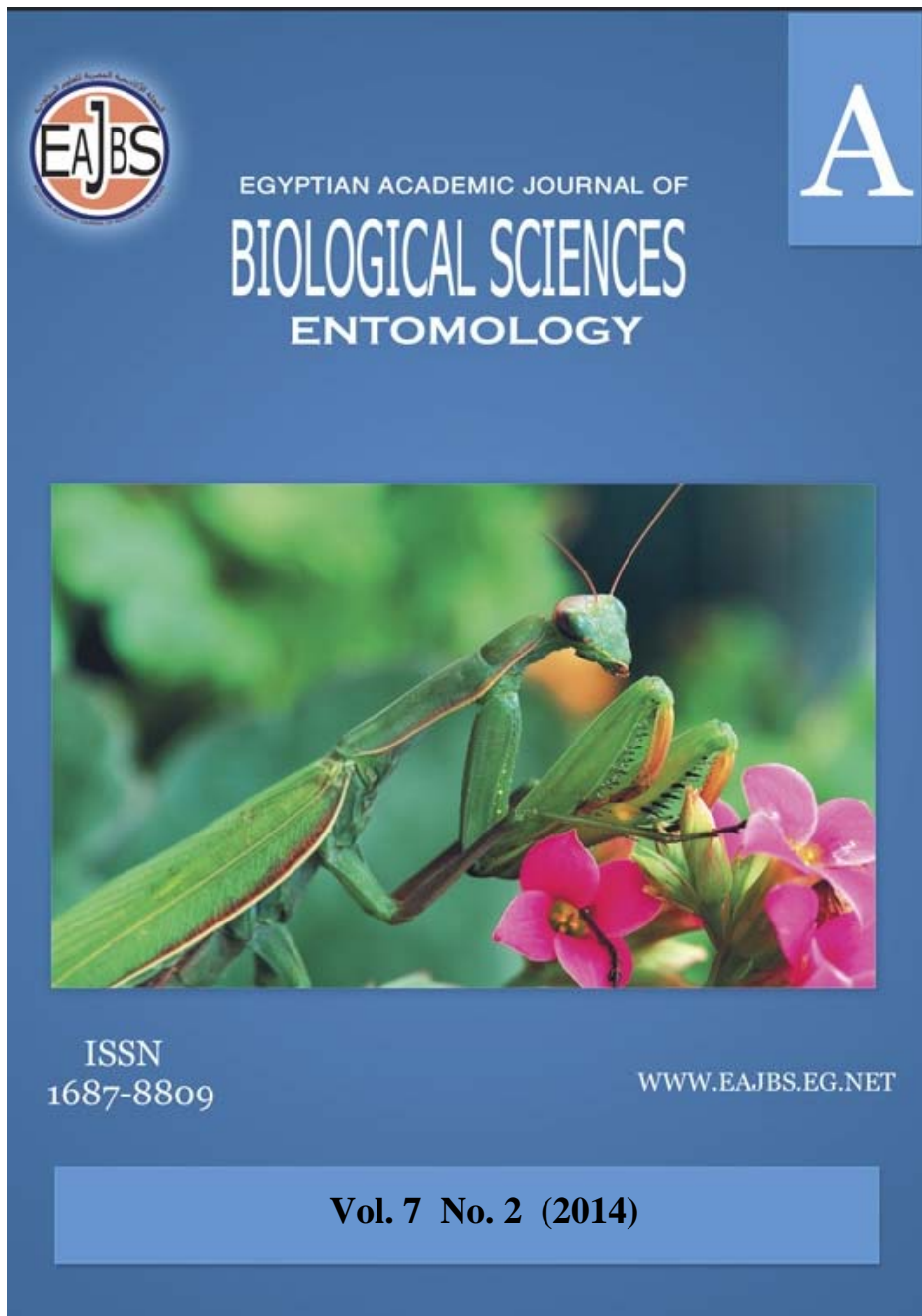


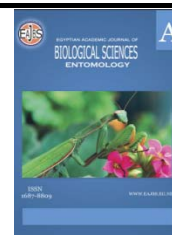
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**A Review of the Egyptian ant flower beetles
Anthicinae: Endomiini, Formicomini, Microhorini (Coleoptera: Anthicidae)**

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ABSTRACT

The distribution of the known species of the Egyptian anthicid fauna is analysed and their recent taxonomic status is assessed. In this paper the rest of species from subfamily anthicinae (Tribes: Endomiini, Formicomini and Microhorini) are reviewed. Twenty five species are keyed and distributed according to their material examined or recorded in literature.

INTRODUCTION

Family Anthicidae are moderate-size; about 3000 species under 40 genera (Booth *et al.*, 1990). They are characteristically narrow-bodied beetles with a distinctive pronotum that are constricted posteriorly and are usually black or dark brown in color, sometimes with patches of dull red or yellow. Some species have an obvious horn on the anterior border of pronotum. Members of the Anthicidae are most commonly residents of the coastal fringe, especially on sandy soils, or the sides of rivers. Others species are associated with compost or straw.

The present paper and the previous papers (El-Torkey *et al.*, 2005), (Abd El-Dayem, 2009) and (El-Gharbawy *et al.*, 2010) of the designed series are intended to serve as a base of such a study. This study dealing with twenty five species belonging currently to seven genera (*Anthelephila*, *Aulacoderus*, *Endomia*, *Liparoderus*, *Microhoria*, *Stenidius* and *Tenuicolles*), which known to occur in Egypt. This is the last paper of subfamily anthicinae, however, El-Torkey *et al.* (2005) reviewed 21 Egyptian species that belonging to three genera (*Anthicus*, *Omonadus*, and *Stricticollis*); Abd El-Dayem (2009) reviewed 14 species belonging to two genera (*Cordicollis* and *Cyclodinus*) and El-Gharbawy *et al.* (2010) reviewed 8 species belonging to four genera (*Amblyderus*, *Hirticollis*, *Leptaleus*, *Pseudoleptaleus*).

MATERIAL AND METHODS

The present taxonomic work was started by examining specimens in the Egyptian Reference Insect Collections to give a general picture on the diversity and distribution of anthicid beetles in Egypt. These collections are: Ministry of Agriculture, Plant Protection Research Institute (MAC); Alfieri Collection, Faculty of

Agriculture, Al-Azhar University (ALC); Egyptian Entomological Society (EESC); Cairo University collection, Department of Entomology, Faculty of Science (CUC) and Ain Shams University collection, Department of Entomology, Faculty of Science (ASUC). The specimens of anthicids species under investigation were collected by using various methods including sweeping net and pitfall traps in addition to light traps, where many species are frequently attracted to artificial light. All examined species are represented by one or more figures that are simple line drawings. In the discussion following each taxon, all known records for the species in Egypt are cited.

RESULT

Key to Genera and species of subfamily Anthicinae:

- 1-Antennae inserted below the edge of the epistome. Body finely and briefly squamous above (Figs. 1 & 6)..... *Endomia* La Porte..... 2
 - Antennae inserted in front of eyes at the edge of the epistome. Dorsal surface pubescent..... 5
 2-Elytra brown with yellow spots. Body brown and each elytron decorated with a yellow spot. Short hairs barely visible gray squamuleuse
 *Endomia lefebvrei* (LaFerté-Sénectère)
 -Elytra a red testaceous with or without brown spots..... 3
 3-Elytra without spots. Body small. Basal antennal segments slightly longer and bigger *Endomia tenuicollis* (Rossi)
 -Elytra with brown spots..... 4
 4-Body Big. Antennae less dilated apically. Brown spot of elytra greater, vague and slightly closer to the end..... *Endomia occipitalis* (Dufour)
 -Body small. Antennae more dilated apically. Brown spot of elytra small and closer to the end..... *Endomia unifasciata* (Bonelli)
 5- Elytra oval; femora strongly dilated (Figs. 2 & 4)..... *Anthelephila* Hope..... 6
 -Elytra very rarely oval; femora thickened, but without bulging claviform before knee..... 14
 6-Pronotal disc with median longitudinal furrow.....
 *Anthelephila canaliculatus* (LaFerté-Sénectère)
 -Pronotal disc without such furrow..... 7
 7- Prothorax black or sooty..... *Anthelephila latro* (LaFerté-Sénectère)
 - Prothorax variable..... 8
 8-Elytra with a macula covered with hairs..... 9
 - Elytra without such macula..... 11
 9- Elytra at shoulders with small lateral macula... *Anthelephila bimaculipennis* (Pic)
 - Elytra with transverse fascia or band..... 10
 10- Elytra with narrow transverse fascia of white condensed hairs on third of elytra basally..... *Anthelephila amaena* (LaFerté-Sénectère)
 - Elytra with the band drawing backwards the shoulders, slightly yellowish and sometimes reaching until the lateral edge..... *Anthelephila nadari* (Pic)
 11- Male anterior femora with long and narrow process.....
 *Anthelephila caeruleipennis* (LaFerté-Sénectère)
 - Male anterior femora without such process..... 12
 12- Body large in size 6 mm. Elytra with greenish red colored posteriorly and laterally..... *Anthelephila alferii* (Pic)
 - Body moderate in size 4-4.5 mm. Elytra variable not as such..... 13

- 13- Body brownish black, 4 mm.; finely and densely punctate, and with grey hairs laterally.....*Anthelephila angustiformis* (Fairmaire)
 - Body reddish testaceous with pitch black elytra, 4.5 mm.; finely and densely punctate on head and pronotum and sparsely on elytra, and with sparsely greyish pubescent.....*Anthelephila anastasei* (Pic)
- 14-Prothorax short and wide, crossed in front of the base by a deep groove (Fig. 5)...
*Aulacoderus* La Ferté-Sénectère..... 15
 -Prothorax without deep constriction and without transverse groove..... 17
- 15- Elytra with one brown spot on the suture.....
*Aulacoderus ferrantei* (Peyerimhoff)
 - Elytra with two spots or band. 16
- 16- Elytra colouration in major part dark, with an anterior sutural testaceous macula and apical testaceous spot.....*Aulacoderus peyroni* (Pic)
 - Elytra with basal rather variable spot and with black posterior band situated rather near the extremity.....*Aulacoderus sefrensis* (Pic)
- 17-Body elongated, narrow, subdepressed. Hind tarsi very slender, longer than tibia (Figs. 3 & 8).....*Stenidius* La Ferte-Senectere..... 18
 -Body short, convex. Hind tarsi smaller than tibia..... 20
- 18- Elytra without macula*Stenidius aristidis* (Pic)
 - Each elytron ornated with 2 maculae 19
- 19- Elytra reddish, with the first third of elytra being almost uniformly reddish, pubescent with little marked anterior fascie*Stenidius vittatus hartliebi* (Pic)
 - Elytra black, rather shiny under a fine dark hairs, each decorated 2 reddish spots, hidden by ash pubescence*Stenidius vittatus vittatus* (Lucas)
- 20-Prothoracic sides carved a pit behind the suddenly narrowed anterior bulge; expanded at the base almost as wide in front (Fig. 7) ..*Microhoria* Chaverolat..... 21
 - Prothoracic sides without such pit..... 24
- 21- Elytra black with wide, big, post-humeral and Post-median reddish yellow macula*Microhoria rabinovitshi* (Koch)
 - Elytra without macula..... 22
- 22- Prothorax provided with a lateral fossa near the base...*Microhoria chakouri* (Pic)
 - Prothorax without fossa..... 23
- 23- Dorsum entirely dark, the first articles of antenna with terminals darkened brown and tibiae and tarsus ferruginous. Head with strong punctuation, pronotum with dense marked punctuation and elytra fine, moderately punctuated.....*Microhoria latipennis* (Pic)
 - Dorsum pitch black, legs testaceous and tarsi brown. Punctuation of fine sparse points.....*Microhoria iscarיותes* (LaFerté-Sénectère)
- 24- Prothorax wide, rounded, arched. Body very elongated.....
*Liparoderus* La Ferte-Senectere....
 Size very robust and big (4 mm). Head, pronotum and elytra with same width, elytra without shoulders, their base with width pronotum, mesosternum small, situated completely below the pronotum, with borders not visible from above. Posterior tibiae of male curved at middle.*Liparoderus argenteovestitus* (Pic)
 -Prothorax oblong or wider than long, but not transverse, usually slightly widened anteriorly, somewhat attenuated from behind. Elytra parallel, narrow, depressed. Smaller (Fig. 9).....*Tenuicolles* Marseul....
 Dorsum obscure brown color, except the last third of elytra yellow. Elytra parallel, disjointed at apex.*Tenuicolles alferii* (Pic)

Tribe:Formicomini

***Anthelephila alfierii* (Pic, 1924) (Fig. 10, Map 2)**

Formicomus alfierii Pic, 1924:22.

Type Locality: Egypt: Kosseir (Red Sea Coast).

Material Examined:

El-Wasta, 18.III.1934,(2) Rabinovich, MAC.

Local Distribution: The distribution of this species is restricted to East Coastal strip and Upper Nile Valley.

World Distribution: It is endemic to Egypt.

***Anthelephila amaena* (LaFerté-Sénéctère, 1848)**

Formicomus amaenus La Ferté-Sénéctère, 1848:12.

Formicomus mellyi Pic, 1894:64.

Type Locality: Egypt (Coll. Bonvoul).

Material Recorded:

Cairo (Pic, 1894).

Local Distribution: The distribution of this species is restricted to Lower Nile Valley.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Egypt, Ethiopia, Saudi Arabia, Sudan and Yemen.

***Anthelephila anastasei* (Pic, 1935) (Map 2)**

Formicomus anastasei Pic, 1935:6.

Formicomus alfierii Pic, 1935:4.

Type Locality: Egypt (Luxor).

Material Recorded:

Luxor, IV (the type).(Alfieri, 1976).

Local Distribution: The distribution of this species is restricted to Upper Nile Valley.

World Distribution:It is endemic to Egypt.

***Anthelephila angustiformis* (Fairmaire, 1893) (Map 2)**

*Formicomus angustiformis*Fairmaire, 1893:155.

Formicomus filicollis Pic, 1898:63.

Type Locality: Mali: Badoumbe.

Material Recorded:

From Sinai (Museum Frey) (Alfieri, 1976).

Local Distribution: The distribution of this species is restricted to Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Egypt (Sinai), Ethiopia, Mali, Palastineand Saudi Arabia.

***Anthelephila bimaculipennis* (Pic, 1939) (Map 2)**

Formicomus bimaculipennis Pic, 1939:146.

Type Locality: Egypt: Wadi Teyebah (South Sinai).

Material Recorded:

Wadi Teyebah, 30.V.1935(Rabinovitch in Coll. Alfieri).

Local Distribution: The distribution of this species is restricted to Sinai Peninseula.

World Distribution:It is Palaearctic species, widely distributed in: Egypt (Sinai), Palastine and Saudi Arabia.

***Anthelephila caeruleipennis* (LaFerté-Sénéctère, 1847) (Fig. 11 & Map 1)**

Anthicuscaeruleipennis caeruleipennis LaFerté-Sénéctère, 1847:369.

Formicomus caeruleipennis var. *syanopterus* LaFerté-Sénéctère, 1849:22.

Type Locality: Spain.

Material Examined:

Abu Rawash, 1.I.1912, (3) Ferrante, ASUC; Abu Rawash, 1.I.1912, (3)

Ferrante, EESC; Abu Rawash, 14.I.1925, (1) Mabrouk, MAC; Abu Rawash, 5.VI.1931, (1) Mabrouk, MAC; Abu Rawash, 21.VII.1933, (6) Rabinovitch, MAC; Abu Rawash, 8.X.1930, (4) Alfieri, ASUC; Abu Rawash, 8.X.1930, (4) Alfieri, EESC; Abu Rawash, 8.X.1930, (1) Mabrouk, MAC; Alexandria, 2.VI.1910, (1) Ferrante, ASUC; Alexandria, 2.VI.1910, (1) Ferrante, EESC; Arish, 27.VIII.1997, (1) A.M. El-Torkey, CUC; Armant, II.1963, (17) W. Hodges, Side Coll., MAC; Asiut, 12.XI.1930, (4) Alfieri, ASUC; Asiut, 12.XI.1930, (4) Alfieri, EESC; Baharia Oasis, 20.III.1925, (2) Alfieri, ASUC; Baharia Oasis, 20.III.1925, (2) Alfieri, EESC; Baharia Oasis, 20.III.1925, (1), ALC; Barrage, 24.IV.1905, (3) Ferrante, ASUC; Barrage, 24.IV.1905, (3) Ferrante, EESC; Barrage, 2.IV.1921, (1), ALC; Barrage, 20.V.1913, (1), ALC; Barrage, 23.V.1897, (1) Ferrante, ASUC; Barrage, 23.V.1897, (1) Ferrante, EESC; Barrage, 27.VII.1895, (1) Ferrante, ASUC; Barrage, 27.VII.1895, (1) Ferrante, EESC; Beni Mazar, 27.V.1915, (2) Ferrante, ASUC; Beni Mazar, 27.V.1915, (2) Ferrante, EESC; Borgash, 27.IX.1924, (1) Mabrouk, MAC; Cairo, 16.VI.1914, (1) Ferrante, ASUC; Cairo, 16.VI.1914, (1) Ferrante, EESC; Cairo-Alexandria Desert Road, 19.I.1994, (10) M.S. Abdel Dayem, CUC; El Khanka, 23.VII.1921, (1) Hargreaves, MAC; El Mahlla, 11.I.1928, (1) Mabrouk, MAC; Fayed, 2.X.1925, (1) Alfieri, ASUC; Fayed, 2.X.1925, (1) Alfieri, EESC; Fayed, 2.X.1925, (1), ALC; Fayoum, 28.IV.1934, (1) Yorbona, MAC; Giza, 15.I.1933, (1) Rabinovitch, MAC; Giza, 20.VIII.1913, (7) Innes Bey, ASUC; Giza, 20.VIII.1913, (7) Innes Bey, EESC; Helwan, 11.III.1930, (1) Farag, MAC; Helwan, 21.IX.1895, (2) Ferrante, ASUC; Helwan, 21.IX.1895, (2) Ferrante, EESC; Helwan, 31.XII.1929, (1) Farag, Side Coll., MAC; Kafr Hakim, 20.I.1932, (1) Alfieri, ASUC; Kafr Hakim, 20.I.1932, (1) Alfieri, EESC; Kafr Hakim, 7.II.1925, (2) Mabrouk, MAC; Kafr Hakim, 24.VI.1931, (3) Mabrouk, MAC; Kafr Hakim, 30.IX.1925, (1) Alfieri, ASUC; Kafr Hakim, 30.IX.1925, (1) Alfieri, EESC; Kafr Hakim, 13.IX.1929, (1) Mabrouk, MAC; Kafr Hakim, 31.X.1925, (1) Mabrouk, MAC; Kafr Hakim, 26.XII.1925, (2) Alfieri, ASUC; Kafr Hakim, 26.XII.1925, (2) Alfieri, EESC; Kafr Hakim, 26.XII.1925, (1), ALC; Kafr Hakim, 26.XII.1925, (1) Mabrouk, MAC; Kafr Hakim, 5.XII.1926, (2) Alfieri, ASUC; Kafr Hakim, 5.XII.1926, (2) Alfieri, EESC; Katta, 19.XI.1910, (5) Ferrante, ASUC; Katta, 19.XI.1910, (5) Ferrante, EESC; Kharga Oasis, 12.VI.1926, (1) Alfieri, ASUC; Kharga Oasis, 12.VI.1926, (1) Alfieri, EESC; Kharga Oasis, 12.VI.1926, (1) Tawfik, MAC; Kirdasa, 2.I.1926, (3) Alfieri, ASUC; Kirdasa, 2.I.1926, (3) Alfieri, EESC; Kirdasa, 2.I.1926, (1) Mabrouk, MAC; Kirdasa, 6.I.1927, (1) Alfieri, ASUC; Kirdasa, 6.I.1927, (1) Alfieri, EESC; Kirdasa, 5.I.1927, (1) Mabrouk, MAC; Kirdasa, 13.II.1921, (1) Alfieri, ASUC; Kirdasa, 13.II.1921, (1) Alfieri, EESC; Kirdasa, 17.VII.1932, (1) Mabrouk, Side Coll., MAC; Kirdasa, 29.VIII.1925, (1) Alfieri, ASUC; Kirdasa, 29.VIII.1925, (1) Alfieri, EESC; Kirdasa, 11.X.1930, (1) Alfieri, ASUC; Kirdasa, 11.X.1930, (1) Alfieri, EESC; Kirdasa, 11.X.1930, (2) Mabrouk, MAC; Kirdasa, 13.XII.1931, (1) Mabrouk, Side Coll., MAC; Kom Oshim, 17.XI.1994, (1) M.S. Abdel Dayem, CUC; Luxor, VI.1906, (1) Ferrante, ASUC; Luxor, VI.1906, (1) Ferrante, EESC; Maadi, 22.I.1915, (3) Ferrante, ASUC; Maadi, 22.I.1915, (3) Ferrante, EESC; Maadi, 6.VI.1915, (1) Storey, MAC; Magadla, 7.VIII.1932, (3) Alfieri, ASUC; Magadla, 7.VIII.1932, (3) Alfieri, EESC; Mansouriya, 22.I.1924, (1) Mabrouk, Side Coll., MAC; Mansouriya, 15.VI.1932, (1) Mabrouk, MAC; Mansouriya, 22.VII.1924, (2) Mabrouk, MAC; Mansouriya, 14.VII.1929, (5) Alfieri, ASUC; Mansouriya, 14.VII.1929, (5) Alfieri, EESC; Mansouriya, 14.VII.1929, (2), ALC; Mansouriya, 21.VII.1929, (1) Mabrouk, MAC; Mansouriya, 21.VII.1929, (2) Mabrouk, Key, MAC; Mansouriya, 14.VII.1929, (1) Mabrouk, Side Coll., MAC; Mansouriya, 13.IX.1924, (1) Alfieri, ASUC;

Mansouriya, 13.IX.1924, (1) Alfieri, EESC; Mansouriya, 19.XI.1925, (1) Alfieri, ASUC; Mansouriya, 14.XI.1925, (2) Alfieri, ASUC; Mansouriya, 19.XI.1925, (1) Alfieri, EESC; Mansouriya, 14.XI.1925, (2) Alfieri, Mansouriya, 14.XI.1925, (1), ALC; Mansouriya, 14.XI.1925, (1) Mabrouk, MAC; Marg, II.1909, (1) Ferrante, ASUC; Marg, II.1909, (1) Ferrante, EESC; Marg, 31.X.1906, (1) Ferrante, ASUC; Marg, 31.X.1906, (1) Ferrante, EESC; Mashally, 12.II.1994, (1) M.S. Abdel Dayem, CUC; Mazghouna, 10.III.1912, (1) Ferrante, ASUC; Mazghouna, 10.III.1912, (1) Ferrante, EESC; Mazghouna, 18.XI.1926, (1), ALC; Montazah, 2.VI.1929, (1) Priesner, MAC; Nahia, 13.XII.1931, (3) Alfieri, ASUC; Nahia, 13.XII.1931, (3) Alfieri, EESC; Nahia, 13.XII.1931, (3) Mabrouk, MAC; Nahia, 19.XII.1931, (2) Mabrouk, MAC; Nawa, 5.IV.1907, (4) Ferrante, ASUC; Nawa, 5.IV.1907, (4) Ferrante, EESC; Ogret El-Shiekh, 30.IX.1928, (1) Mabrouk, MAC; Pyramids, 23.VII.1923, (1) Rabinovitch, MAC; Qaroun Lake, 16.XII.1993, (1) M.S. Abdel Dayem, CUC; Sherbein, 17.IV.1913, (1) Ferrante, ASUC; Sherbein, 17.IV.1913, (1) Ferrante, EESC; Tala, 15.VI.1932, (1) Alfieri, ASUC; Tala, 15.VI.1932, (1) Alfieri, EESC; Talbeyia, 20.XI.1909, (1), ALC; Talbeyia, 19.XI.1915, (1), ALC; Talbeyia, 9.XI.1921, (5), ALC; Wadi Abu Gharagid, 14.II.1928, (1), ALC; Wardan, 8.IX.1907, (1) Ferrante, ASUC; Wardan, 8.IX.1907, (1) Ferrante, EESC; Warrak El Hadar, 7.VI.1932, (1) Alfieri, ASUC; Warrak El Hadar, 7.VI.1932, (1) Alfieri, EESC; 2.II.1927, (1) Alfieri, ASUC; 2.II.1927, (1) Alfieri, EESC; Kom Oshim, 16.XII.1993, (5) M.S. Abdel Dayem, CUC; Qaroun Lake, 8.XII.1993, (4) M.S. Abdel Dayem, CUC.

Local Distribution: The distribution of this species is restricted to Western part of Mediterranean Coast, Lower and Upper Nile Valley, Eastern Deasert, Western Deasert and Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Algeria, Arab Emirates, Canary Island, Egypt, Ethiopia, Iran, Iraq, Jordan, Lebanon, Libya, Morroco, Oman, Pakistan, Palastine, Saudi Arabia, Sinai, South Africa, Spain, Tunisia and Yemen.

***Anthelephila canaliculata* (LaFerté-Sénéctère, 1848) (Fig. 12 & Map 3)**

Formicomus canaliculata La Ferté-Sénéctère, 1848: 22.

Type Locality: Sicily.

Material Examined:

El Tel El Kibir, 16.V.1909, (5) Ferrante, ASUC; El Tel El Kibir, 16.V.1909, (5) Ferrante, EESC; El Tel El Kibir, X.1908, (1), ALC; El Tel El Kibir, X.1909, (1) Ferrante, ASUC; El Tel El Kibir, X.1909, (1) Ferrante, EESC; Giza, 10.IX.1916, (1) Adair, MAC; Kafr Hakim, 11.XII.1933, (2) Mabrouk, Side Coll., MAC; Kafr Hakim, 13.XII.1933, (4) Mabrouk, Side Coll., MAC; Kafr Hakim, 18.XII.1933, (3) Mabrouk, Side Coll., MAC; Kafr Hakim, 14.XII.1933, (4) Mabrouk, Side Coll., MAC; Kirdasa, 10.VIII.1933, (4) Priesner, MAC; Kirdasa, 29.X.1933, (1) Rabinovitch, MAC; Kirdasa, 29.X.1933, (1) Rabinovitch, Key, MAC; Mahsama, 27.IX.1908, (18) Ferrante, ASUC; Mahsama, 27.IX.1908, (18) Ferrante, EESC; Mansouriya, 4.III.1934, (1) Mabrouk, MAC; Mansouriya, 28.VIII.1935, (4) Mabrouk, MAC; Marg, 9.VII.1909, (1), ALC; Pyramids, 27.VII.1933, (5) Rabinovitch, MAC; Pyramids, 27.VII.1933, (1) Rabinovitch, Key, MAC; Pyramids, 9.XI.1908, (1) Ferrante, ASUC; Pyramids, 9.XI.1908, (1) Ferrante, EESC; Toura, 11.X.1912, (1), ALC.

Local Distribution: The distribution of this species is restricted to Eastern Deasert, Lower and Upper Nile Valley.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Algeria, Egypt, Italy (Sicily), Kenya, Morroco, Tansania and Tunisia.

***Anthelephila latro* (LaFerté-Sénectère, 1848) (Fig. 13 & Map 3)**

Formicomus latro La Ferté-Sénectère, 1848: 21.

Type Locality: Sicily (col. Bonv.).

Material Examined:

Burg, 20.V.1927, (1) Efflatoun, MAC.

Local Distribution: The distribution of this species is restricted to western part of Mediterranean Coast and Lower Nile Valley.

World Distribution: It is Palaearctic species, widely distributed in: Algeria, Crete, Egypt, Iran, Italy (Sardinia, Sicily), Palastine, Spain and Tunisia.

***Anthelephila nadari* (Pic, 1893) (Fig. 14)**

Formicomus nadari Pic, 1893: 175.

Formicomus sphinx Krekich-Strassoldo, 1919: 171.

Type Locality: Palastine : Jaffa.

Material Recorded:

Cairo (Krekich-Strassoldo, 1919).

Local Distribution: The distribution of this species is restricted to Lower Nily Valley.

World Distribution:It is Palaearctic species, widely distributed in: Egypt, Jordan, Lebanon, Palastine, Sinai, Syria and Turkey.

***Stenidius aristidis* (Pic, 1893) (Fig. 22 & Map 4)**

Anthicus aristidis Pic, 1893: 51.

Type Locality:Egypt: Alexandria (Mariout).

Material Examined:

Abu Mina, II, (1), ALC; King Mariout, 17.III.1935, (10) Rabinovich, MAC; King Mariout, 21.IV.1935, (14), ALC; King Mariout, 21.IV.1935, (10) Rabinovich, Key, (10), MAC; Mariout, I.1909, (1), ALC; Mariout, II.1909, (1), ALC.

Local Distribution: the distribution of this species is restricted to western part of Mediterranean Coast.

World Distribution:It is Palaearctic species, widely distributed in: Egypt and Saudi Arabia.

***Stenidius vittatus hartliebi* (Pic, 1899) (Fig. 23 & Map 4)**

Anthicus vittatus hartliebi Pic, 1899: 174.

Type Locality: Egypt: Cairo

Material Examined:

Barrage, 7.VIII.1909, (1), ALC; Barrage, 13.IX.1933, (1) Rabinovitch, MAC; Barrage, 10.IX.1933, (2) Rabinovitch, MAC; Barrage, 13.IX.1933, (2) Rabinovitch, Key, MAC; Cairo, 27.I.1933, (1), ALC; Cairo, VII, (1), ALC; Cairo, VIII, (1), ALC; Kafr Hakim, 14.II.1934, (1) Mabrouk, MAC; Kafr Hakim, 18.XII.1933, (4) Mabrouk, Side Coll., MAC; Kafr Hakim, 13.XII.1933, (6) Mabrouk, Side Coll., MAC; Kafr Hakim, 12.XII.1933, (1) Mabrouk, Side Coll., MAC; Kirdasa, I, (1), ALC; Kirdasa, VII, (1), ALC; Kirdasa, 25.X.1926, (1) Mabrouk, MAC; Luxor, VIII, (1), ALC; Pyramids, 21.VII.1933, (3), ALC; Pyramids, 27.VII.1933, (2) Rabinovitch, MAC; Pyramids, 23.VII.1933, (1) Rabinovitch, MAC; Sidi Gaber, II.1909, (1), ALC; Abu Rawash, 12.I.1912, (2) Ferrante, EESC; Abu Rawash, 9.VII.1911, (1) Ferrante, EESC; Alexandria, 24.XI.1910, (3) Ferrante, EESC; Barrage, 23.VIII.1912, (2) Ferrante, EESC; Helwan, 23.IV.1911, (2) Ferrante, EESC; Mahsama, IX, (1) Innes Bey, EESC; Matariya, IX.1907, (1) Ferrante, EESC; Shoubra, 16.VI.1914, (1) Ferrante, EESC.

Local Distribution: widely distributed in Lower and Upper Nile Valley; and in the western part of the Mediterranean Coast.

World Distribution: This subspecies is endemic to Egypt.

Stenidius vittatus vittatus (Lucas, 1843) (Fig. 24 & Map 4)

Anthicus vittatus vittatus Lucas, 1843: 145.

Type Locality: Algeria: Bons.

Material Examined:

Cairo, VII, (1), ALC; Cairo, VIII, (1), ALC.

Local Distribution: The distribution of this species is restricted to Lower Nile Valley.

World Distribution: It is Palearctic and Afrotropical species, widely distributed in: Algeria, Azerbaijan, Egypt, Greece, Iran, Italy South Africa and Tunisia.

Tribe:Endomiini

Endomia lefebvrei (LaFerté-Sénéctère, 1848) (Fig. 16 & Map 5)

Ochthenomuslefebvrei LaFerté-Sénéctère, 1848: 9.

Ochthenomusbivittata Truqui, 1855: 369.

Ochthenomusleprieuri Pic, 1893: 38.

Endomianigripennis Sahlberg, 1913: 194.

Endomiaobscuriceps Pic, 1913: 162.

Ochthenomussusica Escalera, 1914: 13.

Endomiareducta Pic, 1919: 13.

Type Locality:Egypt.

Material Examined:

Abu Qir, 1.X.1916, (1) Ferrante, ASUC; Abu Qir, 1.X.1916, (1) Ferrante, EESC; Abu Qir, X, (1) Alfieri, ASUC; Abu Qir, X, (1) Alfieri, EESC; Alexandria, 23.VIII.1910, (6) Alfieri, ASUC; Alexandria, 23.VIII.1910, (6) Alfieri, EESC; Alexandria, 12.XII.1912, (1) Ferrante, ASUC; Alexandria, 12.XII.1912, (1) Ferrante, EESC; Belbies, 15.VIII.1914, (1), ALC; Beni Mazar, 17.XI.1916, (1) Ferrante, ASUC; Beni Mazar, 17.XI.1916, (1) Ferrante, EESC; Cairo, VII.1909, (5), ALC; Cairo, (4) Alfieri, ASUC; Cairo, (4) Alfieri, EESC; Deirout, 15.VII.1923, (1), ALC; Dekhiela, 12.VII.1917, (1) Ferrante, ASUC; Dekhiela, 12.VII.1917, (1) Ferrante, EESC; El Roda, 2.IX.1913, (4), ALC; El Roda, 2.IX.1913, (8) Alfieri, ASUC; El Roda, 2.IX.1913, (8) Alfieri, EESC; Giza, 25.VIII.1926, (1), ALC; Helwan, 2.III.1930, (1) Priesner, MAC; Helwan, 8.III.1931, (1) Farag, MAC; Inshas, 11.IX.2003, (3) A.M. El-Torkey, CUC; Inshas, 31.X.1948, (5) Priesner, Side Coll., MAC; Luxor, VI.1909, (5) Alfieri, ASUC; Luxor, VI.1909, (5) Alfieri, EESC; Maadi, 27.III.1933, (1) Rabinovitch, MAC; Maadi, 27.III.1933, (1) Alfieri, ASUC; Maadi, 27.III.1933, (1) Alfieri, EESC; Maadi, 22.V.1933, (1) Rabinovitch, Key, MAC; Maadi, 30.X.1910, (1) Alfieri, ASUC; Maadi, 30.X.1910, (1) Alfieri, EESC; Marg, 20.III.1910, (1) Alfieri, ASUC; Marg, 20.III.1910, (1) Alfieri, EESC; Marg, IV.1910, (4), ALC; Marg, IV, (1) Alfieri, ASUC; Marg, IV, (1) Alfieri, EESC; Mazghouna, 17.IV.1912, (1) Alfieri, ASUC; Mazghouna, 17.IV.1912, (1) Alfieri, EESC; Mina House, 24.VI.1926, (1) Alfieri, ASUC; Mina House, 24.VI.1926, (1) Alfieri, EESC; Mit Ghamr, 24.XI.1931, (1) Nasr, MAC; Pyramids, 1.XI.1914, (1) Ferrante, ASUC; Pyramids, 1.XI.1914, (1) Ferrante, EESC; Suez, IV.1908, (1) Alfieri, ASUC; Suez, IV.1908, (1) Alfieri, EESC; Toura, VII.1909, (3), ALC; Toura, VII, (5) Chackour, ASUC; Toura, VII, (5) Chackour, EESC; Toura, 12.X.1908, (4) Alfieri, ASUC; Toura, 12.X.1908, (1) Alfieri, ASUC; Toura, 12.X.1908, (4) Alfieri, EESC; Toura, 12.X.1908, (1) Alfieri, EESC; Toura, X, (2) Alfieri, ASUC; Toura, X, (2) Alfieri, EESC; Vieux Caire, 13.X.1916, (1) Ferrante, ASUC; Vieux Caire, 13.X.1916, (1) Ferrante, EESC; Wadi Aideib, 26.II.1938, (4) Priesner, Side Coll., MAC; Wadi Garandel, V.1935, (1) Rabinovitch, MAC; Wadi Garandel, 31.V.1935, (1)

Rabinovitch, Key, MAC; Warak, 2.II.1934, (1) Mabrouk, Side Coll., MAC; (1) Alfieri, ASUC; (1) Alfieri, EESC.

Local Distribution: The distribution of this species is restricted to Western part of Mediterranean Coast, Lower and Upper Nile Valley and Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Afghanistan, Algeria, Arab Emirates, Chad, Cyprus, Egypt, Gambia, Iran, Iraq, Jordan, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Sinai, Tunisia, Turkey, Turkmenistan and Yemen.

***Endomia occipitalis* (Dufour, 1843) (Fig. 17)**

Anthicus occipitalis Dufour, 1843: 71.

Ochthenomus punctata La Ferté-Sénectère, 1847: 380.

Endomia pallidicolor Pic, 1913: 161.

Endomia quadrinotata Pic, 1913: 161.

Type Locality: France (Pirenei, Ossau Valley).

Material Recorded:

Mersa Matrouh and Sinai.

Local Distribution:

The distribution of this species is restricted to Western part of Mediterranean Coast and Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Albania, Algeria, Bosnia, Bulgaria, Croatia, Egypt, France, Greece, Italy, Madeira, Morocco, Oman, Portugal, Spain, Russia (Kavkaz), Sudan, Switzerland, Tunisia and Turkey.

***Endomia tenuicollis* (Rossi, 1792) (Fig. 18)**

Notoxus tenuicollis Rossi, 1792: 47.

Anthicus elongatissima LaPorte, 1840: 259.

Ochthenomus angustata La Ferté-Sénectère, 1847: 381.

Ochthenomus melanocephala Küster, 1847: 57.

Endomia obscuripennis Pic, 1913: 162.

Type Locality: Italy: Tuscany.

Material Recorded:

Sinai and Wadi Allaqi.

Local Distribution:

The distribution of this species is restricted to Eastern Desert and Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Albania, Algeria, Armenia, Austria, Azerbaijan, Bosnia, Bulgaria, Croatia, Czech Republic, Cyprus, Egypt, France, Gambia, Georgia, Greece, Hungary, Iran, Iraq, Italy, Lebanon, Libya, Malta, Macedonia, Montenegro, Morocco, Namibia, Oman, Palestine, Portugal, Romania, Russia, Saudi Arabia, Senegal, Serbia, Slovakia, Spain, Sudan, Switzerland, Syria, Tunisia, Turkey, and Ukraine.

***Endomia unifasciata* (Bonelli, 1812) (Fig. 19)**

Anthicus unifasciata Bonelli, 1812: 174.

Ochthenomus sinuata Schmidt, 1842: 199.

Ochthenomus caucasica Baudi, 1878: 20.

Endomia maculata Pic, 1919: 11.

Type Locality: Piemonte.

Material Recorded:

Sinai and Wadi Allaqi.

Local Distribution:

The distribution of this species is restricted to Eastern Desert and Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Afghanistan, Albania, Algeria, Arab Emirates, Armenia, Austria, Azerbaijan, Bosnia, Bulgaria, Burundi, Canary Island, Croatia, Cyprus, Egypt, France, Georgia, Greece, Iran, Italy, Lebanon, Libya, Macedonia, Montenegro, Morocco, Oman, Palestine, Pakistan, Portugal, Saudi Arabia, Serbia, Spain, Russia, Switzerland, Syria, Tunisia, Turkey, Turkmenistan, Uzbekistan and Yemen.

Tribe :Microhorini

***Aulacoderus ferrantei* (Peyerimhoff, 1943) (Map 6)**

Anthicusferrantei Peyerimhoff, 1943: 16.

Type Locality: Egypt; Sahara Center.

Material Recorded:

Sinai.

Local Distribution: The distribution of this species is restricted to Sinai.

World Distribution: It is endemic to Egypt.

***Aulacoderus peyroni* (Pic, 1900) (Map 6)**

Anthicuspeyroni Pic, 1900: 78.

Anthicusappli Pic, 1900: 78.

Aulacoderusbreveapicalis Pic, 1951: 136.

Type Locality: Syria.

Material Recorded:

Sinai (according to Peyerimhoff).

Local Distribution: The distribution of this species is restricted to Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Egypt (Sinai), Ethiopia, Jordan, Oman, Saudi Arabia and Syria.

***Aulacoderus sefrensis* (Pic, 1894) (Fig. 15 & Map 6)**

Anthicussefrensis Pic, 1894: 78.

Anthicuspostnotatus Pic, 1910: 39.

Anthicuszizyphi Pic, 1902: 65.

Type Locality: Algeria.

Material Examined:

Wadi Hoff, 1.III.1924, (1), MAC; Wadi Hoff, (1) Rabinovitch, MAC.

Local Distribution: The distribution of this species is restricted to Lower Nile Valley and Sinai.

World Distribution: It is Palaearctic and Afrotropical species, widely distributed in: Algeria, Egypt, Mauritania, Morocco and Sinai.

***Liparoderus argenteovestitus* (Pic, 1893) (Map 8)**

Anthicusargenteovestitus Pic, 1893: 51.

Anthicussubincisipes Pic, 1924: 21.

Type Locality: Egypt: Alexandria (Ramla).

Material Recorded:

Abu Mina (Mariout), IV; Ramleh, IV.

Local Distribution: The distribution of this species is restricted to Western part of Mediterranean Coast.

World Distribution: It is Palaearctic species, widely distributed in: Algeria and Egypt.

***Microhoria chakouri* (Pic, 1909) (Fig. 20 & Map 7)**

Anthicuschakouri Pic, 1909: 143.

Type Locality: Egypt.

Material Examined:

6th Tour Suez Road, 22.III.1925, (1) Chackour, EESC; 6th Tour Suez Road, IV, (1), ALC; Cairo, 17.III.1907, (1) Ferrante, EESC; Damietta, 31.VIII.1935, (3) Farag, Side Coll., MAC; Mersa Matrouh, 18.III.1933, (1) Priesner, Side Coll., MAC; Montazah, 2.VI.1929, (1) Priesner, Side Coll., MAC; Suez Road (K 100), 21.VI.1936, (1) Rabinovitch, Key, MAC; Wadi Dar El Maskhara, 12.IV.1930, (1) Tawfik, CUC; Wadi Godirate, 13.III.1937, (8) Rabinovitch, MAC; Wadi Hoff, 10.III.1916, (1) Storey, MAC; Wadi Hoff, 10.III.1916, (1) Adair, MAC; Wadi Um Assad, 7.III.1937, (1) Rabinovitch, MAC; Wadi Um Elek, 21.III.1924, (1) Priesner, MAC; Wadi Um Mittla, 21.III.1937, (3) Rabinovitch, MAC; Wadi Um Mittla, 14.III.1937, (3) Rabinovitch, MAC; Wadi Zohleiga, 29.III.1925, (4) Alfieri, MAC; Wadi Zohleiga, 27.III.1925, (1) Alfieri, MAC.

Local Distribution: The distribution of this species is restricted to Western part of Mediterranean Coast, Lower Nile Valley, Eastern Desert and Sinai.

World Distribution: It is endemic to Egypt.

***Microhoria iscarיותes* (LaFerté-Sénéctère, 1848) (Fig. 21 & Map 7)**

Anthicusiscariotes LaFerté-Sénéctère, 1848: 301.

Type Locality: Palastine: Jerusalem.

Material Examined:

Abu Salem, 7.XI.2002, (1) Sharaf, CUC; Alexandria, 1915, (1) Ferrante, EESC; Amriya, 24.II.1918, (1) Storey, MAC; Burg El-Arab, 25.III.1935, (1) Priesner, Side Coll., MAC; Dabaa (Mariout), 25.III.1931, (3) Andres & Priesner, MAC; El Arish, III, (1), ALC; El Arish, 27.VIII.1997, (1) A.M. El-Torkey, CUC; Gabal El Helal, III, (1), ALC; Hammam, III.1904, (1) Ferrante, EESC; Hammam, 16.III.1930, (1) Andres & Priesner, MAC; Hammam, 15.III.1935, (1) Rabinovitch, MAC; Hammam, IV.1904, (4) Ferrante, EESC; Hammam, IV.1908, (6) Ferrante, EESC; Hammam, 3.IV.1909, (9) Ferrante, EESC; Hammam, (3) Ferrante, EESC; Helwan, 18.III.1930, (1) Farag, Side Coll., MAC; king Mariout, II, (1), ALC; King Mariout, 16.III.1935, (5) Rabinovitch, MAC; King Mariout, 14.III.1935, (1) Rabinovitch, MAC; King Mariout, 15.III.1935, (2) Rabinovitch, MAC; King Mariout, 16.III.1935, (2) Rabinovitch, Key, MAC; king Mariout, III, (1), ALC; king Mariout, 8.IV.1912, (10) Ferrante, EESC; Mansouriya, 11.IX.1998, (1) M.K. Amer, CUC; Mariout, 18.III.1933, (1) Priesner, Side Coll., MAC; Mariout, IV, (1) Salter, EESC; Mariout, IV, (2) Chackour, EESC; Mersa Matrouh, 21.III.1933, (5) Priesner, MAC; Mersa Matrouh, 18.III.1933, (1) Priesner, Side Coll., MAC; Salloum, II, (1), ALC; Salloum, 24.III.1933, (2) Priesner, MAC; Salloum, 24.III.1933, (1) Priesner, Side Coll., MAC; Wadi Isla, IV, (1), ALC.

Local Distribution: The distribution of this species is restricted to Western part of Mediterranean Coast, Upper Nile Valley and Sinai.

World Distribution: It is Palearctic species, widely distributed in: Cyprus, Egypt, Greece, Jordan, Lebanon, Libya, Palastine and Sinai.

***Microhoria latipennis* (Pic, 1892)**

Anthicuslatipennis Pic, 1892: 313.

Type Locality: Syria (Ch. Delagrange).

Material Recorded:

Sinai. (Dmitry Telnov, personal communication)

Local Distribution: The distribution of this species is restricted to Sinai.

World Distribution: It is Palearctic species, widely distributed in: Egypt (Sinai), Jordan, Palastine, Syria and Turkey.

***Microhoria rabinovitchi* (Koch, 1935) (Map 7)**

Anthicusrabinovitchi Koch, 1935: 141.

Type Locality: Egypt: Cairo-Suez Road.

Material Recorded:

Cairo-Suez Road, 17.VI.1934.

Local Distribution: The distribution of this species is restricted to Eastern Desert.

World Distribution: It is endemic to Egypt.

***Tenuicollis alfierii* (Pic, 1923) (Fig. 25 & Map 8)**

Anthicus alfierii Pic, 1923: 1.

Type Locality: Egypt: Asiat.

Material Examined:

Asiat, 31.III.1917, (1), ALC; Asiat, IV, (1), ALC; El Wasta, 18.III.1934, (2) Rabinovich, EESC; El Wasta, 18.III.1934, (16), ALC; El Wasta, 18.III.1934, (12) Rabinovich, MAC; El Wasta, 18.III.1934, (1) Rabinovich, Key, MAC; El Wasta, 18.III.1934, (1) Rabinovich, Side Coll., MAC.

Local Distribution: The distribution of this species is restricted to Upper Nile Valley.

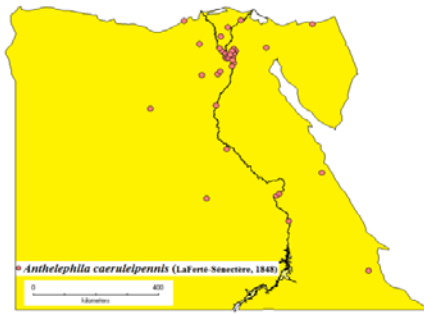
World Distribution: It is endemic to Egypt.

DISCUSSION

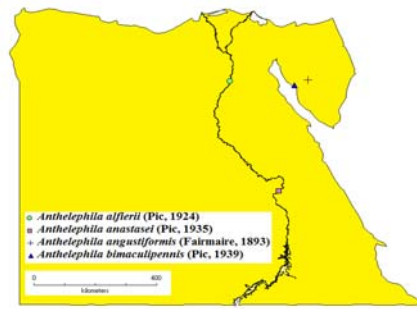
The systematic position of the anthicid taxa within the scope of the present work follows, in the major part, Alfieri (1976) in his professional monograph about the Coleoptera of Egypt. In some cases, the names used to be applied to this group have been subjected to some nomenclatorial changes, i.e., some categories subjected to change by demotion, promotion or transportation and the picture of anthicids under investigation becomes well established during the present study. According to Catalogue of Palaearctic coleopteran (Chandler *et al.* (2008b) and many other publication, I found that: the species *Anthelephila ionica* (LaFerté-Sénéctère, 1849g) which is recorded in the Catalogue of Palaearctic Coleoptera from Egypt, is wrong recorded and there is any data for that species from Egypt. *Endomia occipitalis* (Dufour, 1843), *Endomia tenuicollis* (Rossi, 1792), *Endomia unifasciata* (Bonelli, 1812), *Aulacoderus ferrantei* (Peyerimhoff, 1943) and *Microhoria latipennis* (Pic, 1892) were added according to local distribution from Egypt. *Microhoria hafidi* (Pic,) was recorded in the monograph of Coleoptera, wrongly recorded from Egypt because it is endemic species in Morocco.

ACKNOWLEDGEMENT

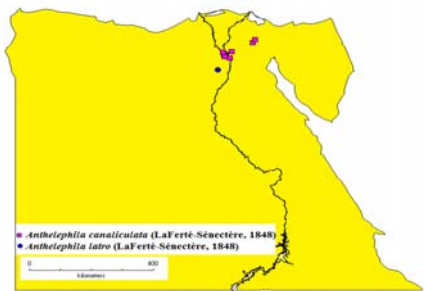
The author is grateful to Professor Hassan H. Fadel, Entomology Dept., Faculty of Science, Ain Shams University, Cairo, Egypt for commenting on the manuscript. Special recognition is due to Dr. Dmitry Telnov, Rigas rajons, Stopinu novads, Dzidrinās, Latvia, Professor Mahmoud S. Abd El-Dayem, Entomology Dept., Faculty of Science, Cairo University, Giza, Egypt and Professor Ali A. El-Gharbawy, Faculty of Science, Al-Azhar University, Cairo, Egypt, for their assistance during this work.



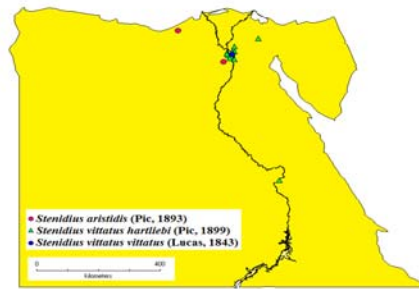
Map. 1



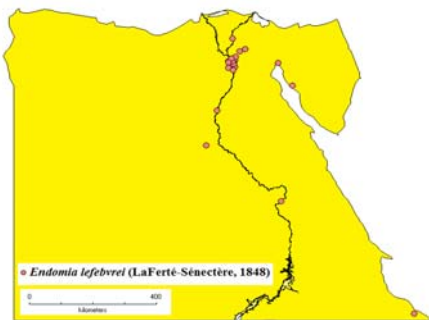
Map.2



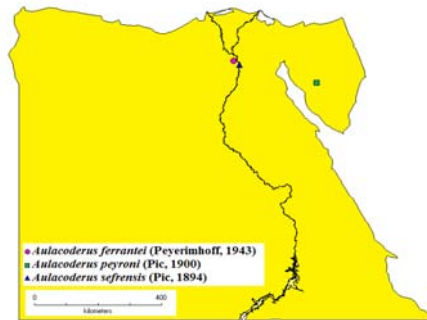
Map.3



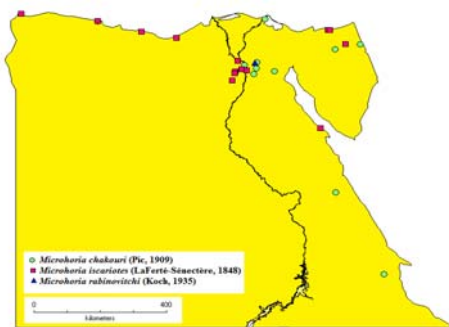
Map.4



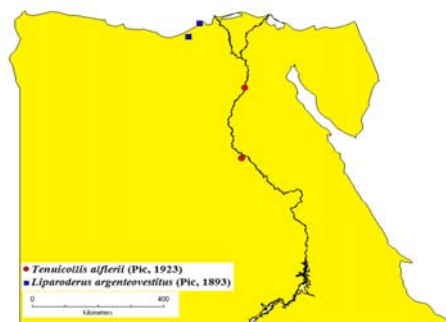
Map.5



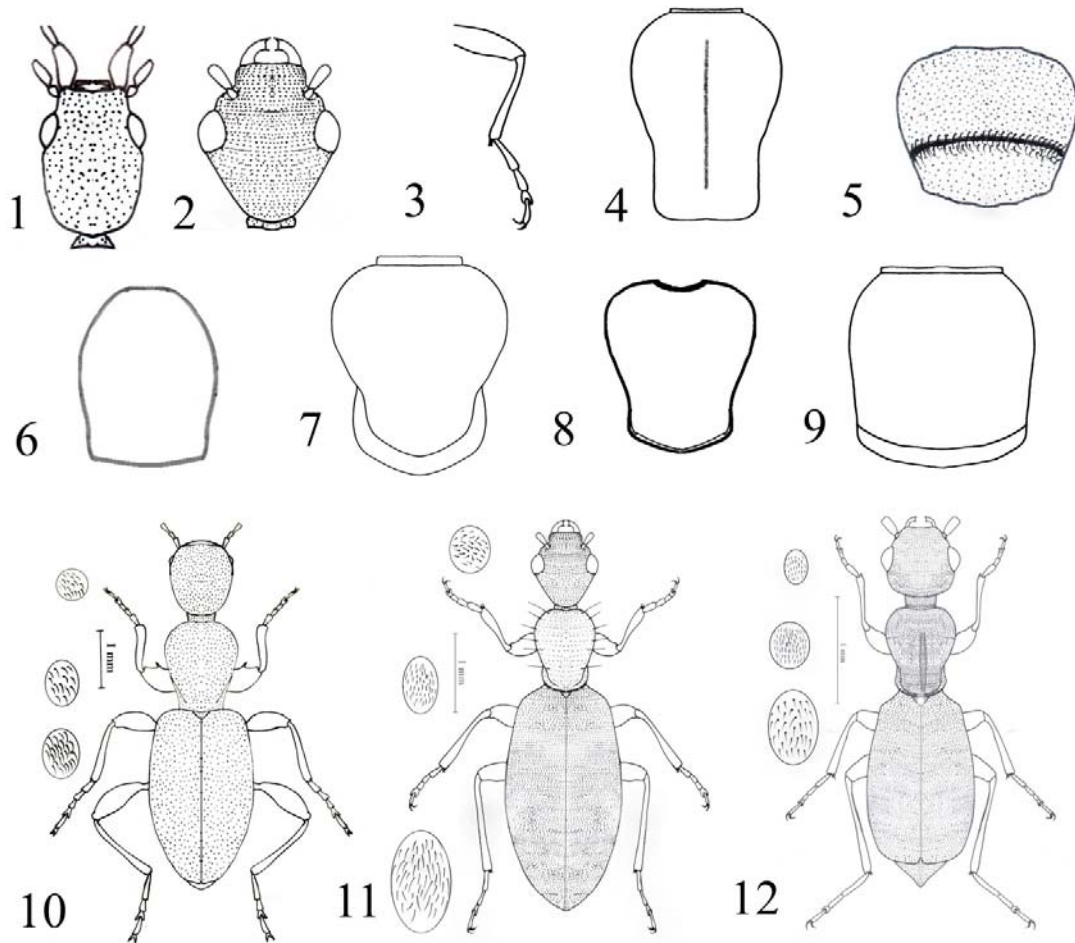
Map.6



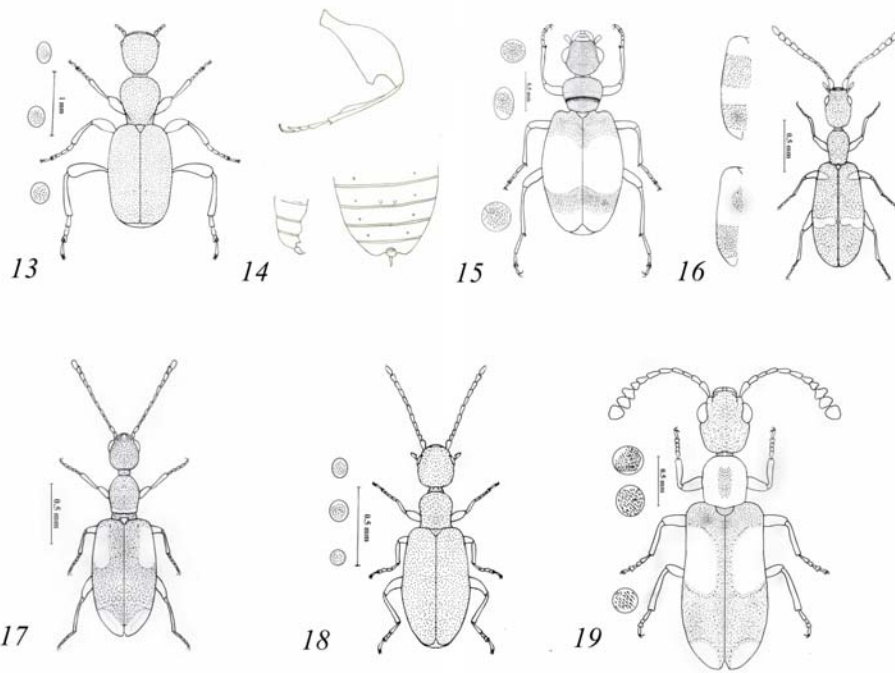
Map.7



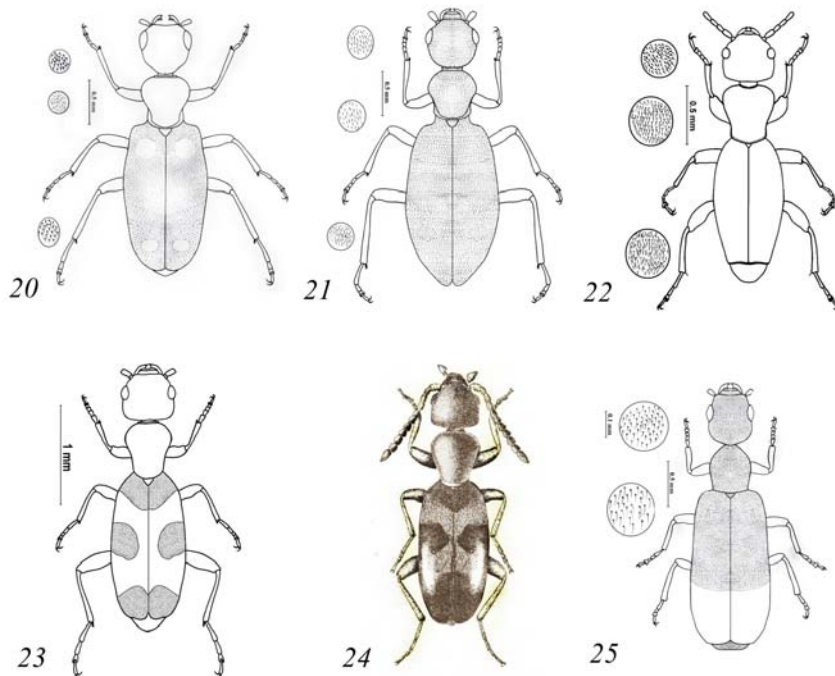
Map.8



Figures 1-12; 1. Head of *Endomia lefebveri*; 2. *Anthelephila caeruleipennis*; 3. Hind leg of *Stenidius vittatus haertliebi*; 4. Pronotum of *Anthelephila canaliculatus*; 5. *Aulacoderus sefrensis*; 6. *Endomia occipitalis*; 7. *Microhoria iscarיותes*; 8. *Stenidius aristidis*; 9. *Tenuicollis alfierii*; 10. Habitus of *Anthelephila alfierii*; 11. *Anthelephila caeruleipennis*; 12. *Anthelephila canaliculatus*



Figures 13-19; 13. Habitus of *Anthelephila latro*; 14. Fore leg and Abdomen of *Anthelephila nadari*; 15. Habitus of *Aulacoderus sefrensis*; 16. *Endomia lefebveri*; 17. *Endomia occipitalis*; 18. *Endomia tenuicollis*; 19. *Endomia unifaciata*



Figures 20-25; 20. Habitus of *Microhoria chakouri*; 21. *Microhoria iscarיותes*; 22. *Stenidius aristidis*; 23. *Stenidius vittatus haertliebi*; 24. *Stenidius vittatus vittatus*; 25. *Tenuicollis alfieri*.

REFERENCES

- Al-Fieri, A. (1976): The Coleoptera of Egypt (Monograph). *Memoire de la Societe Entomologique D' Egypte*, 5: 361 pp.
- Abdel-Dayem, M. S. (2009). A review of the Egyptian ant flower beetles (Anthicidae, Coleoptera) Part II: Tribe Anthicini, Genera *Cordicollis* Marseul, 1879 and *Cyclodinus* Mulsant-Rey, 1866. *Bulletin Entomological Society Egypt*, 86:279-305.
- Baudi di Selve, F. (1878): Europaeae et circummediterraneae faunae Heteromerum specierum, quae Comes Dejean in suo Catalogo, edito 3a, consignavit, ex ejusdem collection in R. Taurinensi Musaeo asservata, cum auctorum hodiernae recepta denominatione collation. Pars quinta. *Deutsche Entomologische Zeitschrift* 22: 1-20.
- Bonadona, P. (1960): Les Endomia Castelnau d'Afrique et de Madagascar (Coléoptères: Anthicidae). *Revue de Zoologie et de Botanique Africaines* 62: 293-320.
- Bonadona, P. (1989): Anthicidae (Coleoptera) nouveaux des collections du Musée d'histoire naturelle de Genève. *Revue Suisse de Zoologie* 96: 253-276.
- Bonelli, F. A. (1812): Specimen faunae subalpinae sistens Insecta Pedemontii hucusque inedita, aut rariora, au tea quae commodi damnive gratia quod inferunt, prudentis agricolae magis interest cognoscere. Per genera naturalia et species digesta. Fasciculus I. Coleoptera plerumque inedita comprehendens. *Memorie della R. Società di Agricoltura di Torino* 9: 149-183, pls. 1-6.
- Bucciarelli, I. (1980): Fauna d'Itaalia. Coleoptera: Anthicidae. Calderini, Bologna, 420pp.
- Chandler, D.S., G. Nardi and D. Telnov (2008a). New acts and comments, Anthicidae. In: Löbl, I & Smetana, A (Eds), *Catalogue of Palaearctic Coleoptera Volume 5 Tenebrionoidea*. Apollo Books, Stenstrup, p. 49.
- Chandler, D. S., G. Uhmman(†), G. Nardi and D. Telnov (2008b). Anthicidae. In: Löbl, I & Smetana, A (Eds), *Catalogue of Palaearctic Coleoptera Volume 5 Tenebrionoidea* Apollo Books, Stenstrup, pp. 421-455.
- Dufour, L. J. M. (1843): Excursion entomologique dans les montagnes de la Vallée d'Ossau. *Bulletin des Sciences, Lettres et Arts de Pau* 3: 1-118.
- El-Gharbawy, A. A; Abdel-Dayem, M. S. & El-Torkey, A. M. (2010). A review of the Egyptian ant flower beetles (*Amblyderus*, *Hirticollis*, *Leptaleus*, *Pseudoleptaleus*) (Coleoptera, Anthicidae, Anthicini). *Boletin de la Sociedad Entomológica Aragonesa (S.E.A.)*, nº 47: 223–228.
- El-Torkey, A. M.; Fadl, H. H.; El-Gharbawy, A. A & Abdel-Dayem, M. S. (2005). A review of the Egyptian ant flower beetles (Anthicidae, Coleoptera) I- Tribe Anthicini. *Bulletin Entomological Society Egypt*, 82: 115-141.
- Escalera, M. M. de la. (1914): Los coleópteros de Marruecos. *Trabajos del Museo Nacional de Ciencias Naturales Serie Zoológica (Madrid)* 11: 1-553.
- Fairmaire, L. (1893): Matériaux pour la faune coléoptérique du Sénégal. *Annales de la Société Entomologique de France* 62: 147-158.
- Kejval, Z. (2000): Reveisional notes on the Palaearctic *Formicomus* (Coleoptera: Anthicidae). *Acta Soc. Zool. Bohem.*, 64: 403-417.
- Kejval, Z. (2002): The species of *Anthelephila* (Coleoptera: Anthicidae) related to *A. angustiformis* and *A. walkeri*. *Folia heyrovskyana*, vol. 10 (2-3): 83-114.
- Kejval, Z. (2003): The genus *Anthelephila* (Coleoptera: Anthicidae). *Eur. Entomol.*, 100: 381-392.

- Kejval, Z. (2012): Studies on the genus *Anthelephila* (Coleoptera: Anthicidae). 12. Review of the species from Yemen, including Socotra Island. *Acta Entomologica Musei Nationalis Pragae*, vol. 52 (supplementum 2): 347–363.
- Koch, C. (1935): Wissenschaftliche Ergebnisse der Entomologischen Expeditionen seiner Durchlaucht des Fürsten Alessandro C. Della Torre e Tasso nach Aegypten und auf die Halbinsel Sinai. VIII Anthicidae (Coleoptera). *Bulletin de la Société Royale Entomologique d'Égypte* 19: 132-144.
- Krekich-Strassoldo, H. von. (1919): Beiträge zur Kenntnis der Anthiciden und Hylophiliden (Col.). *Entomologische Mitteilungen* 8: 166-175.
- Küster, H. C. (1847): *Die Käfer Europa's. Nach der Natur Beschrieben*. Nürnberg: Bauer & Raspe. Heft 9: [4]+100 sheets, 3 pls.
- Laferté-Sénéctère, F. T. de. (1847): [new taxa of Anthicidae, pp. 365-381, pl. 32]. In : Lucas P.H. : *Exploration scientifique de l'Algérie pendant les années 1840, 1841, 1842 publiée par ordre du gouvernement et avec le concours d'une Commission Académique. Sciences physiques Zoologie. Vol. II. Histoire naturelle des animaux articulés. Cinquième classe. Insectes. Premier ordre. Les coléoptères. Paris : Imprimerie Nationale [1849], 590 pp., 47 pls.*
- Laferté-Sénéctère, F. T. de. (1848): *Monographie des Anthicus et genres voisins, Coléoptères hétéromères de la tribu des Trachélides ([1848]*. Paris: De Sapia, xxii + 340 pp., pls. 17–32.
- Laporte, F. L. N. de Caumont de Castelnau, (1840): *Histoire naturelle des insectes coléoptères ; avec une introduction renfermant l'anatomie et la physiologie des animaux articulés, par M. Brullé. Tome deuxième*. Paris : P. Duménil, 563 + [1] pp., pls 20-37.
- Lucas, P. H. (1843): Note sur quelques nouvelles espèces d'insectes de la famille des Trachélides qui habitent les possessions françaises du nord de l'Afrique. *Revue Zoologique, par la Société Cuvierienne* (2) 6: 145-147.
- Peyerimhoff, P. de. (1943): Matériaux pour un catalogue des coléoptères sahariens. II. Descriptions d'espèces nouvelles. *Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord* 34: 7-35.
- Pic, M. (1892): Deux coléoptères nouveaux. *Revue d'Entomologie* 11: 313-314.
- Pic, M. (1893): Examen des anthicides de la collection Leprieur. *L'Échange Revue Linnéenne* 9:38.
- Pic, M. (1893): Étude sur les anthicides de la collection Leprieur. *L'Échange Revue Linnéenne* 9: 51-52.
- Pic, M. (1893): Anthicides nouveaux de l'Ancien monde. *Feuille des Jeunes Naturalistes* 23(3):175-176.
- Pic, M.(1894): Examen des Anthicides de la collection H. Tournier. *L'Échange Revue Linnéenne*, 10: 64-65.
- Pic, M. (1894): [Trois Anthicus nouveaux et observations sur quelques anthicides]. *Bulletin de la Société Entomologique de France* 1894: lxxvii-lxxix.
- Pic, M. (1898): Description de coléoptères nouveaux. *Le Naturaliste* 2: 20-63.
- Pic, M.(1899): Xylophilides et Anthicides recueillis en Orient, en mars, avril et mai 1899. *Revue Scientifique du Bourbonnais et du Centre de la France*, 12: 173.
- Pic, M. (1900): Notes et diagnoses. 2^e article. *L'Échange, Revue Linnéenne* 16: 77-80.
- Pic, M. (1902): Coléoptères presumes nouveaux de la faune circuméditerranéenne. *L'Échange, Revue Linnéenne* [18 sic] 17: 63-65.
- Pic, M. (1909): Coléoptères exotiques nouveaux ou peu connus (Suite). *L'Échange, Revue Linnéenne* 25: 142-143.

- Pic, M. (1910): Coléoptères malacodermes et hétéromères en partie nouveaux. *Bulletin de la Société d'Histoire Naturelle d'Autun* 23: 37-39.
- Pic, M. (1913): Notes diverses, descriptions et diagnoses (Suite). *L'Échange, Revue Linnéenne* 29: 161-162.
- Pic, M. (1919): Notes diverses, descriptions et diagnoses (Suite). *L'Échange, Revue Linnéenne* 35: 9-11; 13-14.
- Pic, M. (1923): Notes diverses, descriptions et diagnoses (Suite). *L'Échange, Revue Linnéenne* 39: 1-3.
- Pic, M. (1924): Notes diverses, descriptions et diagnoses (Suite). *L'Échange, Revue Linnéenne* 39: 21-23.
- Pic, M. (1935): Notes diverses, nouveautés (Suite). *L'Échange, Revue Linnéenne* 51: 3-4, 5-8.
- Pic, M. (1939): Coléoptères nouveaux d'Égypte et du Sinaï. *Bulletin de la Société Fouad 1^{er} d'Entomologie* 23: 143-149.
- Pic, M. (1951): Entomological expeditions to Abyssinia, 1926-27 and 1948-49. Coleoptera. Anthicidae. *The Annals and Magazine of Natural History* (12) 4: 125-136.
- Rossi, P. (1792): *Mantissa insectorum exhibens species nuper in Etruria collectas a Petro Rossio odiectis faunae Etruscae illustrationibus ac emendationibus*. [Tomus primus]. Paris: Polloni, 148 pp.
- Sahlberg, J. R. (1913): Coleoptera mediterranea orientalis quae in Aegypto, Palestina, Syria, Caramania collegerunt John Sahlberg et Unio Saalas. *Öfversigt af Finska Vetenskaps-Societetens Förhandlingar* 55 [1912-1913]A (19): 1-282.
- Schmidt, W. L. E. (1842): Die europäischen Arten der Gattung *Anthicus* Fbr. *Entomologische Zeitung (Stettin)* 3: 193-200.
- Truqui, E. (1855): Anthicini Insulae Cypri et Syriae. *Memorie della Reale Accademia della Scienze di Torino* (2) 16: 339-371, pl. 1.
- Telnov, D. (2007): Order Coleoptera, Family Anthicidae. *Arthropod fauna of UAE*, 1: 270-292.
- Uhmann, G. (1985): Paläarktische Anthiciden (Coleoptera) des Ungarischen Naturwissenschaftlichen Museums Budapest. *Folia Entomologica Hungarica Rovartani Közlemények*, XLVI.1: 177-203.
- Uhmann, G. (1990): Anthicidae aus dem Oberösterreichischen Landesmuseum in Linz (Coleoptera, Anthicidae). 36. Beitrag zur Kenntnis der Anthicidae. *Linzer biol. Beitr.*, 22(2): 577-595.