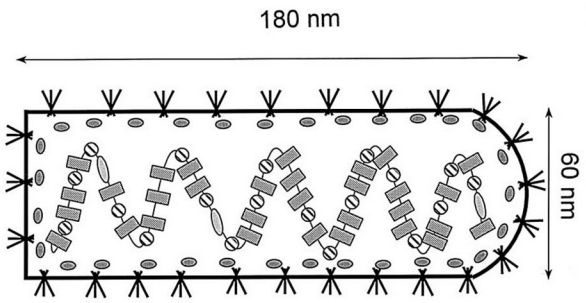
Preventing & Containing VHS in Aquaculture Operations

VHS, viral hemorrhagic septicemia, is a threat to sustainable global fisheries and aquaculture. The potential impacts of VHS in fish rearing facilities are especially worrisome, since little information concerning the containment of the virus and disease was available prior to 2009. New York Sea Grant (NYGS) is taking steps to inform fish health professionals and hatchery operators about viral spread and containment policy in an effort to protect wild fish stocks and maintain the viability of aquaculture in the Northeast States.

Internationally renown fish disease experts Dr. Paul R. Bowser, a professor of aquatic animal medicine, and virologist Dr. James W. Casey of the Cornell University College of Veterinary Medicine Fish Diagnostic Laboratory have refined the molecular technique used to diagnose the disease in fish and generated the key research information necessary for operators of fish-rearing facilities to prevent and/or contain the virus.

Project outreach led by NYSG has facilitated delivery of the results of the researchers' work to stakeholder groups.

With funding from the Northeast Regional Aquaculture Center, the Cornell Fish Diagnostic Lab developed a containment and prevention protocol for VHSv, the viral pathogen for VHS. During December 2009, NYSG coordinated the outreach component of the project with Lake Champlain and Pennsylvania Sea Grant programs.



Above: Diagram of a single VHSv specimen showing approximate dimensions. Units are in nanometers (1 nm = 1 billionth of a meter). The size equivalent of placing a single VHS virus next to a flea is a human being standing at the base of a mountain twice the size of Mount Everest. Science-based research on the virus now supports prevention and containment protocols. Photo: Lorenzen et al, 1999

Two regional workshops - one in New York and one in Pennsylvania - were conducted to summarize the disinfection and containment protocol developed by the Cornell University researchers.

Based on workshop evaluations, 100% of workshop attendees indicated that they would utilize these guidelines in their own fish rearing facilities and share the information with other aquaculture practitioners.

This project meets the performance measures of Sea Grant's Healthy New York Coastal Ecosystems focus area.

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