

***Megischina renei* sp. nov. (Coleoptera: Tenebrionidae: Alleculinae)
from Rhodes, Greece**

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Abstract. *Megischina renei* sp. nov. from Rhodes (Greece) is described, illustrated and compared with similar species. Identification key for males is provided. Updated checklist of the genus *Megischina* Reitter, 1906 is compiled. *Megischina rosinae* Seidlitz, 1896 is recorded for the first time from Malta.

Key words. Taxonomy, new species, key, checklist, distribution, Coleoptera, Tenebrionidae, Alleculinae, Cteniopodini, *Megischina*, Rhodes, Greece, Palaearctic region.

INTRODUCTION

Reitter (1906) established a new genus, *Megischina* Reitter, 1906 with type species *Cistela armillata* Brullé, 1932. Species of this genus are similar to those of *Odontomophlus* Seidlitz, 1896 and differ mainly in having a large, specifically shaped tooth on the inner claw of the male protarsomere (see Fig. 3 and also Novák 2006: 101, fig. 7) and in the pale brown colour of their basal antennomeres and often also the palpomeres, protarsomeres and protibia. Species of *Odontomophlus* have a smaller tooth on the inner claw of the male protarsomere and the basal antennomeres, palpomeres, protarsomeres and protibia are very rarely pale brown. Two species from Turkey and Romania were described by Reitter (1890 and 1898) as *Omophlus* Dejean, 1834 and another species from Spain as *Odontomophlus* by von Seidlitz (1896). Later another species was described from Cyprus (Mařan 1936) and further species from Turkey (Novák 2006). Novák & Pettersson (2008) list six species.

In this paper a new and peculiar species of *Megischina* is described from the Island of Rhodes and an updated species checklist list of the genus is compiled.

MATERIAL AND METHODS

Two important morphometric characteristics used in descriptions of species of the subfamily Alleculinae, the “ocular index” (Campbell & Marshall 1964) and “pronotal index” dorsally (Campbell 1965), are also used in this paper. The ocular index equals $(100 \times \text{minimum dorsal distance between eyes}) / (\text{maximum width of head across eyes})$. The pronotal index is calculated as $(100 \times \text{length of pronotum along midline}) / (\text{width across basal angles of pronotum})$.

Exact label data are cited for the material. Individual lines on a label are separated by a slash “/”. Information in quotation marks indicates the original spelling.

The following codens are used:

OKZC – private collection of Ondřej Konvička, Zlín, Czech Republic;
RFLC – private collection of René Fouquè, Liberec, Czech Republic;
VNPC – private collection of Vladimír Novák, Prague, Czech Republic.

Measurements of body parts and corresponding abbreviations used in text are as follows: AL – total antennae length, BL – maximum body length, EL – maximum elytral length, EW – maximum elytral width, HL – maximum length of head

(visible part), HW – maximum width of head, OI – dorsally measured ocular index, PI – dorsally measured pronotal index, PL – maximum pronotal length, PW – pronotal width at base, RLA – ratios of relative lengths of antennomeres 1–11 from base to apex (3=1.00), RL/WA – ratios of length / maximum width of antennomeres 1–11 from base to apex, RLT – ratios of relative lengths of tarsomeres 1–5 respectively 1–4 from base to apex (1=1.00), RLP – ratios of relative lengths of palpomeres 2–4 from base to apex (3=1.00), RL/WP – ratios of length / maximum width of palpomeres 2–4 from base to apex.

Measurements were made using an Olympus SZ 40 stereoscopic microscope with continuous magnification and Soft Imaging System AnalySIS. Information on the distribution of *Megischina* species cited in the checklist below is taken from Novák & Pettersson (2008).

TAXONOMY

Megischina renei sp. nov.

(Figs 1–5)

TYPE LOCALITY. Greece, Rhodes, Pan Filerimos, 36° 23' N, 28° 08' E.

TYPE MATERIAL. Holotype (♂): “GREECE – RHODOS / PAN FILERIMOS / 26.5.2006, 36°23'N, 28°08'E / lgt. Fouqué R.+H.” in OKZC. Paratypes (12 ♂♂, 9 ♀♀): same data as holotype in OKZC, RFLC and VNPC. The types are provided with a printed red label: *Megischina renei* sp. nov. / HOLOTYPUS [resp. PARATYPUS] / V. Novák det. 2012.

DESCRIPTION OF HOLOTYPE. Habitus as in Fig. 1, body elongate, slightly widened anteriorly, pale to dark blackish-brown, dorsal surface with micro-granulation, rather matte, BL 11.69 mm. Widest at about two thirds along length of elytra, BL/EW 2.92.

Head (Fig. 2) dark blackish-brown, with dense micro-granulation, posterior part with dense punctuation, punctures on anterior part sparse, clypeus with long, pale brown macro-setation. Posterior part between eyes with two shallow, oblique impressions, space between antennae with one deep impression, HW 1.83 mm, HW/PW 0.77. HL (visible part) 2.33 mm. Eyes relatively small, only finely excised, space between eyes very broad, OI equal to 63.95.

Antennae. Long, AL 7.40 mm, AL/BL 0.63. Antennomeres with short and relatively dense pale brown macro-setation, slightly dilated anteriorly, antennomeres 3–7 with longer macro setae on apex, antennomeres 1–4 and partly antennomere 5 pale brown, antennomeres 6–11 black. Antennomeres 1–3 shiny with sparse, long, pale brown macro-setation. Antennomere 2 shortest, RLA (1–11): 0.65 : 0.39 : 1.00 : 0.93 : 0.89 : 0.89 : 0.99 : 1.02 : 0.98 : 0.97 : 1.08, RL/WA (1–11): 1.90 : 1.23 : 3.47 : 3.38 : 2.89 : 3.17 : 3.09 : 2.92 : 2.98 : 2.94 : 3.49.

Maxillary palpus. Pale brown with sparse, pale brown macro-setation, ultimate palpomere darker, with black anterior part, palpomeres 2–4 distinctly narrowest at base, slightly dilated anteriorly, ultimate and penultimate palpomeres with micro-granulation, slightly shiny. RLP (2–4): 1.25 : 1.00 : 1.2, RL/WP (2–4): 2.97 : 2.35 : 3.65.

Pronotum (Fig. 2). Black, transverse, with dense punctuation and dense micro-granulation, covered with sparse and short, pale brown macro-setation. PL 1.69 mm; PW 2.38 mm. PI equal to 70.85. Border lines complete, lateral margins regularly round; widest at middle. Base finely round, anterior margin finely excised. Posterior angles round, obtuse, anterior angles rounded, indistinct.

Elytra. Dark brown with short and sparse pale brown macro-setation, slightly shiny, distinctly regularly broadened at two thirds of length. EL 7.67 mm. Broadest at two thirds along elytra, EW 2.92 mm. EL/EW 1.92. Elytral striae with distinct rows of medium-sized punctures, inter-spaces between punctures in rows very narrow, narrower than diameter of punctures. Elytral intervals with dense and small punctures and dense micro-granulation. Elytral epipleura dark brown, broadest near base, regularly narrowing to abdominal ventrite 1, then indistinct.

Scutellum. Black, broadly triangular, with micro-granulation, slightly shiny.

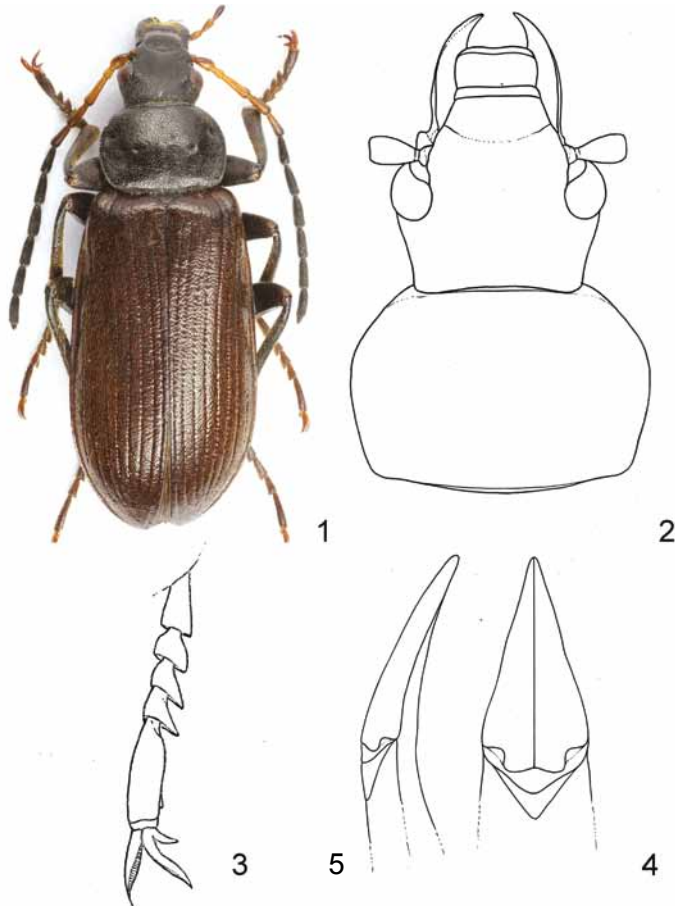
Legs. Black, with distinct punctuation, tarsi and anterior tibia dark brown, with short and dense pale brown setation, tarsal claws distinctly paler. Anterior tibia distinctly wider than meso- and meta-tibia. Ultimate protarsomere broadened, its inner claw with tooth at base.

RLT: protarsus: 1.00 : 0.70 : 0.69 : 0.58 : 2.29; meso-tarsus: 1.00 : 0.65 : 0.56 : 0.49 : 1.38; metatarsus: 1.00 : 0.51 : 0.42 : 0.95.

Both anterior tarsal claws with more than 20 teeth.

Ventral side of body. Black with pale brown macro-setation. Abdomen dark blackish-brown with long, pale brown setation and micro-granulation, more matte. Ultimate abdominal ventrite strongly half-moonly excised.

Aedeagus (Figs 4, 5). Pale brown, slightly shiny. Basal half of basal piece rounded laterally, then straight laterally and regularly narrowing dorsally. Apical piece short, beak-shaped laterally and triangular dorsally. Ratio of length of apical piece to length of basal piece 1 : 6.80.



Figs 1–5. *Megischina renei* sp. nov., ♂ holotype. 1 – habitus, dorsal aspect; 2 – head and pronotum, dorsal aspect; 3 – protarsomere, dorsal aspect; 4 – aedeagus, dorsal aspect; 5 – aedeagus, lateral aspect.

Female. Ultimate protarsomere not distinctly broadened, its inner claw without tooth. Antennae distinctly shorter than in male, AL 5.13 mm, AL/BL 0.44. Both protarsal claws with 11 teeth. RLA (1–11): 0.77 : 0.56 : 1.00 : 1.04 : 1.05 : 1.09 : 1.16 : 1.18 : 1.16 : 1.06 : 1.18. RL/WA (1–11): 1.48 : 1.41 : 2.46 : 2.44 : 2.59 : 2.56 : 2.36 : 2.36 : 2.85 : 2.17 : 2.76. RLT: protarsus: 1.00 : 0.63 : 0.56 : 0.60 : 2.27; mesotarsus: 1.00 : 0.78 : 0.62 : 0.58 : 1.81; metatarsus: 1.00 : 0.51 : 0.42 : 0.95.

VARIABILITY. Three male and three female with ochre yellow elytra. Measurements: mean (minimum–maximum). Males (n=13) BL 11.06 mm (10.13–12.15 mm); HL 2.09 mm (1.84–2.45 mm); HW 1.82 mm (1.69–2.00 mm); OI 70.24 (63.95–74.39), PL 1.77 mm (1.54–2.04 mm); PW 2.36 mm (2.11–2.59 mm); PI 75.52 (70.01–78.77); EL 7.19 mm (6.52–7.84 mm); EW 3.83 mm (3.41–4.07 mm). Females (n=9) BL 12.10 mm (11.57–13.03 mm); HL 2.34 mm (2.16–2.54 mm); HW 1.88 mm (1.73–2.02 mm); OI 72.77 (68.62–78.11), PL 1.92 mm (1.81–2.03 mm); PW 2.36 mm (2.01–2.65 mm); PI 79.32 (74.67–87.74); EL 7.82 mm (7.48–8.59 mm); EW 4.27 mm (4.04–4.74 mm).

DIFFERENTIAL DIAGNOSES. (For details see the key). *Megischina renei* sp. nov. is clearly different from *M. rosinae* and *M. adaliae* in that its ultimate protarsomere is distinctly broader apically, while in *M. rosinae* and *M. adaliae* it is broadest before the apex. *M. renei* sp. nov. clearly differs from the similar species *M. armillata*, *M. bozdaglariensis* and *M. cypria* mainly in having a transverse pronotum, which is broad and relatively short (PI from 70 to 80) and the dorsal surface of the pronotum and space between eyes being more matte with dense micro-granulation; while the pronotum of *M. armillata*, *M. bozdaglariensis* and *M. cypria* is narrow and relatively long (PI about 85) and the dorsal surface of the pronotum and space between eyes of these species is more shiny and without or/with very sparse micro-granulation.

NAME DERIVATION. This new species is named in honour of René Fouquè (Liberec, Czech Republic), well-known specialist in Tenebrionidae and collector of the type material.

DISTRIBUTION. Greece (Island of Rhodes).

Megischina rosinae (Seidlitz, 1896)

Odontomophlus rosinae Seidlitz, 1896: 263.

MATERIAL EXAMINED. Malta, 1.–14.vii.1996, L. Hertlová lgt. 1 ♂ in VNPC.

REMARK. Measurements of the Maltese specimen: BL 10.99; HL 1.72; HW 1.83; OI 63.43; PL 1.84; PW 2.16; PI 85.03; EL 7.43; EW 3.94.

DISTRIBUTION. This western palaeartic species has been known for a long time only from Spain and only recently recorded from France by Soldati & Bouyon (2006). This is the first record for Malta.

Key for identifying males of *Megischina*

- 1 (2) Ultimate protarsomere of male relatively narrow, broadest near third of length from base to apex. 3
- 2 (1) Ultimate protarsomere of male relatively broad, broadest at apex. 5
- 3 (4) Western Mediterranean species. France, Malta, Spain. *M. rosinae* Seidlitz, 1896
- 4 (3) Eastern Mediterranean species. Asian part of Turkey. *M. adaliae* Reitter, 1890
- 5 (6) Antennae of male distinctly longer than half of body length. 7
- 6 (5) Antennae of male distinctly shorter than half of body length. 9
- 7 (8) Pronotum matte with dense micro-granulation, transverse, distinctly broader than long, PI equal to 75. Habitus (Fig. 1), head and pronotum (Fig. 2), male protarsomere (Fig. 3), aedeagus (Figs 4 and 5). Greece: Rhodes.
..... *M. renei* sp. nov.
- 8 (7) Pronotum shiny and only slightly broader than long; PI equal to 85. Cyprus. *M. cypria* Mañan, 1936

- 9 (10) Protarsomeres 2–4 slightly longer than broad, pronotum distinctly transverse, elytra distinctly broaden from base to apex, broadest three quarters along their length, measured from base. Asian part of Turkey. *M. bozdaglariensis* Novák, 2006
- 10 (9) Protarsomeres 2–4 distinctly transverse, pronotum distinctly narrower, elytra more parallel. 11
- 11 (12) Elytra, maxillary palpus, antennomeres 1–4, protarsi and tibia pale brown. Balkan peninsula and Asian part of Turkey. *M. armillata armillata* Brullé, 1832
- 12 (11) Only antennomeres 1–3 pale brown, elytra, maxillary palpus, protarsi and tibiae pale black. Romania. *M. armillata merthae* Reitter, 1898

Checklist of the genus *Megischina* Reitter, 1906

Megischina Reitter, 1906: 171.

TYPE SPECIES. *Cistela armillata* Brullé, 1832.

Megischina adaliae (Reitter, 1890: 41) [*Omophlus*].

DISTRIBUTION. Asian part of Turkey.

Megischina armillata armillata (Brullé, 1832: 225) [*Cistela*].

Odontomophlus epipleuralis Seidlitz, 1896: 241.

Odontomophlus glamocensis Obenberger, 1917: 39.

Megischina interstitialis Reitter, 1906: 172.

DISTRIBUTION. Bosnia and Herzegovina, Croatia, Greece, Italy, Montenegro, Romania, Serbia, Asian part of Turkey.

Megischina armillata merthae (Reitter, 1898: 349) [*Omophlus*].

DISTRIBUTION. Romania.

Megischina bozdaglariensis Novák, 2006: 100.

DISTRIBUTION. Asian Turkey.

Megischina cypria Mařan, 1936: 206.

DISTRIBUTION. Cyprus.

Megischina renei sp. nov.

DISTRIBUTION. Greece (Island of Rhodes).

Megischina rosinae (Seidlitz, 1896: 263) [*Odontomophlus*].

DISTRIBUTION. France, Malta, Spain.

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