
Fish Mycosis

Relatively few genera and species of fungi are known to cause disease in fishes. Most epizootics of fish mycosis are usually facilitated by poor environmental conditions, malnutrition or primary disease.

This selection is going to discuss the most common mycotic diseases of fish as examples to demonstrate the complexity of fungal pathogens, how parasitic fungi cause diseases in the host and what may be done to reduce the effects on the host.

Facts about Fungi:

- **Fungi are belonging to the plant kingdom.**
- **Fungi are two major types, Sabrobes, those that live on dead organic mater, and Parasites, that live on living organisms.**
- **Many sabrobes are facultative parasites as well as many parasites are facultative sabrobes but all are heterotrophic organisms, (ie. Need organic matter for their growth and reproduction).**
- **Some are made up one cell (yeast), while others are made up many cells joined together into long filament (hyphae) forming masses of hypha that may be septated or aseptated and called mycellia.**
- **Fungi reproduction is either by Asexual (Budding e.g. yeast, fragmentation of the hypha, spore formation e.g. sporangia or conidiospore), or Sexual (usually occurred in unfavorable conditions) to produce resting or encysted spores.**
- **Resting spores are resistant to dryness, heat, disinfectants, and the defense mechanism of the host and when the conditions become favorable they become infective stages in the most cases of parasitic or facultative parasitic fungi.**
- **Most epizootics of mycotic origin in aquatic animals are facilitated by poor environmental conditions, trauma, malnutrition and / or primary disease (parasitic, bacterialetc).**

Classification of selected fungi in fish mycosis

Phycomycetes	Imperfecti	Uncertain class
<ul style="list-style-type: none">• <i>Saprolegnia</i> spp.• <i>Achlya</i> spp.• <i>Aphanomyces</i> spp.• <i>Ichthyophonus</i> spp.• <i>Dermocystidium</i> spp.	<ul style="list-style-type: none">• <i>Phoma herbarum</i>• <i>Scolecobasidium hunicola</i>• <i>Fusarium Culmorum</i>• <i>Candida albicans</i>• <i>Asperigillus</i> spp.	<ul style="list-style-type: none">• <i>Branchiomyces</i> Spp.• <i>Mucophilus cyprini</i>

Herein, three prevalent mycotic fish diseases will be discussed.