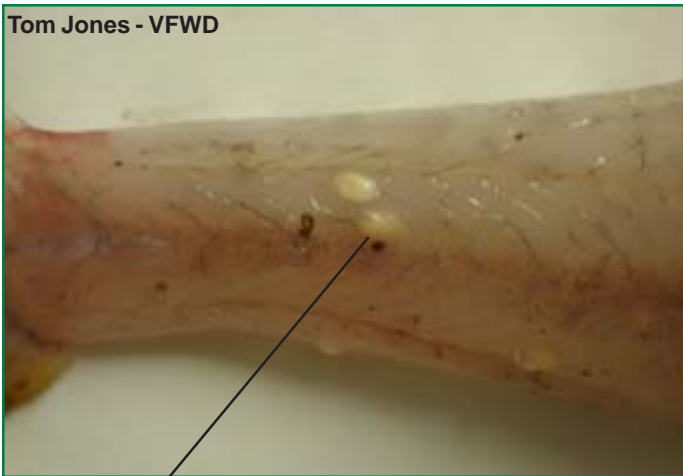


Tom Jones - VFWD



Yellow grub on a yellow perch from Lake Champlain

Yellow Grub

Yellow grub (*Clinostomum marginatum*) is a very common fish parasite found in many of Vermont's fishes. The life cycle of this parasite is very complex. The great blue heron and the presence of aquatic snails are essential to its life cycle.



VERMONT FISH HEALTH FACT SHEET

Physical Description

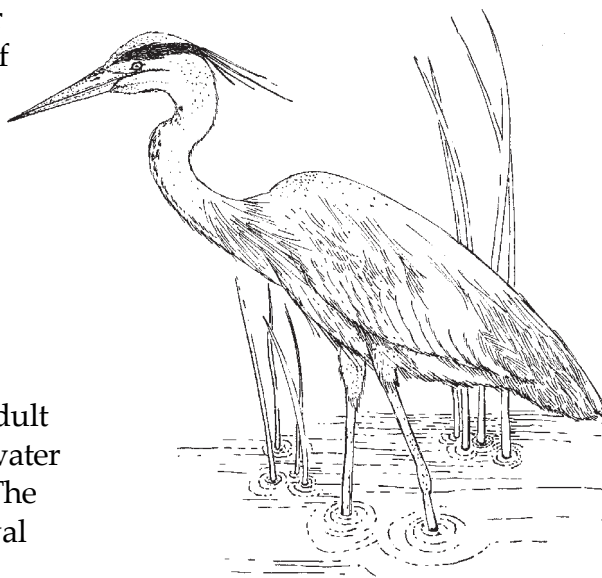
Yellow grub may be seen immediately beneath the skin, in muscle tissue, and often near the bases of fins. Other internal organs may be invaded as well. The cyst is usually no larger than 1/8 inch in diameter. If the cyst is broken open, a yellowish or whitish parasite will be found.

Life Cycle

The life cycle begins in the great blue heron, where the adult stage of the parasite develops. The eggs of the adult worm are deposited in the water with the bird's droppings. The eggs hatch into the first larval stage, or "miracidia". The miracidia then attack the first

intermediate host, a snail. The parasite goes through several larval stages while living in the snail. It finally develops into a larval stage called "cercariae" which leave the snail and attach

themselves to a fish. The infected fish then has to be eaten by a fish-eating bird to complete its life cycle. The grubs can live for four years in individual fish.



GREAT BLUE HERON

Threat to Fish

Heavy infections can kill fish but usually the parasites have minimal overall effect on reproduction, growth and survival of fish. There is no practical control of this parasite in the natural environment.

Threat to Humans

These parasites can be very unsightly but they do not infect humans. Thoroughly cooking fish kills the parasite.

VERMONT FISH & WILDLIFE DEPARTMENT

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