

The gift that keeps on giving: the never ending saga of VHS in the Great Lakes

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Over the last 10 years, the Great Lakes region has seen the emergence of a number of new invasive pathogens via the ornamental industry, ballast water introductions, and the movement of live fish. The latest of these is Viral Hemorrhagic Septicemia (VHS) which is caused by a virus that is normally in marine habitats but has recently adapted to freshwater. It is a pathogen of international concern and management. This virus has emerged as a serious pathogen with annual fish kills starting in the spring of 2005. It likely arrived in the Great Lakes during the period between the Years 2000-2002 via a ballast water introduction from the Maritime Region of Canada. It kills susceptible fish species by causing large scale hemorrhaging and has been documented in 25 fish species in the Great Lakes region. Known highly susceptible species include muskellunge, freshwater drum, black crappie, gizzard shad and round gobies. Currently, the pathogen is found in WI waters of Green Bay in Lake Michigan along with Lake Winnebago; northern waters of Lake Huron from Cheboygan to Alpena; Budd Lake (Clare County); and from Port Huron to the Thousand Island area of Lake Ontario to include a few inland waters in New York. Thus far, repeat mortalities in the same locations and species have not yet been documented. All of the Great Lakes fisheries agencies have jointly acted under the Great Lakes Fish Health Committee to develop and implement a control and management strategy that includes provisions to improve testing procedures; increase surveillance; increase biosecurity; increase education and regulation to improve angler and boater behaviors; and increased focus on ballast water control. VHS virus will certainly be an opportunistic disease agent that will require intensive management into the future and the future course of this disease in the Great Lakes region is unclear at this time.