

Postdoctoral Fellowship – Pacific Rim Ocean Data Mobilization and Technology (PRODIGY) Glider-Centred Process Studies of Continental Shelf Dynamics



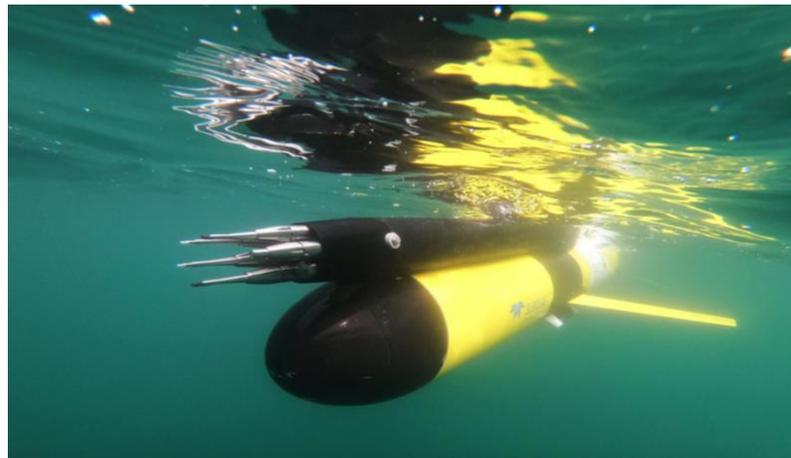
Hakai
Science on the Coastal Margin



PRODIGY 
PACIFIC RIM OCEAN DATA MOBILIZATION AND TECHNOLOGY

Fisheries and Oceans
Canada

Pêches et Océans
Canada



A turbulence-sensing glider deployed in Queen Charlotte Sound by the Canadian-Pacific Robotic Ocean Observing Facility (C-PROOF) in partnership with the Hakai Institute.

Applications are invited for a two-year postdoctoral fellowship (PDF) to conduct glider-centred process studies of continental shelf dynamics off the coast of British Columbia Canada in partnership with the Canadian-Pacific Robotic Ocean Observing Facility and the Hakai Institute. As part of Pacific Rim Ocean Data Mobilization and Technology (PRODIGY), the fellow would also contribute to the research, teaching, mentoring, and partner engagement initiatives of the PRODIGY training program, delivering advanced graduate and postgraduate training in ocean observation, prediction and knowledge mobilization.

Background: Since 2019, the [Canadian-Pacific Robotic Ocean Observing Facility \(C-PROOF\)](#) has operated a fleet of gliders, floats, and moorings in the Northeast Pacific to provide long-term monitoring of the ocean at scales necessary to resolve upper ocean physical and biological processes. In collaboration with the [Hakai Institute](#), a scientific research institution that advances long-term research at remote locations on the coastal margin of British Columbia, we have maintained sustained glider sampling in all seasons spanning coast to open ocean in Queen Charlotte Sound, a highly productive shelf sea that is a vital commercial and subsistence fishing ground and hosts many of western Canada's Marine Protected Areas. The dataset describes a highly dynamic and variable system, which is influenced by seasonally-varying wind-driven upwelling and downwelling, freshwater forcing, vigorous mixing and lateral exchange processes. Targeted studies are now needed to better understand these dynamic processes and their implications for the region's ecosystems.

In 2020, the [Pacific Rim Ocean Data Mobilization and Technology \(PRODIGY\) training program](#) was established, with C-PROOF and the Hakai Institute as partners. PRODIGY bridges the fields of oceanography, geophysics, computer science and statistics to support cutting-edge, interdisciplinary research on Pacific Ocean processes using state-of-the art ocean observing technology and deliver advanced graduate and postgraduate training in ocean observation, prediction and knowledge mobilization. The program seeks a dynamic individual to contribute to PRODIGY's mission through inter-disciplinary research, teaching and stakeholder engagement.

Position Goals:

The fellow will contribute to the C-PROOF, Hakai Institute and PRODIGY research missions by designing, executing and analyzing glider-centred process studies targeting dynamical processes and their ecological consequences in Queen Charlotte Sound. The foci of the process studies can be tailored to the candidate's interests and expertise in collaboration with the Project Leaders. There is an exciting opportunity to employ glider-mounted turbulent microstructure instrumentation and engage with C-PROOF and PRODIGY partner Rockland Scientific, if it is of interest. The fellow will also contribute to the PRODIGY program through in-class teaching, participation in annual summer schools, and by engaging with the program's non-academic partners in government, industry and the NGO sector.

Position Responsibilities:

The PDF will be responsible for the following tasks within the context of the overall project as described above:

- work with the C-PROOF team on processing, analyzing and interpreting existing observational data;
- participate in the continued collection of *in situ* observational data in the region;
- design and lead glider-centred process studies targeting dynamical process(es) of interest;
- publish research in high-impact, peer-reviewed journals and present results at national and international conferences;
- participate in teaching and mentoring activities with graduate and undergraduate students and engage with non-academic partners in government, industry and/or the NGO sector as part of the PRODIGY program.

Requirements:

- a PhD in physical oceanography
- experience collecting and working with ocean observations, or a keen willingness to learn
- willingness to work collaboratively with an interdisciplinary group of scientists with expertise in ocean sciences, geophysics, statistics and computer science
- capacity to lead projects with collaborators, excellent communication skills, and demonstrated ability to finish projects on time

Project Leaders:

The PDF will be supervised by Dr. Jody Klymak (University of Victoria) and Dr. Stephanie Waterman (University of British Columbia) and will work closely with Dr. Tetjana Ross (Institute of Ocean Sciences, a scientific facility of Fisheries and Oceans Canada), Dr. Wiley Evans (Hakai Institute) and Dr. Charles Hannah (Institute of Ocean Sciences). The fellow will join the Canadian-Pacific Robotic Ocean Observing Facility (C-PROOF) team.

Additional Details:

The position will be officially based at either the University of Victoria or the University of British Columbia, with opportunities to travel between these locations, the Institute of Ocean Sciences in Sidney BC, and the Calvert Island Ecological Observatory of the Hakai Institute for collaborative work. This is a limited term, two-year PDF position paid at a rate of \$60,000 CAD per year plus mandatory employment-related benefits. There is an opportunity for renewal given satisfactory performance and funding availability. A research budget is also available. Note that there is a second PDF position with the team advertised and applicants to this position may also be considered for that opportunity.

Application Procedures:

To apply please submit the following by email to prodigy@eoas.ubc.ca AND jkymak@uvic.ca: 1) a cover letter, outlining special areas of research interest, relevant teaching and research experience, and fit with the position described above; 2) a current CV; 3) the names of at least two references; and 4) sample research publications. Review of applications will begin immediately and the position will remain open until **October 15, 2023**. Please direct questions to Drs. Jody Klymak and Stephanie Waterman (jkymak@uvic.ca, swaterman@eoas.ubc.ca).