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UM barge to help fight invasive species

New floating lab will test treatment systems for ballast water

By [Candus Thomson](#), The Baltimore Sun

5:36 PM EDT, September 27, 2011

The first step in stopping invasive species from hitching a ride into the Chesapeake Bay aboard cargo ships is determining how to make massive ballast tanks an inhospitable environment.

Maryland scientists hope they will find the answer aboard a new \$2.7 million floating laboratory that is able to test ballast-water treatment systems under real-time conditions. The 155-foot vessel is part of the research fleet operated by the University of Maryland Center for Environmental Science.

Ballast water is used by ships for stability at sea. Small marine plants and creatures in the water get pumped onboard in one port and discharged in another.

At Tuesday's dedication at the Inner Harbor, Rep. Elijah E. Cummings called the more than 150 invasive species in the bay — many traced to ballast water — "a significant threat."

"This is our watch. We want to leave a better world than the one we found on the day we were born," said the Baltimore Democrat. "We are creating a model for the world right here, right now."

The gray-and-white barge is one of three test platforms in the country able to assess the effectiveness of treatment options, such as ultraviolet light, chlorine and oxygen removers. Scientists can fill one tank on the barge with untreated water while using a second tank to conduct tests, said Janet Barnes, program coordinator. The mobility of the barge allows scientists to travel to ports around the Chesapeake, where salinity and other conditions vary.

Standards for ballast discharge are under administrative review by the Environmental Protection Agency and Coast Guard. In the meantime, companies here and in Germany are ready to have their technology put to the test by the barge, with vendors in China and France making inquiries, Barnes said.

"They realize they must come to the U.S. to test because they must meet the standards being set by the EPA and the Coast Guard," she said.

The ballast testing is one part of the university's Maritime Environmental Resource Center,

created with the Maryland Port Administration, to help solve issues related to the international maritime industry.

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