

TAXONOMICAL STUDIES ON THE GENUS *BARIS* (COLEOPTERA: CURCULIONIDAE) IN EGYPT

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ABSTRACT

The present work presents a taxonomical studies on the Egyptian sp. of the g. *Baris*. A full description of one of the species *Baris alboserita* is given and other species of the genus *Baris* were diagnosed, keyed and illustrated. Taxonomical data are provided for each species.

Keywords: Taxonomy- *Baris*- Curculionidae- Egypt.

INTRODUCTION

Family Curculionidae is the largest of the order Coleoptera in Egypt. All species are plant feeders; some are serious pests, many species feed under bark and in wood. Adult weevils typically feed on leaves, pollen, flowers and developing fruit. Some species feed on roots and inside roots such as members of the genus *Baris* (White, 1983). Beetles of the genus *Baris* characterized by this strong bodies; short, transverse curved head, oblique dip and transverse frons; strong, short and cylindrical rostrum nearly without furrow; pronotum small. Wide at base, narrow at apex; elytre nearly parallal and rounded at apex; striated, densely punctated and scaled. Legs strong and short, Tibie toothed, Tarsi short and bilobed, claws fine. Therefore the present investigation has been outlined to study a taxonomical notes on the Egyptian species of the genus *Baris*.

MATERIAL AND METHODS

The Present taxonomic work started by examining the specimens in the Egyptian References Insect Collections to give a general picture on the diversity and distribution of the curculionid weevils in Egypt. These collections are: the Ministry of Agriculture collection, Plant Protection Research Institute (MAC); Alfieri Collection, Faculty of Agriculture, AL- Azhar University (AZUC); Egyptian Entomological Society (EESC); Cairo University collection Faculty of Science (CUU) and Ain Shams University, collection Faculty of Science (ASUC).

The species of the genus *Baris* are fuuly described and illustrated, key for eight species is designed, distribution and taxonomical notes are given. Species alphabetically arranged.

Drawings for the main structure mostly used in the description and or keys for the species were made by the help of stereoscopic binocular microscope and camera Lucida.

RESULTS

Key to the Egyptian species of the genus *Baris*.

- 1- Scorbe oblique, curved from as above, touch lower margin of eye..... 2
- Scorbe oblique, not touch lower margin of eye3
- 2- Scutellum very conspicuous, triangle in shape, pygidium large, with silk-like pubescence *Baris scolopace*
- Scutellum conspicuous, subquadrate in shape, slightly shallow, pygidium not large, covered with regular contiguous punctures.....*Baris arctithorax*
- 3- Pronotum subtrapeziform in shape4
- Pronotum not as above5
- 4- Funiculus consist of 6 segments, pygidium transverse at apex, narrow at base*Baris soricina*
- Funiculus consist of seven segments6
- 5- Pronotum spherical in shape, apical margin truncate at middle, disc very convex, pronotum glabrous and very swollen, pygidium transverse at base, arcuate at apex *Baris granulepennis*.
- Pronotum subquadrate in shape7
- 6- Elytra elongate, width at midlength 0.7 times as its length; Frons with longitudinal furrow extending to midpoint of eye to middle of mesorostrum*Baris opiparis*.
- Elytra oval in shape, width at midlength 1.5 times as long broad, frons without longitudinal furrow*Baris alboeriata*.
- 7- Scorbe oblique, located in metarostum, pronotum with scales, Scutellum rounded in shape*Baris spitzyi nespia*.
- Scorbe oblique, located in mesorostrum, pronotum glabrous, scutellum triangle in shape *Baris aegyptia*.

Baris alboeriata Reitter (1908).

(Plate 1)

Baris alboeriata Reitter, 1908, Le Caire, P. 54.

Full Description:

- Body** : Oval in shape
- Colour** : Brown
- Length** : 1.3 cm.
- Head** : Head convex, without sulci Eye oval very small and prominent, Frons convex, Length two times its maximum width Rostrum elongate and stout, width 0.2 time its length, curved in lateral view, lateral margins not straight and not parallel, without furrow, 0.8 times as long as pronotum, Distance from antennal insertion to apex of rostrum, longer than width of rostrum, with dense punctuation and deep contiguous. Epistoma emarginated apically, metarostrom covered with fine and apressed pubescens, meso and prorostrum rarely covered with pubescence.
- Antenna** : scorbe oblique, down wards visible from above, not touch eye, scape not reach posterior margin of eye, shorter than

funiculus, segment I of funiculus about three times of segment 2, club subacuminated, each of segments 2 to 6 of funiculus shorter than segment I, scape and funiculus covered with apressed short pubescence, with very rarely sparse setae.

- Pronotum** : 0.9 times as broad as long, trapeziform in shape, wider than long, wide at base, narrow at apex, with sides very weakly rounded, apical margin truncate at middle, pronotum without ornamented patches, maculations and spots; lateral margins arcuate and divergent in lateral aspect, pronotum covered with dense, apressed scales. Pronotum with dense, deep regular punctuation, pro, meso and meta sternum covered with apressed scales.
- Elytra** : Oval in shape 1.5 times as long as broad, parallel sided in basal three-fifth, then moderately narrowing to broadly rounded apex. Humeral moderately prominent, base of pronotum 0.8 times width base of elytra in dorsal view, lateral margins constricted at base and convergent at apex, elytral apices sinuate, Stria not conspicuous, punctuation and scales as like as pronotum, elytra without ornamented, patches, spots and maculations.
- Pygidium** : Apical margin straight, posterior margin subrounded, basal half with scales, densely apressed, apical half with dense regular very deep, punctuation.

**** Specimens examined:**

(3) Hammam, 1-5-1925; (2) Cairo, 2-10-1926; (2); Belbies, 5-12-1920.

AL-Azhar. Univ. Coll

(1),25-5-1919

Ain Shams Univ. Coll

Distribution

World: Egypt

Local: Cairo, Alexandria, and sharqiya.

Data: May, October and December.

***Baris aegyptia* Kirch, 1892**

(Plate 2)

Baris aegyptia Kirsch, 1881. Ent. Monatsbl. P. 13. Frelon II, 1892- 93, 1892, P. 37.

Diagnosis:

Length: 1.9 cm.

Coloration: Black.

Head : Eye rounded. rostrum without furrow.

Pronotum : Quadrate in shape, apical margin not emarginated at middle, Pronotum with semi dense not deep punctuation. Pronotum glabrous, pro, meso and meta sternum covered with dense, not deep punctuation. Pro, mseo and metasternum glabrous.

Elytra : humerii not prominent, elytra apically short, with semi dense not deep punctation, and glabrous, pygidium exposed,

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transverse at base, subrounded at apex, covered with dense, deep punctuation and without scales.

Specimens examined:

(1) Alexandria, 10-8-1915.

Al-Azhar. Univ. Coll

(2) Mex, 15-8-1934.

Min. Agric. Coll

Distribution

World: Egypt

Local: Cairo, Gharbiya and Alexandria

Date: August

***Baris arctithora* Pic, 1899**

(Plate 3)

Baris arctithorax Pic, 1899 Miscell. Ent. VII. Biologie: A- ALfieri. Bull. Soc. Roy. Ent. Egypt X.X, 1936, P. 21, Fig 1,3,4.

Diagnosis:

Head: Head, Frons and Rostrum glabrous, Rostrum with dense, deep and contiguous punctation.

Pronotum: Sides very weakly rounded, apical margin very narrow, not sharp, Apical margin truncate at middle. Disc without pubescence and scales, but sides with dense, apressed scales.

Elytra: Elytra with elevated stria.

Scutellum: Conspicuous, subquadrate, slightly shallow.

ygidium: Exposed and oblique, wide at base, rounded at apex, Covered with apressed dense scales and with dense. Regular contiguous punctation.

specimens examined:

(55) Maadi, 15-8-1926; Maadi, 24.7-1933; Barrage, 10-9-1933; Barrage, 13-9-1934

Min. Agric. Coll.

(3) Helwan, 5-1-1930; (2) Qalyubiya, 10-5-1929

Al- Azhar. Univ. Coll.

(1) Marg, 7.

Soc. Coll

(1) Maadi, 15-1-1928.

Ain Shams Univ. Coll

Distribution:

World: Egypt

Local: Cairo and Qulyubiya

Date: January, May, July, August and September.

***Baris granulepennis* Tourn, 1872**

(Plate 4)

Baris granulepennis Tourn, 1872 Mittheil. Schweiz. Ent. Ges Iv. 1872-76 (1877), nr 4,1873 P. 190.

Diagnosis:

Body: Oblong, convex and large.

Head: Rostrum with medium carinae extending from end of eye to post antennal insertion. Rostrum stout. Epistoma distinctly truncate apically.

Pronotum: Spherical in shape. disc very convex

Elytra: Subquadrate in shape, glabrous and without punctuation.

Scutellum: Conspicuous, slightly shallow and triangle.

Pygidium: Exposed, transverse at base, arcuate at apex with dense, semi deep punctuation and with fine hairs at apex, base of pygidium glabrous.

Specimens examined:

(75) Maadi, 26-8-1933; Suez, 5-4-1927; W. Digla, 8-9-1925; Kafr Al Gamouse, 30-9-1925; Kharga Oasis, 25-5-1919; W.Ho.FF, 28-10-1916; W. El Marg, 22-4-1916; Zagazig, 28-7-1923; Eneiba, 14-3-1917; Zagazig, 1-8-1923; Gemeiza, 12-5-1919; Maadi, 5-8-1923; Zagazig, 263-1917; Mokattam, 23-5-1913; Ein Mouse 20-9-1933; Zeiton, 30-4-1911.

Min. Agric. Coll

(1) Zeitoun, 14-10-1907 (1) Alexandria, 11-1909; (73) Alexandria, 1927; (4) Heliopolis, 22-7-1917; (2) Maadi,; (2) Massara, April; (16) W. Lablab, November; (3) Nefisha, June; (9) Massara April; (1) Matariah, 1927; (1) Maadi, December; (1) Tourah, July; (5) Aswan, 1-1-1904; (2) Massara, January, 1, 10; (4) W-Hoff, 12-12-1906.

Soc. Coll

(1) Cairo, 14-1-1916; (1) Suez; 15-8-1925; (3) Kharga Oasis, 15-4-1922; (2) Zagazig 13-3-1919; (2) Gemeiza, 2.5 1924; (3) Ein Mousa, 1-10-1921; (5) Eneiba, 3-9-1918; (3) Kafr El Gamouse, 1-2-1937; (1) Peter Forast, 1-8-1923.

Al- Azhar- Univ. coll

(12) Peter Forest, 15-1-1956

Ain Shams Univ. Coll

Distribution

World: Egypt

Local: Cairo, Suez, Sharqiya, Gharbiya, New Valley and Demitta.

Date: January, March, April, May, July, August, September, October and December.

***Baris opiparis* Duval, 1852**

(Plate 5)

Baris opiparis Duval, 1852, J. du. Vall. Ann. Soc. Ent. Fr. (2) X, 1852, P. 715.

Diagnosis:

Body: Elongate

Head: Rostrum with longitudinal furrow extending to midpoint of eye to middle mesorostrum. Head, frons and rostrum glabrous, but apex of rostrum with medium sparsely setae.

Antennae: Segments from 2 to 7 transverse.

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Pygidium: Exposed large, straight at apex, sub rounded at base, sub triangular in shape and covered with dense scales.

Specimens examined:

(14) King mariout, 17-8-1934; south sinai, 25-5-1935; King mariout, 23-8-1934; W. Digla, 8-9-1925; Maadi, 31-7-1933; Abu Qir, 5-8-1934.

Min. Agric. Coll

(4) Tourah, April, 1908; (1) Barrage, 18-5-1913; (1) Telbieh, September.

Soc. Coll

(6) King Mariout, 12-7-1915 (6) Barrage, 17-5-1914; (4) Maadi, 2-9-1918; (2) south Sinai, 5-9-1912.

Al-Azhar- Univ. Coll

Distribution:

World: Middle of Europe, France, Espania, Morocco and Egypt.

Local: Qalybiya, Alexandria and south Sinai.

Date: May, July, August and September.

***Baris scolopacea* Germar, 1824.**

(Plate 6)

Baris Scolopacea Germar, 1824. Ins. Spec. novae I, P. 202 (Baris- Bach, Kaferfn. II, 1854, P. 330- Gutfleisch ed. Bose, Kag- Deutsch- 1859, P. 350 Kol. Bull. Soc. Nat. Moscou XXX II, I. 1859, P. 374- H.

Diagnosis:

Antenna: Scorbe touch lower margin of eye, Scape reach posteriorly to the anterior margin of eye.

Elytra: Elytral apices sharp.

Scutellum: Large

Pygidium: Exposed, very Large, oblique and straight at apex, rounded at base, covered with dense, not deep punctuation.

Specimens examined:

(2) Ras EL Bar, 27-6-1906; (1) Max, 19-7-1908; (1) Sherbein, 27-6-1913; (2) Luxor, 27-5-1912.

Soc. Coll

(3) Max, 1903-1922; (3) Max, 2-7-1922.

Ain Shams. Univ. Coll

Distribution:

World: Russia, France, Hungary, Syria and Egypt.

Local: Alex, Daqliya, Qena and Demittea.

Date: March, May, Juni and July.

***Baris soricina* Fairmaire, 1884
(Plate 7)**

Baris soricina Fairmaire, 1884. Ann. Soc. Ent. Bely. XXV III, Compt. Rend. P. LXIX (Baridius). Desbr. Frelon II. 1892-93 (1892), Nr-2, P. 34, nr-4. P. 64 (5-9. Limnobaris). Reitt. Best- Tab- 33, 1895, P. 23 (Baris).

Diagnosis:

Head: Rostrum with distinctly ridge, extending from above midpoint of rostrum.

Pygidium: Exposed, transverse at apex, arcuate at base and subrounded, Pygidium covered with dense appressed scales.

Specimens examined:

(1) Alex, 10-1-1909; (1) Apex, 23-8-1910; (1) W. Hoff, 2-6-1907 (6) Alex, 6-10-1910 (6) Ras El Bar, 27-6-1906; (3) Mary, 20-12-1903; (11) Mary, 20-3-1910; (1) Alex, 21-11-1903; (1) Luxor, 6-1907; (8) Alex, 9-1906; (1) Kafr Batikh, 27-2-1897; (9) Shubra, 3-10-1915; (1) Alex, 20-11-1916; (1) Max, 6-7-1915; (3) Marg, March; (1) Mazghuna, 8-1-1914 (1) Dekhela, 12-7-1917; (3) Beni Mazar, 27-8-1915.

Soc. Coll.

(2) Victoria, 4-1929; (2) Siou F, 4-1929; (1) Nouzha, 4-1937; (1) Smouha, 15-3-1939.

Ain Shams. Univ. Coll.

Distribution:

World: Algeria and Egypt.

Local: Cairo, Alexandria and Giza.

Date: January, March April, Juni, July, August, September, October and November.

***Baris spitzzy nespia* Faust, 1887
(Plate 8)**

Baris spitzzy nespia Faust, 1887- stett. Ent. Zeit. XLVII, P. 300; I.C. I, 1889, P. 232- Desbro- Frelon II, 1892, nr. 3, P. 38.

Diagnosis:

Antenna: Scrobe located in metarostrum.

Pygidium: Exposed, black, wide at base, narrow at apex, Pygidium. covered with dense, semi deep, regular punctuation, pygidium with small pubescence.

Specimens examined:

(1) 13-4-1924

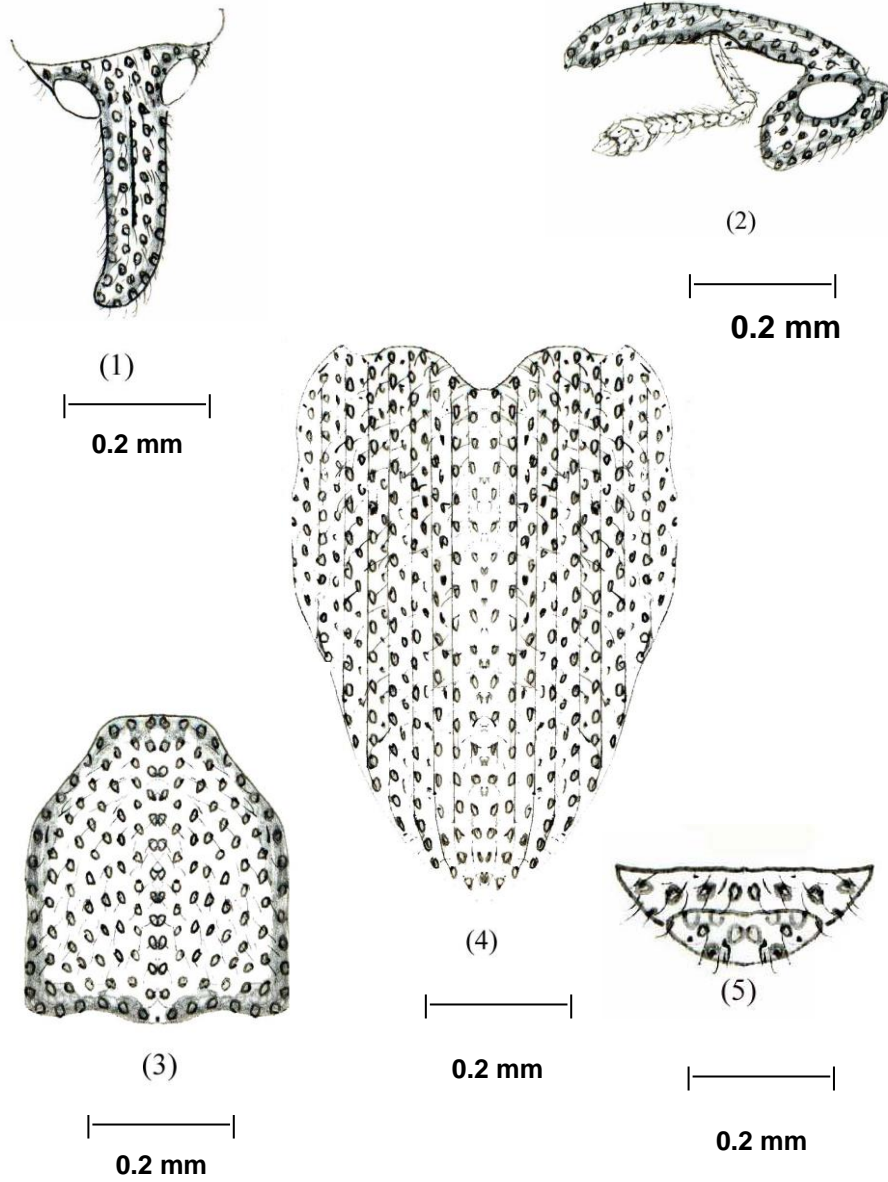
Ain Shams. Univ. Coll

Distribution:

World: Cauc`use, Torkestan and Egypt.

Local: Cairo

Date: April



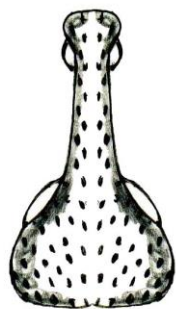
Baris alboseriata Reitter, 1908

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

- 4- Elytra
- 5- Pygidium

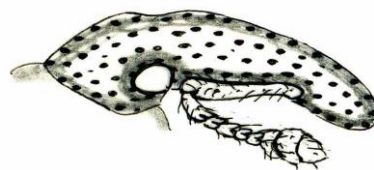
Plate (1)

7500



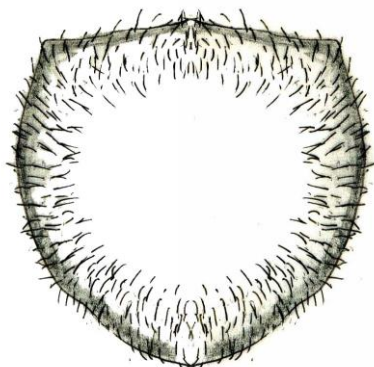
(1)

0.2 mm



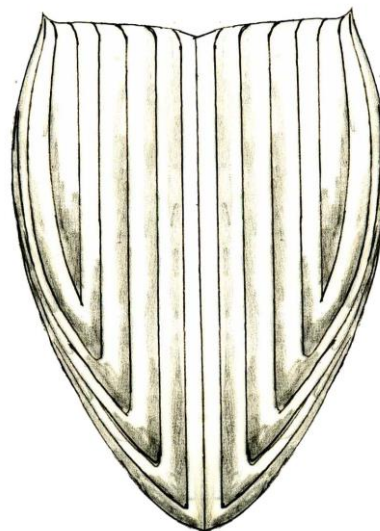
(2)

0.2 mm



(3)

0.2 mm



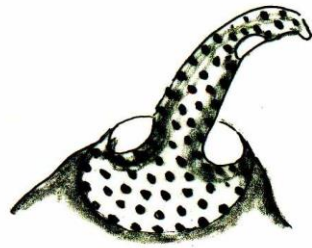
(4)

0.2 mm

Baris aegyptia Kirch, 1892

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

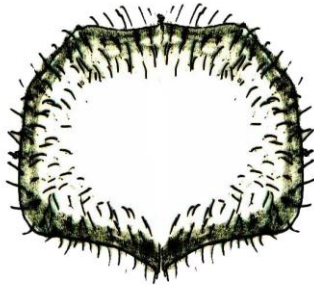
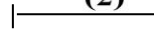
- 4- Elytra



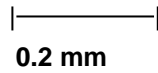
0.2 mm
(1)



0.2 mm
(2)



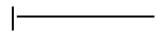
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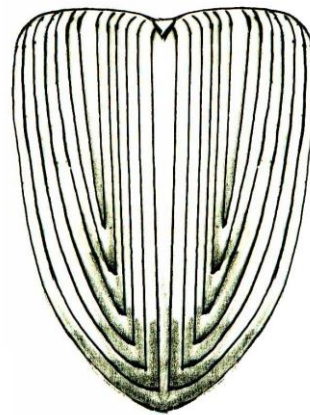
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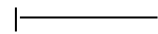
(5)



0.2 mm



(4)



0.2 mm

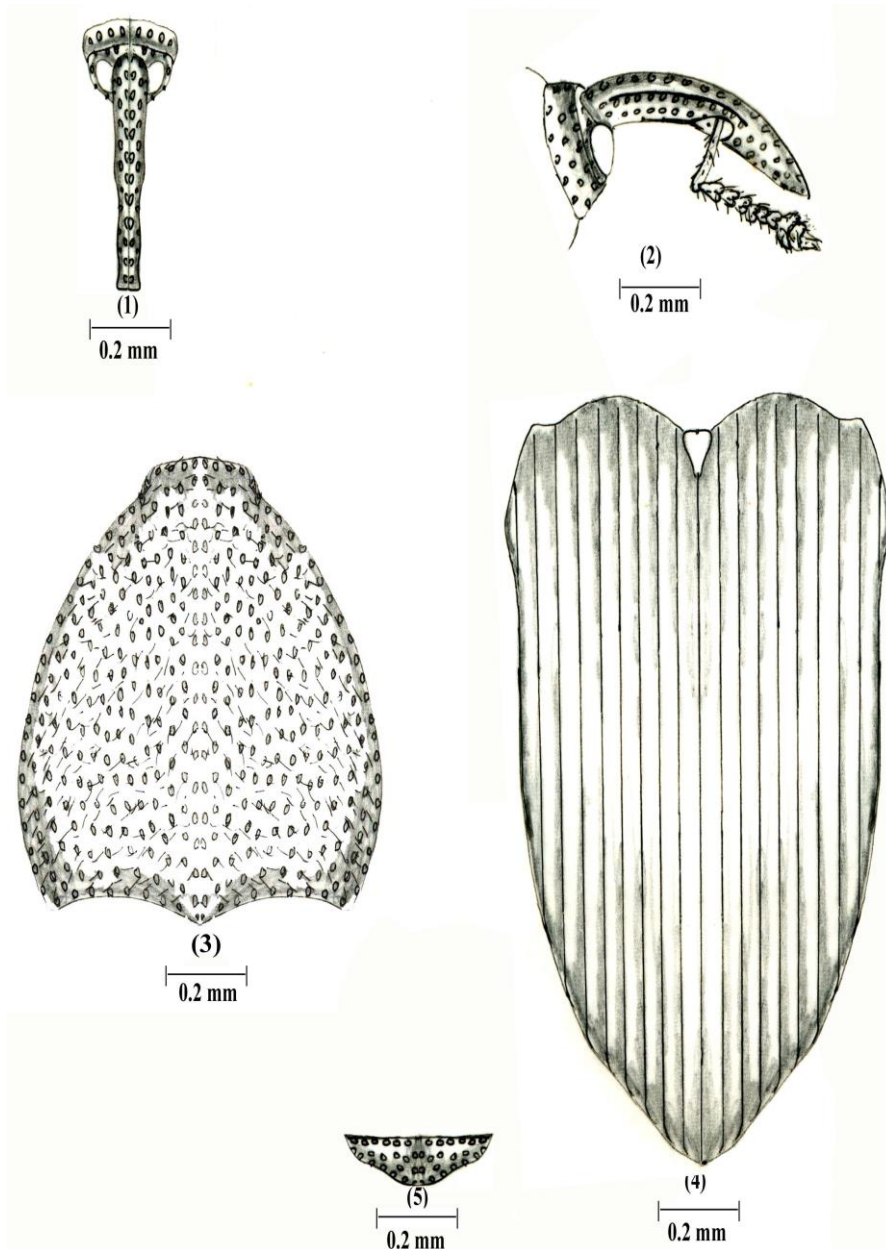
Baris arctithorax Pic, 1899

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

- 4- Elytra
- 5- Pygidium

Plate (3)

7502



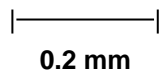
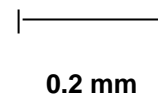
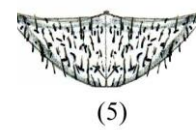
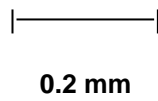
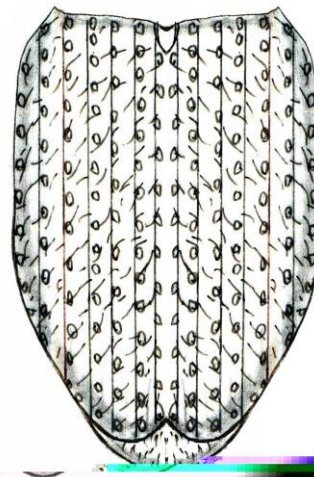
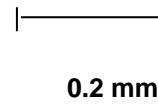
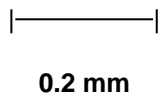
Baris granulipennis Tournier

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

- 4- Elytra
- 5- Pygidium

Plate (4)

7503



Baris opiparis Duval, 1852

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

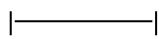
- 4- Elytra
- 5- Pygidium

Plate (5)

7504



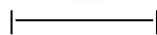
(1)



0.2 mm



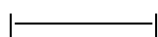
(3)



0.2 mm



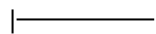
(4)



0.2 mm



(5)



0.2 mm

Baris scolopacea Germer, 1824

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

- 4- Elytra
- 5- Pygidium

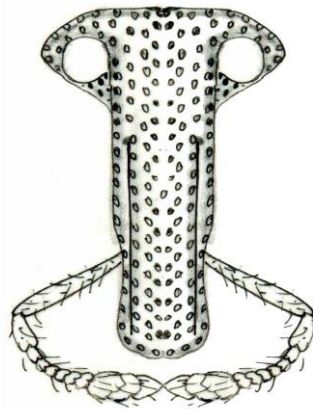
Plate (6)

7505



(1)

0.2 mm



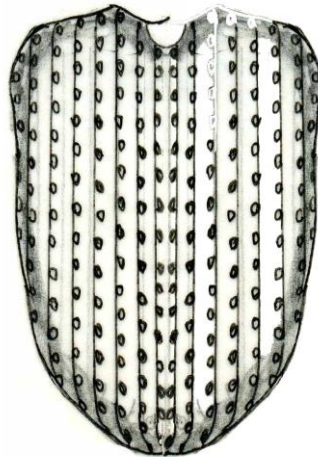
(2)

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(3)

0.2 mm



(4)

0.2 mm



(5)

0.2 mm

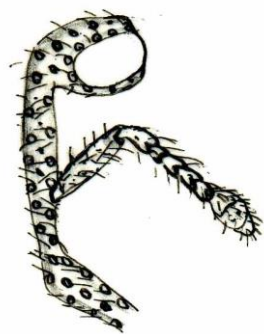
Baris soricina Fairmaire, 1884

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

- 4- Elytra
- 5- Pygidium

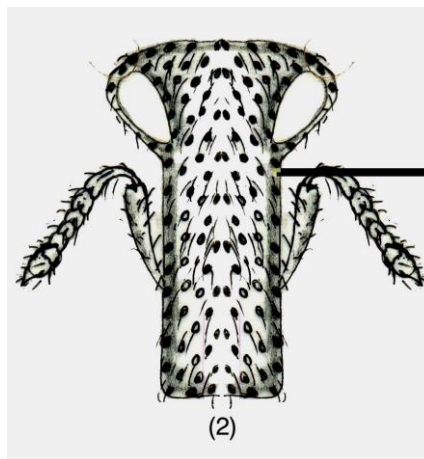
Plate (7)

7506



(1)

0.2 mm



(2)

0.2 mm



(3)

0.2 mm



(4)

0.2 mm



(5)

0.2 mm

Baris spitzy nespia Faust, 1887

- 1- Rostrum
- 2- Antenna
- 3- Pronotum

- 4- Elytra
- 5- Pygidium

Plate (8)

7507

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مراجعة تصنيفية علي جنس باريس (فصييلة السوس: رتبة غمدية الأجنحة) في مصر.

منير محمد متولي¹، مجدي محمد سالم²، شريف فاروق حافظ¹ و محمد كامل عامر¹.

1- قسم وقاية النبات- كلية الزراعة بالقاهرة- جامعة الأزهر.

2- قسم بحوث حصر وتصنيف الآفات- معهد بحوث وقاية النباتات – وزارة الزراعة.

تعتبر فصيلة السوس أكبر فصيلة في رتبة غمدية الأجنحة في مصر، أغلب أنواعها نباتية التغذية، بعضها آفات على النباتات وبعضها على الأشجار الخشبية. الحشرات الكاملة تتغذي على جميع أجزاء النبات من أوراق وأزهار وفواكه ثمرة وجذور، مثال ذلك الأنواع التي تنتمي إلى جنس بارس.

تشتمل الدراسة في هذا البحث على وصف ورسم ثمانية أنواع تنتمي إلى هذا الجنس، بالإضافة إلى تصميم مفتاح تقسيمي للتمييز والتفريق بين تلك الأنواع وذلك لسهولة تعريف هذه الأنواع. كذلك شملت الدراسة فحص العينات التي تنتمي إلى هذه الأنواع في المجموعات الحشرية الخمسة في مصر وذلك للتعرف على بياناتها الحقلية والبيئية وهذه المجموعات هي:

- 1- مجموعة معهد بحوث وقاية النباتات بوزارة الزراعة.
- 2- مجموعة الفييري بكلية الزراعة- جامعة الأزهر.
- 3- مجموعة الجمعية المصرية لعلم الحشرات.
- 4- مجموعة كلية العلوم- جامعة القاهرة.
- 5- مجموعة كلية العلوم- جامعة عين شمس.