

Mini Grant Application for Conference Registration Funds:

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Description:

The abstract for my undergraduate honors thesis was accepted for presentation at the upcoming International Association for Great Lakes Research (IAGLR) Annual Meeting. My talk is titled “*To Migrate or Not: Application of Optimal Annual Routine Modeling to Evaluate Mysis Diluviana Decision-Making in Diel Vertical Migration.*” Abstract as follows:

Recent work indicates that the macro-invertebrate *Mysis* exhibits partial diel vertical migration (DVM), whereby part of the population remains on the lake bottom at night as the rest migrates to the surface waters. The drivers underlying the decision to migrate remain unknown. We use concepts from optimal annual routine modeling to develop an agent-based model that simulates thousands of individual Mysids’ decision-making processes at an hourly time step throughout a year. The model takes into account a daily and seasonally changing environment, including light, temperature, resources, and body condition to evaluate if multiple migration strategies can produce similar levels of fitness. In addition to testing hypotheses about migration drivers, the model will help facilitate more efficient field sampling and prediction of resource availability for predating fish by evaluating the potential for seasonality in *Mysis* migration patterns.

The conference is from May 25-29th and located right on UVM’s campus. Because of this, I am only seeking funds for the registration cost to the conference.

Budget:

<i>Description</i>	<i>Cost</i>
Conference registration (student non-member):	\$300
Abstract fee discount	-\$50
Total	\$250

The website with details about registration fees is <http://iaglr.org/iaglr2015/registration/>.