

4.1 General Procedures for Mycology

Tom A. Bailey

U. S. Environmental Protection Agency
401 M. Street SWH7507 C
Washington, DC 20460

A. External Infections

Many fungal infections are quite visible to the naked eye. All body surfaces and gills should be examined carefully for the presence of "tufts," nodules, or other epithelial lesions indicative of the presence of fungi.

Wet mounts should be prepared not only from lesions but also from mucus scraped from the surface of the fish. The specimen should be examined microscopically at 10X, 100X and 500X magnification for the detection and identification of mycoses.

B. Internal Infection

After the fish has been opened and bacteriological samples collected, examine all organs carefully for the presence of cysts, nodules, or unusual appearance. The gills, brain, viscera, and kidney should be examined with a hand lens or dissecting microscope for the presence of fungi and associated lesions. Wet mount preparations should be made of all the above tissues as well as the air bladder and the contents of the stomach and intestine. Microscopic examinations should be made on all the wet mounts from 10X to 500X. Histopathology may be necessary to detect mycosis in some instances, i.e. *Phoma sp.*

C. Procedures for Killing and Preserving Fungi

Killing and preservation in 10% formalin or lactophenol are adequate if further study is needed.

D. Staining, Processing, and Mounting of Specimens for Study

See Section 1, 3.1.1 General Procedures for Parasitology.