

Invited Talk: Innovative Design for Early Detection of Invasive Species, by Joel Hoffman, John R Kelly, Greg Peterson, and Anett Trebitz for the ORD PeerOvation Workshop, Jan 22, 2012.

Abstract:

Non-native aquatic species impose significant ecological impacts and rising financial costs in marine and freshwater ecosystems worldwide. Early detection of invasive species, as they enter a vulnerable ecosystem, is critical to successful containment and eradication. ORD, at the request of EPA's Great Lakes National Program Office, provided the scientific basis for the first comprehensive early detection monitoring program for non-native aquatic species for the Great Lakes basin. This represents a substantial advance in technical support and quantitative analysis over previous methods. Implementation will fundamentally change the public discussion around invasive species from one based on vague uncertainty ("We have not found Asian carp yet") to one based on specific risks and resource commitments. The U.S. Fish and Wildlife Service has been field testing the sampling strategy over the past 4 years, and ORD scientists continue to work on innovative improvements (e.g., novel application of molecular taxonomy).

Task: SSWR 1.1B.