





ثبكة المعلومات الجامعية





# جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأفلام قد اعدت دون آية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15-20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of 15-25c and relative humidity 20-40 %



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### "BIOLOGICAL AND TAXONOMIC STUDIES ON SOME FISH SPECIES OF THE GENUS LETHRINUS (FAMILY LETHRINIDAE) FROM THE RED SEA, EGYPT AND THE GENUS ABRAMIS (FAMILY CYPRINIDAE) FROM THE BALTIC DRAINAGE"

A THESIS

Submitted for the award of the degree of

Doctor of Philosophy

(Zoology)

Ahmed Sayed Ahmed Harabawy M.Sc.

#### Supervised by

Prof. Dr.

Imam A. A. Mekkawy
Prof. of Fish Biology and Head of
Zoology Department,
Faculty of Science, Assiut

University, Egypt Prof. Dr.

Frank Kirschbaum PHead of Department of

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Germany

Dr. Usama M. Mahmoud

Ass. Prof. in Zoology Department, Faculty of Science, Assiut university.

Zoology Department, Faculty of Science, Assiut University, Egypt. 2002 B

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## "BIOLOGICAL AND TAXONOMIC STUDIES ON SOME FISH SPECIES OF THE GENUS LETHRINUS (FAMILY LETHRINIDAE) FROM THE RED SEA, EGYPT AND THE GENUS ABRAMIS (FAMILY CYPRINIDAE) FROM THE BALTIC DRAINAGE"

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قَانُوا سَبْحَانَكَ لَا عِلْمُ لَنَا إِلَّا مَا عَلَمْتَنَا الْعَلَمْ الْحَكِيمُ أَنْتَ الْعَلِيمُ الْحَكِيمُ

رياب العظنين العظنين

(سورة البقرة الآية :٣٢)



#### APPROVAL SHEET

Name: Ahmed Sayed Ahmed Harabawy Thesis Title: "Biological and taxonomic studies on some fish species of the Genus Lethrinus (Family Lethrinidae) from the Red Sea, Egypt and the Genus Abramis (Family Cyprinidae) from the Baltic drainage" Degree: Doctor of philosophy (Zoology) **Supervisors:** 1- Prof. Dr. Imam A. A. Mekkawy Professor of Fish Biology and Head of Zoology Department, Faculty of Science, Assiut University, Egypt. 2- Prof. Dr. Frank Kirschbaum Head of Department of Biology and Ecology of Fishes, Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany 3- Dr. Usama M. Mahmoud Asst. Prof. in Zoology Department, Faculty of Science, Assiut University, Egypt **Examination committee:** External: Internal:

Prof. Dr. M. T. Ismail

Vice- dean for post Graduate

studies and Research

H H 200

To my Parents,

my honest wife,

Mervat Salah

&

My Lovely Daughters,

Asmaa,

Aliaa,

Amira & Salma