شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائق الاصلية تالفة

بالرسالة صفحات لم ترد بالاصل

STUDIES ON SOME TISSUE PARASITES IN FISH

THESIS PRESENTED

M. A. El-Seify

BY

Ahmed Mohamed Ibrahem Abd El-Aal
B.V.SC. Zagazig University (1986)
M.V.SC. Tanta University (1996)

For

Ph.D. Degree in Vet. Medical Sciences.
(Parasitology)

Under the supervision of

Dr. Mahmoud A. El-Seify
Professor and chairman of parasitology department
and Dean of Faculty of vet. Medicine
Tanta University (Kafr El-sheikh)

Dr. Salah A. Abu-El Wafa
Professor and Chairman of Parasitology Dept.
Faculty of vet. Medicine
Mansoura University

Dr. Nashaat A. Mahmoud
Head Researcher
Fish Diseases Department
Animal Health Research Institute, Dokki

To

Department of Parasitology
Faculty of Vet. Medicine
Tanta University
Kafr El-Sheikh

2002

TANTA UNIVERSITY
FACULTY OF VET.MEDICINE
KAFR EL.SHEIKH
DEPARTMENT OF PARASITOLOGY

جامعة طنطا. فرع كفر الشيخ
كلية الطب البيطرى
قسم الطفيليات

Approval Sheet

This to approve that the dissertation presented by: **Ahmed Mohamed Ibrahem Abd El-Aal** to Tanta University entiteled "**Studies on some tissue parasites in fish**" for the degree of Ph. D.V.Sc. has been approved by the examination committee .

Committee members — *Signature*

- **Prof. D. Ismail Mehrez Ibrahim Shalaby**
Professor of panasitology & Chairman of Zoology Dept.
Faculty of Sciences
Suez Canal University

- **Prof. Dr. Ahmed S.H.Nassar**
Professor of Parasitology .
Faculty of Veterinary Medicine
Cairo University

A.M. Nassar

- **Prof. Dr. Mahmoud A.El-Seify**
Professor & Chairman of Parasitology Dept.
And Dean of Faculty of Veterinary Medicine
(Kafr El-sheikh) Tanta University *(Supervisor)*

M.A. El-Seify
14/8/2002

- **Prof. Dr. Salah A.O. Abu El-Wafa**
Professor & Chairman of Parasitology Dept.
Faculty of Veterinary Medicine
Mansoura University *(Supervisor)*

Abu Elwafa
14/8/2002

Date : **14/8/2002**

☎: ٢٣٤٧٨٠ - ٢٣١٦٠٩ - ٢٣١٦١١ (٠٤٧) فاكس : ٢٣١٣١١ (٠٤٧) الرقم البريدى: ٣٣٥١٦
☎: 047/234780 – 231609 – 231311 Fax : 047/231311 No.Post:33516

بســـم الله الرحمن الرحيم

﴿ قَالوا سُبْحَانَك لاعِلْم لَنَا إلاَّ مَا عَلمْتَنَا
إنَّكَ أَنْتَ العَلِيم الحَكِيم ﴾

صدق الله العظيم

سورة البقرة آية : (٣٢)

ACKNOWLEDGMENT

I wish to express my thanks and gratitude to **Prof. Dr. Mahmoud A. El-Siefy** professor and Chairman of Parasitology Department and Dean of Faculty of Veterinary Medicine , Tanta University (Kafr El-Sheikh), for his valuable help , guidance , encouragement , supervision and many facilities he gives through the course of this study .

Sincere thanks and special appreciation are due to **Prof. Dr. Salah A. Abu-El Wafa** professor and Chairman of Parasitology Department , Faculty of Veterinary Medicine , Mansoura University , for his supervision , Cooperation , valuable suggestions and guidance which have helped me greatly in this study .

Thanks are also extended to **Prof. Dr. Nashaat A. Mahmoud** Senior Researcher, Fish disease department, Animal Health Research Institute, Dokki, for his kind supervision, helpful advise and encouragement during this study .

I would like to express my deepest thanks to all the stuff members of parasitology Department, Faculty of Veterinary Medicine, Tanta University (Kafr El-Sheikh) .

My greatly thanks to Dr. **Fathy Oraby,** Researcher and Head of Animal Health Research Lab., Mattroh .

My deepest thanks to all members of Animal Health Research Lab. Mattroh .

CONTENTS

INTRODUCTION

INTRODUCTION

The simple fact that about 70% of the earth surface is covered with water resources indicates the importance of nutritive materials which could be derived from the aquatic environment for human being. So, fish has been considered the solution to compensate the continuous lack of animal proteins especially in developing countries, due to its low price and high nutritional value as well as being easily digestible and palatable for human consumption .

The progress of mass fish production in fish farms was associated with various constrains of which the parasitic one constitute a major group. Instead of the great interest paid to the study of such parasitic constrains, a big deal of research work still needed to improve the objectives of fish industry both economically and as a compensation of the increased demands of animal proteins .

To date, there is an obscure information concerning tissue parasites of both freshwater and marine fishes. Although being most important, tissue parasites attracted the least attention from the concerned workers .

Tissue parasites as well as larval stages (either free or encapsulated) are more harmful parasites as they cause severe damage to the internal organs as well as musculature leading to functional damage due to the replacement of active tissues by the encysted parasites or its

larval stage. In this regard, loss of weight, reduced marketability as well as mass mortalities constitute the major aspects of economic losses among fish industry .

Therefore, this study was planned to inspect tissue parasites threatening both freshwater and marine fishes at Sharkia and Mattroh Provinces. From parasitological point of view, morphological identification using both light and electron microscope, incidence and seasonal dynamics are investigated .

REVIEW OF LITERATURE

REVIEW OF LITERATURE

1. INCIDENCE OF THE REVEALED PARASITES

1. 1. Protozoa

1. 1. 1. *Myxobolus species :*

Mandour and El-Naffar (1977) recorded that *Labeo niloticus* was infected with *Myxobolus niloticus* at infestation rate 68% at Assuit Province .

Copland (1982) mentioned that the stomach and intestine of wild eels, *Anguilla anguilla* in England considered as new organs of infection with *Myxobolus dermatobia* . The cysts were elongated , embedded throughout the depth of intestine muscle layer . He also added that the infection rate was 20% .

Imam *et al.* (1987) detected *Myxobolus species* from *Telapia zilli* at Giza province. The cysts were found in eye causing unilateral eye opacity. They also added that the infection rate was 8% and morphological details was illustrated .

Abu El- Wafa (1988) mentioned that *Myxobolus species* were found infecting both *Tilapia species* and *Clarias lazera* with an incidence of 23% and 25% respectively .He also added that the maximum infection rate was during Summer season (44%) .