

Summer 2024 Sustainability Scholars Program Internship Opportunity

The UBC Sustainability Hub is pleased to offer current UBC graduate students the opportunity to work on sustainability internship projects. Successful candidates work under the guidance of a mentor from the partner organization, and are immersed in real world learning where they can apply their research skills and contribute to advancing sustainability across the region. These opportunities are paid. The pay rate for the summer 2024 program is \$27.50/hour or \$6,875 for a 250-hour project.

- 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 28, 2024.

> 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.

Successful candidates are expected to attend workshops and other events in the lower mainland in person.

Project title: Designing a Citizen Science Protocol for Monitoring Mini Forests in the Fraser Estuary

Project Background & Overview:

Mini forests, also called Miyawaki forests, are an afforestation method that has been used internationally to increase local canopy cover, biodiversity, and stormwater absorption. This planting technique involves amending the soil with fungal mycorrhizae, and densely planting trees representing the canopy, sub-canopy, understory, and groundcovers of a mature forest. This planting technique is relatively new in Canada, and 15 new mini forests have been planted in 2023 through the [National Mini Forest Pilot](#) and [Living Cities Canada Fund](#) including one at Terra Nova Rural Park in the City of Richmond, BC. This mini forest, led by City of Richmond and Garden City Conservation Society, was later expanded in the fall of 2023. In time, it is expected that this site, and others in the city, will contribute to the Fraser River Estuary by increasing canopy cover and biodiversity, stabilizing soils, and enhancing water quality and stormwater infiltration.

Project description

Through this research project, a citizen science monitoring protocol will be developed for the mini forests in Richmond, BC. Specifically, techniques that citizen scientists (minimum 6th grade comprehension level) can utilize to measure tree growth, wildlife species observations,

infiltration rate, and soil type within the mini forest will be useful for measuring how the mini forest is affecting the local environment and contributing to the health of the Fraser Estuary. These citizen science protocols can also be adapted to measure the impacts of mini forests in other Canadian regions.

Project scope

We expect the research will be comprised of the following methods:

- Literature review, to understand citizen science protocols in other international regions where mini forests have been installed, and to understand previous research into mini forest benefits for the local environment.
- Examining existing species observations data in the Terra Nova Rural Park, creating an iNaturalist Project for the park, and especially the new mini forest sites, so that species observations can be tracked in these locations.
- Informal interviews with Canadian and international experts to understand existing research about mini forests and citizen science protocols for measuring their impacts on environmental and social sustainability. This may include representatives from the City of Richmond, Garden City Conservation Society, researchers at the University of British Columbia, and local field naturalist groups as key informants.

Deliverables

This research project will include the following deliverables:

- A final report containing a summary of the work completed
- A final report for the online public-facing [Scholars Project Library](#).
- A suite of graphically designed citizen science tracking sheets, species guides, and protocols for measuring the impacts of the Richmond, BC, mini forests. This can include tree growth measurements, species observations (butterflies, pollinators, ground dwellers), carbon storage, thermal comfort, flood management (infiltration rate and moisture) and flood management (compaction, colour and texture). Parallel citizen science resources have been developed for earth watch UK and will be provided as a model to follow to ensure consistent data is being collected internationally.
- A template of these citizen science resources that can be adapted for other regions in Canada.

Time Commitment

- This project will take 250 hours to complete
- This project must be completed between May 1 to August 15, 2024
- The Scholars is generally to complete their hours between 9 am and 5 pm, Monday to Friday, approximately 17 to 20 hours per week.
- Note that the Mentor for this project is situated in Ontario, and in the region of Eastern Standard Time. Therefore, it is expected that meetings will occur between 9am and 2pm Pacific Time, Mondays through Thursdays, for this position.

SUSTAINABILITY SCHOLARS PROGRAM

- The Scholar may be invited to occasional Green Communities Canada virtual staff meetings, which occur on Tuesdays at 8:00 am Pacific Time.
- The Green Infrastructure team at Green Communities Canada currently meets virtually on Mondays at 11:00 am Pacific Time. These meetings are subject to change over the summer months.

Required/preferred Skills and Background

- ✓ Excellent research and writing skills
- ✓ Demonstrated interest in sustainability and biodiversity
- ✓ Familiarity with research methodologies and survey techniques
- ✓ Strong analytical skills
- ✓ Ability to work independently
- ✓ Deadline oriented
- ✓ Project management and organizational skills
- ✓ Graphic design and layout skills
- ✓ Experience leading or conducting citizen science would be considered an asset
- ✓ Species identification skills in invertebrates, birds, reptiles and amphibians, and/or mammals would be considered an asset

Additional information

This research project will be conducted in a remote work environment. The successful Scholar will ideally have experience in working remotely, and is highly self-motivated, with experience in project management and demonstrated ability to take initiative.

The Scholar will be provided with access to graphic design software, such as Canva and Adobe Illustrator if desired.

Applications close **midnight Sunday January 28, 2024**

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, 2024. [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>