

On the Synonymy of Two Names of Species of the Genus *Aphodius* Ill. (Coleoptera, Scarabaeidae) Described from Siberia

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Abstract—Based on examination of the type material, the following new synonymy is established: *A. granarius* (L., 1767) = *A. tomskianus* Balthasar, 1973, syn. n., *A. granarius* (L., 1767) = *A. pecirkai* Balthasar, 1932, syn. n.

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Balthasar described two species of the scarab-beetle genus *Aphodius* from Siberia, namely *A. pecirkai* Balthasar, 1932 and *A. tomskianus* Balthasar, 1973. These species have so far been known only from the type specimens and their original descriptions essentially coincide. Lack of further findings and diagnostic characters to distinguish them necessitated clarification of the taxonomic status of these forms. Recently we had an opportunity to examine the type specimens of these species deposited in the National Museum of Natural History in Prague (NMPC), which allowed us to establish new synonymy.

Aphodius (Calamosternus) granarius (L., 1767)

= *A. (Agrilinus) pecirkai* Balthasar, 1932 : 40, 1964 : 389, syn. n.

= *A. (Calamosternus) tomskianus* Balthasar, 1973 : 55–56, syn. n.

Type material. *A. tomskianus*: holotype female with labels: “Tomsk.,” “coll. Reitter,” “Holotypus *Aph. (Calamosternus) tomskianus* Balth. m” (NMPC). *A. pecirkai*: holotype female with labels: “Typus,” “Det. Dr. Balthasar a. Pečirkai m.” and “Werchne-Udinsk Transbaik. Mandl” (NMPC).

A. pecirkai was described from a single female from Werchne-Udinsk. *A. tomskianus* was described from a single female (erroneously identified by the author as a male) from the environs of Tomsk. In the original descriptions of both species the following diagnostic characters were given.

Body convex, glabrous, shiny. Pronotum dark on disc and paler on sides. Elytra reddish brown, sutural

intervals dark brown, legs brown. Head irregularly punctate. Frontal suture slightly tuberculate in middle. Clypeus feebly sinuate in middle, widely rounded at sides of sinuation. Genae feebly protruding beyond eyes. Pronotum irregularly punctate, adjacent punctures strongly differing in size. Hind angles of pronotum rounded. Elytral striae fine; intervals flat, with fine punctuation. First segment of hind tarsus about as long as upper apical spur of hind tibia and two succeeding segments combined. Body length 4 mm.

Descriptions of the two species differ in pentagonal (*A. tomskianus*) and triangular (*A. pecirkai*) scutellum, and in the head and pronotum coloration which is, according to Balthasar (1932, 1973), black (except for reddish sides) in the former species and dark brown in the latter. In his monograph (Balthasar 1964) the author gave a key to the species of the subgenus *Agrilinus*, including *A. pecirkai*. According to this key, *A. pecirkai* is most similar to the far-eastern species *A. pratensis* Nomura et Nakane, 1951, but differs from it in having finer head punctuation, rounded hind angles of pronotum, reddish brown elytra, fine elytral stria, and by the length of the 1st segment of hind tarsus. In the description of *A. tomskianus*, the author compared it with *A. lucidus* Klug, 1845, and distinguished it by the following characters: frons very feebly tuberculate, pronotum smaller and more densely punctate, scutellum and elytral intervals only finely punctate, 1st segment of hind tarsus as long as or shorter than upper apical spur of tibia and two following segments together.

Examination of the types of *A. tomskianus* and *A. pecirkai* has shown that they are similar in all char-

acters including coloration and sculpture of the dorsal side of the body, and differ only in the shape of the scutellum which is more or less pentagonal in the former specimen and somewhat triangular in the latter. The shape of scutellum is generally quite a stable character in the genus *Aphodius* and is used to differentiate the subgenera. In particular, pentagonal, narrow scutellum is characteristic of the subgenus *Calamosternus* Motschulsky. However, similar to other characters, the shape of the scutellum is subject to some variability and, in aberrant or malformed specimens, can differ significantly from that typical of a species.

We have compared the types of *A. tomskianus* and *A. pecirkai* with extensive material available in the Zoological Institute (ZIN) and found that these specimens are conspecific with *A. granarius*. Uniform black-brown coloration is typical of *A. granarius*. Teneral, reddish brown specimens can also be found in the collections. But reddish brown coloration may be an aberration within interspecific variability. Forms with such coloration were described as *A. granarius* ab. *suturalis* Faldermann, 1836. Reddish brown specimens from different parts of the species range are well represented in the ZIN collection.

According to the literature, *A. granarius* is now widely distributed in temperate and subtropical regions, although its native range is probably limited to the Palearctic Region. In Russia, this species is known from European part and West Siberia up to

Kemerovo Province in the east (Zinchenko, 2003). Therefore the type locality of *A. tomskianus* is within the reliably known range of *A. granarius*. This species is not recorded from Transbaikalia (wherefrom *A. pecirkai* was described) but considering the insufficiently known fauna of the region it is possible that it occurs there as well. There is also a possibility that the type of *A. pecirkai* was mislabeled.

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