

## Two interesting species of the genus *Aphodius* Illiger from Afghanistan

### Coleoptera, Scarabaeidae

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Last year, I received two interesting species of the genus *Aphodius* Illiger from Afghanistan. The first one comes from a collection kept in our National Museum, and my friend Dr. Zdeněk Tesař (Opava), who examined it formerly, suggested that I should describe it as a new species and new subgenus; the specimen has also Dr. Balthasar's identification label „*Aphodius* n. sbg., n. sp.!” The second species, received on an exchange basis from Mr. G. Ledoux (Clamart, France), is known; however the specimens examined here have a very interesting variability, unknown in the type series.

### *Aphodius* (*Paramelinopterus*) sbg. n.

Type species: *Aphodius* (*Paramelinopterus*) *longippennis* sp. n.

Elongate, flat, medium-sized, yellowish brown, head and pronotum darker.

Head flat, clypeofrontal suture without horns. Pronotum with a margined base and rounded posterior angles. Scutellum triangular. Elytra only slightly convex with short, fine hairs, intervals fused posteriorly. Legs (particularly femora) long. Bristles on apical margins of intermediate and posterior tibiae of unequal lengths. Anterior tibiae rather slim, their outer margins smooth at the base, their three teeth rather blunt, shorter than with most subgenera, terminal spur short, leaf-shaped. Aedoeagus unusually long.

Distribution: Monotypic subgenus. The type species comes from Afghanistan.

When trying to identify the subgenus with the help of the Balthasar key (1964), it will key out to the subgenera *Melinopterus* Mulsant and *Gilletianus* Balthasar. The three subgenera can be separated from each other with the help of Table I. In some characters the subgenus described here reminds one of the subgenus *Cinacanthus* Ad. Schmidt (Schmidt, 1913). Balthasar (1964) did not recognize this subgenus in his monograph; he put the species of this subgenus into different subgenus (most of them into sbg. *Melinopterus* Mulsant and *Bodilus* Mulsant). I agree with this action, since the subgenus *Cinacanthus* Ad. Schmidt, according to the conception of this author, included insects with un-

equal lengths of bristles on apical margins of intermediate and posterior tibiae, as well as those with equal lengths. Thus, the existence of the subgenus *Cinacanthus* Ad. Schmid is not justified, since the length of the above mentioned bristles (unequal or equal) serves as an important character for dividing subgenera of the genus into two large groups. In the genus *Aphodius* Illiger, there are probably many rather artificial subgenera, however, on the other hand, it is impossible to work this large genus without using subgenera and the description of new species without placing them in subgenera only contributes to confusion in this field. That is why I decided to establish this monotypic subgenus.

### ***Aphodius (Paramelinopterus) longipennis* sp. n.**

Elongate, flat, medium-sized (type specimen 6.4 mm), length-to-width ratio 1:0.41, shining, yellowish brown, head and pronotum darker (Plate I—1).

Head flat, dark brown, clypeus anterior and lateral margins and genae paler. Clypeus moderately emarginate anteriorly. Genae rather large, with a number of acute setae, anteriorly moderately distinct from clypeus lateral margin, their posterior angles only moderately rounded, protruding remarkably beyond eyes. Clypeofrontal suture not impressed, non-horned. Areas before as well as behind the suture finely punctate; the paler marginal zone of clypeus essentially impunctate.

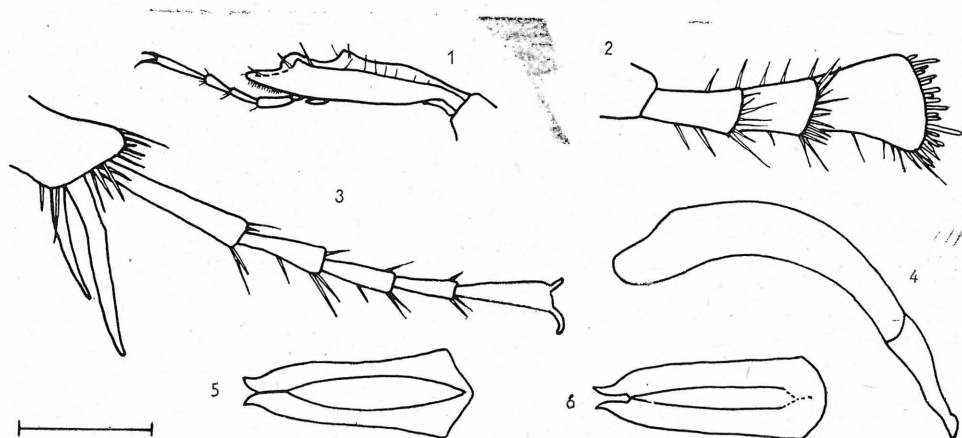
Pronotum only moderately convex, length-to-width ratio 1:0.73, with margined base and rounded angles, shining, dark brown, wide lateral zones paler. Pronotum surface finely punctate; density and size of punctures similar to those on the head. Lateral margins with long, yellow, fine hairs (about 20 hairs along each side). Posterior angles with very short hairs.

Scutellum small, triangular.

Elytra only moderately convex, subparallel, length-to-width ratio 1:0.66, shining, short haired, yellowish brown, with 10 striae and 10 intervals. Striae fine, their punctures rather indistinct, only slightly marking intervals. Intervals flat, sparsely, finely punctate. Elytral disc bare, however, the hairy area of elytra larger than the bare area.

Legs long (particularly intermediate and posterior femora very long). Apical edge of posterior (Fig. 2) and intermediate tibiae with bristles of uneven lengths. Upper terminal spur of posterior tibia bent inwardly (Fig. 3), slightly longer than first tarsal segment. Anterior tibia (Fig. 1) rather slim, its outer margin smooth at the base, its three teeth (including the apical one) rather short and blunt, the apical tooth with a dense brush of short hairs along its inner margin. Apical spur of anterior tibia short, leaf-shaped.

Ventral surface also yellowish brown. Pygidium with about 15 long, acute, erect setae. Abdominal sternites smooth, impunctate except for transverse rows of punctures bearing long hairs. Metasternum smooth, medially with a complete longitudinal furrow; the furrow surrounded by a hairy-margined, oval, concave area; laterally with few short, semidecumbent hairs. Mesosternum coriaceous. Pronotum richly haired; the hairs project beyond pronotum margin. Femora smooth, hairy along anterior margins. Mouth parts richly hairy.



Figs. 1—6: *Aphodius (Paramelinopterus) longipennis* sp. n. 1 — right anterior tibia and tarsus, 2 — right posterior tibia [outer view], 3 — apical end of right posterior tibia and right posterior tarsus [inner view], 4 — aedeagus [lateral view, left side], 5 — paramers [ventral view], 6 — paramers [dorsal view]. Scale line 0.3 mm for paramers, 0.5 mm for other parts.

Aedeagus (Fig. 4) slim, unusually long. For the shape of paramers see their dorsal and ventral views in Figs. 5 and 6, respectively.

Type specimen: unique holotype, male — Afghanistan, Kalat-Muqur, June 9, 1967, Daniel lgt., by a trap on a lorry, National Museum, Praha.

Since the sbg. *Paramelinopterus* is a new, monotypic species, only differentiation from species of related subgenera comes into question. For this purpose see Table I.

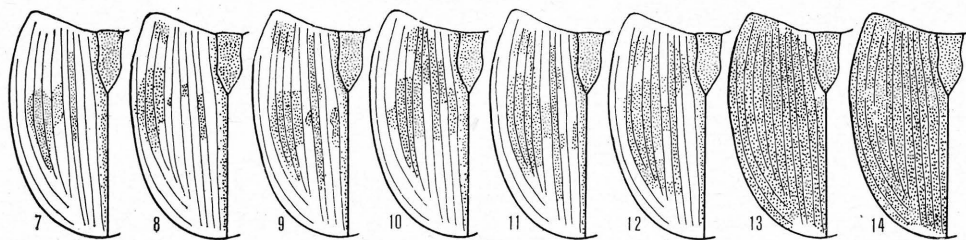
### ***Aphodius (Teuchestes) parabrachysomus* Balthasar**

*Aphodius (Teuchestes) parabrachysomus* Balthasar, 1955: 417.

Balthasar (1955) described this species on the basis of the following specimens: holotype and 1 paratype with black elytra, 3 paratypes with yellowish-red posterior margin of elytra, and 1 paratype with individual yellowish-red spots in second, third and fifth elytral intervals. The localities are as follows: Walang, Salang-Tal (Hindukush, 2520 m), 29. IX. 1952) and Do-Shak, Khinjan-Tal (Hindukush, 2500 m, 1. X. 1952). The length of the type specimens varied between 6 and 6.5 mm.

The material from Mr. Ledoux (25 specimens) is much more variable in length (4.5 to 7 mm) as well as in the elytra colour (see Figs. 7 to 14). In this series, there were 18 specimens with prevalent yellow colour of the elytra (Figs. 7 to 12) and only 7 specimens with prevalent black colour (Figs. 13 and 14). All the specimens were also collected at high altitudes (2700 and 3100 m).

Material examined: two paratypes — Afghanistan, Mars, Panchirtal, 2400 m, 27. 8. 1952, J. Klapperich lgt.; Afghanistan, Walang, Salangtal, 2520 m, 29. 9. 1952, J. Klapperich lgt. (both in Dr. Balthasar's collection). 24 specimens — Afgha-



Figs. 7—14: Different coloration of the elytra of *Aphodius (Teuchestes) parabrachyso-mus Balthasar*.

nistan, Route de Band i Amir a Paujaw, 3100 m, 25. 8. 1975, G. Ledoux lgt. (in my collection). 1 specimen — Afghanistan, Masiff du Koh i Baba, Vallée di Kakrak, 2700 m, 19. 8. 1975, G. Ledoux lgt. (in my collection).

#### References

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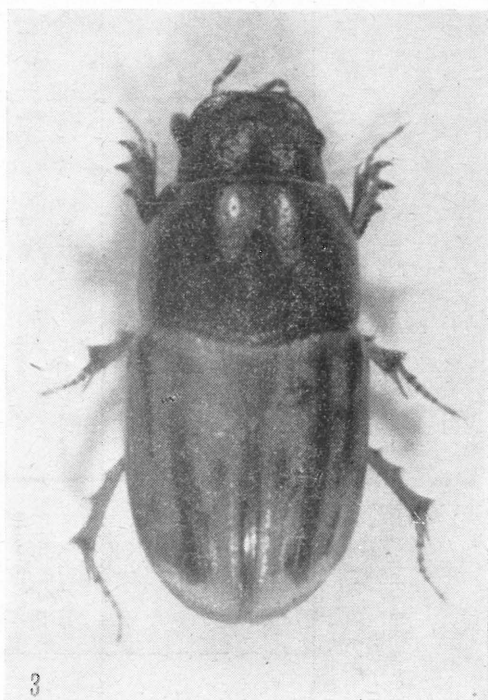
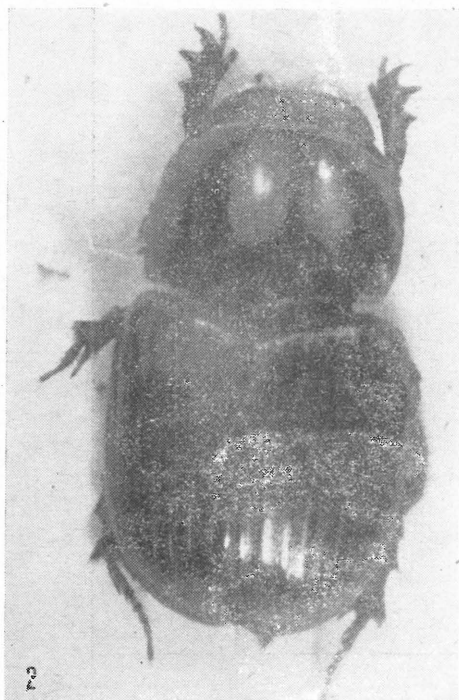
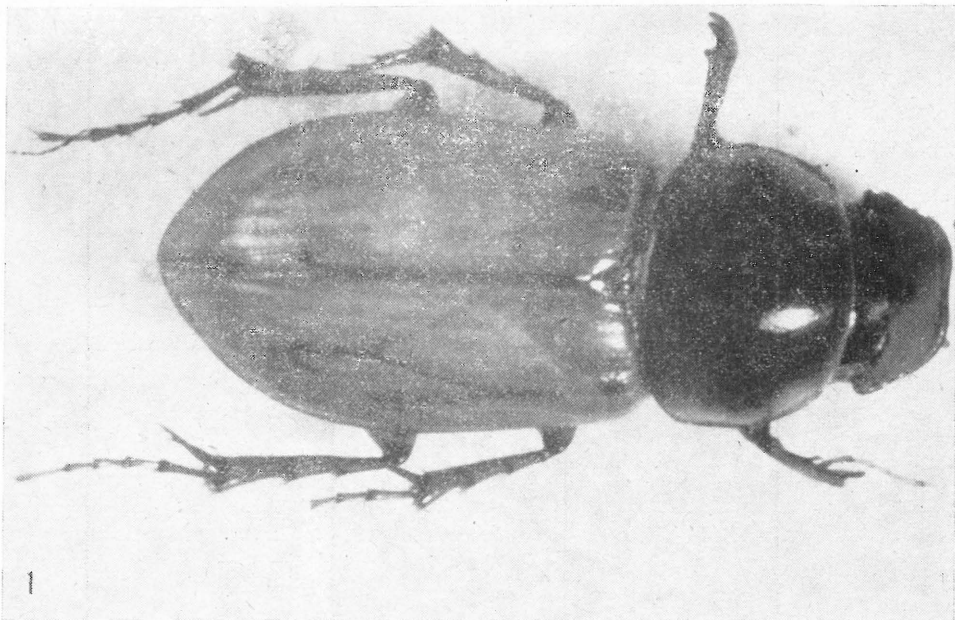


Plate I: 1 — *Aphodius (Paramelinopterus) longipennis* sp. n. (holotype, 6.4 mm), 2 — *Aphodius (Teuchestes) parabrachysomus* Balthasar (paratype, 6.2 mm), 3 — *Aphodius (Teuchestes) parabrachysomus* Balthasar (specimen collected by G. Ledoux, 6.0 mm). Photos by the author.



Table I.  
 Characters for differentiating three related subgenera from each other

<p><i>Melinopterus</i> Mulsant</p>	<p>Clypeus moderatel emarginate anteriorly</p>	<p>Elytra most typically yellowish brown, each with a large smoky spot (one sp. black with paler apex)</p>	<p>Elytral intervals fused posteriorly</p>	<p>Anterior tibia built (as in most subgenera (more robust, its 3 teeth longer and sharp, outer margin either dentate or crenulate at the base, terminal spur needle-shaped)</p>
<p><i>Paramelinopterus</i> subgen n.</p>	<p>Clypeus moderately emarginate anteriorly</p>	<p>Elytra yellowish-brown, without smoky spots, with non-darkened striae</p>	<p>Elytral intervals fused posteriorly</p>	<p>Anterior tibia built in a specific way (slim, its 3 teeth shorter and rather blunt, outer margin smooth at the base, terminal spur short, leaf-shaped)</p>
<p><i>Gilletianus</i> Balthasar</p>	<p>Clypeus not emarginate anteriorly</p>	<p>Elytra yellowish-brown, without smoky spots, with darkened striae</p>	<p>Elytral intervals free posteriorly, extended independently up to the apex (as in <i>Pharaphodius</i> Reitter)</p>	<p>Anterior tibia built as in most subgenera (see <i>Melinopterus</i> Mulsant)</p>