

Mycetocharina (Alleculopsis) gafsaiica sp. nov. (Coleoptera: Tenebrionidae: Alleculinae) from Tunisia

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Received 29 November 2015; accepted 14 January 2016
Published 8 September 2016

Abstract. A new species of *Mycetocharina* Seidlitz, 1891 from Tunisia is described as *Mycetocharina (Alleculopsis) gafsaiica* sp. nov.

Key words. Taxonomy, new species, description, Coleoptera, Tenebrionidae, Alleculinae, *Mycetocharina*, *Alleculopsis*, Palaearctic region.

INTRODUCTION

Seidlitz (1891) described the palaearctic genus *Mycetocharina* in 1891 with type species *Allecula orientalis* Faust, 1877. This genus belongs to the subtribe Alleculina. Borchmann (1910) lists ten species, Mader (1928) 11 species and Novák & Pettersson (2008) 25 species in two subgenera of the genus *Mycetocharina*. The subgenus *Alleculopsis* Semenov, 1893 was described by Semenov (1893) with type species *Alleculopsis deserticola* Semenov, 1893. Later, Novák (2007) described one new species from the United Arab Emirates in the subgenus *Mycetocharina* and another from Iran in the subgenus *Alleculopsis* (Novák 2008). Currently this nominotypical subgenus contains 22 species that differ from the five species in the subgenus *Alleculopsis* mainly by a narrow, but distinct space between the eyes in males, while males of species of the subgenus *Alleculopsis*, in dorsal view, lack a space between the eyes.

The new species *Mycetocharina (Alleculopsis) gafsaiica* sp. nov., which clearly belongs to the subgenus *Alleculopsis*, is described, illustrated and compared with *Mycetocharina megalops* (Fairmaire, 1894), a species of similar morphology distributed in North Africa and *M. (Alleculopsis) ruficeps* Pic, 1923 from Aden (Yemen), probably the closest species to this subgenus.

MATERIAL AND METHODS

Two important morphometric characteristics used to describe species of the subfamily Alleculinae, the ‘ocular index’ (Campbell & Marshall 1964) and ‘pronotal index’ (Campbell 1965), are also used in this paper. The ocular index is equal to: $(100 \times \text{minimum dorsal distance between eyes}) / (\text{maximum width of head across eyes})$. The pronotal index is: $(100 \times \text{length of pronotum along midline}) / (\text{width across basal angles of pronotum})$. In the list of type or examined material, a slash (/) separates data in separate rows. The following codes for collections are used:

- FHTC – private collection of František Houška, Trutnov, Czech Republic;
- MNHN – Muséum National d’Histoire naturelle, Paris, France;
- MŠDC – private collection of Miroslav Šárovec, Dřevnice near Chrudim, Czech Republic;
- OKZC – private collection of Ondřej Konvička, Zlín, Czech Republic;
- TKHC – private collection of Tomáš Kopecký, Hradec Králové, Czech Republic;
- VNPC – private collection of Vladimír Novák, Praha, Czech Republic;
- VZPC – private collection of Vladimír Zieris, Pardubice, Czech Republic;
- ZKBC – private collection of Zdeněk Kletečka, České Budějovice, Czech Republic.

Measurements of body parts and corresponding abbreviations used in the 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 – ocular index dorsally, PI – pronotal index dorsally, 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).

Measurements were made using an Olympus SZ 40 stereoscopic microscope with continuous magnification and a Soft Imaging System AnalySIS.

TAXONOMY

Mycetocharina (Alleculopsis) gafsaica sp. nov.

(Figs 1–4)

TYPE LOCALITY. Tunisia, Gafsa Province, El Talha, 50 km W of Gafsa.

TYPE MATERIAL. **Holotype** (♂): Tunisia, Gafsa Prov., “TN-TUNIS / Prov Gafsa 10.5.2008 / El Talha 50 km W Gafsa / M. Šárovec”, in VNPC. – **Paratypes**: 3 ♂♂, same data as holotype, in MŠDC, VNPC, OKZC; – 5 ♂♂, 1 ♀, Tunisia, Gafsa Prov., “Tunisia CW, 22.–23.5. / Gafsa 35 km NW / Lgt. F. Houška 2008”, in FHTC, VNPC; – 2 ♂♂, Tunisia, Gafsa Prov., “Tunisia SW, 13.5. / Nefta 20 km W / Lgt. F. Houška 2008”, in FHTC, VNPC; – 4 ♂♂, Tunisia, Gafsa Prov., “Tunis 30 km NW Gafsa / riv. Qued el Gebir 22.–23.5. / Z. Kletečka lgt. 2008”, in VNPC, ZKBC; – Tunisia, Tozeur Prov., 1 ♂, 1 ♀, “TN-TUNIS / prov Tozeur 13.5 / Nefta 10 km W / M. Šárovec 2008”, in TKHC, VNPC. – The types are provided with one printed red label: *Mycetocharina (Alleculopsis) gafsaica* sp. nov. / HOLOTYPUS [resp. PARATYPUS] / V. Novák det. 2015.

DESCRIPTION OF HOLOTYPE. Habitus as in Fig. 1, body elongate, from ochre yellow to black, slightly shiny, dorsal surface with setae, BL 5.31 mm. Widest nearly halfway along elytral length; BL/EW 3.28.

Head (Fig. 2). Posterior part black, with sparse ochre yellow setae between eyes and black setae behind eyes with large and coarse punctuation. Anterior part brown with ochre yellow setae, shallow punctuation and distinct microgranulation, clypeus pale brown with longer yellow setae. HW 1.01 mm; HW/PW 0.93; HL (visible part) 0.71 mm. Eyes very large, transverse, strongly excised, close together.

Antennae. Relatively long, ochre yellow, with short and dense ochre yellow setae, microgranulation and punctuation, mat. AL 3.21 mm; AL/BL 0.61. Antennomere 2 shortest, antennomeres 4–10 serrate and distinctly longer than antennomere 3.

RLA (1–11): 0.87 : 0.57 : 1.00 : 1.43 : 1.33 : 1.57 : 1.63 : 1.73 : 1.80 : 1.77 : 1.37.

RL/WA (1–11): 1.44 : 1.31 : 2.50 : 2.91 : 2.67 : 2.61 : 2.72 : 2.74 : 3.00 : 3.53 : 3.42.

Maxillary palpus. Ochre yellow with yellow setae and microgranulation. Palpomeres 2, 3 distinctly narrowest at base and broadest at apex with few long setae. Ultimate palpomere longer, knife-shaped.

Pronotum (Fig. 2). Pale reddish brown, with relatively dense ochre yellow setae, dense and large punctuation. PL 0.87 mm; PW 1.09 mm; PI equal to 79.22. Border lines complete, only at middle of base indistinct, lateral margins straight, slightly narrowing from base to apex, then in anterior fourth more narrowing and slightly arcuate. Posterior angles roundly obtuse, anterior angles indistinct, rounded.

Elytron. Ochre yellow, with short and dense yellow setae, slightly shiny. Suture narrowly darker. EL 3.73 mm; EW 1.62 mm. EL/EW 2.30. Elytral striae with distinct rows of small punctures. Elytral intervals with microgranulation and shallow punctures as large as in striae.

Scutellum. Ochre yellow, same colour as elytron, sides narrowly darker, long triangular, shiny, with punctures, microgranulation and yellow setae.

Elytral epipleura. Well-developed, ochre yellow, same colour as elytron, shiny, with relatively dense, yellow setae, broadest near base, distinctly narrowing to metasternum, then very narrow.

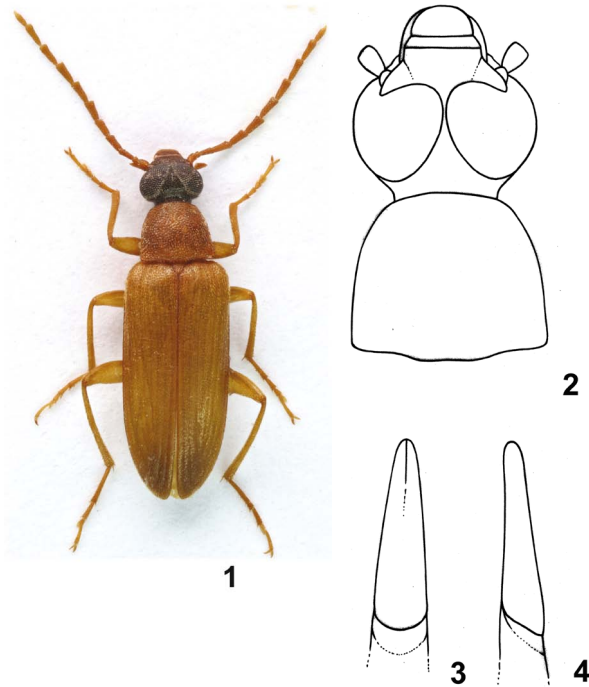
Legs. Ochre yellow, narrow and long, with microgranulation and sparse, small punctures. Tibia with short and dense pale brown setation, pale brown setation on femora sparser and longer than on tibia, tarsi with short yellow and sparse, long, ochre yellow setae. Tibia very slightly wider at apex. Penultimate tarsomere of each tarsus distinctly wider and lobed. RLT: 1.00 : 0.65 : 0.41 : 0.51 : 1.38 (protarsus); 1.00 : 0.50 : 0.29 : 0.36 : 0.86 (mesotarsus); 1.00 : 0.41 : 0.28 : 0.56 (metatarsus).

Anterior tarsal claws with 9 and 10 teeth.

Ventral side of body. Pale reddish brown, shiny with very sparse, yellow setae and punctuation. Abdomen brown with relatively sparse and long, yellow setae, shallow punctures and microgranulation. Ultimate ventrite distinctly paler.

Aedeagus (Figs 3, 4). Ochre yellow. Basal piece slightly rounded laterally and slightly narrowing dorsally. Apical piece elongate, triangular with rounded tip dorsally and laterally. Ratio of length of apical piece to length of basal piece 1 : 2.34.

Female. Antennae shorter than in males (AL/BL 0.46). Antennomere 3 only slightly shorter than each of antennomeres 4–10. Space between eyes distinctly wider than in males (OI about 20). RLA (1–11): 0.68 : 0.38 : 1.00 : 1.21 : 1.07 : 1.11 : 1.10 : 1.11 : 1.19 : 1.19 : 0.99. RL/WA (1–11): 1.41 : 0.95 : 3.36 : 3.56 : 3.02 : 2.44 : 2.35 : 3.14 : 3.36 : 2.80 : 2.80. Anterior tarsal claws with 7 and 8 teeth.



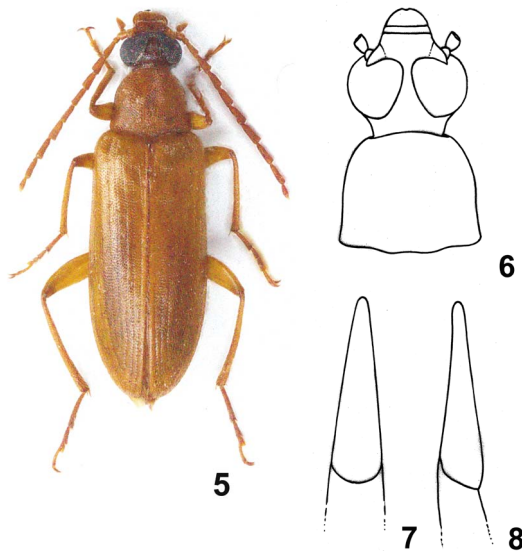
Figs 1–4. *Mycetocharina (Alleculopsis) gafsai* sp. nov.: 1 – habitus of male holotype; 2 – head and pronotum of male holotype; 3 – aedeagus, dorsal view; 4 – aedeagus, lateral view.

VARIATION. The type specimens vary in size; the means value of each character is given, with the full range in parentheses. Males (n=16). BL 6.22 mm (5.30–7.27 mm); HL 0.87 mm (0.71–1.10 mm); HW 1.11 mm (1.00–1.30 mm); OI 1.33 (0–4.20), PL 1.04 mm (0.87–1.26 mm); PW 1.30 mm (1.09–1.53 mm); PI 80.41 (75.82–85.64); EL 4.32 mm (3.73–5.14 mm); EW 1.87 mm (1.62–2.19 mm). Females (n=2). BL 6.46 mm (5.92–6.99 mm); HL 0.77 mm (0.72–0.82 mm); HW 0.99 mm (0.89–1.08 mm); OI 20.97 (18.25–23.68), PL 1.13 mm (1.05–1.21 mm); PW 1.37 mm (1.20–1.54 mm); PI 82.96 (78.34–87.57); EL 4.46 mm (4.15–4.96 mm); EW 2.00 mm (1.87–2.13 mm).

DIFFERENTIAL DIAGNOSIS. *Mycetocharina (Alleculopsis) gafsai* sp. nov., with eyes close together in dorsal view, clearly belongs to the subgenus *Alleculopsis* Semenov, 1893 and differs from the closest species *Mycetocharina (Alleculopsis) ruficeps* Pic, 1923 mainly by posterior part of head black and pronotum narrow, elongate, while *M. (A.) ruficeps* has a reddish brown head (rufo) and transverse and wide pronotum (thorace breve et transverso) (see original description by Pic (1923) below). *Mycetocharina (A.) gafsai* sp. nov. clearly also differs from the similar *Mycetocharina (Mycetocharina) megalops* Fairmaire, 1894, which is widely distributed in North Africa, mainly in its eyes being closer together in dorsal view and antennomeres 4, 5 and 11 distinctly longer than antennomere 3; while *M. (M.) megalops* has eyes distinctly separated (OI equal to 14.55), antennomeres 4 and 5 only slightly longer than antennomere 3 and antennomere 11 shorter than antennomere 3.

NAME DERIVATION. Toponymic, named after the type locality – Gafsa Province, Tunisia.

DISTRIBUTION. Tunisia.



Figs 5–8: *Mycetocharina megalops* (Fairmaire, 1894): 5 – habitus of male; 6 – head and pronotum of male; 7 – aedeagus, dorsal view; 8 – aedeagus, lateral view.

***Mycetocharina (Mycetocharina) megalops* (Fairmaire, 1894)**
(Figs 5–8)

Caristela megalops Fairmaire, 1894: 311.

MATERIAL EXAMINED. 1 ♂: “MA-Maroc, reg Meknes / 34 km W Arfoud, 27.4.2012 / M. Šárovec”, in VNPC; – 1 ♂: “Morocco 12.–13.4.2012 / Oulad-Driss-M’hamid / N29°50.030’, W05°38.579’ / V. Zieris lgt.”, in VZPC.

REMARK. Characters for specimen from near Arfoud. Species with ochre yellow dorsal surface (habitus as in Fig. 5) and narrow, but distinct space between eyes (OI 14.55) as in Fig. 6. Aedeagus as in Figs 7 and 8. Anterior tarsal claws with 14 teeth.

Measurements of body parts. BL 6.94 mm; HL 0.77 mm; HW 1.18 mm; OI 14.55; PL 1.18 mm; PW 1.35 mm; PI 87.42; EL 4.99 mm; EW 2.19 mm. HW/PW 0.87; BL/EW 3.17; EL/EW 2.28. RLA (1–11): 0.59 : 0.34 : 1.00 : 1.07 : 1.16 : 1.32 : 1.41 : 1.46 : 1.41 : 1.16 : 0.89.

***Mycetocharina (Alleculopsis) ruficeps* Pic, 1923**

Mycetocharina (Alleculopsis) ruficeps Pic, 1923: 10.

ORIGINAL DESCRIPTION. Pic (1923: 10): “*Mycetocharina (Alleculopsis) ruficeps* n. sp. Elongatus, nitidus, latus, pubescens, testaceus, capite postice rufo; thorace breve et transverso, antice attenuato et parum distincte marginato, dense pupillato-punctato, postice distincte sinuato et triimpresso; elytris thorace paulo latioribus, mediocre elongatis, minute et sparse punctatis, substriatis. Long. 5 mill. Aden (coll. Pic). – Voisin de *deserticola* Sem., distinct, à première vue, par la forme moins allongée, le prothorax plus transversal et très sinué en arrière, etc.”

REMARK. The original description of Pic (1923) is used because it was not possible to find a type specimen of this species in Pic’s collection in Paris (MNHN).

A c k n o w l e d g e m e n t s

My sincere thanks are due to František Houška (Trutnov, Czech Republic), Zdeněk Kletečka (České Budějovice, Czech Republic), Ondřej Konvička (Zlín, Czech Republic), Miroslav Šárovec (Dřenice near Chrudim, Czech Republic) and Vladimír Zieris (Pardubice, Czech Republic) for donating material from their collections. Special thanks are due to Zuzana Čadová (Liberec, Czech Republic) for the excellent drawings.

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