

# KOI HERPESVIRUS CONFIRMED IN LAKE MANITOBA CARP

# What Manitobans can do to help

- In 2008, dead carp were observed in Lake Manitoba and Lake St.Martin. Samples from Lake Manitoba tested positive for koi herpesvirus. This was the first confirmed case in wild carp in Manitoba.
- This virus is found world-wide and was first detected in North America in 1999.
- It was confirmed in dead carp from the Kawartha Lakes in Ontario in 2007. Additional dead carp were reported in other lakes in Ontario in 2008.

### What fish species are affected?

• Koi herpesvirus is a disease that affects common carp, koi and goldfish.

### Can the virus be transferred to humans?

• No. It can't be transmitted to humans. Infected carp are safe to handle and eat.

# Symptoms of infected carp include:

- patches of discoloration or blisters on the skin
- sunken eyes
- pale and rotting gills
- notched nose
- erratic swimming





# How do fish get infected?

- The disease is caused by direct contact with infected fish (ex: at spawning sites). The virus is most likely to enter the body through the gills. The virus may also live in water for a short time, in feces and possibly in mud at the lake bottom.
- The virus causes disease and death when water temperatures are between  $18^{\circ}c 28^{\circ}c$ . Outbreaks are rare when water temperature is lower than  $13^{\circ}c$ .
- Infected fish can have a high mortality rate. Annual mortality rates vary in wild stocks.
- Some fish that survive an outbreak become lifetime carriers of the disease, passing the virus to other fish.

# Preventing disease outbreaks

- Outbreaks of the virus in the wild are virtually impossible to prevent or treat.
- It is important that live carp, koi and goldfish from infected waters are not released into uncontaminated waters.
- Dead or diseased goldfish or koi should not be flushed down the toilet. They should be humanely destroyed and buried.

### Removal and disposal of dead carp

- Private property owners are encouraged to remove fish from their shoreline areas.
- Wear gloves and use tools such as shovels or rakes to remove the fish.
- Tools and gloves used for fish removal should be disinfected with mild bleach.
- Bury fish at a depth of 1½ feet. Fish carcasses can also be composted with a mixture of vegetation at suitable site locations.
- Note: most landfill sites in the province do not accept dead animal or fish carcasses.
- Anglers and people fishing for food should use similar precautions described above for disposal of carp refuse.

# What Manitoba is doing about the koi herpesvirus

- Manitoba Water Stewardship is working with the federal Department of Fisheries and Oceans and the Canadian Food Inspection Agency to monitor koi herpesvirus in Lake Manitoba and Lake St. Martin.
- Plans are being developed in the event that carp die-off is extensive.

#### To report carp die-off in Manitoba waters call Manitoba Water Stewardship at 204-945-8105 or toll free at 1-800-282-8069.

For more information: Manitoba Water Stewardship Fisheries Branch 200 Saulteaux Crescent Winnipeg, MB R3J 3W3 Phone: 204-945-8105