ROLE OF CERTAIN ECONOMIC SPIDERS AS PREDATORS OF HARMFUL PESTS IN GREENHOUSES

By

DOAA MAHMOUD ABDEL HAMID ABDEL GHANI
B.Sc. Agric. Sci. (Entomology), Fac. Agric., Ain Shams Univ., 2003
M.Sc. Agric. Sci. (Zoology), Fac. Agric., Ain Shams Univ., 2009

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APPROVAL COMMITTEE

Dr. ASHRAF ABD EL-HAFIZ RAHIL.....
Professor of Acarology, Fac. Agric., Al-Fayoum University

Dr. MOHAMED SAMY EL-SAED NAWAR.....
Professor of Acarology, Fac. Agric., Cairo University

Dr. MOHAMED ABD EL-AZIZ ZAHER.....
Professor of Acarology, Fac. Agric., Cairo University

Dr. MORAD FAHMY HASSAN .....
Professor of Acarology, Fac. Agric., Cairo University

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SUPERVISION SHEET

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SUPERVISION COMMITTEE

Dr. MORAD FAHMY HASSAN
Professor of Acarology, Fac. Agric., Cairo University

Dr. MOHAMED ABDEL AZIZ ZAHER
Professor of Acarology, Fac. Agric., Cairo University

Dr. GIHAN MOHAMED EL SAYED SALLAM
Head Research of Acarology, Plant Protection Research Institute, A.R.C.

Name of Candidate: Doaa Mahmoud Abdel Hamid Abdel Ghani **Degree:** Ph.D.
Title of Thesis: Role of Certain Economic Spiders as Predators of Harmful Pests in Greenhouses
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Dr. Mohamed Abdel Aziz Zaher
Dr. Gihan Mohamed El Sayed Sallam
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ABSTRACT

The present work aimed to through light on the spiders occurrence on some plants in greenhouses in Giza governorate to conduct families and species in this ecosystem to maximize its role to reduce the population of some pests. Random samples were collected twice a month from the vegetables Tomato, Eggplant and Green bean and the fruit trees Mango and Citrus in the commercial greenhouses structure, gutter connected. There were (46) species belonging to (18) families; Dictynidae, Dysderidae, Gnaphosidae, Linyphiidae, Lycosidae, Oecobiidae Oonopidae, Pholcidae, Philodromidae, Salticidae, Scytodidae, Sicariidae, Synaphridae, Theridiidae, Thomisidae and Titanoecidae on vegetable plants. In addition to these families except the family Pholcidae the two families Eutichuridae and Uloboridae were found on fruit trees. The most abundant spider family on vegetable plants was Linyphiidae, while that on fruit trees was Eutichuridae.

There was evident relationship between *Cheiracanthium isiacum* and its prey *Phyllocnistis citrella*. In the mango orchard there were13 spider families on the ground of which the family Salticidae had the highest number and six families on the foliage with Eutichuridae had the highest number. There were 27 species recorded new locality in Giza governorate and one species as a new record in Egypt. Some biological aspects of the two spider species and its food range were studied on *Nigma conducens* of the family Dictynidae and *Theridion hannoniae* of the family Theridiidae as a first rearing. *N. conducens* fed and developed on two types of prey, *Drosophila melanogaster* and *Pealius mori*. Social behavior was observed on this spider species. Type of prey had a statistical significant effect on the duration of the developmental stages and also on the female fecundity. Female life cycle averaged 75.91 and 107.19 days on *D. melanogaster* and *P. mori* respectively. The second species *T. hannoniae* fed and developed on *Tetranychus urticae*. Female and male life cycle averaged 94.1 and 103.06 days respectively.

Key words: Greenhouse, spiders, biological control, gut content analysis, Dictynidae, Theridiidae and biological studies

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