1135-92-1804 **Paul L. Salceanu*** (salceanu@louisiana.edu), Lafayette, LA 70503, and **Hao Wang**.

Competitive outcomes between zebra and quagga mussels in a discrete-time model with migration among patches. Preliminary report.

We develop and use a mathematical model to investigate interactions and competitive outcomes between two invasive species of mollusks: zebra mussel (Dreissena polymorpha) and quagga mussel (Dreissena rostriformis bugensis). The model has both spatial structure (patches) and temporal structure (age: juvenile and adult individuals). We show that, when migration among patches does not take place, in each patch one species eliminates the other, and it settles at a constant population size. Further, we investigate both numerically and analytically how migration among patches might affect this outcome. (Received September 24, 2017)