

# Whirling Disease

April 2017



Whirling disease is a disease of salmonoid fishes and has recently been found in Alberta. This disease can cause high levels of mortality in some fish, but it is not known how it will impact Alberta fish populations.

There are no health concerns for people swimming in or drinking water that contains whirling disease. Eating an infected fish is not known to cause any harmful effects to animals or people.

Whirling disease affects salmonoid fishes, including trout, salmon and whitefish. Whirling disease requires two hosts – a *Tubifex* worm and a fish. The disease is caused by a parasite which can affect nerves and cause cartilage damage. This may cause the fish to abnormally whirl around in a tail-chasing behaviour and/or to display a characteristic blackened tail.

There is no treatment currently available for whirling disease; therefore, containment and prevention are the best responses.

While the disease can spread naturally, it can also be spread by human activity. Albertans should be aware that it is illegal to transport fish between water bodies and that all aquatic equipment must be thoroughly cleaned after leaving a waterbody.

## Detecting the Disease

Diagnosing whirling disease requires laboratory testing because not all infected fish show the following visible signs of the disease. Symptoms can be behavioural or visual, including:

- Whirling swimming pattern
- Skeletal deformities of the body or skull, e.g., shortening of the jaw and indentations on top of the head
- Tail may appear dark or even black

## Government of Alberta Response

Alberta Environment and Parks has established a Whirling

Disease Management Committee, with representatives from various federal agencies and stakeholders to implement procedures to identify, test and manage whirling disease as well as communicate with affected stakeholders.

A three-point action plan to provide detection and delineation, education and mitigation strategies has also been developed.

### 1) Detection and Delineation

Alberta Environment and Parks is working with Parks Canada and the Canadian Food Inspection Agency to investigate the extent of whirling disease in the salmonid population.

- Sampling of fish populations in the Bow, Old Man, Red Deer, North Saskatchewan, Athabasca and Peace River rivers has been concluded.
- Ongoing sampling of government and private aquaculture facilities for whirling disease is a high priority.

### 2) Education

Public engagement and education is essential to help stop the spread of whirling disease in Alberta. This includes:

- Posting educational materials and decontamination instructions on the Environment and Parks website and social media channels.
- Using Aquatic Invasive Species mandatory watercraft inspection stations to distribute educational materials to boaters and anglers.
- Providing online updates of sample results and locations.
- Working directly with stakeholders, such as the Alberta Fish and Game Association and the Alberta Angling Outfitters to inform its members and the public about how to prevent the spread of whirling disease.
- Using existing “Clean, Drain and Dry” and “Don’t Let it Loose” educational campaign materials to prevent the spread of whirling disease.

### 3) Mitigation

To help prevent the spread of whirling disease, Alberta is:

- Quarantining all commercial fish culture operations through Ministerial Order until each facility has tested negative for whirling disease.
- Ceasing provincial fish stocking until each of the four facilities has tested negative for the disease.
- Examining potential legislative tools that could help stop the spread of the disease.

## Reducing the Risk of Spreading Whirling Disease:

Anglers, boaters and recreational water users can help reduce the risk of spreading whirling disease.

The movement of fish, mud, sediment, and water can spread whirling disease. It can be transmitted through equipment used for swimming, paddling, boating, water pumping and fishing, or through infected fish and fish parts.

- Never move live fish from one body of water to another (that is illegal in Alberta).
- Use fish-cleaning stations where available or put fish parts in the local solid waste system.
- Never move dead fish or parts between water bodies or dispose of them in a kitchen garburator.

## Routine Precautions

After your day out:

1. Clean your equipment.
2. Before leaving any waterbody, examine all equipment, boats, trailers, clothing, boots and buckets and remove all mud, sand and plant material.
3. Eliminate water from all equipment before transporting.

Most recreational equipment has spots that retain water and aquatic parasites. Ensure that you remove all water from every item before you leave the area. This includes boats, motors, boat hulls, boots, waders, bait buckets and swimming floats. Once water is eliminated, cleaning and drying are required.

## Before your next outing or move to new waters:

1. Clean and dry anything that came in contact with water. This may not eliminate the spore life-stage of whirling disease, but it can reduce the likelihood of transferring it to another water body.
2. Use hot water (at least 90° C) to clean your equipment and let dry. If hot water is not available, spray equipment with high-pressure water. Do not use a car wash or dispose of water in a storm drain. Clean equipment away from any water sources.
3. It is important to dry equipment thoroughly. After equipment is

**Did you know it is now illegal in Alberta to transport a watercraft with the drain plug in?**

thought to be dry, allow for a minimum of 24 hours of drying time before entering new waters.

4. Wash dogs with warm water and brush them thoroughly.

## Other ways you can help

If you suspect a case of whirling disease, call the Aquatic Invasive Species Hotline 1 855 336-BOAT (2628).

We ask you to record the following information so our experts can follow up on your report:

- Date and time of suspected sighting
- River, stream, or lake name
- GPS coordinates if possible would be very helpful
- Description of observation including:
  - ◆ Approximate numbers of fish
  - ◆ Fish species
  - ◆ How did they look or act?
- Photographs are useful

Please do not kill the fish for this purpose.

## For additional information:

Contact the Environment and Parks Information Centre  
**Toll Free in Alberta** at 310-ESRD (3773)  
ESRD.Info-Centre@gov.ab.ca

Or visit the Alberta Environment and Parks website.

- [aep.alberta.ca](http://aep.alberta.ca)

PULL  
the  
PLUG

