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Gills rot disease of freshwater fish *Labeo rohita* from gharni reservoir, Latur district (M.S.) India

Pathan AV

Department of Zoology, Azad College, Ausa- 413520, Maharashtra, India.
Email: seemakordekedare@gmail.com | khanamjed777@gmail.com

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ABSTRACT

Gill rot disease of fish is a bacterial disease. Almost all species of *Labeo rohita* get infected by this disease. Generally polluted water causes this fish disease. In polluted aquatic environment food and oxygen supply stops in the external part of gill and causes this fish diseases. The symptoms and treatment of gill rot disease is gill of the fish get swelled Blood coagulated in the gill and rot later. The gill becomes discolored gradually. The affected fish float over the water.

Key words: *Labeo rohita*, Gills rot, Gharni Reservoir,

INTRODUCTION

Fishes are important components of ecosystem from ecological, medicinal, nutritional and economical point of view. They live in almost all conceivable aquatic habitats. Fishes are important dependable source of animal protein for millions of people throughout the world (FAO, 1997), particularly in the developing and underdeveloped countries. In India, fish has got special importance among the daily food items. It also contains variable quantities of calcium, phosphate, fat and other nutrient important for human health and growth. Fish is an excellent delicious food which is nutritionally equivalent to meat in protein, low saturated fats and high in essential minerals. This protein is relatively of high digestibility, biological and growth promoting value for human consumption.

MATERIALS AND METHODS

Study area

It is situated in the south-eastern part of the Maharashtra State on the Maharashtra - Karnataka boundary. The district has a geographical area of 7157 sq. km. The entire district of Latur is situated on the Balaghat plateau, 540 to 638 meters from the mean sea level. The study will be conducted in different localities of Latur District, Maharashtra State, India.

Collection of host fish species:
The freshwater fishes were collected from different localities of Latur. The hosts were caught randomly for every month, usually during daytime and some at night and noted down their taxonomic data properly. Some of them were also obtained from local animal suppliers and then brought to the laboratory. The meristic and morphometric characters of fishes were measured and fishes were identified up to species level using standard keys and books.

Preparation of slides of histopathological studies:
For histopatological investigations, small fragments from the anterior, middle and posterior parts of infected gills were used. Best slides or sections were selected and observed under the microscope for histopathological study.

RESULTS

In the present investigation the samples of fishes collected within the infected specimen the gill of the fish get swelled, Blood coagulated in the gill and showing rot and the gill discolored. The collected specimen of fishes which were affected with gill rot found floating over the water as shown in Fig. 1 B. the architecture of gills were changed. It was seen that affected fish suffers by dyspnoea and die by choke. The head of fish become blackish colored. Gill of the fish covered by excessive mucous material.

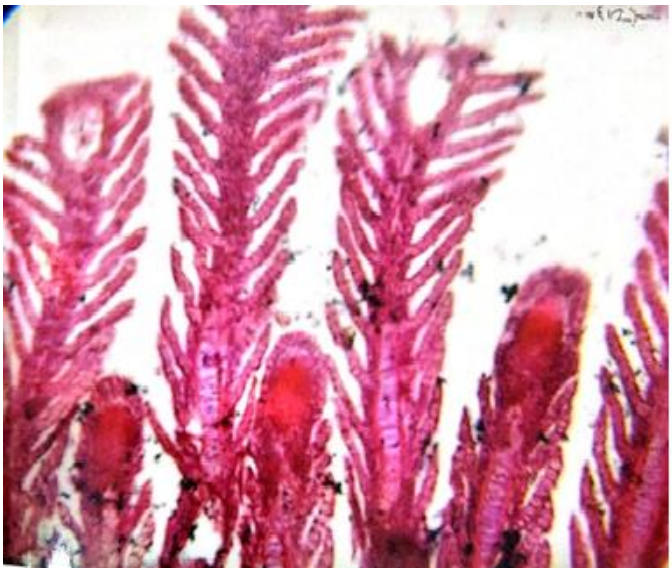
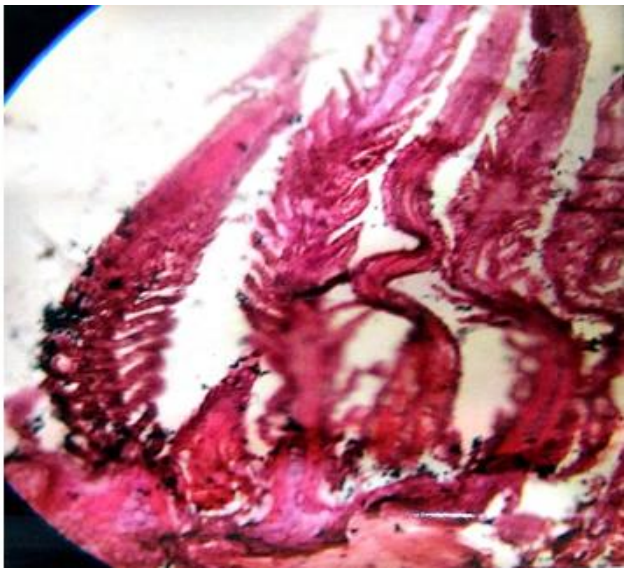


Fig. 1 A. Showing normal gills



B. Showing degradation of gill tissues

DISCUSSION

Maintenance of a high quality environment is of utmost importance in the prevention of bacterial gill disease. According to Wood (1974), fish should be reared in a system with no reuse of water until they reach a size of at least 100 fish/lb. Population level should be kept at lowest feasible levels to reduce the effects of crowding. The application of good sanitation practices is important. Clean ponds provided with an adequate flow of clean water coupled with prompt removal of dead or weak fish will reduce incidence of the disease.

CONCLUSION

Insufficient information of many of the most common parasites greatly handicaps the efforts at their possible control. It may be emphasized that ichthyo-parasitological investigations must be carried out in all cultural ponds, reservoirs, river systems, and large lakes.. For successful prevention and elimination of such infections it is extremely important to achieve early and correct diagnosis of the parasites. As such, pisciculture intensification requires prerequisites.

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