



Adult tapeworm removed from salmon intestine



## Cestodes (Tapeworms)

Cestodes are found worldwide and found in many species of fish in Vermont.

# VERMONT FISH HEALTH FACT SHEET

### Physical Description

Adult cestodes can be easily found in the fish's intestines and pyloric caeca. They are usually yellow to white in color and are often segmented. The larval forms are found in the musculature and visceral organs. Generally, the larval forms are not as detectable as the adult stage.

### Life Cycle

One common cestode in Vermont is the bass tapeworm, *Proteocephalus ambloplitis*. The adult tapeworm lives in the intestines of largemouth and smallmouth bass. Segments, which contain eggs, are released along with fish's feces. Eggs are released and eaten by small microscopic organisms called

copepods. Inside the copepods the eggs hatch and further develop. The copepods are eaten by small fish. Once in the fish, the larvae bore through the intestinal wall and encyst in visceral organs and the body cavity. Bass then consume infected fish and the adult tapeworms develop in the fish's intestine, completing the life cycle.

Another example is *Dihyllobothrium dendriticum* (Salmon tapeworm), which is documented in Atlantic salmon and possibly other species of fish. The life cycle is similar to the bass tapeworm but the adult tapeworm also can be found in dogs, cats, birds, bears, and other animals. Humans also may become infected.

### Threat to Fish

Presence of cestodes in fish is seldom destructive to fish unless large numbers of the larval forms are present causing tissue and organ damage.

### Threat to Humans

Because of the potential of human infection, thoroughly cooking fish is always recommended.



Cysts on stomach of fish--cysts contain immature larvae.

# VERMONT FISH & WILDLIFE DEPARTMENT

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