Postdoc Position in spatial-temporal occurrence of kelp-encrusting bryozoans and associated environmental conditions across the British Columbia coast

Applications are being accepted for the British Columbia Kelp-Encrusting Bryozoan Postdoctoral position Kelp at the University of Victoria, Department of Geography, in the SPECTRAL Remote Sensing Lab. The postdoc will be based in Victoria, Vancouver Island, Canada, and will work under the supervision of Dr. Maycira Costa from UVic and Dr. Anne Salomon from SFU.

Project Context:

Kelp forests in British Columbia (BC) provide habitat and shelter to many important species, including juvenile salmon, as they migrate from coastal rivers to the open ocean. However, kelp forests are currently threatened by human degradation and climate change, but precise losses are not known. Recently, First Nation Guardian Watchmen and researchers have noticed increases in kelp-encrusting bryozoans (KEB), a colonial animal that grows on kelps, reducing reproduction, increasing breakage, sinking kelp, and decreasing the health of kelp forests. Although we are starting to understand kelp forest changes in BC, little is known about the impact and conditions that lead to KEB increases. This project aims to establish a latitudinal network of Sentinel areas along the BC coast where we quantify the spatial-temporal density of KEB and associated environmental conditions. The outcomes of this project will define environmental conditions important for the placement of future kelp restoration sites, kelp farms, and key conservation areas with benefits for the long-term survival of a diversity of kelp associated species, including Pacific salmon. A broader understanding of the spatial-temporal bryozoan occurrence and associated drivers of change (e.g., sea surface temperature, water flow, wave exposure, kelp density) will inform the current and future health status of kelp under threat from warming ocean temperatures (where and conditions driving KEB), which in turn will allow for improved management decisions for this critical habitat for juvenile salmon and many other ecologically, culturally, and economically significant species in BC.

Postdoctoral Position:

The postdoc will be responsible for three components of this project: (1) support the coordination of the overall project, including intense fieldwork in collaboration with many groups, including First Nations; (2) lead at least 2-3 manuscripts focusing on latitudinal distribution of kelp-encrusting bryozoans,kelp condition, and associated environmental drivers; and (3) produce project reports and mobilize knowledge to BC's coastal communities. The postdoc will contribute to field data collection efforts, analyze data from various sources, including satellite-derived environmental data, and write high-quality reports and manuscripts for peer-reviewed publications. The postdoc will also have the opportunity to be involved in related collaborative research efforts in BC and the North Pacific.

Ideal qualifications:

- A Ph.D. degree (completed by the time of appointment) in biology/geography/oceanography/marine ecology, or related discipline.
- Established publication record
- Record of successful project management and collaboration
- Fieldwork experience

- Demonstrated expertise in advanced statistical methods and remote sensing and spatial data analysis skills would be an asset.
- Interpersonal and communication skills, the ability to work both independently and collaboratively with coastal communities.

Application closure date: June 15, 2023.

Start date: August 1, 2023

Position Length: two to three years, pending annual review

Salary: $60,000

Applicants must submit:

- A CV, including the e-mail and phone number for three references;
- A short cover letter explaining the applicant's motivation for working on the project and how previous experience qualifies them for this position;
- Reprints of 2 published papers, if available.

Submit applications to:

Maycira Costa (maycira@uvic.ca) and Anne Salomon (anne_salomon@sfu.ca)

Equity, Diversity and Inclusion: We value equity and diversity, and strongly encourage applicants from underrepresented groups to apply.