Two Postdoctoral Fellows Sought, Hakai Cryosphere Node

Academic Supervisor(s): Brian Menounos (UNBC) and Bill Floyd (VIU/Province of BC)

As part of a five-year study funded by the Hakai Institute (https://www.hakai.org/) we seek two Postdoctoral Fellows who will work with us to quantify changes in seasonal snow and alpine glaciers in the southern Coast Mountains and on Vancouver Island. Seasonal snow represents an important component of the region's freshwater flux, and its melt contributes to transport of sediment, organic materials and nutrients to the Pacific Ocean. The southern Coast Mountains also contains nearly one half of western North America's alpine glaciers (outside of Alaska), and rates of recent mass change have not been properly quantified.

Postdoctoral Fellow #1 (PDF1) will work with us to develop an approach to reliably measure seasonal snow and its evolution at the plot scale to across entire mountain ranges. Postdoctoral Fellow #2 (PDF2) will directly facilitate our collaborate work with NASA JPL to help develop calibration/validation datasets for Icesat2 measurements over the southern Coast Mountain's largest icefields. Our research program has access to a high-altitude (Riegl 780) airborne laser scanning system, dedicated aerial cameras, on-site glacier monitoring and meteorological equipment and several UAVs with dedicated sensors. We also recently invested into new high performance computing equipment that will be used for integrative modeling of snow and glacier mass change. This research will be integrated into the other major themes supported by the Hakai Institute in an attempt to link biophysical processes from mountain to marine ecosytsems, providing an excellent opportunity to work with a diverse group of research scientists.

Both positions are funded at competitive levels with funding for at least two years. Qualifications for both positions include: i) a PhD in meteorology, glaciology, physics, hydrology, earth-system science or a related field; ii) a strong publication record; iii) intermediate-to-advanced skills in computer programming (Python is preferred); iv) field experience in remote mountains, including working and travelling in avalanche terrain and: v) strong organizational/leadership skills. Tenure for PDF1 may be either at Vancouver Island University (https://www.viu.ca/), the University of Northern British Columbia (https://www.unbc.ca/) or a shared position between both universities. PDF2 will be located at UNBC. Given the collaborative nature of the proposed research both PDFs will travel between UNBC, VIU and Hakai, however.

Anticipated start dates for both positions is 1 September 2018 or until the positions are filled. Interested applicants should their Curriculum Vitae and a cover letter to both Brian Menounos (menounos@unbc.ca) and Bill Floyd (Bill.Floyd@viu.ca) explaining why they are the suitable candidate for the position (PDF1 or PDF2).