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## The first species of *Emmelostiba* PACE from the Iberian Peninsula (Coleoptera: Staphylinidae, Aleocharinae)

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**A b s t r a c t :** *Emmelostiba aragonica* sp. n. (Spain: Aragón), the first species of the genus from the Iberian Peninsula and the fourth representative from Europe, is described, illustrated, and distinguished from its congeners. The distribution of the genus in the Mediterranean is mapped.

**K e y w o r d s :** Coleoptera, Staphylinidae, Aleocharinae, Athetini, *Emmelostiba*, Palaearctic region, Europe, Spain, taxonomy, new species.

### Introduction

Species of the - probably polyphyletic - genus *Emmelostiba* PACE have been described from the whole of the southern Palaearctic region. As pointed out and discussed earlier, at least some of the Eastern Palearctic representatives may eventually turn out to belong to other genera (ASSING 2002a). The Mediterranean species, however, among them the type species *E. besucheti* PACE, are very likely to represent a monophyletic taxon. Four *Emmelostiba* species were previously known from the Mediterranean, three of them from Europe (ASSING 2002b): *E. besucheti* (Lebanon, Israel), *E. renominata* (LIKOVSKÝ) (Greece), *E. rosai* (PACE), and *E. kappi* ASSING (both Italy). All of them are brachypterous, endemic, and occur at higher elevations.

Below, a fifth Mediterranean species is described, which was discovered only recently in Aragón (Spain) and represents the first species of *Emmelostiba* in the Iberian Peninsula.

### Material

The material referred to in this study is deposited in the following collections:

MHNG..... Muséum d'histoire naturelle, Genève

NHMW..... Naturhistorisches Museum Wien

OÖLM..... Oberösterreichisches Landesmuseum/Biologiezentrum Linz

cAss..... author's private collection

cVog..... private collection J. Vogel, Görlitz

cWun..... private collection P. Wunderle, Mönchengladbach

***Emmelostiba aragonica* sp. n. (Figs. 1-11; Map 1)**

**H o l o t y p e** ♂: E - No. 22; 40 km E Teruel, Sierra de Gúdar, path -> Peñarroya, 1890m, 40°23'34N, 00°39'09W, 13.IV.2003, leg. V. Assing / Holotypus ♂ *Emmelostiba aragonica* sp. n. det. V. Assing 2003 (cAss). **P a r a t y p e s**: 6♂♂, 3♀♀: same data as holotype; 4♂♂, 4♀♀, same data as holotype, but leg. P. Wunderle (OÖLM, cAss, cVog, cWun).

**D e s c r i p t i o n**: 2.2 - 2.7 mm. Of similar external appearance as many species of *Microdota* MULSANT & REY (Fig. 1). Body almost uniformly blackish to blackish brown, with the antennae and sometimes the elytra only slightly lighter, dark brown; basal antennomeres of same coloration as apical joints; legs light brown.

Head approximately as wide as long (length measured from anterior margin of clypeus), slightly widened behind eyes, moderately depressed dorsally; eyes moderately large and weakly protruding from lateral outline of head, postocular region in dorsal view approximately 1.3 - 1.5 times as long as diameter of eyes (Fig. 2); dorsal surface with sparse and extremely fine, barely noticeable puncturation, with distinct, but shallow microreticulation, and with some shine; pubescence sparse and very fine. Antennae relatively short, antennomere III coniform, weakly oblong, distinctly shorter than II; IV - X distinctly transverse and of gradually increasing width; X approximately twice as wide as long; XI ovoid and shorter than the combined length of the two preceding antennomeres (Fig. 2).

Pronotum 1.10 - 1.15 times as wide as head and 1.10 - 1.15 times as wide as long, maximal width in anterior half at a short distance posterior to anterior angles; lateral margins weakly converging posteriad in almost straight line (Fig. 2); puncturation and microsculpture similar to those of head; pubescence sparse, thin, and indistinct, directed cephalad along midline and transversely laterad to diagonally postero-laterad in lateral areas.

Elytra slightly wider than pronotum and of moderately reduced length, at suture 0.75 - 0.80 times the length of pronotum (Fig. 2); puncturation, microsculpture, and pubescence similar to those of head and pronotum. Hind wings of reduced length, approximately 1.5 - 2.0 times as long as elytra. Legs not distinctive. Tarsal formula 4,5,5. First metatarsomere only slightly longer than second metatarsomere.

Abdomen slightly widened posteriad, widest at segments VI and VII (Fig. 1); microsculpture distinct and composed of isodiametric or short transverse meshes; puncturation very fine and sparse, distinctly sparser on posterior than on anterior tergites; tergite VII without palisade fringe.

♂: tergite VIII posteriorly weakly concave in the middle (Fig. 3); sternite VIII distinctly longer than tergite VIII and posteriorly weakly convex, almost truncate (Fig. 4); median lobe of aedeagus in lateral view strongly bent and in ventral view with deeply bifid ventral process (Figs. 5 - 6); apical lobe of paramere as in Fig. 7.

♀: tergite VIII posteriorly weakly convex, in the middle indistinctly concave (Fig. 8); sternite VIII only slightly longer than the corresponding tergite, broadly convex posteriorly (Fig. 9); spermatheca as in Fig. 10.

**E t y m o l o g y**: The name (adj.) is derived from Aragón, the province where the type locality is situated.

**Comparative notes**: The new species is distinguished from all its congeners by the morphology of the primary sexual characters, from all other Mediterranean species also

by the longer and more slender male sternite VIII, by the relatively smaller head, the relatively larger eyes, the shorter antennae with more transverse antennomeres IV - X, the less distinctly depressed head and pronotum, the somewhat longer elytra (in relation to pronotum), the longer rudiments of the hind wings, the slightly more slender abdomen, the darker antennae, and the generally darker coloration. It is additionally distinguished from *E. kappi* by the less distinctly microsculptured and consequently more shining head and pronotum, as well as its smaller size, and from *E. besucheti* by the less distinctly punctate forebody and the posteriorly less strongly tapering pronotum. For illustrations of the genitalia and other characters of the four Mediterranean congeners see PACE (1978, 1982) and ASSING (2001, 2002b).

**Distribution and bionomics:** The type locality is situated in the Sierra de Gúdar, Aragón, Spain, approximately 40 km east of Teruel (Map 1). The reduced hind wings, the altitude of the type locality, and the restricted distributions of the other Mediterranean species of the genus suggest that *E. aragonica* is probably endemic to the Sierra de Gúdar; the species is the westernmost representative of the genus (Map 1). The types were sifted from relatively deep litter, moss, and grass roots in a stand of old pine trees in northern exposition (Fig. 11), together with numerous other species of Staphylinidae, among them 251 specimens of *Oxypoda steineri* SCHEERPELTZ.

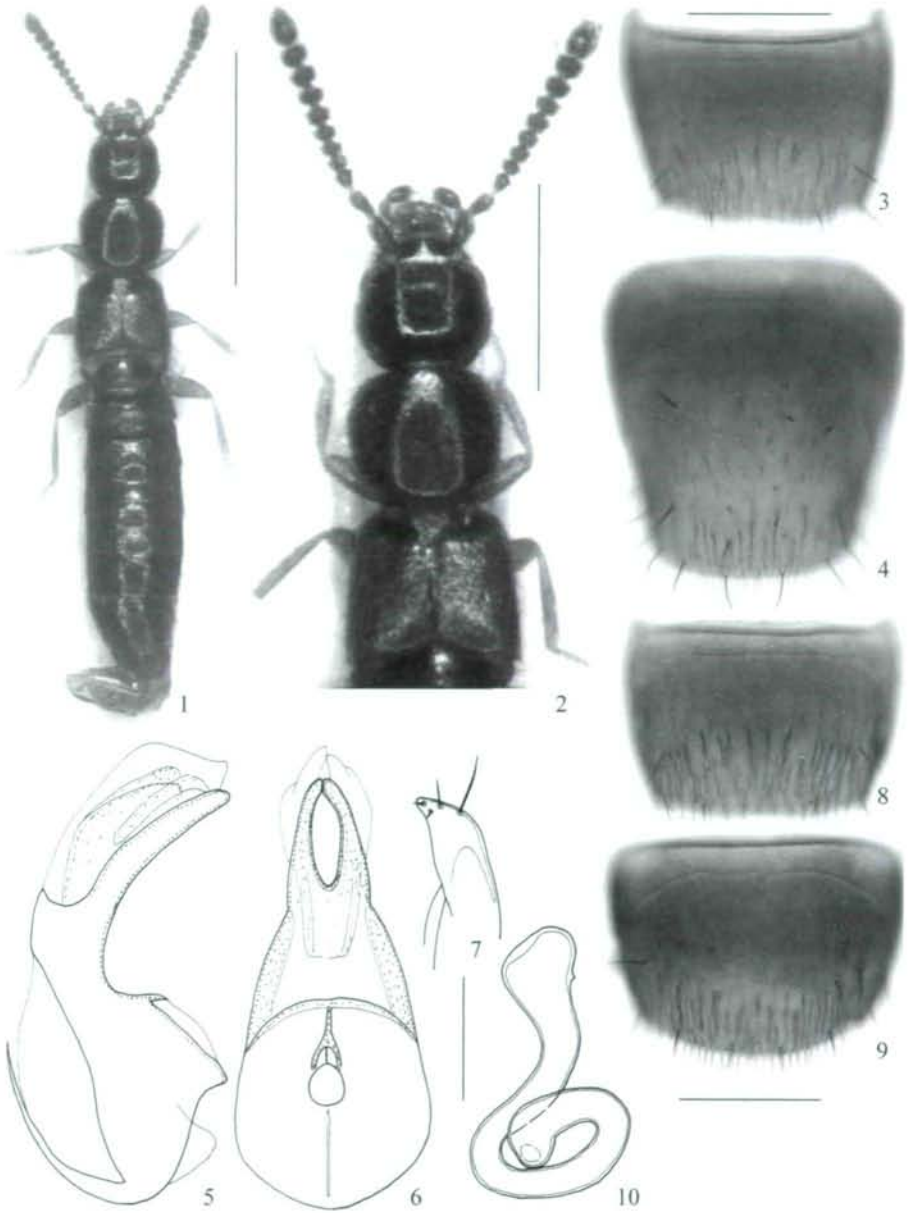
### Zusammenfassung

*Emmelostiba aragonica* sp. n., die erste Art der Gattung auf der Iberischen Halbinsel und die vierte Art Europas, wird aus Aragón (Spanien) beschrieben und von anderen Arten der Mediterraneis unterschieden. Wesentliche Unterscheidungsmerkmale werden abgebildet. Die Verbreitung der Gattung im Mittelmeerraum wird anhand einer Karte illustriert.

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**Figs. 1-10:** *Emmelostiba aragonica* sp. n.: 1 - ♂ paratype; 2 - forebody of ♀ paratype; 3 - ♂ tergite VIII; 4 - ♂ sternite VIII; 5, 6 - median lobe of aedeagus in lateral and in ventral view; 7 - apical lobe of paramere; 8 - ♀ tergite VIII; 9 - ♀ sternite VIII; 10 - spermatheca. Scale bars: 1: 1.0 mm; 2: 0.5 mm; 3-4, 8-9: 0.2 mm; 5-7, 10: 0.1 mm.



Fig. 11: Type locality of *Emmelostiba aragonica* sp. n.



Map 1: Distribution of the *Emmelostiba* species of the Mediterranean: *E. besucheti* PACE (large black square); *E. renominata* LIKOVSKÝ (small black square); *E. rosai* (PACE) (open circle); *E. kappi* ASSING (filled circle); *E. aragonica* ASSING (open square).

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