

Found Externally

1. Fish popeyed; scales puffed with fluid (dropsy). Bloody wounds; blood under scales.



Various Bacteria (such as *Aeromonas* sp.*). Commonly found in water, *Aeromonas* normally does not infect fish; unless they have undergone some stress. Fish with severe popeye or dropsy probably will not bite, but can be seen dead or in distress along the shore. In some cases, open bloody wounds can result from the bacterial infection. **Edible, if wound is superficial; remove infected tissues and cook well. If popeye is indicated, destroy fish.**

2. Red pustule on or near base of fins; thread-like body may protrude from the wound.



Anchor Worm (*Lernaea* sp.). This copepod buries only its anchor-shaped head into a fish's flesh. The remaining portion will hang free from the wound, where a red inflamed pustule may form. This parasite may drop off, leaving only the inflamed area. **Edible. Removed inflamed area; clean and prepare as usual.**

3. Bloody area on body under the scales.



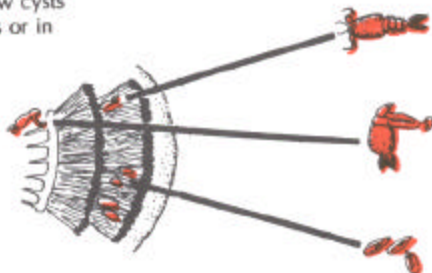
Fish Louse (*Argulus* sp.). This rarely seen copepod leaves a fish soon after it's removed from the water. It feeds on the blood by piercing the skin, destroying the protective mucous coat in the process. Thus, secondary infection from bacteria or fungus can result. **Edible. Clean and prepare as usual.**

4. Tiny mobile white spots on the skin.



Ich (*Ichthyophthirius* sp.). The most common protozoan encountered by fishermen, Ich appears as mobile white spots or clusters on the skin or gills. It burrows under the skin and may cause surface lesions. Individuals can be seen with a magnifying glass. **Edible. Clean and prepare as usual.**

5. White or yellow cysts or sacs on gills or in mouth.



A. (*Ergasilus* sp.). When numerous, these copepods can kill young fish. Their presence is indicated by V-shaped white egg sacs on the inner edges of the gills. **Edible. Clean and prepare as usual.**

B. (*Achtheres* sp.). Larger than *Ergasilus*, this copepod attaches itself in the mouth or to the inner surface of the gills. *Achtheres* has a short plump body with armlike appendages that cling to the fish. **Edible. Clean and prepare as usual.**

C. **Yellow Grub** (*Clinostomum* sp.). This larval fluke forms cream-colored cysts on the gills and under the skin in the mouth. It can easily be seen with a magnifying glass if cyst is broken. **Edible. Clean and prepare as usual.**

6. White pustules under skin or scales.



(**Myxosporidia**). The white cysts created by Myxosporidia hold thousands of the microscopic protozoans. While certain species cause some important diseases in fish, none have been found in Nebraska. **Edible. Clean and prepare.**

7. Patches of fuzzy grey-white mat on body and gills.



Water Fungus (*Saprolegnia* sp.). Usually found on fish injured by improper handling or other cause. When established, Water Fungus can kill a fish by completely covering it. **Edible. Skin fish; remove infected area and adjacent flesh; prepare as usual.**

8. Grey-white slime on the skin.



Columnaris Disease (*Condrococcus columnaris*). This bacterial infection may be found on catfish, trout, and possibly other species. Frayed fins and bloody wounds are other indicators. **Edible. Clean and prepare as usual.**

9. Black spots under the skin or in the flesh.



Black Spot (*Neascus* sp.). The easiest disease to recognize, Black Spot is caused by larval flukes burrowing under the skin. Appearing as small round black spots, the cysts may also be found in the flesh. **Edible. Skin and prepare as usual.**

10. Eye deformed; fish apparently blind.



Eye Fluke (*Diplostomulum* sp.). These tiny larval flukes will not be seen. They live in the fluid of the eye and eventually cause blindness. Eye may be opaque or shrunken. **Edible. Clean and prepare as usual.**

* sp. = species