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Fish-killing virus has invaded Lake Superior

There appears to be no way to thwart the deadly virus that has taken a foothold in the Duluth-Superior Harbor and elsewhere.

By: [Sam Cook](#), Duluth News Tribune



A fish stricken with VHS

Lake Superior's newest troublesome invasion won't come from a giant Asian carp after all, but from a tiny virus that already has caused big fish die-offs along the eastern Great Lakes.

Researchers at Cornell University announced Wednesday that they have found fish-killing VHS virus in fish samples from Lake Superior, including the Twin Ports harbor.

A small number of fish from Superior Bay and St. Louis Bay, as well as some from Paradise and Skanee Bays in Michigan, tested positive for the virus.

"It's another sad day for the Great Lakes," said Phyllis Green, superintendant of Isle Royale National Park in Lake Superior.

The research team spent several days in June collecting and sampling healthy fish in Lake Superior. Nearly 900 fish were collected from the lake. The finding means the disease has spread across all of the Great Lakes.

"It's very unfortunate but not unforeseen. ... It's obviously going to change how anglers and management agencies conduct business," said Brian Borkholder, fisheries biologist with the Fond du Lac Band of Lake Superior Chippewa.

Minnesota and Wisconsin already have rules and guidelines in place to limit the spread of other invasive species, so anglers and boaters may be asked only to step up efforts as opposed to making major changes.

“Because of [other] invasive species, anglers have already had to deal with issues such as draining livewells, disposing of bait properly and spraying or drying their boats before going to other waters. This will just heighten things a little bit,” said Roy Johannes, DNR aquaculture and fish health consultant in St. Paul.

Bulging eyes

Viral hemorrhagic septicemia is harmless to people but often lethal to fish. VHS can cause bleeding in fish tissue, including internal organs. Sick fish often appear listless, have bulging eyes, swim in circles or hang just below the surface.

VHS was first found in the eastern Great Lakes in 2005. As of 2009 it had been confirmed as far west as Lake Michigan, Lake Huron and Lake Winnebago in Wisconsin. It has been found in 28 Great Lakes species and killed fish from more than a dozen species. In Lake Huron, VHS was found in whitefish, walleye and Chinook salmon. Farther east, it has killed muskie, perch, drum and emerald shiners, in some cases by the thousands.

The long-term effects of VHS on fish populations, commercial and recreational fishing and tourism remain unknown. It’s also not known how well the cold-water disease will thrive in cold waters of Lake Superior or the slightly warmer-water estuaries like the lower St. Louis River and Twin Ports harbor.

Supporters of stronger regulations to thwart invasive species say VHS is only the latest of 180 species to invade the lakes.

“This is what happens when you don’t have proper regulatory protections in place,” said Henry VanOffelen, natural resource scientist for the Minnesota Center for Environmental Advocacy. “What’s going to come next? Are we going to keep delaying action until something else comes down the lakes?”

Local experts say they aren’t surprised by the finding because the Great Lakes are connected by water and ship traffic. Since VHS can’t be eradicated, efforts will turn to limiting VHS’ spread to inland waters — especially convincing anglers and boaters to take precautions.

“I would hope the gravity of the situation will change the way anglers and recreational boaters move their boats around and clean their boats and take seriously the threat of getting VHS into the inland waters of Minnesota,” Borkholder said.

Dennis Pratt, Wisconsin Department of Natural Resources fisheries biologist in Superior, said VHS so far hasn’t caused major problems here. It’s not clear how long the disease has been in local waters, although tests in 2008 and earlier found no infected fish.

“The interesting thing is that we haven’t seen any mortalities [fish die-offs] yet,” Pratt said. “Mortalities are usually caused by a combination of things: a virus along with fish being stressed, such as during a warm period, or high-water events or spawning periods.”

“The important thing, locally, is to tell the DNR if you do see a major number of dead fish — and be vigilant in trying to contain it,” Pratt added.

Ballast regulation?

Minnesota and Wisconsin agencies have moved to restrict transportation of live bait across state lines to help slow VHS. Agencies, mostly the DNR, also are changing how they move fish for stocking programs, especially around Lake Superior, to prevent moving potentially contaminated fish into other waters.

Both Minnesota and Wisconsin also are moving to require that Great Lakes’ ship’s ballast water be treated before being released to kill invasive species in ballast tanks. It’s believed many foreign species in the Great lakes, including possibly VHS, may have moved around by hitchhiking in ballast water. Other say the disease may have arrived in fish that simply swam in from the ocean, like sea lamprey.

Ship operators already have agreed to avoid taking in ballast from waters infested with VHS, and saltwater ships are supposed to flush their ballast tanks at sea. But it appears those efforts, and new regulations still years from taking full effect, are too late to stop VHS from spreading to Lake Superior.

Dave Zentner, Duluth angler and natural resource activist, said he’s angry that more wasn’t done sooner to stop VHS and other species from moving into Lake Superior. Zentner and several local organizations were part of an effort that tried but failed to force federal agencies to act against VHS by regulating ballast water. Their lawsuit was dismissed in federal court.

“This (discovery) illustrates the utter failure of the state and federal regulatory and legal systems, especially federal, to protect our natural resources,” Zentner said. “Now all we can do is try to keep it from spreading.”