

# Biology Seminar



Western  
UNIVERSITY · CANADA

12:30 - 1:30 pm  
Friday, October 11, 2019  
BGS 0165



**Graduate-student invited speaker**

**Brent L. Lockwood**  
Assistant Professor  
Department of Biology  
University of Vermont

## Genetic and physiological mechanisms of response to environmental change

The biosphere can be a challenging place in which to live because physiological processes are perturbed by changes in the environment. But species have evolved to cope with environmental change. What are the coping mechanisms, and can they be modified further to keep pace with climate change? In this talk, I will discuss investigations into the physiology and genetics of thermal adaptation in fruit flies and butterflies. By integrating approaches in genetics, genomics and biochemistry, we are beginning to connect molecular processes to whole-organism phenotypes in an ecological context. Hereby, we hope to uncover physiological mechanisms that underlie responses to environmental change. More broadly, we hope to better understand the fundamental processes that establish limits to physiological evolution.

