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Xanthopygoides niger Cameron, 1951 (Xanthopygina) belongs to the genus *Philonthus* Stephens, 1829 (Philonthina): systematic and nomenclatural changes for the African Staphylinini (Coleoptera, Staphylinidae, Staphylininae, Staphylinini)

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Abstract

A poorly known African species *Xanthopygoides niger* (Cameron, 1951), hitherto a member of a monotypic genus of the subtribe Xanthopygina, is transferred to the subgenus *Raucalius* Tottenham, 1949 of the genus *Philonthus* Stephens, 1829, subtribe Philonthina, and redescribed. The new genus-group synonymy, *Raucalius* Tottenham, 1951 = *Xanthopygoides* Verdcourt, 1952, is established. A new combination *Philonthus niger* (Cameron, 1951), preoccupied by *Philonthus niger* (O. Müller, 1764) which is a synonym of *Philonthus splendens* (Fabricius, 1793), is replaced by a new name *Philonthus neoniger* Solodovnikov **nom. nov.** Diagnostic characters of the genus *Philonthus*, and the Staphylinini subtribes Xanthopygina and Philonthina are discussed.

Keywords

Staphylinini, Xanthopygina, Philonthina, *Xanthopygoides*, *Philonthus*, Africa, systematics, nomenclature

Introduction

Cameron (1951) described a new genus and species, *Heterogaster niger* from Kenya. The preoccupied genus name *Heterogaster* Cameron, 1951 was replaced by *Xanthopygoides* (Verdcourt 1952). In the original description, *Xanthopygoides niger* was affiliated with *Dysanellus* Bernhauer, 1911 and *Xanthopygus* Kraatz, 1857, genera from the

subtribe Xanthopygina Sharp, 1884 (Cameron 1951). *Xanthopygoides niger* was never re-examined after its original description, and it is listed as a member of Xanthopygina in the most recent catalogues (e.g., Herman 2001b; Newton and Thayer 2005). My examination of the holotype of *Xanthopygoides niger* revealed that it is just another member of the African group of species from the genus *Philonthus* Stephens, 1829, for which Tottenham (1949) proposed a subgenus *Raucalius* Tottenham, 1949, and which was recently revised by Hromádka (2008). Transfer of *Xanthopygoides niger* to *Philonthus (Raucalius)* led to a new synonymy, *Raucalius* Tottenham, 1949 = *Xanthopygoides* Verdcourt, 1952. The new combination *Philonthus niger* (Cameron, 1951), preoccupied by *Philonthus niger* (O. Müller, 1764), a synonym of *Philonthus splendens* (Fabricius, 1793) (Herman 2001a), had to be replaced by a new name *Philonthus neoniger* Solodovnikov.

Although necessarily causing nomenclatural changes, the correct identification of *Philonthus neoniger* Solodovnikov, nom. nov. brings some more consistency in the current concept of the subtribe Xanthopygina. Composition of this primarily Neotropical subtribe of Staphylinini has not been a subject of an adequate phylogenetic study yet. But those few non-Neotropical Xanthopygina which have been recently examined do not belong to the same group as the species-rich Neotropical "core" of xanthopygines (Solodovnikov and Schomann, in press). This new finding about *Philonthus neoniger* is congruent with the hypothesis that the monophyletic Xanthopygina, when rigorously defined, will be a strictly Neotropical group.

Methods

Redescription, comparison and discussion of the taxonomic position of *Philonthus neoniger* (Figs 1-4) are here provided. Its holotype (under the original name *Heterogaster niger* Cameron), which is hitherto the only available specimen of this taxon, is kept at the Natural History Museum in London. Measurements of the body parts of this holotype specimen were made with an ocular linear micrometer as follows: head length (from apex of clypeus to neck constriction); head width (maximal, including eyes); pronotum length (along median line); pronotum width (maximal); elytral length (from humerus to most distal apical margin; best taken from lateral view of the elytron); combined width of both elytra (maximal, elytra closed along suture). Total length of the body was measured from the tip of the labrum to the tip of the abdomen.

Philonthus neoniger Solodovnikov, nom. nov. Taxonomy

Philonthus neoniger (the original combination *Xanthopygoides niger*) is here moved from the subtribe Xanthopygina to *Philonthus*, the type genus of the subtribe Philonthina. This transfer is based on the following complex of character states shared by *P. neoniger* with other members of *Philonthus:* lack of empodial setae; pronotal hypomeron with

superior marginal line deflexed under anterior angle of pronotum, and inferior marginal line becoming obsolete near lateral margin of procoxal cavity, both lines not joining each other (Fig. 2); prosternum fused to pronotum, notosternal sutures indistinct (Fig. 2); no translucent postcoxal process of pronotal hypomeron (Fig. 2); entire ligula; no infraorbital and mandibular ridges on head capsule. Such features of *Philonthus neoniger* as smooth pronotal disk with only one puncture in each of two dorsal "rows", dense and rugose punctation of elytra and abdomen, and, especially, a rather peculiar shape of the aedeagus (Figs 3,4) allow it to be unambiguously placed in the subgenus *Raucalius* Tottenham, 1949.

Members of the subtribe Xanthopygina, instead, are usually characterized by a complete postmandibular ridge; the inferior marginal line of pronotal hypomeron well separated from the superior marginal line, both lines continuing uninterrupted and separated along the prosternal margin. Also, unlike Philonthina, all members of Xanthopygina have a pair of empodial setae (Smetana and Davies 2000).

Genus *Philonthus* Stephens, 1829
(type species *Philonthus splendens* (Fabricius, 1793)

Subgenus *Raucalius* Tottenham, 1949
(type species *Philonthus peripateticus* Tottenham, 1949)
= *Xanthopygoides* Verdcourt 1952 (nom. nov. for *Heterogaster* Cameron, 1951), **syn. nov.** (type species *Heterogaster niger* Cameron, 1951)

***Philonthus neoniger* Solodovnikov, nom. nov.**
= *Philonthus niger* (Cameron, 1948), **comb. nov.** for *Xanthopygoides niger* (Cameron, 1951), secondary homonym of *Philonthus niger* (O. Müller, 1764); the latter is a nonvalid senior synonym of *Philonthus splendens* (Fabricius, 1793).

Type material examined. Male: Holotype: "[red margined circle]/ Emali Range Sultan Hamud 4900-5900 ft. 3-40/ *Heterogaster niger* Type Cam. [handwritten label]/ Pres. by Com. Inst. Ent. BM 1952-575" (Natural History Museum in London).

Redescription. Body dark blackish brown (piceous). Mouthparts, tarsi, two basal segments of antennae paler, variously brownish. Bases of elytra from shoulder to base of scutellum (part mostly hidden under base of pronotum) yellowish. Head and pronotum smooth and glossy, elytra and abdomen dull, with rugose punctation. Body length 12 mm. Habitus as in Fig. 1.

Head slightly transverse (width to length ratio 1.14), parallel-sided behind eyes, with broadly rounded but still distinct posterior angles. Eyes slightly shorter than temporae which, measured from posterior margin of eye to neck constriction, 1.32 times as long as eye. Surface of head glossy; transverse wavy microsculpture very distinct on frons only, hardly visible elsewhere. Temporae covered by numerous smaller and few large setiferous punctures. Two setiferous punctures on frons between eyes. Antennae (not entirely preserved in the holotype): antennomere I slightly longer than antenno-

Fig. 1. *Philonthus neoniger* Solodovnikov, nom. nov. Holotype. Habitus. Scale bar 1 mm.

mere II, antennomeres II and III about the same length; antennomeres IV-VII about as long as wide; antennomeres I-III with setae only, IV-VII (and presumably IV-XI) – with setae and dense pubescence.

Pronotum slightly longer than wide (length to width ratio 1.08) and slightly wider than head (pronotum width to head width ratio 1.08), with very distinct anterior angles and distinct but more rounded posterior angles, widest in the anterior third of its length; pronotal sides slightly converging and feebly sinuate in front and behind the maximal width of pronotum. Surface of pronotum smooth and glossy with hardly visible irregular miscrosculpture and micropunctation. Disk of pronotum with only one puncture in each dorsal "row".

Scutellum closely, moderately roughly punctate.

Elytra longer and distinctly wider than pronotum, diverging posteriad (elytral width to length ratio 1.05). Their surface closely, strongly and coarsely punctate; interstices very narrow with visible irregular microsculpture. Pubescence of elytra short, close, brownish.

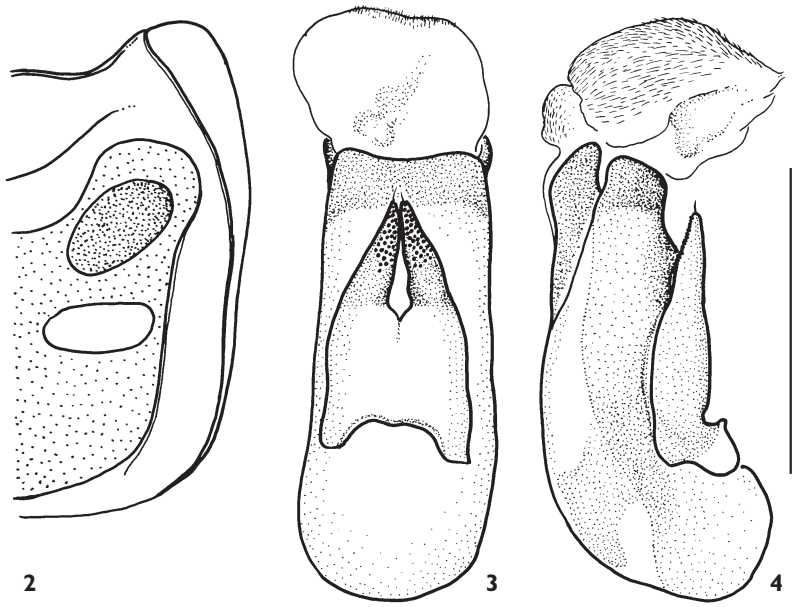
Abdomen very closely, evenly and rather finely punctate, its pubescence as on elytra. Abdominal tergites III-V with two (basal and subbasal) straight carinae; tergites VI-VII only with one (basal) straight carina. Apical margin of tergite VII with whitish seam.

Legs with tibiae pubescent and spinose. Anterior tarsi of male dilated (female unknown), dorsally setose, ventrally with dense cover of whitish adhesive setae. Middle and posterior tarsi simple, as long as middle and posterior tibiae, respectively.

Aedeagus robust, short and wide, with broad blunt apex, with pair of slcerotized lobes of characteristic shape dorso-laterally; paramere deeply divided into two pointed branches which converge apico-medially, each of them apically with irregular group of sensory peg setae on the underside. Internal sac weakly sclerotized, bulb-like when everted (Figs 3, 4).

Female unknown.

Comparison. Among the seven other species belonging to the subgenus *Raucalius* (Hromádka 2008) *Philonthus neoniger* Solodovnikov, nom. nov. is most similar with *P. peripateticus* Tottenham, 1949. Both species however can be very easily distinguished by shape of the aedeagi (cf. with Figs 14, 15 in Tottenham (1949), Figs 29-32 in Hromádka (2008), and with Figs 3, 4 here). The aedeagus of *P. neoniger* is more robust (relatively shorter and wider) than in *P. peripateticus.* Also the peg setae on the paramere are arranged differently in both species: they are irregularly grouped near the apex of each parameral branch in *P. neoniger*, but arranged in two longitudinal rows at the apex of each parameral branch in *P. peripateticus*.



Figs 2-4. *Philonthus neoniger* Solodovnikov, nom. nov. Details of structure: 2, prothorax (in vertral view, only left side illustrated, anterior leg removed); 3, aedeagus in dorsal (parameral) view (internal sac everted); 4, aedeagus in lateral view (internal sac everted). Scale bar 1 mm.

Distribution and bionomics. The species is known only from the holotype, from the type locality in Kenya, Eastern Africa. It was collected at an elevation of 1500-1800 m.

Etymology. The new name is derived from the original name "*Philonthus niger*" by adding the prefix "neo" [new] which refers to its new name. It is an adjective of masculine gender.

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