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CHESAPEAKE BAY: New federal office to tackle ship ballast

Associated Press

BALTIMORE — There's a new federal office charged with keeping invasive species out of the Chesapeake Bay.

The Baltimore-based Maritime Environmental Resource Center will look for ways to treat ballast water before it is discharged from ships' ballast tanks.

The goal is to learn ways to better protect the Chesapeake and other bodies of water from invasive species hitching a ride on ships.

Commercial ships have been blamed for the introduction of Chinese mitten crabs and at least 150 other invasive species in the Chesapeake, which compete for food and habitat with native species.

The effort will be announced today aboard a ship in Baltimore.

baltimoresun.com

Scientists face bay invaders

New research seeks methods to kill alien species

By Tom Pelton

Sun reporter

July 22, 2008

Scientists at a new research center in Maryland will test strategies to kill invasive species and prevent them from hurting the Chesapeake Bay, according to an announcement scheduled for today.

More than 150 exotic species are now thriving in the bay, often hitchhiking here in the

ballast water of ships from Asia and Europe. A few of the most aggressive, like the oyster-killing parasite MSX, have overwhelmed native creatures.

The new Maritime Environmental Resource Center at the University of Maryland Center for Environmental Science will be based in Solomons in Southern Maryland and receive about \$5 million over five years from the state and federal governments.

Scientists plan to test ultraviolet light, filters and chemicals to see how effective they are at destroying exotic larvae and other creatures inadvertently transported in ship ballast tanks. Initial studies have already begun aboard a ship in Baltimore.

"Everyone understands that our waterways are our lifeblood ... and we want to make sure our waterways are free of invasive species," said Rep. Elijah E. Cummings of Baltimore, chairman of a subcommittee on maritime transportation, who helped to coordinate the effort.

Researchers plan to demonstrate some of the techniques this morning aboard the MV Cape Washington, a military cargo ship anchored at the Port of Baltimore. Three other ships will also be used as testing grounds for eradication techniques.

Four years ago, the Coast Guard began requiring large ships crossing the oceans to stop about 200 miles off the American shores and dump their ballast water, replacing it with ocean water.

Salt water from the open ocean kills many of the fresh water organisms that hitchhike from port to port. But this technique doesn't kill all exotic creatures.

For example, Chinese mitten crabs have been popping up in the Chesapeake Bay over the past two years. It's not clear whether they hitched a ride before the regulations took effect or survived the open-ocean ballast exchange.

Scientists worry that populations of these hairy-clawed Asian invaders could explode, with the newcomers gobbling worms and other food needed by native crabs and fish.

"Ballast water exchange is better than nothing - but we need to further develop and prove better systems," said Mario Tamburri, a University of Maryland biologist who will direct the new center.

The center will have four or five full-time employees, including an engineer and technicians who will test strategies and calculate how expensive and effective they are, Tamburri said.

The researchers won't be performing law-enforcement duties or inspecting random ships pulling into Baltimore Harbor, he said.

Instead, they will treat the Cape Washington and three other dedicated vessels, including

a barge, as floating labs.

About \$700,000 a year for the research will come from the Maryland Port Administration and other state agencies, with the rest of the funding coming from federal agencies.

The researchers will be providing data to the Coast Guard, which is trying to determine whether it should impose more strict regulations requiring treatment of ballast water.

The House of Representatives approved a bill in April to require treatment of all ballast water starting next year. The Senate has yet to approve the treatment requirement, and it's not yet clear what technologies will qualify as effective treatment.

University of Maryland scientists will be working with another major center for the study of exotic species, the Marine Invasions Lab at the Smithsonian Environmental Research Center in Edgewater.

Greg Ruiz, director of the Marine Invasions Lab, said that his group has spent years studying where exotic species come from and why they cause problems.

Now the new center at the University of Maryland will take that knowledge to a practical level, studying which technical systems can best eradicate invasive hitchhikers, Ruiz said.

It's not a simple question, because some strategies - like adding bleach or other chemicals to ballast water to kill organisms - could have unintended consequences to the environment when they're released, he said.

UPI

Researchers target Chesapeake Bay invaders

BALTIMORE , July 22 (UPI) -- A new research center focused on killing invasive species in Chesapeake Bay was announced Wednesday in Maryland.

The Maritime Environmental Resource Center at the University of Maryland Center for Environmental Science will receive \$5 million in state and federal funds over five years to target the more than 150 exotic species that have arrived in the bay. Some of the invasive species have overwhelmed native species, The Baltimore Sun reported. Many of the exotic species were inadvertently introduced to Chesapeake Bay in ship ballast tanks.

The MERC, which will have up to five full-time employees, will test strategies such as filters, chemicals and ultraviolet lights to determine how effective they are at killing the invasive species, the newspaper said.

BALTIMORE EXAMINER

Local

Researchers tackling invasive species in ship ballast water

Sara Michael, The Examiner

BALTIMORE -

Destructive invasive species hitch a ride into the Chesapeake Bay in the ballast water of large cargo ships, prompting scientists to seek ways to treat the water before it's released from the ship.

Researchers from the University of Maryland Center for Environmental Science are testing water treatment systems, such as UV filtration or chemicals, to find the most effective and cost efficient way to kill the invaders.

"We will provide independent rigorous data to regulatory agencies on how these systems perform," said Mario Tamburri, associate professor at the university's Chesapeake Biological Laboratory and director of the newly created Maritime Environment Research Center.

The center, formed as facility to test environmental solutions, is a collaboration among the university, Maryland Department of Transportation, Maryland Port Administration and U.S. Department of Transportation's Maritime Administration.

Ballast water treatment has been tested by individual scientists and companies for 10 years, but the university's program will provide an independent and credible review, he said.

"We aren't developing the technologies, so we don't have an agenda," Tamburri said.

On the bottom deck of the MV Cape Washington in Baltimore's harbor, water is drawn in from the ship's ballast tanks into several holding tanks. Half of the water is run through a UV filtration system while the other half is left untreated.

Researchers will also consider the cost to install and run the systems to better advise the shipping industry.

More than 150 invasive species live in the Chesapeake Bay.

"Our Chesapeake Bay is threatened on multiple fronts, including by invasive species," said Rep. Elijah Cummings, D-Md., chairman of the House Transportation and Infrastructure subcommittee on Coast Guard and maritime transportation.

Several federal proposals being considered would require ships treat ballast water before releasing it. Ships must exchange ballast water picked up at a foreign port with water from the open ocean before entering a U.S. port, but this is not completely effective for removing invasive organisms, officials said.

"Given that ballast water exchange isn't completely effective, I strongly support requiring ships to treat

ballast water before releasing it," Cummings said.