



Great Lakes Protection Fund

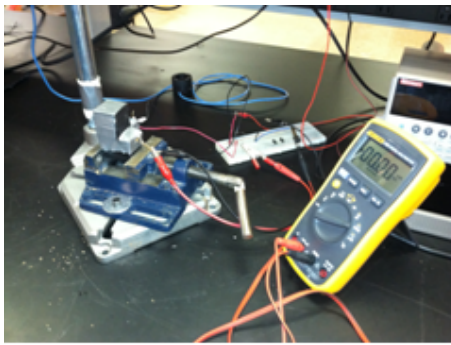
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Funded Project

Automated Ballast Treatment Verification Project

Project No.	964
Timeline	2012 – Active
Award Amount	\$823,000
Team Leader	Dr. Jeffrey Ram, Wayne State University, jeffram@med.wayne.edu
Project Website	http://verifyballast.med.wayne.edu/



Prototype fluorescence detection system

This project will reduce the likelihood of new invasive species entering the Great Lakes. The team will accomplish this by creating an automated, shipboard, rapid-testing system that will be able report, in real time, the presence of any live organisms in ballast water following treatment. If successful, this effort will eliminate one of the greatest challenges facing invasive species control—the ability to capture sufficient volumes of water to properly assess the efficacy of ballast treatment methods and compliance with ballast standards.

In the first year, the team will create a series of increasingly sophisticated prototype systems and rigorously test them in the laboratory using Environmental Technology Verification (ETV) protocols established by the Environmental Protection Agency for ballast technologies. From these results, the team will then build several prototype versions of the system for performance testing at the Great Ships Initiative's land-based facility in Superior, Wisconsin. In the project's final year, the team will focus on shipboard testing, installing and testing fully automated devices in at least two working vessels, the Ranger III, a ballasted vessel operated by the U.S. National Park Service (Isle Royale National Park), and a vessel supplied by Fisheries and Oceans Canada. Ultimately the team's goal is to have the system certified as an ETV-approved monitoring technology.

The team will work closely with leaders in the ballast monitoring field including university experts, state and federal agency staff, shippers, carriers, and equipment manufacturers, and will convene at least annually a regional ballast verification management workshop. The team will also maintain an informal network of stakeholders and interested parties and will promote the work at regional, national and international meetings.