

## Summer 2022 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](#) to confirm your eligibility before applying.

**Applications close at midnight on Sunday January 30, 2022.**

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### >> 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.

### **Research project title: Fine scale bird monitoring to inform the impact of wetland restoration on the Fraser delta**

#### **Project Description**

**Overview:** The Fraser River delta is key migratory bird habitat along the Pacific flyway for at least fourteen different species of birds. The majority of these birds rely on coastal wetland habitat on the intertidal portion of the delta as foraging habitat. As identified in the 2021 State of the Salish Sea report,<sup>1</sup> shoreline alteration is a major source of impact for Salish Sea ecosystems. These findings have been repeated in bird specific strategies such as the Pacific Americas Shorebird Conservation Strategy<sup>2</sup> and the Puget Sound Ecosystem Monitoring Program.<sup>3</sup> On the Fraser River Delta there are three large projects in the intertidal habitats of the delta intended to restore or enhance the resilience of these coastal wetlands, a Living Dike project in Boundary Bay, a sediment augmentation project at Sturgeon Bank and a wetland restoration project at Iona Island. Birds Canada participates in advisory processes for all three of these projects and has noted a lack of consistent, structured fine scale bird monitoring at these sites.

**Purpose:** The objective of this project would be to review and adopt the methodologies applied by the Stillaguamish Tribes to restoration monitoring focused on migratory birds for application in the Fraser

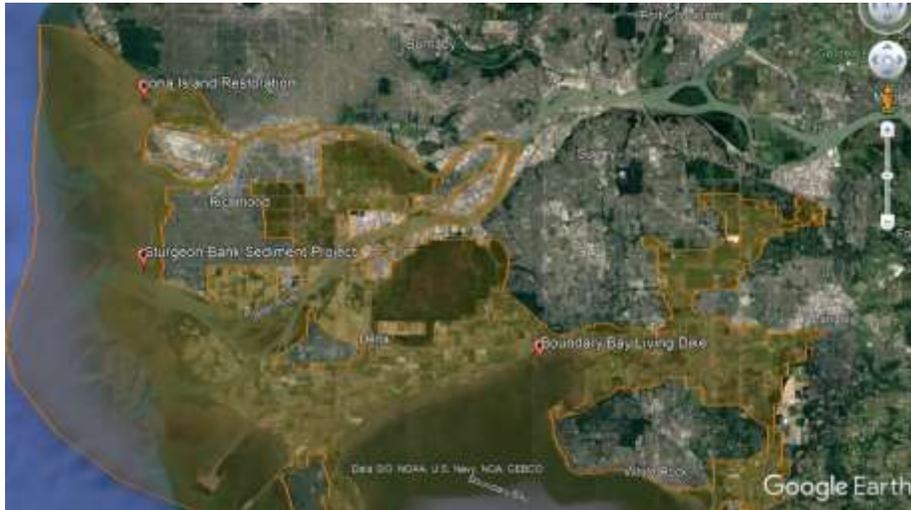
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<sup>1</sup> Sobocinski, K.L. 2021. State of the Salish Sea. G. Broadhurst and N.J.K. Baloy (Contributing Eds.). Salish Sea Institute, Western Washington University. <https://doi.org/10.25710/vfhhb-3a69>.

<sup>2</sup> Senner, S. E., B. A. Andres and H. R. Gates (Eds.). 2016. Pacific Americas shorebird conservation strategy. National Audubon Society, New York, New York, USA. Available at: <http://www.shorebirdplan.org>.

<sup>3</sup> Bayard, T.1, Slater, G.2, Spragens, K.3, and A. Summers. 2019. Recommendations for a Puget Sound Estuary Avian Monitoring Strategy. A synthesis report to the Puget Sound Ecosystem Monitoring Program and Puget Sound Partnership. Tacoma, WA

River Delta context.<sup>4</sup> The project will include reviewing existing monitoring methods being applied, connecting to relevant project coordinators and relevant technical experts to develop recommended monitoring protocols. During the course of the project, the Sustainability Scholar will be required to test the monitoring protocols at one or more locations and adjust protocols based on field experience. Binoculars, scope and GPS unit will be provided by Birds Canada.



*1Location of coastal wetland restoration and climate adaptation projects in the context of the Fraser Estuary IBA.*

## **Project Scope:**

1. A literature review of existing bird monitoring protocols related to restoration.
2. Draft a bird monitoring protocol for application to coastal restoration projects in the Fraser Delta.
3. Engage practitioners in review of proposed bird monitoring protocol.
4. Field test monitoring protocol at one on more locations.
5. Revise protocol and finalize recommendations for future application.

## **Deliverables**

- Develop a Fieldwork Safety Plan.
- A final report containing a summary of the work completed
- Presentation to relevant technical teams on findings of work completed.
- A final report (or executive summary) for the online public-facing [Scholars Project Library](#).
- Development of an Open Standards for the Practice of Conservation monitoring plan.
- Submit bird data collected to the Nature Counts Portal.

## **Time Commitment**

- This project will take 270 hours to complete.
- This project must be completed between May 2, 2022 and August 12, 2022

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<sup>4</sup> Virzi, Thomas, L. Rensel, R. Milner and G. Slater. 2017. Assessing Restoration Effects on Bird Populations Following Tidal Restoration at Fir Island and other sites in the Skagit-Stillaguamish River Delta, Wa. Interim Progress Report the Washington Department of Fish and Wildlife. [https://www.ecoinst.org/wp-content/uploads/2014/01/Virzi-et-al.\\_2017\\_ERP-Interim-Progress-Report.pdf](https://www.ecoinst.org/wp-content/uploads/2014/01/Virzi-et-al._2017_ERP-Interim-Progress-Report.pdf)

# SUSTAINABILITY SCHOLARS PROGRAM

- The scholar is to complete hours between 9 am and 5 pm, Monday to Friday, approximately 19 to 22 hours per week.

## **Required/preferred Skills and Background**

- Demonstrated experience in in study design, data analysis and bird identification
- Strong collaboration and communication skills
- Demonstrated experience and ability to safely conduct field studies in the intertidal environment.
- Working knowledge of Global Information Systems (GIS) will be required to inform survey design.
- Understanding of bird population data and analysis an asset but not essential as Birds Canada can help with bird data.
- Excellent research and writing skills
- Familiarity with research methodologies and survey techniques
- Strong analytical skills
- Ability to work independently
- Deadline oriented
- Passion for environmental conservation

## **About the partner organization**

Birds Canada ([www.birdscanada.org](http://www.birdscanada.org)) is Canada's only charitable organization dedicated to the understanding, appreciation and conservation of the country's birds and the natural areas that they and society depend upon. Our vision is wild birds of Canada thriving in healthy ecosystems. To achieve that vision, we have set our mission to conserve the wild birds of Canada through sound science, on-the-ground actions, innovative partnerships, public engagement, and science-based advocacy. With nearly 60 years of experience, Birds Canada has over 50 staff based in 7 regions across Canada, more than 40,000 citizen science volunteers, and an annual operating budget of \$5.3 million.

Birds Canada has operated in British Columbia since 1999. Our "Understand-Appreciate-Conserve" approach harnesses the skills of 2,500 citizen scientists in British Columbia to collect research and monitoring data that a small science team interprets, publishes, shares and integrates into conservation and natural resource decision-making. As such, we have a substantial grass-roots constituency, strong partnerships with government, academia and non-government organizations, and act as a catalyst of and advisor to decision makers taking conservation actions that benefit birds and nature generally. Almost all of our work is through partnerships, to ensure the scientific information we collect has the best chance of being used to benefit the birds and the ecosystems on which those birds depend. As the name Birds Canada suggests, sound science underpins all that we do.

Applications close **midnight Sunday January 30, 2022**

Apply here: [Click here to apply](#)

Contact Karen Taylor at [sustainability.scholars@ubc.ca](mailto:sustainability.scholars@ubc.ca) if you have questions

## Useful Resources

We are holding a special **resume preparation workshop for prospective Scholars** on January 19. [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>