

***Sariangus sariangi*, a new genus and species of the family Aphodiidae
(Coleoptera: Scarabaeoidea)**

Miloslav RAKOVIČ¹⁾ & Ladislav MENCL²⁾

¹⁾ U Kruhárny 548, CZ-252 29 Dobřichovice, Czech Republic
e-mail: mrakovic@volny.cz

²⁾ Masarykovo nám. 5, CZ-281 26 Týnec nad Labem, Czech Republic
e-mail: l.mencl@centrum.cz

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Abstract. A new genus and species, *Sariangus sariangi* gen. nov., sp. nov., is described from Thailand. The taxonomical position of the genus within the subfamily Aphodiinae, tribe Aphodiini is discussed. Photos of the new species (the habitus, aedeagus and epipharynx) are presented.

INTRODUCTION

The work presented here is based on a study of specimens kept in the collection of the senior author. They belong to a new species of the tribe Aphodiini, subfamily Aphodiinae. Characters of the new species do not correspond to any known genus of the tribe or possibly subgenus of the genus *Aphodius* Illiger, 1798 sensu lato (see the next paragraph) and thus, a new genus was proposed for the new species described.

Most authors dealing with Aphodiidae, for example Schmidt 1922 and Balthasar 1964, considered the genus *Aphodius* Illiger, 1798 to comprise many subgenera. Essentially the same concept was adopted in the Catalogue of Palearctic Coleoptera (Dellacasa M. & Dellacasa G. 2006) edited by Löbl & Smetana. On the other hand, most of these subgenera were relatively recently raised to genera on the world basis by Dellacasa G., Bordat & Dellacasa M. (2001) and also for certain regions (for example by Gordon and Skelley, 2007, who also established further new genera for certain American species previously considered within the genus *Aphodius*).

We have no problems with recognizing and supporting the action by Dellacasa G., Bordat & Dellacasa M. (2001), as mentioned in the preceding paragraph. However, in the description of a new species, there is a problem in the case of species from the Palearctic, Oriental or Afrotropical region that there is no catalogue compatible with this concept and not all the groups were treated in subsequent works with specifications of particular new combinations. Thus, in our quite recent work (Rakovič & Mencl, 2010) dealing with a description of the species *Aphodius (Loboparius) drumonti* Rakovič et Mencl, 2010 we preferably employed the formerly used concept. In the work presented here, where a new genus-group taxon is being established, the decision concerning the rank of the genus or subgenus was not associated with the problem mentioned here (but the problem is encountered again when quoting species of other genera/subgenera of Aphodiini).

MATERIAL AND METHODS

Specimens of the species described here were examined as specified below.

The following abbreviations stand for collections, in which the specimens studied here are kept:

LM Ladislav Mencl private collection, Týnec nad Labem, Czech Republic;

MR Miloslav Rakovič private collection, Dobřichovice, Czech Republic.

The specimens were examined with the use of the MBS-10 and SZP 1120-T stereoscopic microscopes, Meopta laboratory microscope and CMOS 5 digital camera with the Helicon Focus programme.

Measurements were carried out with an ocular micrometer. The “elytra length” was taken as a length from the scutellum base to the elytral apex to avoid uncertainty, which would be encountered in the case of measurements of the maximum length from the elytra base.

RESULTS

Sariangus gen. nov.

Type species: *Sariangus sariangi* sp. nov.

Description. Small, rather short species, broadest behind humeri and considerably narrowed anteriorly as well as posteriorly. Shining, punctate and glabrous. Elytra longer than head plus pronotum.

Clypeus emarginate anteriorly, rounded each side of emargination, with wide area of upturned clypeus lateral margins. Genae rounded, slightly more protruding than eyes. Frontal suture lacking tubercles.

Pronotum transverse, widest at about middle of its length, with distinct, complete basal and lateral margin lines.

Scutellum large, elongate, triangular.

Elytra regularly convex on disk, with quite distinct ten striae and ten intervals, rounded apically independently one of another, thus leaving pygidium partially exposed. Humerus not dentate.

Apical spur of protibia rather flat in both genders (but slender and not spatulate), continuously bent outward and narrowed from base to not quite acute apex. Mesotibia and metatibia apices fringed with spinules irregularly unequal in length (most spinules short, equal in length, but with presence of few longer spinules inserted between them). Basimetatarsite normal.

Ventral surfaces punctate and/or setose.

Name derivation. Toponymic, based on localities of type specimens of the nominotypical species (surroundings of the city of Mae Sariang).

Sariangus sariangi sp. nov.

(Figs 1-12)

Type material. Holotype (♂): N. THAI, ~30-60 km E Mae Sariang, 3.xi.2000, M. Rakovič lgt.; 1050 Doc. L. Mencl 2011 (MR). Allotype (♀): same data; 1054 Doc. L. Mencl 2011 (MR). Paratype 1 (♀): same data; 1105 Doc. L. Mencl 2011 (LM). Paratype 2 (♂): same data; 1053 Doc. L. Mencl 2011 (LM). Paratype 3 (♀): same data; 1055 Doc. L. Mencl 2011 (LM). Paratype 4 (♀): same data; 1108 Doc. L. Mencl 2011 (LM). Paratype 5 (♀): same data; 1107 Doc. L. Mencl 2011 (MR). Paratype 6 (♂): N. THAI, 30 km W Mae Sariang, 15.xi.1998, M. Rakovič lgt.; 1106 Doc. L. Mencl 2011 (MR). [Each type specimen is equipped with three labels bearing printed texts as follows: 1. a white label with locality data; 2. a green label indicating the number related to photographic documentation, name of the junior author who provided the photos and year 2011; 3. a red label with texts HOLOTYPE or ALLOTYPE or PARATYPE, respectively and *Sariangus sariangi* sp. n. M. Rakovič & L. Mencl det. 2011].

Description. Small (3.0 to 3.7 mm), rather short (length-to-width ratio 1 : 0.50), broadest behind humeri and considerably narrowed anteriorly as well as posteriorly. Shining, punctate, glabrous, head and pronotum dark brown to black, elytra reddish brown to black (Fig. 1).

Clypeus emarginate anteriorly, rounded each side of emargination, with wide areas of upturned clypeus lateral margins. Frontal suture weakly developed. Epistome with obsolete convexity. Genae rounded, moderately differentiated from clypeus lateral margins, slightly more protruding than eyes. each gena with about five short, acute setae.

Pronotum wider than long (length-to-width ratio 1 : 1.29), widest at about middle of its length, dark brown to black (anterior edge sometimes brown); with distinct, complete basal and lateral margin lines), with a furrow along posterior corner edge and with few short setae on anterior half of pronotum lateral edge. Pronotum surface with intermixed medium-sized and fine punctures, the former ones being comparable with those on head along pronotum margins and larger on pronotal disk, distances between them being about as large as puncture diameter.

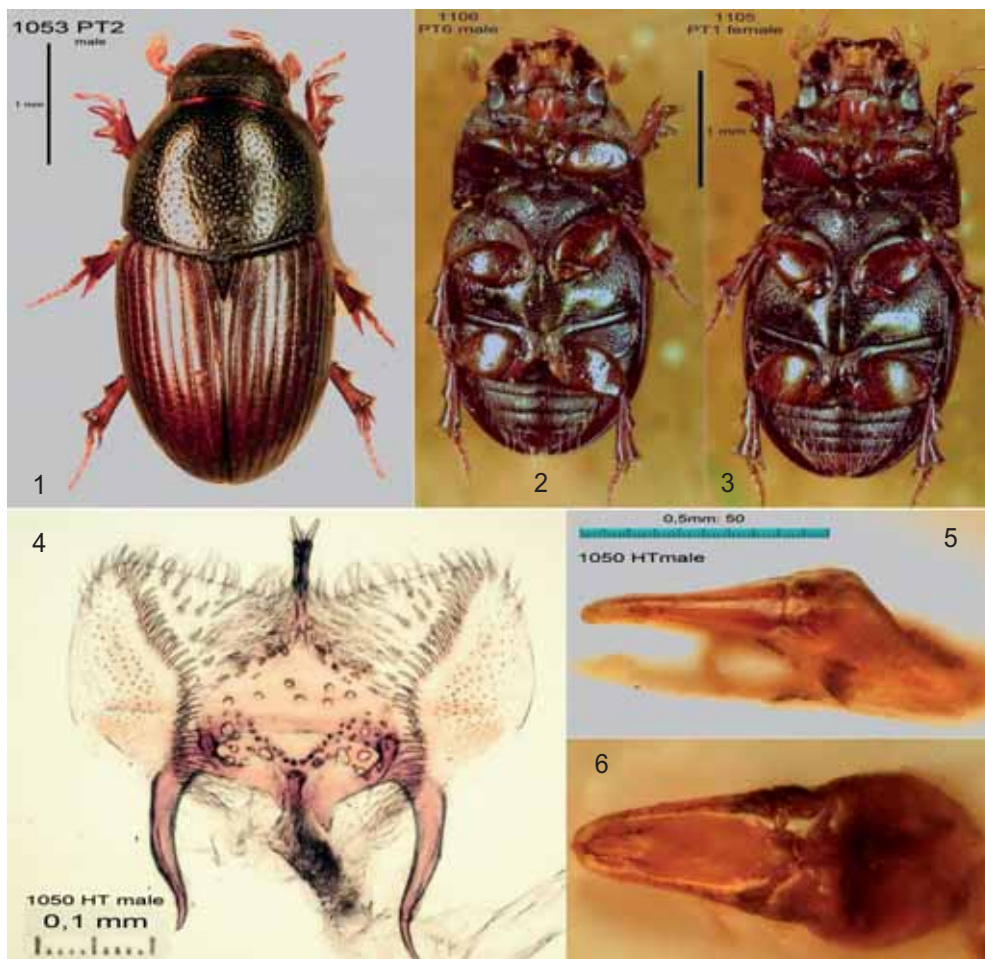
Scutellum long, triangular, black, finely punctate on about basal two thirds, smooth on apical area.

Elytra only slightly elongate (length-to-width ratio 1 : 0.94), reddish brown to black, with ten striae and ten intervals. Striae quite distinct, with punctures indicated by narrow crenation of medial margins of intervals. Intervals moderately convex, finely punctate, most punctures being arranged in two longitudinal rows in each interval. Sutural interval strongly narrowed apically. Arrangement of lateral striae and intervals as in Figs 7-8. Humerus not dentate. Elytra rounded apically independently one of another, thus leaving pygidium partially exposed.

Legs brown. Apical spur of protibia rather flat in both genders (but slender and not spatulate), continuously bent outward and narrowed from base to not quite acute apex. Mesotibia and metatibia apices fringed with spinules irregularly unequal in length (most spinules short, equal in length, but with presence of few longer spinules inserted between them). Superior spur of metatibia of about constant width from base to about ½ its length and then continuously narrower towards its apex, about as long as basimetatarsite; basimetatarsite about as long as second and third metatarsites combined.

Ventral surfaces also dark brown to black, legs brown, punctate and/or setose. Arrangement of punctures and setae as in Figs 2 and 3.

Aedeagus as in Figs 5 and 6.



Figs 1-6. *Sariangus sariangi* gen. nov., sp. nov., habitus, ventral side, epipharynx and aedeagus: 1- dorsal aspect; 2- ventral side, male; 3- ventral side, female; 4- epipharynx; 5- aedeagus, lateral view; 6- aedeagus, dorsal view.

Epipharynx as in Fig. 4.

Sexual dimorphism. Males have a very weakly developed frontal suture, the central part of it being slightly more distinct. In females, the suture including its central part is even weaker. Males have an obsolete epistomal convexity situated close to the frontal suture; in females, the convexity is even weaker and situated close to the clypeus anterior margin (Figs 7 and 8). For differences in median metasternal impression see Figs 2 and 3).

Name derivation. Toponymic. The type specimens were found in the surroundings of the town Mae Sariang.

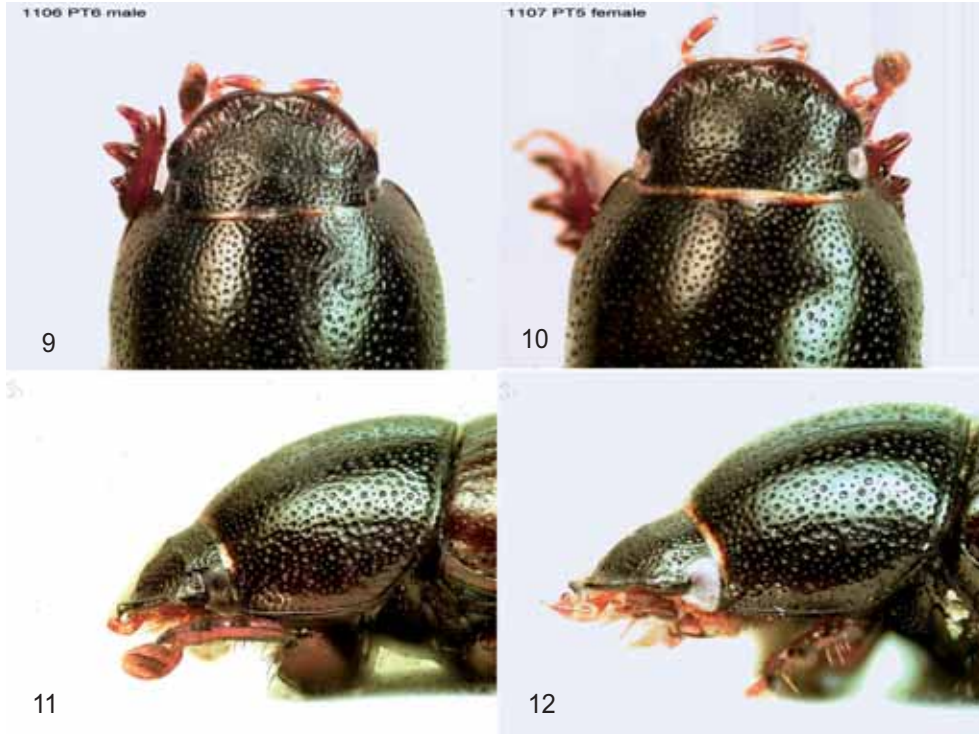


Figs 7-8. *Sariancus sariangi* gen. nov., sp. nov., habitus: 7- male, lateral view; 8- female, lateral view.

DISCUSSION AND CONCLUSION

The new genus and species described here fall into the group of genera (or subgenera in the formerly used concept - see the INTRODUCTION) sharing a large scutellum (Dellacasa G. 1986). In the diagnosis of the genus, we intentionally stressed characters making it possible to differentiate the genus from other related genera.

These differences can be summarized as follows: the elytra longer than the head plus pronotum (in contrast to *Microteuchestes* Landin, *Megatelus* Reitter, *Megatelooides* Landin), not strongly flattened on the disk (in contrast to *Colobopteroides* Paulian, *Colobopteridius* Clément, *Calocolobopterus* Dellacasa G., *Neocolobopterus* Landin, *Colobopterus* Mulsant, *Copriformus* Mulsant, and *Eupleurus* Mulsant); the frontal suture lacking tubercles (in contrast to *Otophorus* Mulsant, *Pseudoteuchestes* Dellacasa, and *Teuchestes* Mulsant); basimetatarsite normal in both genders (in contrast to *Diapterna* Horn), the protibial spur slender (not spatulate in contrast to *Sinodiapterna* Dellacasa G. and *Afrodipterna* Dellacasa G.) and the metatibiae fringed with spinules irregularly unequal in length (in contrast to *Neodiapterna* Dellacasa G.).



Figs 9-12. *Sarianus sariani* gen. nov., sp. nov. head and pronotum: 9- head and pronotum, male, dorsal view; 10- head and pronotum, female, dorsal view; 11- head and pronotum, male, lateral view; 12- head and pronotum, female, lateral view

Recent descriptions of two new species with large scutellum (Gusakov 2006 and Ochi, Kavaehara M. & Kon 2006) within the groups *Sinodiapterna* and *Teuchestes*, respectively, are in agreement with the concept by Dellacasa G. (1986).

There is no shape of the aedeagus, which could be characteristic of particular groups within Aphodiini with large scutellum. In the new species described here, the simple structure of the aedeagus is only comparable with that of the Afrotropical species *Microteuchestes brusewitzii*. The general statement concerning the aedeagus also applies to the epipharynx. The strongly prominent corypha occurs in a number of groups, but the tall corypha with spines at its end only is comparable with Afrotropical monotypical groups *Colobopteroides* and *Microteuchestes* only. However, a similar structure of the epipharynx can also be seen in some members of the group *Loboparius*. In certain cases, similarities in the shape of the epipharynx can be associated with adaptation to the same quality of the food rather than with relationships between particular groups.

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