**SPATIAL PATTERNS INDUCED BY CONSUMER MOVEMENT**

**INTRODUCTION**

**METHODS**

*Model*

We applied a stoichiometrically-explicit producer-grazer model to a 2-dimensional grid.

A fixed proportion of zooplankton were allowed to move each time step based on one of four rules. In random migration scenarios zooplankton moved to an adjacent cell with equal probabilities of choosing each cell. In density-dependent migration an adjacent cell was chosen based on phytoplankton density. In quota-based migration cell choice was based on phosphorus cell quota (the amount of phytoplankton P in the cell). Finally, quality-migration combined density and quota to base cell choice on the product of phytoplankton density and quota.

*Simulations*

The grid was set up with random values for the initial phytoplankton and zooplankton densities. Total phosphorus in each cell was set at a constant value (0.3, 0.8, 0.13, or 0.18) reflecting values used in previous simulations using this model.

**RESULTS**

**DISCUSSION**

**REFERENCES**