The taxonomic position of *Aphodius scuticollis* Semenov (Coleoptera: Scarabaeidae)

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Based on the complex of morphological characters, *Aphodius scuticollis* Semenov is placed in the subgenus *Melinopterus* Mulsant. Redescription and notes on distribution of this species are given.

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Aphodius scuticollis Semenov was described in the subgenus *Chilothorax* Motschulsky (= *Volinus* Mulsant & Rey) based on the elytral pattern with brown maculae against a yellowish brown background (Semenov, 1898). More thorough study has revealed a set of characters that necessitates transfer of the species to the subgenus *Melinopterus* Mulsant. Because the species was often confused with similar species (especially with *A. makowskyi* D. Koshantschikov and *A. nigrivittis* Solsky), a redescription of *A. scuticollis* is given.

The examined material is deposited in Zoological Institute, Academy of Sciences, Russia, St. Petersburg (ZIN).

Aphodius (Melinopterus) scuticollis Semenov, 1898
(Figs 1-3)

= *A. nigrivittis* Reitter, 1892 (nom. praeocc., non Solsky, 1876).

Type locality: "Dzhungaria [SE Kazakhstan, Sergiopol (= Ayaguz)]" (Reitter, 1892).

Type deposition: unknown. Seven specimens in ZIN collected by Schmidt and Ignatovich bear the labels "Aphod. scuticollis m. Type ♂ [or ♀] II.[18]98 A. Semenow det.", but they are not name-bearing types.

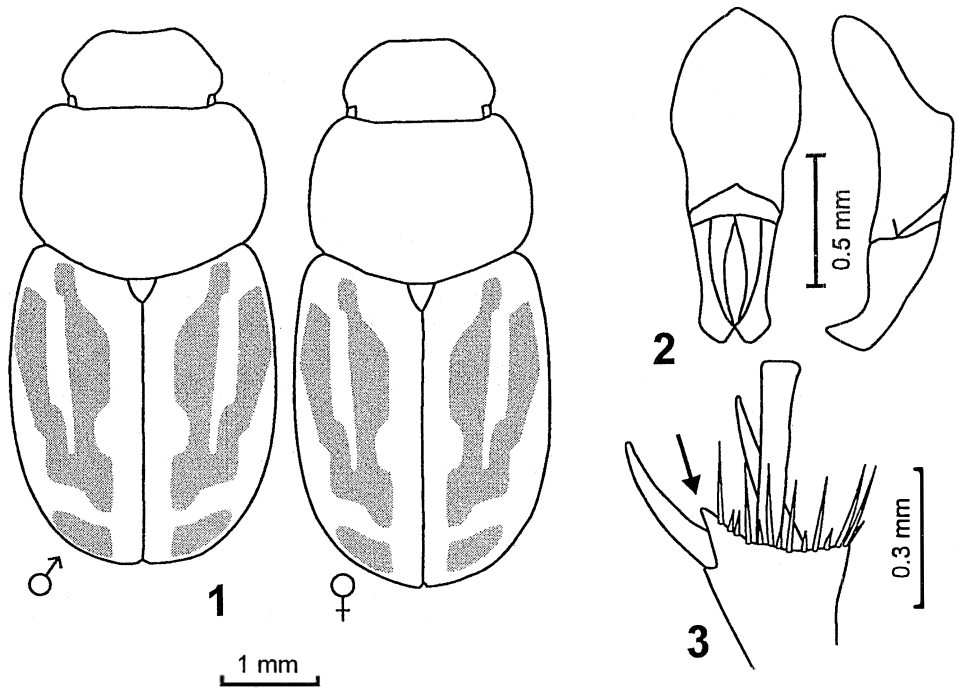
Material examined. **Kazakhstan:** 5 spm., Ketmen Mts., Uzun-Bulak, 26.IV.1985 (Nikolajev); 5 spm., Uzun-Agach, 7.IV.1982 (Nikolajev); 3 spm., 40 km W from Chu Mts., 27.III.1982 (Nikolajev); 8 spm., Dzhambul, V.1909 (Fischer); 8 spm., Almaty (Suvorov); 2 spm., Topolevka [Dzhungarskiy Alatau Mts.], 4.V.1957, (Kerzhner); 1 spm., Kopal [Dzhungarskiy Alatau mts.]. **Kirgizstan:** 6 spm., Kutemaldy, 8.VIII. 1892 (Schmidt); 1 spm., Sary-Tash, 8.VII.1995 (Koval'); 1 spm., Przhevalsk (Ignatovich); 1 spm., same locality, 11.VI.1902 (Sapozhnikov); 300 spm., same locality, 18.III-16.IV. (Pedashenko); 20 spm., same locality, 27.III-2.IV.1908 (Andreeva); 67 spm., Naryn [River], IV-V.1908 (Datsenko); 1 spm., Talas, III.1907 (Fischer). **China:** 1 spm., Xinjiang, ca 100 km NNE Kuqa (Chinese Tien Shan Mts.), 8-11.V.1993 (J. Turna) (Radek Cervenka's collection, Czech Republic, Praha).

Description. Male (Fig. 1). Head dark brown to black, shiny, not tuberculate; clypeus punctate (punctures separated by 2 puncture diameters on disc, becoming denser on sides), very slightly sinuate at middle, rounded at sides. Genae small, angulate, feebly protruding past eyes. Width of eye in ventral view shorter than minimal interval between eye and gula.

Pronotum shiny, dark brown to black on disc, sides yellowish brown; sides and base bordered; disc of pronotum densely punctate (punctures subequal, separated by 1-2 puncture diameters, sometimes sparser). Hind angles angulate. Scutellum triangular, shiny, blackish brown, sparsely punctate.

Elytra yellowish brown with brown maculae, shiny, without humeral teeth; intervals and striae punctate. Sides and apices of elytra pubescent with long dense setae. Elytral pattern varies from a few longitudinal brown maculae on interstices 3-7 to one large macula occupying the greater part of elytron (like the characteristic elytral pattern in *Melinopterus*). Maculae lighter in color than disc of pronotum and head; elytra often light brown with unclear pattern.

Ventrum of body dark brown, legs yellowish brown. Disc of metasternum smooth, sparsely and coarsely punctate. Fore tibia with apical spur acute and curved downward; apex of spur reaches the middle of 2nd tarsal segment. Apical spurs of middle tibia slender and acumi-



Figs 1-3. *Aphodius scuticollis* Semenov. **1**, habitus and elytral pattern; **2**, aedeagus in dorsal and lateral view; **3**, apical part of hind tibia (♂).

nate; lower spur longer than half of upper. First segment of hind tarsus as long as upper apical spur of tibia and as long as 3 following segments combined. Adjoining apical setae of hind tibia unequal. Apex of hind tibia with more or less expressed tooth on ventral side (Fig. 3).

Aedeagus as in Fig. 2.

Female can be separated from male by denser punctures on head and pronotum, narrower pronotum, smooth elytra, and lacking tooth on ventral side of apex of hind tibia.

Body length 4.0-6.5 mm.

Diagnosis. The species is most similar to *A. makowskyi* D. Koshantschikov and can be separated from it by the aedeagus shape, bordered base of pronotum, and tooth on ventral side of apex of hind tibia in male.

Distribution. Kirgizstan, SE Kazakhstan, NW China (Chinese Tien Shan Mts.). The species is recorded from China for the first time.

Discussion. Based on the maculate elytra, *A. scuticollis* was originally described and traditionally regarded as being related to the subgenus *Chilothorax* Motschulsky (= *Volinus* Mulsant & Rey). However, such elytral pattern could not be considered as unique feature of *Chilothorax*. Species of the subgenera *Nimbus* Mulsant & Rey and *Aphodaulacus* W. Koshantschikov also have yellowish elytra with brown maculae. On the other hand, *A. scuticollis* has some characters in common with most of *Melinopterus* species: unequal adjoining apical setae of the hind tibiae, yellowish legs, pubescent elytra in males, and the shape of the aedeagus. It is necessary to note that there are some *Aphodius* species that cannot be unambiguously attributed to one of described subgenera. The shape of the aedeagus and especially of the parameres should be considered in many cases as the most valuable taxonomic character on the subgeneric level in the genus *Aphodius*.

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