

As one non-native fish bears down on Great Lakes, notorious mussels spread across the West

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In June, a commercial angler netted a 19-pound Asian carp on Chicago's Lake Calumet, part of the waterway system that connects the Mississippi River to Lake Michigan. The fisherman's haul was ominous, suggesting that the carp, a prehistoric-looking behemoth, had somehow gotten past an underwater electric fence designed to keep the species from entering the Great Lakes.

Since then, officials from the Great Lakes states have been fretting about the invasive fish, which has been working its way up the [Mississippi River](#) since it was first introduced in the Southeast almost 20 years ago, crowding out native species along the way. Asian carp are just the latest [alien species](#) to threaten the lakes, following other creatures such as the zebra and quagga mussel and the sea lamprey, all of which have found homes in the lakes' waters.

But the carp have attained a degree of notoriety that has eluded the other species, owing to their size and their distressing habit of thrashing out of the water at the sound of passing motorboats. Politicians have cast the fish as a voracious invader that would annihilate the lakes' ecosystems and cause the collapse of the \$7 billion fishing and tourism industry.

Scientists have disputed that claim, noting that other [invasive species](#) already have depleted food sources in the Great Lakes so much that carp could find the waters to be inhospitable. The uproar nevertheless has

brought renewed attention to the problem of invasive species, which have been washing into U.S. waters for years thanks to international shipping.

Michigan Attorney General Mike Cox has been particularly vocal, calling on Illinois to close locks and gates on the Chicago River that connect the Mississippi River with the lakes. But behind his rhetoric lies the disconcerting fact that states are powerless to combat most invasive species. Fish and mollusks don't respect state sovereignty, which makes it impossible for one state to completely seal off its waters from another. The best way to effectively control the spread of invasive species, advocates say, is for the federal government to step in.

In an attempt to force Washington's hand, Michigan, Minnesota, Ohio, Pennsylvania and Wisconsin filed a lawsuit against the federal government late last month to force the U.S. Army Corps of Engineers to speed up its efforts to protect the lakes from the fish. "President Obama and the Army Corps of Engineers have failed to fight Asian carp aggressively," Cox said in a statement. "Asian carp will kill jobs and ruin our way of life."

This is not the first time Cox has used the courts to combat Asian carp. Late last year, Michigan sued Illinois in the U.S. Supreme Court to try to force Illinois to close the Chicago-area locks, which are crucial to shipping. Right now, carp are massed behind an electric fence and officials fear that all it would take is a power outage for them to flood into the lakes. The court declined to take the case.

The Illinois Chamber of Commerce has criticized the latest lawsuit, calling it politically motivated -- Cox is running for governor in Michigan. The state of Illinois did not join the suit. Instead, Illinois Gov. Pat Quinn has suggested harvesting the fish and sending them to China, where they are considered a delicacy.

Despite all the attention they've gotten recently, Asian carp are not the most dangerous invasive species to threaten the Great Lakes. Their impact pales in comparison to that of the quagga mussel, which first showed up in the lakes in the late 1990s and has become ensconced there. The mussels reproduce rapidly and devour plankton, disrupting the lower levels of a food chain that native species rely upon.

"We're probably looking at one of the biggest invasions in the Great Lakes right now with the quagga mussels," says Gary Fahnenstiel, a senior ecologist at the National Oceanic and Atmospheric Administration.

Notwithstanding the dire warnings from politicians, Fahnenstiel says, should Asian carp make it to Lake Michigan they probably would have a difficult time competing with the quagga mussels for food. "They beat them to the buffet table, you might say," Fahnenstiel says.

Also, while state officials argue about sealing the lakes from the Mississippi, the biggest threat is likely to come from the north, where the Saint Lawrence Seaway connects the Great Lakes to the Atlantic Ocean. Many of the 185 invasive species in the lakes hitched rides in the cargo holds of ships sailing through the seaway.

Transatlantic cargo vessels often unload their cargo in New York or New Jersey, then take on ocean water to settle themselves. They travel through the seaway to the Great Lakes where they unload the ballast water and pick up cargo before embarking on their return trips. Over time, the mud and residual water that settles in the ships' holds becomes an ideal place for invasive species to settle before they get flushed out into the Great Lakes. That's how quagga and zebra mussels from Eastern Europe arrived on the shores of Michigan, Wisconsin and other Great Lakes states.

Unfortunately, the mussels' journey didn't end there. About three years ago, a recreational boater drove a mussel-encrusted boat from the Great Lakes to Lake Mead in Nevada. That introduced the species to the inland West, where it is continuing to spread as boaters move their craft from one waterway to the next. Quagga and zebra mussels have been found in Colorado, Nebraska and Utah.

They haven't come to Wyoming or Idaho yet, and those two states want to keep it that way. Recently, officials there started inspecting boats and requiring boaters to buy stickers certifying that their boats are mussel-free.

Yet officials in these states are afraid the mussels will inevitably evade their efforts. Like their Great Lakes counterparts, Western states are blaming what is widely believed to be an inadequate federal response.

"We're doing everything we can to protect our waterways here and the federal government is doing nothing," says Idaho state Rep. Eric Anderson, who lives on a lake at the northern tip of the state. "To me it's an absolute crime."

One possible solution would be for the federal government to enforce strict rules on treating the ballast water of international cargo ships. Environmentalists have called on the U.S. Environmental Protection Agency, the Coast Guard or Congress to address the issue without success so far. Some also have suggested closing the Saint Lawrence Seaway to ocean ships, forcing them to transfer their cargo to lake vessels.

States have put in place a patchwork of their own ballast-water rules, which have been upheld in court challenges. But that system encourages shipping companies to find the state with the weakest regulations, putting all the other Great Lakes states at risk, says Nick Schroeck,

executive director of the [Great Lakes](#) Environmental Law Center.

"Why can't we just get a national standard and be done with it?" Schroeck says. "That's what makes the most sense."

In 2008, the U.S. House of Representatives passed a bill that would have regulated treatment of ballast water, but the measure died in the Senate.

"I don't know that there's much of an appetite right now to take that up again," Schroeck says. "You'd think that with the [Asian carp](#) situation there would be, but I guess they've got a lot on their plate."

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