

Communicating VHS Impact on Sustainable Marine & Great Lakes Fisheries

VHS, viral hemorrhagic septicemia, is a threat to sustainable global fisheries. New York Sea Grant is taking steps to inform Atlantic State Sea Grant and fish health professionals about VHS/VHSV strains, pathology, viral spread, containment policy and the potential impacts of VHSV IVa on Atlantic fisheries.

The Great Lakes viral strain, VHSV IVb, has adapted to nearly 40 fish species. The genetics of VHSV IVb and a marine strain, VHSV IVa found in the Pacific Northwest, are closely related. During the 1980s, VHS mortalities of prey fish from VHSV IVa disrupted the food web in the Pacific NW. VHSV IVa has been recently isolated in Atlantic herring and striped bass, ecologically and economically important Atlantic species. This discovery has implications for Atlantic fisheries because Atlantic species may have limited immunity to the strain. Atlantic herring are analogues (genetically similar) to the Pacific herring that experienced large (or population level) VHS mortalities.

In 2008, NY Sea Grant partnered with Rhode Island Sea Grant to organize a VHS workshop with prominent fish health researchers from noted academic institutions (including Cornell University, the center of VHS research in eastern North America) serving as workshop faculty. All participants indicated that the workshop increased awareness of the potential VHS impacts on fisheries, and increased interest in expansion of fish disease monitoring and screening for



Dead Pacific sardine showing typical signs of external lesions characteristic of VHSV infection. Photo: Dr. Jim Wynton, USGS Lab

the virus. Some participants revealed immediate plans for this expansion. The workshop also led to the formation of an ad hoc network of Atlantic and Great Lakes fish health and Sea Grant professionals to share VHS information.

At the Mid-Atlantic Sea Grant Network conference in 2008, NY Sea Grant presented VHS information to Sea Grant colleagues in the Mid-Atlantic States. As a result of that presentation, Sea Grant colleagues requested a similar workshop be organized for fish health professionals.

New York Sea Grant occupies a leadership role in facilitating the flow of VHS information to stakeholders in the Great Lakes, Atlantic and Eastern U.S. states.

New York Sea Grant is a cooperative program of the State University of New York and Cornell University. Sea Grant Extension administration is located at 112 Rice Hall, Cornell University, Ithaca, NY 14853.

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