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A TAXONOMIC STUDY ON SUBFAMILY PSELAPHINAE (FAMILY: STAPHYLINIDAE, ORDER: COLEOPTERA) IN EGYPT

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Introduction

The sub family Pselaphinae (Ant-like litter beetle) is belonging to family Staphylinidae,(order: Coleoptera). It is a small sized beetles and is comprising about 230 genera and 9000- 10000 species all over the world (Newton, and Chandler 1989).

In old taxonomy the family Pselaphidae were divided by Jeannel (1955)into six sub families, but now sub family Pselaphinae latreille 1802 is a sub family of Staphylinidae. The group was originally regar-ded as a separate family, named Pselaphidae.

Newton and Thayer (1995) placed them in the Omaliinae group of the family Staphylinidae, based on shared morphological characters. In present time Brunke et al. (2012) divided the family Staphylinidae into 23 sub families. For example Aleocharinae, Omaliinae, Osoriinae, paederinae and Pselaphinae.

The adult feed on various molds. They are nocturnal and generally are found in concealed moist places, in decaying plant material, under Park, in logs, in rooting woods, under stones, in ant nests, or in mammal nests. The larvae are predacious feed on small organisms such as mites or earth worms. (White 1983).The most important work on pselaphids, including classification, keys, distribution and economic importance were given by Pearce 1957, Orlando, 1954, Maurice, 1939, Lobe, 2009, Porta, 1929 ,White 1983 and Watson and Dolwitz 2003. In Egypt, the only faunal work, was by Alfieri, 1976.

The present work aims to present the first comprehensive taxonomic study of the Egyptian Pselaphinae and provided with a key to the genera and species.

Material and Methods

The present taxonomic work is based on materials examined from the main insect collections in Egypt. These collections are: Alfieri collection, faculty of Agriculture, Al-Azhar University (ALFC); the Egyptian Entomological Society collection (EESC); The Ministry of Agriculture collection, plant protection Research institute (MAC); and Ain Shams University collection, Department of Entomology, Faculty of Science (ASUC).

Results and Discussion

Diagnostic characters of sub family Pselaphinae Latreille based on adults.

Small in size, 1-3 mm long; body oval and elongate, not flattened, conspicuously necked; reddish or yellowish colored. Upper surfaces of body glabrous or sub-glabrous, or non- glabrous; not bristly, inclination of the head slight to strong. Eyes

strongly protuberant. Antennae very short to long, but not exceeding the body length; thick, 11 segmented; antennal clubs 3 or 4 segmented. Last segment of antennae and the palps often conspicuously enlarged or with appendages. Prothorax about as long as wide. Pronotal length / maximum pronotal width 0.85- 1.3. Prothorax without notopleural suture. Elytra short ,so that at least three segments of the abdomen are exposed, it usually much broader than pronotum and meeting along the length of the mid-line. Tarsal segmentation formula 3,3,3, or 2,3,3.

Key to genera of subfamily Pselaphinae

1-The base of antenna with one tubercle ……...… 2
- The base of antenna without tubercle ……..… 3

2(1) Head with foveae or furrow, as wide as pronotum, eyes very large and occupy a wide area of the head ……...…….. 4
- Head without foveae or furrow, eyes not as above ……..... 5

3(1)Head with furrow , antennal segments from VIII to IX very long and like sugarcane, tergite 2 larger than tergite I ……..…*Ctenistes* Reichenleach
- Head without furrow, antennal segments from VIII to IX similar, segment XI very large, oviform and heavy pubescence, forming the antennal club, tergite 2 very large, larger than any tergites……..…*Enoptostomus* Schaum

4(2) Segments of antenna from III to VI sub oval and similar; pronotum subquadrate , without foveae;elytra with cleft;tergite I and 2 similar, tergite 4 small…..……..… *Centrophthalmus* Schmidt
- Segments of antenna from III to IX sub oval, pronotum cardiform and very convex, with fova ,elytra without cleft,tergite 1,2 and 3 similar and sub rectangle ,tergite 4 larg, boat like……*Euplectus* Leach

5 (2) Abdoman with five tergites ……...……... 6
- Abdoman with Four tergites ……..…….…… 7

6(5) Labrum creascent-Like, antero –lateral margins of pronotum with angles, tergite 2 as long as tergite I ……...……*Ctenisomorphus* Raffray
- Labrum semi rectangle,posterior margin of pronotum declined,mid-lateral margins sinuated, tergite 2 lanrger than any tergites ……..... *Marellus* Motschulsky

7(5) Pronotum without foveae, tergites elevated at sides……...… *Desimia* Reitter
- Pronotum with or without foveae , tergites not elevated at sides ……...…… 8

8(7) Body length 1.5 mm. Head sub triangle, labrum subtriangle, pronotum cardiform, with large fovea at disc, venter with six or seven sternite visible ……..…..…..….*Pseudoplectus* Reitter
- Body length 0.9 mm. Head sub rhombus,labrum creascent like,pronotum rounded,middle pronotal fovea very much smaller than the two lateral one, venter with five sternites visible……..……..… *Trissemus* Jeannel

Genus: *Centrophthalmus* Schmidet Goebel 1838

Type species: *Centrophthalmus paria* Schmidt-Goebel, 1838. Beitrag Zur Mond. Psel. 1 Prog, p.7.

Key to species of genus *Centrophthalmus*

- 1-Body length 1.6 mm.Head with foveae , labrum trapezoid, abdomen with five tergites ……..….. *Centrophthalmus pici*
- Body length 1.2 mm.Head without foveae , labrum creascent like, abdomen with four tergites ……. *Centrophthalmus villosulus*

***Centrophthalmuspici* Jeannel, 1952**

(Plate 1)

Centrophthalmusgrandis Pic, 1930, Bull. Ent. Egypte, 14: 61

Centrophthlamus pici Jeannel, 1952, Rev. Fr. Entonol.19: 251.

Diagnosis: Body oval, its length: 1.6 mm. pronotal length: 0.25 mm .pronotal width: 0.3 mm.**Colour:** rufo-testaceous except tergites its colour black. **Head:**(fig: 3) Subtriangle, with foveae, sparse pubescence, and dense shallow punctuation; eyes prominent, distance between compound eyes wide. **Antennae**(Fig: 1) segment I elongate, segments from III to VII sub oval, segment IX and X similar and transverse, segment XI very large, oviform, heavily pubescence, forming the antennal club, one time and half as long as head and pronotum.**Labrum**: (Fig 2) Sub trapezoid. Neck: Visible and large. **Pronotum:**(Fig 4) sub quadrate, as wide as long, very convex, with dense shallow punctuation, shining, with dense pubescence except middle area.**Elytra:** (Fig 5) slightly narrow at base, wide at apex, with big cleft from base to pre middle, with pubescence tuft at apex, and dense very shallow punctuation, without pubescence. **Abdomen:** (Fig 6) with five exposed tergites weakly and gradually narrow apically, tergiteIelongate and transverse, tergite 2 large, tergites I and 2 almost similar, tergite 5 very small, tergites I, 2,3 and 4 with elevated parts at sides.

Local distribution: Cairo, Giza,Minya and Qalubiya.

World distribution : Egypt.

Specimen examined: (1) Cairo, 30. 11. 1909; (1) Giza, 22.7.1926; (1) Pyramids, 29.7.1933; (1) Barrage, 13.9.1933; (1) Pyramids, 9.8.1936 ……..… (ALFC) (1) Pyramids, 29. 7. 1933; (12) Pyramids, 22.9.1933…..... .(EESC) (1) Sakkara, 10.2.1933; (1) Pyramids, 22.7.1933; (1) Pyramids, 27.7.1933; (1) Pyramids, 29.7.1933; (1) Pyramids, 18.10.1933; (1) Pyramids, 15.10.1933; (1) El-Wasta, 23.9.1934…….. (MAC)

***Centrophthalmus villosulus* (Fairmaire, 1863)**

(Plate 2)

Camaldusvillosulus Fairmaire, 1963,Ann. Soc. Ent. Fr. (4): P. 638.

Diagnosis: Bodyoval, its length:1.2 mm. Pronotal length: 0.25 mm. Pronotal width; 0.28 mm. **Colour:** rufo-testaceous. **Head**: (Fig 3) Subrhombus and small, anterior margin slightly narrow, with slightly Pubescence, with dense shallow punctuation. eyes prominent, distance between compound eyes wide. **Antennae** (Fig 1) segment I elongate, segments from III to VII suboval and almost similar, segment V111and IX almost similar, segment X slightly transverse, segment XI slightly conical, oviform, heavily pubescence, one time and third as long as head and pronotum.The base of

antenna with one tubercle. **Labrum**: (Fig 2) crescent like. Neck visible and large. **Pronotum**: (Fig 4) sub quadrate and transverse, wider than long, anterior and posterior margins wide, with dense shallow punctuation, with dense pubescence. **Elytra**: (Fig 5) slightly narrow at base, wide at apex, with short cleft from base to first quarter,and dense shallow punctuation, covered with long dense pubescence. **Abdomen**: (Fig 6) with four exposed tergites, weakly and gradually narrowed apically, tergite I elongate and transverse, tergite 2 large,almost similar to tergite 1,tergite3 small, tergite 4 very small, all terigtes with dense sleep pubescence, tergites I, 2 and 3 with elevated parts at sides.

Local distribution: Cairo, Giza, Qalubiya and Asyiut.

World distribution: Algeria, Egypt and Marocco.

Specimen examined: (1) Marg, 17.3.1912; (1) Wadi Digla, 1.8.1924; (1) Marg, Oct. 1924; (4) Barrage, 13.9.1933; (2) Pyramids, 2.10.1934; (1) Pyramids, 9.9.1934; (1) Pyramids, 15.10.1933; (1) Asyiut, Oct. 1959 …….……...…..... (ALFC) (2) Barrage, 10.9.1937; (24) Barrage, 13.9.1933 ……...…….…… (EESC) (1) Barrage, 10.9.1933; (1) Barrage, 13.9.1933; (1) Barrage, 16.9.1933; (1) Kafr Hakim, 23.9.1933; (1) Pyramids, 9.5.1934; (1) Pyramids, 9.9.1934; (1) Pyramids, 7.10.1934 ……..……..……..…… (MAC)

Genus: *Ctenistes* Reichenbach, 1816

Type species: *Ctenistespalpalis*Reichenbach, 1816, Mond. Psel. I prog. P. 75.

***Ctenistes voulgeri* Pic, 1904**

(Plate 3)

Ctenistes voulgeri Pic,1904.L'Echange, p. 89.

- Diagnosis: Body oval, its length: 1.8 mm. Pronotal length; 0.4mm. pronotal width: 0.28 mm. **Colour**: Brown**. Head**: (Fig 3) Subrhombus and small, anterior and posterior margin narrow, eyes prominent, very large and occupy a wide area of the head, head as wide as pronotum ,with heavy pubescence in posterio- lateral margins and base. Head with furrow in middle.**Antennae** (Fig 1) segment I swollen and subquadrate, segment II sub quadrate, segments from III to VII nearly similar and oval, segment VII wider than III to VI, from VIII to XI very elongate, like sugarcane segment; one time and quarter as long as head and pronotum; the base of antenna with one tubercle. **Labrum:**(Fig 2) Rectangle. Neck: Visible and large. **Pronotum**: (Fig 4) Oval, anterior and posterior margin narrow, as wide as long, postero- lateral margins with tuft heavy pubescence. Pronotum with sparse pubescence like wheat seed. **Elytra**: (Fig 5) with two sinuation at apex, wide at apex, narrow at base, with foveae at base, with sparse pubescence like wheat seed ;wider than tergites.**Abdomen:**(Fig 6) with five exposed tergites, weakly and gradually narrowed apically, tergite I transverse, tergite 2 larger than I, tergite 4 small, tergite 5 very small.

Local distribution: Cairo, Matrouh and Alexandria.

World distribution: Egypt and Tunisia.

Specimen examined: (1) Wadi Digla, 1.8.1924; (1) Wadi Digla, 8.9.1923; (1) Matrouh, 20.2.1924; (1) Kingi Mariout, 29.9.1924; (2) Kingi Mariout, 25.7.1925; (1) King Mariout, 2.10.1925; (2) King Mariout,24.7.1924…….…... (ALFC)

(1) Wadi Digla, 1.8.1924; (1) Wadi Digla, 27. 7. 1934.....(MAC)

Genus: *Ctenisomorphus* Raffray, 1890

Type Species: *Ctenistes major* Raffray, 1877. Rev. Mag. Zool. Pure & Appl.5: 280.

***Ctenisomorphus major* (Raffray, 1877)**

***Ctenisomorphus major* Raffray, 1877, Rev. Mag. 2001. Pure & Appl. 5: 285**

***Ctenrsomorphuselaniticus* Raffray, 1903, Bull. Soc. Ent. Fr., P. 185**

(Plate 4)

Diagnosis: Body oval and very bright, its length: 1.9 mm. pronotal length: 0.32 mm. pronotal width: 0.32 mm. **Colour:** Brown orangish. Head: (Fig 3) subrhombus, posterior and anterior margin narrow, covered with long pubescence; eyes prominent, narrower than pronotum.**Antennae**(Fig 1) segment I elongate, segments from II to VIII slightly transverse, segment IX as segment I, segments X and IX nearly similar, segment X1 very large and longer than any segmentes, all segments covered with dense pubescence ,one time and third as long as head and pronotum; the base of antenna with one tubercle. **Labrum:**(Fig 2) Crescent like. Neck: Visible and small. **Pronotum**: (Fig 4) subquadrate, anterior margin sub straight, posterior margin sub curved, antero-lateral margins with angles; base and lateral margins with pubescence tuft. **Elytra:** (Fig 5) with one sinuate at base, wide at apex, narrow at base, with spars epubescence slightly wider than abdomen. **Abdomen**: (Fig 6) with five exposed tergites, weakly and not gradually narrowed apically, tergite I and 2similar, tergite 3 shorter than tergite I, tergite 4 small, tergite 5 very small, tergites I, 2 and 3 with elevated parts at sides; all tergites with a sleep pubescence.

Local distribution: Cairo and South Sinai.

World distribution: Egypt and Palestine.

Specimen examined: (1) Wadi Isla, 11.4.1940; (1) Wadi Digla, 30.5.1924 ...(ALFC)

(1) Wadi Digla, 8.9.1923; (1) Wadi Hoff, 10.3.1935 ……..…..… (MAC)

Genus *Desimia* Reitter, 1882

Type species: *Tetracis complex* sharp, 1874, Ent. Month. Mag. XI, P.80.

Key to species of genus *Desimia*

1-Head subquadrate and small, posterior margin curved inwards; elytra without cleft, tergite 2 large and transverse, tergite 3 boat like…..*.....*……*Desimia ghilliani*

-Head sub rhombus, elytra with cleft, tergite 2 not transverse, tergite 3 not boat like …….. 2

2(1) labrum rectangle, pronotum cardiform, antero-lateral margins not angle; four tergal segment with elevated parts at sides ……..…...… *Desimia darius*

-Labrum sub-oval, pronotum subrhombus, antero –lateral margins angled, tergites I,2 and 3 only with elevated parts at sides ……..… *Desimia parvi palpis berruginea*

***Desimia darius* (Saulcy, 1873)**

Tmesiphoru darius Saulcy, 1873: Bull. Soc. Hist. Nat. Merz, 13: 54.

(Plate 5)

Diagnosis: Body oval, its length; 1.3 mm. Pronotal length: 0.25mm. pronotal width: 0.25 mm. **Colour**: Brown. **Head:** (Fig 3) Subrhombus, anterior and posterior margins slightly wide, with foveae, sparse pubescence, and dense shallow punctuation, eyes prominent, distance between compound eyes wide narrower than pronotum**. Antennae:** (Fig 1) segment I elongate ,segment II large and longer than any segments from III to VIII, segments III to VIII almost similar, segment IX slightly smaller than X, segment X transverse and large, segment XI very large, oviform, forming the antennal club tapering, antennae covered with dense heavy pubescence, one time and half as long as head and pronotum; the base of antenna with one tubercle. **Labrum:** (Fig 2) Rectangle. **Pronotum**: (Fig 4) Sub-cardiform, as wide as long, and very convex, with dense shallow punctuation, shining, with dense pubescence except middle area**. Elytra:** (Fig 5) slightly narrow at base, wide at apex, with big cleft from base to middle, with pubescence tuft at apex, with dense very shallow punctuation,; wider than abdomen. **Abdomen**: (Fig 6) with four exposed tergites, weakly and gradually narrowed apically. Tergite1 elongate, tergite 2 very large, longer than 3and 4, tergite 3 small, tergite 4 very small, with dense shallow punctuation, four tergal segmentas with elevated parts at sides.

Local distribution: Cairo, Giza and Qalubiya

World distribution: Egypt and Iran.

Specimen examined: (1) Marg, 28.10.1907; (1) Giza, 22.7.1926; (1) Cairo, 19.6.1914……..……..…… (ALFC)

***Desimia ghilliani* (Aube, 1844)**

Ctenistes ghilliani Aube, 1844. Ann. Soc. Ent. Fr. (2): P. 99.

(Plate 6)

Diagnosis: Bodyoval,its length:1.4mm.Pronotal length:0.25.pronotalwidth: 0.25mm.**Colour**: Brown orangish except elytra and abdomen pale yellow. **Head:**(Fig 3) sub quadrate and small. Posterior margin curved inwards, anterior margin slightly curved, with sparse pubescence, and shallow punctuation, eyes convex and rounded. **Antennae**: (Fig 1) segment I enlarged, segment II slightly swollen, longer than III, segments from IV to VII similar and subquadrate, segment VIII subtriangle, segments IX and X similar and like sugarcane segment, segment XI very large, elongate and slightly tapering one time and half as long as head and pronotum; the base of antenna with one tubercle. **Labrum**: (Fig 2) Rectangle. Neck: Visible and large. **Pronotum**: (Fig 4) Sub-triangle and convex, anterior margin slightly wide, posterior margin slightly narrow, wider than long, with sparse, not deep punctuation, with dense sleep pubescence. **Elytra:**(Fig 5) sub trapezoid,longer than wide, narrow at base, wide at apex, with sparse shallow punctuation, with fine pubescence, with a row of white pubescence atapex**. Abdomen:**(Fig 6) with four

targite, weakly and gradually narrowed apically, tergite I elongate, tergite 2 elongate and transverse, tergite 3 boat like, tergite 4 small with dense, long and a sleep pubescence,tergites 1,2 and 3 with elevated parts at sides.

Local distribution: Cairo, Giza, Alexandria and Luxor.

World distribution: Spain, Algeria, Egypt and Morocco

Specimen examined: (1) Shoubra, 25.6.1914; (1) Alexandria. 1915; (1) Talbieh, 23.7.1914; (1) Alexandria, 1915; Talbieh, 23.7.1914; (1) Cairo; (15) Luxor, 7.6.1909……..……...…….…….….. (EESC)
(1) Helwan 23.2.1933; (1) Maadi, 7.8.1933 ……..……(MAC)

***Desimia parvipalpis berruginea* Normand, 1904**

***Desimia parvipalpis berruginea* Normand, 1904, L'Abeille, 30: 219**

(Plate 7)

Diagnosis: Bodyoval, its length:1.6mm.Pronotallength: 0.3mm.Pronotal width: 0.35mm.**Colour:**rufo-testaceous. **Head:**(Fig 3) sub rhombus and small, posterior margin curved outwards, anterior margin, with sparse pubescence, and sparse shallow punctuation. Head with two tubercles below the tubercles of antennae.**Antennae**(Fig 1) segment I elongate, segment IIslightly swollen, segments from III to VIII similar and semi oval, segments IX and X almost similar and almost similar segment I in length, segment XI very large, elongate and slightly tapering; one time and half as long as head and pronotum; the base of antennae with one tubercle beside pivot. **Labrum**: (Fig 2) Sub oval. Neck: Visible and large. **Pronotum**: (Fig. 4) Sub rhombus and convex, anterior margin narrow, posterior margin wide, wider than long, with sparse and shallow punctuation, and dense sleep pubescence. Pronotum with tuft pubescence at base, tuft pubescence sleep in lateral margins, Pronotum swollen in middle lateral margin, antero-lateral margins angles **Elytra:**(Fig 5) Sub trapezoid, longer than wide, narrow at base, wide at apex, with longitudinal deep cleft with sparse and shallow punctuation, and a row of white pubescence at apex. **Abdomen:** (Fig 6) with four tergites, weakly and gradually narrowed apically, tergiteI as longas 2,tergites 1,2 and 3 with elevated parts at sides.

Local distribution: Cairo, and Giza.

world distribution: Egypt and Tunisia.

Specimen examined: (1) Pyramids, 4.8.1933; (1) Maadi, 7.8.1933…… (MAC)

Genus: *Enoptostomus* Schaum, 1864

Type species: *Enoptostomus wollastoni* Schaum, 1864 cat. Col. Can, P. 528.

***Enoptostomus globulicornis* (Motschulsky, 1851)**

(Plate 8)

Enoptostomus globulicornis Motschulsky, 1851, Bull. Nat. Mosc. IV, P. 481.

Diagnosis: Body oval, its length: I. I mm. Pronotal length: 0.26 mm. Pronotal width: 0.22 mm. **Colour**: Brown orangish. **Head:**(Fig 3) Subrhombus, posterior margin of the head very narrow, with twofoveae, and dense pubescence; eyes prominent; occupy a wide area of the head. **Antennae** (Fig 1)11segmented, segment I elongate, segment VIII as wide as segment IX, segment X transverse, sub trapezoid, segment

XI very large, oviform, heavy pubescence; forming the antennal club, antenna one time and third as long as head and pronotum; the base of antenna with one tubercle**.** **Labrum:** (Fig 2) Subtraingle. Neck: Very small. **Pronotum:** (Fig 4) Sub quadrate, slightly wider than long, anterior margin slightly wide, posterior margin wide, postero- lateral margins with tuft pubescence, with sparse pubescence. **Elytra:**(Fig 5) Sub trapezoidal, slightly narrow at base, wide at apex, with cleft from base to middle, with shallow pubescence tuft at apex; covered with dense shallow punctuation, with fine pubescence. **Abdomen:**(Fig 6) with four exposed tergites weakly and gradually narrowed apically, tergite 2 large, tergite 4 small, all tergites with sleep pubescence, tergites 1,2 and 3 with elevated parts at sides.

Local distribution: Cairo, Giza, Qalubiya, Gharbiya and South Sinai.

world distribution: Mediterranean Sea, Middle of Asia, Egypt, Syria and Algeria.

Specimen examined:(1) Cairo, 2.8.1910; (2) Wadi Digla, 1.8.1924; (1) Marg, 20.10.1911; (1) Tawfikia, 1.5.1916; (1) Tourah, 5.3.1910; (1) Giza, 22.7.1926; (1) Wadi Rashid, 9.12.1923; (1) Tunta, 15.8.1915; (1) WadiTeybah,30.5.1935 (ALFC)
(1) tourah,15,3.1912…….…… (AUSC)
(1) Wadi Digla, 1.8.1924; (1) Pyramids, 27.7.1933; (1) Pyramids, 1.8.1933; (1) pyramids, 9.8.1933; (1) Pyramids, 10.8.1933; (1) Barrage, 18.9.1933; (1) El-Wasta, 18.3.1934; (1) Al-Arish, 22.5.1935 ……..…….(MAC)

Genus: *Euplectus*Leach, 1817

Type species: *Euplectusreichenbach* Leach, 1817, Zool. Miscoll, III.p:80

***Euplectusalfierii* Pic, 1922**

(Plate 9)

Euplectus alfierii Pic, 1922: L'achange, 38: 21.

Diagnosis: Body: sub oval, its length:1.2mm.Pronotal length: 0.20 mm. Pronotal width: 0.25 mm. **Colour:** Brown. **Head:** (Fig 3) Subquadrate, Posterior margin curved inwards, anterior margin nearly straight, with fine pubescence, and two foveae, without punctuation, eyes slightly prominent,. **Antennae** (Fig 1) segment I enlarged and subquadrate, segment II rounded, segments III to IX sub oval, segment X slightly large, segment XI oviform, large and sub triangle; slightly tappering; antenna shorter than head and pronotum. **Labrum**: (Fig 2) sub trapezoid. Neck: Visible and large. **Pronotum:** (Fig 4) Subcardiform and convex, with two foveae in anterior portion, anterior margin narrow, posterior margin slightly wide, with tuft pubescence in middle base, without punctuation. **Elytra:** (Fig 5) Sub trapezoid, with sparse, shallow punctuation, with slightly pubescence, narrower than abdomen. **Abdomen:**(Fig 6) with five exposed tergites, weakly and gradually narrowed apically, tergites, 1,2 and 3 sub rectangle, tergite 4 large, boatlike, tergite 5 small, with dense sleep pubescence, tergites 1,2,3 and 4 with elevated parts at sides.

Local distribution: Giza

World distribution: Europae and Egypt.

Specimen examined: (1) Barrage, 17.9.1933; (1) Pyramids, 15.10.1933; (1) Pyramids,17.10.1934 ……..……(MAC)

Genus: *Marellus* Motschulsky, 1851

Type species: *Marellusaegyptiacus* Motschulsky, 1851, Bull. Mosc., P 481.

***Marellus aegyptiaca* Motschulsky, 1851**

(Plate 10)

Marellus aegyptiacus Motschulsky, 1851, Bull. Mosc., P 481.

Diagnosis: Body oval, its length:1.4mm. Pronotal length 0.25mm. Pronotal width: 0.27mm. **Colour:** Dark brown. **Head:** (Fig 3)Sub triangle, posterior margin nearly triangle. Anterior margin sub straight, with dense pubescence, dense shallow punctuation; eyes prominent, distance between eyes wide. **Antennae**(Fig 1) segment I enlarged, segment II slightly convex, segments from III to VII similar, segment VIII very small, segment IX and X large, segment XI very large, oviform and clubbed; antenna one time and half as long as head and pronotum. **Labrum:** (Fig 2) Semi rectangle. Neck: Visible and slightly large. Pronotum: (Fig 4) Pyriform, anterior margin sinuated, posterior margindeclined, mid-lateral margins sinuated, with dense and shallow punctuation, and dense pubescence. **Elytra:** (Fig 5) Sub trapezoid, narrow at base, wide at apex, with sparse and shallow punctuation, with dense a sleep pubescence. Elytra with longitudinal slightly deep line. **Abdomen:** (Fig 6) with five tergites, tergite 2 longer than any tergites, tergites 3 and 4 nearly similar, tergite 5 very small, tergites with sparse sleep pubescence. Tergites 1, 2, 3 and 4 with elevated parts at sides.

Local distribution: Assuit and Giza.

World distribution: Algeria and Egypt.

Specimen examined: (1) Hawamdiya, 10.2.1925; (1) Giza, 23.7.1926; (1)Giza,2.8.1926;(1) Assuit,12.11.1930…….....(MAC)

Genus: *Pseudoplectus* Reitter, 1882

Type species: *Euplectusp erplexus* Jacquelindu val, 1854, Bull. Soc. Ent. Fr., 46-47.

***Pseudoplectusperplexus* (Jacyuyelin du Val), 1854**

(Plate 11)

Pseudoplectus perplexus Jacq., 1854.Bull. Soc. Ent. Fr, P. 46-47.

Diagnosis: Body sub rectangle, slightly concave and shining, its length: 1.5 mm. Pronotal length: 0.14 mm. Pronotal width: 0.16 mm. **Colour**: refo-testaceous**. Head:** (Fig 3) subtriangle, posterior margin of the head curved, anterior margin slightly straight, head with two fovea, with sparse deep punctuation, and fine pubescence; eyes prominent. **Antennae** (Fig 1) segment I and II swollen, segments from III to IX subquadrate, segment X transverse, trapezoid, large than IX, segment XI very large, slightly conical, nearly tapering, heavy pubescence forming the antenna club, antennae one time as long as head and pronotum, the base of antenna with one tubercle. **Labrum:** (Fig 2) Sub triangle. Neck: Visible and moderately large. **Pronotum**: (Fig 4) Sub cardiform, wider than long, posterior margin narrow, anterior margin slightly wide, with large fova at disc, without punctuation and with fine pubescence**. Elytra:** (Fig 5) Short and sub rectangle, wide and sharp at apex.

Abdomen:(Fig 6) with four exposed tergites, weakly and gradually narrow apically. Tergites I and 2 nearly similar, tergite 4 very small.
Local distribution: Cairo and Qalubiya and Sinai.
World distribution: France, Spain, Tunisia and Egypt.
Specimen examined: (11) Maadi, 7.3.1933; (1) Maddi, 9.7.1933; (1) Maadi, 9.8.1933; (1) Maadi, 31.7.1933; (1) Barrage, 17.9.1933; (3) Maadi, 13.6.1933; (1) Maadi, 4.7.1933 …… (ALFC)
(3) Maadi, 31.7.1933; (47) Maadi, 14.8.1933 ……...……...… (EESC)
(1) ..…….....….(ASUC)
(1)Maadi, 13.6.1933; (1) Maadi, 24.7.1933; (1)Maadi, 25.7.1933; (1) Maadi, 31.7.1933; (1) Maadi, 7.8.1933; (1) Barrage, 3.9.1933; (1) Barrage, 10.9.1933;(1) Pyramids, 10.9.1934 ……..…… (MAC)

Genus: *Trissemus* Jeannel, 1949

Type species: *Bryaxisantennatus*Aube, 1933. Zool. Journal. P. 451.

***Trissemus nilotica* (Motschalsky,1851)**

Bryaxis nilotica Motschalsky, 1851. Bull. Soc. Imp. Nat. Motscou, 42: 492.

(Plate 12)

Diagnosis: Body oval, convex and dorsally shining, its length: 0.9 mm. pronotal length: 0.22 mm. pronotal width: 0.16mm. **Colour**: Brown orangish. **Head:**(Fig 3) Subrhombus, posterior margin of the head nearly straight, anterior margin of the head nearly rounded, with two foveae beside eyes. Eyes rounded and prominent. **Antennae**(Fig 1) 7th and 8th nearly oval, segment IX slightly transverse, segment X transverse, segment XI very large, as wide as segment I, heavy pubescence, forming the antennal club, antenna one time and quarter as long as head and pronotum. **Labrum**:(Fig 2) Crescent like. Neck: Visible and slightly large. **Pronotum:** (Fig 4) Convex and rounded, wider than long, with sparse shallow punctuation, with slightly pubescence. **Elytra:** (Fig 5) Short, with sharp teeth at apex. **Abdomen:**(Fig 6) with four exposed tergites, tergites 2 to 4 narrowed apically, tergite I very large, longer than tergite 2, tergite 4 very small, tergites 2 and 3 nearlysimilar.
Local distribution: Giza, Qalubiya, Assuit and Aswan
World distribution: Egypt.
Specimen examined: (1) Luxor, 7.6.1917; (1) Giza, 1.7.1926; (1) Pyramids, 4.8.1933; (1) Assuit,Oct.1954 ….....……(ALFC)
(1) Pyramids, 27.7.1933; (1) Pyramids, 4.8.1933; (13) Barrage, 24.12.1906..(EESC)
(1) Kitchener Island, 6.3.1931; (1) Edfu, 10.3.1931; (1) Ibrim, 7.4.1931; (1) Tomas Island, 8.4.1931; (1) Tomas Island, 9.4.1931; (1) Edfu, 10.8.1931; (1) Pyramids, 22.7.1933; (1) Pyramids, 29.7.1933; (1) Pyramids, 1.8.1933; (1) Sakkara, 15.10.1933; (1) Pyramids, 15.10.1933…….. (MAC)

Summary

Twelve Egyptian pselaphid species belonging to nine genera are taxonomically studied during the present work. Diagnostic characters, Identification key, for genera and species, Illustrations and distribution are given for each species.

Ctenistes voulgeri PIC

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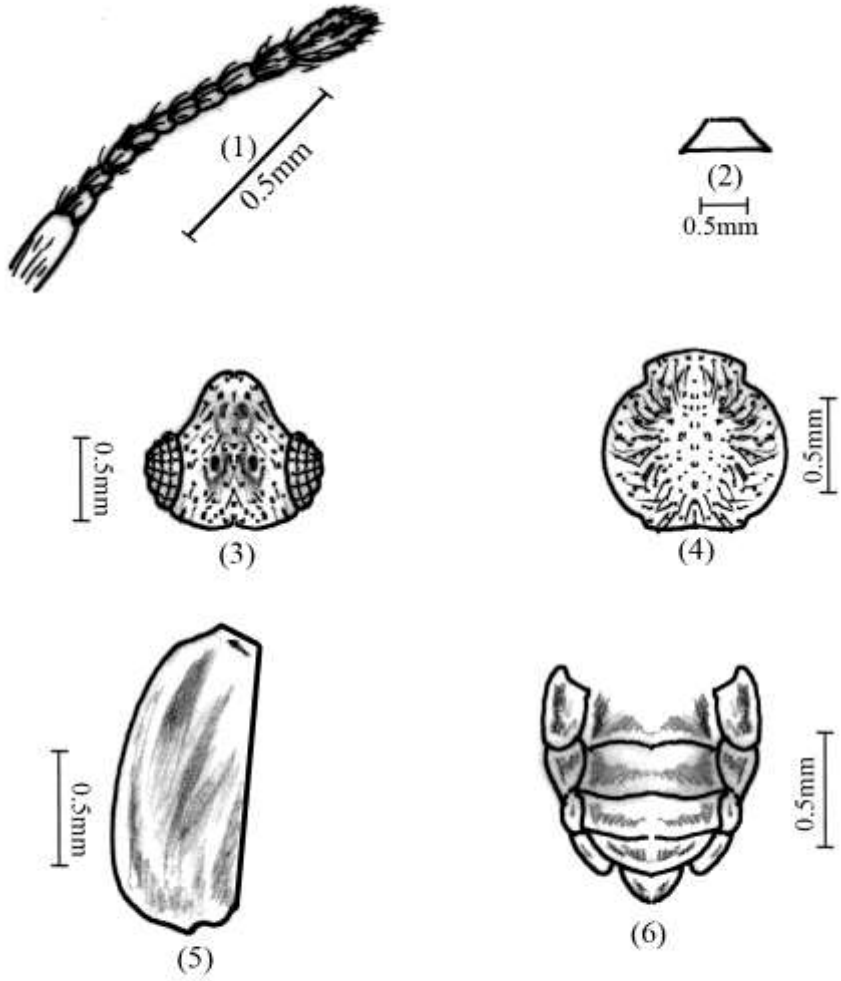
Plate (1)



***Centrophthalmus pici* Jeannel**

Fig. (1): Antenna

Fig. (2) Labrum

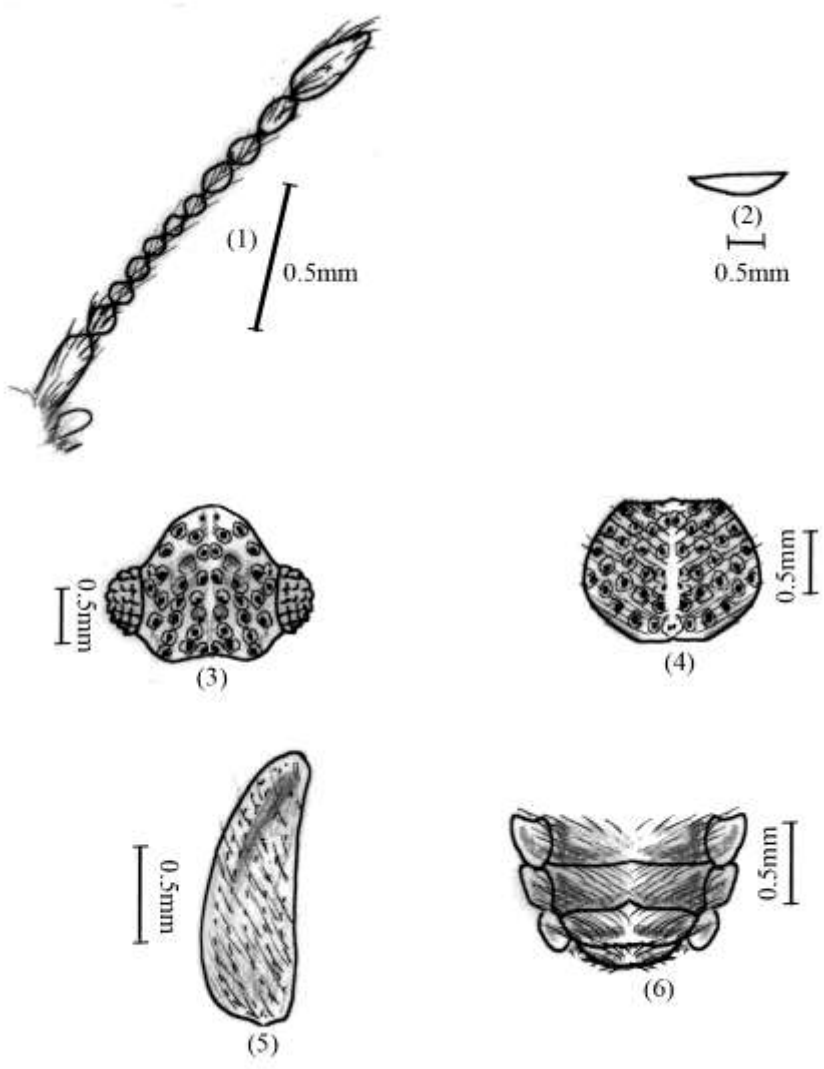
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (2)



Centrophthalmus villosulus Fairm

Fig. (1): Antenna

Fig. (2) Labrum

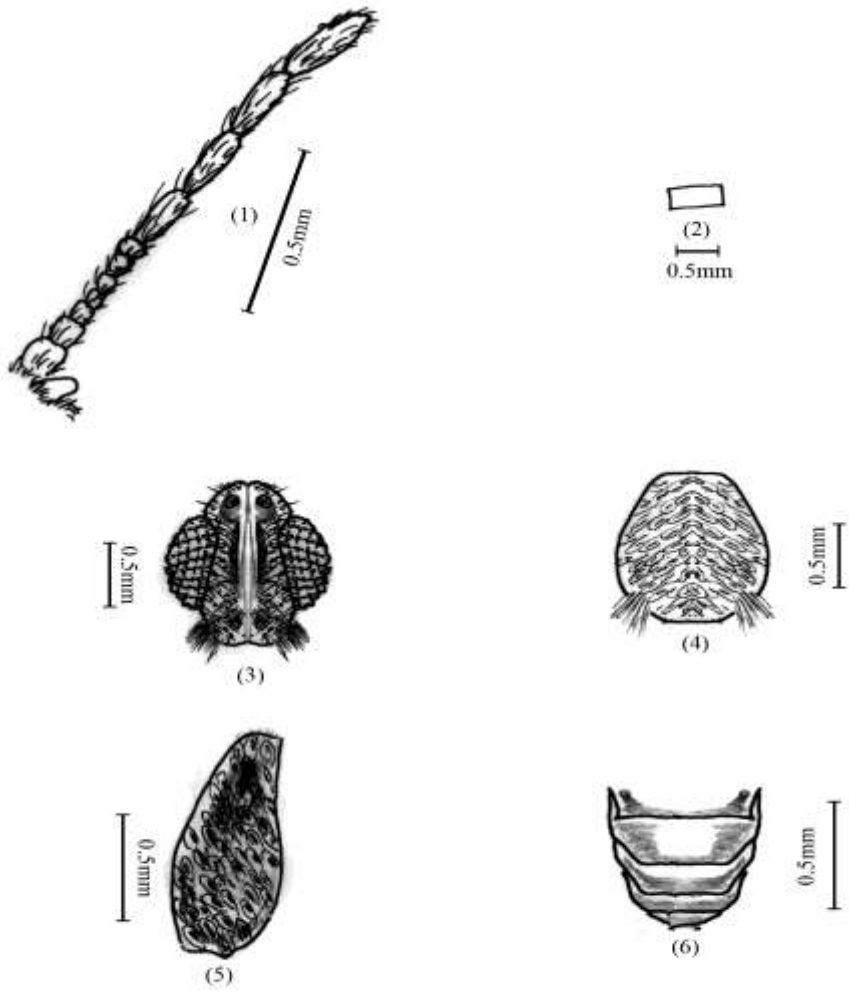
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (3)



Ctenistes Voulgeri Pic

Fig. (1): Antenna

Fig. (2) Labrum

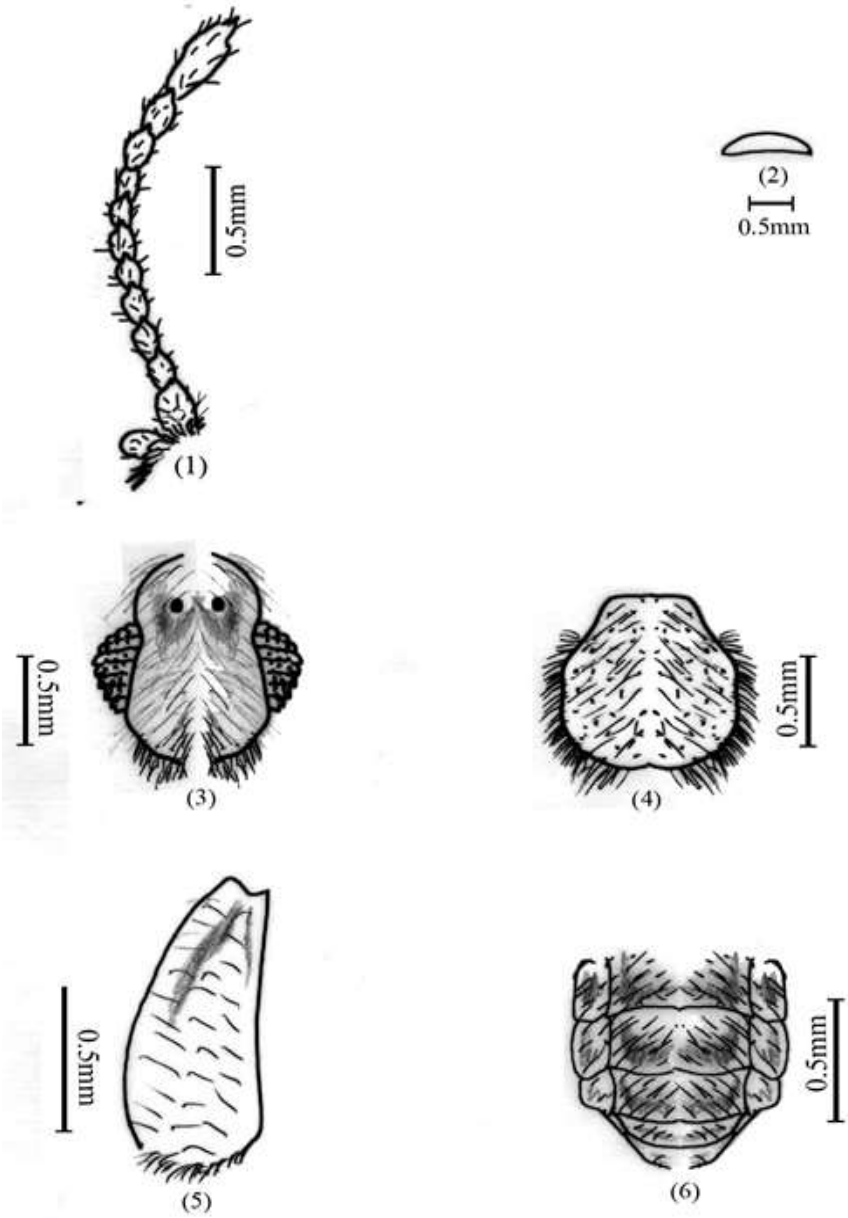
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (4)



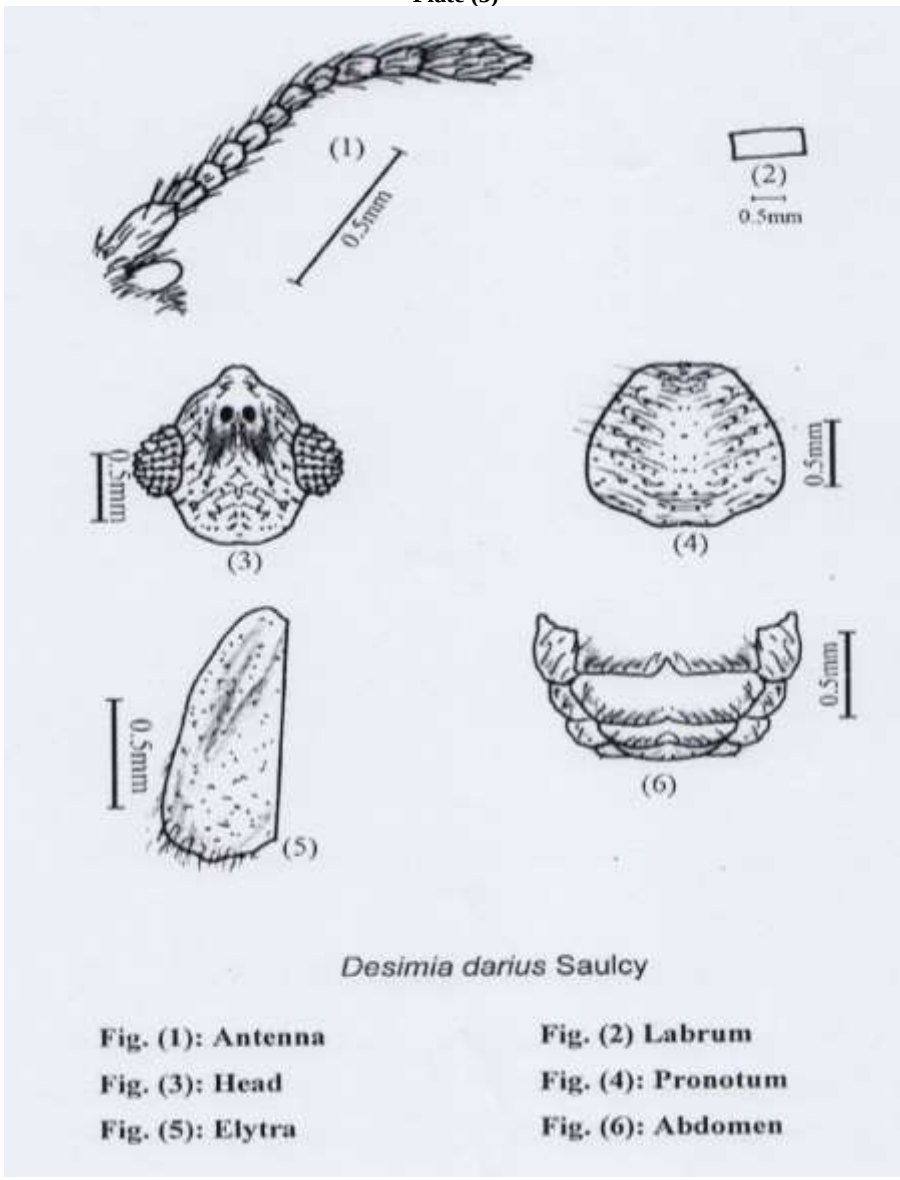
***Ctenisomorphus major*(Raffray)**

Fig. (1): Antenna **Fig. (2) Labrum**

Fig. (3): Head **Fig. (4): Pronotum**

Fig. (5): Elytra **Fig. (6): Abdomen**

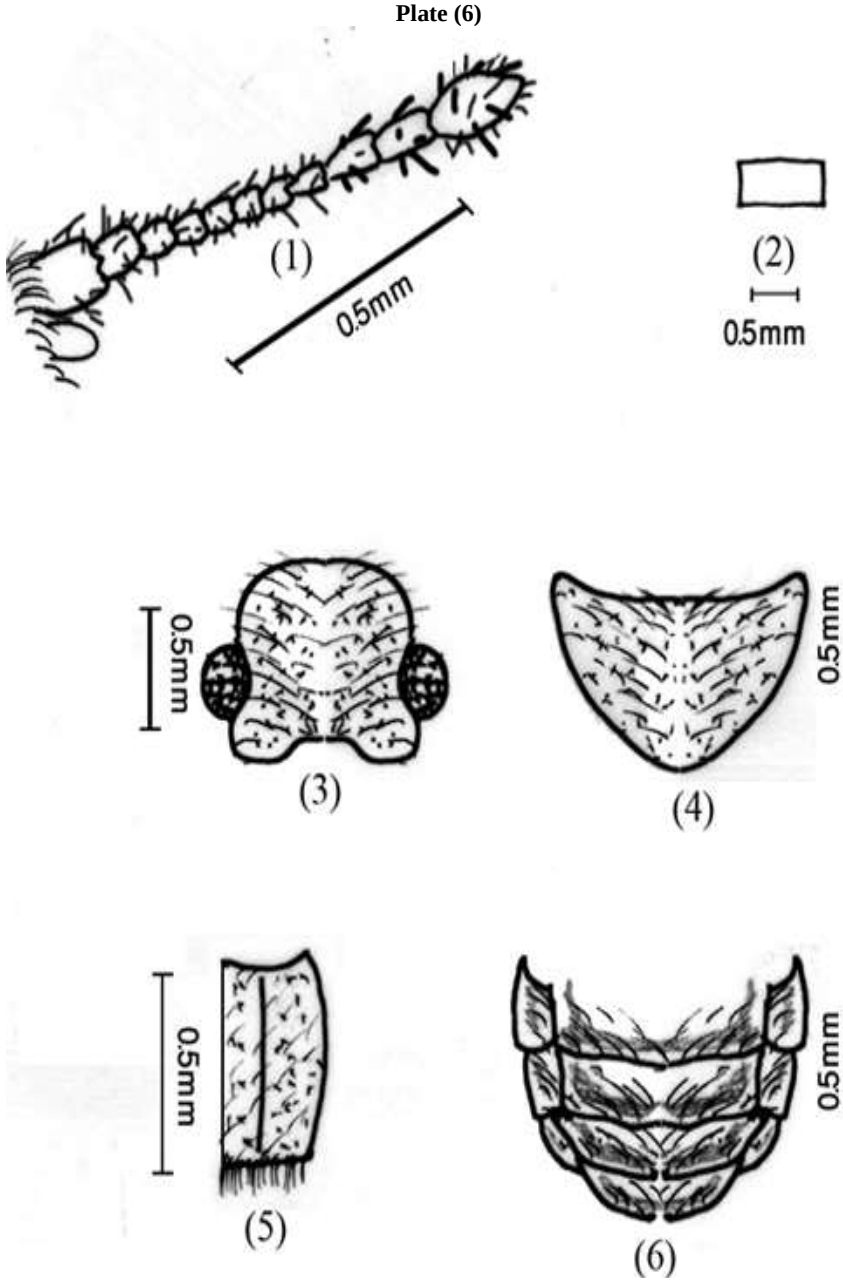
Plate (5)



Desimia darius Saulcy

Fig. (1): Antenna
Fig. (2) Labrum
Fig. (3): Head
Fig. (4): Pronotum
Fig. (5): Elytra
Fig. (6): Abdomen

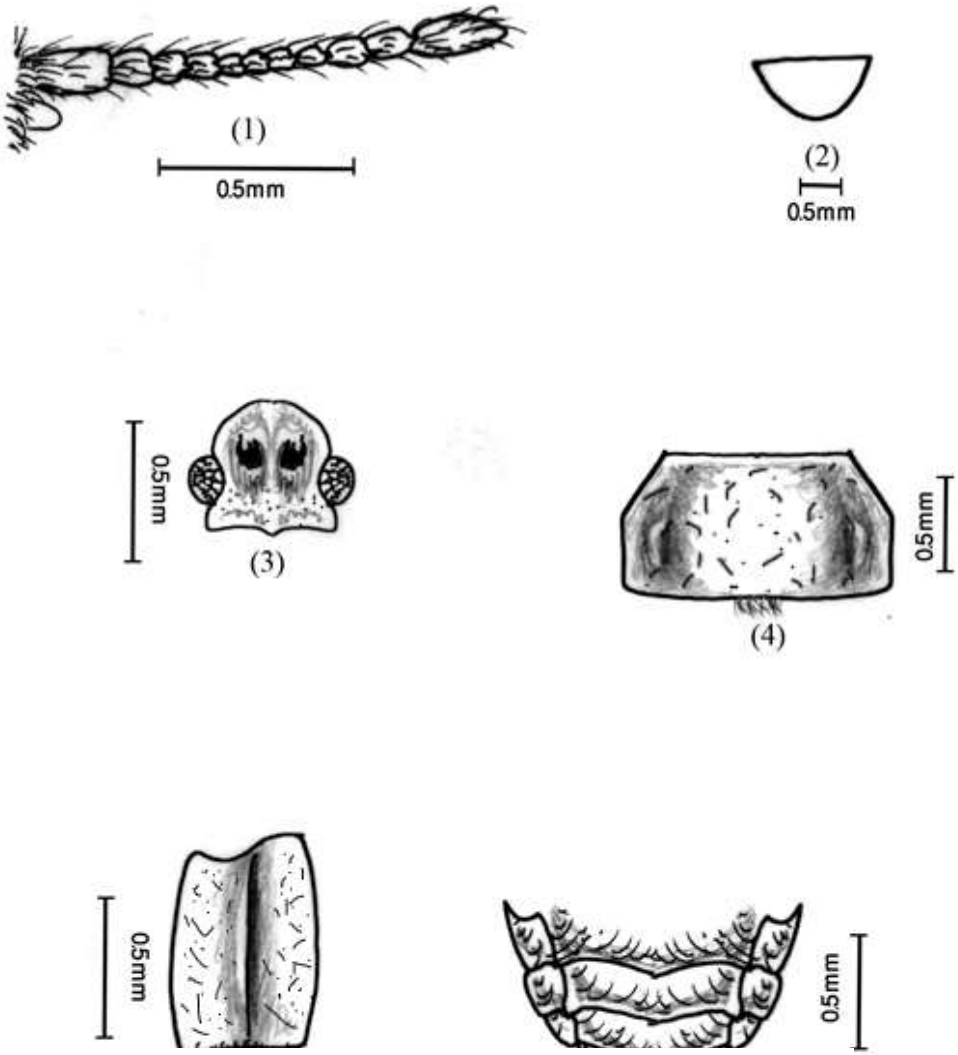
Plate (6)



***Desimia ghilliani* (Aube)**

Fig. (1): Antenna
Fig. (2) Labrum
Fig. (3): Head
Fig. (4): Pronotum
Fig. (5): Elytra
Fig. (6): Abdomen

Plate (7)



Desimia parvipalpis berruginea **Normand**

Fig. (1): Antenna

Fig. (2) Labrum

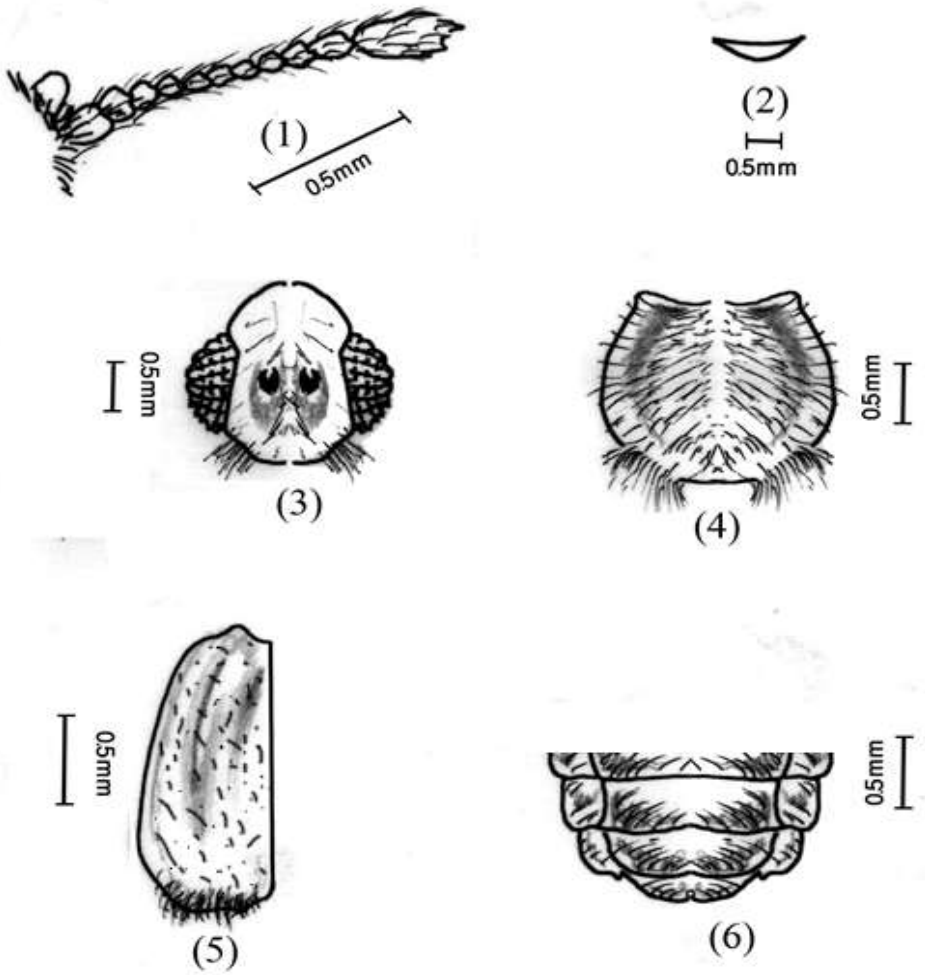
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (8)



***Enoptostomus globulicornis* Motschulsky**

Fig. (1): Antenna

Fig. (2) Labrum

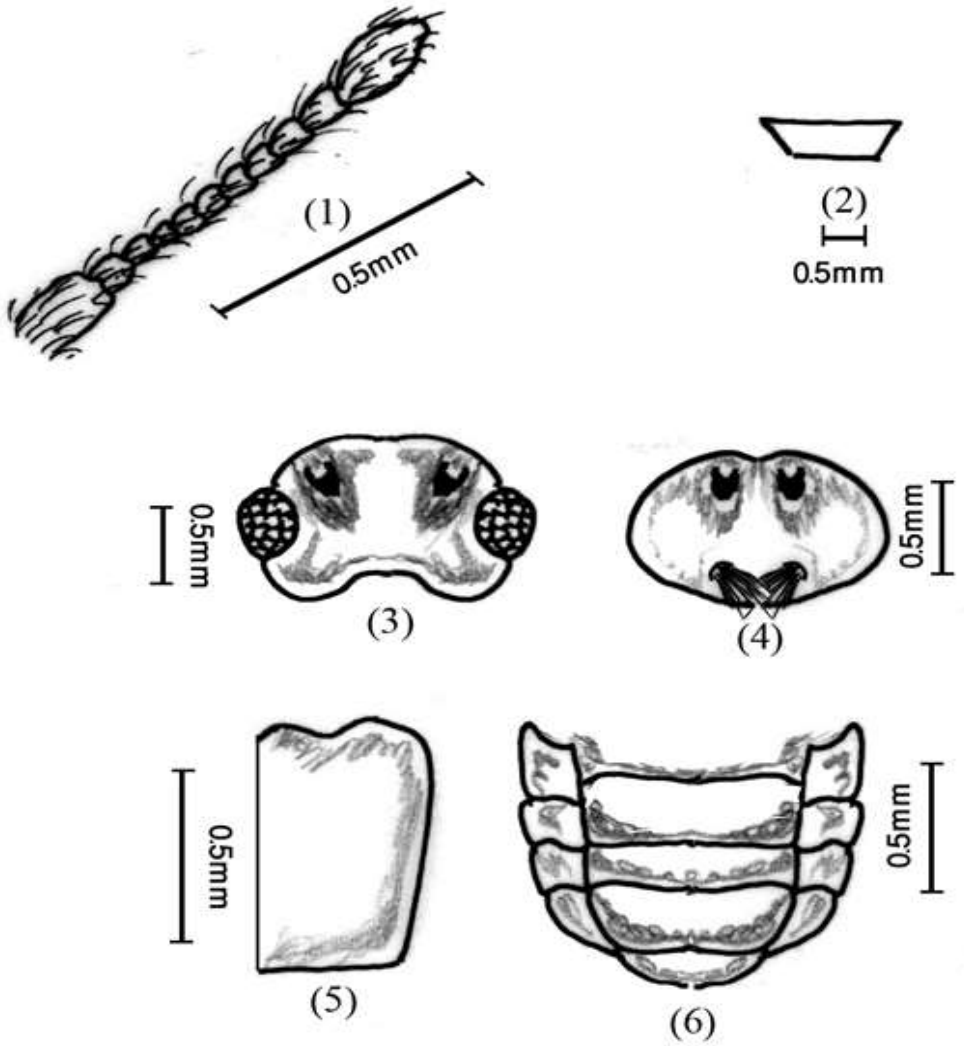
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (9)



***Euplectus alfierii* Pic**

Fig. (1): Antenna

Fig. (2) Labrum

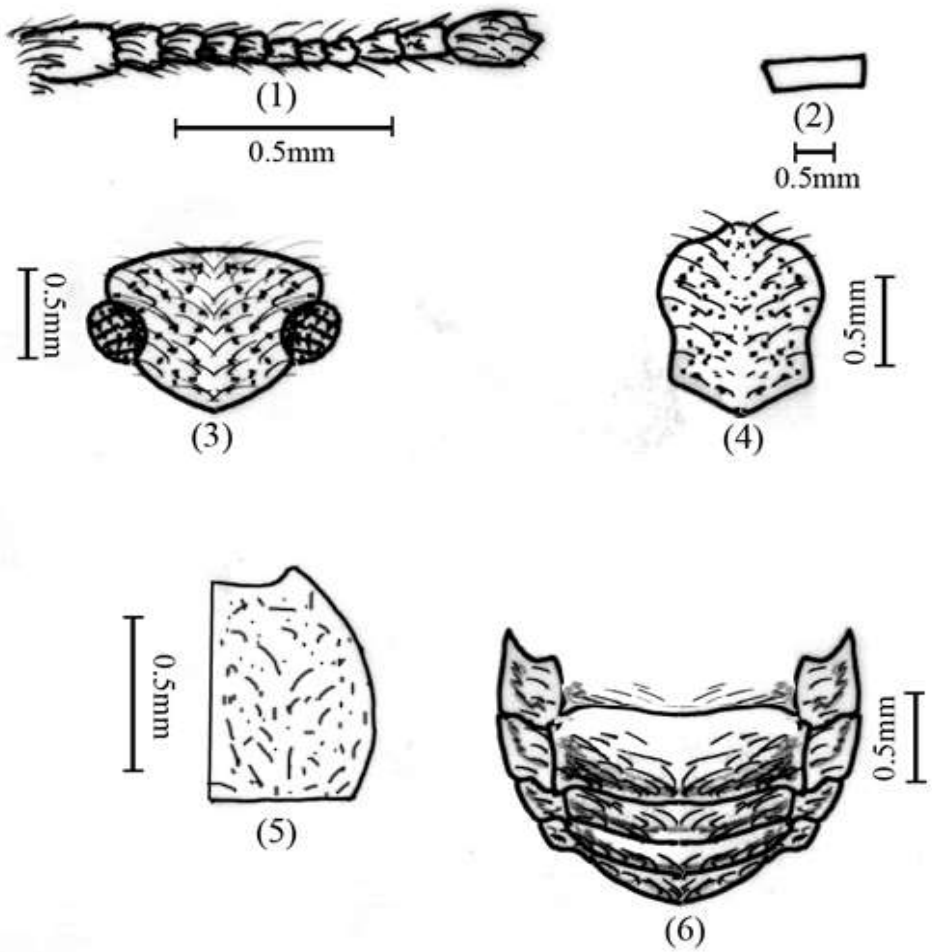
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (10)



***Marellus aegyptiaca* Motschulsky**

Fig. (1): Antenna

Fig. (2) Labrum

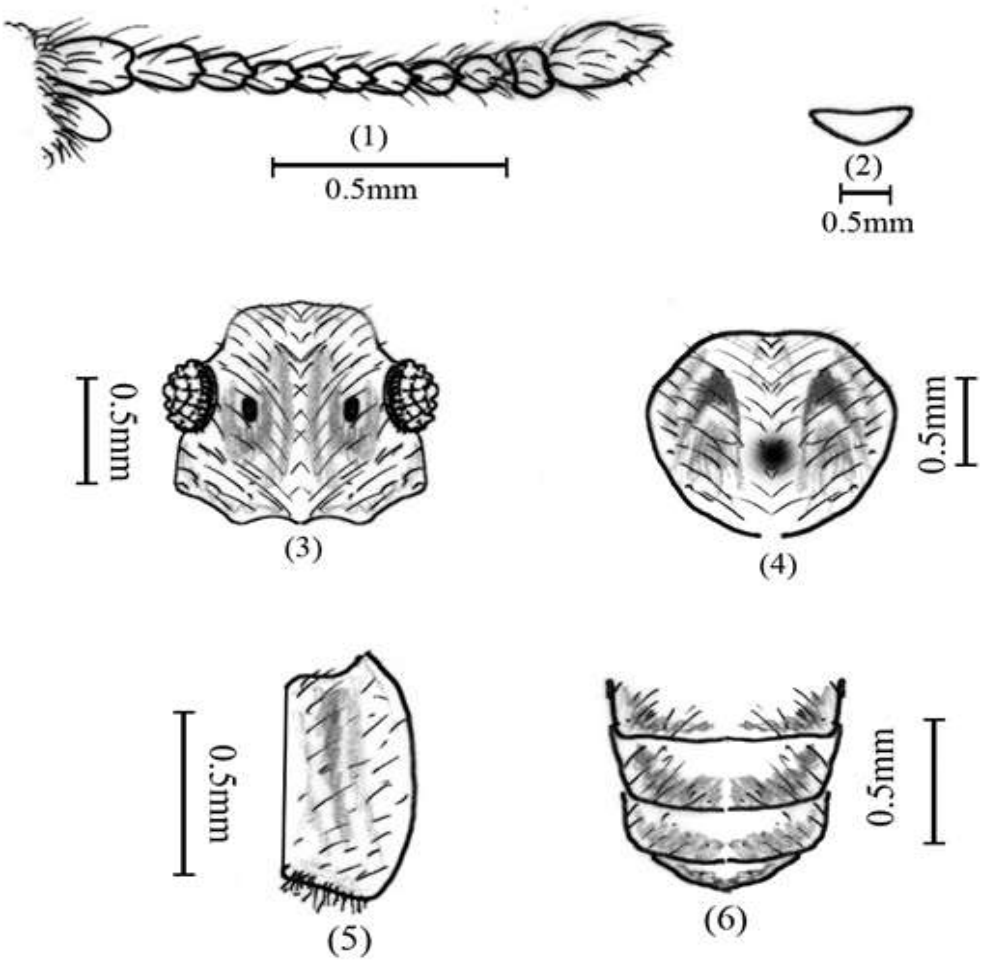
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (11)



***Pseudoplectus perplexus* Jacq**

Fig. (1): Antenna

Fig. (2) Labrum

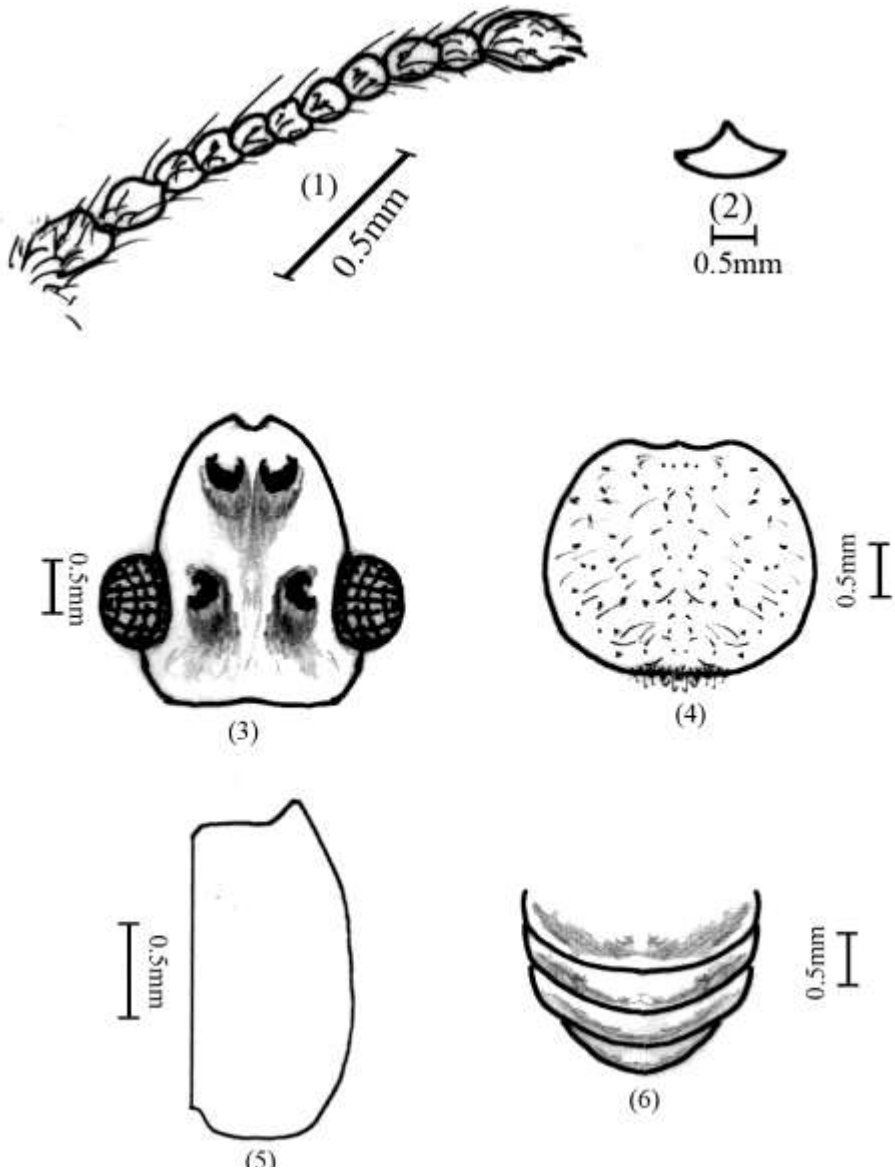
Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

Plate (12)



***Trissemus nilotica* (Motschulsky)**

Fig. (1): Antenna

Fig. (2) Labrum

Fig. (3): Head

Fig. (4): Pronotum

Fig. (5): Elytra

Fig. (6): Abdomen

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