

CNAES
HQP Research & Collaborative Exchange
Funding
Visit report

1. Exchange information

Visitor: **Erika Freeman, MSc, Western University, Theme II**

Supervisor: **Dr. Irena Creed**

Conference: **American Geophysical Union, New Orleans, Dec 11-15th, 2017**

2. Objective/Purpose

The proposed activity was: a) to present a poster at the American Geophysical Union (AGU) conference in New Orleans; b) receive feedback and advice from other students and scientists in related fields; and c) participate in the cross-fertilization of ideas by using the time to attend sessions, ask questions, discuss findings, and network with potential collaborators.

3. Description of the visit

I presented my work in the Anthropogenic Impacts on Nutrient Cycling in Freshwater Ecosystems poster session. AGU galvanizes a community of Earth and space scientists that collaboratively advances and communicates science and its power to ensure a sustainable future. During this four hour session I had the opportunity to present the current findings of my work with numerous scientists and students interested in Cyanobacteria dominance and the environmental conditions that promote this dominance. The discussions were wide-ranging. Some regarded Paleolimnology, with an investigator interested in how changing ocean conditions thousands of years ago may have influenced the changing dominance of benthic algal communities. Other topics included algal physiology with questions regarding unique intra-cellular processes within Cyanobacteria that may explain competitive advantages under particular environmental conditions. I also enjoyed a very interesting conversation with EPA scientists regarding specific statistical techniques (Random Forests, Decision Trees) and their applications in linking environmental conditions to Cyanobacteria dominance- a problem the United States government is also interested in. Thus, I was able to participate in interesting discussions and receive feedback from institutional, and government scientists, as well as to commiserate and share ideas with other graduate students.

There were a number of ideas that were shared with me during the conference that helped me to advance my project. This included recommendations for specific statistical tests, interesting details regarding my study site from other researchers conducting environmental research in the same area, and some topical conceptual models that I had no yet considered. Overall, it was an extremely rewarding experience, and I am extremely thankful to be a part of the CNAES community and grateful for that support that was granted that allowed me to attend, achieve my goals, and gain valuable insight I may otherwise not have garnered.

