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Autor: Stebnicka, Z.
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NEW AND LITTLE KNOWN
SPECIES OF APHODIUS ILLIG.
(Coleoptera, Scarabaeidae, Aphodiinae)

BY

Z. STEBNICKA *

With 9 figures

ABSTRACT

Aphodius (Agrilinus) pseudostorkani from China is described as new and the affinities with related species are discussed. Complementary description for hitherto unknown male of *A. donghariensis* Steb. and explanation of the taxonomic position of two other species are given.

In 1980 I had the chance to study material of the subfamily Aphodiinae from the Petrovitz' collection, kept in the Museum of Natural History in Genève. The examination of the type-specimens of a number of species, necessitates the erection of new one (formerly identified as *Aphodius storkani* Balth.) and determination the synonymies of *A. botulus* Balth. and *A. varians* Duft. Among unidentified specimens from Taiwan, collected by J.-S. Klapperich I found the hitherto unknown male of *A. donghariensis* Steb., described in 1973 from North Korea.

The specimens examined are deposited in the collection of the Museum of Natural History in Genève and secondly, in the collection of the Institute of Systematic and Experimental Zoology (ISEZ), Polish Academy of Sciences in Kraków.

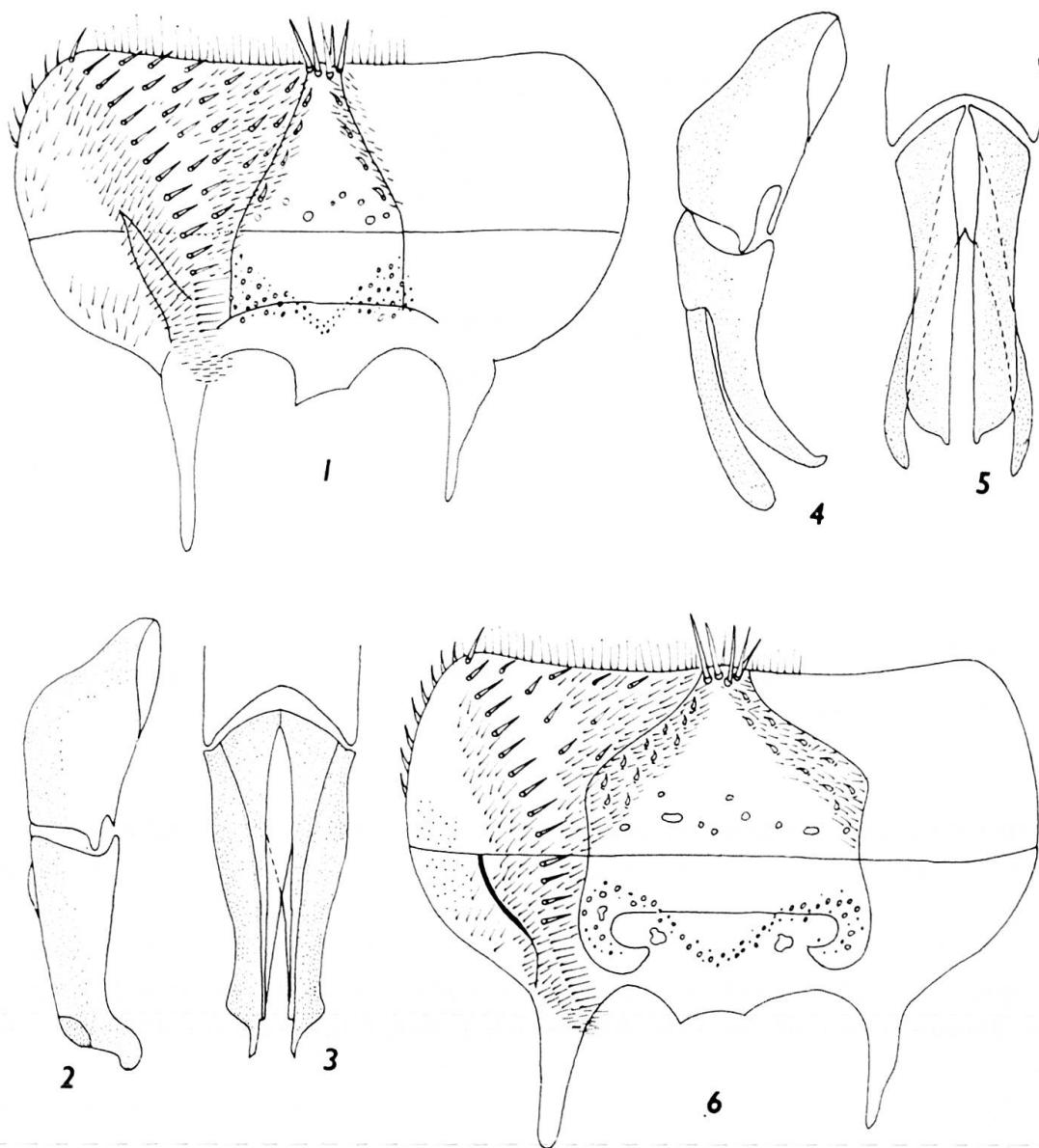
I wish to thank Dr I. Löbl and Dr C. Besuchet for making this material available to study.

***Aphodius (Agrilinus) pseudostorkani* nov. spec. (Figs. 1-3)**

Holotype: male, China, W. Sichuan, Sankiangkou, Balang, 7.VIII.1934, leg. Friedrich (Geneva Museum).

Paratype: male, the same data as holotype (ISEZ).

* Institute of Systematic and Experimental Zoology, Polish Academy of Sciences, 31 016 Kraków, Sławkowska 17, Poland.



FIGS. 1-6. — 1-3: *Aphodius (Agrilinus) pseudostorkani* nov. spec., 1: epipharynx, 2: aedeagus, lateral view, 3: aedeagus, dorsal view. 4-6: *A. (A.) storkani* Balth., 4: aedeagus, lateral view, 5: aedeagus, dorsal view, 6: epipharynx.

Description. Length 6.0-6.2 mm, greatest width 2.8-3.0 mm. Oblong-oval, convex, moderately shining, piceous, apex of elytra brownish. Head moderately convex, finely reflexed clypeal margin subdentate each side of wide, moderately deep median emargination, sides nearly straight to small, rounded genae; frontal suture with three, very feebly marked transverse tubercles, clypeal surface granulate with indistinct transverse ridge at middle, front moderately punctate. Pronotum convex, anterior angles widely rounded and reflexed, posterior angles obtuse, the slightly

arcuate sides feebly sinuate, base marginated; surface with mixed punctures, everywhere with fine, rather evenly distributed punctures separated by one to three diameters and coarse punctures separated by one or two diameters, more close on the sides. Scutellum triangular, finely punctate. Elytra slightly widened behind the middle, convex, humeri finely dentate; striae narrow, moderately deep, strial punctures slightly crenating the inner margins of the weakly convex intervals; surface moderately shining with scattered, minute punctures, sides and apex of elytra finely shagreened. Metasternum shining, midline fine, moderately impressed, the punctures coarse, not closely distributed; abdominal sterna alutaceous, coarsely punctate and piliferous. Middle and hind femora shining with a few coarse punctures bearing yellow hairs. Apical spur of anterior tibia straight, sharply pointed; apical setae of middle and hind tibia short, equal in length; bottom spur of middle tibia short with hooked tip; first segment of posterior tarsus longer than the upper spur and shorter than following three segments combined.

Female unknown.

Affinity: *Aphodius pseudostorkani* n. sp. is very similar to *A. storkani* Balth. described from China — Sichuan (holotype male in Geneva Museum). The differences between the species mentioned are as follows:

Aphodius (Agrilinus) storkani Balth.

Sides of clypeus toward genae slightly arcuate

Disc of pronotum with equal punctures, moderate in size

Humeri strongly, sharply dentate

Male aedeagus as in figures 4-5

Epipharynx (Fig. 6):

Acanthoparia with moderately long and moderately thick setae nearly the same size as those of chaetoparia; 8-10 bristles of chaetopedia somewhat thicker and shorter than those of chaetoparia; the remaining setae of paria and acroparia moderately long and thin.

A. (A.) pseudostorkani n. sp.

Sides of clypeus toward genae nearly straight

Disc of pronotum with mixed, very fine and coarse punctures

Humeri finely, obtusely dentate

Male aedeagus as in figures 2-3

Epipharynx (Fig. 1):

Acanthoparia with moderately long and moderately thick setae the same size as those of chaetoparia; 20-22 bristles of chaetopedia the same thickness as those of chaetoparia, somewhat shorter; the remaining setae of paria and acroparia moderately long and thin.

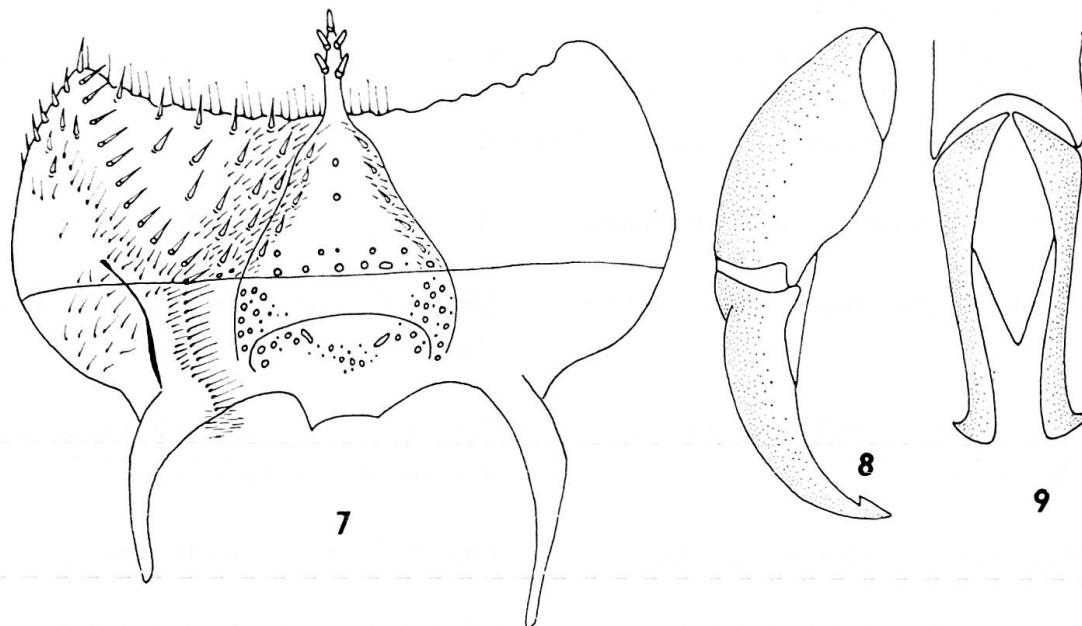
Aphodius (Teuchestes) donghariensis Steb.

Aphodius donghariensis Stebnicka, 1973: 119-120; 1980: 231.

Material: two males, Taiwan, Fenchihu (1400 m), IV-VI 1977, leg. J.-S. Klapperich.

Complementary description. Length 5.8-6.0 mm, greatest width 3.0-3.3 mm. Male head wider than in female, scutellum very finely, indistinctly punctate. Apical spur of fore tibia wide, flattened, strongly bent inward and slightly downward; bottom spur of middle tibia short, truncate at apex. Aedeagus as in figures 8-9.

Epipharynx: Anterior part of acanthoparia with a few short and thick bristles, shorter but the same thickness as those of chaetoparia; 15-17 bristles of chaetopedia unequal in length, the remaining setae of paria and acroparia moderately long and moderately thin.



Figs. 7-9. — *Aphodius (Teuchestes) donghariensis* Steb., 7: epipharynx,
8: aedeagus, lateral view, 9: aedeagus, dorsal view.

Aphodius (Phalacronothus) botulus Balth.

Aphodius (Paragolius) botulus Balthasar, 1945: 43; 1964: 281. Locus typicus: Manchuria, Harbin.

Aphodius (Orodalus) naraensis Nakane, 1956: 120; BALTHASAR 1964: 201; STEBNICKA 1980: 239-240 (syn. nov.). Locus typicus: Japan, Honshu, Nara; (North Korea).

Aphodius (Amidorus) manschuriensis Petrovitz, 1958: 138; BALTHASAR 1964: 281.
Locus typicus: Manchuria, Harbin.

Remarks. I have examined the holotype of *Aphodius botulus* in the Balthasar's collection in Prague and the holotype of *A. manschuriensis* Petr. in Geneva. Type-specimen of *A. naraensis* Nak. was not verified, however, the series of specimens from Korea (STEBNICKA 1980) was determined on the base of single specimen from Japan, compared with holotype.

A. botulus has been described by BALTHASAR (1945) in a new subgenus *Paragolius*. The establishment of new subgenus was not justified, since the complex of the features of mentioned species indicates its affiliation to the species-group *Phalacronothus* Motsch. The representatives of these species are difficult to define and to separate in many cases, by reason of great individual variability respecting the shape and punctuation of body and color of elytra.

The male aedeagus of *A. (Phalacronothus) botulus* Balth. (= *A. (Ph.) naraensis* Nak., published drawings: STEBNICKA 1980) is quite similar to this of *A. (Ph.) quadrimaculatus* L., (published drawings: STEBNICKA 1976).

***Aphodius (Nialus) varians* Duft.**

= *Aphodius (Nialus) rugosopunctatus* Petrovitz,
1971: 567-568 (syn. nov.).

Material of *rugosopunctatus*. The holotype examined: Turkey, Vilayet Mersin (Içel), Namrun (Geneva Museum). Three specimens: Poland, distr. Warsaw, Swider, 25.VI.1906, leg. Makólski; distr. Kraków, Sikornik hill, 18.VI.1936, leg. Mazur (ISEZ).

Remarks. *Aphodius rugosopunctatus* Petr. was originally described on the base of external morphology of a single male specimen. *A. varians* Duft. is well known, widespread, polymorphic species composed of populations which often are not contiguous. The examined morphology of male copulatory organs and epipharynx is identical in both variants, whilst the upper side of body of «*rugosopunctatus*» individuals shows more pronounced punctuation, as compared to the typical specimens of *varians* Duft. The latter feature, however, seems to fall within the range of individual, very advanced variability of *A. varians* Duft. The specimens similar to “*rugosopunctatus*” are evidently very rare; moreover, it is not excluded that these individuals appear from time to time as mutations in different populations of *A. varians* Duft.

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