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Studies on Monogenetic trematodes in freshwater fish with special reference to their control.

Thesis Presented By

Mohammed Said Ahmed El-Gohary

(B.V.Sc Alexandria University, 1992)

University of Alexandria
Faculty Of Veterinary Medicine
Department Of Avian and Aquatic
Medicine

For the degree of

MASTER OF VETRINARY MEDICAL SCIENCES

(Fish Diseases and Hygiene)

Under The Supervision Of: -

Dr. M.K. Soliman

Professor of Fish Diseases and Hygiene

Head of Dept. of Avian and Aquatic Animal Medicine.

Faculty of Vet. Medicine, Alexandria University.

Dr. Abd-El-Gaud R. Shakshauk

Professor of Poultry Diseases

Dept. of Avian and Aquatic Animal Medicine. Faculty of Vet. Medicine, Alexandria University.

Dr. Viola H.Z.

Lecturer of Fish Diseases and Hygiene

Dept. of Avian and Aquatic Animal Medicine. Faculty of Vet. Medicine, Mansoura University.

Dr. T.M. Abd-El-Wahab

Senior Researcher of Parasitology.

Animal Health Research Institute (Kafr-El-Sheikh Branch)

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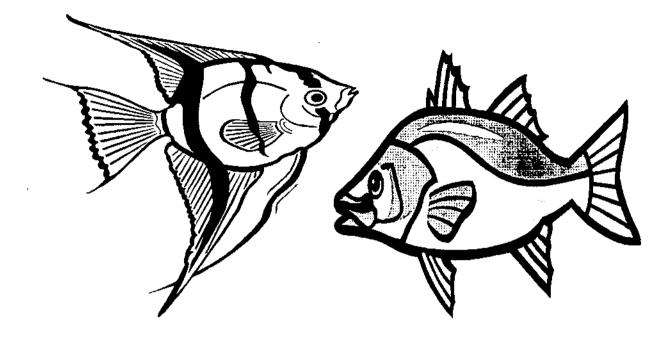
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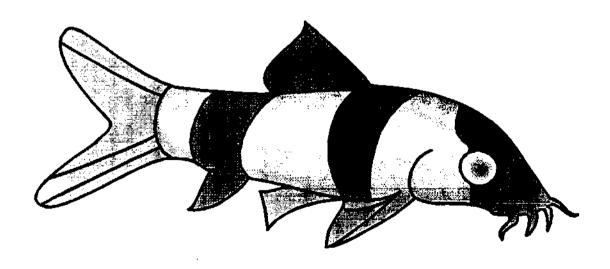
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IMMODUCTION



Introduction

Fish protein is considered as one of the most promising source of protein and trace elements to overcome the problem of limited abilities of animal production especially in regard to fact that man can easily digest 93.2%, 93.8% of fish protein and fat respectively (Norman, 1951). So, the parasitic disease outbreaks in freshwater fish especially are becoming a serious problem recorded in many countries. From that parasitic diseases, the monogenetic trematodes act as ectoparasitic infestation of freshwater fish.

The monogenea are platyhelminths parasitic primarily on fresh water and marine water fish (Bychowsky, 1957 and Malmberg & Fernholm, 1989).

Most of *monogenea* are ectoparasites on specific sites of the host such as the head, flanks, fins, surface of the nasal epithelium and on the branchial arches.

At least, three lineages of the monogenetic trematodes have adopted an endoparasitic life, acolpenteron spp. and kritskyia spp. occurred in the urinary ducts and bladder (Fischthal and Allison, 1942; Kohn, 1990) and enterogyrus spp. attached to the wall of the forgut (Cone et al, 1987).

In Egyptian aquaculture, many authors recorded monogenean infestations rates in different fish species at

different areas, Alyian et al, (1985) found that 3-66% of examined tilapia were infested with Cichlidogyrus and 40% of catfish were infested with Quadriacanthus, whereas Shalaby and Ibrahim (1988) found that 21% of diseased Oreochromis niloticus suffered from respiratory manifestation were infested with Cichlidogyrus lubicirrus magnus.

Recently, *El-Gwady et al, (1992)* recorded 7% infestation rate for *Gyrodactyliasis* and 13% for cichlidogyriasis among examined *Oreochromis niloticus* in Ismalia Governorates.

The objective of this study was to:

- Determination of the seasonal prevalence of monogenetic trematode infestation among freshwater fish.
- 2. Ultrastructure changes of the gills induced by monogenea.
- 3. Treatment trials for infested freshwater *Oreochromis* niloticus using different chemical reagents

