

KEY TO THE GENERA OF ENCYRTIDAE FROM EGYPT (HYMONOPTERA: CHALCIDOIDAE: ENCYRTIDAE)

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Abstract

A key is given to the females of 27 genera of family Encyrtidae (Hymenoptera: Chalcidoidea) that are known from Egypt. The key is also provided by illustrations for the general characters of the encyrtids, together with figures of taxonomic characters of the genera known to be found in Egypt.

INTRODUCTION

Encyrtidae is one of the largest families among Chalcidoidea. It comprises a group of primary internal parasitoids and hyperparasitoids, in which most of the species parasitize the Sternorrhyncha (Homoptera) other Hemiptera, Coleoptera, Lepidoptera and Diptera. A few species of this group have also been found to attack the spiders.

The Egyptian fauna of the family Encyrtidae are recorded by (Priesner & Hosny, 1940; Temerak, 1981; Hafez, 1984; Mohammad, 1997; Abd-Rabou, 1999).

The preparation for identification and the terminology of the general characters of adults used are mainly based on publication of Noyes (1982) and Noyes & Hayat (1984).

The present key represent 27 genera related to family Encyrtidae known in Egypt.

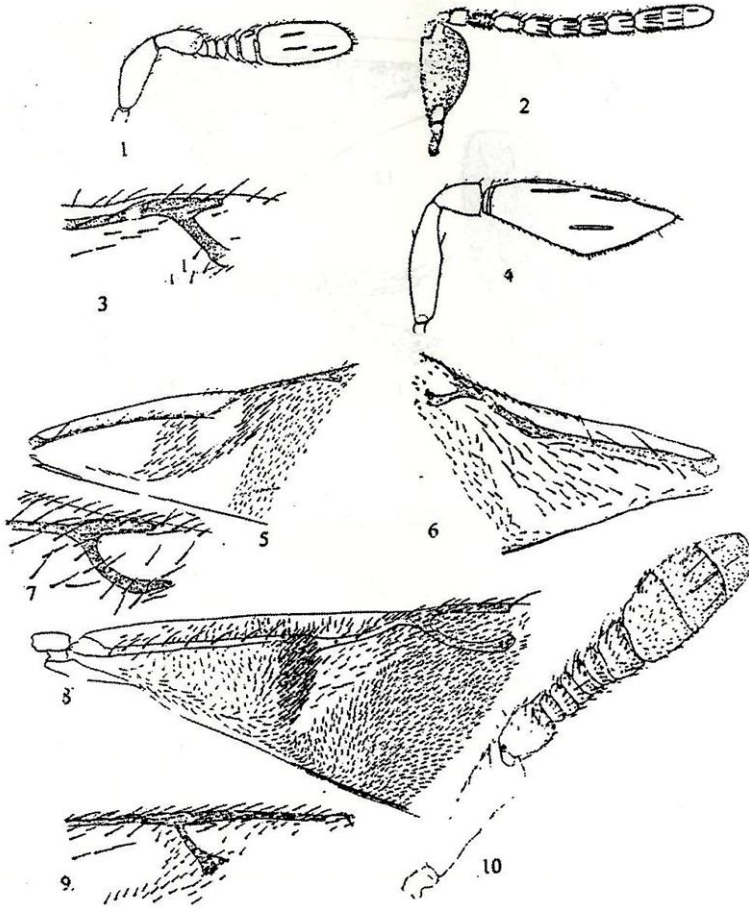
KEY TO GENERA, FEMALES

1. Tarsi four-segmented.....(Fig. 4) *Arrhenophagus* Aurivillius.
Tarsi five-segmented.....2.
- 2(1). Funicle 5-segmented(Fig.1) *Acerophagus* Smith.
Funicle at least 6-segmented3.
- 3(2). Fore wing shortened, clearly not reaching apex of gaster.....8.

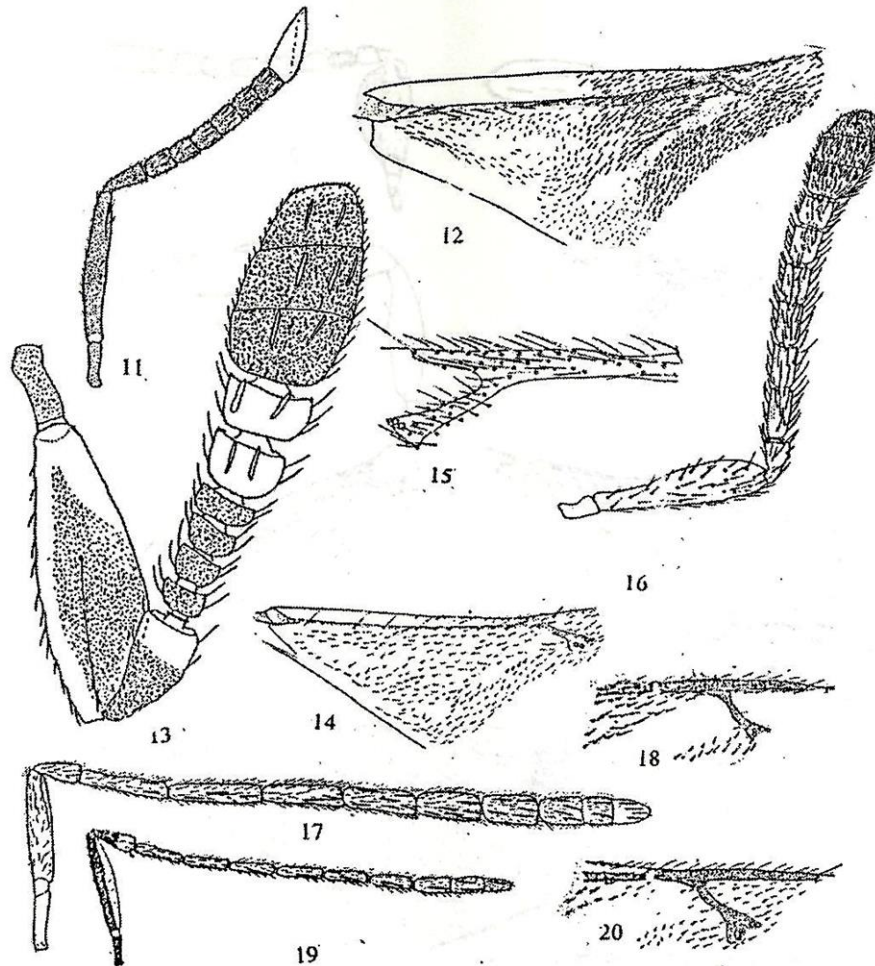
- Fore wing normal, at least very nearly reaching apex of gaster.....4.
- 4(3). Hypopygium reaching or very nearly reaching apex of gaster(Figs 27-28) *Rhopus* Foerster.
Hypopygium not reaching more than two-thirds a long gaster5.
- 5(4). Scutellum without such a group of setae7.
Scutellum with a subapical group of dark coarse setae arranged in a more or less compact bundle6.
- 6(5). Mesoscutum with a distinct transverse depression in its posterior one-third, either mesoscutum with a more or less distinct bundle of setae in middle or posterior margin or pronotum has a line of stiff black bristles *Diversinervus* Silvestri.
Mesoscutum without a transverse posterior depression, neither mesoscutum with a median bundle of setae nor posterior margin or pronotum with a line of stiff black bristles(Fig. 5) *Cheiloneurus* Westwood.
- 7(5). Scutellum without a distinct apical flange(Figs. 15-16) *Microterys* Thomson.
Scutellum with a thin apical flange*Paraphaenodiscus* Girault.
- 8(3). Scutellum without a distinct tuft or bundle of setae or scale-like setae11.
Scutellum with a group of coarse, long dark setae arranged in a more or less compact tuft or bundle or with two or more scale-like setae9.
- 9(8). Mandibles usually tridentate or quadridentate(Fig. 10) *Habrolepis* Foerster.
Mandibles usually edentate or bidentate or tridentate10.
- 10(9). Marginal vein at least nearly as long as stigmal vein.....
..... (Fig. 26) *Prochiloneurus* Silvestri.
Marginal vein shorter than stigmal vein(Fig. 8) *Encyrtus* Latreille.
- 11(8). Hypopygium not reaching more than two-thirds, along gaster.....(Fig. 23-24) *Paraceraptoceus* Girault.
Hypopygium reaching apex of gaster12.
- 12(11). Fore wing with postmarginal vein not longer than stigmal vein 20.
Fore wing with postmarginal vein longer than stigmal vein13.
- 13(12). First funicle segment not longer than broad*Blepyrus* Howard.
First funicle segment longer than broad.....14.

- 14(13). Ovipositor exerted and exerted part at least about half as long as gaster
*Clausenia* Ishii.
 Ovipositor not exerted, or if exerted part not longer than 1/6 length of
 gaster15.
- 15(14). Fore wing hyaline.....*Blastothrix* Mayr.
 Fore wing infusate16.
- 16(15). Natural lines present.....(Figs. 11-12) *Homalotylus* Mays.
 Natural lines absent.....17.
- 17(16). Scape more than three times as long as broad
(Fig. 17-18) *Leptomastix* Foerster.
 Scape not more than three times as long as broad18.
- 18(17). Fore wing with one or two distinct fuscus bands
(Figs. 19-20) *Leptomastidae* Mercet.
 Fore wing with infuscation limited to longitudinal streaks adjacent to vena-
 tions.....19.
- 19(18). Fore wing with postmarginal vein at least a little longer than stigmal
 (Fig. 9) *Gyranusoidea* Compere.
 Fore wing postmarginal vein not longer than stigmal vein
(Figs. 2-3) *Anagyrus* Howard.
- 20(12). Scape not more than three times as long as broad21.
 Scape more than three times as long as broad22.
- 21(20). Mesoscutum or scutellum or both at least partly yellow, orange or pale
 orange brown.....(Figs. 13-14) *Metaphycus* Mercet.
 Mesoscutum or scutellum completely dark, not yellow, orange or pale
 brown.....*Baeoanusia* Girault.
- 22(12). Fore wing with marginal vein absent(Fig. 7) *Cowperia* Girault.
 Fore wing with marginal vein present.....23.
- 23(22). Fore wing infusate.....(Fig. 21-22) *Ooencyrtus* Ashmead.
 Fore wing hyaline.....24.
- 24(23). Ovipositor exerted.....*Bothriophryne* Compere.
 Ovipositor not exerted.....25.

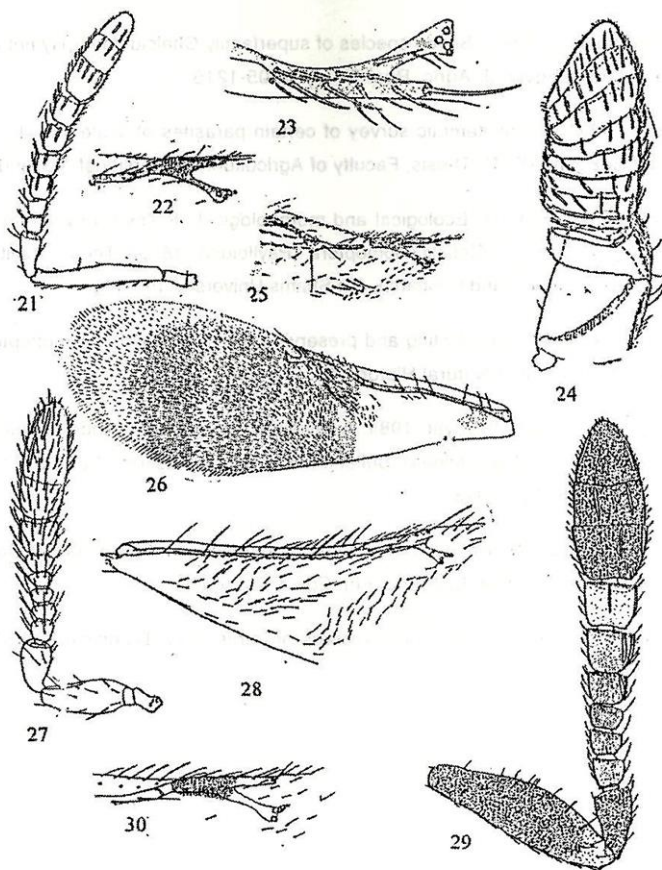
- 25(24). Mesoscutum, axillae or scutellum at least partly yellow, orange or orange brown (Figs. 30-31) *Syrphophagus* Ashmead.
 Mesoscutum, axillae or scutellum completely dark, not partly yellow, orange or orange-brown.....26.
- 26(25). Scutellum convex, but at least a little broader than long
 (Fig. 25) *Parechthrodryinus* Girault.
 Scutellum flat to moderately convex (Fig. 6) *Coccidoxendies* Girault.



Figs (1-10). Fig. (1) antenna of *Acerophagus*, Fig (2-3), *Anagyrus*: (2) antenna, (3) base of fore wing. Fig (4) antenna of *Arrhenophagus*, Fig (5) fore wing of *Cheiloneurus*, Fig (6) fore wing of *Coccidoxenoides*, Fig (7) base of fore wing of *Cowperia*, Fig (8) fore wing of *Encyrtus*, Fig (9) base of fore wing of *Gyranusoidea*. Fig (10) antenna of *Hobrolepis*.



Figs (11-20). Figs. (11-12) *Homalotylius* (11) antenna (12) fore wing, Figs (13-14), *Metaphycus* (13) antenna (14) base of fore wing, Figs (15-16), *Microterys* (15) base of fore wing (16) antenna, Figs (17-18) *Leptomastidae* (17) antenna (18) base of fore. wing, Figs (19-20) *Leptomastix* (19) antenna (20) base of fore wing.



Figs (21-30). Figs (21-22) *Ooencyrtus* (21) antenna (22) base of fore wing, Figs (23-24), *Paracerapterocerus* (23) base of fore wing (24) antenna, Fig (25) fore wing of *Parechthrodryinus*, Fig (26) fore wing of *Prochiloneurus*, Figs (27-28) *Rhopus* (27) antenna (28) base of fore wings, Figs (29-30) *Syrphophagus* (29) antenna (20) base of fore wing.

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مفتاح تصنيفي للاجناس المتواجدة في
فصيلة الانسيرتيد في مصر

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معهد بحوث وقاية النباتات، مركز البحوث الزراعية - الدقي - الجيزة.

تم في هذه الدراسة عمل مفتاح تصنيفي لـ ٢٧ جنس من فصيلة الانسيرتيد (Encyrtidae Hymenoptera) كما هو معروف في مصر. المفتاح مصاحب للصفات العامة لهذه الفصيلة مع رسم توضيحي للصفات التصنيفية لهذه الاجناس.