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بالرسالة صفحات لم ترد بالاصل

STUDIES ON SAPROLEGNIOSIS IN CULTURED TILAPIA

By

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(B. V. SC. Suez Canal University, 1993).

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APPROVAL SHEET

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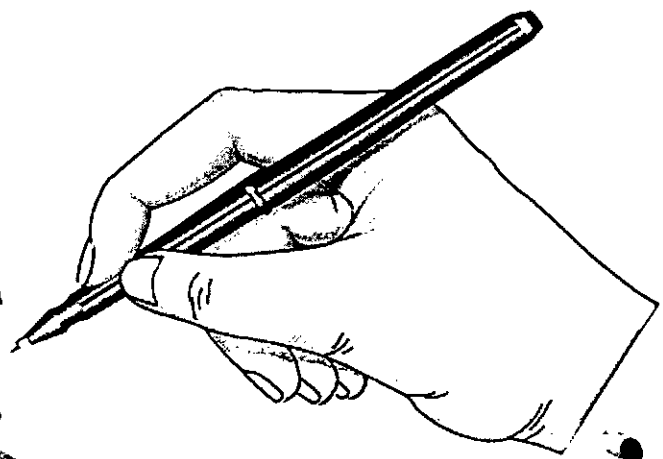

INTRODUCTION

Fish is one of the man's oldest and most important food source due to its high protein content. The protein of fish origin is of high biological value for human being, so it is very essential for growth and maintenance of vital function. Moreover, certain localities of the world depend mainly on the fish as a source of animal protein, so it would be wise economically to cultivate this important source of protein to meet the dietary need of the expanding population.

The fish culturing, especially the intensive farms, acts as predisposing for appearance and spreading of many fish diseases. Diseases of fish can be identified as a departure from typical normal state of health of a fish. Likewise, disease is any phenomenon which causes a population to be abnormal or disadvantaged.

Disease is not a simple result of contact between host and pathogens, it is a complex interaction between host, pathogen and environment ***(Snieszko, 1974).*** Environment is the most important and unstable of these factors and its importance is intensified by the presence of potential pathogens that commonly exist in the water.

Mycotic infections may contribute to heavy mortalities among fish up to 100% ***(Scott and O'Bier, 1962; Richard and Pickering, 1979).***

Primary saprolegniosis has been reported in several fish species including cultured eels ***(Hoshina et al., 1960)***, brown trout ***(Neish, 1977)*** and the Mexican platy fish ***(Vishniac and Nigrelli, 1957).*** Such infections are common in freshwater fishes under both hatchery and natural conditions either with or without a recognizable stress factor. The most common and important mycotic infection is *saprolegniosis* which caused by the oomycetes in association with the predisposing factor such as low water temperature, overcrowding, water pollution, injury of fish and failure to remove dead fishes ***(Roth, 1972).*** Saprolegnia fungi can act as lethal primary pathogen ***(Neish and Hugbes, 1980)*** or secondary to primary bacterial infection or parasitic infestation ***(Willoughby and Robert, 1992).***

Saprolegniosis possesses potential threat to fish production leading to economical losses therefore, the present work was planned to study the following:

- The prevalence of saprolegniosis with regard to seasonal variation.
- The clinical signs and postmortem findings of naturally infected fish.
- Isolation and identification of the causative organism(s).
- Histopathological alterations in the affected organs.
- Experimental infection with *Saprolegnia spp.* among healthy fish to identify the pathogenicity and the condition that promote the outbreak of the disease.