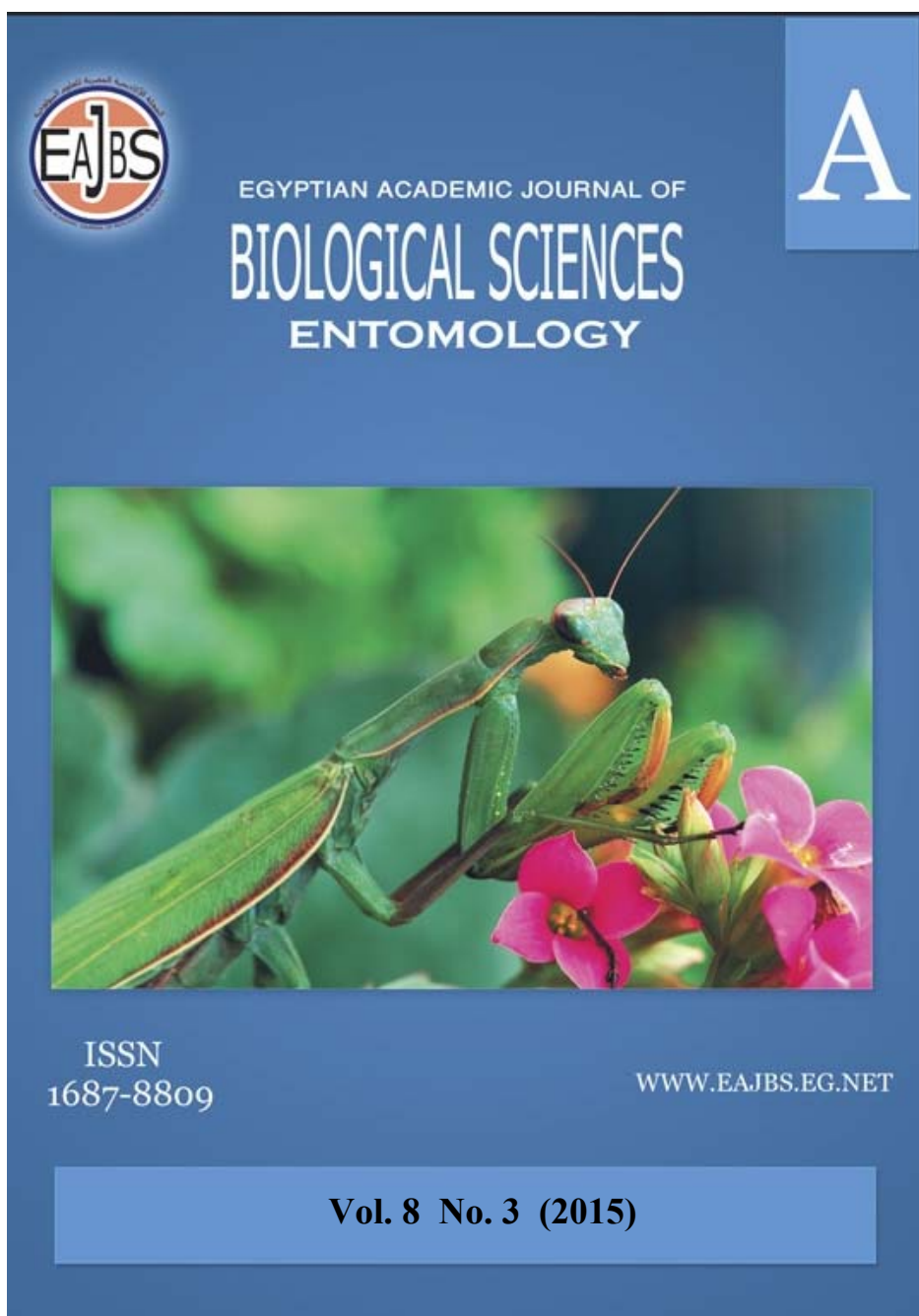


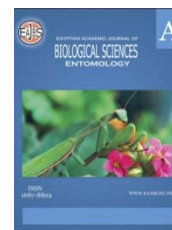
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Review of Tribe Mylabrini (Coleoptera: Meloidae) in Egypt

Neven, E. Elmetwaly¹; Ashraf M. A. El-Torkey¹; Magdi M. H. Salem¹; Wedad A. Atwa² and Hala M. Kadad²

1- Insect classification and survey Dept., Plant Protection Res. Inst., Agric. Res. Center

2- Zoology Department, Faculty of Science (Girls), Al-Azhar University

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ABSTRACT

The gathered information indicated that tribe Mylabrini is represented in Egypt by 59 species in six genera. However, specimens of thirty seven species only were available whether collected during the present work from different parts of Egypt and / or preserved at the Egyptian Insect Collections. Twenty two species of this tribe were not available, but their diagnostic characters were introduced in this work according to previous investigators. This study was planned to identify and to determine the recent taxonomic status of this group of mylabrin species for the first time in Egypt. An illustrated key was given for all mylabrin genera and species.

INTRODUCTION

Family Meloidae, commonly known as blister beetles, whose adults are often found on flowers. Represented by about 3000 species belonging to 120 genera being already known all over the world; while 145 species within 20 genera known in Egypt (Alfieri, 1976). The family has a worldwide distribution with a marked preference for temperate and arid regions, and in subtropical and tropical savannas or other open habitats.

Literature on the so-called blister beetles indicate that certain meloids are considered phytophagous and feed on foliage, leaves, flowers, grasses, nectar and woody plants of several families particularly Compositae, Astraceae, Leguminosae, Solanaceae and Umbliferae. Many of the members of tribe Mylabrini can be very destructive to gardens.

Tribe Mylabrini including approximately 371 species from nine genera which only occur in the old world. This tribe is distinguishable by the combination of the following features: labrum not longitudinally furrowed or carinate; maxillary galeae not modified; antennal socket close to eye, placed above frontal suture, antennal segments variable in number (seven to eleven) and distinctly widened to apex (except in *Lydoceras* Marseul and in a few *Hycleus* Latreille); claws not fringed on ventral blade; elytra red-brown with maculae or fasciae, rarely unicolorous; mesosternum with a distinctly modified anterior area or at least with a smooth and glabrous area whose surface is distinct from that of the remaining area.

MATERIAL AND METHODS

The present taxonomic work started by examination of the Egyptian Reference Insect Collections for materials regarded as meloids beetles. These collections are: Collection of Ministry of Agriculture, Plant Protection Research Institute (MAC); Collection of Egyptian Entomological Society (EESC); Collection of Faculty of Science, Cairo University (CUC) and Collection of Faculty of Science, Ain Shams University (ASUC). A field survey of meloids beetles was under taken over a great area of the Egyptian territories and covered the main geographical zones.

RESULTS

Tribe Mylabrini Laporte, 1840

Mylabrini Laporte, 1840: Hist. Nat., II, p. 268.

Diagnosis

Body Soft, generally elongate; colour variable, often bicolored, opaque or metallic. Head rectangular, markedly constricted behind the eyes to form a narrow neck. Labrum not longitudinally furrowed or carinate; maxillary galeae not modified; eyes big; antennal socket close to eye, placed above frontal suture, antennal segments variable in number (seven to eleven) and distinctly widened to apex; claws not fringed on ventral blade; elytra red-brown with maculae or fasciae, rarely unicolorous; mesosternum with a distinctly modified anterior area or at least with a smooth and glabrous area whose surface is distinct from that of the remaining area.

Key to the genera and species of tribe Mylabrini

1. Mesosternum with a 'scutum'. Antennae 11-segmented, 4th -10th segments asymmetrical, subpectinate in male (Pl. I, fig. 1), subserrate in female (Pl. I, fig. 2). Adult stage (Pl. I, fig. 5).....*Ceroctis trizonata* (Reiche)
- Mesosternum with or without a 'scutum'. 4-10 antennal segments not as above 10-11 segments (often 9 as well) distinctly narrower than preceding segments. (Pl. I, fig. 3 & Pl. I, fig. 4)2
2. Mesepisterna with a relatively wide and distinctly furrowed anterior border. 3rd antennal segment shorter than the 1st segment (Pl. I, fig. 4), segments 4-7 not all subtriangular and without elongate setae apicoventrally. Pronotum with a very fine median line and depression at central disk (Pl. I, fig. 6). Aedeagus with distal dorsal hook apical in position and dissimilar to proximal hook (Pl. I, fig. 7).
..... *Hycleus*..... 3
- Mesepisterna without a relatively wide and distinctly furrowed anterior border. 3rd antennal segment subequal in length to 1st segment (Pl. I, fig. 2), segments 4-7 subtriangular and with elongate setae apicoventrally.....31
3. Antenna 9- segments 4
- Antenna varies from 10-11 segments8
4. Legs red 5

- Legs black 6
5. Antenna and tarsus black. Elytra black, covered with thick silver pubescence and reddish yellow spots 2, 2, 2 (some times missing), 2, with reddish yellow end adult stage (Pl. I, fig.8) *Hycleus ocellaris* (Olivier)
- Antennae and legs entirely yellowish red. Elytra covered with a very thick silvery pubescence and 8 pale yellow spots, circled with black, 2, 2, 2, 2 (sometimes each row combined together), with a pale yellow end adult stage (Pl. I, fig. 9) *Hycleus argentatus* (Fabricius)
6. Antennae black. Elytra yellow-testaceous, shining, with 2 black sinuate fascia, transverse, complete, the first wide shortly after the middle, the second close to end, and two spots, one on the humeral callus, one behind the scutellum, and 2 on anterior third which the internal joint the suture placed on the back to the scutellum *Hycleus ornatus* (Reiche)
- Antennae red with black base. Elytra with yellow spot intra-humeral angled, and yellow transverse fascia angled and each often divided into 2 spots in which out of suture..... 7
7. Intra-yellow humeral spot elongated and adherent to the suture, outer yellow edge connected with the following two the fascia. *Hycleus mylabroides* (Laporte)
- Intra yellow humeral spot short bilobed, not contiguous to the suture, marginal yellow border not connected between fascia..... *Hycleus tigrinus* (Klug)
8. Antenna 10-segments yellowish red 9
- Antenna 11-segments and yellow or black 10
9. Legs completely black. Elytra black with 2 transverse yellow fascia or spots, without yellow basal spot intra-humeral *Hycleus scabratus* (Klug)
- Legs completely yellow. Elytra yellow with 1, 2, 3, 3 black spots. Antenna 11-segments in male, adult stage (Pl. II, Fig.10)..... *Hycleus novemdecimpunctata* (Olivier)
10. Elytra with apical part black big or small 11
- Elytra yellow decorated with black fascia or spots 24
11. Apical part of elytra black big without yellow pustule..... 12
- Apical part of elytra black with one or two yellow pustule 20
12. Antennae yellowish red apically 13
- Antenna black 22
13. Elytra with one or two yellow transverse fascias more or less widened 14

- Elytra with three yellow fascia more or less regular on the base. Body big..... **19**
- 14.** Elytra with one yellow fascia, transverse, more or less extended before the middle, occupying three fourth of the length. The 3rd and 4th segment of antennae equal. Body big.*Hycleus terminatus* (Illiger)
- Elytra with two transverse yellow fascia, one before the middle and the other after **15**
- 15.** Apical abdominal segments with red stains. Elytra without basal yellow stains, adult stage (Pl. II, fig.11).....*Hycleus maculiventris* (Klug)
- Apical abdominal segments without red stains. Elytra with yellow fascia separated from the suture, and anterior fascia does not cover the base **16**
- 16.** Body shiny. The two yellow fascia very narrow, the base of elytra with blackcolour.....*Hycleus ligatus* (Marseul)
- Body opaque, densely rough, black pubescent..... **17**
- 17.** Posterior fascia broken, sometimes reduced to a point, usually two. Elongated, bigger, roughly punctuate, fascia more punctuated. Abdominal segments with a red small stain on sides. Body black, opaque.....*Hycleus designatus* (Reiche)
- Posterior fascia uninterrupted, more or less enlarged..... **18**
- 18.** 2nd segment of antennae black, 3rd-5th very short almost equal the 2nd. The last segment pointed in both sexes. Elytra without yellow stains at the base, yellow anterior fascia closer to the base and the posterior which sinuated. Body small, adult stage (Pl. II, fig.12)*Hycleus cruentatus* (Klug)
- 2nd segment of antennae red; the last obtuse. Elytra with a small yellow stain, rounded at the basal. Body smaller.....*Hycleus duplicates* (Klug)
- 19.** Underside of the body decorated with a fine and short hairs lying down Silky grey. The second reddish brown fascia larger than anterior black fascia, narrower than the second black fascia. Reddish or reddish brown fasciae, sinuate, adult stage (Pl. II, fig.13)*Hycleus dubiosus* (Marseul)
- Underside of the body lined with black hair. The first black interval wider than the second, covering the suture. Yellow fascia pale, hardly sinuate, much less widened than the black intervals. Large, shiny, almost hairless.....
.....*Hycleus abiadensis* (Marseul)
- 20.** Elytra black opaque with two yellow transverse fascia some times more or less interrupted (the 1st towards the first third, 2nd towards the second third). One basal yellow fascia or stain within the shoulder and two yellow pustules sub apically.

- Body Short and wide. Adult stage (Pl. II, fig.14) *Hycleus varius* (Olivier)
- Elytra yellow, with a narrow black border apical, decorated most often of three fascia or transverse rows of black spots. Legs black..... **21**
- 21.** Elytra garnished with a thick silky grey pubescence; decorated with three fascia and a spot on the humeral callus, black, Adult stage (Pl. III, fig.15)*Hycleus fimbriatus* (Marseul)
- Elytra decorated with black spots, arranged in two longitudinal rows and 3 transverse rows, placed 2,2,2, antero-external round black spot, located behind humeral callus. Adult stage (Pl. III, fig.16)
-*Hycleus quatuordecimpunctata* (Marseul)
- 22.** Elytra yellow with a narrow black apical fascia, Adult stage (Pl. III, fig.17)
- *Hycleus mediofasciatellus* (Pic)
- Elytra yellow with a wide black apical fascia **23**
- 23.** Elytra with 2 black points on the anterior third and black fascia after the middle, irregular, narrow, often divided into spots on a transverse line. Adult stage (Pl. III, fig.18)*Hycleus apicipennis* (Reiche)
- elytra decorated of 2 small dark stains round discs antero-medians, the external hardly higher than the internal and another two irregular post median, the internal sub triangular and joint to the suture, the external close to the side.....*Hycleus sialanus* (Pic)
- 24.** Antennae black, rarely a brown-black..... **25**
- Antennae red. Head and pronotum black..... **28**
- 25.** Legs red..... **26**
- Legs red or black. Elytra marked with black staining or blue black (some connected but rarely)..... **27**
- 26.** Elytra yellow with two black completed transverse fascia (one towards the middle and the other before the end), strong sinuate and with three black spots post-humeral almost equal isolated on a transverse line. Elytra with black stain at suture line apically. Pronotum more densely punctuated and more elongated. Adult stage (Pl. IV, fig.20) *Hycleus brunnipes* (Klug)
- Elytra black decorated of a yellow testacies fasciae, one on the base, sinuate at its posterior edge, the second to the anterior third tri-sinuate, the third on 2/3 consists of two spots, the outer posterior and 2 spots one oval on the outer edge, the other rounded near the suture, sometimes associated..... *Hycleus raphael* (Marseul)

27. Legs red. Body with a little black hair. Elytra very pale (milky) with black spots obsolete placed 2, 1,1. Antennae reddish brown. Frons strongly canaliculated.....
*Hycleus lacteus* (Marseul)
- Legs black or blueish black. Body with white pubescent. Elytra pale with black spots Placed 3,3,3,1., arranged in two longitudinal rows and 3 transverse rows, last spot apical.....*Hycleus gratiosus* (Marseul)
28. Legs red. Elytra red, adorned with rows of black spots placed 2, 2, 3, 3, Pubescence rare and short on elytra. 3rd segment of antennae longer than 2nd.....*Hycleus octodecimmaculatus* (Marseul)
- Legs black 29
29. Elytra yellow with black drawing..... 30
- Elytra black with yellow fascia narrow serrated, base started by black on the shoulder and on the suture. Adult stage (Pl. III, fig.19).....
*Hycleus aegyptiacus* (Marseul)
30. Elytra decorated with black spots placed 1, 2, 3, 3. Adult stage (Pl. IV, fig.21)
*Hycleus tigripennis* (Marseul)
- Elytra decorated with black markings, two anterior maculae, external disk a little further ahead than the internal presutural, a fascia shortly after the middle, complete and very sinuous, another fascia ante apical touching the suture but far from the edge*Hycleus mediozigzagus* (Pic)
31. Hind tibial spurs dissimilar, outer spur spatulate, about twice the width of sticklike inner spur (Pl. IV, fig. 22); anterior mesosternal suture obsolescent (Pl. IV, fig. 23,24); antennae progressively widened from segment 6 to apex (Pl. IV, figs. 25,26)
 32
- Hind tibial spurs similar, both more or less stick-like or spiniform (Pl. IV, fig. 27), mesosternum with anterior scutum distinct. Aedeagus with two dorsal hooks, both distant from apex 39
32. Red pronotum (at most with enfeebled black spots), antenna, legs and big part of the body red, head black. Wide pronotum, almost globular, with a deep depression in the middle. Yellow elytra or more or less ochre, decorated with black puntiform. The male protibiae with long pubescence on the external side. Strong claws (Pl. IV, fig.28-30).Length 9-16 mm adult stage (Pl. V, fig.31-32)
*Croscherichia tigrinipennis* (Latreille)
- Black pronotum..... 33

33. Black antenna, at maximum one with brown tonality.....34
 - Completely red antenna or only with the first two dark articles.....37
34. Inferior lobe of the claws of dimensions reduced in comparison to that superior.....35
 - Inferior lobe of the claws of dimensions not reduced in comparison to that superior.....36
35. Inferior lobe of the claws reduced to a short digitiform less than 1/4 of superior. Antenna enough short and progressively widened to apex. Wide pronotum, convex, not strangled anteriorly, with strong punctuation and spaced. Elytra colour ochre, with three black bands, large, little sinuate, bordered by a narrow light area (barely visible by the time), the last band black it covers the apex of elytra. Length: 12 - 19 mm. (Pl. V, fig. 33-37)
 *Croscherichia litigiosa* (Chevrolat)
 - Inferior lobe of the claws along around 2/3 of that superior. Antenna extended a little to the half of pronotum, but in female longer that expanded reaching the base of the pronotum. Pronotum narrow strongly and strangled, depressed anteriorly. Punctuation of the elytra of average depth and outdistanced. Elytra ochre with elytral black stains often reduced. Length: 15-20 mm. (Pl. V, fig.38-41).....
 *Croscherichia goryi* (Marseul)
36. Red legs or only the base a little dark. Long and white hair. Black antennae or partly rufigne. Pronotum square up to anterior third where it is narrowed obliquely, with dense punctures, but not wrinkled and a median semi-circular depression. Elytra yellow-ochre with black sketch formed from narrow bands and points. Length 10-20 mm
 *Croscherichia gilvipes* (Chevrolat)
 - Legs are black or tibia and tarsi are black brown. Black hair. Pronotum wide to the base and more or less narrow anteriorly, but a little depressed in before and without an evident anterior longitudinal furrow. Elytral black pattern composed of wide bands, more or less sinuate, posterior one rarely prolonged toward apex along the suture. Length 8-18 mm. (Pl.VI, fig.42-45)..... *Croscherichia sanguinolenta* (Olivier)
37. Inferior lobe of claws about half the superior and more thin. Antenna long and strong, completely red, the last segment with an expansion sub laminiiform (more wide in the male). Mesosternum very angular anteriorly. Elytra light yellow with black pattern composed of three series of transverse stains, often combined in narrow banda strongly of zigzag. Length: 12-15 mm. (Pl.VI, fig.46-50)*Croscherichia fulgurita* (Rciche)
 - Inferior lobe of claws of not reduced dimensions38

38. Pronotum square until over the half, a little narrow anteriorly and hardly depressed. Antenna, maxillary palps and labial red; hair of head, pronotum and lower part of the body bright, thick, long and downy. Mesosternum narrow angular in comparison to the mesopleures, convex and shiny in before, depressed and with a few hair on the sides. Elytron for the most bright yellow with black pattern composed of 11 points; the 2 external stains of the posterior third placed lower than internal. Length: 9 – 17 mm. (Pl. VI, fig. 51-55) *Croscherichia albilanea* (Bedel)
- Pronotum considerably narrow and depressed anteriorly. First two segments of antennae and maxillary palps thick dark. Hair of head, pronotum and lower part of the body bright, thick, long but not downy. Mesosternum angular in comparison to the mesopleures, with big points on the sides and a few hair in a narrow area postero -lateral, with two areas slightly depressed in front on the sides. Elytron yellow – ocher almost with black stains composed of 11 points; the two external stains of posterior third placed on the same height of the internal one. Length: 9-14 mm. (Pl. VII, fig. 56-60).....
.....*Croscherichia vigintipunctata* (Olivier)
39. Antennae 6 -9 segmented, abruptly clubbed (Pl. VII, fig. 61). Usually small beetles, 4- 10 mm, rarely larger. Pronotum distinctly wider than long (Pl. VII, fig. 64). Aedeagus with two dorsal hooks40
- Antennae 10 -11 segmented, segments gradually enlarged to apex (Pl. VII, figs. 62,63). Size variable, varying from 10 to 35 mm.....42
40. Elytral apex largely unicolor black; one humeral spot extended on elytral base, rarely reduced to a trace (Pl. VII, Fig. 65-66) *Actenodia confluens* (Reiche)
- Elytral apex yellow–orange, few species with narrow black extension from hind suture to apex..... 41
41. Elytral pattern including at least one posterior and one medial black transverse and undulate fasciae. Head and pronotum shiny or sub-opaque, without metallic reflections. Temples depressed, shorter than longitudinal diameter of eye. 9th antennal segment about as long as 4th -8th together, apical third slender (Pl. VII, fig. 67-69) *Actenodia lata* (Reiche)
- Elytral pattern composed of six distinct spots, rarely fused to form incomplete fasciae, disposed 3-2-1, fore row oblique, middle row straight, isolated posterior spot transversely. pronotum and elytra shiny. Temples not depressed, slightly shorter than longitudinal diameter of eye. segment 9th reniform, shorter than 4th - 8th together, obtusely produced at apex. (Pl. VIII, fig. 70-72)...
..... *Actenodia peyroni* (Reiche)

42. Spur long enough and simple. Pronotum without a fine median line at centre of disk (Pl. VIII, fig. 73) (a simple depression may occur in some species). Aedeagus with dorsal hooks variable in shape and position.....43
- Spurs different in form, the hind external one spiniform and slightly curved and the inner one spoon-like or subspatulate. Pronotum disk with a shallow anterio-medial depression*Lydoceras fasciatus* (Fabricius)
43. Body dark bluish black. Elytra reddish-brown, with three rows of black spots printed in dark purple, 2, 2, 2, adult stage (Pl. VIII, fig.74).....
-*Mylabris hemprichi* Klug
- Body black or brown.44
44. Elytra yellow decorated with black fascies or black spots with red end.....45
- The end of elytra black of an extension more or less big..... 51
45. Red antennae.....46
- Antennae black, rarely brownish black.....49
46. Head and pronotum black, legs red. Short, broad.....47
- Red or black head with red pronotum.....48
47. Forehead with a red spot in the middle. Elytra yellow with orange border, with two black spots and two zigzag bands, the posterior making a hook of the suture. Adult stage (Pl. VIII, fig.75)..... *Mylabris elegans* Olivier
- Forehead without a red spot in the middle. Elytra yellow decorated each of 10 black stains arranged in four rows as (2, 2, 3, 3), these stains sometimes in united part. Adult stage (Pl. IX, fig.76) *Mylabris andresi* (Pic)
48. Red head at least on the vertex. Big, pronotum with three black stains. Elytra with spots 1, 3, 3, 2. Abdomen dark, adult stage (Pl. IX, fig.77).....
- *Mylabris sisymbrii* Klug
- Black head, Small, Pronotum with two stains. Elytra with spots 2, 3, 2, 1. Abdomen partly red.....*Mylabris myrmidon* Marseul
49. Elytra yellow with black fascies. Big, elytra yellowish red, with two large black transverse fascies (one toward the middle and the other before the end), little sinuate, with two round black spots post-humeral isolated the suture, posterior black fascia complete or only shorter toward the suture than toward the outer edge. Adult stage (Pl. IX, fig.78)*Mylabris callida* (Pallas)
- Elytra yellow marked with black spots or rarely bluish black.....50
50. Black or bluish black legs. Elytra with black spots, placed 2, 2, 1 on each elytron,

- arranged in two longitudinal rows and three transverse rows. Big, pronotum wider and densely punctuated.....*Mylabris fabricii* Sumakov
- Red legs. Elytra with circled pale black spots placed 2, 2, 3 on each elytron. Big, pronotum of the same width of head, finely punctured.....
-*Mylabris klugi* Redtenbacher
- 51.** Apical black elytra enclosing a yellow spot or reduced to a simple one. Elytra with black 4 spots arranged in two transverse lines, placed obliquely 2 and 2..... *Mylabris schreibersi* Reiche
- Apical black elytra quite extensive and large (rarely narrow) without yellow spot enclosed. Black antennae.....**52**
- 52.** Yellow elytra without fascies, with black spots. 4 black spots arranged in two transverse rows *Mylabris quadripunctata* (Linnaeus)
- Elytra with fascies or spots.....**53**
- 53.** Elytra yellow with spots or fascies and end more or less widely black, without yellow spots enclosed. Elytra with one black fascia, straight transverse, slightly sinuate on its edges, placed a little after the middle, dividing elytra into two large yellow bands, Anterior yellow elytra without rounded black dots, but there is a black spot behind Scutellum. Pronotum very rough and unequal. More elongated and narrow. Adult stage (Pl. X, Fig.79) *Mylabris filicornis* Marseul
- Elytra black with fascies or yellow spots. Yellow transverse fascies, sometimes more or less interrupted (the 1st to the first third and 2nd to the second third), with yellow basal spot within the shoulder, this basal spot forming a transverse fascia. Anterior fascia meet the basal spot from external edge. Body elongated. Pronotum usually oblong.....**54**
- 54.** Anterior fascia much closer to the basal spot than posterior fascia, not joined to the basal spot by suturing, perpendicular to lateral edge. The posterior yellow fascia almost straight. Pronotum punctuated. Adult stage (Pl. X, fig.80) *Mylabris cincta* Olivier
- Front fascia not significantly closer to the basal spot than the posterior fasciae.....**55**
- 55.** Fascies uninterrupted.....**56**
- Yellow Fascies interrupted, broken each in 2 spots.....**57**
- 56.** Fascies narrower than black intervals, more exactly transverse, posterior far away the end. Smaller..... *Mylabris damascene* Reiche

- Yellow Fascies at least as wide as black intervals, less parallel, posterior mainly, toothed or sinuate, closer the end. Bigger.....*Mylabris syriaca* Klug
- 57. Shiny. Pronotum sparsely punctuated. Elytra more elongated with 4 large yellow spots, 2 marginal and 2 near the suture.....*Mylabris interrupta* Olivier
- Opaque. Pronotum rough punctuated. Elytra less elongated with 4 small round spots or posterior fascia with 2 yellow spots less close to the suture.....58
- 58. Opaque black, Oblong, quite large, densely punctuated, square, a little larger than head, Third yellow fascia narrow or divided two spots.....
.....*Mylabris tenebrosa* Laporte
- Brilliant, little size, more regular punctuation of the pronotum (which is short and wide) and long hairs erect anteriorly. Third yellow fascia wider. Adult stage (PL. X, fig.81)
.....*Mylabris longipilis* (Pic)

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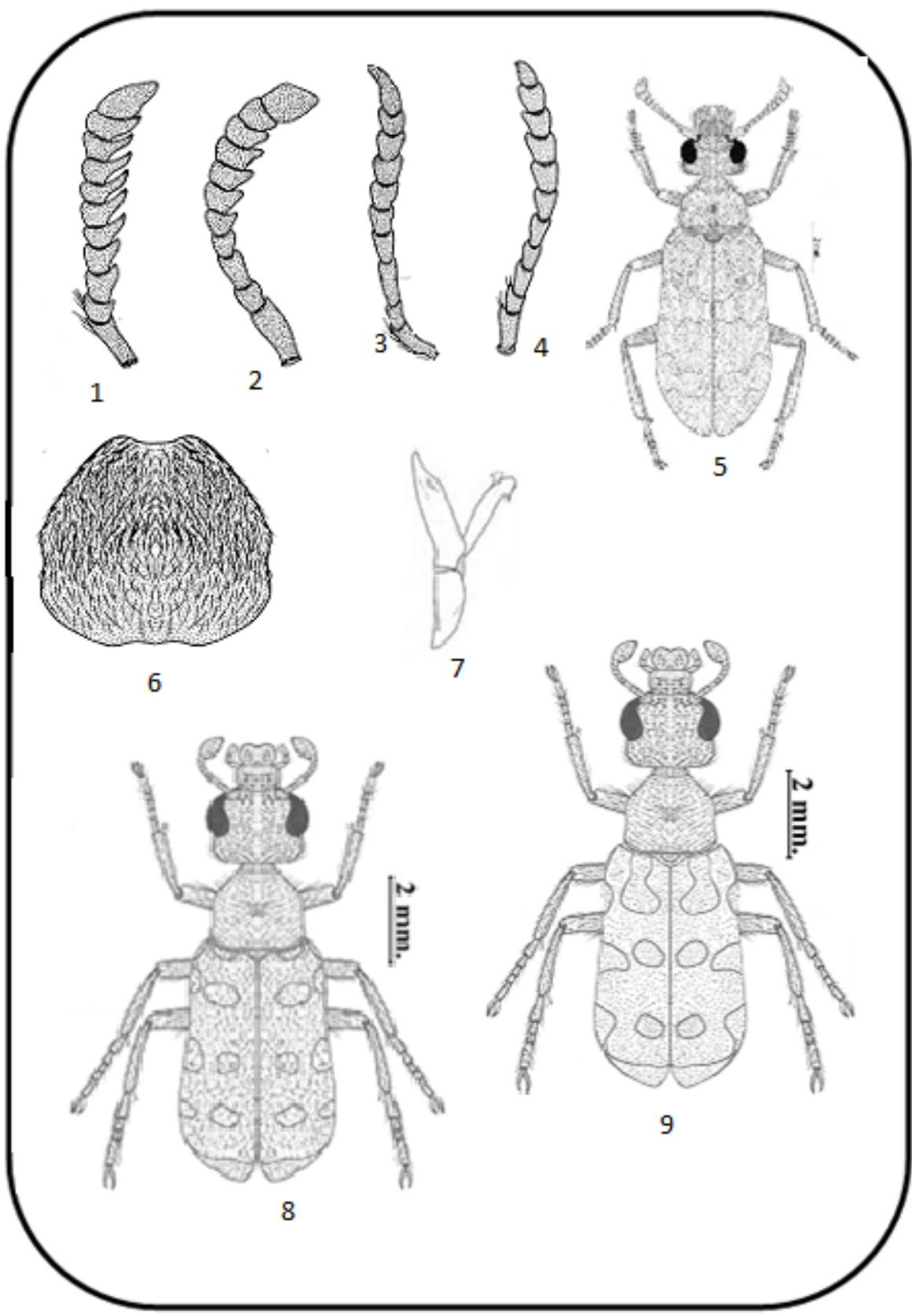
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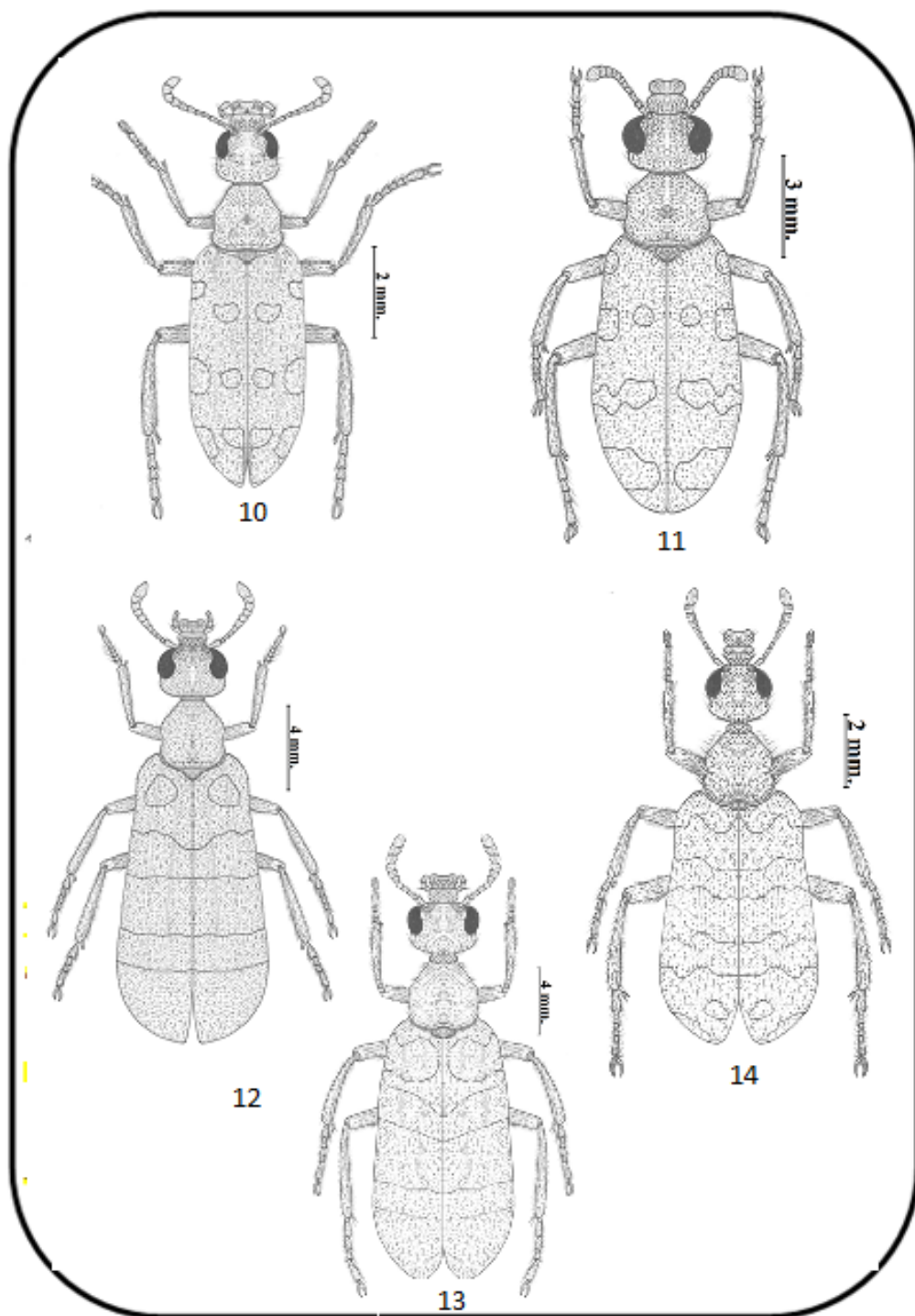
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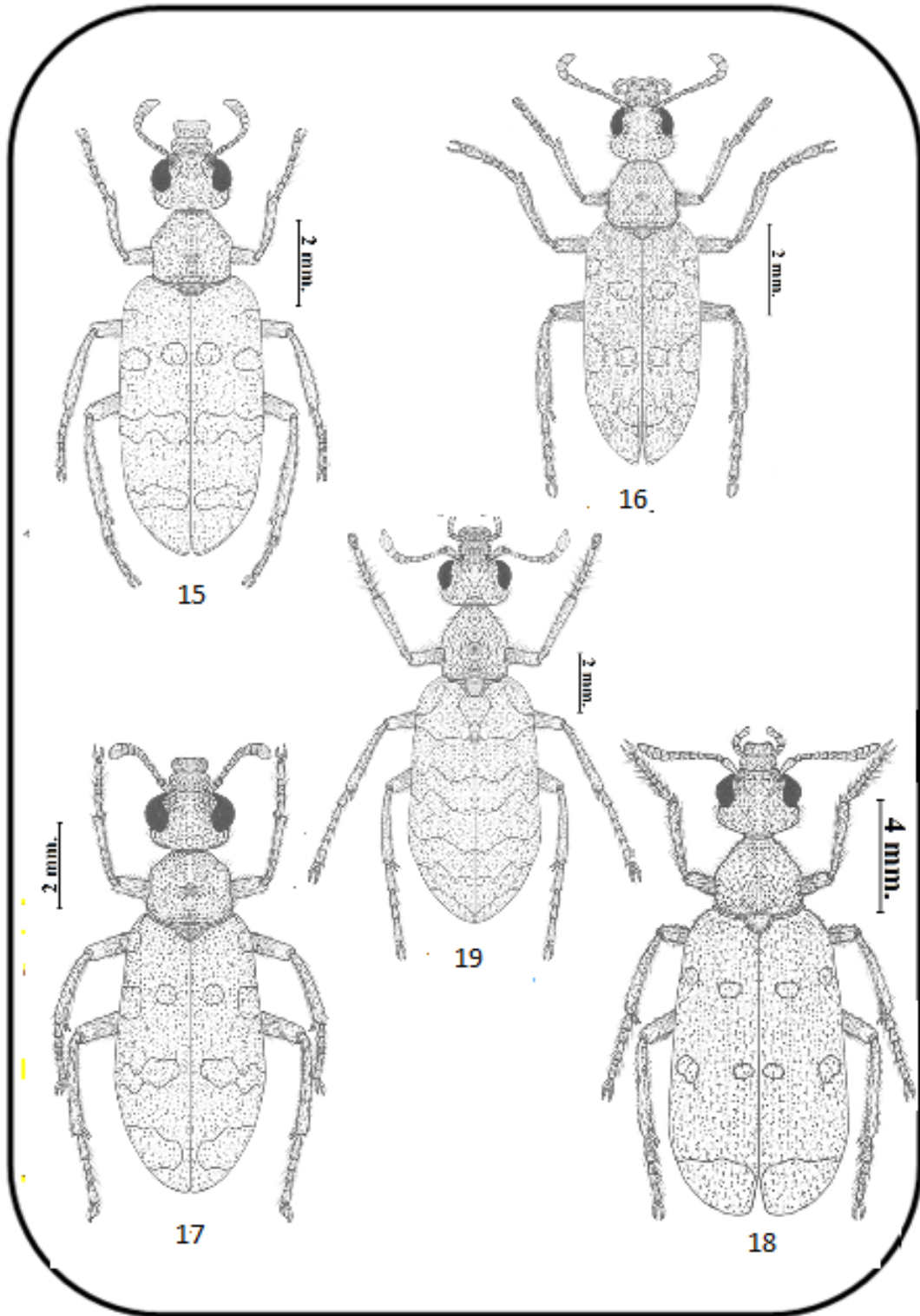
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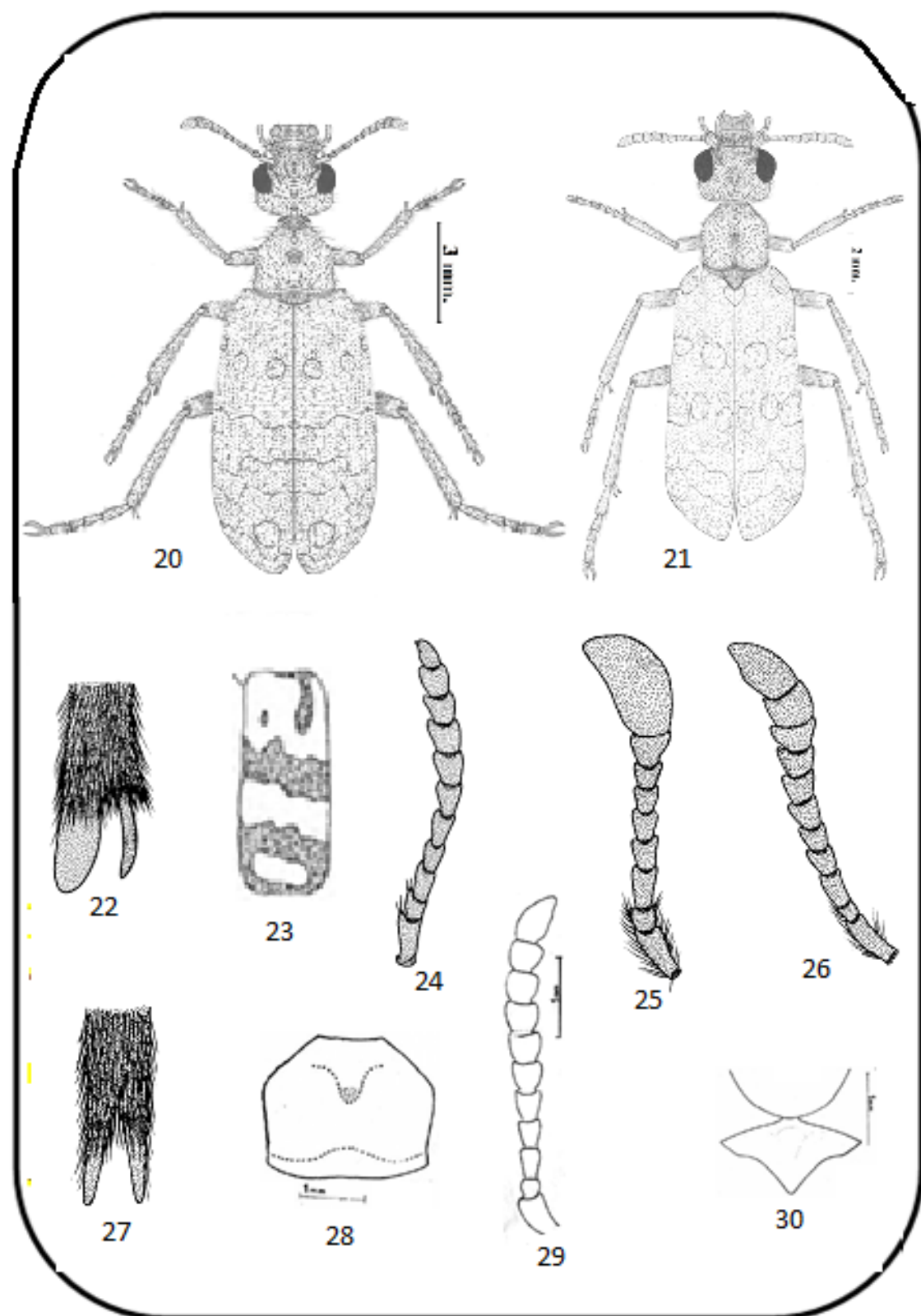
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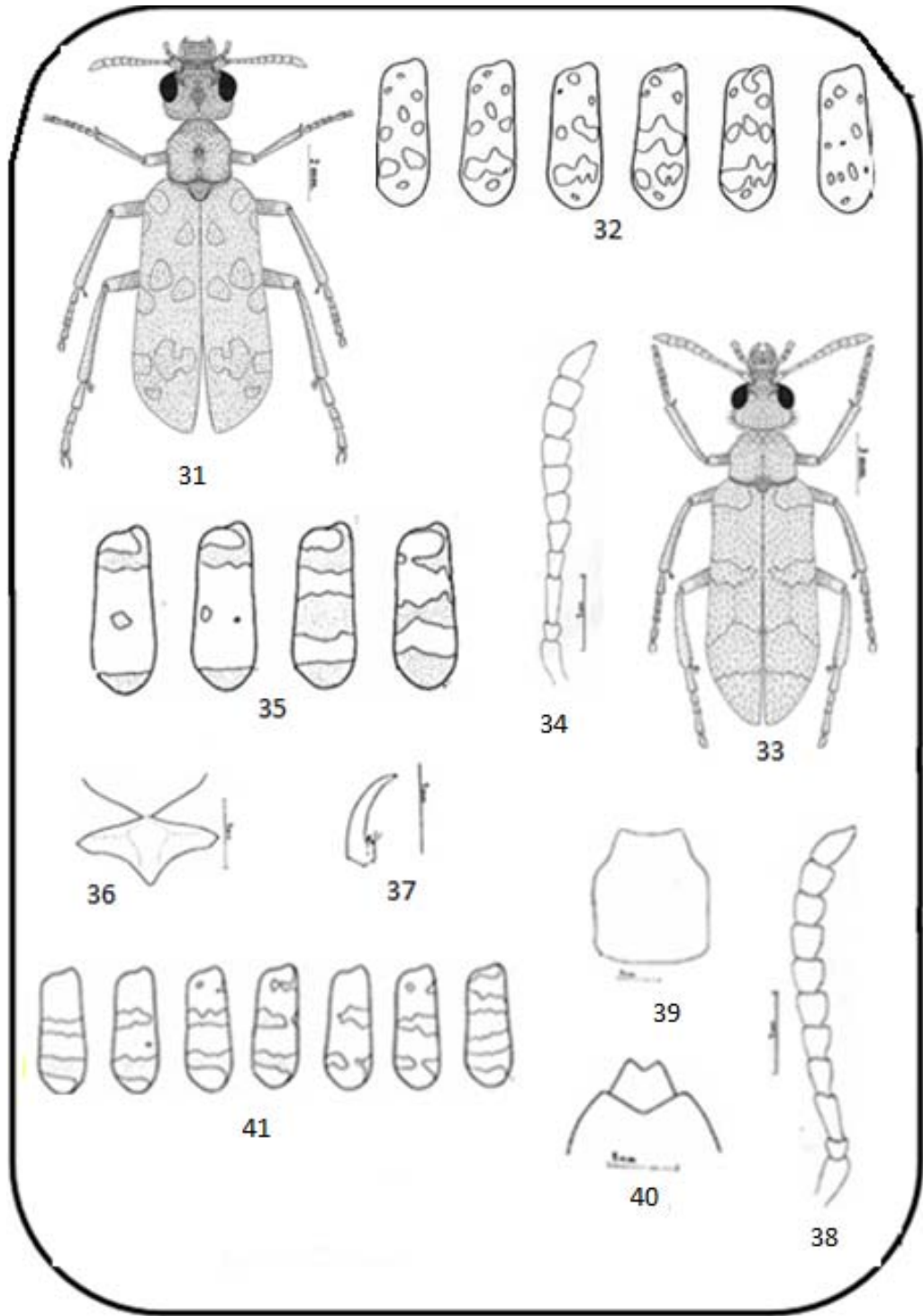
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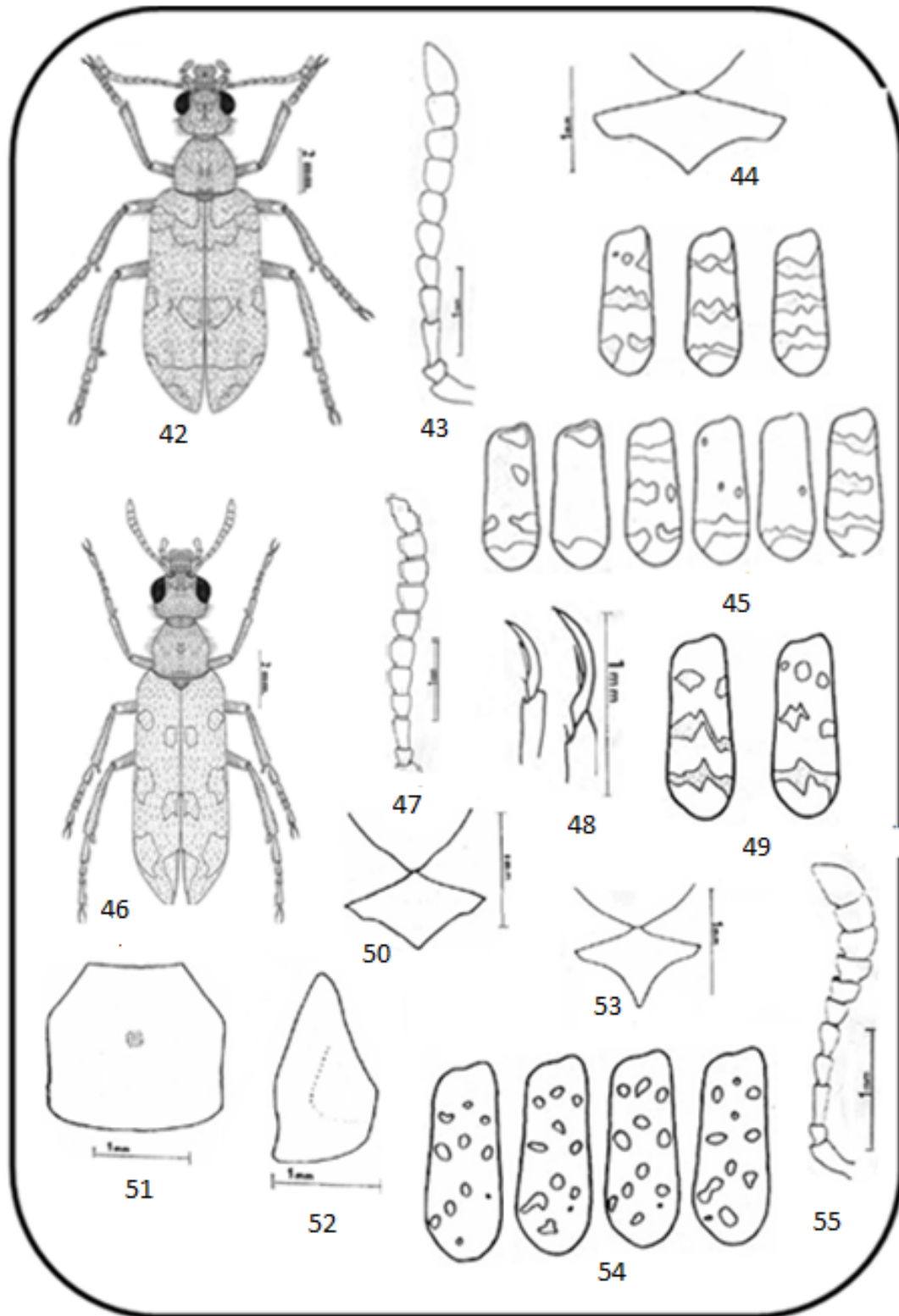
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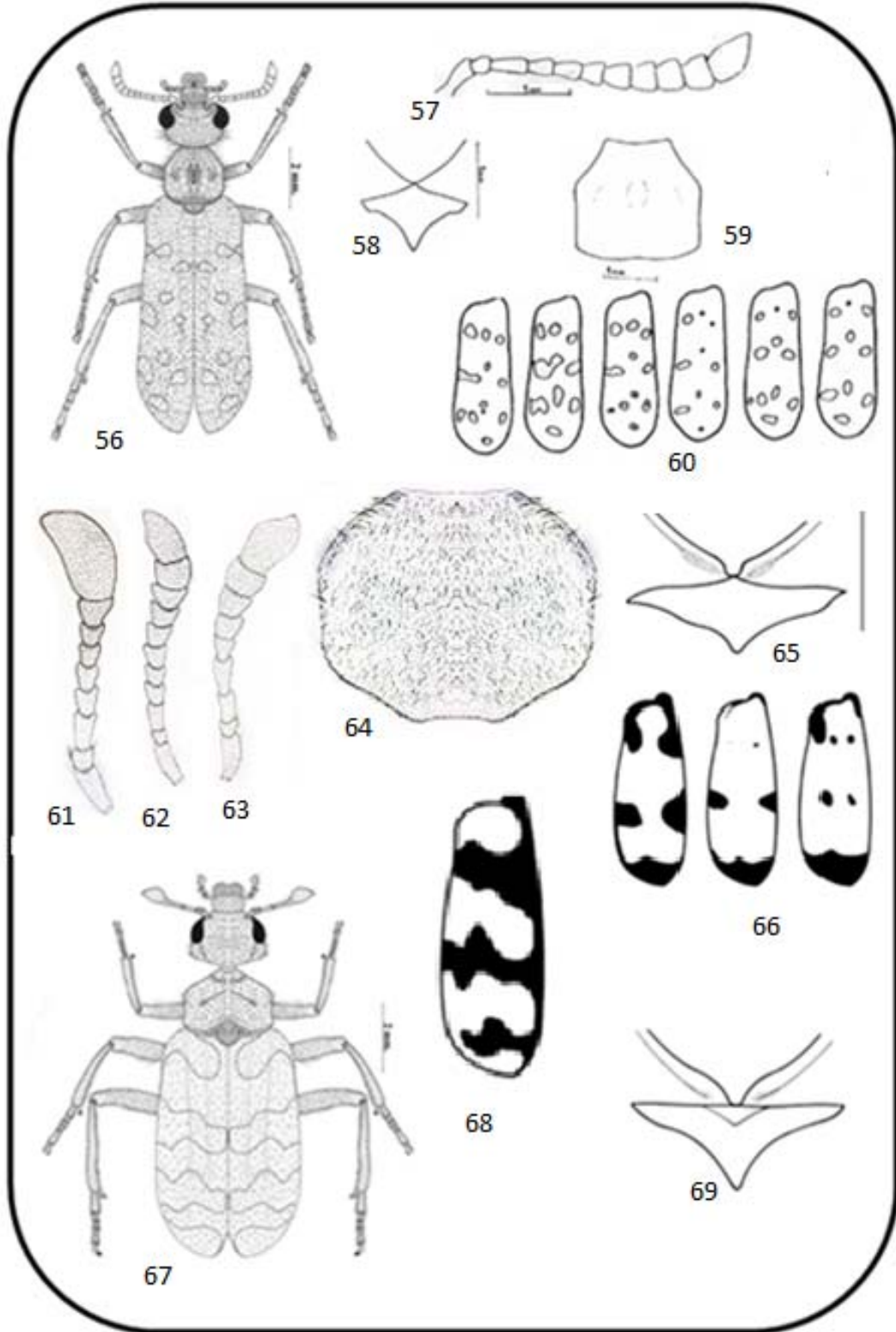
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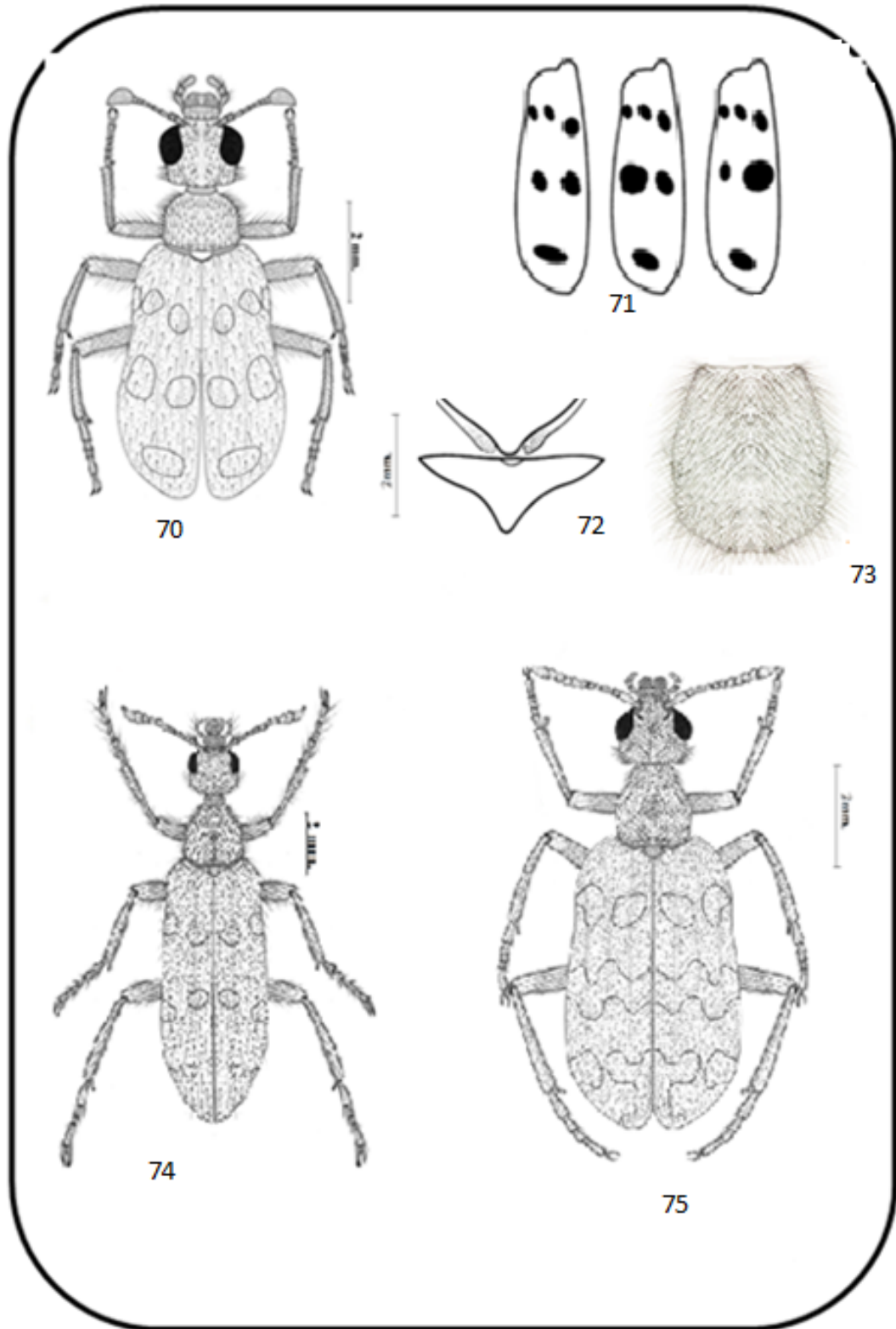
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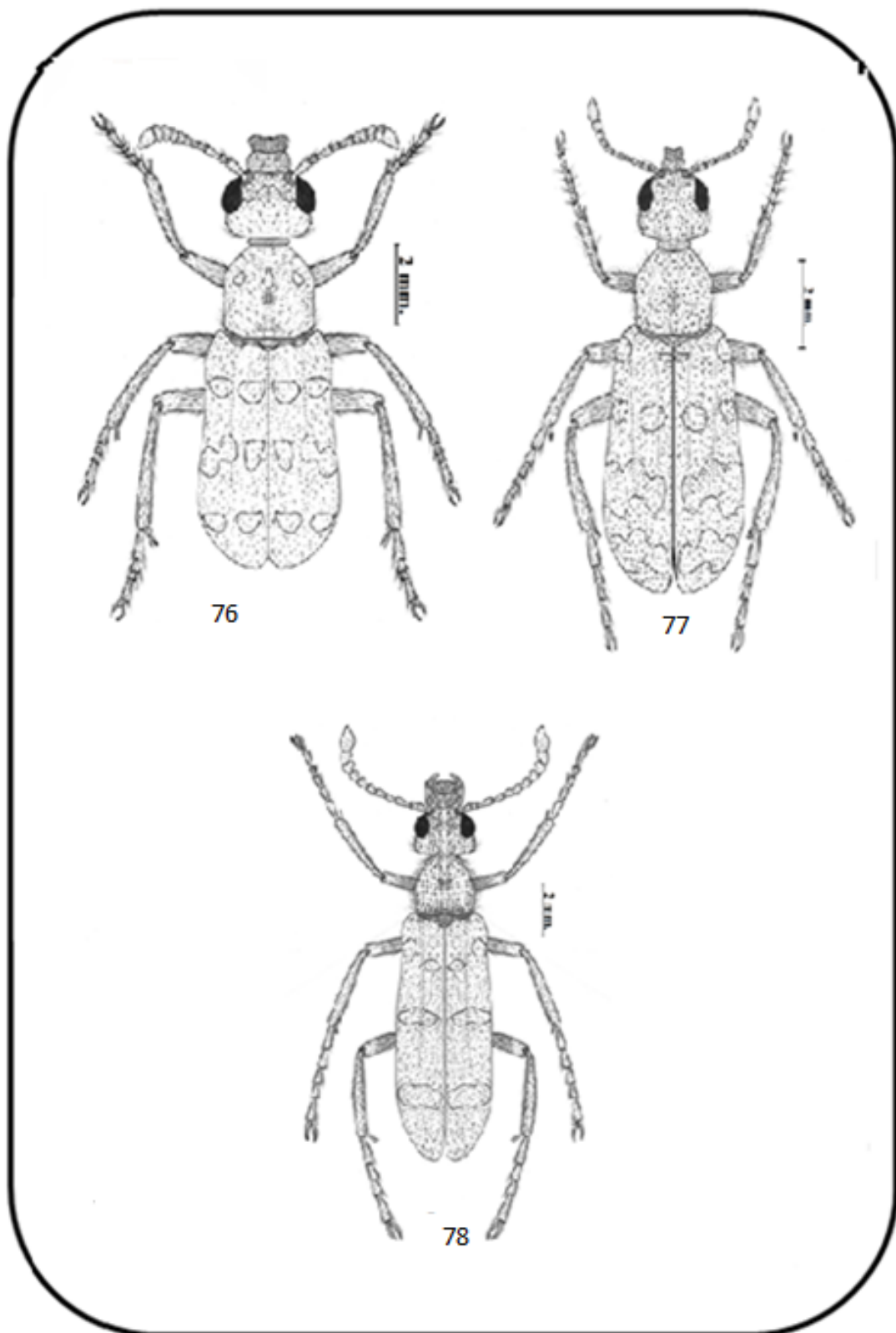
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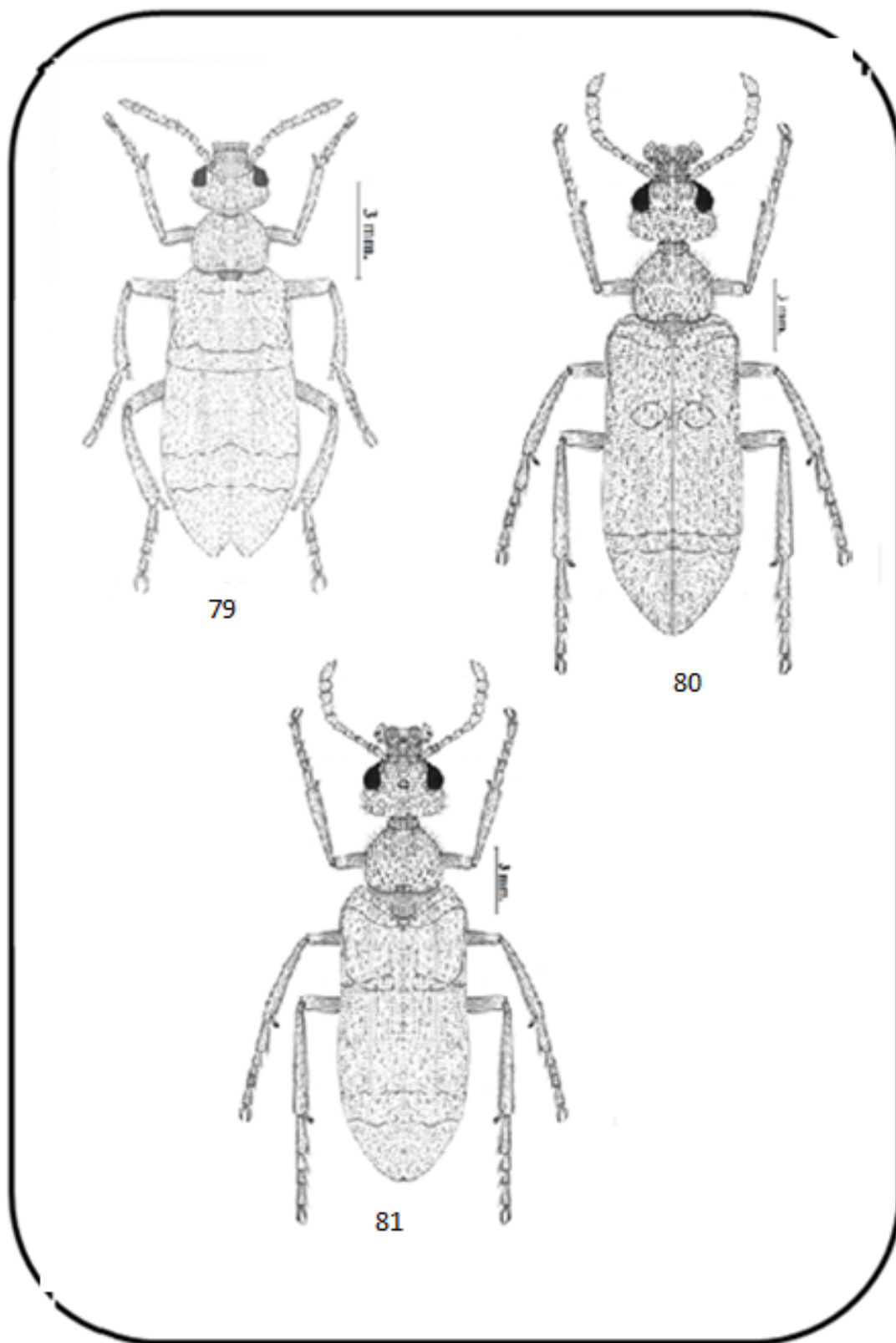
PL. VIII



PL. IX



PI V



ARABIC SUMMERY

مراجعة على قبيلة ميلابرينى (رتبة: غمدية الأجنحة – فصيلة: ميلابرينى) فى مصر

نيفين، ع. المتولى^١ – أشرف، م. التركى^١ – مجدى، م. سالم^١ – وداد، أ. عطوة^٢ – هالة، م. قدارة^٢

١- معهد بحوث وقاية النباتات – مركز البحوث الزراعية

٢- قسم علم الحيوان- كلية العلوم (بنات)- جامعة الأزهر

أشارت المعلومات التي تم جمعها أن قبيلة ميلابرينى تمثل في مصر ٥٩ نوعا في ستة أجناس. ومع ذلك، فقط كانت سبعة وثلاثون من الأنواع متوفرة سواء التي تم جمعها خلال العمل الحالي من أنحاء مختلفة من مصر و / أو المحفوظة في مجموعات الحشرات المصرية. وكانت اثنين وعشرين نوعا من هذه القبيلة غير متوفرة، لكنها أدخلت فى العمل طبقا لصفاتها التصنيفية او الوصف الأصلى لها وفقا للابحاث السابقة. هذه الدراسة تم تخطيطها للتعرف وتحديد الوضع التصنيفي الأخير لأنواع ميلابرينى لأول مرة في مصر. تم عمل مفتاح تصنيفى مصور يضم الأجناس و الأنواع لهذه القبيلة.