

U.S. COAST GUARD PUSHES AHEAD FOR BALLAST WATER SOLUTIONS

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International shipping is recognized as a major vector for ANS introductions. The U.S. Coast Guard is granted statutory authority by the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) to regulate ballast water for the purpose of preventing ANS introductions in U.S. waters. Since 1993, we have enforced the requirement that ships entering the Great Lakes after operating outside the Exclusive Economic Zone must exchange their ballast water in the open ocean. Ballast exchange is still the only widely utilized method shown to reduce the risk of ANS introductions.

We are not satisfied, however, to merely enforce existing requirements. Efforts are under way to identify a ballast water discharge standard that, when used to approve treatment technologies and to verify the performance of equipment installed on ships, would offer better protection of the environment than ballast water exchange. We are also on the leading edge of efforts to analyze the performance of treatment systems on board ships. These include the Shipboard Technology Evaluation Program (STEP) work under U.S. EPA's Environmental Technology Verification (ETV) program, discussed below, and participation in the NOAA Ballast Water Demonstration Program. We have also conducted performance audits of ballast water treatment technologies installed on ships, with plans for several more.

The Coast Guard Commandant, Admiral Thomas Collins, holds that preventing ANS introductions via shipping is the Coast Guard's number one environmental regulatory priority. We have been working to develop a ballast water discharge regulation under existing statutory authority since 2000. The pace of this development depends on many factors external to the Coast Guard, including the availability of relevant and reliable scientific data, as well as the requirements of the federal rulemaking process, which require review and careful scrutiny of environmental and economic impacts.

In compliance with the National Environmental Policy Act, we are completing an environmental impact analysis of several alternative standards in preparation for issuing a proposed rule that would establish an enforceable, biologically protective and scientifically sound standard. The alternative standards being analyzed include the International Marine Organization (IMO) Ballast Water Management Convention standard and other, stricter standards, including one close to no discharge of living organisms. U.S. EPA, NOAA and the U.S. Fish and Wildlife Service are Cooperating Agencies in this effort. Publication of the Notice of Proposed Rulemaking is anticipated as soon as an analysis of the impacts of a standard is completed, the regulation is cleared through the Department of Homeland Security and the Office of Management and Budget, and the required consultation process can be completed.

The Coast Guard continues to be active on other fronts addressing ballast water management. Our ongoing work to develop ballast water treatment system test protocols under U.S. EPA's EVT program, mentioned above, will facilitate the approval of ballast water management systems. The protocols will be validated on a candidate treatment technology on a facility built for that purpose and funded in part by the Coast Guard, at the Naval Research Laboratory in Key West, Fla., this summer. To encourage the installation of prototype ballast water treatment systems, the STEP was launched at the beginning of 2004. The program offers incentives by which ship owners can be granted equivalency with ballast water management regulations by installing a functional ballast water treatment system. Acceptance involves a detailed review of a proposed experimental plan where the performance of the system is tested and compared against ballast water exchange as well as a satisfactory assessment of potential environmental risks. Program participation requires the conduct of experiments to verify the performance of the

system under the ship's operating conditions, and that the system operates as intended. We are also working internationally to develop supporting guidelines to aid in implementing the IMO Convention on the Management of Ships' Ballast Water and Sediments, adopted in 2004.

The Coast Guard is also addressing the issue of vessels that declare No Ballast On Board (NOBOB) upon entering the Great Lakes system. These vessels, comprising approximately 70 percent of the oceangoing Great Lakes traffic, are not required to conduct mid-ocean ballast water exchange. Although ballast tanks on NOBOBs are considered empty, they may contain residual water and sediment bearing nonindigenous species. This may provide a mechanism for ANS introduction if new ballast water is taken on in the Great Lakes and discharged prior to leaving the system. Our goal is to identify effective and practical NOBOB ballast water management strategies as required by NANPCA, and its amending and reauthorizing statute, the National Invasive Species Act (NISA). These laws authorize us to regulate "all vessels equipped with ballast water tanks that enter a U.S. port on the Great Lakes," while also "taking into consideration different operating conditions," in promulgating regulations.

The Coast Guard published a Final Rule in the Federal Register on June 14, 2004 (69 FR 32864) that requires NOBOBs to submit ballast water reports, which we have been analyzing in order to further explore sound ballast water management strategies. Information such as the sources of ballast water residuals, previous ports and intended destinations is being assessed to determine what management opportunities may or may not be available to vessels. The Coast Guard also held a public meeting in Cleveland on May 9, 2005 to consult with interested and affected parties on potential NOBOB ballast water management strategies.

The Coast Guard will continue to lead the way toward the ultimate goal of eliminating ANS introduction via shipping in the Great Lakes and all U.S. waters. The establishment of an enforceable, biologically meaningful and scientifically sound ballast water discharge standard for U.S. waters will facilitate the approval of ballast water treatment systems, which represent the most viable option for preventing new ANS introductions while maintaining the flow of commerce. For further information, refer to the U.S. Coast Guard website, Office of Operating & Environmental Standards at: www.uscg.mil/hq/g-m/mso/ans.htm.

The views expressed in this article are those of the authors and do not necessarily represent those of the Great Lakes Panel or the Great Lakes Commission.

Great Lakes Panel Update

The spring meeting of the Great Lakes Panel was held April 14-15 in Ann Arbor, Mich. Featured at the meeting was the Great Lakes Regional Collaboration's (GLRC) Aquatic Invasive Species (AIS) Strategy Team, established under a Presidential Executive Order in May 2004. Progress reports were presented on the five AIS vectors identified as priorities under the GLRC, including aquaculture, maritime commerce, canals and waterways, organisms in trade, and recreational activities. The Great Lakes Panel's *Organizational Structure and Guidance for Operations*, currently under review by the Panel, was also discussed. Updates were provided on AIS initiatives of regional and national significance as indicated in the meeting agenda (available at www.glc.org/ans/pdf/Agenda_Apr14-15-05.pdf). **Contact:** Kathe Glassner-Shwyder, Great Lakes Commission, 734-971-9135, shwyder@glc.org.

Washington Watch

On Feb. 10, 2005, Senators Daniel K. Inouye (D-HI) and Ted Stevens (R-AK) reintroduced the Ballast Management Act (S. 363). This act amends the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 to establish a national approach to preventing AIS introductions from ballast water discharge. The bill closely follows the requirements and structure of the IMO agreement, retaining the ballast water exchange requirements in the Great Lakes and defining measurable standards for discharge of living organisms in ballast water. **Contact:** Joy Mulinex, Senate Great Lakes Task Force, 202-224-1211, joy_mulinex@levin.senate.gov.

Around the Basin

ILLINOIS: A northern snakehead was caught by an angler in Oct. 2004 at Burnham Harbor on southern Lake Michigan. Emergency sampling of the harbor found no additional snakeheads, indicating this was an isolated incident. Asian carp and snakehead are now

featured in the 2005 Illinois DNR fishing guide. Illinois-Indiana Sea Grant (IISG) is a partner in the recently released *Habitattitude* campaign, featured at a series of aquarium and water garden hobbyist meetings in both states. IISG also hosted an *Aquatic Invasive Species Hazard Analysis and Critical Control Point (HACCP)* workshop for resource professionals this spring in Moline. **Contact:** Steve Shults, IL DNR, 309-968-7531, sshults@dnrmail.state.il.us.

INDIANA: Doug Keller was recently appointed coordinator of the Indiana Division of Fish and Wildlife AIS program. Program implementation priorities for 2005 include integrating the state's aquatic nuisance species management plan with regional actions, updating the present distribution of AIS populations in the state, conducting prevention education, establishing regulations and developing control procedures, including rapid response activities. **Contact:** Doug Keller, IN DNR, 317-232-4080, dkeller@dnr.IN.gov.

MICHIGAN: In January 2004, Gov. Jennifer Granholm signed legislation establishing the Great Lakes protection specialty watercraft decal. Earnings from the decal (available as a \$35 purchase at www.michigan.gov/dnr) are earmarked for AIS research, education and eradication efforts in the Great Lakes and inland waters. In fall 2004, the legislature appropriated funds for the state share of the nonfederal costs of installing a permanent electric dispersal barrier in the Chicago Sanitary and Ship Canal. **Contact:** Emily Finnell, MI Department of Environmental Quality, 517-241-7927, finnelle@michigan.gov.

MINNESOTA: AIS-HACCP Curriculum workshops, sponsored by Great Lakes Sea Grant Network will be held for commercial user groups as well as natural resource managers. *Habitattitude* (www.habitattitude.net) a national education campaign for aquarists and water gardeners, is being promoted to hobbyists, hobby clubs and associations, and state agencies throughout the state. **Contacts:** Doug Jensen, MN Sea Grant, 218-726-8712, djensen1@umn.edu or Jay Rendall, MN DNR, 651-297-1464, jay.rendall@dnr.state.mn.us.

ONTARIO: In May 2004, the Ontario Ministry of Natural Resources requested that the Federal Minister of Fisheries and Oceans amend regulations to prohibit the live possession of bighead, grass, silver and black carp; round and tubenose goby; and all species of snakehead in Ontario. The province already restricted the live purchase and sale of these species through the Provincial Fish and Wildlife Conservation Act. Work of the Canadian Council of Fisheries and Aquaculture Ministers' Aquatic Invasive Species Task Group continues toward completion of the implementation strategy for the national aquatic invasive species action plan approved by Ministers in September 2004 (www.cbin.ec.gc.ca/index.cfm?lang=e). **Contact:** Beth Brownson (MacKay), OMNR, 705-755-1950, beth.mackay@mnr.gov.on.ca.

PENNSYLVANIA: Two northern snakehead were caught by an angler in July 2004 in Meadow Lake in Philadelphia. The Pennsylvania Fish and Boat Commission subsequently collected several additional snakehead from the lake. Although this marks the first occurrence of the species in the Commonwealth, elimination of the species is considered impractical since this small lake is part of a maze of interconnected waterbodies including the lower Schuylkill and Delaware rivers. The Commonwealth is also working in collaboration with the Great Lakes Commission and PA Sea Grant staff in conducting a workshop to facilitate development of a statewide AIS management plan. **Contact:** Jim Grazio, PA Department of Environmental Protection, 814-332-6842, Jgrazio@state.pa.us.

WISCONSIN: Monitoring data from 2004 has confirmed that 24 new inland waters in the state contain Eurasian watermilfoil, putting the total at more than 400. Zebra mussels were confirmed in nine new water bodies, bringing the total to approximately 60. Rusty crayfish were found in about one-third of the monitoring sites. To date, no spiny or fishhook water fleas have been found. Twenty workshops have been set up around the state from April-July to train volunteers as part of the *Clean Boats, Clean Waters* program. **Contact:** Ron Martin, WI DNR, 608-266-9270, martir@dnr.state.wi.us.

National ANS Task Force

The spring meeting of the ANS Task Force will be held in Monterey, Calif., May 24-26, 2005, at the Monterey Conference Center. Accommodations are available at the Marriott Hotel; for reservations, call 800-228-9290 or 831-649-4234. The meeting agenda covers reports from Task Force ex-officio members, associated activities and committees, regional ANS panels and ballast water updates. **Contact:** Don MacLean, USFWS, 703-358-2108, Don_MacLean@fws.gov.

Upcoming Events

- ♦ ANS Task Force Meeting (see above section)

On The Bookshelf

- ♦ *Aquatic Invasive Species – Hazard Analysis and Critical Control Point Training Curriculum*. 2004. **Contact:** Doug Jensen, MN Sea Grant, djensen1@umn.edu.
- ♦ *Help Stop Aquatic Hitchhikers* brochure (Minnesota DNR). 2004. **Contact:** Jay Rendall, MNDNR jay.rendall@dnr.state.mn.us, or Doug Jensen, MN Sea Grant, djensen1@umn.edu.
- ♦ *Invasive Species of Aquatic Plants and Wild Animals in Minnesota: Annual Report for 2004*. **Contact:** Jay Rendall, MNDNR or www.dnr.state.mn.us/ecological_services/invasives/index.html.