Seasonal Abundance and Taxonomic Studies on Parasites and Predators of Cotton Pests in Egypt

A Thesis

Presented to the Faculty of Science
Ain Shams University
In Partial Fulfillment for the Award of the M. Sc. Degree
(Entomology)

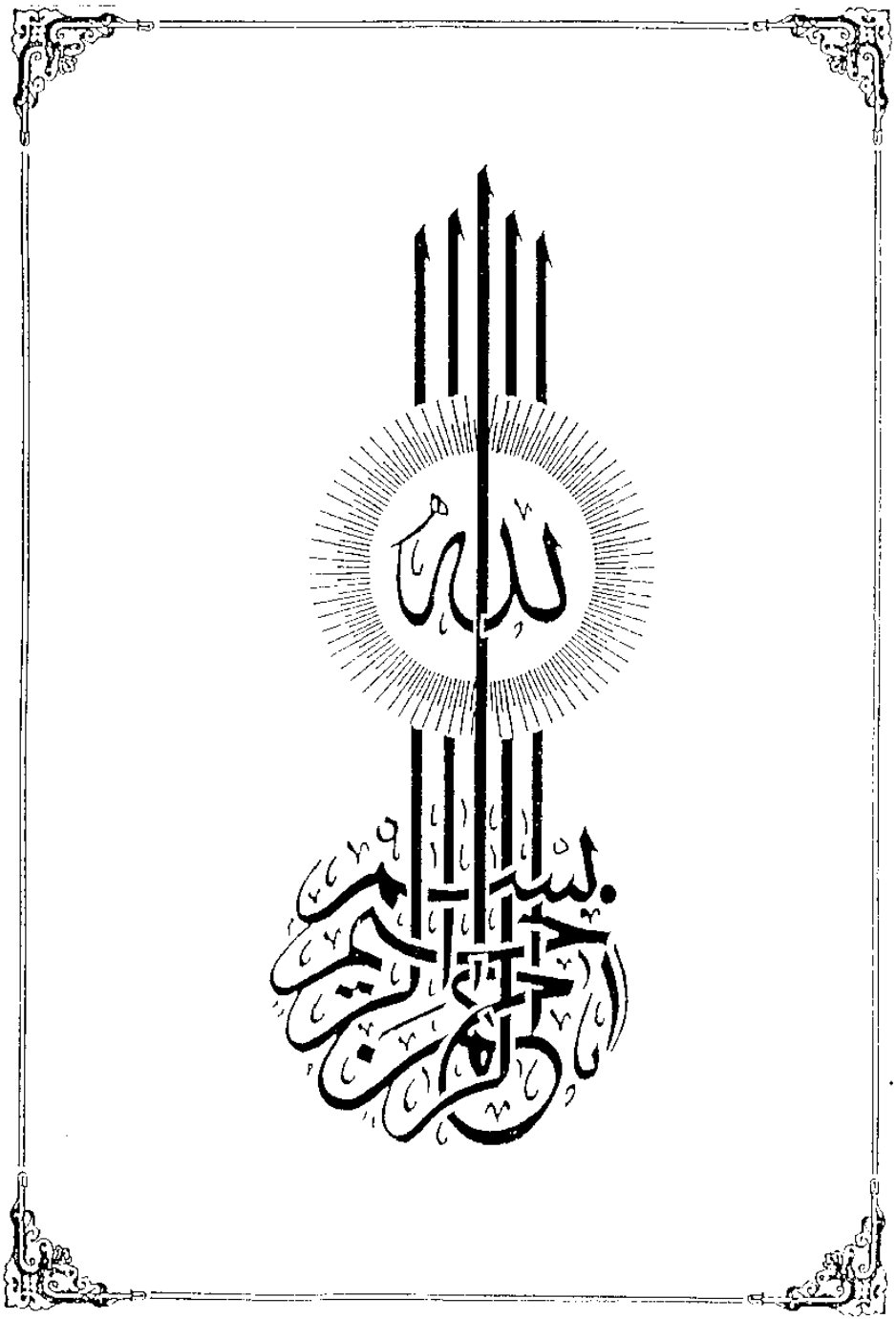
By

Hazem Abdel Raouf Abdel Kader Abdel Fadl
B. Sc. (Entomology)

Supervisors

Prof. Dr. Salwa K. Mohamed, Professor of Insect Taxonomy, Entomology Dept. Faculty of Science, Ain Shams University.
Prof. Dr. Mostafa S. Ibrahim El-Dakroury, Chief Researcher, Biological Control Research Department, Plant Protection Research Institute.
Dr. Mosaad M. Hassan, Lecturer, Entomology Dept. Faculty of Science, Ain Shams University.

Department of Entomology
Faculty of Science
Ain Shams University
1996



Seasonal abundance and Taxonomic studies on Parasites and Predators of cotton pests in Egypt

A Thesis

Presented to the Faculty of Science
Ain Shams University
In Partial Fulfilment for the Award of the M. Sc. Degree
(Entomology)

By

Hazem Abdel Raouf Abdel Kader Abuel Fadl
B. Sc. (Entomology)

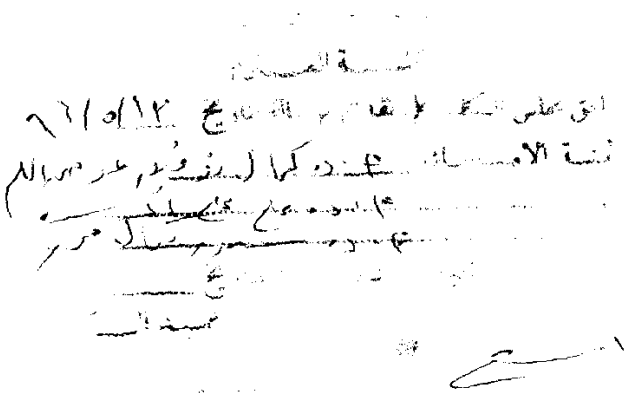
Supervisors

Prof. Dr. Salwa K. Mohamed, Professor of Insect Taxonomy, Entomology Dept. Faculty of Science, Ain Shams University.
Prof. Dr. Mostafa S. Ibrahim El-Dakroury, Chief Researcher of Biological Control Research Departement, Plant Protection Research Institute.
Dr. Mosaad M. Hassan, Lecturer, Entomology Dept. Faculty of Science, Ain Shams University.

Departement of Entomology
Faculty of Science
Ain Shams University
1996

Biography

Date and place of birth : 17 - 12 - 1964, Cairo.
Date of graduation : May, 1986.
Degree awarded : B. Sc. Entomology.
Occupation : Plant Protection Research Institute, Agriculture Reasearch Centre.
Date of Regestration : November, 1992.



COURSES STUDIED BY THE CANDIDATE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE (M. SC.) DEGREE

- Entomology courses :

1 - Insect hormones.
2 - Insect pheromones.
3 - Insect physiology.
4 - Insect taxonomy.
5 - Comparative anatomy.
6 - Population dynamics.
7 - Microtechnique.
8 - Microbial control.
9 - New approaches to insect control.
10 - Chemistry of insecticides.
11 - Pollution.
12 - Radiobiology.
13 - Cytogenetic.
14 - Histochemistry.

- Language :

English, M. Sc. course.

- Statistics.

[Examination passed on September, 1992]

Supervisors

Prof. Dr. **Salwa K. Mohamed**, Professor of Insect Taxonomy, Entomology Dept. Faculty of Science, Ain Shams University.

Prof. Dr. **Mostafa S. Ibrahim El-Dakroury**, Chief-Researcher, Biological Control Research Department, Plant Protection Research Institute, Agricultural Research Centre.

Dr. **Mosaad M. Hassan**, Lecturer, Entomology Dept. Faculty of Science, Ain Shams University.

Abstract

The survey, study of seasonal abundance and taxonomy of the parasitoids and predators of cotton pests in Egypt are the main points in this work. The survey was carried out in 14 Governorates representing Lower and Upper Egypt during cotton season 1993. Thirteen parasitoids and ten predators associated with 9 pests were collected. The seasonal abundance of ten parasitoids and twelve predators of five cotton pests were studied during 2 successive cotton seasons 1994 and 1995 in Faiyoum and Qalubiya Governorates.

Taxonomic study to all collected parasitoids and predaceous species provided with illustrated keys and diagnostic characters was made with identification of two parasite species, ***Aphelinus abdominalis*** (Dalman) and ***Aphelinus asychis*** Walker on ***Aphis gossypii*** Glover which were known only on the genus level in Egypt.

Key words : Survey, Seasonal abundance, Taxonomy, Parasitoids, Predaceous and Cotton pests in Egypt.

Acknowledgement

I am greatly indebted with thanks and appreciation to Prof. Dr. Salwa K. Mohamed; Professor of Insect Taxonomy; Faculty of Science; Ain-Shams University and Prof. Dr. Mostafa S. I. El-Dakroury; Chief Researcher, Biological Control Research Department; Plant Protection Research Institute; for suggesting the topic of the thesis, for their supervision and valuable guidance. Also I am greatly indebted with thanks to Dr. Mosaad M. Hassan,Lecturer of Entomology, Faculty of Science; Ain-Shams University for his encouragement and sharing in all the steps of this study.

Deep thanks are to Prof. Dr. Bahira M. El-Sawaf; Head of the Department of Entomology, Faculty of Science; Ain-Shams University and also to all other staff members of the Department for their valuable help.

Thanks are to all members of Biological Control Research Department; Plant Protection Research Institute; especially Prof. Dr. Fawzia A. Hassanein, Chief Researcher; for their encouragement and assistance. Thanks are to Dr. Hassan H. Fadl, Assistant Prof. of Entomology, Faculty of Science, Ain-Shams University and to Dr. Mahmoud Saleh, Researcher in Pest and Plant protection Department National Research Centre for their assistance.