



ISSN 2347-2677

IJFBS 2014; 1 (5): 10-12

Received: 15-04-2014

Accepted: 24-05-2014

Shaaban Abd-Rabou

Plant Protection Research Institute,
Agricultural Research Center, Dokki,
Giza, Egypt.

***Ablerus* Howard (Hymenoptera: Aphelinidae) of Egypt with new species, *Ablerus aegypticus* sp.nov.**

Shaaban Abd-Rabou**Abstract**

Ablerus Howard, 1894 (Hymenoptera: Aphelinidae) is the sole member of the subfamily Azotinae Nikol'skaya. Species of the genus *Ablerus* are usually hyperparasitoids associated with Aleyrodidae, Coccoidea and eggs of various kinds of insects. The aim of this work is to study Genus *Ablerus* in Egypt. During the present work, a list of six species was recorded in Egypt. *Ablerus aegypticus* Abd-Rabou sp.nov. is also described here as a new species.

Keywords: *Ablerus* Howard, Hymenoptera, Aphelinidae, *Ablerus aegypticus* Abd-Rabou sp.nov, hyperparasitoids, whiteflies and Egypt.

1. Introduction

Ablerus Howard, 1894 are small wasps belonging to the family Aphelinidae. Species of the genus *Ablerus* are usually hyperparasitoids associated with Aleyrodidae, Coccoidea and eggs of various kinds of insects [12]. It contains 92 species of the world [16]. The diagnosis of this Genus recognized by: Antenna with 7 segments, with one or two anelli; F3 usually shorter than both F2 and F4. Mandible with two or three teeth and a truncation. Maxillary palp 2-segmented; labial palp unsegmented. Forewing either uniformly infuscate behind venation or with infuscated bands of various shapes and bearing darker setae; marginal vein shorter than or subequal to costal cell; stigma vein either with a thin or swollen stigma. Tarsal formula 5-5-5. Gaster generally longer than head plus thorax. This genus studied in Egypt by many authors [14, 1-11, 12, 13]. The present work dealt with the member species of Genus *Ablerus* and described a new species in Egypt.

2. Materials and Methods

Infested crops with, scale insects will be examined in the field, using a pocket lens. The parts of the plant from different crops will be collected and placed separately in paper bags for further examination in the laboratory. Materials will be kept in a well-ventilated container until the emergence of any parasitoids. Identification of *Ablerus* parasitoids will be made by examining mounted adults in Hoyer's medium.

3. Results and Discussion**3.1. List of *Ablerus* spp. in Egypt****3.1.1. *Ablerus atomon* (Walker)**

3.1.1.1. Material Examined: 13 ♀♀, Fayoum, 12. VI. 1996 ex. *Duplachionaspis natalensis* (Maskell) on *Cupressus* sp.

This species was recorded for the first time in Egypt associated with *Chionaspis stantophri* Cooley (Hemiptera: Coccidae) by Abd-Rabou [2].

3.1.2. *Ablerus chionaspidis* (Howard)

3.1.2.1. Material Examined: 10 ♀♀, Giza, 5.X.2012 ex. *Pulvinaria tenuivalvata* (Newstead) (Hemiptera: Coccidae) on *Saccharum officinarum*.

3.1.3. *Ablerus chrysomphali* (Ghesquière)

3.1.3.1. Material Examined: No specimens collected during the present work.

3.1.3.2. Remarks: This species was collected for the first time in Egypt by Askew *et al.* [13]

Correspondence:**Shaaban Abd-Rabou**

Plant Protection Research
Institute, Agricultural Research
Center, Dokki, Giza, Egypt.

3.1.4. *Ablerus clisiocampae* (Ashmead)

3.1.4.1. Material Examined. 7 ♀♀, Beni-Suef 10. VIII. 1998 ex. *Chrysomphalus aonidum* on *Citrus* sp.

3.1.4.2. Remarks: This species was collected for the first time in Egypt by Abd-Rabou [5]

3.1.5. *Ablerus perspiciosus* (Girault)

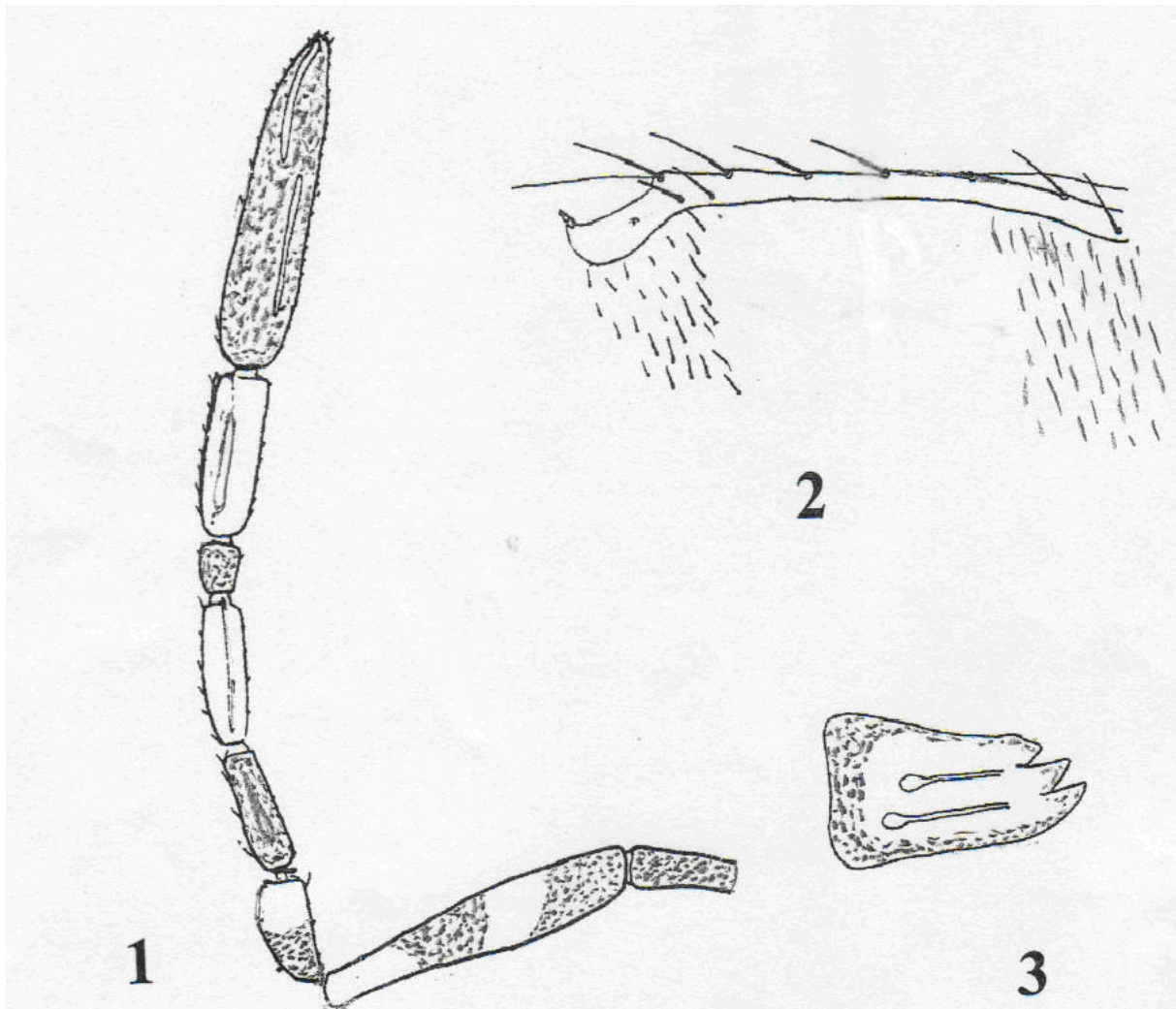
3.1.5.1. Material Examined. 16 ♀♀, Qalyubiya, 2. VIII. 1993 ex. *Pseudaulacaspis pentagona* on *Oleander* sp.

3.1.5.2. Remarks: This species was recorded for the first time in Egypt by Abd-Rabou [1] associated with *P. pentagona*.

3.1.6. *Ablerus aegypticus* Abd-Rabou sp.nov. (Figs.1-3)

3.1.6.1. Female

Dark brown; antenna pale brown, with F3 and club darkish; forewing with infucation below the venation; legs pale in color. Length: about 0.9mm. Mandible with three teeth, maxillary and labial palpi 2 segmented. Antennal scape cylindrical or only slightly flattened, but not expanded beneath, and more than 3.0x as long as broad, F3 segment as long as wide, club 3.5 time as long as wide. Thorax with mid lobe of mesoscutum about 1.8 times as long as wide with 4 setae; scutellum about 3 times as long as; with 4 setae propodium about 5 times as wide as medium length Mid tibial spur about 1.3 times as long as basitarsus. Marginal fringe 0.5 as long as the width of disc. Ovipositor 2.3 as long as middle tibia. Third valvulea about 0.3 the length of ovipositor.



Figs 1-3: *Ablerus aegypticus* Abd-Rabou sp. Nov. 1. Female antenna; 2. Distal veins enlarged; 3. Mandible

3.1.6.2. Comments: *Ablerus aegypticus* Abd-Rabou sp. nov. is similar to *Ablerus perspiciosus* (Girault) but can be distinguished from this species by the relative measurements between the ovipositor and mid tibia, mesoscutum about 1.8 times as long as wide and Marginal fringe 0.5 as long as the width of disc. Mid tibial spur about 1.3 times as long as basitarsus.

3.1.6.3. Material examined. Holotype: Female, Qalyubiya, 2. VIII. 2012 ex. *P. pentagona* on *Pyrus communis* (pear) collected by author. Paratypes: 10 females, with the same data as holotype on slides.

3.1.6.4. Specimens deposition. Holotype and paratype females deposited in the Plant Protection Research Institute, Dokki, Giza, Egypt.

3.1.7. Key to *Ablerus* Howard species of Egypt

1. Antennal scape more than 3 times as long as broad.....2
- Antennal scape not more than 3 times as long as broad.....4
2. Third funicle segment 1.3 times as long as wide, club 3 times as long as wide.....*Ablerus atomon* (Walker)
-Third funicle segment as long as wide, club more than 3 times as long as wide.....3
3. Club 3.1 times as long as wide.....*Ablerus perspicuosus* (Girault)
-Club 3.5 times as long as wide....*Ablerus aegypticus* Abd-Rabou sp.nov.
4. Marginal fringe 1/5 width of wing.....*Ablerus clisiocampae* (Ashmead)
-Marginal fringe more than 1/5 width of wing.....5
5. Pedicel usually slightly longer than broad and about 0.5x of F2..... *Ablerus chionaspidis* (Howard)
-Pedicel longer than broad and about 0.8x of F2.....*Ablerus chrysomphali* (Ghesquière)

4. Conclusion

New knowledge about *Ablerus* species here will be helpful in controlling whiteflies and scale insects pests in Egypt.

5. Acknowledgements

This Research was supported by Plant Protection Research Institute, Agricultural Research Center, Dokki, Giza, Egypt.

6. References

1. Abd-Rabou S. Parasitoids attacking the Egyptian species of armored scale insects (Homoptera: Diaspididae). Egypt J Agric Res 1999a; 77(3):1113-1129.
2. Abd-Rabou S. Seven species of superfamily Chalcidoidea (Hymenoptera) new to Egypt. Egypt J Agric Res 1999b; 77(3):1205-1215.
3. Abd-Rabou S. Key to the genera of aphelinids from Egypt (Hymenoptera: Aphelinidae). Egypt J Agric Res 1999c; 77(4):1607-1618.
4. Abd-Rabou S. An annotated list of diaspidid parasitoids in Egypt. Entomologica Bari 1999d; 33:173-177.
5. Abd-Rabou S. Newly recorded of aphelinids and encyrtids in Egypt. Egypt J Agric Res 2000; 78(5):1915-1924.
6. Abd-Rabou S. Notes on some genera of Egyptian Aphelinidae (Hymenoptera: Chalcidoidea). Egypt J Agric Res 2001; 79(1):47-55.
7. Abd-Rabou S. Revision of Aphelinidae (Hymenoptera) in Egypt. Second International Conference of Plant Protection Research Institute 2002; 1:268-296.
8. Abd-Rabou S. First record of some hymenopterous parasitoids of whiteflies, scale insects and leaf miners in Egypt with description of *Aphytis sinaii* (n. sp.). Egypt J Agric Res 2004; 82(3):1089-1098.
9. Abd-Rabou S. Genus *Ablerus* (Hymenoptera: Aphelinidae: Azotinae) from Egypt and a discussion on the status of this genus in Family Aphelinidae. Egypt J Agric Res 2005; 83(1):343-349.
10. Abd-Rabou S. A list of hyperparasitoids attacking

- armored scale insects in Egypt. Ninth Arab Congress of Plant Protection Oral Presentation 2006a; Abstract p. E-167.
11. Abd-Rabou S. Hymenopterous parasitoids as a bioagent for controlling homopterous insects in Egypt. Egypt Adv Agric Res In Egypt 2006b; (6)1:1-65.
12. Abd-Rabou S, Evans G. An annotated list of species of the family Aphelinidae in Egypt with a key to the genera (Hymenoptera: Chalcidoidea). Acta Phytopathologica et Entomologica Hungarica 2011; 46(2):297-309.
13. Askew RR, Blasco-Zumeta J, Pujade-Villar J. Chalcidoidea and Mymarommatoidea (Hymenoptera) of a Juniperus thurifera L forest of Los Monegros region, Zaragosa. Monografias Sociedad Entomológica Aragonesa 2001; 4:47.
14. Herting B, Homoptera A. catalogue of parasites and predators of terrestrial arthropods. Section A. Host or Prey/Enemy 1972; 2:180 Commonwealth Agricultural Bureaux, Slough, England.
15. Howard LO. Two parasites of important scale-insects. Insect Life 1894; 7:7.
16. Myartseva SN, Coronado-Blanco JM, Ruiz-Cancino E. Genus *Ablerus* Howard (Hymenoptera: Chalcidoidea: Aphelinidae) in North America, with description of two new Mexican species. Acta Zoológica Mexicana (n. s.) 2012; 28(2):447-456.