

May 2007

## HELP PREVENT THE SPREAD OF FISH DISEASE

### Viral Hemorrhagic Septicemia (VHS)

#### What is VHS?

- VHS is an infectious disease of fish.
- There are several strains of VHS that affect fresh and saltwater fish species.
- VHS disease outbreaks may happen at any time, but are most likely during the spring as temperatures fluctuate and fish are reproducing.
- The Great Lakes strain of the virus is new and appears to be affecting many species of fish including:

#### Game fish

Walleye  
Yellow perch  
Muskellunge  
Smallmouth bass  
Rock bass  
Chinook salmon  
Black crappie  
White bass

#### Bait fish

Emerald shiners  
Bluntnose minnows  
Spottail shiners

#### Other species

Freshwater drum  
Round goby  
Gizzard shad

#### Can VHS infect people?

- No, the virus does not affect humans.
- Fish carrying the VHS virus are safe to eat and to handle.

#### Where has VHS been found?

- Lake Huron
- Lake Erie
- Detroit River
- St. Lawrence River
- Lake St. Clair
- Lake Ontario
- Niagara River

#### What does a fish with VHS look like?



Photo: John Lumsden

*A fish can look healthy, showing no signs at all.*



Photo: John Lumsden

*Or a fish can look sick, showing signs of disease.*

#### Some fish show the following signs:

- Pale gills and organs
- Bloated abdomens
- Bulging eyes
- Hemorrhages (bleeding) on body and organs
- Darker body colour

## Fish Farmers Can Help Prevent VHS From Spreading

### How does VHS spread?

- VHS can spread through the water, on infected fish, or with their body fluids.
- VHS may be spread from one waterbody to the next by any method that involves the movement of fish, water, vessels or equipment that has had contact with the virus.



Photo: Ontario Ministry of Agriculture, Food and Rural Affairs

### Slow the spread of VHS

- Eggs collected from wild stock should be disinfected during the water-hardening stage of fertilization with an iodine-based solution. Best Management Practices are available at MNR District offices or at [ontario.ca/mnr](http://ontario.ca/mnr).
- Import disease-free eggs and/or fish. Request a health certificate stating that fish have been tested and are free of VHS prior to movement.

- It is illegal to stock fish infected with VHS virus and other disease organisms.
- Isolate any fish that appear to be sick to minimize the spread of disease.
- Develop and implement a biosecurity program including strict sanitary procedures for visitors, suppliers, staff, equipment and vehicles.
- Install disinfection stations at farm entry and exit locations.
- Ensure predators and scavengers cannot gain access to fish and fish feed.
- Collect fish mortalities in secure containers with tight-fitting lids. Dispose of mortalities in a landfill or compost facility.
- Optimize fish health with good nutrition, water quality, minimal handling, and optimal stocking densities.
- Control facility effluent to minimize impact on fish-bearing waters.
- Develop and implement a fish health management plan including routine screening.
- VHS in your facility may result in increases of disease outbreaks and/or mortalities.
- If you suspect VHS or any illness contact your veterinarian.

### These actions will help slow the spread of fish diseases.

For general enquiries, call:

Ministry of Natural Resources  
Natural Resources Information Centre  
1-800-667-1940

For reporting fish die-offs, call:

Ministry of Natural Resources  
1-866-929-0994