



New data on the Afrotropical Xantholinini (Coleoptera, Staphylinidae). New genus and new species of Uganda, Tanzania, Cameroon, and Gabon

299^o contribution to the knowledge of the Staphylinidae

Arnaldo BORDONI

*Museo di Storia Naturale dell'Università degli Studi di Firenze,
sezione di Zoologia "La Specola", via Romana 17, I-50125 Firenze, Italy; e-mail: arnaldo.bordoni@fastwebnet.it*

Abstract: *Kalinzulinus* gen. nov. and *Kalinzulinus minutus* sp. nov. from Uganda are described and illustrated. The following new species are also described and illustrated: *Thyreocephalus tanzanicus* sp. nov. related to *T. mocquersyi* (Fauvel, 1903), *Agaporina tanzanica* sp. nov. from Tanzania, *Chaetocinus gabonicus* sp. nov. from Gabon, related to *C. asymmetricus* Bordoni, 2016 from Gabon, and *Chaetocinus jokoensis* sp. nov. from Cameroon, related to *C. persalsus* Bordoni, 2016 from Cameroon and Congo. The male of *Nudobius quadriceps* Cameron, 1929 is described and figured for the first time.

Key words: Coleoptera, Staphylinidae, Xantholinini, *Kalinzulinus* gen. nov., *Kalinzulinus minutus* sp. nov., *Nudobius*, *Agaporina*, *Thyreocephalus*, *Chaetocinus*, new species, Africa south of Sahara

INTRODUCTION

This is the seventh supplement after the publication of the revision of the afrotropical Xantholinini (Bordoni, 2016). In that volume 425 species were treated, including those species found in South Africa. In this short contribution I describe a new species of the genus *Thyreocephalus* Guérin- Méneville, 1844, one of the genus *Agaporina* Bordoni, 2016 and two new species of the genus *Chaetocinus* Clark et al., 1972 that is one of the most interesting and widespread genus of Xantholinini in Africa exactly in the south of Sahara where the Xantholinini fauna is actually represented by 45 species. I describe also a new genus (*Kalinzulinus* gen. nov.) and the species *Kalinzulinus minutus* sp. nov. from Uganda; it is very peculiar comparing to its allied taxa. In this contribution I have used the following acronyms: cB: coll. Bordoni, Firenze, Italy; IRSNB: Institut royal des Sciences naturelles, Bruxelles, Belgium; MRAC: Muséum royal de l'Afrique centrale, Tervuren, Belgium; NMB: Naturhistorisches Museum, Berlin, Germany; ZMC: Zoologisk Museum, Copenhagen, Denmark.

TAXONOMY

Thyreocephalus ater (Laporte, 1835)

Examined material. Dahomey (NW Benin), Tanguéta, M. Tabacco V.1970, 1 ex. (cB).

Distribution. Africa south of Sahara until Malawi (Bordoni 2016).

Thyreocephalus coeruleipennis (Quedenfeld, 1881)

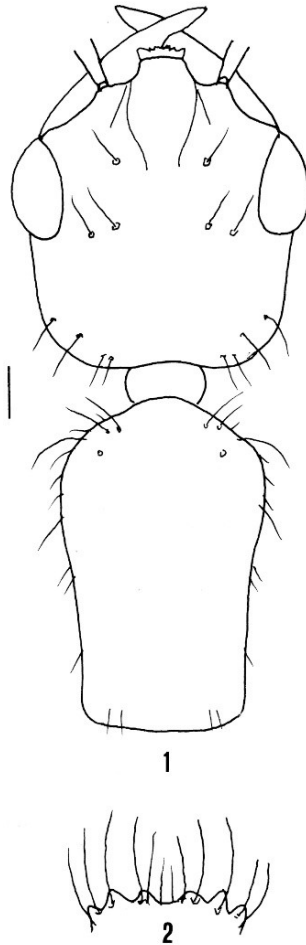
Examined material. E Gabon, Ogoové-Ivindo Prov., Makokou 5 km SE, 0° 31'55"N, 12° 53'34"E, 500 m, secondary lowland rainforest, D. Telnov 24.VI.2016, 1 ex. (coll. Telnov, Latvia).

Distribution. Gabon, Sierra Leone, Ghana, Fernando Poo Isl., Cameroon, Equatorial Guinea, Congo, Angola (Bordoni 2016).

Thyrecephalus tanzanicus sp. nov.
(Figs 1–2)

Examined material. Holotype ♀: E Tanzania, W edge of Mikumi Nat. Park, S. Prepsl 31.XII.2015 (cB).

Diagnosis. This species is peculiar for the following characters: light color, similar to that of *T. michaeli* Janak, 2010, fine punctation on head, eyes very protruding, shape of head, labrum and pronotum, punctation of elytra, pubescence. *T. tanzanicus* sp. nov. belongs to the group C of the *Thyrecephalus* Guérin-Mèneville, 1844 in my revision of the Afrotropical Xantholinini (Bordoni, 2016) and to the *mocquerysi* sub-group. It is closely related to the *mocquerysi* species.



Figs 1–2. Head and pronotum (1) and labrum (2) of *Thyrecephalus tanzanicus* sp. nov. (scale bar: 0.5 mm).

Description. Length of body 16 mm from anterior margin of head to posterior margin of elytra: 10 mm. Reddish brown light, with orange elytra; antennae and legs brown. Head and pronotum and related punctuation as in Fig. 1. Head with micro-punctuation on the clypeus; punctuation on the surface very fine and sparse; the distance between the punctures is about equal to 3–4 times their diameter. Labrum as in Fig. 2, with acute protrusions. Pronotum narrow, with very small puncture near the anterior angles; two larger setiferous punctures to each side, near the anterior margin of the pronotum. Elytra large, very longer and wider than pronotum, slightly dilated posteriad, with marked humeral angles. Surface with very fine and dense punctuation, with yellow setae, parallel to surface, facing backwards. Scutellum very small, with 2–3 fine punctures. Abdomen shiny, without micro-sculpture, with fine, evident and relatively closed punctuation, arranged in 4–5 series on each segment, provided with setae as on elytra but visibly longer.

Male unknown.

Etymology. The specific epithet refers to Tanzania.

Distribution. The species is known only from the type locality.

Remarks. I decided to describe the species on the basis of one female, because none of the species of this genus known to me in Africa south of the Sahara and Madagascar has a female with the described characteristics.

Metocinus hagenianus Bordoni, 2016

Examined material. Congo, Kivu, Ter. Uvira, Ht Luvubu, 2750 m, N. Leleup V.1954, 1 ♂ (cB).

Distribution. Congo: Kivu (Bordoni, 2016).

Remarks. The species belong to the sub-group afroalpestris (Bordoni 2016) and is known only from the Kivu region (Mwenga and Luvubu).

Nudobius quadiceps Cameron, 1929

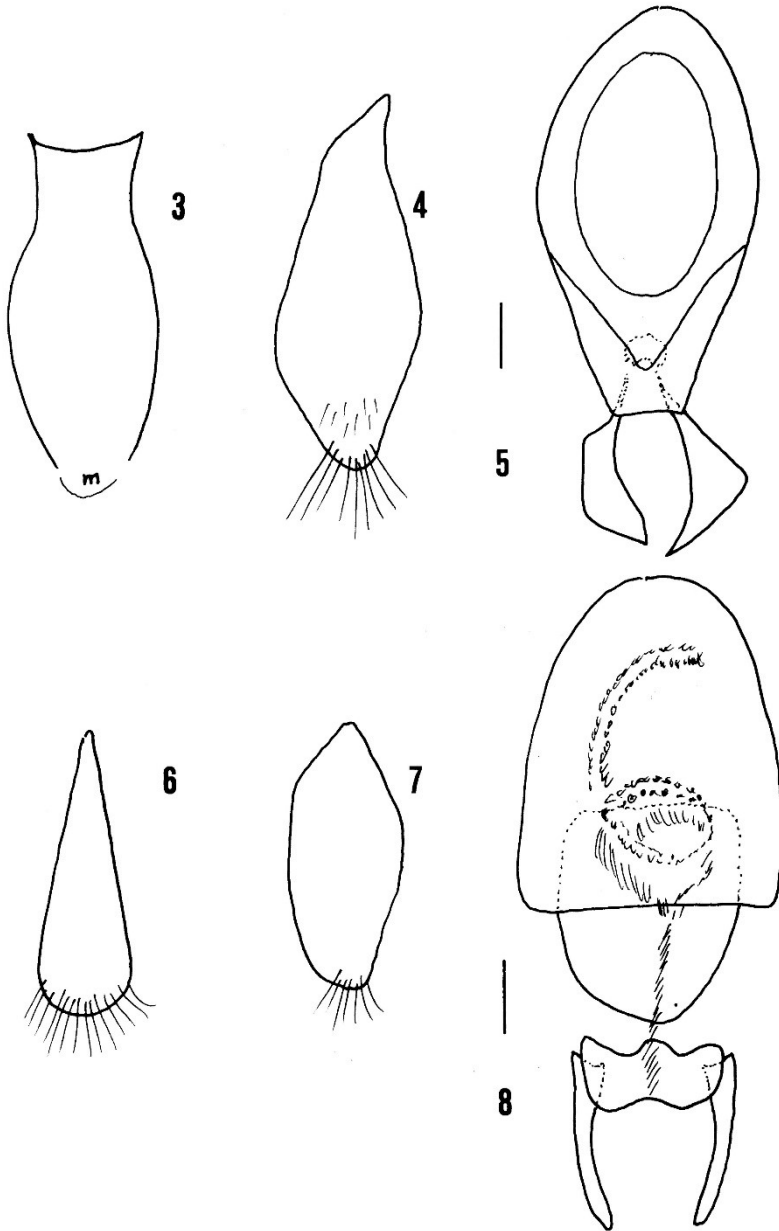
(Figs 3–5)

Examined material. Congo, Kivu, Terr. Masisi, Lac Lukulu, 1800 m, N. Leleup VI. 59, sous écorces d'arbres morts, 1 ♂, 1 ♀ (MRAC).

Diagnosis. A *Nudobius* fully winged, almost flat, brownish black to black with yellowish tarsi, similar to *N. proximus* Bernhauer, 1915 from Ethiopia but darker and with last abdominal segments black and not reddish. Body flatter, head larger with fine punctuation, forming lateral striae, pronotum smaller and shorter, elytra shorter and narrower with more marked humeral angles, and much finer and sparser punctuation.

Description. The external characters of the male of *Nudobius quadiceps* are the same described in the revision of the Afrotropical Xantholinini (Bordoni 2016). Tergite and sternite of male genital segment as in Figs 3–4. Aedeagus (Fig. 5) 0.88 mm long, oblong, narrow distally, with asymmetrical, parameres robust; inner sac apparently not visible.

Remarks. Until now this species, which occurs in Congo, Rep. Congo, Rwanda, Kenya, was known only on the basis of female specimens (Bordoni 2016). The study of a couple of specimens that had not been examined during the aforementioned revision provides me with the opportunity to describe and illustrate the male for the first time.



Figs 3–8. Tergite (3) and sternite (4) of male genital segment, aedeagus (5) of *Nudobius quadriceps* Cameron; tergite (6) and sternite (7) of male genital segment, aedeagus (8) of *Agoreina tanzanica* sp. nov. (scale bar: 0.1 mm).

***Agaporina tanzanica* sp. nov.**

(Figs 6–8)

Examined material. Holotype ♂: Tanzania, Uluguru Mts, Lapanga East, 1600 m, M. Stoltze & N. Scharff 10.VII.1981 (ZMC); paratypes ♂ and ♀: 9 exx. (ZMC), 5 exx. (cB).

Diagnosis. The species is closely related to *Agaporina encephala* (Fauvel, 1907) from Tanzania (Katona, Usumbara) for the very fine and sparse punctation on head, instead of large, deep, sparse punctation as in other species of the genus. *A. tanzanica* differs from *A. encephala* in particular by the structure of the aedeagus and hits inner sac.

Description. Length of body 4.8 mm from anterior margin of head to posterior margin of elytra: 2.4 mm. Body shiny, entirely reddish orange light. Head sub-rectangular, with slightly rounded sides and widely rounded posterior angles. Eyes medium-sized, a little protruding. Surface of head with few, very fine punctures. Pronotum sub-rectangular, longer than head, as wide as it, with oblique anterior margins, almost obsolete anterior angles and not sinuate sides. Surface with dorsal series of 9–10 punctures and lateral, oblique series of 5–6 punctures; all the punctures very fine. Elytra wider than pronotum, as long as it, with rounded humeral angles. Surface with very fine, sparse punctation, arranged in some series. Abdomen with fine, transverse micro-striation and fine, sparse punctation.

Tergite and sternite of male genital segment as in Figs 6–7. Aedeagus (Fig. 8) 0.9 mm long, ovoid, composed by the usual two parts, with peculiar distal portion; parameres long and narrow; inner sac tube-like, covered with scales and spinulae.

Etymology. The specific epithet refers to Tanzania.

Distribution. The species is known only from the type locality.

Remarks. Up to now the known species of the genus *Agaporina* were 7. Of these only one is known of Tanzania (*A. encephala* (Fauvel, 1907)). From it the new species differs mainly due to the shape of the aedeagus and its inner sac.

***Chaetocinus gabonicus* sp. nov.**

(Figs 9–11)

Examined material. Holotype ♂: Gabon, Loango, coll. Fauvel, R.I.Sc.N.B. 17479 (IRSNB).

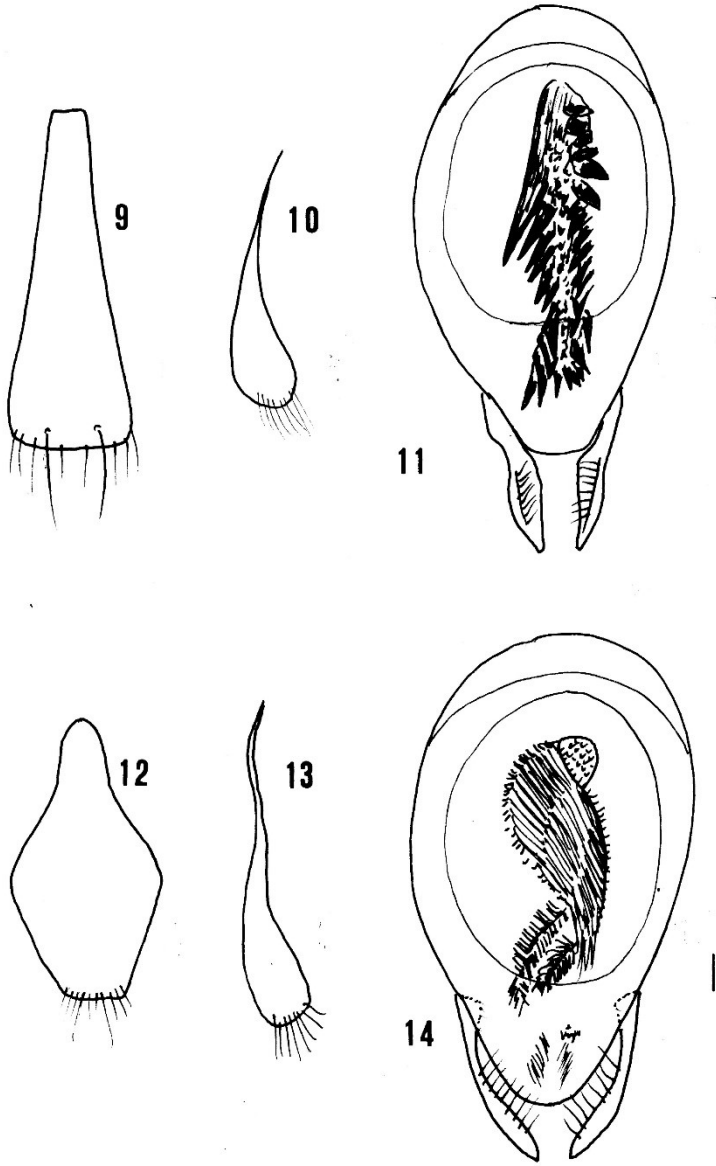
Diagnosis. The new species differs from *C. asymmetricus* Bordoni, 2016 from Belinga (Gabon) (Bordoni, 2016) by the following characters: body smaller, lighter color, less rounded sides of head, eyes much larger, pronotum with widely rounded anterior angles, narrower elytra with different punctation (some spaced, superficial punctures), and by genitalia.

Description. Length of body 4.7 mm from anterior margin of head to posterior margin of elytra: 2.6 mm. Body shiny, without micro-sculpture, reddish brown with lighter antennae and legs. Head sub-rectangular, narrow in front, with rounded sides and widely rounded posterior angles. Eyes medium-sized and very protruding. Surface of head with fine, sparse punctation, except for a wide median stripe. Pronotum as long as head, anteriorly dilated where is a little narrower than it, with oblique anterior margins, widely rounded anterior angles and very emarginated sides. Surface with dorsal series of 8–9 fine punctures and lateral series of 6–7 superficial punctures. Elytra large, wider and longer than pronotum, dilated posteriorly, with rounded humeral angles. Surface with some spaced series of superficial punctures. Abdomen with fine punctation, arranged in some series on each segment.

Tergite and sternite of male genital segment as in Figs 9–10. Aedeagus (Fig. 11) 1 mm long, ovoid, with narrow distal portion; parameres robust; inner sac covered with numerous, evident spines.

Etymology. The specific epithet refers to Gabon.

Distribution. The species is known only from the type locality.



Figs 9–14, Tergite (9) and sternite (10) of male genital segment, aedeagus (11) of *Chaetocinus gabonicus* sp. nov.; tergite (12) and sternite (13) of male genital segment, aedeagus (14) of *Chaetocinus jokoensis* sp. nov. (scale bar: 0.1 mm).

***Chaetocinus jokoensis* sp. nov.**

(Figs 12–14)

Examined material. Holotype ♂: Kamerun, Joko, L. Kolin II.12 (NMB); paratypes: same data, Heyne, 3 ♂♂ (NMB), 1 ♂ (cB).

Diagnosis. A *Chaetocinus* that differs from the other species from Cameroon (*C. major* (Coiffait, 1968), *C. camerunensis* Bordoni, 2016, *C. persalsus* Bordoni, 2016, *C. notabilis* Bordoni, 2016) by external characters and genitalia. *C. persalsus* of Yaounde and Congo is the species that can be approached for the characters related to the inner sac, but differs by lighter coloration, sub-rectangular head with more narrowly rounded posterior angles and sparser punctation.

Description. Length of body 6 mm from anterior margin of head to posterior margin of elytra: 3 mm. Body shiny, without micro-sculpture, reddish brown light. Head sub-rectangular, dilated posteriad, with sub-rectilinear sides and narrowly rounded posterior angles. Eyes medium-sized and visibly protruding. Surface of head with few, scattered punctures, especially on the sides. Pronotum dilated in front a little longer than head, anteriorly as wide as it, with slightly oblique anterior margins, narrowly rounded anterior angles and very sinuate sides. Surface with dorsal series of 5 scattered punctures and lateral series of 3 punctures. Elytra large, dilated posteriad, longer and wider than pronotum, with rounded humeral angles. Surface with three series of very fine and spaced punctures, one juxtasutural one median and one lateral. Abdomen with very fine and sparse punctation.

Tergite and sternite of male genital segment as in Figs 12–13. Aedeagus (Fig. 14) 1.4 mm long, ovoid, with narrow distal portion; parameres long and narrow, with long setae; inner sac S-shaped, screwed on himself, covered with long, very fine and very dense spinulae; the medio-distal portion present two series of little scales, from whose sides start long and thin setae, shaped like a herringbone; two tufts of fine spinulae near the distal part of the bulbous.

Etymology. The specific epithet refers to the type locality.

Distribution. The species is known only from the type locality.

Remarks. The specimens, collected at the beginning of the 1900s, are in poor conditions, stiffened, due probably to approximate methods of conservation when collected, and remounted with difficulty on new labels.

***Kalinzulinus* gen. nov.**

(Figs 15–22)

Type species: *Kalinzulinus minutus* sp. nov.

Diagnosis. A new genus related to *Agaporina* Bordoni, 2016 and *Metocinus* Cameron, 1950. for the structure of the aedeagus, characterized by eyes small and flat, by small size, very light color, by the shape of the maxillary and labial palpi, ocular and frontal grooves superficial and short, antesternal plate divided, anterior tarsi short and squat, the last article as long as the previous three articles together, upper epipleural line of pronotum present for a posterior and anterior portion only, not joint with the lower line.

Description. Very small and flat body (3.5 mm) (Fig. 15–16, 26), uniformly yellow orange; eyes small and flat; ocular and frontal grooves superficial and short; labrum as in Fig. 17; mandibles with groove; antennae with globular articles as in Fig. 18; maxillary palpi short, globular, the third longer than second and the last very small, short and narrow (Fig. 19); labial palpi of similar shape (Fig. 20); gular sutures as in Fig. 21; antesternal plate divided; sternum with slightly rounded posterior margin; mesosternum as in Fig. 22; anterior tarsi short and squat; upper epipleural line of pronotum present for a posterior and anterior portion only, not joint with the lower line; anterior tarsi short and squat, the last article as long as the previous three articles

together; one ctenidium; aedeagus very small, totally diaphanous, transparent, with peculiar distal portion and parameres; inner sac apparently not visible, apart few, minute spinulae.

Female unknown.

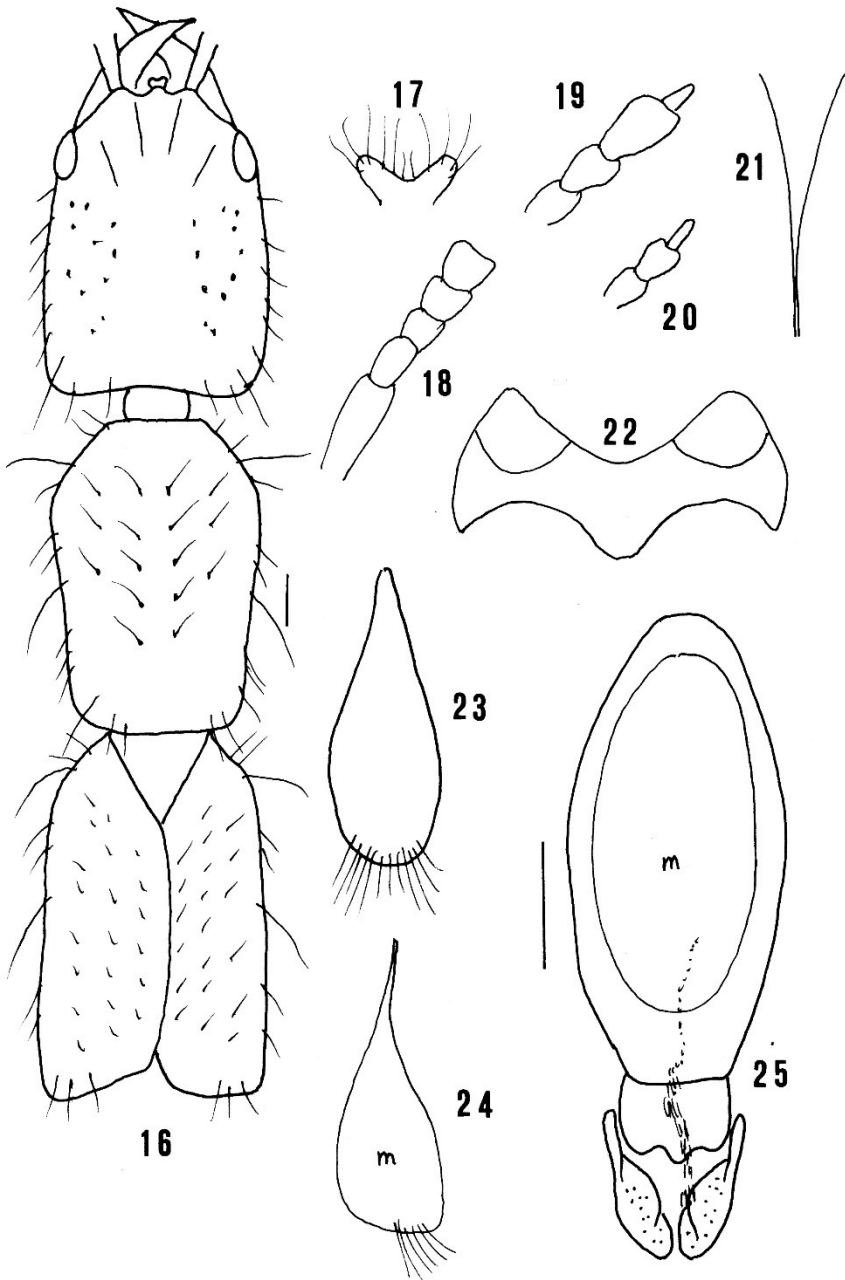
Etymology. The generic name, masculine, refers to the type locality.

Distribution. Uganda.

Remarks. For the external characters and those related to the aedeagus, the genus differs from those known in Africa South of Sahara. I am currently unable to define its systematic position, even if the peculiar distal structure of the aedeagus resembles that of genera *Agaporina* Bordoni, 2016 and *Metocinus* Cameron, 1950.



Fig. 15. Habitus of *Kalinzulinus minutus* sp. nov. (total length 3.5 mm). Photo by P. Magrini.



Figs 16–25. *Kalinzulinus minutus* sp. nov.: forebody (16) (scale bar 0.1 mm), labrum (17), antenna (18), maxillary palpus (19), labial palpus (20), gular sutures (21), mesosternum (22), tergite (23) and sternite (24) of male genital segment, aedeagus (25). Scale bar: 0.1 mm.

***Kalinzulinus minutus* sp. nov.**
(Figs 16, 23–25)

Examined material. Holotype ♂: Uganda, (Busheyi Distr., Ishaka), Kalinzu forest, 1400 m, loc. coll. II.1986 (cB).

Description. Length of body 3.5 mm from anterior margin of head to posterior margin of elytra: 2.1 mm. Body (Figs 16, 26) shiny, entirely yellow orange, with lighter legs and antennae. Forebody and related punctuation as in Fig. 16. Elytra dilated posteriad, longer than pronotum, posteriad as wide as it. Abdomen with two series of very fine and scattered punctures on each segment.

Tergite and sternite of male genital segment as in Figs 23–24. Aedeagus (Fig. 25) 0.51 mm long, transparent, diaphanous, ovoid elongated, narrow, with peculiar distal portion and parameres; inner sac apparently not visible, except for few, minute spinulae.

Etymology. The specific epithet is the Latin *minutus*- a- um (minute).

Distribution. The species is known only from the type locality.

Remarks. As a result of the manipulation for the study of external characters and because of the fragility of the specimen, the same is in bad condition, in fact it is devoid of part of left antenna and part of anterior tarsi. For this reason it is included in Euparal. I found casually this specimen in a lump of soil and sawdust between the spines of a leg of a large corticolous beetle, which leads me to think that it may be a species living under bark, also in consideration of the dimensions, the flatness of the body and the reduced eyes.

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STRESZCZENIE

[Nowe dane o Xantholinini (Coleoptera, Staphylinidae) z tropikalnej Afryki. Nowy rodzaj i nowy gatunek z Ugandy, Tanzanii, Kamerunu i Gabonu]

Nowe dane o Xantholinini z tropikalnej Afryki dotyczą 9 gatunków, przy czym zawierają opisy i ilustracje pięciu gatunków nowych dla nauki, w tym jeden z nich reprezentuje nowy rodzaj *Kalinzulinus* gen. nov. i nowy gatunek *Kalinzulinus minutus* sp. nov. z Ugandy. Podano też opisy i zilustrowano 4 inne nowe gatunki. Są nimi: *Thyreocephalus tanzanicus* sp. nov. (bliskiego z *T. mocquerysi* (Fauvel, 1903)), *Agaporina tanzanica* sp. nov. z Tanzanii oraz *Chaetocinus gabonicus* sp. nov. z Gabonu, pokrewnego z gatunkiem *C. asymmetricus* Bordoni, 2016 z Gabonu oraz *Chaetocinus jokoensis* sp. nov. z Kamerunu oraz z *C. persalsus* Bordoni, 2016 z Kamerunu i Kongo. Ponadto, samiec gatunku *Nudobius quadriceps* Cameron, 1929 został opisany i zilustrowany po raz pierwszy.

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