



SMART SURVEILLANCE TO CURB INVASIVE SPECIES IN THE GREAT LAKES

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CATCHING THE PROBLEM EARLY

Like many things in life that benefit from vigilance to minimize risk, finding invasive species early makes it less expensive and easier to manage them. For aquatic invasive species (AIS), that means instituting a comprehensive strategy across the Great Lakes basin to monitor for new populations of high-risk species or spread of recent invaders that are still localized to a small part of the basin. A comprehensive strategy needs to identify what we are looking for, where we are looking for it, and how we look efficiently. Blue Accounting has transformed an assessment of invasion risk in the Great Lakes into an interactive tool for regional collaboration.

LEADING THE CHARGE

Efforts to create a comprehensive surveillance approach for the US waters of the Great Lakes were led by an Early Detection and Rapid Response (EDRR) Team, composed of state agency representatives from Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin. In 2014, the Team secured funding through the Great Lakes Restoration Initiative and partnered with The Nature Conservancy, US Environmental Protection Agency, US Fish and Wildlife Service (USFWS), University of Toledo, Great Lakes Commission and Wayne State University to create a surveillance framework that determines risk of invasion from high-risk species at locations across the Great Lakes basin. The framework complements ongoing early detection monitoring efforts by USFWS and aims to help state and federal agencies set priorities and coordinate with each other to efficiently

and effectively monitor and manage the risk posed by new AIS. A Canadian counterpart to the framework is underway.



Sea lamprey. Photo © Joanna Gillkeson/
U.S. Fish and Wildlife Service.

DELIVERING INFORMATION THROUGH BLUE ACCOUNTING

The risk of new invasions will continue to evolve as the pathways of introduction change. It is important to update the framework as our knowledge of risk and surveillance methods improve. Blue Accounting has been supporting the EDRR Team in creating an interactive, GIS-based tool to keep the information timely and relevant. Users can navigate to any US location in the basin to understand the different factors that contribute to risk of fish, invertebrate and plant invasions. Using the tool to look across the basin will help natural resource managers understand relative risk and assess progress toward implementing a risk-based surveillance program.



Asian carp. Photo © Ryan Hagerty/U.S. Fish and Wildlife Service.

THE FUTURE

Blue Accounting will continue to test and expand services that support adaptive management of aquatic invasive species. In 2019, Blue Accounting will add data showing how ongoing surveillance efforts line up with the risk-based needs identified in the surveillance framework, while also collaborating with federal and provincial agencies to expand the framework and site prioritization tool to Canadian waters of the Great Lakes. Additionally, Blue Accounting is synthesizing data on investments in surveillance to help managers understand the scope and scale of resources supporting AIS early detection and be able to better understand the impact of those investments.

For more information on Blue Accounting's aquatic invasive species pilot, please reach out to Lindsay Chadderton, Aquatic Invasive Species Director at The Nature Conservancy, Ichadderton@tnc.org. You can learn more about Blue Accounting and our other issues at www.blueaccounting.org.