

The status of *Bruchus tragacanthae* OLIVIER (Coleoptera,  
*Bruchidae*)

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Abstract. *Bruchidius tragacanthae* (OLIVIER, 1795) n. comb. is redescr-  
bed. Key to the species of the *Bruchidius astragali* group is given.

*Bruchus tragacanthae* OLIVIER, 1795 has been treated hitherto as a "nomen  
dubium". The name was listed in PIC'S (1913) catalogue within *Spermophagus*  
SCHÖNHERR. I recently examined the two syntypes of *Bruchus tragacanthae*  
and they are not *Spermophagus* but *Bruchidius* SCHILSKY. Because original  
description of *B. tragacanthae* is very laconic I redescribe this species.

I wish to express my sincere thanks to Dipl. Biol. H. Wendt, Zoologisches  
Museum, Humboldt Universität, Berlin for the loan of specimens.

***Bruchidius tragacanthae* (Olivier, 1795) n. comb.**

*Bruchus tragacanthae* OLIVIER, 1795: 15.

*Spermophagus tragacanthae*: PIC, 1913: 62.

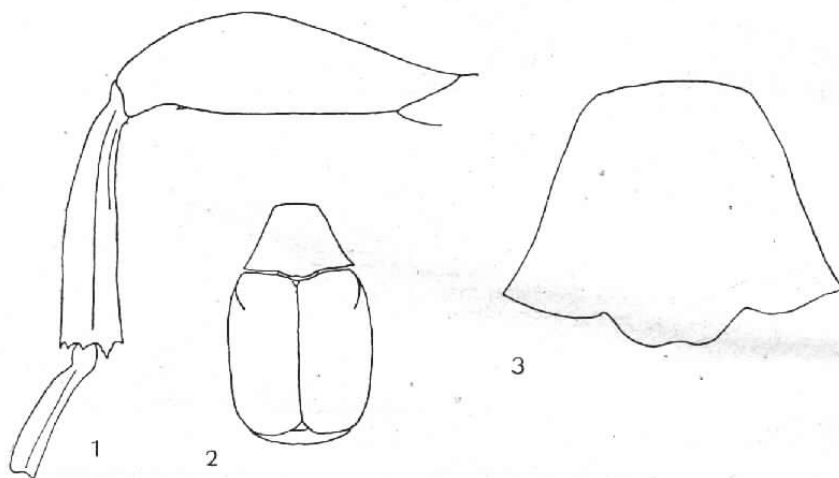
Colour. Black, first three antennal articles, fore legs except coxae and  
femoral bases, mid legs except basal half of femora reddish. Last tarsal article  
brownish.

Vestiture. On dorsal part very dense, uniformly olive-green, covering  
body surface; on ventral part moderately dense, greyish, also covering body  
surface. White hair form indistinct spot on scutellum and in basal pronotal  
sulcus.

Structure. Head moderately long, frons with distinct medial carina. Eyes convex, incised to  $\frac{3}{4}$  length, with rows of 4–5 facets beyond incision. Antennae long, reaching to half body length. Article 2 very short, equal in length and width, article 3 about twice longer than 2, article 4 subserrate, articles 5–10 serrated, distinctly longer than wide (fig. 4).

Pronotum subconical, at base slightly wider than long (fig. 3). Puncturation on pronotal disc very dense, punctures almost touching each other.

Elytrae equal in length and width (fig. 2), without basal tubercles. Puncturation of elytral intervals small, not forming distinct rows, striae unpunctured.



1-3. *B. tragacanthae*. 1 - hind leg, 2 - body outline, 3 - pronotum

Hind femora slender, on ventral side with very minute spine. Hind tibiae with distinct lateral carina; lateroventral carina distinct only in basal half of tibia. Mucro very short, about twice shorter than lateral coronal denticle. First tarsomere with distinct lateral carina (fig. 1).

Pygidium convex. Sternum V emarginate to  $\frac{2}{3}$  length.

Male genitalia: median lobe long, ventral valve triangular. Internal sac without large sclerites, with very small spines in posterior part (fig. 5). Lateral lobes flat, divided to  $\frac{3}{4}$  length, in apices expanded and dense pubescent (fig. 7). Basal strut with perpendicular keel (fig. 6).

Length: 3.4 mm, width: 2.2 mm.

Female unknown.

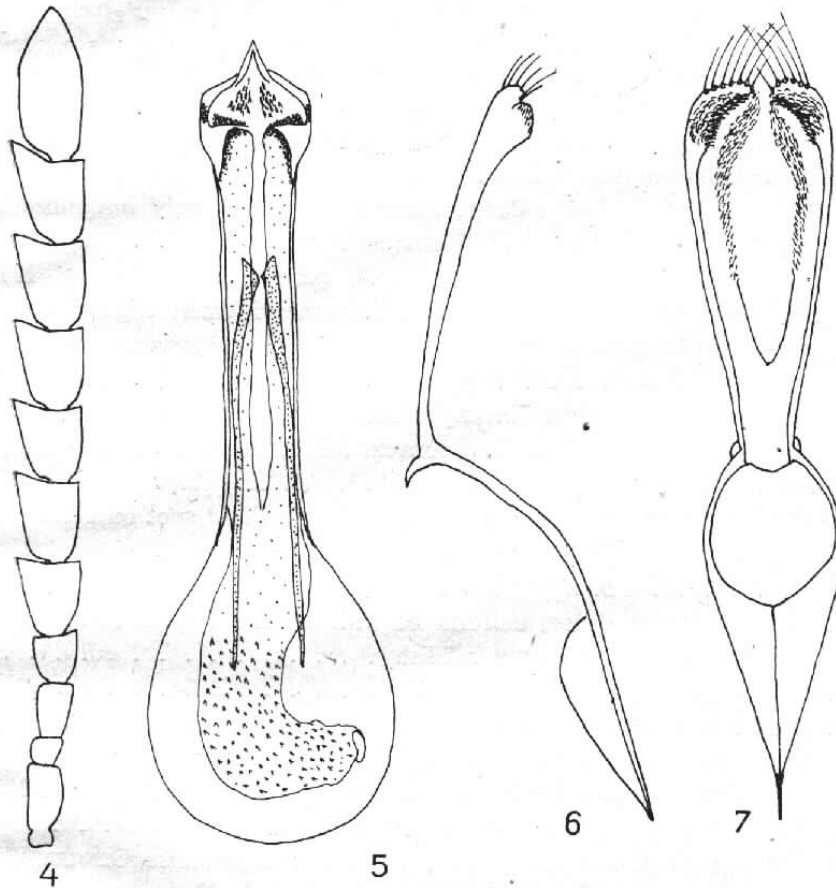
Host plant: probably *Astragalus* sp.

#### MATERIAL EXAMINED

Lectotype ♂ and paralectotype ♂ (present designation), "Persia Ol., Tragacanthae Ol.", both in Zoologisches Museum, Humboldt Universität, Berlin.

## DISCUSSION

*Bruchidius tragacanthae* belongs to the *B. astragali* species group. All species of the group are characterized by oval body, antennae strongly sexually dimorphic, antennal article 3 usually longer than article 2, elytral bases with very flat or without tubercles, pygidium in male strongly convex and mucro distinctly shorter than lateral coronal denticle. All species live in seeds of various *Astragalus* spp.



4-7. *B. tragacanthae*. 4 - antenna, 5-7 - male genitalia: 5 - ventral lobe, 6, 7 - lateral lobes; 6 - lateral, 7 - ventral

This species group is very difficult taxonomically. All species are very variable in body colour and vestiture, and females of some species are practically impossible to determine. For the identification of males the below key can be used (*B. brignolii* ZAMPETTI, 1979 described from females only is not included):

*Bruchidius astragali* group — key to the species

1. All legs black . . . . . 2.
- Fore and mid and sometimes hind legs partly reddish . . . . . 5
2. Elytrae with large spot of whitish hair, only basal, lateral and apical spot black. Sternites covered by dense grey hair . . . . . 3.
- Elytral vestiture mostly black. Whitish or yellowish hair form elongate sutural spot and one or two irregular bands. Sternites with scarce, grey hair not covering body surface . . . . . 4.
3. Base of elytron with five small tubercles. Antennae wholly black. Antennal article 3 about twice longer than 2. South part of Europaean SSR . . . . . *B. myobromae* (MOTSCHULSKY, 1874)
- Base of elytron only with one flat tubercle in basal part of intervals 4–5. Antennal articles 1–3 reddish. Antennal article 3 only insignificantly longer than 2. Europe and Caucasus . . . . . *B. marginalis* (FABRICIUS, 1775)
4. Sides of pronotum slightly convex. Antennae in male slightly serrate, pygidium strongly convex. Caucasus, Middle East, Persia and Algeria . . . . . *B. virgatus* (FÄHREUS, 1839)
- Sides of pronotum, rectilinearly narrowed anterad. Antennae in male strongly serrate, pygidium less convex. Middle Asia . . . . . *B. scutulatus* (BAUDI, 1890)
5. Elytral vestiture scarce; light hair form longitudinal spot on suture and two irregular bands. Hind legs always black. Middle Asia . . . . . *B. virgatoides* LUKJANOVITSH, and TER-MINASSIAN, 1957
- Elytral vestiture dense, uniform or with indistinct spots of light hair. Hind legs black or partly reddish . . . . . 6.
6. Hind legs black . . . . . 7.
- Hind legs partly reddish . . . . . 9.
7. Elytral intervals with rows of large punctures. South part of Europaean SSR, Caucasus and Turkey . . . . . *B. lucifugus* (BOHEMAN, 1833)
- Elytral intervals without rows of large punctures . . . . . 8.
8. Elytral vestiture uniform. Persia . . . . . *B. tragacanthae* (OLIVIER, 1795)
- Elytral vestiture with indistinct spots of light hair. Hungary, SE Europe, Syria, Caucasus and Middle Asia . . . . . *B. astragali* (BOHEMAN, 1829), part . . . . .
9. Body length 3.1–4.0 mm. Pronotum at base about 1.5 times wider than long, sides of pronotum slightly convex. South part of Volga Valley and Kazakh SSR . . . . . *B. atbasaricus* LUKJANOVITSH and TER-MINASSIAN, 1954

- Body length 2.0–3.2 mm. Pronotum at base equal in length and width, sides of pronotum rectilinearly narrowed anterad . . . . .  
. . . . . *B. astragali* (BOHEMAN, 1829), part

REFERENCES

- OLIVIER, A. G., 1795, *Entomologie*, 4: 79. Paris.  
PIC, M., 1913, *Bruchidae*, *Coleopterorum Catalogus*, pars 55, Berlin, 1-74 pp.