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TAXONOMIC STUDIES OF THE EGYPTIAN EUMENIDAE (ORDER : HYMENOPTERA)

***Zalat, S.*[1]*; Abo-Ghalia, A.*[1]**
***Gilbert, F.*[2] *and Nagat Shaumar*[3]**

1. Dept. of Zoology, Faculty of Science, University of Suez Canal, Egypt.

2. Dept. of Zoology, University of Nottingham, England.

3. Dept. of Entomology, Faculty of Science, University of Ain Shams, Egypt.

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ABSTRACT

Taxonomy of the Egyptian Eumenidae is assessed by comparison of specimens caught during 4 years of survey at Southern Sinai and those from collections with the types kept in the British and Berlin museums. Diagnostic characters for members of this family are given. Key to genera is provided (with an adequate number of drawings). Finally, synonyms of ten genera belonging to this family in addition to : Keys, types, synonyms and distribution of species are also given.

INTRODUCTION

Eumenidae is one of the important and largest wasp families. Many of it's species have been misidentified in the literatue and in museum collections. Also, some nomenclatural changes for it's members took place. This family includes

numerous genera (twenty seven, Zalat, 1988). The taxonomy of eight of them was previously studied (Zalat *et al.*, 1991). The present work deals with other ten genera.

MATERIALS AND METHODS

Methods and techniques followed in the present investigation were the same as previously reported by Zalat, 1988.

RESULTS AND DISCUSSION

Eumenid wasps are characterised by folding their wings longitudinally at rest. Their colour is variable, mostly black, ferruginous or yellow. Size is also variable, from small species to fairly larger species. The eyes are always emarginate and the pronotum is long, reaching back to the tegulae. The forewing has three submarginal cells and the first discoidal (D1) is elongate. The hind wing has an anal lobe. The hind coxa has a keel on its dorsal hind margin. Probably, in all species, females are usually larger in size than males. The female antenna usually has 12 segments while that of male has 13 with a characteristic terminal one.

KEY TO EGYPTIAN GENERA OF FAMILY EUMENIDAE

1- Second submarginal cell of forewing petiolate (Fig. 1).....
.....Alastor Lepeletier.

\- Second submarginal cell of forewing not petiolate (Fig. 2)...
.....2

2- First abdominal segment long and narrow,more or less petiolate in shape (Fig.3).....3

\- First abdominal segment short and wide (Fig.4).....8

3- Propodeum on each side with apical lamellar tooth, above the valvula. Petiole not conspicuously swollen on the apical half
.....Cyrtolabulus van der Vecht

\- Propodeum without lamellar tooth. Petiole varies in shape....4

4- Apical margin of tergite II with narrow lamella at lower level
.....Eumenes Latreille

\- Apical margin of tergite II without lamella at lower level...5

5- In male, last abdominal segment deeply modified and last antennal joint small.....Alfieria Giordani Soika

- In male, last abdominal segment normal and last antennal joint large.....6

6- Temple seen from above much developed almost as wide as superior lobe of eyes, clypeus basically rounded or truncate (Fig. 5).....Katamenes Meade-Waldo

- Temple narrower than superior lobe of eyes, clypeus emarginate apically.....7

7- Tergite 1 very long and narrow, parallel-sided for the apical 2/3 and almost flattened dorsally (Fig. 6).....Ischnogasteroides Magretti

- TI funnel-shaped, swollen apically.....Delta Saussure

8- Tegulae small and oval-shaped, without posterior lobe. In male, last antennal joints in form of spiral (Fig. 7).....9

- Tegulae larger with well-developed posterior lobe. In male, last antennal joints curved (Fig. 8).....11

9- Labial palp with four segments, not plumose in female.....Odynerus Laterille

- Labial palp with three segments, plumose in female (Fig. 9)...10

10- Tongue extremely long. reaching in repose to the apex of abdomen.....Labochilus Blüthgen

- Tongue short.....Pterocheilus Klug

11- Tergite II provided apically with a translucent lamella (as in Eumenes) (Fig. 10).....12

- Tergite II without lamella (Fig. 11).....14

12- Tergite II much wider and more swollen than tergite I. Thorax

slightly elongate.....Leptochilus Saussure

- Tergite II slightly wider than tergite I. Thorax more elongate.....13

13- In female, mandible very wide, partly smooth and shining, with strongly angled apical margin. In male, last antennal joint peculiarly formed.....Pseudomicrodynerus Blüthgen

- Female mandible and male antennae normal..... .....Microdynerus Thomson

14- Tergite I with a distinct transverse carina. (Fig. 12).....15

- Tergite I without carina. (Fig. 13).....18

15- Basal margin of tergite I with a smooth and bright area before the carina .....Tachyancistrocerus Giordani Soika

- Basal margin of tergite I before the carina mat or punct-ate 16

16- On tergite I carina situated more towards the middle part... (Fig.14).....Eustenancistrocerus Blüthgen

- On tergite I, carina on the basal margin. (Fig. 15).....17

17- First abdominal segment long and narrow, segment II much wider than tergite I; the transverse carina on tergite I raised and clear. (Fig. 15).....Pseudonortonia Giordani Soika

- First abdominal segment short and wide, segment II slightly wider than tergite I, carina of tergite I less obvious..... (Fig. 12).....Ancistrocerus Wesmael

18- Female antenna short, strongly club-shaped, joints V-XII wider than long; last two antennal joints in male tiny. (Fig. 16,17).....Eremodynerus Blüthgen

- Female and male antennae longer and variously shaped.....19

19- Postscutellum more or less bidentate laterally (in between flat or depressed).....20

- Postscutellum not bidentate (in some Pseudepipona bilobed) 22

20- Postscutellum laterally with a short spine, and flat in between. (Fig. 18).....Antepipona Saussure

- Postscutellum has on each side a strong upright tooth and depressed in between.....21

21- Scutellum with deep transverse furrow anteriorly & bilobed; propodeum normal; tergite II shallowly depressed.....Cyphodynerus van der Vecht

- Scutellum thick and cushion-like; propodeum with a number of teeth on each side; tergite II normal.....Pseudodontodynerus van der Vecht

22- Posterior part of mesonotum and scutellum smooth and shining without punctation .....Rhynchium Spinola

- Mesonotum and scutellum entirely punctate 23

23- Upper carina of propodeum absent or slightly expended.....24

- Upper carina of propodeum much expanded, more or less lamelliform, forming above a tooth or fissure more or less limited and separate from the scutellum.....25

24- Tegulae wide and short with short posterior lobe. In male, mandible with clear broad notch (Fig. 19).....Pseudepipona Saussure

- Tegulae narrow and elongate with long and well-developed posterior lobe. (Fig. 20). .....Allodynerus Blüthgen

25- The propodeum valve formed by only one transparent lamella (Fig. 21).....Chlorodynerus Blüthgen

- The propodeum valve formed by a transparent lamella and carina or keel superimposed upon it. (Fig. 22).....26

26- Small pale yellow species. Male mid-femora angulate at base (Fig. 23).....Xanthodynerus Blüthgen

- Larger in size, colour otherwise (sometimes yellow and black). Male mid-femora normal. (Fig. 24).....Euodynerus Dalla Torre

1- Genus Alastor Lepeletier

Alastor Lepeletier, 1841, Hist. nat. Ins. Hym. 2: 668.

Type species: Alastor atropos Lepeletier, 1841 (designated by Ashmead, 1902).

Belastor Atanassov, 1967, Izv. zool. Inst., Sof. 23: 167 (subgenus of Alastor Lepeletier).

Type species: Alastor (Belalastor) bulgaeicus Atanassov.

Distribution: Palaearctic and Afrotropical regions.

KEY TO SPECIES

1- Small in size; clypeus small and hairy. Clypeus, pronotum and propodeum black with red-ferruginous markings.....elisaei Schulthess

- Larger in size. Clypeus large and hairy on the apical margin. Clypeus, pronotum and propodeum completely red-ferruginous.....aegyptiacus Blüthgen

Alastor aegyptiacus Blüthgen

Alastor (Megalastor) aegyptiacus Blüthgen, 1955, Mitt. zool. Mus.

Berl. 31: 65, 68, 75, f* and m*.

Types: Egypt, Gabal Mokattam, 2 m, holotype and paratype (Paris). Egypt, Wadi Rashid, f, allotype (type loc. unknown).

Distribution: from Cyrenaica to southern Palestine.

Alastor elisaei Schulthess

Alastor (Antalastor) elisaei Schulthess, 1925, Konowia 4: 61, 64, 201, f 3 and 4, f.

Type :Palestine, Jericho, 1 f, holotype, 5.IV. 1909 (coll. Morice, Oxford). Distribution:Palestine; Egypt.

2- Genus Alfieria Giordani Soika

Alfieria Giordani Soika, 1934, Bull. Soc. ent., Egypt 18: 436.

Type species:Eumenes anomalus (Zavattari) 1909. Distribution:Egypt; Kashmir.

Alfieria anomala (Zavattari)

Eumenes anomalus Zavattari, 1909, Boll. Musei Zool. Anat. comp. R. Uinv. Torino 24, no. 605: 4, f. a and b, m.

Types: Kashmir, Torino, (locality doubtful; probably from Egypt or Arabia, according to Giordani Soika, 1934).

Distribution: Kashmir; Egypt and probably Saudi Arabia.

3- Genus Allodynerus Blüthgen

Allodynerus Blüthgen, 1938, Konowia 16 (1937): 280.

Type species: Odynerus floricola Saussure, 1853.

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*In the text "f" is female and "m" is male

KEY TO SPECIES

1- Mesopleuron black with yellow spots. Tergite I yellow with black basal margin, more extended on the middle part, sternite I yellow. Tergite II with 2 lateral yellow spots and a broad apical yellow band.....vinciguerrae (Guiglia)

2- Mesopleuron black. Tegite I black with yellow apical band, slightly extended laterally, sternite I black. Tergite II with thin yellow apical band and without lateral spots.....
.....floricola floricola (Saussure)

Allodynerus floricola floricola (Saussure)

Odynerus (Leionotus) floricola Saussure,1853,Et.Fam.Vesp.1:155 (key) 196,f.

Odynerus (Lionotus) floricola ab. immaculata Mader, 1936, Ent. Z. 50:276.

Types: Algeria, I f, (coll. Lepeletier, Paris).

Distribution: C. and s. Europe; Asia Minor; Armenia; Egypt.

Allodynerus vinciguerrae (Guiglia)

Odynerus (Lionotus) vinciguerrae Guiglia, 1929, Annali Mus. civ. Stor. nat. Genova 53:402, f and m, f. 1, 2.

Types: Giarabub (Cyrenaica orientalis),2 f and 1 m (in Genova).

Distribution: Dead sea region; Egypt.

4- Genus Ancistrocerus Wesmael

Ancistrocerus Wesmael, 1836, Bull. Acad. r. Belg. 3:45.

Type species: Vespa parietum Linnaeus, 1758 (desginated by Girard, 1879).

Ancistrocerus(1) Rudow, 1876, Arch. Ver. Freunde Naturg. Mecklenb.

30:197, 198, 213.

Euancistrocerus Dalla Torre, 1904, Genera Insect. 19:36.

Distribution: Palearctic, Afrotropical and Nearctic regions.

KEY TO SPECIES

1- In male, body colour black with bright yellow; head and thorax with few hairs, clypeus largely convex, narrow between eyes and bright yellow.....longispinosus hellenicus Blüthgen.

- In male, body colour black with rusty-yellow or ferruginous; head and thorax very hairy, clypeus slightly convex, wide between eyes and yellow or ferruginous.....2

2-.In both sexes, scutellum and postscutellum black. In female, clypeus black with yellow spots apically; mesopleuron black. In male, clypeus slightly convex.....biphaleratus biphaleratus (Saussure).

- In both sexes, scutellum and postscutellum black with yellow spots. In female, clypeus ferruginous, sometimes with yellow, mesopleuron with large yellow spot. In male, clypeus more convex.....impinctatus (Spinola).

Ancistrocerus biphaleratus biphaleratus (Saussure)

Odynerus (Ancistrocerus) biphaleratus Saussure, 1852, Et. Fam. Vesp. 1:121 (key), 134, f and m.

Types: Egypt, f and m (Paris). Distribution: Egypt; Saudi Arabia.

Ancistrocerus impunctatus (Spinola)

Odynerus impuncatatus Spinola, 1838, Annls Soc.ent. Fr. 7:503, m.

Type : Egypt, 1 m (Paris). Distribution: Egypt.

Ancistrocerus longisopinosus hellenicus Blüthgen

Ancistrocerus parietum; Giordani Soika, 1952, Acta ent. Mus. nat. Pragae 27 (1951):377 (Gyaur daglari, Turkey).

Ancistrocerus gazelloides hellenicus Blüthgen, 1957, Revue Fac. sci. Univ. Istanbul (B) 22:165, 166, f and m.

Types: Rhodes, Egeo, 1 f & 71 m. types, V. 1939 (Dr. R. Mayer) (det. Bluthgen, 1952) (Ber. Mus.).

Distribution: Egypt; Turkey; albania; Cyprus; Greese; Yugoslavia.

5- Genus Antepipona Saussure

Antepipona Saussure, 1855, Et. Fam. Vesp. 3:244.

Type species: Odynerus silaos Saussure, 1853.

Odontodynerus Blüthgen, 1938 Konowia 16 (1937):280, subgenus of Euodynerus Blüthgen; Dt. ent. Z. 1938:451,459 (genus).

Type species: Odynerus orbitalis Herrich-Schaeffer, 1841.

Odynerus Dichodynerus Blüthgen, 1938, Dt. ent. Z. 1938:444.

Type species:Lionotus vagus Rad. (=vagabundus D. T. nom. nov.)= Odynerus (Leionotus) vagus Radoszkowski, 1886.

Metastenancistrocerus Blüthgen, 1938. Dt. ent. Z. 1938:460.

Type species: as Dichodynerus Blüthgen.

Antepipona cingulifer (Walker)

Odynerus cingulifer Walker, 1871, List Hym. Egypt etc.:33 (key), 37, f and m.

Oplopus eversmanni Radoszkowski, 1876, Hor. Soc. ent. ross. 12:144, f.

Odynerus (Rhynchium) priesneri Giordani Soika,1935,Bull.Soc. ent. Egypt 19: 182, 195, f, and m, f. 26.

Type:Egypt,Cairo,1f,type,7.I.1929(BMNH= british museum of natural history). Distribution:Yemen;Egypt

6- Genus Chlorodynerus Blüthgen

Chlorodynerus Blüthgen, 1951, Boll. Soc. ent. ital. 81:(in key), 75 (subgenus of Euodynerus (Dalla Torre) Bluthgen).

Type species:Odynerus choloroticus Spinola, 1838.

Distribution:Palaearctic & Afro-tropical rgeions.

KEY TO SPECIES

1- Front coxae convex with central carina or without.....2

- Front coxae almost flat with lateral carina.....4

2- Body mostly yellow, small in size (up to 9 mm to tergite II), head with less-developed carina underneath the eyes..... .....kelidopterus (Kohl)

- Body yellow or yellowish with black, larger in size (10 mm and more to tergite II),head with well-developed carina underneath the eyes.....3

3- Body yellow with black, carina of the head well-developed, body punctate .....sanctus (Blüthgen)

- Body black with yellow-ferruginous; carina of the head less-developed; body punctuation finer and denser..... .....mochii Giordani Soika

4- Head with well-developed transparent carina underneath the eyes, pronotum almost rounded, front coxae flat, base of sternite II with central furrow.....diglaensis (Blüthgen)

- Head with or without the carina, pronotum protruding laterally, front coxae largely flat, base of sternite II with

less-developed furrow.....5

5- In female, clypeus wide, head with less-developed carina, legs with normal pubescence.....chloroticus (Spinola)

- In female, clypeus narrow apically, head provided with well-developed carina, front tibiae and tarsi with long pilosity.....intricatus Giordani Soika

Chlorodynerus chloroticus (Spinola)

Odynerus chlorotics Spinola, 1838, Annls Soc. ent. Fr. 7:500, f. (Egypt, Torino)

Odynerus (Leionotus) testaceus Saussure, 1853, Et. Fam. Vesp. 1:151 (in key), 195, f. (in Paris).

Types: Egypt, 1 f (Torino) (van der Vecht & Fischer, 1972).

Egypt (Paris) (van der Vecht & Fischer, 1972).

Distribution: Morocco; Sahara; Sudan; Dead Sea region; Egypt.

Chlorodynerus diglaensis (Blüthgen)

Euodynerus (Chlorodynerus) diglaensis Blüthgen, 1954, Dt. ent. Z. (N.F.) 1: 237, 247, 254, f and m, f. 8, 9, 22, 23.

Types:Egypt, Wadi Digla, 1f & 1m holotype,6.VII.1929 (Ber. Mus.).

Distribution: Egypt.

Chlorodynerus kelidopterus (Kohl)

Rhynchim kelidopterum Kohl, 1907, Denkschr. Akad. Wiss, math. natuurw. kl. 71:252.

Pseudepipona (Euodynerus) hoggarica Giordani Soika, 1952, Boll. Soc. veneziana Stor. nat. 6:41.

Distribution: Aden;Dead Sea region;Libya;Algeria; Morocco; Egypt.

Chlorodynerus intricatus Giordani Soika

Chlorodynerus intricatus Giordani Soika, 1958, Boll. Mus. civ.

Stor. nat. venezia 10 (1957):141, 142,f. 4, f.

Types:Egypt,1f.,holotype,21.VI.1936 (BMNH). Distribution: Egypt.

Chlorodynerus mochii Giordani Soika

Chlorodynerus mochii Giordani Soika, 1958, boll. Mus. civ. Stor. nat. Venezia. 10:146, f.

Types:Egypt,Salloum,1f,holotype,1917 (BMNH). Distribution: Egypt.

Chlorodynerus sanctus (Blüthgen)

Euodynerus (Cholorodynerus) sanctus Blüthgen, 1954, Dt. ent. z. (N.F.) 1:242, 257, 264, f,f. 15.

Types:Palestine,Wadi Ain Fara,1f, holotype,4.VII.1928(Ber. Mus.).
Palestine, Herzlia, 1 f, paratype, 7.VII. (Ber. Mus.).
Palestine,Ramat Gan,1 f,paratype,29.VIII. 1946 (BER. Mus.).
Palestine, Ramat Gan, 1 m, paratype, 6.VI. 1944 (BMNH).

Distribution: Egypt.

7- Genus Cyphodynerus van der Vecht

Cyphodynerus van der Vecht, 1971, Ber. Amst. 31:127.

Type species: Odynerus dimidiatus Spinola, 1838.

Distribution: Afrotopical and palaearctic regions.

Cyphodynerus dimidiatus (Spinola)

Odynerus dimidiatus Spinola,1838, Annls, Soc.ent.Fr.7:502,f and m.

Rhynchium dimidiatium Saussure,1855,Et. Fam. Vesp. 3:182, f and m.

Odynerus canaliculatus Saussure, 1855, Et. Fam. Vesp. 3:260, f, pl. 14 f. 4, 4 a.

Types: Egypt, f, and m (Torino). Saudi Arabia, f (Paris).

Distribution: Saudia Arabia; Egypt.

8- Genus Cyrtolabulus van der Vecht

Cyrtolabulus van der Vecht, 1963, zool. Verh., Leiden 60:11.

Type species: Cyrtolabus suavis van der Vecht, 1963.

Cyrtolabulus van der Vecht, 1969, Ent. Ber. Amst. 29:1.

KEY TO SPECIES

1- Clypeus slightly wider than long, uniformly convex. Petiole in profile convex on the base and swollen. Tegulae and scutellum back and ferruginous.....exiguus (Saussure)

- Clypeus as broad as long, emarginate. Petiole in profile truncate anteriorly and smaller posteriorly. Tegulae yellow , scutellum black and yellow.....2

2- Propodeum more elongate and well-developed near postscutellum, forming upright angle dorsally. Punctuation on the body reasonably large and dense. Tergite I ferruginous with a yellow band on the upper margin; tergite II black.....
.....eremicus (Giondani Soika)

- Propodeum short, without angles dorsally. Punctuation on the body less dense. Abdominal segments I & II pale yellow.....
.....gracilis (Kohl)

Cyrtolabulus eremicus (Giordani Soika)

Labus eremicus Giordani Soika, 1952, Boll. Soc. veneziana Stor. nat. 6:15, 16, f, and m.

Types:Palestine: Gerico, 1 f, 27.III.1941,1 m,2VI. 1943. (Giordani Soika coll.) Distribution: Palestine; Egypt.

Cyrtolabulus exiguus (Saussre)

Leptochilus exiguus Saussure, 1853, Et. Fam. Vesp. 1:237, for

Savignyi, 1812, Descr. Egypte pl. 8, f.11, f and m.

Labus shudeaui Buysson, 1908, Bull. Soc. ent. Fr. :132,f.

Leptomenes (Eumenidiopsis) exiguus Giordani Soika, 1939, Annali Mus. civ. Stor. nat. Genova 60:354, f and m, f. 1.

Types: Egypt: Wadi Digla,1 f, allotype (coll. Giordani Soika).

Egypt: Fayum, 1 m, allotype (type loc. unknown).

Distribution: Sahara; Sudan; Cyrenaica; Dead sea region; Egypt.

Cyrtolabulus gracilis (Kole)

Labus gracilis Kole, 1906, Denkschr. Akad. Wiss. Wien, Math. Naturw. Kl. 71 (1): 227, 242, m, pl. 6, f. 27, pl.7,f. 6, 22, 23.

Labus swalei Meade-Waldo,1911,Ann. nat. Hist.8 (8):451, f and m.

Types: Egypt, Sinai, Tor, m (in Wien).

Distribution: Sahara; Sudan; Arabia; Dead Sea Region; Egypt.

9- Genus Eremodynerus Blüthgen

Eremodynerus Bluthgen, 1939, Veroff. dt. Kolon. u. Uebersee Mus. Bremen. 2:257.

Type species:Odynerus (Rhynchium) saharensis Giordani Soika, 1934 (=Odynerus gestroi Dusmet, 1929, preocc.) (original designation).

Distribution: Palaearactic & Afrotropical regions.

Eremodynerus saharensis (Giordani Soika)

Odynerus (Ancistrocerus) (Liontus) gestroi Dusmet, 1929, annali Mus. civ. Stor. nat. Genova 53:316, f and m.

Odynerus (Rynchium) saharensis Giordani Soika, 1934, Boll. Soc. veneziana Stor. nat. 1:42 (new name).

Types: Cirenaica, Giarabub, f and m (Genova).

Distribution: Cirenacia; Egypt.

10- Genus Euodynerus Dalla Torre

Euodynerus Dalla Torre, 1904, Genera Insect. 19:38.

Type species: Vespa dantici Rossi, 1790, (designated by Blüthgen, 1938, confirmed by Opinion 893, l. c.).

Distribution: Asia; Europe; Africa.

KEY TO SPECIES

1- Posterior lobe of the tegulae short and acute.....2

Posterior lobe of the tegulae elongate and mostly rounded....8

2- Size large. Tergite III completely black.....3

- Smaller in size. Tergite III with coloured band on the apical margin.....4

3- Tergite II completely black. Female antennal joints I-V red, the rest black.....niloticus niloticus (Saussure)

- Tergite II black with two red spots on the basal margin. Female antenna joints I-III red, the rest black.....

.....niloticus ebneri (Schulthess)

4- Postscutellum largely dentiform. Clypeus, pronotum and tegulae reddish-yellow.....dantici tinctus (Walker)

- Postscutellum slightly dentiform or rounded. clypeus, pronotum and tegulae yellow or ferruginous.....5

5- Scutellum flattened. Tergites at least I-III with yellow-whitish apical bands.....6

- Scutellum convex. Tergites I-V with yellow or ferruginous apical bands.....7

6- Clypeus longer than wide. Scutellum with two ferruginous spots. female abdominal segment IV with a narrow yellow-

whitish apical band.....diversus (Walker)

- Clypeus wider than long. Scutellum black. Female abdominal segment IV black.....fouadi fouadi (Giordani Soika)

7- Body black with yellow areas.....variegatus variegatus (Fabricius)

- Body black with ferruginous areas.....variegatus kruegeri (Schulthess)

8- Tergites II & III predominantlly yellow.....9

- Tergites II & III fundamentally dark.....11

9- Body colour bright yellow with few rusty-red parts, wings transparent.....rufinus rufinus Blüthgen

- Body colour ferruginous especially head and thorax, abdomen ferruginous with yellow, wings brownish in colour.....10

10- Pronotum with anterior carina. Scutellum convex, with large punctuation. Female clypeus yellow, tergites II and III mostly yellow, other tergites ferruginous.....stigma (Saussure)

- Pronotum without anterior carina, but curved. Scutellum flat, with coarse punctuation. Female clypeus ferruginous, abdominal tergite yellow with large longitudinal black band on the middle part.....pseudolateralis (Meade-Waldo)

11- Tergites I & II red-ferruginous, others dark. Male antennal joints longer than broad. Wings yellow-ferruginous on the base and brownish with violet reflections apically.....sinaiticus (Giordani Soika)

- Tergites I & II with yellow or ferruginous apical margin. Male

antennal joints differ in shape. Wings transparent with clear veins and dark costal margin.....12

12- Male clypeus as long as wide. Yellow or ferruginous colour on tergites I-VI extended laterally.....13

- Male clypeus wider than long. Yellow bands on the apical margin of tergites II-VI.....14

13- Head ferruginous with yellow spots.....
.....rhynchoides rhynchoides (Saussure)

- Head black with yellow or ferruginous spots.....
.....rhynchoides inclinans (Giordani Soika)

14- Postscutellum ferruginous. In male, the antennal hook more curved and thinner with an acute apex; thorax long; tegulae small, rounded anteriorly with long posterior lobe; sternite II more swollen on the base.....
.....familiaris familiaris (Giordani Soika)

- Postscutellum yellow. In male, the antennal hook slender, slighthly curved with rounded apex; thorax shorter; tegulae larger, pointed anteriorly with short posterior lobe.....
.....salzi (Giordani Soika)

Eoudynerus dantici tinctus (Walker)

Odynerus tinctus Walker, 1871, List. Hym. Egypt: 33 (key), 34, f.

Types: Egypt. Distribution: Egypt.

Euodynerus diversus (Walker)

Odynerus diversus Walker, 1871, List Hym. Egypt:33 (key), 34, m.

Odynerus enslini Schulthess, 1928, Eos, Madr. 4:70, 74, f.

Types: Egypt: Wadi Feiran,1 m holotype, without date.(BMNH).

Palestine: Wadi el Kelt, 1 f (Zürich).

Distribution: Palestina; Egypt.

Euodynerus familiaris familiaris (Giordani Soika)

Odynerus (Rhynchium) familiaris Giordani Soika, 1939, Bull. Soc. Fouad 1 Ent. 32:3, f and m, f. 4-6.

EUodynerus tectiformis Blüthgen, 1942, Mitt. zool. Mus. Berl. 25:307, f, f. 1 and 3.

Types: Egypt: Ezbet el Nakhl,1 f allotype, 10.VI, 1936 (BMNH).
Egypt: El Warrak,1 m paratype 30.VI. 1933 (BMNH).
Egypt: Ezbet el Nakhl,1 m paratype,8.VII.1934 (coll.Mochi)

Distribution: Dead Sea region; Egypt.

Euodynerus fouadi fouadi (Giordani Soika)

Odynerus (Rhynchium) fouadi Giordani Soika, 1939, Bull. Soc. Fouad 1 Ent. 23:1, f, f. 1, 3.

Types: Egypt: Helwan,2 f holotype and paratype, 6.IV. 1955 (BMNH)
Egypt: North Galala, 1 f lectotype, 12-25. III. 1935

Distribution: Egypt.

Euodynerus niloticus niloticus (Saussure)

Rhynchim niloticum Saussure, 1855,Et.Fam.Vesp.3:181, pl.16 f.8,f.

Types: Abyssinia, f (coll. Sichel, Paris).

Distribution: Abyssinia; Eritrea; Sudan; Palestine; Saudi Arabia; Egypt.

Euodynerus niloticus ebneri (Schulthess)

Odynerus (Lionotus) ebneri Schulthess, 1921, Anz. ost. Akad. Wiss. 57 (1920):286, m.

Odynerus (Lionotus) meyeri var. palestinensis Schulthess, 1928,

Eos, Madr. 4:72, f.

Types: Cairo, Khartoum, Monora, Charachi (Wien and Zurich).
Plaestine: Wadi el Kelt, f, 25.IV. 1927 (Zurich).

Distribution: Palestine; Sudan; Egypt.

Euodynerus pseudolateralis (Meade-Waldo)

Odynerus pseudolateralis Meade-Waldo, Trans. Ent. Soc. London (1914) 1915:494-509.

Odynerus meyrei var. pseudolateralis Schulthess, Viert. Naturf. Ges. zurich, LXVII, 1922; 40-42.

Pseudepipona (Euodynerus) pseudolateralis Giordani Soika, Riv. Biol. coloniale, XI, 1951, p.80.

Types: N.Nigeria, Minna, X-XI. 1910 (J.W. Scottmacfie (type) and J.Simpson).Gambia,1 f,26.III.191 (J.Simpson).West Africa,1 m

Distribution: Nigeria, Gambia; West Africa; Egypt.

Euodynerus rhynchoides rhynchoides (Saussure)

Odynerus (Leionotus) rhynchoides Saussure,1853, Et. Fam. Vesp. 1:152 (key), 174, m, pl. 17 f. 12.

Odynerus (Odynerus) interruptus Sauusure, 1863, Mem. Soc. Phys. Hist. nat. Geneve 17:221, f.

Odynerus saussurei André, 1884, Spec. Hym. Eur. 2:682, f.

Types: Senegal, 1m (Paris). Abyssina, 1f (Frankfurt).

Distribution: Eritrea; Sudan; Algeria; Libya; Egypt.

Euodynerus rhynchoides inclinans (Giordani Soika)

Odynerus crenatus aegyptiacus Schulthess, 1928, Eos, Madr. 4:77, f. (invalid homonym of Odynerus aegyptiacus Saussure, 1863).

Odynerus (Rhynchium) tectus inclinans Giordani Soika, 1935, Bull. Soc. ent. Egypte 19:183 (key) f and m. (incorrectly recorded under tectus).

Types: Egypt, 1 f (Zurich).

Egypt: Meadi, 1 f paratype, 5.VI.1920 (BMNH).

Egypt: Meadi, 1 m paratype, 6.VI.1920 (BMNH).

Euodynerus rufinus rufinus Blüthgen

Euodynerus (Euodynerus) rufinus Bluthgen, 1942, Mitt. zool. Mus. Berl. 25:303, f.

Types: Palestine, Wadi Qilt, 1f paratype, 7.VIII.1928 & El-Ghor, 1m allotype, 7.VIII. 1928 (A. Muller) (det. Bluthgen, 1939) (Ber. Mus.).

Distribution: Iran; Armenia; Palestine, Egypt.

Euodynerus salzi (Giordani Soika)

Pseudpipona (Euodynerus) salzi Giordani Soika, 1952, boll. Soc. Venez. Stor. nat. 6:42, f & m, fig. 9 (1,2,4,5).

Types: Palestine: Jerusalem, 1 f & 1 m, 18.XI.1941. (coll. Giordani Soika).

Palestine: Jerusalem, topotype, 18.IX.1940 (coll. Bytinski-Salz).

Distribution: G. Sahara; Palestine; Egypt.

Euodynerus sinaiticus (Giordani Soika)

Odynerus (Rhynchium) tectus var. sinaiticus Giordani Soika, 1939, Bull. Soc. Fouad 1 Ent. 23:6, f.

Types: Egypt, Sinai, Wadi Nasb, 1f holotype, VII. 1927 (BMNH).

Yemen: Asr, 2m, 14.II. 1938 and 27-28.II. 1938.

Distribution: Yemen; Egypt.

Euodynerus stigma (Sauusure)

Odynerus stigma Saussure, 1863, Mem. Soc. Phys. Hist. nat. Geneve 17:219,m.

Rhynchium zonatum Walker, 1871, List Hym. Egypt: 31, f and m.

Rhynchium patrizii Guiglia, 1931, Annali. Mus. civ. Stor. ant. Genova 55:160, f, f. 1 et 2.

Types: Egypt, Aswan, 1f paratype, 6.XI. 1921 (BMNH).

Distribution: Ethiopia; Saudi Arabia; Israel; Egypt.

Euodynerus variegatus variegatus (Fabricius)

Vespa variegata Fabricius, 1793, Entom. syst. 2:269.

Odynerus crenatus Lepeletier, 1841, Hist. nat. Ins. Hym. 2:629, f and m.

Odynerus (Leionotus) rhynchiformis Saussure, 1853, Et. Fam. Vesp. 1:174, m.

Odynerus (Leionotus) andrei Mocsary, 1853, Magy. Akad. Termesz. Ertek. 13 (11):50.

Odynerus punicus Gribodo,1886,in Andre, Spec. Hym. Eur. 2:874, m.

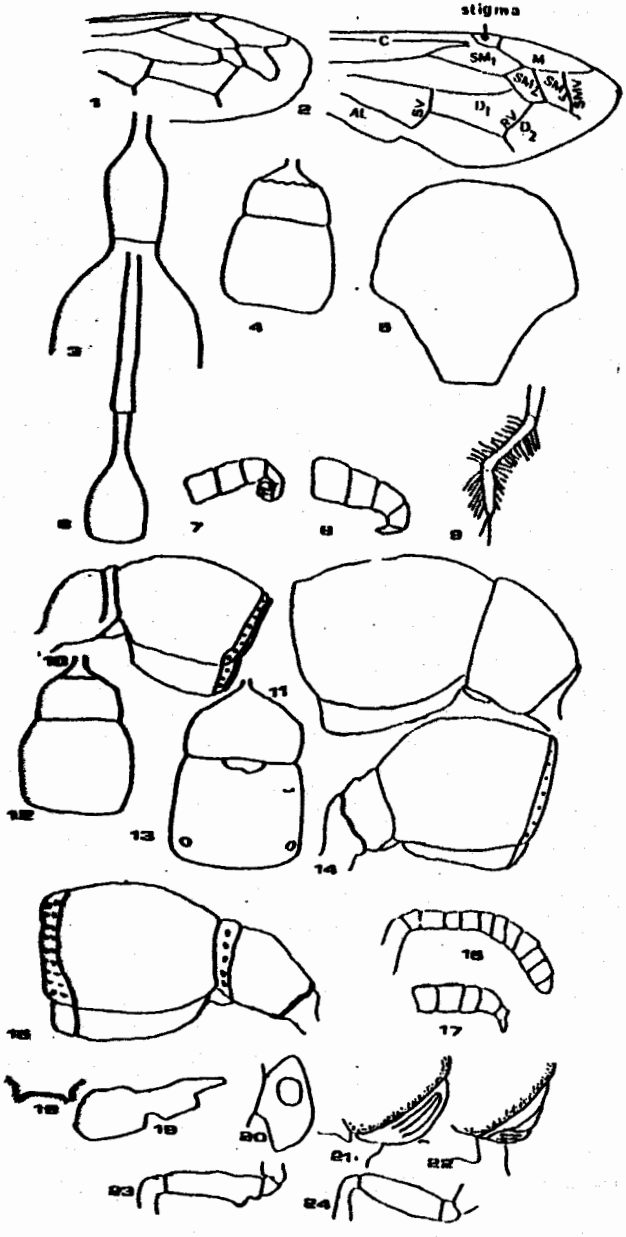
Pseudepipona (Euodynerus) unica Giordani Soika, 1953, Bull. Soc. Sci. nat. Phys. Maroc, 32:249, m.

Types: Algeria: Oran f and m (coll. Lepeletier, Paris).

France: m (Paris). Distribution: S.W. Europe; N. Africa.

Euondynerus variegatus kruegeri (Schulthess)

Odynerus crenatus var. krugeri Schulthess, 1928, Eos, Madr. 4:71 (key), 77, f and m. Distribution: Cyrenacia, Egypt.



Figures 1–24

(All x=26 except in 3, 4, 6, 12 and 13 where x= 10)

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الجمعيـة المصرية - الإلمانيـة
لعلـم الحيـوان
العدد السـابع (B) يناير ١٩٩٢

دراسة تصنيفيـة علـى فصيلـة " ايومينيـدى "

فى جمهورية مصـر العربيـة

(رتبة : غشائية الاجنحـة)

سامى زلـط[١] - أحمد أبو غاليه[٢] - فرانسيس جلبرت[٢] - نجاة شومر[٣]

١ - قسم علم الحيوان ، كلية العلوم ، جامعة قناة السويس

٢ - قسم علم الحيوان ، جامعة نوتنجهام ، انجلترا

٣ - قسم علم الحشرات ، كلية العلوم ، جامعة عين شمس

تمت دراسة فصيلة " ايومينيدى " تصنيفيا عن طريق مقارنة العينات المجموعة من جنوب سيناء بعد حصر استمر أربعة أعوام وتلك الموجودة فى أهم المجموعات الحشرية المصرية والأخرى المحفوظة فى بعض المتاحف الأجنبية وهكذا ، وضعت الصفات المميزة لأفراد تلك الفصيلة . ولأول مرة صمم مفتاح لأجناس تلك الفصيلة مزود ببعض الرسومات التوضيحية . كما ذكرت مترادفات عشرة من أجناس الفصيلة بالاضافة الى مفاتيح ومترادفات أنواع تلك الأجناس والتوزيع الجغرافى لعينات هذه الأنواع .

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