



Future Blue Carbon Scenarios Postdoctoral Associate Position

Project context and Goals: Climate change is rapidly altering the planet, and solutions are urgently required to reduce greenhouse gas emissions and limit further warming. Meeting Canada's increased GHG emissions-reductions targets requires an accounting of all mitigation options, including Canada's natural ocean carbon sinks. In coastal oceans, **blue carbon ecosystems** (salt marshes, seagrass meadows, kelp forests) sequester carbon from the atmosphere and ocean and store it in biomass and sediments. In Canada, uncertainty about ocean carbon reservoirs has hindered inclusion of these resources in our climate solutions portfolio, and prevented local jurisdictions from considering these benefits in decision-making processes. The primary goal of the collaborative [Blue Carbon Canada](#) research program, which includes multiple post-docs, PhD students and partner organizations, is to produce the first nationwide assessment of the natural climate solutions capacity of Canada's oceans.

Postdoctoral Position: The Postdoctoral Associate will develop and analyze scenarios for future blue carbon storage in Canada. Scenarios will reflect climate change (warming and sea level rise) as well as likely scenarios of cumulative impacts on carbon capturing and storing habitats, such as coastal development. This will be done through development of scenarios, and drawing upon existing and recent model outputs for future climate scenarios and local anthropogenic stressors and their cumulative impacts. The position requires creativity and initiative in choosing and developing scenarios to work with, ecological knowledge about how to relate drivers and likely responses of eelgrass, marshes, and kelp, and the technical skills to manage data and integrate data sets and models into statistical analyses and maps.

Postdoctoral Responsibilities:

- Use state-of-the-art-practices, methods and models to develop scenarios for future coastal ecology that reflect current knowledge of habitat threats and climate change
- Develop, analyze and visualize these scenarios for future habitat, and their implications for carbon storage
- Collaborate with the Blue Carbon Canada team of scientists, postdocs, and partners.
- Publish results in peer-reviewed scientific journals in a timely fashion
- Employ excellent communication skills with colleagues, collaborators and mentors about all aspects of the projects (design, interpretation, challenges, solutions, timelines and progress)
- Be curious and engaged with the project and the work, willing to learn and grow.



Postdoctoral Qualifications

Essential Qualifications

- A PhD in ecology, geography, biological oceanography, statistics, or another relevant discipline;
- Established publication record and record of completing projects in a timely manner;
- Demonstrated proficiency with statistical programming languages (R, Python or Matlab) and ArcGIS;
- Data synthesis experience, including collating, processing, modelling large data sets;
- Interpersonal and communication skills, the ability to work both independently and collaboratively.

Desired Qualifications

- Expertise in the biology or ecology of at least one of the three blue carbon ecosystems;
- Knowledge of, including in-depth understanding of the literature, on blue carbon and/or cumulative impacts (also known as multiple stressors).

Research Environment and Benefits: The postdoc will be supervised by Profs. Julia Baum and Mary O'Connor, and as such can be based either at the University of Victoria or UBC.

- Join a supportive and stimulating research environment and collaborate with a team of leading academics and government partners working across Canada's three oceans. Learn how research is translated into management and policy decisions;
- Competitive salary and benefits. The position is initially for one year, and renewable for a second year, subject to performance and available funding.
- Opportunities to present at national to international conferences.

EDI: Equity and diversity are essential to academic excellence. We encourage applications from members of equity-seeking groups. See <https://www.juliakbaum.org/edi> for further details on our commitment to EDI.

To apply: Candidates should submit the following materials via email to Blue Carbon Canada Project Manager Kristina Tietjen at pm.bluecarboncanada@gmail.com in a single PDF document, with their last name in the file name:

- § a cover letter explaining your motivation to excel in this position, your qualifications, your career goals; and evidence of your commitment to equity, diversity and inclusion (EDI);
- § a CV (including publication list and clear specification of relevant quantitative skills);
- § a 1-page **research statement** relevant to understanding and projecting change in coastal systems, including you research problem, objectives, and scientific plan. The purpose of the plan is to demonstrate the capacity to design a feasible and exciting project; it does not need to be directly relevant to the blue carbon project advertised here.
- § 2 sample research publications including those relevant to the project;
- § names and contact details for three references.

Review of applications will begin Monday May 22nd. Applicants must be available to start fall 2024.

