Statement by
The Honorable Dennis Schornack
U.S. Section Chair, International Joint Commission
Coast Guard and Maritime Transportation Subcommittee
Water Resources and Environment Subcommittee
Ballast Water Management: New International Standards and National Invasive Species Act Reauthorization
Thursday, March 25, 2004

"Put the Great Lakes First"

The International Joint Commission (IJC) appreciates the opportunity to offer our views on how best to protect the Great Lakes basin ecosystem and other ecosystems across the nation from the threat of alien invasive species in ballast water. By stopping (or at least dramatically reducing) the ballast-water mediated transfer of aquatic invasive species, we can take a huge step forward in thwarting one of the top threats to aquatic biodiversity.

I am Dennis Schornack, chair of the U.S. section of the IJC. I also represent the views of the Right Honorable Herb Gray, chair of the Canadian section because the IJC is a binational treaty organization that operates under terms of the Boundary Water Treaty of 1909. Our mission is to prevent and resolve disputes between the U.S. and Canada with respect to our shared boundary waters. In addition, under the Great Lakes Water Quality Agreement, the United States and Canada have assigned the role to the IJC to both assess the progress of the nations in Great Lakes restoration and to assist them in efforts to achieve the goal of restoring the chemical, physical and biological integrity of the waters of the Great Lakes basin ecosystem.

The IJC has spent more than 15 years making the U.S. and Canada aware of its concerns regarding the impacts of alien invasive species on the Great Lakes. In 1988, the IJC and the Great Lakes Fishery Commission (GLFC) first alerted the governments to the threat posed by the newly discovered zebra mussel that had arrived in the Great Lakes via ballast water from foreign ships. In 1990, the IJC and the GLFC issued a major report with recommendations for the governments on how best to respond to the threat of aquatic invasive species in ballast water. Now, after 15 years and expenditures of at least $3 billion in control costs for the zebra mussel alone, the threat to both our ecology and economy is even greater than it was then.

Scientists tell us that ballast water mediated transfers of invasive species into the Great Lakes by foreign shipping are the source of tremendous ecological and economic damage, threatening the sustainability of this ecosystem. While ballast water mediated species transfers affect every port in North America, we wish to draw specific attention to protecting the Great Lakes.

The day is close at hand when the tally of non-native species in the Great Lakes will total 200 invaders. The bottom line is that these invaders are turning the Great Lakes into a zoo – not an ordinary zoo where the animals are safely confined but a zoo where they are unleashed to wreak havoc and devastation on the native ecological community.

Scientists say that a new invader is being discovered roughly every eight months. Over the last two decades, virtually all of these species have arrived in the Great Lakes by way of

ballast water discharged by foreign ships when they take on cargo. And the majority of the species that have become established in the lakes were native to the Ponto-Caspian Basin of Eurasia, including the zebra and quagga mussels, spiny and fishhook waterfleas and tubenose and roundnose gobies. These invaders traveled via rivers and canals from the Ponto-Caspian to the Baltic Sea where they became established, then after hitching a ride in ballast water, became established in the Great Lakes.

What greatly concerns the IJC is that researchers are telling us is that perhaps 15 more invertebrate and fish species in the Ponto-Caspian region have the special traits to hopscotch their way from there to the Baltic to the Great Lakes where they can thrive at the expense of native species. The uncertainty of how much damage these new species might wreak upon the ecology and economies of the Great Lakes should drive us to action.

One example strikes very close to home to ten members of these two subcommittees from the states of Michigan, Ohio, Pennsylvania and New York – states that all border Lake Erie.

The near-death of Lake Erie more than 30 years ago (June, 1969) was the crisis that triggered a ban on phosphate detergents and multi-billion dollar investments in wastewater treatment improvements. It was a costly lesson, but the Lake Erie ecosystem bounced back.

But now, many scientists believe that Lake Erie is in mortal peril once again. Due to complex ecological changes exacerbated by alien invaders such as zebra and quagga mussels that wreak havoc on the lake ecosystem, threaten native species, disrupt the food web, and change critical processes that maintain a stable, healthy lake, Lake Erie is again in decline. In addition, interactions between invaders appear to be linked the steep rise in avian botulism that has killed thousands of gulls, loons, and other fish-eating birds.

That's why the Commission believes that invasive species are the most pressing problem threatening the Great Lakes. This is a borderless crisis for the Great Lakes. This committee, this Congress and this country should act and it should act now.

Canada should act as well. In that regard, I should note that they are working in earnest to have an action-oriented plan in place by the end of the year that meshes well with the objectives of NAISA for the Great Lakes as well as the two coasts we share.

Granted, there are similar problems and concerns in San Francisco Bay and other ports nationwide, but I am here with a simple message – put the Great Lakes first. Let me tell you why the Commission believes this so strongly.

First and foremost, the lakes are the single most valuable freshwater resource on the planet, providing drinking water for 30 million people and sustaining the economy of North America's industrial heartland. The Great Lakes constitute a single ecosystem shared by two countries, with a single entrance. Compared to the rest of the country or the world, the shipping situation in the Great Lakes has clear boundaries and limited variables. There are a handful of ports of origin and destination. And the number of ships, ship designs, shippers, customers and cargos is limited and could be more easily managed.

Virtually all foreign ocean-going ships bound for Great Lakes ports share the common feature of coming from a freshwater port of origin across a cold ocean to a freshwater port of destination. All must enter the Great Lakes through a single gateway – Massena, New York and Cornwall, Ontario. It is at that gate that the United States and Canada can take a stand and stop this invasion, and the IJC stands ready to help.

The first step is developing a ballast water discharge standard, and that's a key feature of the pending National Aquatic Invasive Species Act of 2003 (NAISA). In our view, any standard must be effective and enforceable. The standard must be clear, unambiguous and not open to interpretation. It must be biologically protective. And to be enforceable, compliance must be checked quickly with easy to implement methods of sampling and analysis.

The U.S. Coast Guard followed these principles in developing the standard supported by both the United States and Canada at the International Maritime Organization diplomatic conference in London last month. U.S. Coast Guard scientists can better describe the details of the standard to this committee. The U.S.-Canada standard was not completely incorporated into the February 16th IMO Convention, but it set the bar, and sent the signal that North America was serious and that the two guardians of the Great Lakes were in agreement.

That's the good news. Unfortunately, the bad news is that we don't know when the IMO Convention agreed to at the diplomatic conference will be ratified, and even if it were to be ratified today, it could take almost a decade, or even longer, for the standard to take effect. In the meantime, we can't run the risk of another species as destructive as the zebra mussel arriving in the Great Lakes. The economic and ecologic risk is just too great.

Fortunately, Article 2 of the IMO Convention also allows party states to take more stringent measures to protect critical ecosystems and to take them sooner. Both the U.S. and Canadian delegations fought for this provision and they should be commended for winning that fight.

Therefore, the IJC's advice with respect to a ballast water discharge standard is simple: Take the U.S.-Canadian standard and put it in this bill and pass it – now.

And while you are at it, allow for regions that are ready to speed up the timeline. Let the Great Lakes put implementation on a fast track!

In addition, Article 9 of the convention allows party states to sample ballast water to monitor compliance to ensure that the standard is met. That means any legislation must also include an enforcement mechanism that includes sampling.

Another key feature of the convention of great interest to the Great Lakes and to the IJC is Article 13, concerning regional cooperation, where it states:

> "Parties with common interests to protect the environment, human health, property and resources in a given geographical area, … shall endeavor, taking into account characteristic regional features, to enhance regional cooperation…"

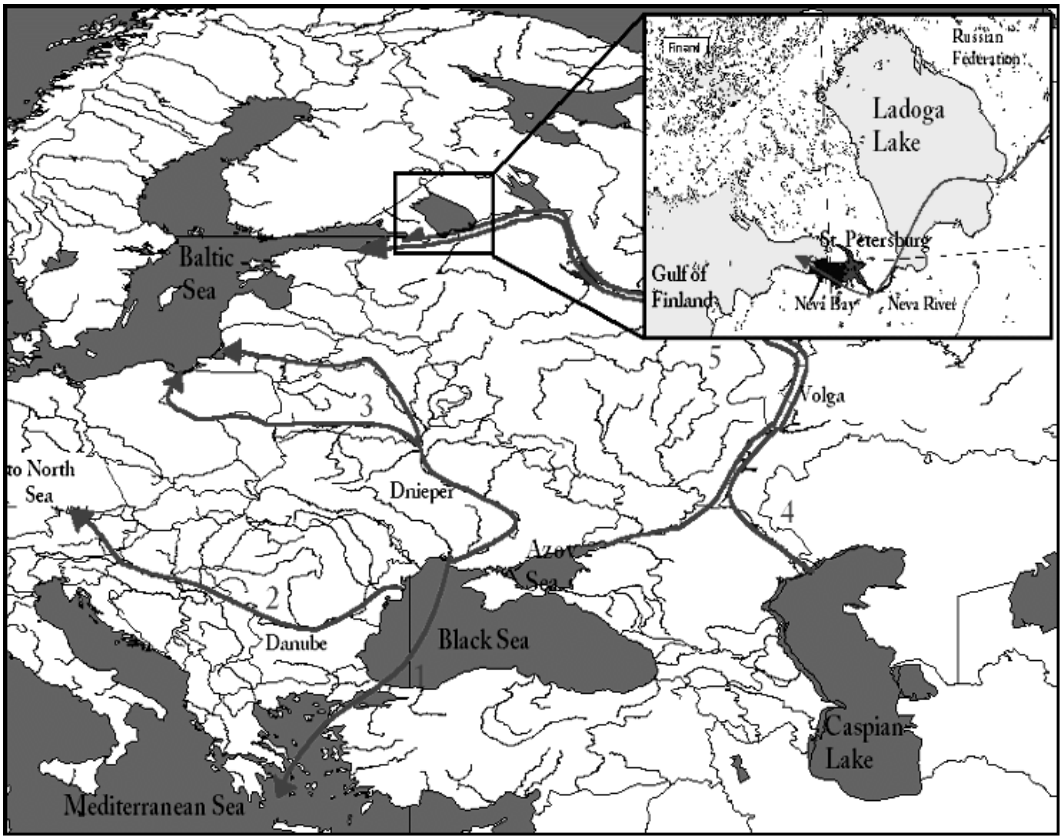
What better place to begin that cooperative effort than in the Great Lakes – two nations, one ecosystem, with one entrance and the groundwork already prepared for a binational solution that slams shut the door to invasions.

In this regard, the pending NAISA legislation provides for a reference to the IJC asking us to recommend ways to harmonize policies, rules, procedures and regulations in both countries to protect the shared waters of the Great Lakes.

Through this reference, the IJC could recommend to the governments of the U.S. and Canada how and when the ballast water discharge standard should be applied and enforced for foreign ships entering the Great Lakes.

In the Great Lakes, we have the scientific knowledge, the unique and limited set of circumstances, and most importantly, the will to work together to get this done. We are prepared to move forward, perhaps even ahead of the rest of the nation.

Discussions regarding this reference have reached the highest levels of government on both sides of the border After all, aquatic invaders don't recognize dotted lines on the map. That means policy makers in both countries must reach across those lines to fight back. And it means that this Congress can take the first steps to put the Great Lakes first by incorporating the U.S.-Canadian standard and the IJC reference into legislation and passing it as soon as possible.



Proposed invasion corridors for the transfer of Ponto-Caspian taxa to the Laurentian Great Lakes. Corridors are considered routes and associated mechanisms that facilitate long-distance dispersal of different life stages of an array of species. A direct corridor may transfer taxa from Black and Azov sea estuaries or adjacent rivers (route 1). Four indirect corridors may facilitate the transfer of species to the Great Lakes only as secondary invasions from other waterways in Europe. These include: a corridor between the Danube River–Main Canal–RiverRhine network (MC; see text for details) (route 2); the Black Sea via the Dnieper River–Pripiat River–Dnieper–Bug Canal–either the Nemunas or Vistula Rivers to the Baltic Sea (route 3); Caspian Sea through the Volga River system, Volga-Baltic Canal, to the Baltic Sea (route 4); or Black and Azov Seas–Don River–Volga–Don Canal–Volga River and Volga-Baltic Canal, to the Baltic Sea (route 5). Canals are indicated as hatch marks on lines connecting major rivers. DBC = Dnieper–Bug Canal, a major link between Black Sea (Dnieper, Pripiat rivers) and Baltic Sea (Vistula, Bug Rivers) basins that has facilitated the transfer of Ponto-Caspian species into central and western Europe. Route numbers are identified on the map. Modified from Jaˇzdˇzewski (1980).

MacIsaac, H.J., I.A. Grigorovich, and A. Ricciardi. Reassessment of species invasions concepts:the Great Lakes basin as a model**.** *Biological Invasions* **3:** 405–416, 2001.