

Linzer biol. Beitr.

31/2

655-660

31.12.1999

**Two new species of the
Bruchus brachialis group from the Mediterranean region
(Coleoptera: Bruchidae: Bruchinae)**

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Abstract: Two species of the *Bruchus brachialis* group are described new to science: *B. anatolicus* nov. spec., ♂, ♀ from Turkey and *B. ibericus* nov. spec., ♂ from Portugal and Spain.

Key words: Coleoptera, Bruchidae, *Bruchus*, new species, Mediterranean region.

Introduction

Ten species of the *Bruchus brachialis* group were hitherto known (BOROWIEC 1988). The present paper adds two new species.

New species

***Bruchus anatolicus* nov. spec., ♂, ♀**

Holotype: Turkey: Antalya, Akseki, 4.-5.vi.1992, ♂, leg. I. Rydh; allotype ♀ and paratype ♀: same data; holotype and allotype in author's coll., Emmendingen (Germany), paratype in coll. Biologiezentrum Linz.

Diagnosis: It is a member of the *B. brachialis* group. At first glance *B. anatolicus* is of striking small size. To date, only *B. griseomaculatus* GYLLENHAL 1833 was known as most tiny species of the genus *Bruchus*. But *B. griseomaculatus* is distributed in the western Mediterranean region and belongs to the *B. rufipes* group (BOROWIEC 1988). Members of this group show different characters, especially in male mid tibiae and male genitalia. With regard to the male antennae, male fore tibiae and male genitalia, *B. anatolicus* is closely related to *B. ulicis* MULSANT & REY 1858. However, *B. ulicis* differs in the size distinctly larger (2.0-3.5 mm), body more oblonge, elytral sides parallel, all tarsi of mid legs yellowish-reddish, male mid tibiae mesoapically with oblonge plate, apex of plate distinctly emarginate, apex of lateral lobes with different setation and larger velum (see figures in BOROWIEC 1988).

Description: Length (pronotum-elytra): 1.5-2.0 mm, width: 1.0-1.4 mm. Body short, oval (fig. 1).

Black; antennal segments 1-4(5), fore legs except darkened base yellowish-reddish, tarsal segment 3 of mid and hind legs reddish. Vestiture moderately dense, not covering body surface completely, dark brownish and greyish, with more or less distinct greyish spots forming two irregular, transverse bands at begin and end of elytral second third.

Head of moderate length, abruptly and strongly constricted behind tempora. Eyes moderately bulging, emarginate to two third of their length. Tempora of moderate length. Frons and vertex weakly convex, without interocular carina. Antennae of moderate length, extending to humeral callus; antennal segments 1-4 cylindrical and oblonge, 5-10 subserrate, becoming steadily broader, 11 suboval.

Pronotum transverse, subrectangular, about 1.5 times wider than long, middle of lateral margin with distinct, sharp denticle. Disc moderately convex, double punctured, distances between coarse punctures less than their diameter. Scutellum nearly as long as wide, bifid.

Elytra as long as their combined width, with maximum width at end of basal two fifth. Sides distinctly convex. Disc moderately convex. Striae becoming steadily deeper from apex to base, with flat punctures. Intervals plain, reticulate, with scarcely visible irregular row of flat punctures. Humeral calli distinct.

Hind femora with strong, acute preapical denticle on lateroventral margin. Hind tibiae with mucro distinctly shorter than largest coronal denticle.

Pygidium very densely double punctured, about 1.2 times wider than long.

Male. Antennae simple, unmodified, segment 9 about 1.5 times wider than long, 11 nearly as wide as long (fig. 2). Fore femora simple, unmodified; fore tibiae moderately broadened (fig. 3). Mid femora medioventrally weakly incrassate; mid tibiae in postero-lateral view weakly curved, mesoapically with elongate spine; spine weakly curved ventrad, distinctly longer than tibial apex (fig. 4). Hind femora simple, unmodified. Sternite V emarginate. Median lobe elongate, ventral valve subtriangular, with tip acute, curved ventrad. Internal sac with two distinctly separated parts of stronger sclerotized needles; needles partially forming indistinct elongate bands. Lateral lobes elongate; extreme apex with two long setae between shorter setae, below with short velum; apical margin of velum with numerous, very dense, fine setae (fig. 5).

Female. Antennal segment 9 about 1.6-1.7 times longer than wide, 11 about 1.1 times longer than wide. Fore tibiae simple, not broadened. Mid tibiae simple, nearly linear, without mesoapical spine. Sternite V not emarginate.

Host plant: Unknown.

***Bruchus ibericus* nov. spec., ♂**

Holotype: Spain: Caceres, Monfrague, 12.v.1991, ♂, leg. P. Poot; paratype: Spain: Granada, Fondales, 18.iv.1997, ♂, leg. P. Poot; holotype and paratype in author's coll., Emmendingen (Germany). **Paratype:** Portugal: Algarve, E of Faro, Fuseta, iii.1992, ♂, leg. P. Poot, in coll. Biologiezentrum Linz. Paratype: Spain: Andaluca, 15 km S of Sevilla, 22.iii.1987, ♂, leg. H. Gräf, in coll. Museum für Naturkunde, Humboldt-Universität, Berlin (Germany).

Diagnosis: It is a member of the *Bruchus brachialis* group. With regard to the

habitus, vestiture, male genitalia, and often respectively the color of integument, *B. ibericus* is closely related to *B. canariensis* DECELLE 1975. But the latter species has the antennal segments 6-10 less square (male segment 9 about 1.4 times wider than long), male fore tibiae apically distinctly broader, mid tibiae often completely yellowish-reddish (contrary to the original description of *B. canariensis*), male mid tibiae in posterolateral view less curved, hind tibiae slimmer, apex of lateral lobes with different setation and shorter velum (see figures in DECELLE 1975).

Description: Length (pronotum-elytra): 2.4-3.2 mm, width: 1.5-2.0 mm. Body moderately oval (fig. 6).

Black; tarsal segment 3 and apical half of claw of hind legs always reddish; color of antennae, fore and mid legs varying, from at least antennae yellowish to reddish with segments 1-2 dorsally darkened, fore legs except partially darkened tarsal segment 5 and mid legs except basal three quarter of femora, partially basal half of tibiae and tarsal segment 5 yellowish, to at most antennal segments 1-4 and 11, fore legs except extreme base, extreme apex of mid femora, apical quarter of mid tibiae and mid tarsi 1-3 yellowish-reddish. Vestiture moderately dense, not covering body surface completely, blackish to brownish and greyish; brownish and greyish spots forming elytral pattern similar to *B. canariensis*.

Head of moderate length, strongly constricted behind tempora. Eyes moderately bulging, emarginate to two third of their length. Tempora of moderate length. Frons and vertex weakly convex, with smooth, shiny interocular carina. Antennae of moderate length, extending to humeral callus; antennal segments 1-4 cylindrical and oblonge, 5-10 subseriate, becoming steadily broader, 11 suboval.

Pronotum transverse, subrectangular, about 1.5-1.6 times wider than long, middle of lateral margin with distinct denticle. Disc moderately convex, double punctured, distances between coarse punctures less than their diameter. Scutellum nearly as long as wide, bifid.

Elytra about 1.1 times longer than their combined width, with maximum width at end of basal third. Middle third of sides nearly parallel. Disc moderately flattened. Striae becoming steadily deeper from apex to base, with flat punctures. Intervals nearly plain, reticulate, with distinct, irregular row of flat punctures. Humeral calli distinct.

Hind femora with strong, acute preapical denticle on lateroventral margin. Hind tibiae with mucro as long as largest coronal denticle.

Pygidium very densely double punctured, about 1.1 times wider than long.

Male. Antennae simple, unmodified, segment 9 about 1.6-1.7 times wider than long, 11 about 1.1 times longer than wide (fig. 7). Fore femora simple, unmodified; fore tibiae strongly broadened (fig. 8). Mid femora medioventrally distinctly incassate; mid tibiae in posterolateral view distinctly curved, mesoapically with distinct, elongate spine and additional, less distinct minute spine (fig. 9), similar to *B. canariensis*; elongate spine weakly curved ventrad, distinctly longer than tibial apex. Hind femora simple, unmodified. Sternite V emarginate. Median lobe elongate, ventral valve subtriangular, with tip acute, curved ventrad. Internal sac with two distinctly separated parts of stronger sclerotized needles; needles of basal part forming 2-4 distinct elongate bands. Lateral lobes elongate; extreme apex with two long setae between shorter setae, below with large velum; apical margin of velum with numerous, very dense, short setae (fig. 10).

Female. Unknown.

Host plant: Unknown.

Remark: The Paratype from environs of Sevilla was recorded as *B. canariensis* (DECELLE 1994).

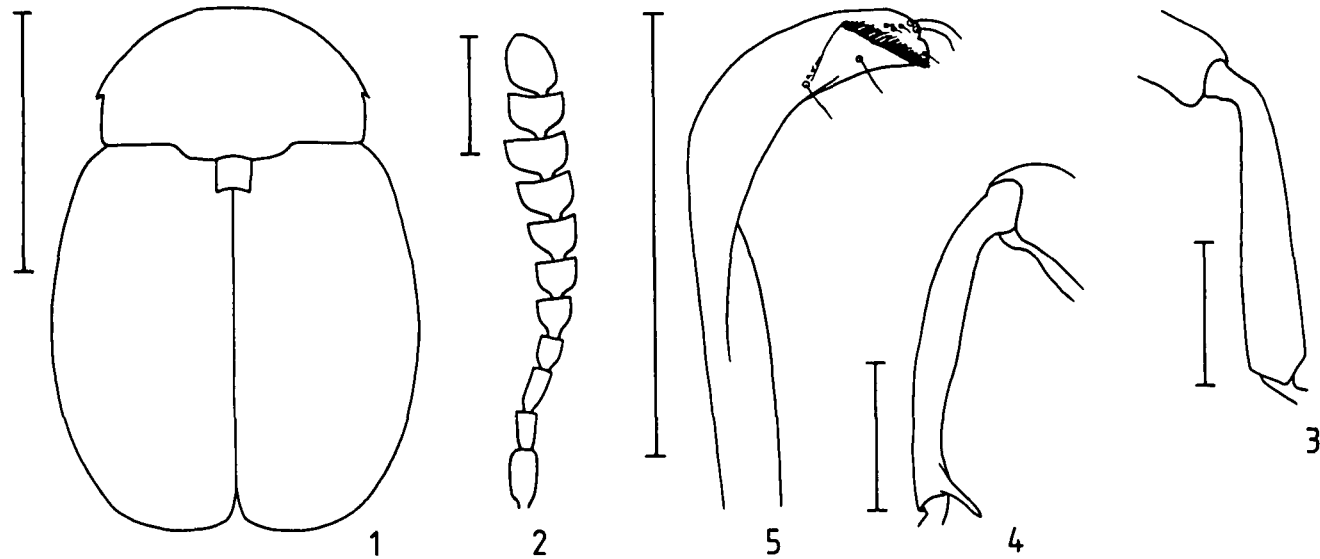
Summary

Bruchus anatolicus nov. spec., ♂, ♀ and *B. ibericus* nov. spec., ♂, members of the *B. brachialis* group, are described including detailed figures.

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Figs 1-5. *Bruchus anatolicus* nov. spec., ♂, ♀: 1 – habitus in dorsal view; 2 – ♂, antenna; 3 – ♂, fore tibia in frontal view; 4 – ♂, mid tibia in hind view; 5 – ♂, lateral lobe in ventral view. Scale bars: 1 = 1.0 mm; 2-5 = 0.25 mm.