

Linzer biol. Beitr.	39/2	761-775	18.12.2007
---------------------	------	---------	------------

Four new species and additional records of Staphylinidae from Spain (Insecta: Coleoptera)

V. ASSING

A b s t r a c t : Four species of Staphylinidae from Spain are described and illustrated: *Paratyphlus espunae* nov.sp. (Murcia: Sierra de Espuña) of the Leptotyphlinae, as well as *Paraleptusa ripicola* nov.sp. (Castilla-La Mancha: Sierra de Segura), *Meotica andujari* nov.sp. (Murcia, Castilla-La Mancha), and *Derocala extensa* nov.sp. (Madrid) of the Aleocharinae. Molecular data are provided for *Paraleptusa ripicola*. The primary sexual characters of *Paraleptusa anophthalma* (EPPELSHEIM) are figured for the first time. Additional records of Staphylinidae are reported, among them six first records from Spain. The distribution of the genus *Paraleptusa* PEYERIMHOFF in the Iberian Peninsula is mapped.

K e y w o r d s : Coleoptera, Staphylinidae, Spain, new records.

Introduction

According to SMETANA (2004) and an updated version by SCHÜLKE (unpubl.), almost 1.500 species of Staphylinidae have been recorded from Spain. Although the staphylinid fauna of the Iberian Peninsula has been addressed in numerous articles since the early 19th century, the present knowledge of the species inventory is probably still far from complete. This is especially true of species with restricted distributions, in particular those inhabiting upper or deeper strata of the soil, whose study requires the application of special methods such as sifting and soil-washing. Evidence comes from numerous recent discoveries of undescribed species of genera such as *Leptusa* KRAATZ 1856, *Geostiba* THOMSON 1858, *Phloeocharis* MANNERHEIM 1830, and even genera with relatively large-sized species like *Domene* FAUVEL 1873 (e. g. ASSING 2003a, c-e; FELDMANN & HERNANDO 2005; HERNANDO & BAENA 2006). Also, a comparison of the diversity of the endogean fauna of Spain with, for instance, that of Italy, which has been studied much more thoroughly, suggests that the actual number of species is distinctly higher than presently known: some 50 species of Leptotyphlinae – a subfamily comprising exclusively minute and truly endogean species – have become known from Spain, less than half as many as from Italy (almost 110 species) (SMETANA 2004, PACE 1996, SCHÜLKE unpubl.).

The present paper is based on material collected during various recent field studies in Spain conducted by Carmelo Andújar (Murcia), David Wrase (Berlin), and the author.

Material and methods

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

DEI..... Deutsches Entomologisches Institut, Müncheberg (L. Zerche)
FMNH..... Field Museum of Natural History, Chicago (A. F. Newton)
MNCN Museo Nacional de Ciencias Naturales, Madrid (I. Izquierdo)
NHMW Naturhistorisches Museum Wien (H. Schillhammer)
OÖLL..... Oberösterreichisches Landesmuseum/Biologiezentrum Linz (F. Gusenleitner)
cAnd..... private collection Carmelo Andújar, Murcia
cAss..... author's private collection
cFel private collection B. Feldmann, Münster
cSch..... private collection M. Schülke, Berlin

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.

Head length was measured from the anterior margin of the clypeus to the posterior margin of the head, elytral length at the suture from the apex of the scutellum to the posterior margin of the elytra.

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

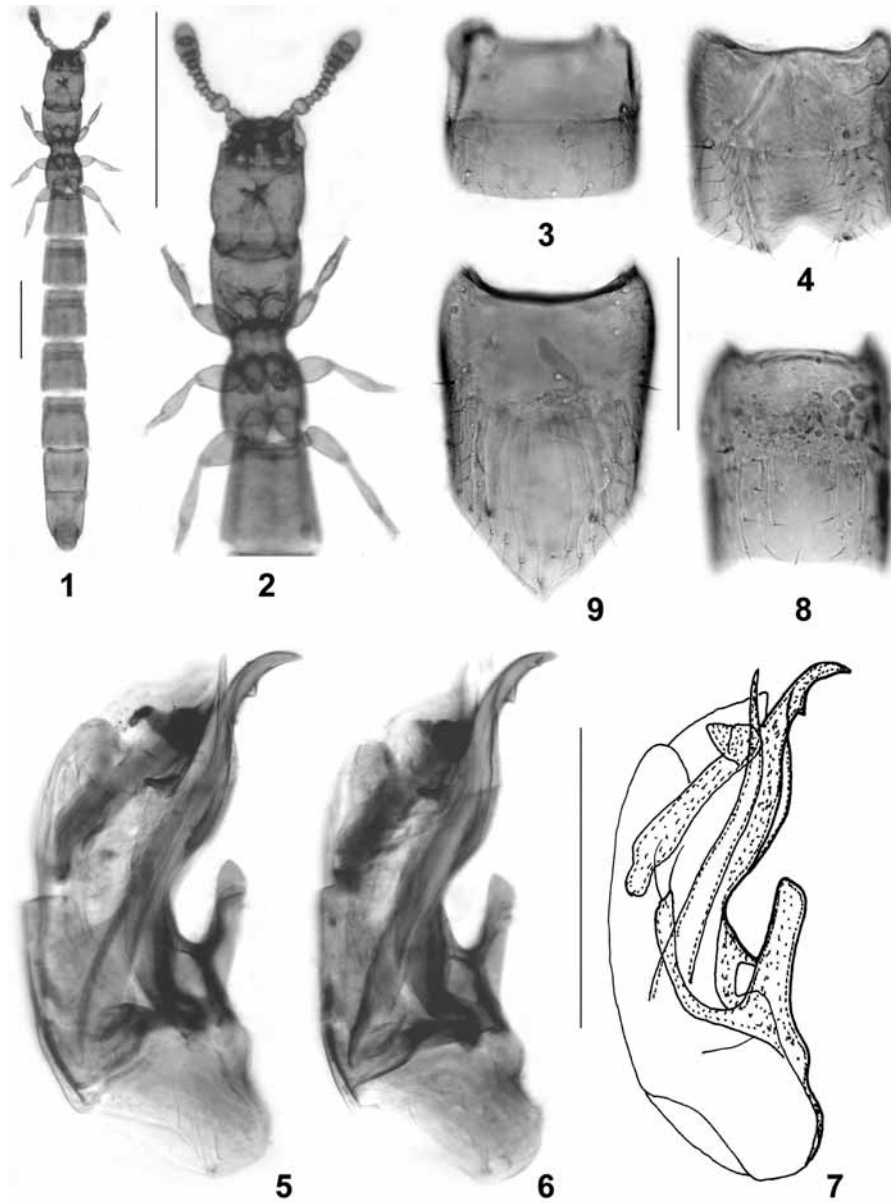
The soft tissue of one paratype of *Paraleptusa ripicola* was digested and the DNA isolated using a standard non-destructive phenol–chloroform extraction in the laboratory of I. Ribera (MNCN), and stored in the DNA collection with voucher No. MNCN-AI1285. The extracted specimen is kept in the MNCN (with paratype labels and the same voucher number). Two mitochondrial genes were sequenced: 1) ca. 800 bp spanning the 3' end of the large ribosomal subunit (rrnL), the full tRNA-Leu and the 5' end of the gene NADH dehydrogenase subunit 1 (ND1A); and 2) ca. 800 bp of the 3' end of the gene Cytochrome Oxidase I (cox1); for details of the primers used and the sequencing conditions see RIBERA et al. (2003). The sequences were submitted to GenBank with accession numbers EF989014 and EF989015, respectively.

Species descriptions and additional records of Staphylinidae

Leptacinus marocanus COIFFAIT 1969

Material examined: 1♂, Castilla-León, Sierra de Gredos, ca. 60 km SW Avila, ca. 5 km S Hoyos del Espino, 40°18'N, 05°13'W, 1470 m, stony grassland in stream valley, 24.III.2007, leg. Assing (cAss).

Comment: The previously known distribution of this species included Morocco, Corsica, and Sardinia (SMETANA 2004). This is the first record from Spain.



Figs 1-9: *Paratyphlus espunae* nov.sp.: (1) habitus; (2) forebody; (3) male tergite VIII; (4) male sternite VIII; (5-7) aedeagus in lateral view; (8) female tergite VIII; (9) female sternite VIII. Scale bars: 1-2: 0.2 mm; 3-9: 0.1 mm.

***Paratyphlus espunae* nov.sp.** (Figs 1-10)

H o l o t y p e ♂: E - Murcia [12], Sierra de Espuña, Prado Mayor, pasture, 1100 m, 37°53'18N, 01°34'04E, 29.III.2007, C. Andújar / Holotypus ♂ *Paratyphlus espunae* sp.n. det. V. Assing 2007 (cAss). **P a r a t y p e s**: 7♂♂, 7♀♀, 6 exs.: same data as holotype (OÖLL, cAnd, cAss); 1♀: E - Murcia [13], Sierra de Espuña, Prado Mayor, pasture, 1140 m, 37°53'11N, 01°33'53E, 29.III.2007, C. Andújar (cAss).

D e s c r i p t i o n: 1.0-1.3 mm (abdomen extended); habitus and forebody as in Figs 1-2.

♂: sternite VII with shallow median impression in posterior half; tergite VII weakly transverse and with truncate posterior margin (Fig. 3); sternite VIII with rather extensive impunctate median impression, posterior margin with excision of broadly triangular shape (Fig. 4); aedeagus as in Figs 5-7.

♀: tergite VIII oblong and with weakly concave posterior margin (Fig. 8); sternite VIII oblong, its posterior margin acutely angled in the middle (Fig. 9).

C o m p a r a t i v e n o t e s: The genus *Paratyphlus* BLACKWELDER 1952 is distributed in the Iberian Peninsula (including the Baleares) and North Africa from Morocco to Tunisia; it currently includes 29 species (COIFFAIT 1959, 1972; HERNANDO & FANCELLO 2004; SMETANA 2004). 13 species have been recorded from mainland Spain. The geographically closest representatives of the genus are *P. mateui* COIFFAIT 1955 (Malaga) and *P. morandi* COIFFAIT 1957 (Alicante). Species of *Paratyphlus* can be distinguished only based on the male primary sexual characters, which is why the external morphology of *P. espunae* is not explicitly described above, apart from the secondary sexual characters. For illustrations of the aedeagi of other *Paratyphlus* species see COIFFAIT (1959, 1972) and HERNANDO & FANCELLO (2004).



Fig. 10: Type locality of *Paratyphlus espunae* nov.sp.

E t y m o l o g y : The name (noun, genitive) is derived from the mountain range where the type locality is situated.

D i s t r i b u t i o n a n d b i o n o m i c s : As can be inferred from the restricted distributions of the vast majority of leptotyphlines, *P. espunae* is probably endemic to the Sierra de Espuña, where the types were collected in a pasture by washing sandy soil between stones and grass roots (Fig. 10) at altitudes of 1100 and 1140 m, together with *Meotica andujari* nov.sp (see below).

***Bolitochara schusteri* BERNHAUER 1908** (Fig. 32)

T y p e m a t e r i a l e x a m i n e d : Lectotype ♂: Tunis, Ain Draham / Pic / Schusteri Brh. Type, ded. Schuster, det. Bernhauer / Schusteri Bh. Typus / Chicago NHMus. M. Bernhauer Collection / Lectotypus ♂ *Bolitochara schusteri* Bernhauer, V. Gusarov des. 1993 / *Bolitochara schusteri* Bh. ♂, V. I. Gusarov det. 1993 (FMNH).

A d d i t i o n a l m a t e r i a l e x a m i n e d : 14 exs., Andalucía, Algeciras, Sierra de Fates, 350 m, 28.III.1994, leg. Assing (cAss); 1 ex., Castilla-León, Sierra de la Demanda, N Huerta de Arriba, 42°08'N, 03°05'W, 1230 m, 16.X.2003, leg. Assing (cAss); 2 exs., Castilla-León, Burgos, Tardajos, 1.VI.1995, leg. Starke (cAss, cFel).

C o m m e n t : The species was previously known only from Morocco and Tunisia (SMETANA 2004). This is the first record from Spain. The lectotype was designated by GUSAROV (1995). The aedeagus of the lectotype is illustrated in Fig. 32.

***Paraleptusa ripicola* nov.sp.** (Figs 11-23, Map 1)

H o l o t y p e : ♂: E - Castilla-La Mancha, Sierra de Segura, 4 km W Nerpio, 1150 m, 38°08'29N, 02°22'15E, 17.XII.2005, C. Andújar / Holotypus ♂ *Paraleptusa ripicola* sp.n. det. V. Assing 2007 (cAss). **P a r a t y p e s :** 13♂♂, 13♀♀: same data as holotype (MNCN, OÖLL, cAnd, cAss); 3♀♀: same data, but 30.III.2007, leg. Andújar & Assing (cAss); 2♀♀: E - Castilla-La Mancha [16], Sierra de Segura, 20 km WSW Nerpio, 1490 m, 38°04'02N, 02°30'14W, 30.III.2007, C. Andújar & Assing (cAss).

D e s c r i p t i o n : 2.0-2.4 mm (abdomen extended); habitus as in Fig. 11. Coloration: whole body uniformly yellowish.

Head approximately 1.1 times as wide as long; puncturation extremely fine, barely noticeable; surface with fine, but distinct microreticulation (Fig. 12). Eyes strongly reduced, without ommatidia and pigmentation, rudiments much smaller than antennomere II in cross-section. Antennae distinctly incrassate apically and with strongly transverse preapical antennomeres (Fig. 13).

Pronotum small in relation to head, 1.00-1.05 times as wide as head and 1.00-1.05 times as wide as long; puncturation and microsculpture similar to those of head (Fig. 12).

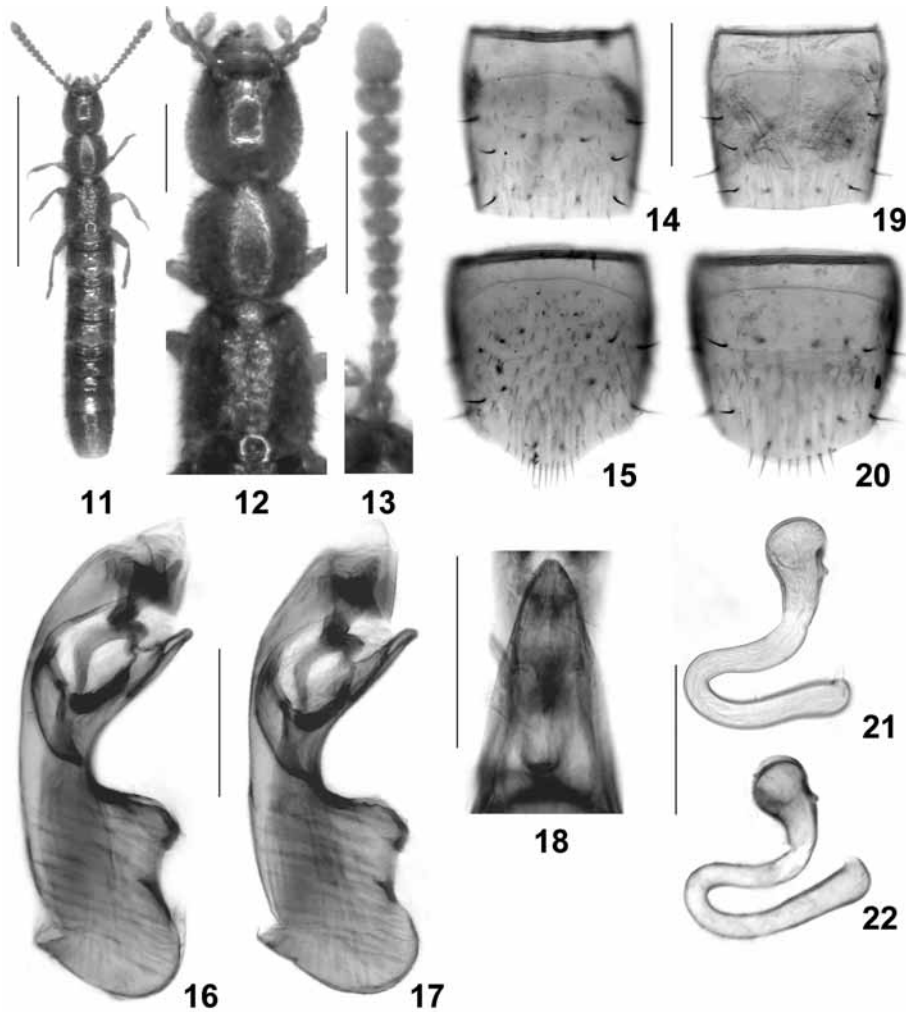
Elytra only about 1.05 times as wide and at suture approximately 0.75 times as long as pronotum (Fig. 12); puncturation sparse and weakly granulose; microreticulation more pronounced than that of head and pronotum. Hind wings completely reduced.

Abdomen subparallel, approximately as wide as elytra; all tergal surfaces with distinct microreticulation; puncturation sparse and fine, barely noticeable; posterior margin of tergite VII without palisade fringe; tergite VIII without appreciable sexual dimorphism (Figs 14, 19).

♂: posterior margin of sternite VIII obtusely pointed and with dense long thin marginal setae in the middle (Fig. 15); median lobe of aedeagus as in Figs 16-18.

♀: posterior margin of sternite VIII convex and with row of rather sparse marginal setae (Fig. 20); spermatheca as in Figs 21-22.

Molecular data: 3'-rrnL-tRNA^{Leu}-ND1: accession number (Genbank): EF989014; 3'-cox1: accession number (Genbank): EF989015.



Figs 11-22: *Paraleptusa ripicola* nov.sp.: (11) habitus; (12) forebody; (13) antenna; (14) male tergite VIII; (15) male sternite VIII; (16-17) aedeagus in lateral view; (18) ventral process of aedeagus in ventral view; (19) female tergite VIII; (20) female sternite VIII; (21-22) spermatheca. Scale bars: 11: 1.0 mm; 12-15, 19-20: 0.2 mm; 16-18, 21-22: 0.1 mm.

Comparative notes: Two species of *Paraleptusa* PEYERIMHOFF 1901 were previously known from the Iberian Peninsula, both of them occurring in southeastern Spain: *P. anophthalma* (EPPELSHEIM 1884) from the Sierra de Espuña and the geographically close *P. spectans* ASSING 2003 from the Sierra de Segura (Map 1). From the latter, whose type locality is situated only some 15 km from one of the localities where

P. ripicola was found, the new species is separated by smaller eye rudiments (in *P. spectans* composed of few ommatidia and approximately as large as antennomere II in cross-section), smaller and more slender pronotum (in *P. spectans* approximately 1.1 times as wide as long and 1.1 times as wide as head), more slender elytra with distinctly sparser puncturation and more pronounced microsculpture, and by the morphology of the primary sexual characters. For illustrations of the external morphology and the sexual characters of *P. spectans* see ASSING (2003). *Paraleptusa ripicola* is highly similar to *P. anophthalma* (types examined) in general appearance, body size, size of the eye rudiments, and other external and female secondary sexual characters, but distinguished by slightly more oblong head, the distinctly longer ventral process of the aedeagus, and a longer duct of the spermatheca.

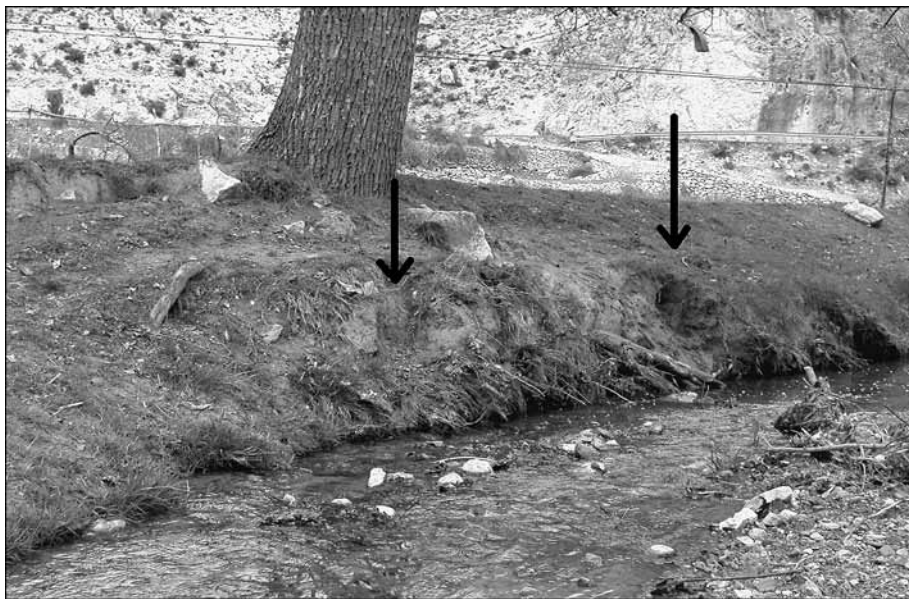


Fig. 23: Type locality of *Paraleptusa ripicola* nov.sp. The arrows indicate the places where the samples were taken.

E t y m o l o g y : The name (noun in apposition) refers to the fact that all the type specimens were collected on or near banks of streams.

D i s t r i b u t i o n a n d b i o n o m i c s : *Paraleptusa ripicola* was discovered in two localities in the Sierra de Segura (Map 1), southeastern Spain, where it is probably endemic, as can be inferred from the restricted distributions of other *Paraleptusa* species. The type specimens were collected by washing soil on or near the banks of streams at altitudes of 1150 and 1490 m. The type locality is illustrated in Fig. 23.

***Paraleptusa anophthalma* (EPPELSHEIM) (Figs 41-43, Map 1)**

Homalota (Meotica) anophthalma EPPELSHEIM 1884: 358 f.

Type material examined: Lectotype ♀: "anophthalma mihi, Sierra de España, leg. Ehlers / anophthalma Epp., Deutsch. ent. Zeit. 1884, p. 358 / Collect. Eppelsheim / Typus / G. Fagel elig. 1960, *Paraleptusa anophthalma* Epp., Lectotype / *Paraleptusa anophthalma* (Eppelsheim) det. V. Assing 2007 (NHMW). Paralectotypes: 1 ♀: "anophthalma mihi, Sierra de España,

leg. Ehlers / Geostiba prope caesulam Er. / Collect. Eppelsheim / Typus / Paraleptusa anophthalma (Eppelsheim) det. V. Assing 2007 (NHMW); 2 ♀♀ [both teneral]: "Sr. Espuna, Hisp. mer., Ehlers / Eplsh. vid. / coll. Heyden / Syntypus / D.E.I. Coll. v. Heyden / Paralectotypus Homalota anophthalma Eppelsheim rev. V. Assing 2007 / Paraleptusa anophthalma (Eppelsheim) det. V. Assing 2007" (DEI); 1 ♂: "Sr. Espuna, Hisp. mer., Ehlers / Eplsh. vid. / Meotica anophthalma Epp. / coll. Heyden / Homalota anophthalma Eplsh. / Syntypus / D.E.I. Coll. v. Heyden / Paralectotypus Homalota anophthalma Eppelsheim rev. V. Assing 2007 / Paraleptusa anophthalma (Eppelsheim) det. V. Assing 2007" (DEI).

C o m m e n t s : The original description is based on several specimens ("in mehreren Exemplaren") from the Sierra de Espuña (EPPELSHEIM 1884). Two female types were found in the Eppelsheim collection at the NHMW; one of them was designated as the lectotype by FAGEL (1961). Three additional paralectotypes, one male and two teneral females, were located in the collections of the DEI. In contrast to what the name may suggest and to the details indicated in the original description, the species is not anophthalmous, but the eyes are reduced to minute rudiments (without ommatidia and without pigmentation) and of similar size as in *P. ripicola*. The primary sexual characters are illustrated in Figs 41-43.

D i s t r i b u t i o n a n d b i o n o m i c s : The known distribution of *Paraleptusa anophthalma* is confined to the Sierra de Espuña (Map 1); recent records are unknown. Data on the bionomics of the species are not available (EPPELSHEIM 1884).



Map 1: Distribution of *Paraleptusa* species in the Iberian Peninsula: *P. ripicola* (filled circles), *P. spectans* (open circle), *P. anophthalma* (square).

***Atheta procera* (KRAATZ 1856)**

M a t e r i a l e x a m i n e d : 1 ex., Cantabria, 10 km SW Reinoso, 42°88'N, 04°14'W, 1220 m, oak and beech forest, 12.VII.2003, leg. Assing (cAss).

C o m m e n t : The species is widespread in Europe, but was previously unknown from Spain (SMETANA 2004).

***Acrotona muscorum* (BRISOUT DE BARNEVILLE 1860)**

M a t e r i a l e x a m i n e d : 4 exs., Castilla-León, Sierra de Gredos, ca. 60 km SW Avila, Puerto de Serranillos, 40°19'N, 04°56'W, 1420 m, narrow stream valley with shrubs and *Rubus*, sifted from deep litter and soil, floated, 24.III.2007, leg. Assing (cAss); 1 ex., Castilla-León, Sierra de Gredos, ca. 60 km SSW Avila, ca. 10 km SSW Burgohondo, 40°21'N, 04°49'W, 1250 m, stream valley, 25.III.2007, leg. Assing (cAss).

C o m m e n t : The species is widespread in Europe and has also been recorded from the Himalaya (SMETANA 2004). It is here reported from Spain for the first time.

***Alevonota elegantula* (BRISOUT DE BARNEVILLE 1863)**

M a t e r i a l e x a m i n e d : 1♂, Valencia, Alicante, Sierra d'Aitana, 8 km NW Sella, Port de Tudons, 38°39'N, 00°19'W, 1030 m, litter of *Pinus* and shrubs, 28.III.2007, leg. Assing (cAss).

C o m m e n t : The species was originally described from France and is here reported from Spain for the first time.

***Meotica andujari* nov.sp.** (Figs 10, 24-32)

H o l o t y p e ♂: E - Murcia [12], Sierra de Espuña, Prado Mayor, pasture, 1100 m, 37°53'18N, 01°34'04E, 29.III.2007, C. Andújar / Holotypus ♂ *Meotica andujari* sp.n. det. V. Assing 2007 (cAss). **P a r a t y p e s :** 2♂♂, 3♀♀: same data as holotype (cAnd, cAss); 1♂, 4♀♀: E - Castilla-La Mancha [16], Sierra de Segura, 20 km WSW Nerpio, 1490 m, 38°04'02N, 02°30'14W, 30.III.2007, C. Andújar (OÖLL, cAss); 1♂, same data, but leg. Assing (cAss).

D e s c r i p t i o n : 2.1-2.5 mm (abdomen extended). Coloration: whole body uniformly dark yellowish to pale brown.

Head approximately as wide as long; puncturation extremely fine, barely noticeable; surface with fine, but distinct microreticulation, almost matt (Fig. 24). Eyes small and not projecting from lateral contours of head, of similar size as antennomere V in cross-section. Antennae distinctly incrassate apically, preapical antennomeres almost 3 times as wide as long (Fig. 25).

Pronotum small in relation to head, approximately as wide as head and 1.1 times as wide as long; puncturation and microsculpture similar to those of head (Fig. 12).

Elytra approximately 1.15 times as wide and at suture 0.80-0.85 times as long as pronotum (Fig. 25); puncturation fine and dense, somewhat more distinct than that of head and pronotum; surface with shallower microsculpture and more shine than head and pronotum. Hind wings completely reduced.

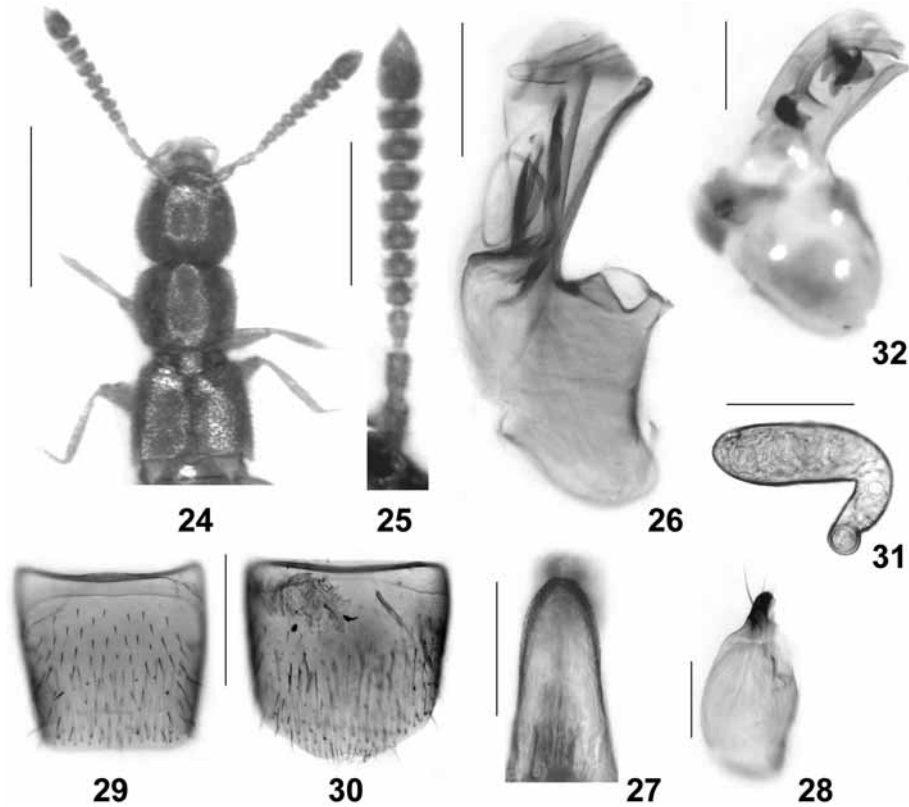
Abdomen subparallel, widest at segments VI-VII, approximately as wide as elytra; puncturation moderately dense and extremely fine, barely noticeable; microsculpture shallow, but distinct; tergal surfaces slightly more shiny than head and pronotum; posterior margin of tergite VII with narrow rudiment of a palisade fringe; tergite VIII without

appreciable sexual dimorphism, posterior margin more or less truncate (Fig. 29).

♂: posterior margin of sternite VIII weakly convex; median lobe of aedeagus as in Figs 26-27; apical lobe of paramere distinctly sclerotised, blackish (Fig. 28).

♀: posterior margin of sternite VIII in the middle weakly concave (Fig. 30); spermatheca as in Fig. 31.

Comparative notes: According to PACE (1983) and SMETANA (2004), four *Meotica* species have been recorded from Spain: the widespread *M. exilis* (GRAVENHORST 1806), the Western Mediterranean *M. filaria* (FAUVEL 1898), *M. franzi* PACE 1983, and *M. hispanica* SCHEERPELTZ 1954 (both only known from Spain). From all its congeners, *M. andujari* is reliably distinguished only by the shape of the aedeagus. Based on the morphology of the primary sexual characters (shape and internal structures of median lobe of aedeagus, shape of spermatheca), it belongs to the group of species allied to *M. marchica* BENICK 1953, from which it is separated especially by the long and slender ventral process of the aedeagus. For illustrations of the aedeagi of the types of several Western Mediterranean congeners see PACE (1983).



Figs 24-32: *Meotica andujari* nov.sp. (24-31) and lectotype of *Bolitochara schusteri* BERNHAUER (32); (24) forebody; (25) antenna; (26, 32) aedeagus in lateral view; (27) ventral process of aedeagus in ventral view; (28) paramere; (29) female tergite VIII; (30) female sternite VIII; (31) spermatheca. Scale bars: 24: 0.5 mm; 25, 29-30, 32: 0.2 mm; 26-28, 31: 0.1 mm.

E t y m o l o g y : The species is dedicated to my friend Carmelo Andújar, Murcia, an enthusiastic student of endogean beetles in southern Spain, who collected most of the type specimens of three of the new species described in this paper.

D i s t r i b u t i o n a n d b i o n o m i c s : The new species has become known from two localities in the Sierra de Espuña and the Sierra de Segura, southeastern Spain. The type specimens were collected by soil-washing in a pasture and near the bank of a stream at altitudes of 1100 and 1450 m. The type locality is identical to that of *Paratyphlus espunae* (Fig. 10).

***Zoosetha incisa* ASSING 1998**

M a t e r i a l e x a m i n e d : 1♂, Murcia, ca. 30 km NW Murcia, Sierra de Ricote, peak, 38°03'N, 01°25'W, 1100 m, N-slope, litter and grass roots below *Pinus* and *Ilex*, 31.III.2007, leg. Assing (cAss).

C o m m e n t : The species was previously known only from Austria, Italy, Croatia, and France (ASSING 2003b). It is here reported from Spain for the first time.

***Derocala extensa* nov.sp.** (Figs 33-40)

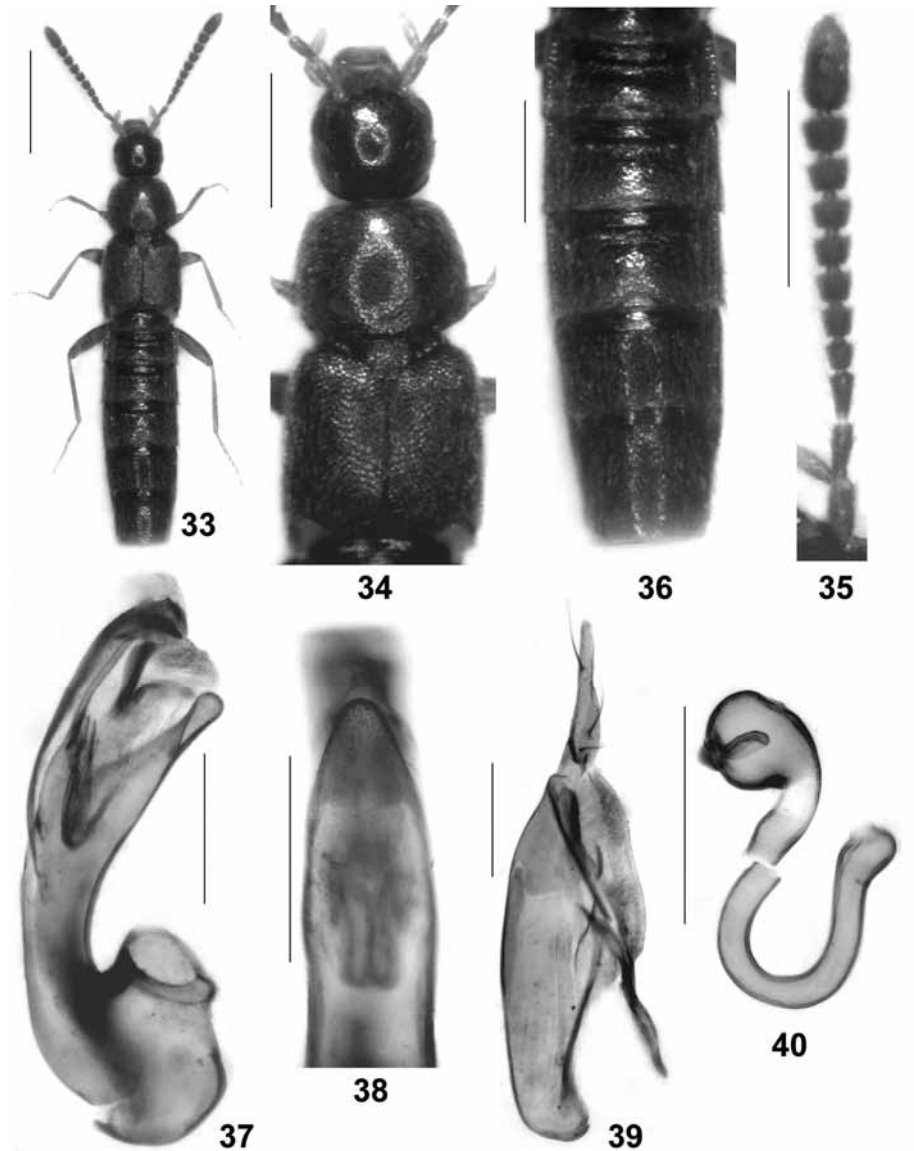
H o l o t y p e ♂ : Spain (Madrid), Boadilla del Monte (10 km W Madrid), Valdepastores, 25.II.-2.III.1999, Wrase / Holotypus ♂ *Derocala extensa* sp.n. det. V. Assing 2007 (cAss).
P a r a t y p e ♀ : same data as holotype (cSch).

D e s c r i p t i o n : 4.2-4.6 mm (abdomen extended); habitus as in Fig. 33. Coloration: head dark brown to blackish brown; pronotum and elytra castaneous; abdomen blackish, with the lateral and posterior margins of segments III-VII and all of segments VIII-X reddish brown; legs dark yellowish; antennae brown, with the basal 2-3 antennomeres yellowish to yellowish brown.

Head approximately as wide as long; dorsal surface with very fine and moderately dense puncturation and with shallow microsculpture. Eyes large, as long as postocular region in dorsal view, or slightly longer (Fig. 34). Antenna long and slender; antennomere III slightly shorter than II; IV-X coniform; IV approximately as long as wide; V-X gradually increasing in width and weakly transverse; X less than 1.5 times as wide as long; XI without sexual dimorphism, slightly longer than the combined length of IX and X (Fig. 35). Maxillary palpus very long and slender, palpomere III approximately 4 times as long as wide.

Pronotum 1.35-1.40 times as wide as head and 1.20-1.25 times as wide as long; maximal width approximately in the middle; posterior angles moderately marked, abruptly rounded; puncturation dense and moderately fine, more distinct than that of head; microsculpture similar to that of head (Fig. 34); pronotal hypomera narrowly visible in lateral view.

Elytra approximately 1.15 times as wide and at suture approximately as long as pronotum (Fig. 34); puncturation dense and weakly granulose, much more distinct than that of pronotum; microsculpture very shallow; posterior margins distinctly sinuate near posterior angles. Legs long and slender; metatarsus almost as long as metatibia; metatarsomere I elongated, longer than the combined length of II-IV.



Figs 33-40: *Derocala extensa* nov.sp.: (33) habitus; (34) forebody; (35) antenna; (36) abdominal segments III-VII; (37) median lobe of aedeagus in lateral view; (38) ventral process of aedeagus in ventral view; (39) paramere; (40) spermatheca. Scale bars: 33: 1.0 mm; 34-36: 0.5 mm; 37-40: 0.2 mm.

Abdomen slightly narrower than elytra, widest at base (segments III/IV), gradually tapering caudad; anterior impressions of tergites III-V pronounced; puncturation distinct, somewhat granulose, and moderately dense, of similar density on tergite VII as on tergite III; interstices with distinct shine (Fig. 36); posterior margin of tergite VII with palisade fringe; posterior margin of tergite VIII strongly convex.

♂: posterior margin of sternite VIII produced, obtusely angled in the middle; median lobe of aedeagus as in Figs 37-38; paramere as in Fig. 39.

♀: posterior margin of sternite VIII indistinctly concave, almost truncate, and with row of long yellowish marginal setae; spermatheca as in Fig. 40.

Comparative notes: In addition to the primary sexual characters, the species is characterised especially by the following character combination: moderate size, long antennae, very long maxillary palpus, conspicuously long legs with metatarsomere I longer than the combined length of II-IV, abdominal puncturation dense, weakly granulate, and not sparser on tergite VII than on tergite III. A generic placement of the new species is difficult. It is - rather tentatively - attributed to *Derocala* MULSANT & REY 1875, which is currently treated as a distinct genus rather than as a subgenus of *Oxypoda* MANNERHEIM 1830. In several external characters (morphology of antenna, maxillary palpus, and pronotal hypomera, puncturation of abdomen and of other body parts) and in the morphology of the male sexual characters, it resembles *D. rugatipennis* (KRAATZ 1855), the type species of the genus. From its Western Mediterranean congeners, it is distinguished as follows:

from *D. rugatipennis* (holotype examined) by larger body size, distinctly darker coloration of the antennae, a much larger pronotum in relation to the head and the elytra, longer legs with longer and more slender tarsi, and an aedeagus with differently shaped internal structures and a ventral process of different shape (especially apex in lateral view);

from *D. caloderina* (FAUVEL 1886) and *D. concordans* (PEYERIMHOFF 1949), both from North Africa, by much larger body size alone;

from *D. lucida* TRONQUET 1999 (Corsica), whose size is not indicated in the original description, by the paler coloration of the antennal base, the larger pronotum in relation to head and elytra, the longer legs with longer tarsi and a longer metatarsomere I, the absence of distinct microsculpture on the abdomen, the differently shaped median lobe of the aedeagus, and the longer and more slender apical lobe of the paramere; for illustrations of external and sexual characters of *D. lucida* see TRONQUET (1999).

In the morphology of the maxillary palpus and the primary sexual characters, the new species also somewhat resembles *Oxypoda recondita* KRAATZ 1856, which is - incorrectly - attributed to the subgenus *Baeoglana* THOMSON 1867 (SMETANA 2004) and from which it is distinguished by darker coloration, much longer and somewhat more massive antennae, a differently shaped pronotum (smaller in relation to head, less convex in cross-section), by much longer legs, much more pronounced puncturation of the abdomen, and the absence of distinct microsculpture on the abdomen.

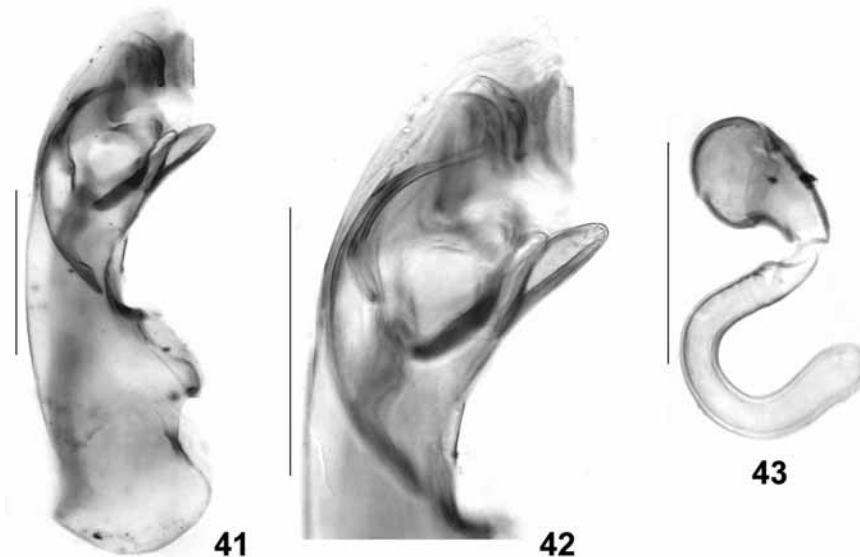
Etymology: The name (Latin, past participle of *extendere*) refers to the slender body, especially the slender maxillary palpi, antennae, and legs.

Distribution and bionomics: The type locality is situated in the vicinity of Madrid. Apart from the date of collection (end of February to beginning of March), bionomic data are not available.

Acknowledgements

I am indebted to the colleagues indicated in the material section for the loan and gift of material, respectively. Special thanks are extended to Carmelo Andújar for the gift of most of the material of *Paratyphlus espinuae*, *Paraleptusa ripicola*, and *Meotica andujari*, as well as to Michael Schülke

for the generous gift of the holotype of *Derocala extensa*. Moreover, I am most grateful to Ignacio Ribera (Madrid) for providing the molecular data for *Paraleptusa ripicola* and the passage on the molecular methodology in the methods section. Benedikt Feldmann proof-read the manuscript.



Figs 41-43: *Paraleptusa anophthalma* (EPPELSHEIM), paralectotypes: (41) median lobe of aedeagus in lateral view; (42) apical part of median lobe of aedeagus in ventral view; (43) spermatheca. Scale bars: 0.1 mm.

Zusammenfassung

Vier Staphyliniden-Arten aus Spanien werden beschrieben und abgebildet: *Paratyphlus espunae* nov.sp. (Murcia: Sierra de Espuña), Leptotyphlinae, sowie *Paraleptusa ripicola* nov.sp. (Castilla-La Mancha: Sierra de Segura), *Meotica andujari* nov.sp. (Murcia, Castilla-La Mancha) und *Derocala extensa* nov.sp. (Madrid) aus der Unterfamilie Aleocharinae. Die primären Geschlechtsmerkmale von *Paraleptusa anophthalma* (EPPELSHEIM) werden erstmal abgebildet. Weitere Nachweise von Staphyliniden werden gemeldet, darunter sechs Erstnachweise für Spanien. Für die iberischen Vertreter der Gattung *Paraleptusa* PEYERIMHOFF wird eine Verbreitungskarte erstellt.

References

- ASSING V. (2003a): On the Iberian species of *Geostiba* and *Paraleptusa*. II. Two new species from Spain and notes on *G. vidua* PACE (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **35** (2): 685-692.
- ASSING V. (2003b): A revision of *Zoosetha* MULSANT & REY and *Poromniusa* GANGLBAUER. II. A new species from Spain and additional records (Coleoptera: Staphylinidae: Aleocharinae). — Zootaxa **310**: 1-8.
- ASSING V. (2003c): New species and records of *Leptusa* KRAATZ from the Iberian peninsula (Insecta: Coleoptera: Staphylinidae, Aleocharinae). — Beiträge zur Entomologie, Keltern **53** (2): 239-250.

- ASSING V. (2003d): New species and a new synonym of *Geostiba* from the Iberian Peninsula (Coleoptera: Staphylinidae, Aleocharinae). — Linzer biologische Beiträge **35** (1): 519-532.
- ASSING V. (2003e): The genus *Phloeocharis* MANNERHEIM in the southern and western Iberian Peninsula (Coleoptera: Staphylinidae, Phloeocharinae). — Linzer biologische Beiträge **35** (2) 705-710.
- COIFFAIT H. (1959): Monographie des Leptotyphlites (Col. Staphylinidae). — Revue Française d'Entomologie **26**: 237-437.
- COIFFAIT H. (1972): Coléoptères Staphylinidae de la région paléarctique occidentale. I. Généralités. Sous-familles: Xantholininae et Leptotyphlinae. — Supplément à la Nouvelle Revue d'Entomologie **2** (2): 237-437.
- GUSAROV V.I. (1995): Novye i maloizvestnye Palearkticheskie stafilinidy (Coleoptera, Staphylinidae). — Entomologicheskoe Obozrenie **74**: 81-96.
- EPPELSHEIM E. (1884): [new taxa]. — In: HEYDEN L.: Coleopterologische Ausbeute einer Excursion nach der Sierra d'España. — Deutsche Entomologische Zeitschrift **28**: 355-361.
- FAGEL G. (1961): Contribution a la connaissance des Staphylinidae. LXXIII – Sur quelques *Sipalia* de la Peninsule iberique et du Nord-Marocain. — Bulletin et Annales de la Société Royale d'Entomologie de Belgique **97**: 127-146.
- FELDMANN B. & C. HERNANDO (2005): Two new species of *Domene* FAUVEL 1873 from Spain, with a new combination and a catalogue of the Iberian species of the genus (Coleoptera: Staphylinidae, Paederinae). — Linzer biologische Beiträge **37** (1): 399-406.
- HERNANDO C. & M. BAENA (2006): Un nuevo estafilínido de Andalucía: *Domene* (s.str.) *gevia* sp.nov. (Coleoptera: Staphylinidae: Paederinae). — Heteropterus Revista de Entomología **6**: 29-33.
- HERNANDO C. & L. FANCELLO (2004): Descripción de un nuevo *Paratyphlus* BLACKWELDER, 1952 del noreste de la Península Ibérica (Coleoptera: Staphylinidae: Leptotyphlinae). — Heteropterus Revista de Entomología **4**: 27-30.
- PACE R. (1983): Studio su alcune specie iberiche e magrebine del genere *Meotica* MULS. & REY (Coleoptera, Staphylinidae). — Società Veneziana di Scienze Naturali – Lavori **8**: 31-36.
- PACE R. (1996): Coleoptera, Staphylinidae, Leptotyphlini. — Fauna d'Italia, Vol. **34**, Calderini Bologna: 328 pp.
- RIBERA I., BILTON D.T., BALKE M. & L. HENDRICH (2003): Evolution, mitochondrial DNA phylogeny and systematic position of the Macaronesian endemic *Hydrotarsus* FALKENSTRÖM (Coleoptera: Dytiscidae). — Systematic Entomology **28**: 493-508.
- SMETANA A. (2004): Staphylinidae, subfamilies Omaliinae-Dasysericinae, Phloeocharinae-Apaticinae, Piestinae-Staphylininae, pp. 237-272, 329-495, 505-698. — In: LÖBL I. & A. SMETANA (editors). Catalogue of Palaearctic Coleoptera. II. Hydrophiloidea – Histeroidea – Staphylinoidea. — Apollo Books, Stenstrup, 942 pp.
- TRONQUET M. (1999): Sur quelques *Oxypoda* des collections A. Fauvel et G. Fagel; *Derocala lucida* n.sp. (Coleoptera, Staphylinidae). — Bulletin de la Société entomologique de France **104** (2): 167-188.

Author's address: Dr. Volker ASSING
 Gabelsbergerstr. 2
 D-30163 Hannover, Germany
 E-mail: vassing.hann@t-online.de