

Ecological Stoichiometry Modeling

PROJECT DESCRIPTION

Carbon (C), nitrogen (N), and phosphorus (P) are vital constituents in biomass: C supplies energy to cells, N is essential to build proteins, and P is an essential component of nucleic acids. The scarcity of any of these elements can severely restrict organism and population growth. Thus in nutrient deficient environments, the consideration of nutrient cycling, or stoichiometry, can be essential for population models. In this research project, we will construct mechanistic food web models that explicitly incorporate light and nutrient availability. Numerical simulations and/or mathematical analysis will be the main approach to uncover the dynamics of these stoichiometric models.

FACULTY-DEPARTMENT

Science- Mathematical and Statistical Sciences

DESIRED FIELD OF (STUDENT) STUDY

Applied Mathematics or Theoretical Ecology

INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

NUMBER OF INTERNSHIP POSITIONS

2

INTERNSHIP START DATE

July 15, 2018

INTERNSHIP END DATE

October 15, 2018

ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
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