

## Fish Parasites and Diseases

It's normal for pond fish to have parasites such as grubs, or worms on or in the skin, attached to the gills, within the gut, or embedded in the flesh. No fish parasites in Michigan pose a threat to human health if the fish is cooked thoroughly before being eaten. Neither should the parasites affect flavor of the fish. The sight of them may be unappetizing, but few of the many fish parasites are detected by most people during cleaning, cooking and eating.

Parasites may be especially numerous on fish that live in shallow, weedy ponds. Fish from

deep ponds with few weeds generally have fewer parasites. Many of the parasites that infest fish live part of their lives in host animals, such as clams and snails, that dwell in shallow water or on plants. Because there are so many kinds of these intermediate hosts, it's impractical to try to control fish parasites in most ponds—other than by making the pond deeper and less weedy.

Some of the more common kinds of fish parasites are: threadworms, spiny-headed worms, tapeworms, anchorworms, flukes, fish lice or gill lice, leeches, lamprey, and various microscopic organisms. The

**Table 12-1. Common Fish Diseases and Their Symptoms**

Name of disease (and fishes affected)	Causative agent	Symptoms
Skin fungus or water mold (all fishes)	Saprolegnia fungus (often results from injury to skin)	Tufted growths of fine white or gray threads radiating 1/3 inch or more from body.
Columnaris (all fishes)	<i>Chondrococcus columnaris</i> bacterium	Grayish-white spots surrounded by red on parts of head, gills, fins or body.
Red sore (northern pike)	<i>Aeromonas liquefaciens</i> bacterium	Open bleeding sores from which scales are lost.
Furunculosis (trout and salmon)	<i>Aeromonas salmonicida</i> bacterium	Boils or furuncles on skin, inflammation of inner body walls, many small internal hemorrhages, bright red spleen and swollen kidneys.
Black spot or black grub (mostly warmwater fishes*)	strigeoid trematodes	Small black spots just under skin and in muscle. These are cysts containing a microscopic stage of this fluke.
"Ich" or white spot (mostly warmwater fishes)	<i>Ichthyophthirius multifiliis</i> protozoan	Tiny white spots on body.
Lymphocystis (perch, walleye, sunfishes)	a virus	Raised nodular masses of light-colored tissue resembling warts on skin.
Tumors and other deformities (all fishes)	Injuries, dietary problems, genetic causes, etc.	External and internal tumors of various sorts, spinal deformities, shortened or flattened heads.

\*Also trout where the water is unfavorably warm.

