



Great Lakes Protection Fund

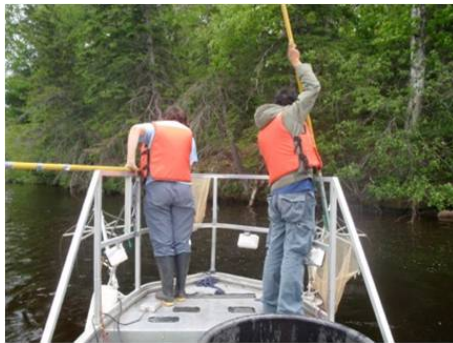
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Funded Project

Ship-Mediated Harmful Microbes: Protecting the Great Lakes Ecosystem

Project No.	841
Timeline	2007 – 2015
Award Amount	\$1,029,000
Team Leader	Allegra Cangelosi, Northeast-Midwest Institute, acangelo@nemw.org
Project Website	http://www.nemw.org/policy-areas/harmful-microbes-and-the-great-lakes/



Team members collected water and fish samples from commercial shipping harbors, recreational boating centers and undeveloped shorelines within the Great Lakes.

With the tools this team has developed the region will be better able to respond to the threats posed by “microbial stowaways” on vessels or in Great Lakes ports. Team members produced new genetic tools for testing water samples, and used these tools to spot the VHS virus and other microbes, including a rusty bacterium that eats away at steel structures. With the Minnesota Pollution Control Agency, the Maritime Administration and carrier fleets, the team strengthened how the Coast Guard monitors ship discharge (methods are detailed in [A Ballast Discharge Monitoring System for Great Lakes Relevant Ships: A Guidebook for Researchers, Ship Owners, and Agency Officials](#)).

The team designed a Great Lakes microbe monitoring program to protect against high-threat microbes by tracking sites associated with vectors, dispersion, and impacts. Cornell researchers used this place-based method—along with the genetic tools—to determine that VHS has spread to Lake Superior.