

# Bit x Bit:

# Ecology students using Dataverse for their data collection needs

Marian Davies, Liaison Librarian, Beverly Raimbault, Coordinator, Ecology Lab, Courtney Earl Matthews, Digital Repository Librarian, University of Waterloo Library



## Abstract

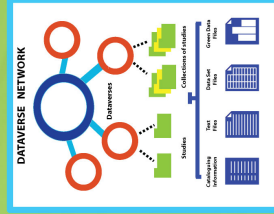
The Ecology Lab, Faculty of Environment, University of Waterloo, has been collecting environmental data for over 40 years. A recent collaboration between the staff working in the lab and liaison librarians resulted in a strategic decision to use Dataverse to compile and make available the data collected by students for their course labs.

Scholars Portal Dataverse is a secure environment for researchers, scholars, and students to share data, or work in a secure and private space. Data for course projects or an undergraduate thesis could be uploaded to the portal and the data can be uploaded. Liaison librarians can help organize, identify, describe and classify the various components.

This poster will provide an overview of the Ecology Lab project, mapping the workflows and processes, along with an assessment of the advantages and challenges of working within a theoretical and practical framework to manage data.

## Dataverse

Dataverse is an invaluable portal for the academic community where they can readily access data acquired over many years, and many courses, and projects, all in one convenient location.



- Collaboration
- Organization
- Description
- Citation
- Identification
- Versioning
- Backup
- Preservation

## Ecology Lab

The Ecology Lab is part of the Faculty of Environment at the University of Waterloo. It is a teaching facility available to both grad and undergrad students and provides support to over 15 different environment courses with a total of about 1200 students per year. In addition it houses a large variety of lab and field equipment which is available free of charge to UW students.

Students collect a variety of data in association with their courses and research that include:

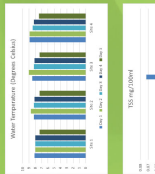
- water quality and trees
- assessing watershed health through water analysis
- soil collection and analysis for understanding ecosystems
- weather data for trend analysis and long term climate changes
- microclimate data to understand urban heat island effects

## Examples of Data

### Chemical Tests



### Physical Tests



## Library Support

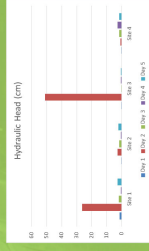
Dataverse presents an excellent opportunity for librarians to collaborate with faculty and students directly. They can support this initiative in a number of ways. For example:

- Provide project management expertise
- Provide instruction on technical issues
- Provide training on metadata cataloguing
- Serve as a consultant throughout various stages of the project
- Support the project and share the success story with others

Librarians are in a perfect position to be involved in these projects as they often serve as conduits for information. Librarians have the skillset needed for much of this activity, which is to:

- organize information
- have expert knowledge of the technology and ability to instruct others how to use it
- help others understand the technology and its uses
- help prepare or plan for future installments or changes to technology
- to network with others

## Stream Morphology



## Next Steps

- Record data appropriately, and upload to Dataverse
- Inform students of the opportunity, and change in practice
- Promote the work produced by the Ecology Lab
- Promote use of the data for students, staff, and faculty in their peer-reviewed journal articles, reports, and news stories
- Share our success story!