

Kootenay Lake Fish Health Update

May 2022



This bulletin addresses concerns about worms present in Kootenay Lake trout. In particular, it provides information on:

- broad fish tapeworms
- health impacts of trout and other species
- why there are more worms currently present in Kootenay Lake trout
- safe fish consumption

Broad fish tapeworms

Kootenay Lake anglers have reported concerns recently about worms in their rainbow trout catches, which have also been observed in Ministry sampling programs. These parasitic worms appear to be mainly larvae from a species known as the “broad fish tapeworm”. This tapeworm species is native to Kootenay Lake and is always present in the Kootenay Lake rainbow trout population at some level.

Tapeworm eggs are excreted in the feces of animals hosting the adult tapeworm (fish-eating birds or mammals). They develop in water into larvae that work their way through the food chain and eventually into fish.

Health impacts of trout and other species

Fish can survive this level of infection with little to no impact to their health. Catch of fish with worms in them is a good example of this, as these fish were actively feeding and exhibiting normal behaviour. It is possible that a fish in already weakened condition (e.g., older fish or post-spawning migrants that are just returning to the lake) could be impacted by a heavy worm infestation. The same principles apply to the health of other fish-eating birds or mammals.

Parasitology studies indicate that it is unfavourable for a parasite to kill or significantly harm the host. If a parasite reduces the host’s health or kills the host, the parasite will also suffer or die. Harmful parasites will typically not persist and will not pass on the behaviour to harm their host.

Why are there more worms?

We don’t know for sure why these worms are more common at this time. We speculate that the infestation could be linked to warmer weather patterns or changes to migratory bird populations carrying the adult tapeworm.

Worm densities fluctuate. Although more trout appear to be affected by these parasites now than in the recent past, some anglers and retired fish biologists recall relatively high levels of worms in the 1960s as well as between 2006-2009.

There is no practical way of controlling parasites in fish populations, but reductions should occur naturally over time. They may be hastened by factors such as colder winters or fluctuations in fish abundance. For anglers, the key consideration is care in the preparation of your catch prior to consumption.

Worms and fish consumption

The broad fish tapeworm reaches adult maturity in the intestinal tract of mammals and birds, commonly growing to lengths between one and two metres (three to seven feet). People can be affected if they eat improperly prepared fish.

To protect yourself and others:

- **Cook your catch to an internal temperature of at least 70°C to kill the parasites.**
- Freezing to -20°C for 7 days or -35°C for 15 hours is another option. It’s important to check your freezer temperature rating beforehand as most home freezers do not reach these low temperatures.
- Wash your hands well after handling fish.
- Clean and sanitize contact surfaces with hot soapy water, followed by a solution of 1 part bleach to 10 parts water.
- Do not feed infected raw fish to pets.

For further information contact the Ministry of Forests, Resource Management section, at 250-354-6333.