



Seminar Series

Winter 2024

Hybrid
Alex 265

Friday,
April 5

12 – 1pm

Dr. Joey Bernhardt

Department of Integrative Biology, University of Guelph

Towards a mechanistic science of global change: from cells to ecosystems and human well-being



Light refreshments
will be served

Global change is threatening the benefits that natural systems provide to people. The challenge for ecological science is clear: we need to understand ongoing environmental changes in mechanistic ways and at multiple scales that matter for ecosystems and people. In this talk, I will present recent work that addresses this challenge by linking physiological processes to higher order ecological processes governing the dynamics of populations and ecosystems, and the resulting benefits to humans. I will demonstrate how **understanding living systems in terms of the core chemical and physical processes that sustain life has created inroads to predicting biological responses to environmental change.** I will also present new work that bridges the gap between biodiversity science and human health in the context of seafood, by extending statistical and theoretical approaches from ecosystem science to human nutrition science. This work that has shown that **biodiversity directly enhances nutritional benefits at global and local scales,** with the potential to combat the problem of micronutrient deficiencies.

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Full abstract and more information on our website:
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