



# DETERMINANTS OF TROPHIC STRUCTURE IN ECOLOGICAL COMMUNITIES

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Natural Resource Sciences

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## Abstract

Ecological communities are complex, and this complexity can obscure their underlying patterns and natural laws. One way to understand communities is to summarize their most important characteristics using consistent measures. Community structure is a set of measures of composition, abundance, distribution, and interaction that describe an ecological community over space and time. Trophic structure is an important aspect of community structure, and relates to energy and nutrient flow, especially the distribution of organisms across trophic levels. The objective of this thesis is to investigate determinants of trophic and community structure, including latitude, ecosystem type, biome transition, community composition, and body size. I used meta-analyses and field experiments to explore these correlations. It is important that we continue to study community structure and the variables that affect it, so that we are able to predict and respond to ecological change in the Anthropocene.

## About the Candidate

Shaun Turney completed a BSc in Biology at Carleton University in 2012, followed by an MSc in Biology at McGill University, completed in 2014. During his MSc, he worked under the supervision of Virginie Millien and Andy Gonzalez, studying Lyme disease ecology. Shaun began his PhD in Natural Resource Sciences in 2014, under the supervision of Chris Buddle and Gregor Fussmann.

