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A new species of *Megalogastria* BERNHAUER from Israel (Coleoptera: Staphylinidae: Aleocharinae: Aleocharini)

V. ASSING

A b s t r a c t : *Megalogastria crassiventris* nov.sp. (Israel), the third species of the genus, is described and illustrated. A key to the species of *Megalogastria* BERNHAUER 1901 is provided. The distribution of the genus is mapped.

K e y w o r d s : Coleoptera, Staphylinidae, Aleocharinae, Aleocharini, *Megalogastria*, Israel, taxonomy, new species, key to species.

Introduction

Megalogastria was originally described as a subgenus of *Aleochara* GRAVENHORST 1802 by BERNHAUER (1901), who included only *Aleochara cingulata* EPPELSHEIM 1889 from western Turkey, the type species by monotypy. Only recently, the taxon was raised to generic rank (ASSING in press a), and a second species was described from eastern Anatolia (ASSING in press b).

While working on staphylinid material on loan from the National Museum of Natural History, Tel Aviv University, Benedikt Feldmann (Münster) discovered several specimens of *Megalogastria* collected in Israel, which he forwarded to me for examination. A comparative study of external and sexual characters revealed that they represent an undescribed species, the third representative of the genus.

Methods, measurements, and depositories

The material referred to in this study is deposited in the following public institution and private collections:

TAU National Museum of Natural History, Tel Aviv University (A. Freidberg)

cAss author's private collection

cFel private collection Benedikt Feldmann, Münster

The morphological studies were carried out using a Stemi SV 11 microscope (Zeiss Germany) and a Jenalab compound microscope (Carl Zeiss Jena) with a drawing tube. For the photographs a digital camera (Nikon Coolpix 995) was used.

The measurements are given in mm and abbreviated as follows: AL: length of antenna; AW: maximal width of abdomen; EL: length of elytra along suture, from apex of scutellum to posterior margin; EW: combined width of elytra; HL: head length from anterior margin of clypeus to neck; HW: maximal head width; ML: length of median lobe of aedeagus from base to apex of ventral process; PL: length of pronotum along midline; PW: maximal width of pronotum; TaL: length of metatarsus; TiL: length of metatibia; TL: body length from mandibles to apex of abdomen.

The map was generated using the online generic mapping tool (GMT) of the Geomar website at www.aquarius.ifm-geomar.de/omc.

***Megalostria crassiventris* nov.sp. (Figs 1-12, Map 1)**

Type material: Holotype ♂: "Israel: Lehavim [31°22'N, 34°49'E], 25.III.2005, O. Shelev, V. Chikatunov / Holotypus ♂ *Megalogastris crassiventris* sp. n. det. V. Assing 2007" (TAU). Paratypes: 2 exs., same data as holotype; 3 exs.: "Israel: Adullam [31°39'N, 34°58'E], 3.IV.2003, U. Columbus, T. Levanony / *Atheta oritaria* (Kraatz, 1857) det. V. Chikatunov"; 1 ex., "4232. Israel: Nahal Sansan [31°42'N, 35°01'E], 22.III.2002, Y. Mandelik, V. Chikatunov / *Acrotona gregaria* [sic] Det. V. Chikatunov" (paratypes in TAU, cAss, cFel).

Etymology: The name (Latin, adjective) refers to the conspicuously broad abdomen.

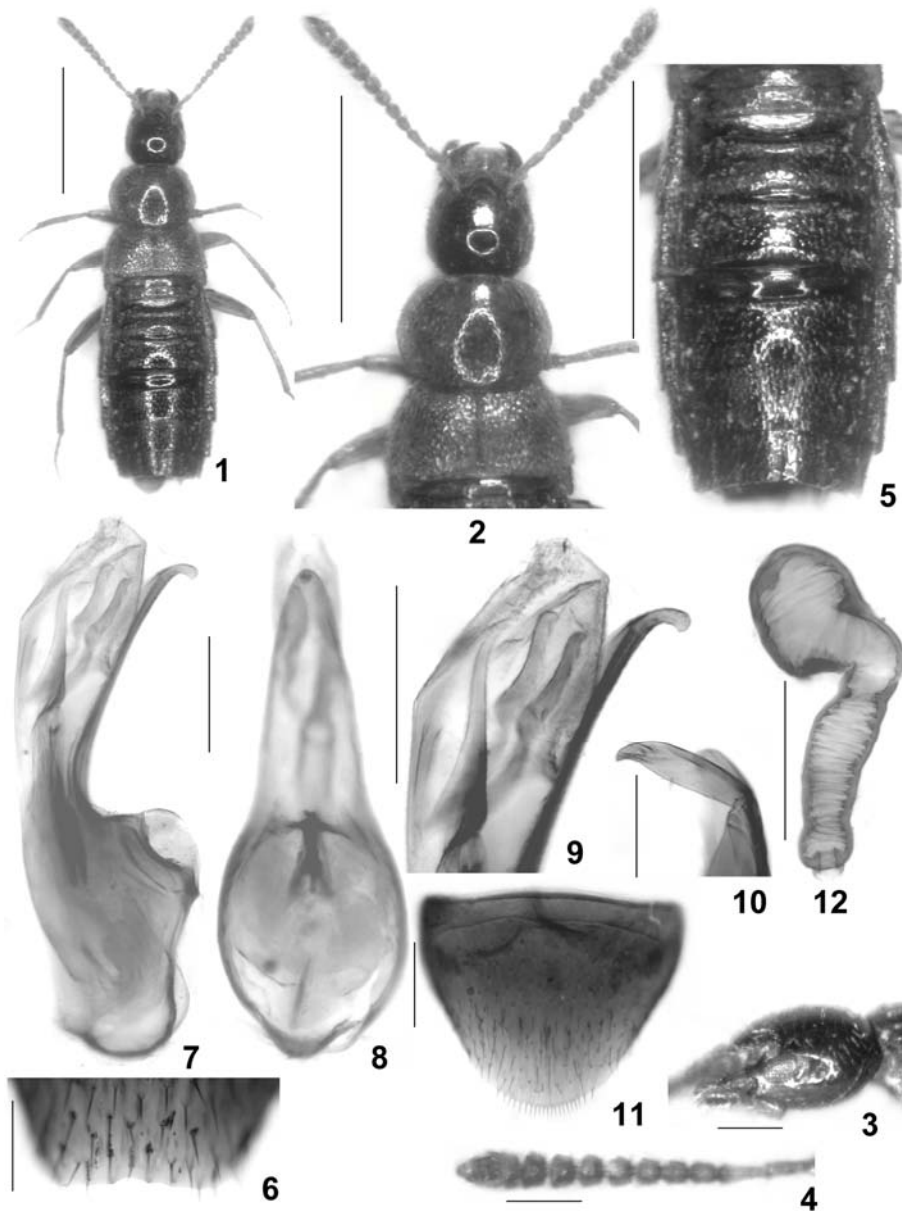
Description: Measurements (in mm) and ratios (range, arithmetic mean; n=7): AL: 0.76-1.07, 0.94; HL: 0.47-0.53, 0.49; HW: 0.43-0.48, 0.47; PW: 0.59-0.69, 0.67; PL: 0.45-0.54, 0.52; EL: 0.25-0.32, 0.30; EW: 0.69-0.83, 0.79; AW: 0.83-0.97, 0.90; TiL: 0.57-0.68, 0.63; TaL: 0.42-0.50, 0.47; ML: 0.47-0.50; TL: 2.7-3.4, 3.2; HL/HW: 1.03-1.11, 1.06; PW/HW: 1.37-1.48, 1.43; PW/PL: 1.28-1.34, 1.30; EL/PL: 0.55-0.60, 0.58; EW/PW: 1.16-1.20, 1.18; AW/EW: 1.09-1.20, 1.14; TiL/TaL: 1.27-1.36, 1.33.

Habitus as in Fig. 1. Coloration: head reddish to blackish brown; pronotum and elytra bright reddish; abdomen bicoloured, with segments III-IV reddish and the remainder black; legs and antennae reddish to reddish yellow.

Head weakly oblong (see measurements and ratio HL/HW); puncturation sparse and very fine; interstices usually without microsculpture, sometimes with faint traces of microsculpture (Fig. 2); eyes relatively small (Fig. 3), distinctly shorter than postocular region in dorsal view, and weakly projecting from lateral contours of head; palpomere III of maxillary palpus relatively large, almost 3 times as long as wide. Antenna with antennomere IV approximately as long as wide; V weakly transverse; V-X of gradually increasing width and increasingly transverse; X approximately twice as wide as long; XI approximately as long as the combined length of IX-X (Fig. 4).

Pronotum distinctly transverse and much wider than head (see ratios PW/PL and PW/HW), maximal width approximately in the middle; posterior angles rounded (Fig. 2); puncturation moderately dense and much more distinct than that of head; interstices without microsculpture and shiny, on average wider than diameter of punctures; pubescence short and depressed; pronotal hypomera not visible in lateral view.

Elytra remarkably short (see ratio EL/PL), widened posteriorly, and at posterior margin distinctly wider than pronotum (see ratio EW/PW); puncturation granulose, coarser and denser than that of pronotum (Fig. 2); interstices without microsculpture; posterior margin near posterior angles obliquely truncate, not sinuate. Hind wings reduced. Metatarsomere I approximately as long as the combined length of II-IV or nearly so.



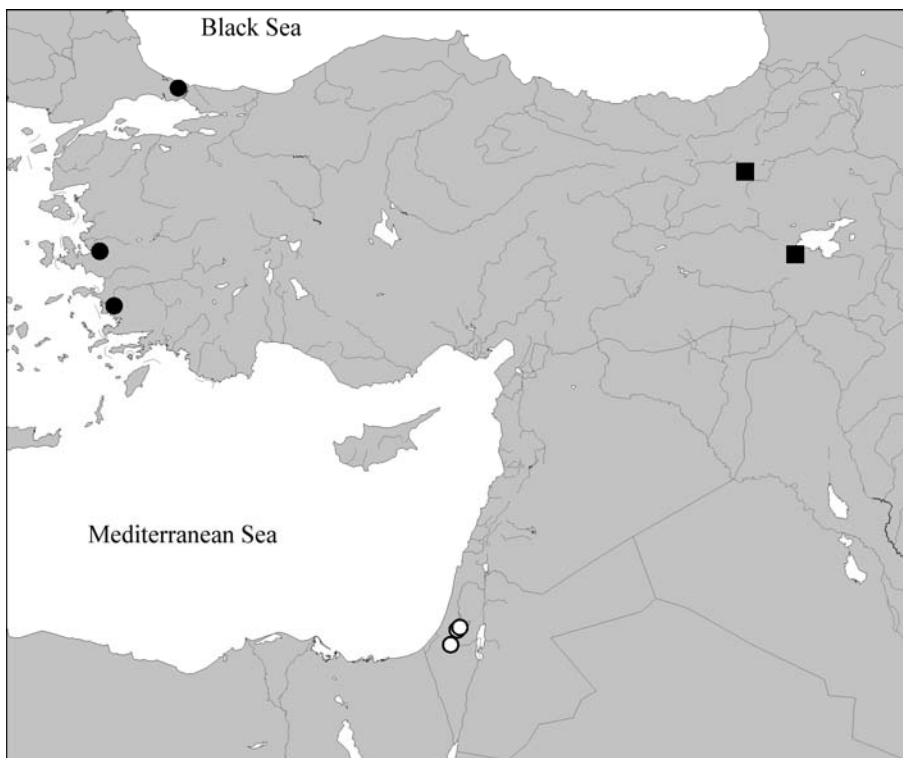
Figs 1-12: *Megalogastrina crassiventris* nov.sp.: (1) habitus; (2) forebody; (3) head in lateral view; (4) antenna; (5) abdomen; (6) posterior margin of male tergite VIII; (7-8) median lobe of aedeagus in lateral and in ventral view; (9) apical part of median lobe of aedeagus in ventral view; (10) apical lobe of paramere; (11) female sternite VIII; (12) spermatheca. Scale bars: 1-2, 5: 1.0 mm; 3-4, 11: 0.2 mm; 6-10, 12: 0.1 mm.

Abdomen conspicuously large, distinctly wider than elytra (Fig. 1), and widest at segment V (Fig. 5); tergites III-IV with shallow, tergite V with very shallow anterior impression; puncturation dense and distinct; interstices without microsculpture; posterior margin of tergite VII with very narrow rudiment of a palisade fringe; posterior margin of tergite VIII truncate to weakly concave in both sexes (Fig. 6).

♂: posterior margin of sternite VIII weakly pointed in the middle; median lobe of aedeagus as in Figs 7-9; apical lobe of paramere as in Fig. 10.

♀: posterior margin of sternite VIII convex (Fig. 11); spermatheca with short duct (Fig. 12).

Comparative notes: *Megalogastrina crassiventris* is readily distinguished from the two other species of the genus by the distinctly larger abdomen, the shorter elytra, as well as by the shape of the median lobe of the aedeagus (see also the key below).



Map 1: Distributions of *Megalogastrina cingulata* (filled circles), *M. crassiventris* (open circles), and *M. alata* (squares) in the Eastern Mediterranean region.

Distribution and bionomics: The species is currently known from three localities in central Israel (Map 1), suggesting that it occurs in dry habitats. The type specimens were collected in March and April. Additional bionomic data are not available.

Key to the species of *Megalogastrina*

- 1 Winged species, hind wings fully developed; elytra longer (EL/PL: 0.80-0.90). Whole abdomen blackish. Antennomere V distinctly wider than IV. Pronotum more transverse (PW/PL: >1.40). Abdomen gradually tapering posteriad, i. e. widest at base, and more coarsely punctate. Median lobe of aedeagus as in ASSING (in press b: Figs 10–13). – Turkey: Bitlis, Erzurum (Map 1)..... *M. alata* ASSING
- Hind wings completely reduced; elytra shorter (EL/PL: <0.70). Abdomen bicoloured, with segments III–IV reddish and the remainder blackish. Antennomere V only slightly wider than IV. Pronotum less transverse (PW/PL: <1.40). Abdomen widest in the middle (segment V) and less coarsely punctate. Morphology of aedeagus different. Species from western Turkey or Israel.....2
- 2 Abdomen larger and broader in relation to forebody (AW/EW: 1.09-1.20) (Fig. 1). Elytra shorter (EL/PL: 0.55-0.60) and more strongly dilated posteriorly. Antennae longer (AL: 0.76-1.07 mm). Median lobe of aedeagus larger (ML: 0.47-0.50 mm), with apically curved and more acute ventral process, and with pronounced crista apicalis (Figs 7-9). Israel (Map 1).....*M. crassiventris* nov.sp.
- Abdomen less broad (AW/EW: 1.05-1.16). Elytra longer (EL/PL: 0.63-0.70) and less strongly dilated posteriorly. Antennae shorter (AL: 0.76-0.82 mm). Median lobe of aedeagus smaller (ML: 0.38-0.42 mm), with apically straight and less acute ventral process, and with weakly pronounced crista apicalis (ASSING in press a: Figs 132-133). Western and northwestern Turkey (Map 1).....*M. cingulata* (EPPELSHEIM)

Acknowledgement

My thanks are extended to Benedikt Feldmann (Münster), who made the type material of the new species available to me and who proof-read the manuscript.

Zusammenfassung

Megalogastrina crassiventris nov.sp. (Israel), die dritte Art der Gattung, wird beschrieben und abgebildet. Zur Unterscheidung der bekannten *Megalogastrina*-Arten wird eine Bestimmungstabelle erstellt.

References

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