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**AN ANNOTATED LIST OF THE HYMENOPTEROUS PARASITIDS OF  
THE DIASPIDIDAE (HEMIPTERA: COCCOIDEA) IN EGYPT, WITH  
NEW RECORDS.**

ABSTRACT

AN ANNOTATED LIST OF THE HYMENOPTEROUS PARASITIDS OF THE DIASPIDIDAE (HEMIPTERA: COCCOIDEA)  
IN EGYPT, WITH NEW RECORDS.

Eighteen species of hymenopterous parasitoid of armoured scale insects (Hemiptera: Diaspididae) were recorded in a survey of host plants in three locations in Egypt during 1994-1997. The 16 species of Aphelinidae and two Encyrtidae are listed, along with their diaspidid hosts and location in Egypt; ten species were new records for Egypt.

Key words: survey, geographic distribution, host range, rearing methods, *Ablerus*, *Aphytus*, *Coccophagoides*, *Encarsia*, *Marietta*, *Habrolepis*.

INTRODUCTION

Prior to the studies of Priesner & Hosny (1940), very little was known about the parasitoids of armoured scale insects in Egypt. Priesner & Hosny recorded six aphelinid species: *Aphytis chrysomphali* (Mercet), *A. diaspidis* Howard, *A. maculicornis* (Masi), *A. mytilaspidis* (Le Baron), *Encarsia citrina* (Craw) and *E. lounsburyi* (Berlese & Paoli). Later, Abdel-Fattah & El-Saadany (1979) recorded *Aphytis lepidosaphes* Compere associated with *Lepidosaphes beckii* (Newman), while *Aphytis cobni* De Bach was recorded from *Aonidiella aurantii* (Maskell) in Alexandria by Hafez (1988). There have been no more recent records.

During the period 1994-1997, a survey was conducted throughout Egypt, the results of which are given below. Each entry gives the geographic distribution and the host range; new records are indicated by an asterisk.

MATERIALS AND METHODS

The survey consisted of random samples of 60 host plants with 25 species of Coccoidea collected from 25 governorates in Egypt. The survey was carried out between Sept. and March in 1994-'95, 1995-'96 and 1996-'97. Scale-infested plants were transferred separately to the laboratory in a cool box and

then kept in a well-ventilated container until after the emergence of any parasitoids. Each parasitoid was then either mounted on a card or on a glass slide (depending on family) for identification.

## RESULTS

List of hymenopterous parasitoids of armoured scale insects found between September and March in a three year survey in Egypt:

### **Aphelinidae:**

#### ***Ablerus atomon* (Walker)\*.**

Host: *Chionaspis stanotophri* Cooley on *Cupressus* sp.

Distribution: Fayoum and Helwan.

#### ***Aphytis chrysomphali* (Mercet): (previously recorded by Priesner & Hosny, 1940).**

Hosts: *Aonidiella aurantii* (Maskell) on *Ficus nitida*; *Chrysomphalus ficus* (Ashmead) on *Citrus* sp.; *Mycetaspis personata* (Comstock) on *Mangifera indica*; *Parlatoria oleae* (Colveé) on *Olea* sp.; *P. ziziphi* (Lucas) on *Citrus* sp.

Distribution: Alexandria, Cairo, Giza and South Sinai.

#### ***Aphytis cobeni* De Bach: (previously recorded by Hafez, 1988).**

Host: *Aonidiella aurantii* (Maskell) on *Citrus sinensis*.

Distribution: Alexandria.

#### ***Aphytis diaspidis* (Howard): (previously recorded by Priesner & Hosny, 1940).**

Host: *Parlatoria oleae* on *Olea* sp.

Distribution: Northern Coast and El-Arish.

#### ***Aphytis lepidosaphes* Compere: (previously recorded by Abdel-Fattah & El-Saadany, 1979).**

Host: *Lepidosaphes beckii* (Newman) on *Mangifera indica*

Distribution: Behira.

***Aphytis lingnanensis* Compere\*.**

Hosts: *Aonidiella aurantii* on *Citrus* sp.; *Aspidiotus bederae* (Vallot) on *Nerium* sp.; *Lindingaspis floridana* Ferris on *Ficus nitida*.

Distribution: Alexandria, Cairo and Giza.

***Aphytis maculicornis* (Masi): (previously recorded by Priesner & Hosny, 1940).**

Hosts: *Abgrallaspis cyanophylli* (Signoret) on *Psidium guajava*; *Lepidosaphes ulmi* (Linnaeus) on *Vitis vinifera*; *Diaspis echinocacti* (Bouché) on *Opuntia* sp.; *Parlatoria oleae* on *Olea* sp.

Distribution: Beni-Suef, Cairo, El-Arish and Giza.

***Aphytis mytilaspidis* (Le Baron): (previously recorded by Priesner & Hosny, 1940).**

Hosts: *Abgrallaspis cyanophylli* on *Mangifera indica*; *Aspidiotus bederae* on *Jasminum grandiflorum*; *Aonidiella aurantii* on *Citrus* sp.; *Chionaspis stanotophri* on *Cupressus* sp.; *Diaspis echinocacti* on *Cactus* sp.; *Hemiberlesia lataniae* (Signoret) on *Mangifera indica*; *Lepidosaphes beckii* (Newman) on *Mangifera indica*; *L. ulmi* (Linnaeus) on *Ficus carica*; *Mycetaspis personata* (Comstock) on *Phoenix dactylifera* L.

Distribution: Behira, Beni-Suef, Cairo, Giza and Sharqiya.

***Aphytis phoenicis* De Bach & Rosen\*.**

Host: *Parlatoria blanchardii* (Targioni-Tozzetti) on *Phoenix dactylifera* L.

Distribution: El-Arish.

***Aphytis* sp. \*.**

Hosts: *Chrysomphalus dictyospermi* (Morgan) on *Ficus nitida*; *Insulaspis pallidula* (Green) on *Mangifera indica*; *Leucaspis riccae* Targioni-Tozzetti on *Olea* sp.

Distribution: Cairo, Fayoum, Giza and Sharqiya.

***Coccophagoides* sp. \*.**

Host: *Parlatoria oleae* on *Olea* sp.

Distribution: Northern Coast.

***Encarsia aurantii* (Howard)\*.**

Host: *Parlatoria oleae* on *Olea* sp.

Distribution: Northern Coast.

***Encarsia citrina* (Craw): (previously recorded by Priesner & Hosny, 1940).**

Hosts: *Abgrallaspis cyanophylli* on *Mangifera indica*; *Aonidiella aurantii* on *Citrus* sp.; *Aspidiotus bederae* on *Nerium* sp.; *Chrysomphalus dictyospermi* on *Ficus nitida*; *C. ficus* on *Phoenix dactylifera* L.; *Insulaspis gloveri* (Packard) on *Citrus* sp.; *Lepidosaphes beckii* on *Mangifera indica*; *Lindingaspis floridana* on *Ficus nitida*; *Parlatoria ziziphi* on *Citrus* sp.

Distribution: Behira, Cairo, El-Arish, Giza and Qalyubiya.

***Encarsia lounsburyi* (Berlese & Paoli): (previously recorded by Priesner & Hosny, 1940).**

Hosts: *Abgrallaspis cyanophylli* on *Psidium guajava*; *Aonidiella aurantii* on *Citrus* sp.; *Aspidiotus bederae* on *Nerium* sp.; *Chionaspis stanotophri* on *Cupressus* sp.; *Chrysomphalus ficus* on *Phoenix dactylifera*; *Diaspis echinocacti* on *Opuntia* sp.; *Hemiberlesia lataniae* on *Nerium* sp.; *Insulaspis pallidula* on *Mangifera indica*.

Distribution: Assiut, El-Minya, Beni-Suef and Giza.

***Marietta leopardina* Motschulsky\*.**

Hosts: *Aonidiella aurantii* on *Citrus* sp.; *Chrysomphalus dictyospermi* on *F. nitida*; *Parlatoria oleae* on *Olea* sp.; *P. ziziphi* on *Citrus* sp.

Distribution: Beni-Suef, Cairo, El-Arish, Fayoum, Northern Coast, Qalyubiya and South Sinai.

***Marietta* sp.\*.**

Host: *Chrysomphalus dictyospermi* on *Ficus nitida*.

Distribution: Cairo.

## Encyrtidae

### ***Habrolepis aspidioli Compere & Annecke*\***

Hosts: *Chrysomphalus dictyospermi* on *Ficus nitida*; *Hemiberlesia lataniae* on *Mangifera indica*; *Parlatoria ziziphi* on *Citrus* sp.

Distribution: Giza, Minyufiya, Northern Coast, Qalyubiya, Sohag and South Sinai.

### ***Habrolepis sp.*\***

Host: *Chrysomphalus dictyospermi* on *F. nitida*

Distribution: Qalyubiya.

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