



Black Spot (Black Grub)



Black spot (Black grub) is a very common fish parasite found in Vermont's streams, rivers, ponds and lakes. The life cycle is very complex. Fish-eating birds, and the presence of aquatic snails are essential to the life cycle of this parasite.

VERMONT FISH HEALTH FACT SHEET

Physical Description

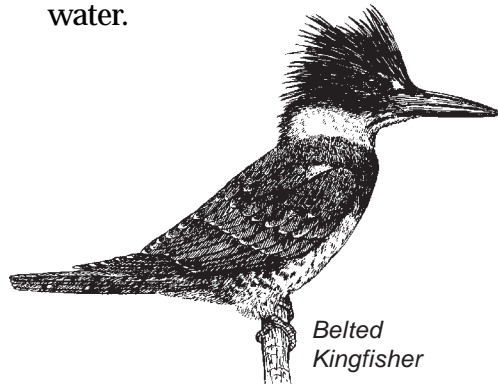
There are many different species of black spot. Most species have a specific location where they are found on or in fish.

Crassiphiala bulboglossa is just one species characterized by darkly pigmented spots about the size of a pinhead. This species may be evident on or just under the scales of many freshwater fishes. *Uvulifer ambloplitis* is another common species found in the muscle tissue of certain species of fish.

Life Cycle

The life cycle begins in birds that eat fish, such as the belted kingfisher, where the adult stage of this parasite develops. The eggs from the adult parasite

are passed out of the bird with its feces and are deposited in the water.



Belted
Kingfisher

The eggs then hatch into the first larval stage, at which time they are referred to as "miracidium". The miracidium 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 leaves the snail and penetrates the skin of a fish. The infected fish then has to be eaten by a fish-eating bird to complete the life cycle. The grubs can live for four years in individual fish.

Threat to Fish

Heavy infections can kill fish but usually the parasites have a 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 the parasites do not infect humans. Thoroughly cooking fish kills the parasite.

VERMONT FISH & WILDLIFE DEPARTMENT

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