

Red Worm

(*Eustrongylides sp.*)



Each year the Vermont Fish & Wildlife Department receives several reports of large red-colored worms found in fish, particularly yellow perch. This worm is a nematode species termed "*Eustrongylides sp.*" and is a fairly common parasite in Vermont.



Tom Jones - VT F&W

Cysts containing *Eustrongylides sp. larva* found in a Pumpkinseed from Baker Pond Northfield, VT.

VERMONT FISH HEALTH FACT SHEET

Physical Description

The worms are red in color, usually 2 to 2 ½ inches long and are most often found coiled up in tissue capsules in the fish's body cavity. They also can be found in the vital organs and the flesh of the fish.

Life Cycle

This parasite has a complex life cycle. The adult stage of the worms are found in various fish-eating bird species such as, but not limited to: mergansers, great blue herons and cormorants.

Eggs are shed in the feces of infected birds and are then eaten by small aquatic animals such as aquatic worms. The egg membranes are digested away, releasing the larva. Minnows and small fish eat the infected aquatic worm, which are in turn eaten by fish-eating birds. Predatory fish, which consume infected fish, can also serve as a transport host when fed upon by birds. Once

eaten by a fish eating bird, the larva quickly become mature and start to shed eggs to complete their life cycle.

Threat to Fish

This parasite can cause problems for fish particularly when the worms become too numerous in the fish's alimentary tract. The worms may also wander and damage various body organs. These infections can produce anemia, emaciation and general reduced vitality of the fish. It is known that high nutrient waters and warm water temperatures create optimal conditions for the parasite and fish infection rates are higher under these conditions. Thus, it is important to prevent external pollution and maintain good water quality.

Threat to Humans

Although rare, there have been cases of transmission of this parasite to humans. These cases demonstrate the need for

thorough cooking fish prior to consumption.

In Lake Erie, anglers have reported these parasites particularly in yellow perch. Although the parasites are most common in the fish's body cavity, anglers while dressing their catch will find the worms burrowed into the fish's flesh, making it unfit to consume.

Lake Erie researchers have reported as long as the temperature stays below 62 degrees Fahrenheit, the parasites will remain coiled in the body cavity. When temperatures exceed 62 F. the parasites begin to borrow out of the cavity and into the musculature.

They recommend the best way to prevent parasites from being found in the muscle tissue is to ice your catch immediately.

Generally, immediately icing fish will prevent bacterial action and will produce firm tasty flesh.

VERMONT FISH & WILDLIFE DEPARTMENT

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