

Zoology 955 Seminar in Limnology
Novelty, invasive species, and freshwater systems
Fall 2017 Syllabus

- **When: Thursdays 12:00-1:00 (tentative)**
- **Where: 210 Hasler Limnology lab, 680 N. Park St.**
- **Jake Vander Zanden**

Species invasions are a key global driver of ecosystem transformation, and freshwater systems are particularly vulnerable to their effects. This seminar will use the concept of novel ecosystems (Radeloff et al. 2015) and explore two specific themes: the role of invasive species in contributing to novelty in ecosystems, and the larger issue of novelty in freshwater systems.

This 1 credit graduate seminar will meet weekly for 1 hour. Each week, we will read and discuss current literature on topics relating to novelty, freshwater systems, and species invasions. Readings and discussion will be largely student-led. Students will carry out a group or independent project on a topic of their choice relating to novelty. These projects can be literature reviews, conceptual syntheses, or involve synthesis of literature or LTER data. The goal is for students to produce a publishable product.

Below are some potential project topic ideas. Think of these as a starting point for developing group projects.

-Quantifying biotic homogenization and novelty in lakes

-A synthesis on the potential for highly local-scale anthropogenic impacts to provide invasive species a foothold for invasion into new regions

-What does novel ecosystems mean for inland recreational fisheries?

-The Laurentian Great Lakes as a novel ecosystem

-How do biotic and abiotic novelty differ (could involve analysis of NTL-LTER data)?