

## Fish Parasites

We receive many inquiries from people who have seen or caught fish which have black spots or yellowish bumps on their fins and in their flesh. More often than not their first reaction to these diseased fish is to wonder if they are fit to eat and then throw them away. A fish that is properly cleaned and cooked cannot transmit any parasite or disease to people who eat the fish.

The most commonly observed parasites of fish are tapeworms, yellow grubs, white grubs, and black spots. In all these cases the parasite goes through a complex life cycle and undergoes physical changes within a variety of organisms called hosts. Most fish have parasites and they seldom affect the well being of the fish except under unusual conditions. Because most parasites have complex life cycles, attempts to control them are usually futile and unnecessary except in hatchery or fish farming situations.

Black spot is caused by a parasite called a fluke which burrows into the skin of fish. The black pigment (about pinhead size) forms in the tissue surrounding the fluke and is a reaction of the fish caused by the parasite. The fluke itself is actually a whitish color. The life cycle of the parasite is quite complex. A fish-eating bird (typically a kingfisher) eats an infected fish. The black spot or worms are released and grow to sexual maturity in the bird's intestine. The adult flatworms pass eggs with the bird's droppings. When the eggs reach water, they hatch into free-swimming organisms which then penetrate snails for further development. Finally, after leaving the snails they burrow into the skin of fish and form a cyst. If an infected fish is consumed by a bird, the cycle repeats itself. Since redear sunfish eat snails, the addition of redear to the pond might help control the parasite by reducing the number of snails which are one part of the life cycle.

This organism does little harm to the fish. The main problem associated with black-spot is the unsightly appearance it may cause. Skinning infected fish will remove most black spots.

Here are some web sites with information about this interesting little parasite.

[http://www.biokids.umich.edu/critters/information/Uvulifer\\_ambloplitis.html](http://www.biokids.umich.edu/critters/information/Uvulifer_ambloplitis.html)

<http://www.in.gov/dnr/fishwild/publications/fsmgt/disease.htm>