Risk Assessment for Invasive Species in the Great Lakes

Reuben Keller
Loyola University Chicago

Non-native species have been introduced to the Great Lakes through a variety of vectors, including the ornamental plant and animal trades, shipping, stocking, and as live bait or food. A subset of introduced species have become established, and a subset of established species are now causing significant harm to the economy and ecology of the region. All Great Lakes states, along with the federal governments of the US and Canada, have established the goal of limiting future introductions of harmful species. To support these goals we have developed risk assessment tools that can discriminate between species that pose low and high risks of harm if they are introduced to the Great Lakes. These tools are based on species' introduction history, climatic tolerances, biological traits, and ecology, and have been developed for plants, fishes, crayfishes, mollusks, and herptiles. An integral part of developing these tools has been our collaboration with a group of managers and policy-makers from across the Great Lakes region. These collaborators have helped us to refine the tools in ways that make them more readily applicable to state decision-making. In this presentation I will outline the process we went through to develop the tools, present the tools themselves, and discuss the potential for their application.