

VIRAL HEMORRHAGIC SEPTICEMIA (Family: *Rhabdoviridae*)

**Oneida Lake Status:
Absent**

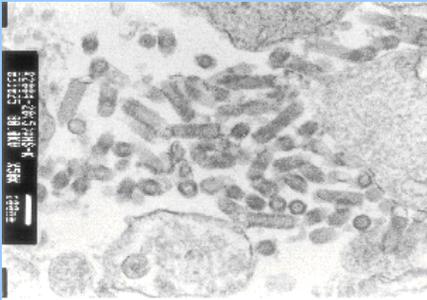
- Affects fish in the Great Lakes region
- Has not been identified in Oneida Lake fish
- Baitfish should be certified “disease free”

Viral hemorrhagic septicemia (VHS) is a lethal virus that infects freshwater fish in the Great Lakes region of North America. The virus is not dangerous to humans, but has been linked to several large fish kills. VHS causes massive internal bleeding in 37 species of fish in the Great Lakes basin, including walleye, freshwater drum, yellow perch, bluegill, crappie, shad, muskellunge, and northern pike. Emerald shiners, a popular baitfish, are also affected.

Once infected with VHS, some fish show no external symptoms. Others, however, develop bulging eyes, bloated abdomens, and/or bruised-looking reddish tints to the eyes, skin, gills and fins. Some fish develop open sores resembling the lesions from other diseases or from lamprey attacks.

On January 25, 2007, VHS was detected in Lake Huron for the first time. Previously, it was limited to Lake Ontario, Lake Erie, and Lake St. Clair (between Lakes Erie and Huron). VHS has not been identified in Oneida Lake fish.

To prevent the spread of VHS, boats, trailers, nets and other equipment should be thoroughly cleaned before traveling between lakes and streams. A solution of 1 part chlorine bleach to 10 parts water is recommended, as it effectively kills the VHS virus and other microbes that cause disease. This solution also kills a wide range of aquatic nuisance species such as zebra mussels. In addition, baitfish should only be used on the lake they were collected from, or should be obtained from a dealer with certified disease free fish.



VHS seen under an electron microscope



Sites with recent VHS outbreaks



Disposing of dead fish after a VHS infection broke out in a hatchery



USGS scientist testing for VHS

Prepared by:

Alexander Sonneborn
Cornell Biological Field Station

Edited June 2013