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SEASONAL ABUNDANCE *Aphis gossypii* GLOVER ON THE OKRA PLANTS AND ITS HYMENOPTEROUS PARASITOIDS IN EL- ARISH, NORTH SINAI, EGYPT

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ABSTRACT

The present study was conducted to evaluate the Seasonal abundance of *Aphis gossypii* Glover and assessment the percentage of infestation on okra plant at El-Arish, , North Sinai Governorate . A survey of the natural enemies of aphis was conducted and the percentages of parasitism were evaluated for two successive seasons 2005 & 2006. In season 2005 data indicated that the percentage of infestation caused by *Aphis gossypii* ranged from 10.11 to 59. 21% with an average of 31.34% and the percentages of parasitism ranged from 1 to 2% with an average of 0.25%. In season 2006 data indicated that the percentage of infestation ranged from 11.59 to 76.25% with an average of 34.18% and the percentages of parasitism varied from 1 to16% with an average2.25% .

INTRODUCTION

Okra is one of the most important vegetables in Egypt. It is well adapted to a wide range of ecological conditions. Recently, the crop was successfully planted in North Sinai in sandy soil. Numerous insects attack okras, pest management is an important aspect of okra production. Okra and its pest complex forms "Okra ecosystem" which also includes natural enemies living on these pests. Observations on parasitoids of *Earias vittella* egg were shown byTelang *et al* 2004, These pests are considered important on okras and have recently developed to rather severe pests on several crops in Egypt, this development is associated with the expansion in application of organic pesticides, presumably leading to a change in the natural balance of pests and thus associated natural enemies (Hafez& Khalifa, 1975). (Habib *et al* 1976) studied the seasonal abundance of several insect pests and their predators in cotton fields in Kalubia and Alexandria Governorates, Egypt, in 1970-71. He found many pests such as *Aphis gossypii* and many predators in cotton fields in Kaliubia and Alexandria Governorates, Egypt. The cotton or melon aphid *Aphis gossypii* is one of the most important insect pests attacking cotton and okra. (Hafez and El-Khayat 1996) found that *Aphis gossypii* was the only aphid species which infested cotton plants in Moshtohor region, Egypt, during 1994-95.They showed that there was one chrysopid species, eight coccinellids, one staphylinid, one cecidomyiid and two syrphids, attacking the *Aphis gossypii* in the field. (Hafez *et al* 1996) also investigated seasonal fluctuations of *Aphis gossypii* and associated predators and parasitoids throughout the 1994-95 growing seasons in Fayoum and Moshtohor, Egypt. (Zaki *et al 1999*) released two predators, *Chrysoperla carnea* and *Coccinella undecimpunctata* and the two parasitoids *Diaeretiella rapae* and *Eretmocerus mundus* to control *Aphis gossypii* and white flies in okra. In Egypt (Al-Eryan *et al* 2001) studied the population status of both *A. gossypii* and its predator, *Coccinella undecimpunctata* during the summer season of 1998 under field and semi-field conditions [location not given]. Results revealed that the predator, C. 11-punctata [*Coccinella undecimpunctata*] was accompanying *A. gossypii*. In