:Peter.Tyedmers@dal.ca)) with a note describing your interest and background including a summary or copy of your undergraduate transcript and CV. Please indicate "Mussel project!" at the start of the subject line of your note. We will continue to review potential applicants until a strong candidate is recruited.