Summer 2023 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Initiative (USI) is pleased to offer current UBC graduate students the opportunity to work on funded sustainability internship projects. Successful candidates work under the mentorship of a partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region.

- Visit the Sustainability Scholars Program website to learn how the program works and to apply.
- Be sure to review the application guide on the Apply page to confirm your eligibility before applying.

Applications close at midnight on Sunday January 29, 2023.

> This is a Fraser Estuary Research Collaborative Project <

The Fraser Estuary Research Collaborative (FERC) is focussed on advancing efforts to protect the Fraser River estuary in collaboration with key NGO and Indigenous partners. If you are interested in producing new knowledge and supporting Fraser estuary protection through scientific, technical, governance and policy innovations, the following project might be for you. Read on for more details.

Project title: Identifying beneficial farming practices for the conservation of shorebirds on agricultural lands on the Fraser River Delta

Project Background & Overview:
Globally sustainable food production is one of the central challenges to addressing the twin crises of climate change and biodiversity loss. The Fraser River Delta is among British Columbia's most productive agricultural lands but is also some of its most important estuarine habitats. Shorebirds as a group are declining significantly across the Americas and loss of coastal wetlands due climate change and land conversion are believed to be one of the drivers. This project will identify farm practices that address this conservation challenge.

Project description
The estuary has been identified as globally significant Key Biodiversity Area, a Western Hemisphere Shorebird Reserve Network Site of Hemispheric Importance and a Ramsar Wetland of International Significance. One of the main reasons the estuary as received these designations is the remarkable aggregations of shorebirds that occur on the delta including Western Sandpiper, Dunlin and Black-bellied Plover.

To varying degrees these shorebirds rely on both the intertidal habitats and agricultural landscapes of the Fraser River Delta. While efforts to protect the intertidal mudflats for these birds has gained momentum, the upland areas are being lost to new agricultural practices such as introducing greenhouses and berry crops, which do not provide the foraging habitat provided by more traditional farming practices.

There are initiatives underway to provide economic incentives to farms that implement sustainable practices and deliver co-benefits for biodiversity, but shorebirds have not traditionally been part of those initiatives. The Scholar will be asked to engage researchers, farmers and conservation practitioners through structured interviews to identify beneficial farming practices that could provide co-benefits to avian biodiversity if implemented in the Fraser River Delta.

There are a number of climate related linkages to this project. First, shorebirds are losing stopover habitat all along their migration route. This is due to both climate driven sea-level rise and maladaptive actions such as relying on hard infrastructure to protect human communities from this new threat.

A second issue at play in this project is one of transboundary connectivity. As long-distance migrants, shorebirds are exposed to varying types and levels of risk along the migration. Birds Canada and partners maintain a network of wildlife tracking stations across the Americas—the Motus Wildlife Tracking Network—and through that network we have learned shorebirds threated by drought in California are then stopping over in the Fraser River Delta where they are threatened by sea-level rise before moving onto the Arctic breeding grounds where they are threatened by rising temperatures.

Ensuring the resilience of shorebirds requires reducing threats as much as possible at each stop along their migration.

Project scope

The project will be focused on the Fraser River Delta and will require undertaking structured interviews with shorebird researchers, conservation practitioners, municipal planners, and farmers working in the Fraser Delta and in the Central Valley of California. The project will identify beneficial farming practices that support the climate adaptation of shorebirds and explore mechanisms for incentivising these adaption actions amongst farmers.

- Literature review to identify beneficial farming best practices related to vegetable and legume production that support climate resilient habitat for shorebirds within North America
- Policy/program review of mechanisms for incentivising actions that enhance habitat resilience amongst farmers in British Columbia
- Production of a database of beneficial farming practices for shorebirds which could potentially enhance the climate resilience of shorebirds on the Fraser River delta.
- Preparation of interview script and questions complemented by identification and prioritisation of a list of 7 subject experts (comprised of shorebird researchers, conservation

practitioners, planners, farmers). List of interviewees to be determined in discussion with the project mentor]
- Conduct expert interviews
- Report identifying opportunities and barriers to on-farm implementation of beneficial management practices that enhance the habitat resilience of the Fraser River Delta.

Deliverables
- A final report containing a summary of the work completed
- A final report for the online public-facing Scholars Project Library.
- A database of beneficial farming practices that support shorebird adaptation
- A final presentation to the Fraser Delta Farmland Protection and Stewardship Initiative

Time Commitment
- This project will take 260 hours to complete: 250 hours to be allocated to the research, and 10 hours to be allocated to participating in meetings and collaboration opportunities with the rest of the FERC cohort
- This project must be completed between May 1 to August 15, 2023
- The Scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.
- The Scholar must live in the lower mainland in order to be available to attend FERC meetings and events in person.

Required/preferred Skills and Background

☒ Excellent research and writing skills
☒ Demonstrated interest in sustainability
☒ Experience conducting stakeholder engagement events, including facilitation skills, is an asset
☒ Familiarity with research methodologies and survey techniques
☒ Community engagement experience
☒ Familiarity conducting focus group research
☒ Strong analytical skills
☒ Ability to work independently
☒ Deadline oriented
☒ Comfortable interacting with strangers to conduct public/in person surveys
☒ An interest in sustainable food systems
☒ Demonstrated interest in ornithology, an asset

Applications close **midnight Sunday January 29, 2023**
Apply here: Click here to apply
Contact Karen Taylor at sustainability.scholars@ubc.ca if you have questions

Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 23, 2023. Click here for details and to register.

Below are some links to useful resources to help you with your resume and cover letter (there are many more online). Some of these resources also provide information on preparing for your interview.

https://students.ubc.ca/career/career-resources/resumes-cover-letters-curricula-vitae

https://www.grad.ubc.ca/current-students/graduate-pathways-success

https://www.grad.ubc.ca/cover-letter-cv-resume-templates-ubc-career-services