

# Job Postings

[Back](#)

## Experiential Learning Form - Job Information

Position Type

UBC Vancouver Work Learn Program

ID

847539

Organization Type

UBC Faculty, Department, Unit or Student Group

UBC Faculty/VP

Faculty of Science

UBC Department Name

Zoology

Job Title

WL W17 Project Worker for Aquatic Biodiversity Project

Work Learn Project Number

270821

Do you already have a candidate(s) identified for this job?

No

Job Description

Project worker for Aquatic Biodiversity Research

The student's duties will include:

- a) identifying aquatic invertebrates from marine and freshwater samples.
- b) preserving, drying and weighing invertebrate samples using standard laboratory procedures
- b) Measuring sizes and counting the number of individual invertebrates
- c) Using state of the art microscope and imaging software to collect data on invertebrate abundance and biodiversity

d) Contributing to cleanliness and maintenance of lab space and shared lab supplies related to biodiversity research

**Supervision:** The student will be directly supervised by a graduate student. The supervision will occur through regular meetings and shared time in the lab. Both the graduate student and work learn student will be supervised by Dr. O' Connor, who will meet with the work learn student at the beginning of the appointment, and once every two weeks (or more, informally) to check in regarding progress, training and questions. With the graduate student and Dr. O' Connor, the work learn students will regularly review procedures, data sheets, taxonomy, and questions related to the work. Occasional sample collecting and processing will require field trips to local lakes and seagrass meadows, and Dr. O'Connor will sometimes lead these trips, allowing time to work alongside the student in the field.

**Complexity:** The student is expected to learn to identify about 15 species of freshwater invertebrate and/or 15 species of marine invertebrate (depending on the project), using resources provided that include pictures, photographs and taxonomic keys. The student is also expected to use a dissecting microscope and computer imaging software. These tasks require attention, training and focus, but are moderately complex. Step by step instructions are already available on our internal lab website, developed and used by current students, and these will be given to the work learn student as well. Approximately two-three hours of face-to-face, hands-on training will enable the student to perform these tasks well, and learn the associated skills through training and practice.

This role is critical to the research goals of our group, which are to document and quantify biodiversity in aquatic systems. We conduct field and laboratory research on aquatic biodiversity, and we produce hundreds of invertebrate samples annually. The data produced by the work learn student will contribute directly to graduate student research products including presentations and publications.

Number of Openings

2

Qualifications

The student must have some familiarity with invertebrates in aquatic systems, and some experience (coursework is fine) with microscope use. Eagerness to learn, strong organizational skills, clear communication skills, basic biology background (coursework). Undergraduate 3rd year ecology courses are required.

A great fit for this job would be someone curious about biodiversity in aquatic systems, patience and focus for repetitive tasks, interest in developing lab skills in standard methods used to study biodiversity. Invertebrate identification is one of the first skills required to study aquatic biodiversity, and students who gain this skill are then equipped to move on to greater involvement in aquatic research. So the interest in developing and building on this skill set is helpful to success in this position.

### Student Learning Components (UBC Vancouver Work Learn Program)

Orientation: The PI and graduate student provide a 2-3 hour orientation to the lab, the samples, the microscopes and the overall research project to get the student started. We follow that up with another ~1 hour training about a week later. Training includes an orientation to the biodiversity samples, lab safety procedures, general lab good practices, a tutorial on aquatic invertebrate species, an overview of the resources for identification, and a tutorial on the microscope and imaging software. We maintain detailed online instructions and resources, and the student will have access to these materials, as well as mentorship from graduate students on identifying species.

Feedback and support: The work learn student will meet once every 2 weeks with the PI and graduate student to discuss progress, ideas and questions. Weekly, the graduate student will review samples and data produced by the student, and provide feedback to the student during those reviews. We maintain an online system for data entry, so the review and feedback can be provided in person and/or in writing. The student will have access to contact or meet with the PI or student at any time, and will be encouraged to do so. Everyone on our research group is very accessible, our offices are near the lab, and we are in the lab often, so informal and unscheduled conversations and opportunities for feedback are common.

Mentorship opportunities for student: The graduate student and PI will both supervise the work learn student, and provide mentorship related to working in a lab, and context and opportunities for research that build on skills acquired through the work learn. The student will also be welcomed into our lab group, and be invited to (but not required to) attend lab meetings and research discussions. The PI will also conduct the mid-point performance evaluation recommended by Career Services, and will meet with the student to review the evaluation near the end of the first term (Nov 2014).

Encouragement: In our research group, we know that a passion for research begins with an entry level position such as this work learn description. Most members of our lab, including the PI, started out with a job very much like this position. Consequently, we have affection for this kind of work and where it can lead. We therefore take personal interest in the students that help us, and we enjoy learning about their interests, goals and supporting them. Specifically, encouragement and support come in the myriad ways available to someone who is a member of a positive and active research group. I (the PI) value face to face meetings with students, and meet with them once every week or two (depending on the student and their needs). During these meetings, we discuss goals, progress, look over data sheets (in the case of a work learn) or sit together at the microscope and discuss challenges. This seems to work well, and I continuously get positive feedback from students, and undergraduates routinely continue on in the lab with research after entering as a work learn or directed study student.

The position develops and enhances student's personal and professional development by providing them the opportunities to 1) develop skills for identifying invertebrates using microscopy, 2) apply classroom knowledge to real research problems, and 3) become integrated into an active research group. The lab skills related to biodiversity sampling that

students learn compliment the skills they learn in courses by enhance experience using imaging software (not used in coursework) and expanding their knowledge of aquatic biodiversity beyond what is covered in lab courses. Further, once they have learned the local species and become familiar with the local species, they are encouraged to ask research questions related to the ongoing project. For example, we often are interested in body size of the species we study, but once the species are identified and sized, the data exist to answer other questions about biodiversity that allow students to test basic concepts used in coursework, such as how does the number and exact composition of species vary among sites or experimental conditions? We encourage students to apply their knowledge from courses and use our datasets to address basic questions, and we support this inquiry by helping them do these analyses or lab tests.

Undergraduates join our group through various avenues: work learn positions, directed studies and honours projects, and we have had many positive experiences with undergraduate researchers in this capacity. Once part of the group, students committed to learning and to research are encouraged to consider their own project, perhaps through a directed studies or honours project, or through volunteering and collaborating with a student on an ongoing project. Four past undergraduates have conducted research using the skills outlined in this work learn proposal to do their own projects, and these have produced three peer-reviewed research publications. These students are all now graduate students or professional biologists. So there is clear evidence that the skills, mentorship and encouragement offered by our lab group are a successful recipe for undergraduate research success in biodiversity science.

#### Position Classification

Project Assistant (\$17.04/hr or \$17.53/hr or \$18.07/hr)

#### Salary / Wage

16.61

#### Hours Per Week

20

#### Total Number of Hours per Student Position

300

#### Experience Level

Current Students in an Undergraduate Program, Graduated with an Undergraduate Degree

#### Preferred Degrees/Disciplines

Science/Environment/Agriculture

Is this Work Learn position research oriented?

Yes

Work Learn Supervisor

Mary O'Connor

Work Learn Supervisor Email

[oconnor@zoology.ubc.ca](mailto:oconnor@zoology.ubc.ca)

Work Learn Administrator

Marko Coric

Work Learn Administrator Email

[finance@zoology.ubc.ca](mailto:finance@zoology.ubc.ca)

Anticipated Start Date

May 1, 2018

Posting Date

March 12, 2018

Expiration Date

March 25, 2018

## Application Procedures

Resume Receipt

E-mail me and save to my CareersOnline account, Other Application Instructions (enter below)

Email address for resumes and other documents

[oconnor@zoology.ubc.ca](mailto:oconnor@zoology.ubc.ca)

Other Application Instructions

Please email a resume and 1 paragraph describing your interests and goals as they relate to the job description.

Additional Documents Requested.

Cover Letter

Back

