

A new genus of Palaearctic seed-beetles (*Coleoptera, Bruchidae, Bruchinae*)

Nowy rodzaj palearktycznych strąkowców (*Coleoptera, Bruchidae, Bruchinae*)

LECH BOROWIEC

Katedra Zoologii AR, ul. Cybulskiego 20, 50-205 Wrocław

ABSTRACT. A new genus *Paleoacanthoscelides* is described for *Bruchus gilvus* GYLLENHAL, 1839.

The taxonomic position of *Bruchus gilvus* GYLLENHAL, 1839 was difficult to ascertain, since unique external specific characters of this species distinguish it from most Palaearctic *Bruchinae* and near to some New World species. SCHILSKY (1905) and HOFFMANN (1945) placed this species in *Bruchidius* SCHILSKY, LUKJANOVITSH and TER-MINASSIAN (1957) and BOROWIEC (1983) in *Acanthoscelides* SCHILSKY. *Bruchus gilvus* GYLL. has also unique structure of male genitalia, and I place this species in new genus:

***Paleoacanthoscelides* n. gen.**

Type species: *Bruchus gilvus* GYLLENHAL, 1839.

This new genus is characterized by the following combination of characters:

- antennae short, not sexually dimorphic
- pronotum subcampanulate, without lateral carina
- base of elytral interval 4 with small tubercle
- sternum V not emarginate in both sexes
- in male central part of sternum V with shallow, not pubescent impression

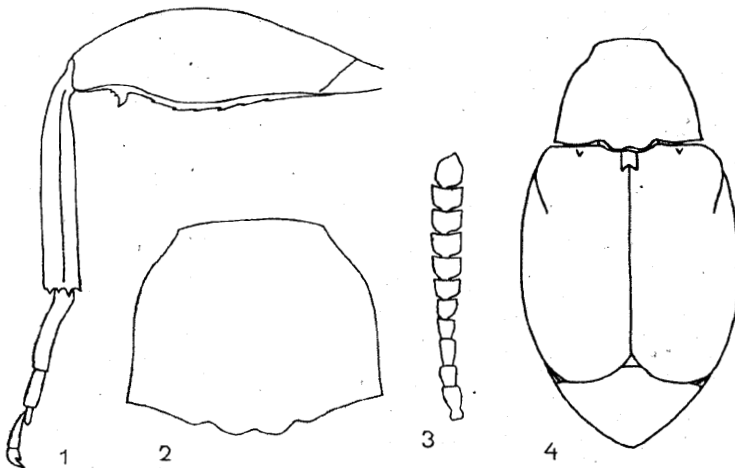
- hind femora on ventral carina with one large and two small spines, all edge before large spine with several small spines
- hind tibiae straight, with lateral carina, mucro shorter than lateral coronal denticle
- basal part of median lobe tape-like, internal sac with large comb-like sclerite
- lateral lobes completely fused, strongly sclerotized, forming a deep gutter surrounding median lobe.

DISCUSSION

Paleoacanthoscelides differs from all Old World genera of *Acanthoscelidini* (sensu BOROWIEC 1984, including *Bruchiidini*) except *Specularius* BRIDWELL in having three spines on the ventral carina of hind femora. *Specularius* has curved hind tibiae, with mucro distinctly longer than lateral coronal denticle, pygidium with large polished area, sternum V emarginate in male, median lobe with spoon-like base and lateral lobes deeply incised.

The following New World genera of *Acanthoscelidini* can be distinguished from *Paleoacanthoscelides* by their possession of one spine on the hind femur, or by femora without spines: *Abutiloneus* BRIDWELL, *Bonaerius* BRIDWELL, *Lithraeus* BRIDWELL, *Neltumius* BRIDWELL, *Senniuis* BRIDWELL and *Stator* BRIDWELL.

Paleoacanthoscelides resembles most closely the genera *Acanthoscelides* SCHILSKY, *Algarobius* BRIDWELL, *Merobruchus* BRIDWELL and *Mimosestes*



1-4. *Paleoacanthoscelides gilvus*, 1 — hind leg, 2 — pronotum, 3 — antenna, 4 — body outline

BRIDWELL. The tape-like base of median lobe and completely fused, gutter-like lateral lobes separate this genus from the other four genera.

A serious problem exist in distinguishing *Paleoacanthoscelides* from the large composite Old World genus *Bruchidius* SCHILSKY. This genus is usually characterized by the possession of a single spine on the hind femur, but some species classified with *Bruchidius* have three spines on hind femur like *Paleoacanthoscelides*. In my opinion, these species are erroneously placed in *Bruchidius* and probably belong to other genera. Maybe some species from Middle Asia are congeneric with *Paleoacanthoscelides*, but all specimens of these species are preserved in Russian museums and actually they are inaccessible for detailed study. The unique structure of male genitalia in *Paleoacanthoscelides* separates it from all species of *Bruchidius* known to me.

Paleoacanthoscelides gilvus (GYLLENHAL, 1839) n. comb.

Bruchus gilvus GYLLENHAL, 1839: 30; SCHILSKY 1905: no. 45 (in *Bruchidius*); LUKJANOVITSH and TER-MINASSIAN 1957: 176 (in *Acanthoscelides*). Terra typica: Crimea.

Black. Antennae, front and mid legs yellowish-red. Sometimes front and mid femora partly black, or mid femora wholly black.

Vestiture dense, uniformly grey, olive-grey or yellowish, covering body surface.

Head short, finely but densely punctate. Frons without medial keel, but sometimes with impunctate median line. Antennae short in both sexes, extending to hind angles of pronotum. Article 2-4 about equal in length, articles 6-10 distinctly wider than long (fig. 3).

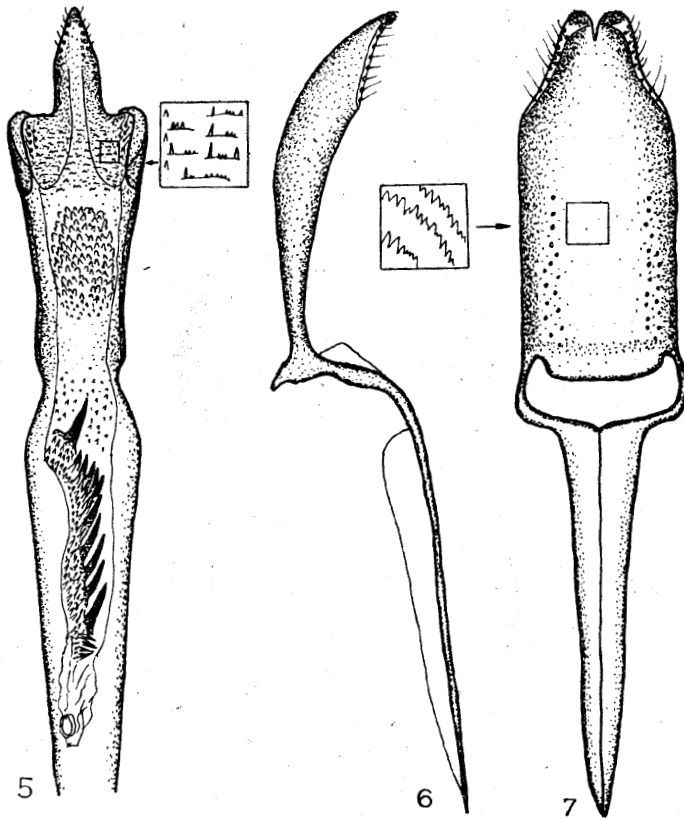
Pronotum subcampanulate (fig. 2), without lateral carina. Pronotal disc largely and densely punctate, area between punctures distinctly microreticulate.

Elytrae broadest in 2/3 length, apices near sutural angle slightly serrate. Base of interval 4 with small tubercle, rows 3 and 4 abbreviated at base by this tubercle. Interval 3 at base distinctly wider than interval 4. All intervals finely punctate with several large punctures.

Pygidium feebly convex, with large and dense but shallow punctures. Sternum V not emarginate in both sexes. In males on middle of last sternite there is a large, shallow, unpubescent but microreticulate impression.

Fore and mid legs without specific characters. Hind femur on ventral surface with one large and two small spines near apex. All edge before large spine with several small spines (fig. 1). Hind tibiae straight, not enlarged, with distinct lateral carina. Posterolateral carina absent. Mucro very short, shorter than lateral coronal denticle. First tarsomere of hind leg without lateral carina, directly truncate apically.

Male genitalia. Median lobe with extremely long, tape-like base. Ventral valve trilobate, strongly curved ventrad. Internal sac with group of small spines beyond ventral valve, and with group of large, strongly sclerotized spines in middle, forming a large pecten (fig. 5). Lateral lobes strongly sclerotized,



5-7. *Paleocanthoscelides gilvus*, male genitalia, 5 — median lobe, 6, 7 — lateral lobes, 6 — lateral, 7 — ventral

completely fused, forming a deep gutter surrounding median lobe. Sensorial area reduced to a narrow band on apical, lateral edge of lateral lobe (fig. 7). Basal part of lateral lobe very long, with distinct perpendicular keel (fig. 6).

Host plant: *Onobrychis sativa* LAM.

Distribution: South Europe, Mediterranean Subregion, Asia Minor and Middle Asia.

REFERENCES

- BOROWIEC, L., 1983, Survey of seed-beetles of Bulgaria (*Coleoptera, Bruchidae*), Pol. Pismo Ent., **53**: 107-127.
- BOROWIEC, L., 1984, Two new genera and species of seed-beetles from the Oriental Region (*Coleoptera, Bruchidae, Bruchinae*), Pol. Pismo Ent., **54**: 115-129.
- HOFFMANN, A., 1945, Coleopteres Bruchides et Anthribides, in: Faune de France, **44**: 184 pp.
- LUKJANOVITSH, F. K., M. E. TER-MINASSIAN, 1957, Žuki-zernovki (*Bruchidae*), in: Fauna - SSSR, **24**, 1: 209 pp.
- SCHILSKY, J., 1905, *Bruchidae*, in: Die Käfer Europas, 41. Heft, Nürnberg, pages unnumbered, species 1-100.