

**CNAES**  
**HQP Research & Collaborative Exchange**  
**Funding**  
*Visit report*

**1. Exchange information**

Visitor: Kristin Daoust, MSc Candidate, University of Guelph

Supervisor: Dr. Paul Sibley

Host: Dr. Sarah Gergel and Dr. Stephanie Tomscha, University of British Columbia

**2. Goals**

The goal of this exchange was to develop a stronger connection between the projects of Theme 2, specifically 2.1 and 2.3. Both Stephanie and I are working in the Batchawana region but did not fully understand the data that each of us has been collecting. Through this exchange we hoped to gain a better understanding of what data is available for this area and see how to better connect our projects in the future. In addition to building these connections, Stephanie had some experience with R procedures I needed assistance with for my data analysis and I had some experience with the WhiteBox GIS program she was looking into using.

**3. Description of the visit**

My visit to the University of British Columbia was from February 22<sup>nd</sup> to February 27<sup>th</sup> where I worked in Sarah Gergel's lab with Stephanie Tomscha and Dalal Hanna from Theme 3, who was also visiting UBC on the CNAES exchange fund at the same time.

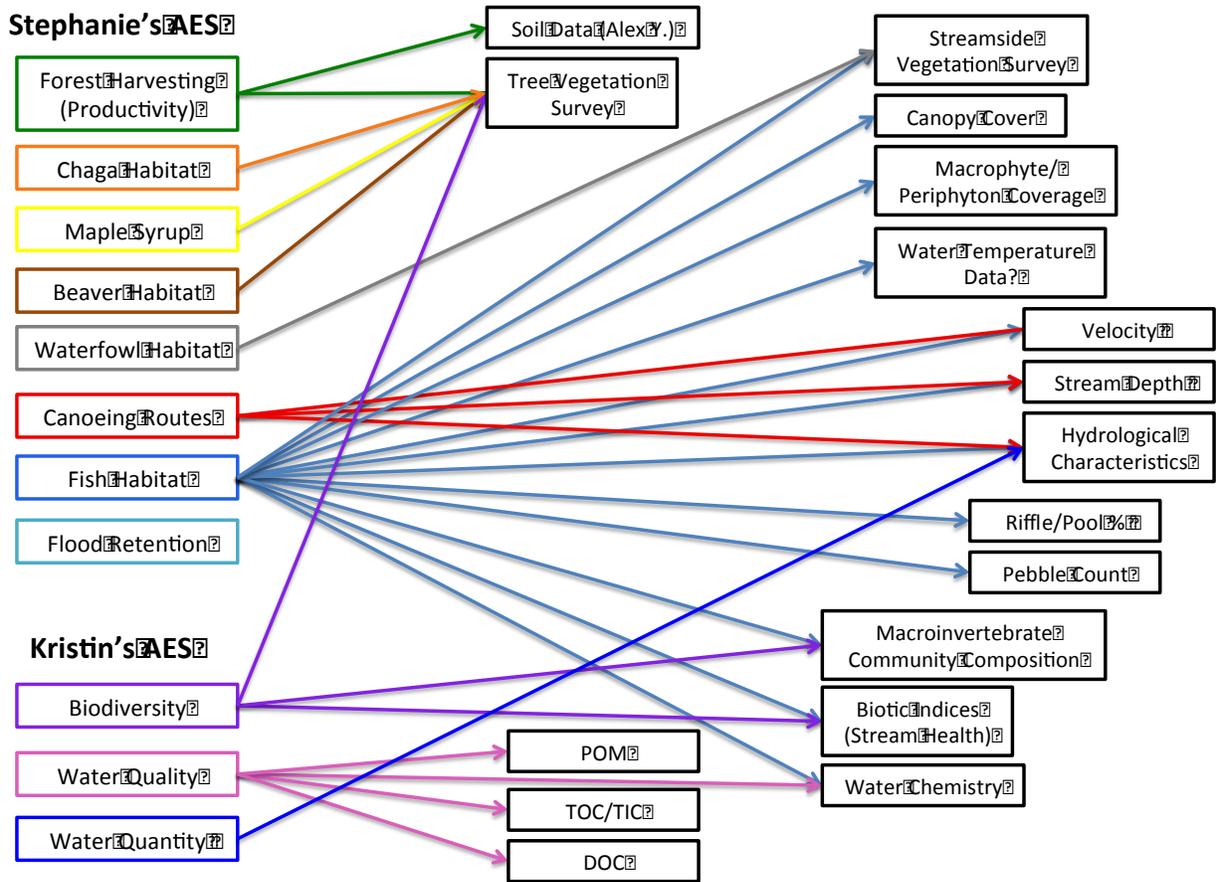
Stephanie and I spent the first part of the week familiarizing ourselves with the data we had for the Batchawana area. One of the exercises we did was to create a flow chart connecting all of the services Stephanie is interested in to all of the variables that I collected measurements for in the field (see Figure below). This was a way of forming concrete connections between our projects as well as seeing what data is available for the area that we may not have known about. The second part of the week focused on how Stephanie could use my environmental variables to assist in the mapping of the aquatic ecosystem services (AES) of interest. It was determined that there was a lot of overlap between what data I had collected in the field and the information needed to map some of these AES and that Stephanie and I will continue to work together throughout the mapping process of these services.

I also ran a workshop on the GIS program WhiteBox, which Stephanie, Dalal, and some other UBC students sat in on, to show what the program could do with the data they had available and we discussed some of the advantages and disadvantages to using WhiteBox

over ArcGIS. Stephanie and I also spent some time working through some statistical analyses in R involving my environmental variables which I had been struggling with. Stephanie had extensive experience with these types of data sets and was able to help me overcome some major problems I was having.

The last day I joined their weekly Friday morning lab meeting where I presented my project as well as the collaborative work Stephanie and I did over the week and received feedback from Sarah Gergel and other students. It was very helpful to get a different perspective on my work and hear the suggestions that they had for my project/our collaboration moving forward.

Overall, I consider my trip to UBC very successful. I left with a clear understanding of AES, how they directly relate to my project, and how the variables I have collected in the field can and will assist in the mapping of these services. I also strongly benefited from the time spent discussing WhiteBox and exploring R in more detail.



Left to right: Stephanie Tomscha, Kristin Daoust, Dalal Hanna