

FISH DISEASES



Fish diseases can present with various signs. Anglers have an important role in reporting sick, dead, or strange acting fish because they are often in contact with fish, and they are familiar with what's normal and what's not. Reporting fish diseases helps researchers track the spread of disease and prevent future outbreaks.

Signs to look out for

- **unusual appearance:** bruising, bleeding, internal or external discoloration, ulcers, bulging eyes, bloated belly, mucous
- **strange behaviour:** erratic or abnormal swimming, lethargy, gasping, swimming at the surface
- **external growths:** tumours, cysts, bumps, wart-like growths
- **parasites:** worms or lice on the skin, gills, or fillets of fish
- **mass die-offs**

While not all fish diseases pose a threat to humans, avoid consuming or handling fish that look sick, are dying, or are already dead.

Diseases to keep on your radar

Viral Hemorrhagic Septicemia (VHS)

VHS is an infectious viral disease that causes large-scale die-offs of various fish species including baitfish. Signs include bulging eyes, pale skin, signs of bleeding, a bloated belly, gasping at the surface, and erratic swimming. To prevent infections, use locally harvested bait and follow all relevant rules for transporting and releasing fish.



Source: USGS - Western Fisheries Research Center (www.usgs.gov)

Lactococcosis (*Lactococcus petauri*)

Lactococcosis is one of the most important emerging diseases of fish globally. It was first confirmed in Ontario in 2020 and can cause large-scale die-offs of various fish species. It is most severe during warmer weather. Signs include weakness, swimming at the surface, bulging eyes, bloated bellies, and redness along the base of fins. However, affected fish may be found dead in large numbers without any signs.



Source: Véronique LePage

Gill copepod (*Salmincola* species)

Gill copepod are small white or tan parasitic lice that feed on salmonid species. The lice attach to the gills, mouths, and fins of salmonids. Female lice have two long oval egg sacs that hang from their body. Email OAHN.FISH@UOGUELPH.CA to report gill copepod.



Source: Andreas R. Thomsen, CC BY-SA 3.0, via Wikimedia Commons

Preventing the spread of disease

Many fish diseases are spread through water, fish-to-fish contact, and through feces and bodily fluids. To prevent the spread of fish diseases, anglers should dispose of all fish waste in the garbage, follow the clean, drain, dry method for boats and equipment, and never dump bait buckets in or near a waterbody.

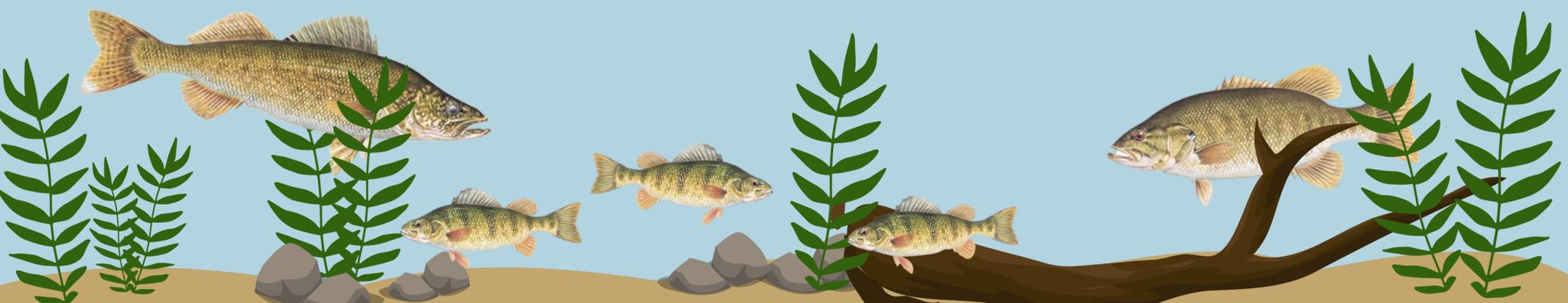
For more information, visit <http://www.invadingspecies.com/pathways/boating/>

Reporting sick, strange-acting, or dead fish

If you see a fish die-off or fish that you suspect to be sick, note the location, take photographs and report it to the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNR) at **1-800-667-1940**. To report sick and healthy fish, visit the Finfish app at <https://cwhc.wildlivesubmissions.org/#/finfish-en> or scan the QR code:



Fish Illustrations: ©CURTIS ATWATER (www.natureartists.com/atwaterc.htm)



WILDLIFE DISEASES



Wildlife diseases can present with various signs. Anglers and hunters have an important role in reporting sick, dead, or strange-acting mammals, birds, reptiles, or amphibians because they are often in contact with wildlife, and they are familiar with what's normal and what's not. Reporting wildlife diseases helps researchers track the spread of disease and prevent future outbreaks.

Signs to look out for

- **deteriorating body condition:** weakened appearance, drooling, difficulty breathing, matted or missing fur/feathers, bloating, discharge from eyes, ears, mouth or nose, vomiting, abnormal growths, emaciation
- **unusual behaviour:** seizures, walking in circles, lack of fear of humans, sluggish movements, drooping of head or ears
- **abnormal appearance of meat:** parasites, discolouration, growths on organs

Diseases to keep on your radar

Chronic Wasting Disease (CWD)

CWD is a fatal and untreatable disease that affects deer, elk, moose, and caribou. Signs include emaciation, uncoordinated movements, a lack of fear of humans, a drooping head, and excessive drinking. While it has yet to be seen in Ontario, monitoring is key to the early detection of CWD.



Source: Terry Kreeger, Wyoming Game and Fish and Chronic Wasting Disease Alliance (www.usgs.gov)

Rabies

Rabies is a viral disease that commonly infects bats, foxes, skunks, and raccoons in Ontario. Signs include a lack of fear of humans, extreme aggression or excitement, paralysis, and drooling.

Bovine Tuberculosis (TB)

Bovine TB affects cattle, humans, and members of the deer family and can be fatal if left untreated. Clinical signs include weakness, loss of appetite, weight loss, and fever. Internal symptoms include lesions on the lungs, lymph nodes, and any other organ. Bovine TB has not been confirmed in Ontario.



Source: Michigan Department of Natural Resources

Handling sick wildlife

Avoid handling sick animals whenever possible. If you must handle sick wildlife, wear a pair of disposable medical gloves, avoid touching your face, and wash your hands and forearms with soap and warm water after handling. Avoid consuming or feeding your pets raw game meat, as it may contain parasites.

Reporting sick, strange-acting, or dead wildlife

If you see wildlife that you suspect to be sick, note the location, take photographs and report it to the Canadian Wildlife Health Cooperative at **1-866-673-4781** or the Natural Resources Information and Support Centre at **1-800-667-1940**. All suspected cases of CWD, rabies, and bovine TB should be reported to the NDMNRF at **1-888-574-6656**.

To report sick wildlife online, visit http://www.cwhc-rcsf.ca/report_and_submit.php

For more information about wildlife diseases, visit <https://www.ontario.ca/page/fish-and-wildlife-health> or <http://www.cwhc-rcsf.ca>

