

TAXONOMIC STUDIES ON FAMILY LATHRIDIIDAE (ORDER: COLEOPTERA) IN EGYPT

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ABSTRACT

The present work treated nine species belonging to Family lathridiidae known to occur in Egypt. Diagnosis for this family, five genera and all species are diagnosed and provided with detailed drawings. Key to genera and keys to species within each genus are constructed. Synonyms in addition to world and local distribution of each species are provided.

INTRODUCTION

Family Lathridiidae are very small beetles (1-3 mm) in length, commonly known as the minute brown scavenger beetles or mildew beetles, recognized by their tiny, elongate-oval bodies with red brown to brown, sometimes black color. They are best known from the temperate regions of the world. Adults and larvae feed on molds on plant and animal matter, and found in stores of grains, cheese hay, packing materials, bulbs, orchids, or other plant material indicating the presence of mold or mildew. Some adults are found on vegetation or flowers (White 1983). The most important work on Lathridiids, including classification, keys, distribution and economic importance were given by Bedel, 1888, Acologue, 1896, Porta, 1929, Junk, 1930, White, 1983, Watson and Dalwitz, 2003, Rucker, 2007, Svec, 2007, Watt, 2008, Christopher *et al.*, 2009 and Rucker, 2011.

In Egypt, very little attention has been given to this family, the only faunal work was by Alfieri, 1976. The present work provided a comprehensive taxonomic study of the available species of the family in Egypt to promote for further studies on this family.

MATERIAL AND METHODS

The present taxonomic work is based on materials examined from the main reference insect collections in Egypt i.e., Alfieri 1976, collection, Faculty of Agriculture, Al-Azhar University (ALFC); the Egyptian Entomological Society collection (EESC); the Ministry of Agriculture collection, plant protection Research institute (MAC); Cairo University collection, Department of Entomology, Faculty of Science (CUC) and Ain Shams University collection, Department of Entomology, Faculty of Science (ASUC). Diagnostic characters of the genera and species are provided. Examination and illustrations of the external characteristic features of adults were made by the use of stereo-binocular microscope. Keys of the genera

and species within each genus are constructed. Synonyms and taxonomical notes are included. Local and world distribution is based on the examined material and published data. Species are alphabetically arranged.

RESULTS AND DISCUSSION

Diagnostic characters of Family Lathridiidae based on adults.

Lathridiids are tiny, elongate-oval beetles, 1-3mm. in length, conspicuously necked and waisted. They are red brown to brown, sometimes black. The surface of the body glabrous to moderately setose, sometimes with waxy exudates, smooth and punctuate or with ridges, bumps and depressions. Eyes strongly protuberant; or not strongly protuberant, without bristles. Antennae short, 10-11 segmented. Antennal scape usually enlarged not swollen. Antennae clubbed (sometimes weakly clubbed) antennal club 2 or 3 segmented, antennal insertion visible from above, or hidden from above. Pronotum almost distinctly narrower than the base of elytra. Lateral edges smooth or finely toothed. Prothorax shorter than wide. Pronotal length / maximum pronotal width 0.45 / 1.3. Prothorax without notopleural suture. Elytrae usually striate, covering most to all of abdomen, exposing no more than part of the terminal tergite, rough or wrinkled or smooth. The fore leg coxal cavities open behind. Tarsal segments simple, the formula 3-3-3. Front tarsi with as many segments as the mid-tarsi 3-segmented. Mid leg tarsi 3-segmented; trimerous. The claws of the mid leg tarsi simple, or one-toothed or bifid. Hind tarsi with as many segments as the mid-tarsi; 3-segmented. Exposed abdominal sternites 5 or 6, all articulated and moveable.

Key to genera of Family Lathridiidae

- (1) Antennae of 10 segments; Prosternum and tarsi narrow.....
..... ..*Migneauxia*
- Antennae of 11 segments; Prosternum and tarsi not as above...2
2(1) Mandibles robust, dentate at apex; Antennae short; tarsi cylindrical; 1st
tarsomere larger than 2nd one..... ..*Merophysia*
- Mandibles not dentate at apex; Antennae long; 1st tarsomere not
as above..... ..3
3(2) Front coxal cavities open behind; propleural process not reaching
prosternal intercoxal process..... ..*Holoparamecus*
- Front coxal cavities close behind; propleural process not as
above..... ..4
4(3) Prothorax with distinct transverse pubescent fovea and slightly
dentate..... ..*Corticaria*
- Prothorax without fovea; sides not dentate..... ..
..... ..*Melanophthalma*

Genus: *Corticaria* Marsham, 1802

Type species: *Corticaria ferruginea* Marsham, 1802. Ent. Brit . P. 111.

Generic diagnosis: Prothorax with a distinct transverse pubescent fovea obliquely anterior to front coxae. Sides of prothorax slightly dentate, especially towards base. Scutallum strongly transverse, with transverse carina. First metatarsomere barely produced ventrally, not extending to apex of second; abdomen with visible four sterna.

Key to species of genus *Corticaria*

- 1- Color golden yellowish; scape and pedicel large, antennal segments from 3 to 7 small; lateral margins of pronotum serrated, postero-lateral margins curved.....*Corticaria rugipennis*
- Color orangish brown; scape and pedicel moderately big, antennae segments from 3 to 7 moderate in size; lateral margins of pronotum not serrated, postero-lateral margins not curved..... *Corticaria fulva*

Corticaria fulva comolli, 1837

(Plate 1)

Corticaria fulva Comolli, 1837. Col. nov. Novoc, P. 39.

tenuicornis Motschulsky, Bull. Moscou, XL, 1867, P. 77.

hirtella Thomas. Skand. Col, V, 1863, P. 232.

pharaonis Motshulsky. Bull. Moscov XL, 1867, I. P. 74.

transversicollis Motschulsky, Wien. Ent. Zeit. XVII, 1898, p. 31.

cypria Bavdi, Berl. Ent. Zeitschr, XIV, 1870, P.61.

flavescens Thomas. Opusc. Ent. IV, 1871, P. 383.

cariojera Fairm. Ann. Mus. Genova VII, 1875, P.505.

concolor Bris. Ann. Soc. Ent. Fr. (5), X, 1880, P. 236.

Diagnosis: Body oval, its length 1.6 mm. Pronotal length: 0.35 mm. Pronotal width: 0.45. Elytral length: 1.1mm. Elytral width: 0.9 mm. Colour : brown orangish. Head: (Fig. 3) sub-rhombus, posterior margin straight and wide, anterior margin sub-rounded and narrow; eyes prominent and large.

Antennae : (Fig. 1) with 11 antennomeres, with three segmented club, 11th larger than 9th and 10th. Labrum: sub-rectangle (Fig. 2). Pronotum: (Fig. 4) convex, anterior margin narrow, posterior margin wide, postero-lateral margin angled, covered with dense pubescence like plumose, and dense shallow punctuation. Suctellum slightly rounded. Elytra: (Fig. 5) sub-rectangle, humerae elevated, widened at middle, with clear striae, intermediate space punctuated, with pubescence like plumose. Pygidium: not exposed.

Local distribution : Cairo, Giza, Alexandria and South Sinai.

World distribution: Cosmopolitan.

Specimens examined :

(1) Cairo, 5.7.1908; (5) Maadi, 16.3.1917; (1) W. Gerawii, 14.4 1923; (1) Ayaat, 30.7.1908; (2) Maadi, 3.3.1933; (1) Matariah, 7.3.1929; (1) Maadi, 5.3.1935; (1) Abo Qir, 5.8. 1934.....(ALFC)

(1) Abo Rawash, 25.12. 1910; (1) Helwan, 23.4.1911; (1) Marg, 22.2.1919;
(1) Giza, May; (1) 1927(EESC)
(5) Maadi, 5.2.1935; (1) Helwan, 10.3.1935.....(MAC)

***Corticaria rugipennis* Reitter, 1881**

(Plate 2)

Corticaria rugipennis, Reitter, 1881. Verh. Zool.bot.Ges.Wien,XXX, p.66.

Diagnosis: Body small and sub-rectangle, its length: 1.4mm. Pronotal length: 0.35 mm. pronotal width: 0.04 mm. Elytral length: 0.9mm. Elytral width: 0.6mm. colour: golden yellowish. **Head:** (Fig: 3) sub-rhombus, posterior margin straight and wide, anterior margin rounded and narrow, with fine pubescence, and dense shallow punctation; eyes prominent. **Antennae :** (Fig: 1) with 11 antennomeres, scape and pedicel large, segments from 3 to 8 small, segments from 9 to 11 clubbed, segment 11 larger than the 9th and 10th **Labrum:** sub-rectangle (Fig. 2).

Pronotum: (Fig. 4) convex and sub-rounded, posterior margin sinuated, anterior margin sub-rounded, lateral margins serrated, finely pubescent, posterior-lateral margins curved, with dense shallow punctuation. **Scutellum:** Sub-rounded. **Elytra:** (Fig. 5) sub oval, widened at middle, striae clearly deep, intermediate space punctuated, with fine pubescence. **Pygidium:** not exposed.

Local distribution : Cairo, Alexandria and Sohag.

World distribution: Egypt.

Specimens examined:

(2) Gerga, 15.1.1926 (ALFC)
(2) Cairo, 1912; Alaxandria, 3.1910.....(EESC)
(1) W.Hoff, 30, 3.1933; (1) King Mariout, 20.3.1933.....(MAC)

Genus : *Holopamecus* Curtis, 1833

Holopamecus Curtis, 1833. Ent.Mag.I.P.186.

Generic diagnosis: Front coxal cavities open behind, proplural processes not reaching prosternal intercoxal process. Antennal club 3-segmented, last 2 segments greatly enlarged and closely applied and excavated ventrally.

***Holopamecus caularum* Aubé, 1843**

(Plate 3)

Holopamecus: caularum Aubé, 1843. Ann. Soc. Ent. Fr, P.244.

Diagnosis: Body oval and very small, its length: 0.7 mm. Pronotal length: 0.02mm. Pronotal width : 0.02mm. Elytral length : 0.04mm.

Elytral width : 0.03mm. colour: Roof-testaceous. **Head:** (Fig:3) sub-rounded and small, posterior margin sub-straight, anterior margin sub-triangle, frontal clypeus suture arched, with fine pubescence. **Antennae :** (Fig: 1) with 11 antennomeres, Scape large, segments from 2 to 8 sub spherical, segments from 9 to 11 clubbed, segment 11 very large, oviform, larger than segments 9 and 10. **Labrum:** (Fig: 2) quadrate. **Pronotum :** (Fig: 4) convex and large,

posterior margin straight, anterior margin sub rounded, pronotum strongly constricted at basal third, with two tubercles at base with fine pubescence.

Scutellum: sub rounded. **Elytra:** (Fig: 5) sub rectangle, lateral sides curved, widened at middle, interior margin thick, with fine pubescence, with dense shallow punctuation, congeret at apex. **Pygidium:** Not exposed.

Local distribution: Cairo, Alexandria and Qalyobiya.

World distribution: Egypt, middle Europe, Middle Sea, Canary Islands, Africa, Syria, California and Inseln.

Specimens examined:(1)Shoubra,17.6-1912;(1)Edos,28.9.1917(ALFC).

(1) Cairo, 1912; (3) Alaxandria, 23.8.1910; (1) Matariah, May.....(EESC)

(2) Barrage, 3.9.1933.....(MAC)

Genus: *Melanophthalma* Motschulsky, 1866

Type Species : *Lathrijus transversalis* Gyllenhal, I, 1827, Ins. Suec. IV, P.183.

Generic diagnosis : Prothorax without foveae. Sides of prothorax not dentated, nearly minutely denticulate. Scutelum: less transverse, without transverse carina. First visible abdominal sternite with coxal lines; Second metatarsomere as long as or longer than first.

Key to species of genus *Melanophthalma*

1-Length 0.9 mm; labrum sub triangle in shape, lateral margins of pronotum with small teeth.....*Melanophthalma fuscipennis*

- Length bigger than 0.9 mm; labrum sub-rectangle; lateral margins of pronotum without small teeth2

2(1) Length 1.1mm. scape large, segments of antennae from 3 to 5 spherical and small; pronotom pyriform in shape, anterior margin of pronotum not constricted *Melanophthalma rutila*

- Length 1.3 mm; Scape and pedical large, segments of antennae from 3 to 5 sub elongate, pronotum sub rounded in shape, anterior margin of pronotum constricted*Melanophthalma distinguenda*

***Melanophthalma distinguenda* Comolli, 1837**

(Plate 4)

Melanophthalma distinguenda Comolli, 1837 Col. Nov. Novoc, P. 38.

pusila Melsh. Proc. Acad. Philad 11, 1844. p. 116.

morsa Lec. Ent. Monatsbl, 1880, p.86.

rofula Lec. Ent. Monatsbl, 1880, P.303.

angolata Woll. Cat. Col. Cannar, 1864, P. 148.

angulosa Motscholsky. Bull. Moscov XX, 1849, P. 90.

seminigera Bull. Rev. D'Ento. IV, 1885, p. 250

platensis Bruch, Revista Mus, 1907 P.27.

Diagnosis: Body elongate and stout, length: 1-3 mm. Pronotal length : 0.28 mm. Pronotal width : 0.32 mm. Elytral length : 0.85 mm. Elytral width: 0.5mm.

Colour: Rufo-testaceous. **Head:** (Fig:3) sub-rhombus, Posterior margin

straight and wide, anterior margin sub-rounded and narrow, with fine pubescence, with dense regular punctuation; eyes prominent. **Antennae:** (Fig 1): with 11 antennomeres, scape large and clubbed, pedicel club shaped, segments from 3 to 5 sub elongate, segments from 6 to 8 sub spherical, segments from 9 to 11 large, segment 11 longer than 9 and 10. **Labrum:** (Fig: 2) Sub rectangle. **Pronotum:** (Fig: 4) convex and sub quadrate, basal lateral margins curved, posterior margin sub straight, anterior margin sub rounded, pronotum covered with dense pubescence and dense regular punctuation. **Scutellum:** oval. **Elytra:** (Fig: 5) oval, widened at middle, striae clearly deep, covered with dense pubescence, intermediate space with punctuation. **Pygidium** not exposed.

Local distribution: Cairo, Giza, Alexandria, Qalyubiya and Sohag.

World distribution: Cosmopolitan.

Specimens examined :

- (1) King : Mariout, without date; (1) Gerga, 4.6.1920; (1) Qalyubiya, 10.1908.....(ALFC)
(1) Cairo, 1912; (1) Alaxandria, 21.1.1912; (1) Pyramids, 13.5.1914;
(2) Maadi, 11.6.1915; (1) Without locality, 16.5.1905.....(EESC)
(1) Cairo, 20.6.1920.....(ASUC)

***Melanophthalma fuscipennis* Mannerheim, 1844**

(Plate 5)

Melanophthalma fuscipennis Mannerheim, 1844. Zeitschr. Ent.V, P.62.

Diagnosis: Body oval and small, length: 0.9 mm. pronotal length: 0.02 mm. pronotal width: 0.25 mm. Elytral length: 0.45 mm. Elytral width: 0.41mm.

Color: Body brown orangish, elytra black. **Head:** (Fig: 3) Sub triangle, anterior margin sub rounded, posterior margin sub straight, with fine pubescence, with dense, regular punctuation; eyes prominent.

Antennae: (Fig: 1) with 11 antennomeres, segments 1 and 2 clubbed, segments from 3 to 8 sub spherical, segment 11 oviform moderately large, longer than segments 9 and 10, segments 9 and 10 large. **Labrum:** (Fig:) sub triangle. **Pronotum:** (Fig: 4) sub quadrate, convex and large, anterior margin sub curved, posterior margin sub straight, with dense pubescence, and dense regular punctuation, lateral margin with small teeth. **Scutellum:** oval. **Elytra:** (Fig: 5) oval, widened at middle, striae clearly deep, with dense deep regular punctuation and fine pubescence. Pygidium not exposed.

Local distribution: Cairo, Giza, Qalyubiya, Alexandria, Beni-Suef, Sohag and North Sinai.

World distribution: Egypt, South Africa, Mediterranean Sea, France and Natal.

Specimens examined : (1) King: Mariout, without date; (1) Kingi Mariout, 6.4. 1933; (1) Mahmashah, 16.6.1909; (1) Maamorah, 21.9.1924; (1) Qalyubiya, 8.1908; (4) Gerga, 10.11-1920; (1) Qalyubiya, 10.1908; (1) Maadi, 5.1910; (1) Marg, 3.3.1917; (1) Qalyubiya, 12.1908; (1) Tourah, 11.10.1912; (1) Barrage, 2.4.1921; (1) El-Eksas, 13.4.1912; (2) Ezbet Nakhl, 13.5.1911; (1) Helwan, 15.11.1910; (1) Abo Rawash, 16.5.1911; (1) Ezbet Nakhl, 5-

1910; (3) El-Arish, 23-5-1935; (1) Bahnassa, 17.2.1917; (2) Kingi Mariout,
8.8.1934; (1) Hammam,
11.6.1936.....(ALFC)
(1) Cairo, 2.4.1916; (1) Giza, 28.11,1920; (1) Pyramids, p.11.1933
..... (MAC)
(1) Wadi – Natroun, 6.8.1929.....(CUC)

***Melanophthalma rutila* Motschulsky, 1866**

(Plate 6)

Melanophthalma rutila Motschulsky, 1866. Gozis, Abeille XVIII, P. 288.

Diagnosis: Body small and elongate, length : 1.1mm. Pronotal length: 0.2 mm. Pronotal width: 0.25mm. Elytral length: 0.7 mm. Elytral width: 0.45mm.

Colour: brown orangish. **Head:** (Fig: 3) small and sub-rhombus, posterior margin sub-straight and sub-rhombus, posterior margin sub-straight and wide, anterior margin sub-rounded and narrow, with fine pubescence, with dense shallow punctuation; eyes prominent. **Antennae:** (Fig: 1) with 11 antennomeres, scape large, segments from 3-8 spherical and small, segment 11 very large, oviform and clubbed, larger than segments 9 and 10. **Labrum :** (Fig: 2) sub rectangle. **Pronotum:** (Fig: 4) convex and sub-rounded, pyriform in shape, with dense pubescence, with dense shallow punctuation. **Scutellum:** Sub-rectangle. **Elytra:** (Fig: 5) sub oval, widened at middle, striae clearly deep, intermediate space with punctuation, with little fine pubescence, congeret at apex. Pygidium not exposed.

Local distribution: Cairo and South Sinai.

World distribution: Egypt.

Specimens examined:

(1) Marg, 1.6.1910; (1) Wdos, 10.11.1917 (ALFC)

Genus: *Merophysia* Lucas,1852.

Merophysia Lucas, 1852, Ann. Soc. Ent. Fr. (2), X.

Generic diagnosis: Body elongate, very convex, head large, Mandible robust, dentated at top. Antennae short, scape stout and large, terminal segments clubbed, last segment swollen. Anterior margin of pronotum not transverse. Tarsus cylindrical, first tarsomere longer than second tarsomere.

***Merophysia letourneuxi* Pic, 1914**

(Plate 7)

Merophysia letourneuxi Pic, 1914 Exchange XXX, p. 49

Diagnosis : Body oval and convex. Length: 1.2 mm. pronotal length: 0.32 mm. Pronotal width: 0.04 mm. Elytral length: 0.7 mm. Elytral width: 0.6 mm.

Color: Rufo-testaceous. **Head:** (Fig: 3) sub quadrate and small, clypeo-frontal suture clearly thick, posterior margin sub traaight, anterior margin arched, with fine pubescence; eyes small and not prominent.

Antennae: (Fig: 1) with 11 antennomeres, scape large, segments from 2 to 9 sub spherical, segment 10 spherical, segment 11 very large and oviform

.Labrum: (Fig: 2) trapezoid in shape. **Pronotum:** (Fig: 4) sub quadrate, large and convex, posterior margin sinuated, anterior margin curved, with fine

pubescence. **Elytra:** (Fig: 5) sub oval, widened at middle, arched at apex, with dense shallow punctuation. **Pygidium:** Not exposed.

Local distribution: Cairo, Giza, Alexandria and south Sinai.

World distribution: Egypt.

Specimens examined:

(2) Maghagha, 17.5.1912; Abou Qir, June, 1908; (2) Sidi Bisher, 2-5.1922; (1) Abou Qir, August, 1910; (1) Ameriah, 4.9.1913; (17) Marsa Matrouh, 20.1.1922; (2) Ameriah, 5.6.1919; (1) Abou Qir, 12.5.1917; (2) Wadi Um Metla, 13.3.1937; (4) Kingi Mariout, 20.4.1935; (1) Max, 2.8.1934.....(ALFC)
(1) Abu Qir, June; (5) Abu Qir, July; (5) Abu Qui, 9.9.1906; (3) Abou Qir, October; (1) Hammam, January, 1909; (1) Hammam, March, 1909; (1) Max, 14.1.1907; (1) Alaxandria, 6.3.1917; (1) without locality, 13.4.1911; (1) Alexandria, 23.11.1910; (2) Ameriah, 24.6.1911; (2) Cairo, 1912; (2) King: Mariout, 7.6.1912; (1) Abu Rawash, 1.1.1912; (1) Kingi Mariout, 8.4.1912; (1) Dekhela, 12.7.1917.....(EESC)
(1) South Saini, without date; (1) King: Mariout, 29.8.1934.....(MAC)
(1) Alexandria, 22.10.1919; (4) Kingi Mariout, 17.4.1922l (2) Ameriah, 9.11.1923; (2) Abou Qir, 9.6.1915 (3) Marsa Matrouh, 16.3.1925; 13.3.1928..... (ASUC)

Genus : *Migneauxia* Jacquelin du Val, 1859.

Type species: *Migneauxia serricollis* Jacquelin du Val, 1859. Redt. Fauna. Austr, p.424.

Generic diagnosis: Body oval and convex, head large. Labrum short and transverse. Segment two at mandibular stout. Antennae semi elongate, 10 segmented. Segments of antennae from 8 to 10 largely clubbed. Pronotum large and transverse, narrower than elytra. Elytra oval. Prosternum narrow and prominent. Tarsus narrow, segment two shorter than segment 1 and 3.

Key to species of genus *Migneauxia*

1- Labrum subrect angle; pronotum elongate and convex, mid-lateral margins with large teeth, anterior and postero-lateral margins angled.

..... *Migneauxia crassiuscula*

-Labrum sub trapezoid, pronotum elongate and very convex, lateral margins with large teeth, anterior and postero-lateral margins not angled..... *Migneauxia orientalis*

***Migneauxia crassiuscula* Aubé, 1850**

(Plate 8)

***Migneauxia crassiuscula* Aubé, 1850 Ann. Soc. Ent. Fr. (2) VIII, P. 331.**

Diagnosis: Body oval, length : 1.1 mm. pronotal length : 0.24 mm. pronotal width: 0.35 mm. Elytral length: 0.78 mm. elytral width: 0.5mm. **Color:** Brown reddish. **Head:** (Fig: 3) sub rhombus, anterior margin sub rounded, posterior margin sub straight, with dense pubescence and fine shallow punctuation;

eyes prominent. **Antennae** : (Fig: 1) with 10 antennomeres, Scape large and oviform, segment 2 as like as segment 9 and 10, segments from 3 to 8 sub spherical, segment 11 very large and oviform. **Labrum**: (Fig: 2) sub rectangele. **Pronotum**: (Fig: 4) Elongate and convex, wider than long, mid-lateral margins with large teeth, anterior and posterior lateral margins angle, with dense pubescence and dense regular punctuation. **Scutellum**: sub rectangle. **Elytra**: (Fig: 5) oval, widened at middle, with pubescence in lateral margins, with striae clearly deep, intermediate space with punctuation, convergent at apex. **Pygidium**: not exposed.

Local distribution: Giza and Qalyubiya.

World distribution: Meditterrenean Sea and Egypt.

Specimens examined :

(1) El- Eksas, 15.9.1912; (2) Barrage, 13.9.1933.....(ALFC).

***Migneauxia orientalis* Reitter, 1877**

(Plate 9)

Diagnosis: Body oval, length 1.1mm. pronotal length: 0.28 mm. pronotal width: 0.4 mm. Elytral length: 0.7 mm. Elytral width: 0.5 mm. **Color**: Brown reddish. **Head**: (Fig:3) sub rhombus, anterior margin sub rounded, posterior margin sub straight, with dense pubescence and fine shallow punctuation; eyes prominent. **Antennae**: (Fig: 1) with 10 antennomeres, scape and pedicel large and clubbed, segments from 3 to 8 sub spherical, segment 9 as like as segment 10, segment 11 longer than segments 9 and 10, oviform and clubbed. **Labrum**: (Fig: 2) sub trapezoid. **Pronotum**: (Fig: 4) elongate and very convex, wider than long, lateral margins with large teeth, covered with dense pubescence and dense shallow punctuation. **Scutellum**: sub quadrate. **Elytra**: (Fig: 5) oval, widened at pre-middle, covered with pubescence, striae clearly deep, intermediate space with punctuation. **Pygidium**: Not exposed.

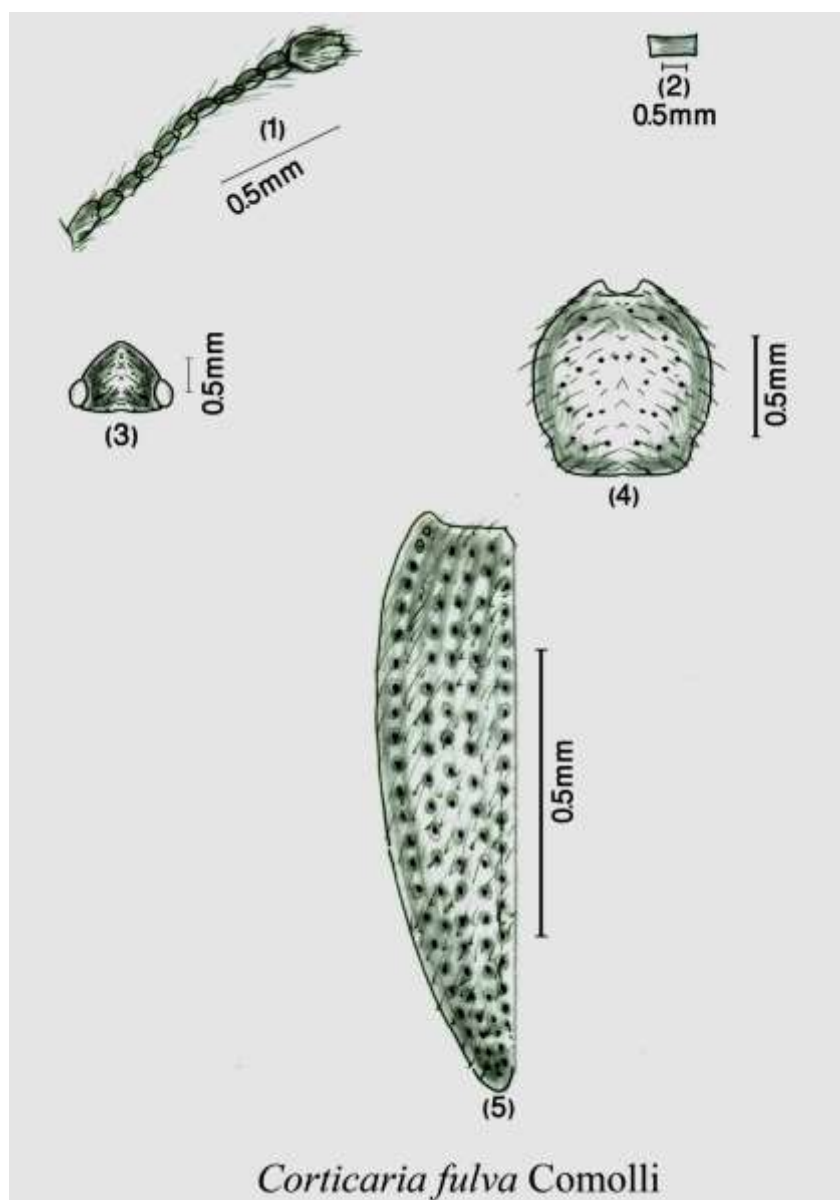
Local distribution: Cairo and Giza.

World distribution: Egypt and Europe

Specimens examined:

(3) El- Eksas, 15.9.1912; (1) Cairo, 5.1909; (1) Talbiah, 29.11.1915; (1) Maadi, 5.1910; (1) W. Digla, 27.9.1933.....(ALFC)
(1) Giza, 23.10.1919; (2) Pyramids, 7.10.1934.....(MAC)

Plate (1)

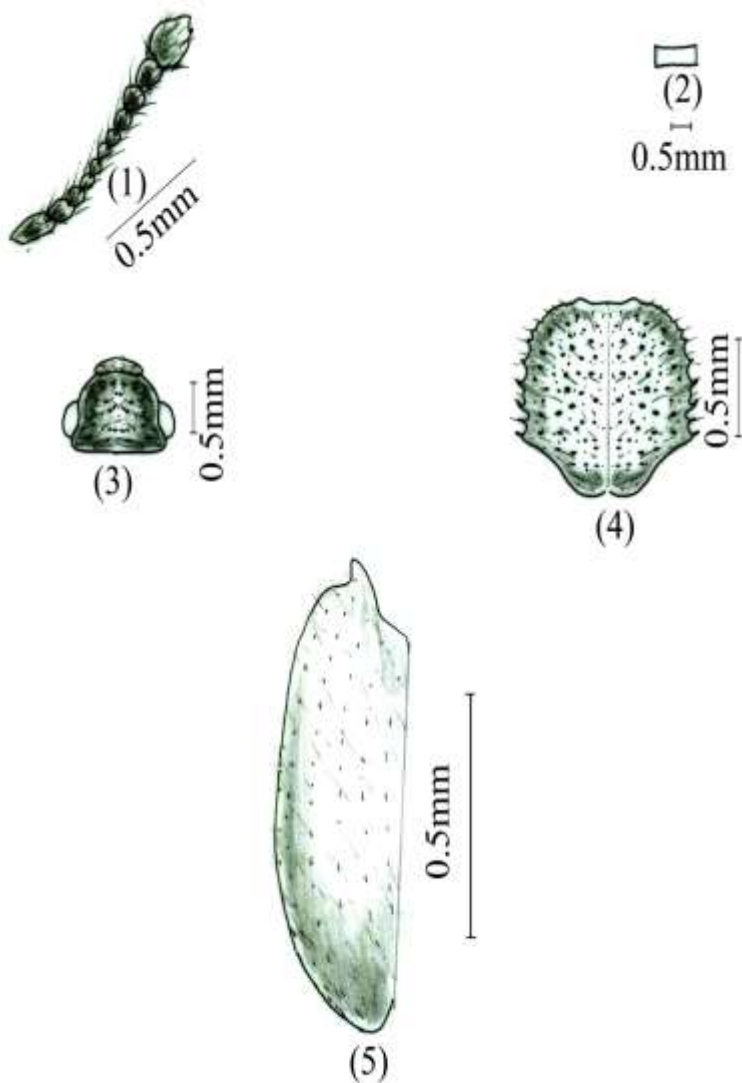


- 1. Antenna
- 3. Head

- 2. Labrum
- 4. Pronotum

- 5. Elytra

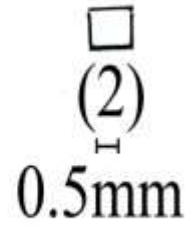
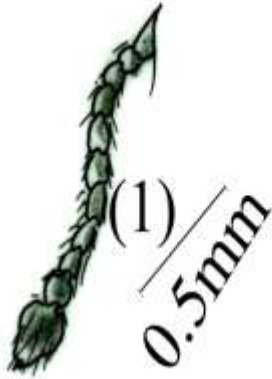
Plate (2)



Corticaria rugipennis Pic

- | | | | |
|----|---------|----|----------|
| 1. | Antenna | 2. | Labrum |
| 3. | Head | 4. | Pronotum |
| 5. | Elytra | | |

Plate (3)



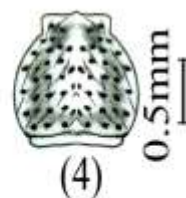
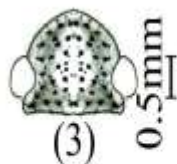
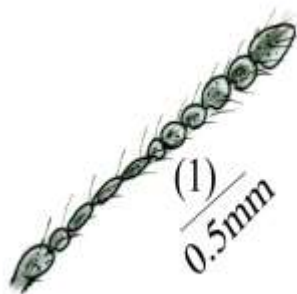
Holoparamecus caularum Aube

- 1. Antenna
- 3. Head

- 5. Elytra

- 2. Labrum
- 4. Pronotum

Plate (4)



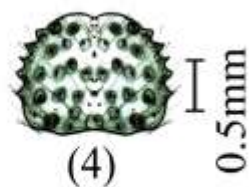
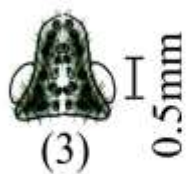
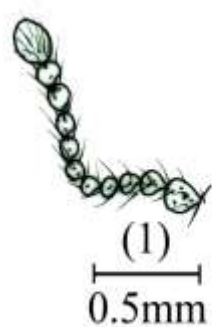
Melanophthalma distinguenda Comolli

1. Antenna
3. Head

5. Elytra

2. Labrum
4. Pronotum

Plate 5



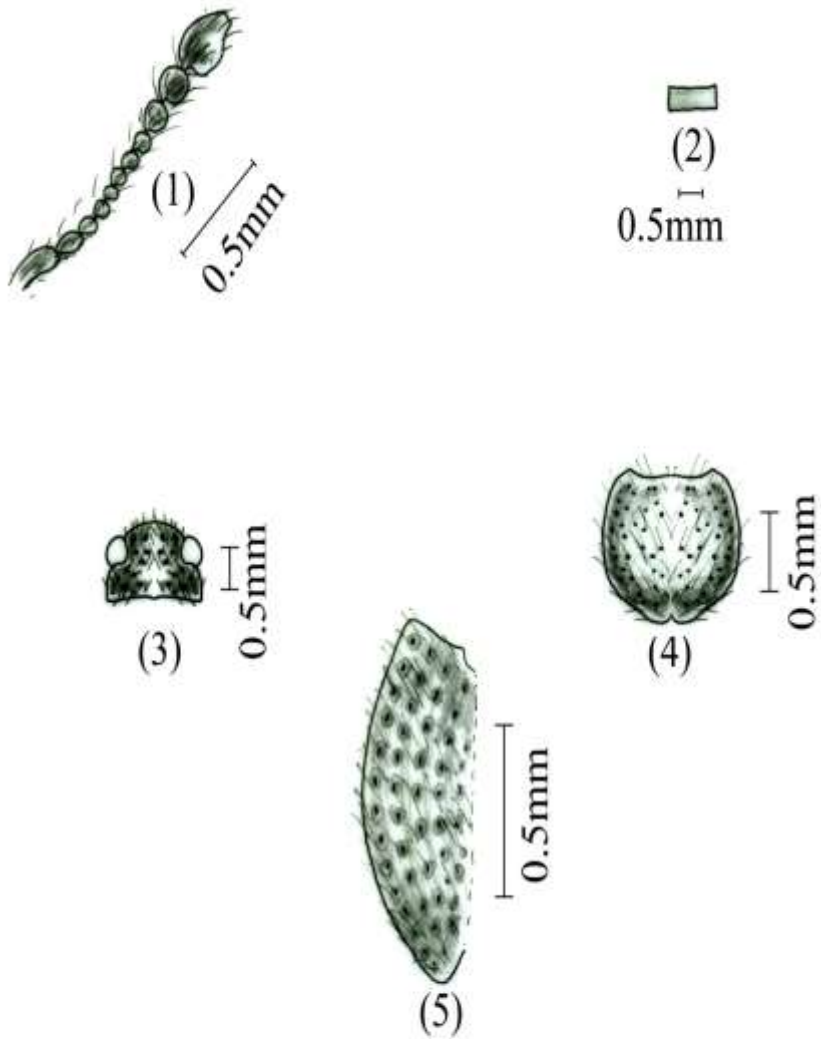
Melanophthalama fuscipennis Mannerheim

- 1. Antenna
- 3. Head

- 2. Labrum
- 4. Pronotum

- 5. Elytra

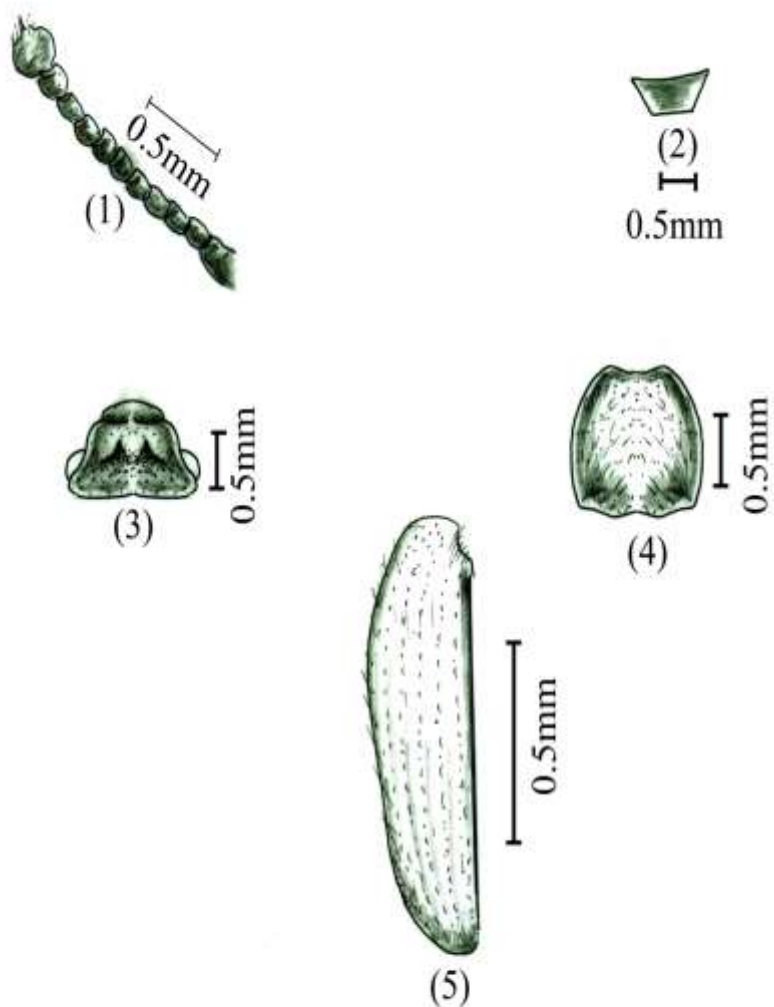
Plate 6



Melanophthalma rutila Motschulsky

- | | | | |
|----|---------|----|----------|
| 1. | Antenna | 2. | Labrum |
| 3. | Head | 4. | Pronotum |
| 5. | Elytra | | |

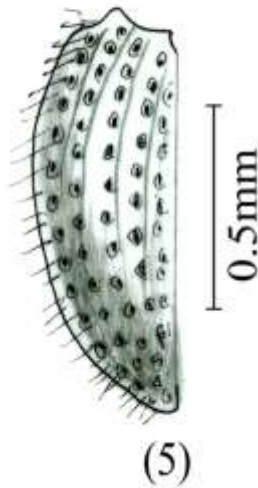
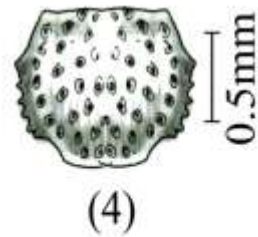
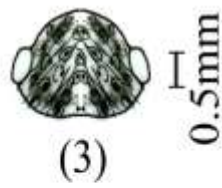
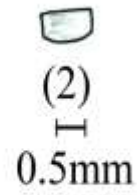
Plate 7



Merophysia letourneuxi Pic

- | | | | |
|----|---------|----|----------|
| 1. | Antenna | 2. | Labrum |
| 3. | Head | 4. | Pronotum |
| 5. | Elytra | | |

Plate 8



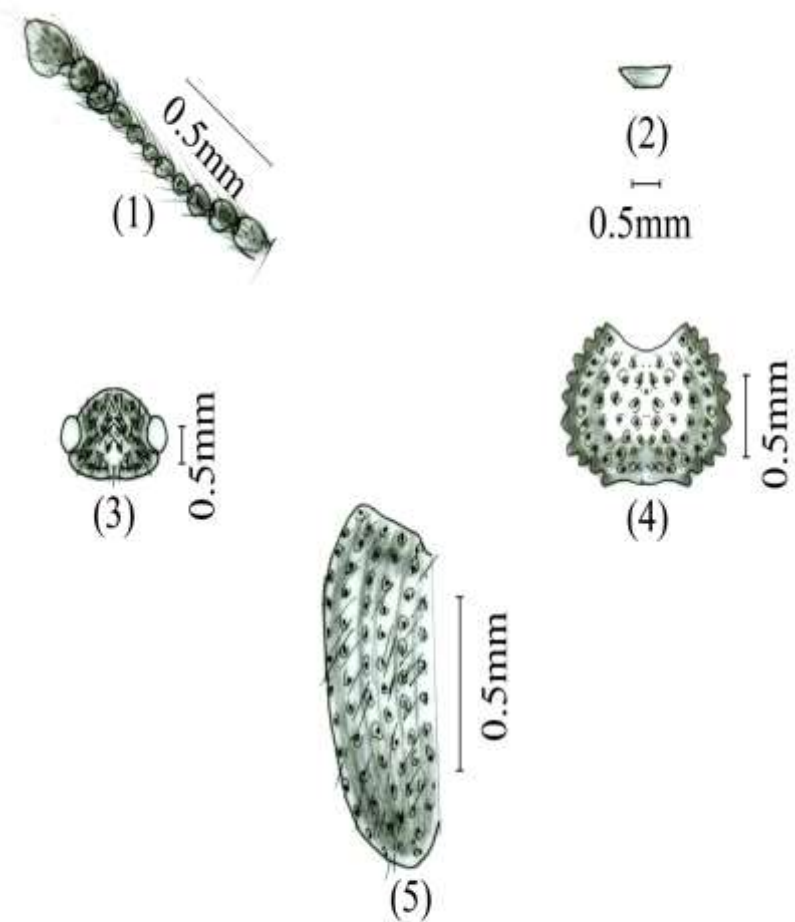
Migneauxia crassiuscula Aube

- 1. Antenna
- 3. Head

- 2. Labrum
- 4. Pronotum

- 5. Elytra

Plate 9



Migneauxia orientalis Reitter

- | | | | |
|----|---------|----|----------|
| 1. | Antenna | 2. | Labrum |
| 3. | Head | 4. | Pronotum |
| 5. | Elytra | | |

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دراسات تقسيمية علي فصيلة لاثريدي (رتبة: غمدية الأجنحة) في مصر
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تم بناء الدراسات التقسيمية الحالية على خنافس فصيلة لاثريدي بالاعتماد على العينات المحفوظة في المجموعات الحشرية المرجعية بمصر. تم إظهار الصفات المميزة للفصيلة و الاجناس التابعة لها والممثلة في الفونا المصرية ، وكذلك عمل وصف تمييزي لتسعة أنواع محل الدراسة معتمداً على الصفات المورفولوجية الخارجية للحشرات الكاملة ومزودا بالرسومات التوضيحية لكل الأنواع . كما تم عمل مفتاح تصنيفي للاجناس وكذلك للأنواع تحت كل جنس ممثل بأكثر من نوع واحد . اضافة الى ذلك تم تسجيل المرادفات والتوزيع الجغرافي لكل نوع في مصر والعالم.

قام بتحكيم البحث

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