

**Afrotropical Neurigoninae and notes on
the diaphorine genus *Dactylonotus* PARENT
(Diptera Dolichopodidae)**

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Abstract

New records for known African species and descriptions of 2 new species are given in this paper : *Tenuopus ntchisi* sp. nov. from Malawi and *Tenuopus taitensis* sp. nov. from Kenya. *Saucropus univittatus* LOEW is redescribed and transferred to *Dactylonotus*. A revised catalogue of Afrotropical Neurigoninae and a key to *Tenuopus* species are also presented.

Keywords : Diptera, Dolichopodidae, *Dactylonotus*, *Saucropus*, *Tenuopus*, new species, new combination, Tropical Africa.

Introduction

The representatives of the subfamily Neurigoninae were firstly mentioned for Afrotropical Region by LOEW (1858, see also LOEW, 1860), who described females of two new species, *Saucropus cyanescens* and *S. univittatus* from South Africa. The genus *Saucropus* LOEW, 1857 is now considered as synonym of the genus *Neurigona* RONDANI, 1856. *Saucropus univittatus* is transferred to the genus *Dactylonotus* PARENT, 1934 in this paper. *S. cyanescens* can not be associated with *Neurigona*, *Tenuopus* or *Dactylonotus* species and may be regarded as unplaced species of Dolichopodidae. The «Catalogue of the Diptera of the Afrotropical Region» (DYTE & SMITH, 1980) included also a doubtful record of female *Neurigona angulata* DE MEIJERE, 1916 from Seychelles (LAMB, 1922). The specimens have been most probably misidentified and the species widely distributed in Oriental and Pacific Regions should be excluded from Afrotropics. I have seen the species collected in Orient. The wing venation is quite similar to that in *Tenuopus* species, and body looks like

that in some yellow-coloured *Amblypsilopus* species. There have been no other reliable records of *Neurigona* species from Afrotropics. So, the genus seems to be absent in Afrotropical Region.

The genus *Tenuopus* was established by CURRAN (1924) for a new species *T. univittatus* CURRAN nec LOEW (misidentification; = *Tenuopus erroneus* PARENT) from South Africa. In subsequent publications CURRAN described *T. acrosticalis* and *T. frontalis* (female) and transferred *Saucropus cyanescens* LOEW to the genus *Tenuopus*, relating it with the subfamily Chrysosomatinae (CURRAN 1927a, 1927b). Later PARENT (1931, 1934, 1939) described three new species and excluded *Saucropus univittatus* LOEW and *S. cyanescens* LOEW from the genus. DYTE & SMITH (1980) transferred *Psilopus unicolor* BECKER to the genus *Tenuopus*, listing it within the subfamily Neurigoninae. All species are known from southern and tropical Africa, though an undescribed species was mentioned by DYTE (1975) from the Oriental Region. Recently GRICHANOV (1996) described four new species of the genus. In this paper two new species of *Tenuopus* are described and new records for known species are given based on the collections of the Museum of Natural History, Paris [MNHP], the Royal Institute for Natural Sciences, Brussels [IRSNB], the Royal Museum for Central Africa, Tervuren [RMCA], the National Museum of Kenya, Nairobi [NMK], the Natal Museum, Pietermaritzburg, South Africa [NMP], and the Department of Zoology, Tel Aviv University, Israel [TAU]. Now 13 Afrotropical species of *Tenuopus* are known. Listing material examined, I use here slash (/) to separate labels on one pin and square brackets [...] to insert my personal remarks. An exclamation mark (!) after distribution localities means that it is a new record for the particular country. The relative lengths of the podomeres are representative ratios and not measurements (1 mm = 78). Hypopygia removed from the dry specimens are placed after alkalisation into glycerol and mounted on the same pin in a cavity of polymer film covered with a piece of adhesive tape. Deposition of types of the new species is mentioned under the new names.

Catalogue of afrotropical species of Neurigoninae (for complete references see DYTE & SMITH, 1980)

Genus *Neurigona* RONDANI

Neurigona RONDANI, 1856 : 142. Type species : *Musca quadrifasciata* FABRICIUS, 1781 (original designation).

= *Saucropus* LOEW, 1857 : 4¹ (unnecessary nom. nov. for *Neurigona* RONDANI, 1856). Type species : *Musca quadrifasciata* FABRICIUS, 1781.

angulata DE MEIJERE, 1916 : 228. Indonesia (Java); Indonesia (Maluku), PNG (Bismarck Arch.), Solomon Is., Oriental Region; ?Seychelles

Genus *Tenuopus* CURRAN

Tenuopus CURRAN, 1924 : 228. Type-species *Saucropus univittatus* LOEW, 1858 sensu CURRAN (misidentification) = *Tenuopus erroneus* PARENT, 1934, by original designation.

acrosticalis CURRAN, 1927a : 3. Uganda, Nigeria, Congo (Kinshasa), Kenya, Ghana, Central African Republic (!), Burundi (!)

cognatus PARENT, 1934 : 122. South Africa

erroneus PARENT, 1934 : 123. South Africa

=*univittatus* CURRAN nec LOEW

frontalis CURRAN, 1927b : 265. Congo, Ghana, Nigeria, Sierra Leone

fursovi GRICHANOV, 1996 : 129. Liberia

guttatus PARENT, 1939 : 269. Ghana, Congo (Kinshasa), Ivory Coast (!)

kononenkoi GRICHANOV, 1996 : 127. Uganda

maculatus PARENT, 1931 : 46. Malawi, Tanzania, Kenya (!)

ntchisi GRICHANOV, **sp. nov.** Malawi

shcherbakovi GRICHANOV, 1996 : 129. Uganda

taitensis GRICHANOV, **sp. nov.** Kenya

unicolor BECKER, 1914 : 126 (*Psilopus*). Kenya, Congo (Kinshasa)

zverevi GRICHANOV, 1996 : 128. Congo (Kinshasa)

Unplaced species of Dolichopodidae

cyanescens LOEW, 1858 : 373, 1860 : 279, 351 (*Saucropus*). South Africa

Descriptions and new records

Subfamily Neurigoninae

Genus *Tenuopus* CURRAN

Diagnosis. All the species examined and described have the following features. Long, mostly yellow body; one pair of ocellar, occipital and postvertical bristles; proboscis with a pair of black lateral setae and yellow hairs; scape bare, pedicel with digitiform appendix upon first flagellomere, more developed in males; arista dorsal, short pubescent. Mesonotum convex, no meso-scutal flattening; six or seven dorsocentral bristles with first bristle somewhat smaller; scutellum with two strong bristles. Legs mostly yellow, coxae with yellow hairs and black bristles, hind coxa with one external bristle; mid and hind femora usually with one subapical seta. Wing vein R_{2+3} , reaches costa in apical fifth of wing, being nearly parallel with R_{4+5} ; M_1 with gentle arc to apex, reaching costa before wing apex, near R_{4+5} ; M_2 usually present as fold on membrane; *m-cu* straight, *bm-cu* reduced. Abdomen of six segments with strong marginal bristles, without tergal window in segment 1, and with less sclerotised "pseudotergite" between segments 1 and 2 (see PARENT, 1938; BICKEL, 1994); seventh segment and hypopygium small, epandrium usually

concealed; cercus short and simple, surstylus usually long, often bifurcated; at least one very long and a few short epandrial lobes. Convex mesonotum and subapical femoral setae do not agree with a concept of the subfamily Neurigoninae diagnosed by BICKEL (1998). However, the general habitus and remarkable male secondary sexual characters in some species (such as ornamented fore tarsus and enlarged surstylus) do not allow to place *Tenuopus* out of the subfamily.

1. *Tenuopus ntchisi* GRICHANOV, sp. nov.
(Fig. 1)

Holotype. ♂, Malawi, SE1333BD, Ntchisi Forest Res., 24-25.II.1987, J. & A. LONDT, Margins of indigenous forest [NMP].

Description. Male. Frons black-violet, densely white pollinose. One pair of well developed ocellar, occipital and postvertical setae, the last one present at end of postocular row. Upper postocular setae black, lateral and lower postoculars white. Ventral postcranium covered with irregular white hairs. Face silvery-white, narrow, 7 times as high as wide in the middle, and as wide as first flagellomere. Clypeus slightly bulging. Antennae as long as height of head, with yellow scape and pedicel and orange-brown 1st flagellomere. Pedicel with a crown of short black setae, one of the dorsal setae as long as pedicel. First flagellomere rounded, slightly longer than high at base. Arista dorsal, with short hairs. Length ratio of scape to pedicel to first flagellomere to arista (1st to 2nd segments), 18 : 8 : 12 : 2 : 90. Palpi and proboscis short, yellow, covered with white hairs, proboscis also with a pair of black lateral setae.

Mesonotum and pleura mostly yellow-orange, with narrow metallic longitudinal stripe along rows of acrostichals; the stripe broadening in posterior fourth; scutellum dorsally mostly metallic blue-green. Six dorsocentral setae with a group of hairs in front of the 1st; 7-8 pairs of short acrostichals in two irregular rows extending to a level of 5th dorsocentral setae; 1 humeral, 1 posthumeral, 2 notopleural, 1 supraalar and 1 postalar strong setae; 1 sutural and 1

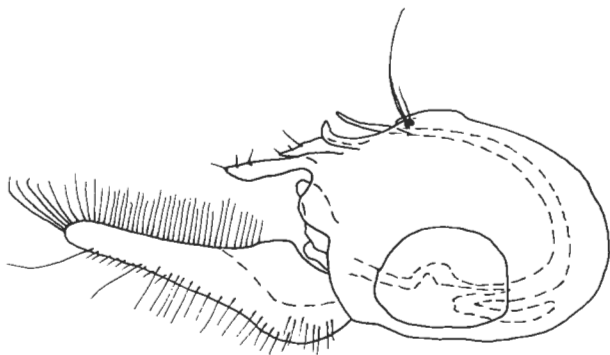


Fig. 1. *Tenuopus ntchisi* GRICHANOV, sp. nov. Postabdomen, left lateral view.

postsutural weak setae. Scutellum with two strong bristles and two microscopic hairs from the outside. Propleuron with 2 yellow setae.

Legs dirty-yellow, with brownish distal apex of all tibiae; tarsi brownish from tip of basitarsus; hind coxa with brown external spot. Fore and mid coxae from the front with hairs and 5-7 black apical bristles of various length. Hind coxa with one long black external bristle. Fore femur with numerous dark and pale fine erect ventral hairs, at most as long as diameter of femora, and 3-5 long black posteroventral cilia. Fore tibia slightly thickened in basal half, having elongate ventral setulae, one strong anterodorsal and one very short posterodorsal at base, 1-2 apical setae; 2nd segment of fore tarsus bearing short anterior comb of hairs, as long as diameter of tarsomere, elongate posterior and posteroventral setulae; 3-5th segments ventrally bare, slightly swollen at apex, with posterior and posteroventral rows of strong setulae; 4-5th segments with 1-2 long apicodorsal hairs; 5th segment flattened dorsoventrally, with a pair of simple claws. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 90 : 150 : 150 : 145 : 60 : 35 : 32 : 34. Mid femur bearing erect black ventral hairs, at most half as long as diameter of femur. Mid tibia with 3 anterior, 3 posterodorsal, 4-5 ventral, 4-5 apical seta. Mid basitarsus with several short anteroventral and posteroventral setae. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 70 : 170 : 270 : 160 : 67 : 54 : 25 : 13. Hind femur without long hairs, with 1 strong subapical anterior seta. Hind tibia with 3-4 anterior, 2 anterodorsal, 1 posterodorsal, 3-4 apical setae. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 50 : 210 : 335 : 80 : 100 : 55 : 27 : 15.

Wings greyish, veins brown. Subcosta very thin, reaching R_1 . Ratio of part of costa between R_{2+3} and R_{4+5} to that between R_{4+5} and M_1 , 60 : 8. M_1 with gentle arc to apex, reaching costa just before wing apex; M_2 present as fold on membrane; crossvein *m-cu* straight. Ratio of crossvein *m-cu* to apical part of M_{1+2} (fork-handle) to apical part of CuA_1 , 30 : 110 : 105. Anal vein foldlike, not reaching wing margin. Anal angle obtuse. Lower calypter yellow, with brown apex and pale setae. Halter yellow with orange knob, halter stem thin and long, with dorsal and ventral groups of microscopic hairs distally.

Abdomen mostly yellow-orange, black setose; 1st segment yellow, with small brown posterior spot dorsally; 2nd - 5th yellow, with brown edgings anteriorly and posteriorly; the edgings somewhat wider dorsally; 6th, 8th segments and hypopygium entirely brown; cerci and surstyli orange. Epandrial lobes prominent, with short ventral setae. Two epandrial setae of different length positioned at apex of small hypandrium. Surstylus very small, simple, concealed. Cercus longer than epandrium, broad at base, narrowed apicad, with light hairs.

Female unknown.

Length (mm) : body 6.0, antenna 1.5, wing 6.2/1.9, hypopygium 1.4.

Distribution. Malawi.

Etymology. The species is named after the type locality.

Diagnosis. The new species together with *T. kononenkoi*, *T. fursovi* and *T. zverevi* belongs to *acrosticalis* group of species, differing in absence of long white ventral hairs on mid and hind femora, absence of dorsal seta on fore basitarsus, in having ornamented 2-4th segments of fore tarsi, long cercus etc. Unknown female is probably closely related to *T. kononenkoi*.

2. *Tenuopus taitensis* GRICHANOV, sp. nov.

(Fig. 2)

Holotype. ♂ [in alcohol], Kenya, Taita Hills, Macha, 11-15.IV.1999, site 3, Malaise trap [NMK].

Paratypes [mostly in alcohol from Malaise traps]. 67♂♂, 63♀♀, Kenya, Taita Hills, [Macha, Chawia forest, Ngangao forest, Mbololo Plantation, Mbololo forest, Mbololo forest road, Tom's bridge, Sagalla forest (indigenous), Vuria forest, Campher fallen for., Fururu, Ndiwenyi], 24.II-2.III.1997, 17.VIII.1997, 29.VIII-1.IX.1997, 11.IX.1997, 16-22.I.1998, 2-9.III.1998, 11-25.III.1998, 3-7.IV.1998, 4-11.VII.1998, 17-29.VII.1998, 18.VII.1998, 27.VII.1998, 6-13.VIII.1998, 10-24.VIII.1998, 24.XI-2.X.1998, 10-17.X.1998, 9-16.IX.1998; 2-9.XI.1998, 11-18.IX.1998, 2-8.X.1998, 6-22.I.1999, 23-29.I.1999, 3-11.II.1999, 8-16.II.1999, 15-25.II.1999, 11-21-28.III.1999, 5-13.IV.1999, 15.IV.1999, 8-16.V.1999, 31.V-6.VI.1999, 18.VI.1999, 7-14.VII.1999, 23-27.VII.1999, 5-15.VIII.1999, 4.IX.1999 [NMK; part of paratypes in RMCA].

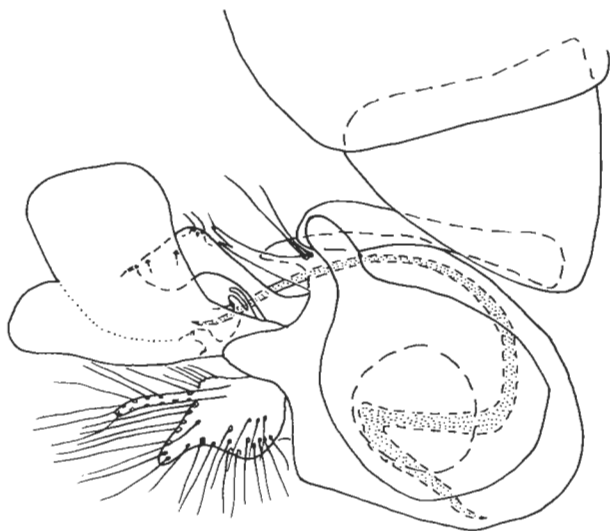


Fig. 2. *Tenuopus taitensis* GRICHANOV, sp. nov. Postabdomen, left lateral view.

Description. Male. Frons black-violet, densely white pollinose. One pair of well developed ocellar, occipital and postvertical bristles, the last one present nearly at end of postocular row. Upper postocular setae black, lateral and lower postoculars white. Ventral postcranium covered with irregular white hairs. Face silvery-white, narrow, 7.5 times as high as wide in the middle, and half as wide as first flagellomere. Antennae yellow-orange, slightly shorter than height of head; 1st flagellomere darkened apically; arista brown-black. Pedicel with a crown of short black bristles, one of the dorsal setae slightly longer than pedicel. First flagellomere as long as high at base, rounded. Arista dorsal, microscopically haired. Length ratio of scape to pedicel to first flagellomere to arista (1st to 2nd segments), 10 : 7 : 11 : 2 : 69. Palpi and proboscis short, yellow, covered with yellow hairs; proboscis with a pair of black lateral setae.

Mesonotum and pleura mostly yellow-orange; mesonotum with narrow metallic longitudinal stripe along rows of acrostichals; the stripe gradually widening posteriorly, occupying the whole area between 5-6th pairs of dorsocentrals. Scutellum dorsally mostly metallic blue-green. Six strong dorsocentral bristles slightly decreasing in length anteriorly with a group of short hairs in front of the 1st pair; about 10 pairs of well developed acrostichals in two regular rows extending to a level of 5th dorsocentral; 1 humeral, 1 posthumeral, 2 notopleural, 1 supraalar and 1 postalar strong setae; 1 presutural, 1 sutural and 1 postsutural weak setae. Scutellum with two strong bristles and two hairs from the outside. Propleuron with 2 yellow setae.

Legs mostly yellow; hind coxa with small brown external spot; fore and mid tibiae dirty yellow; fore and mid tarsi and hind tibia mostly brown; hind tarsus entirely black. Fore and mid coxae from the front with hairs and 5-7 black apical bristles of various length. Hind coxa with one long black external bristle. Mid and hind femora with 1 subapical anterior bristle and 1 subapical posteroventral cilia. Fore femur with very short erect ventral and posteroventral hairs, somewhat longer at base ventrally and at apex posteroventrally. Fore tibia with 1 short anterodorsal at base. 1-2nd segments of fore tarsus with elongate posteroventral setulae; 3-5th segments with posterior and posteroventral rows of strong setulae; 4-5th segments ventrally bare; 5th segment with simple claws. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 85 : 135 : 145 : 97 : 63 : 35 : 46 : 21. Mid femur without remarkable hairs. Mid tibia with 3-4 anterior, 3 posterodorsal, 5 ventral, 4-5 apical setae. Mid basitarsus with several short anteroventral and posteroventral setae. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 60 : 140 : 210 : 132 : 56 : 46 : 28 : 13. Hind femur without long hairs. Hind tibia with 2 anterior, 2 anterodorsal, 2 strong and several short posterodorsal setae, row of somewhat elongated ventral setulae, 2-3 apical setae. Hind basitarsus with a few short ventral setae. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 40 : 90 : 290 : 75 : 80 : 53 : 28 : 13.

Wings slightly darkened, veins brown. Subcosta very thin, reaching R_1 . Ratio of part of costa between R_{2+3} and R_{4+5} to that between R_{4+5} and M_1 , 51 : 6. M_1 with gentle arc to apex, reaching costa before wing apex; M_2 present as fold on membrane; crossvein *m-cu* straight. Ratio of crossvein *m-cu* to apical part of M_{1+2} (fork-handle) to apical part of CuA_1 , 27 : 95 : 84. Anal vein fold-like, not reaching wing margin. Anal angle obtuse. Lower calypter yellow, with brown apex and pale setae. Halter yellow with orange knob, halter stem thin and long, with dorsal and ventral groups of microscopic hairs distally.

Abdomen mostly yellow, black setose; all segments with brown marginal edgings, often with more or less large, usually dorsal brown spots. 8th segment and hypopygium brown, cerci and surstyli orange-yellow. Cercus relatively small, densely haired, with narrow apex and long narrow setosed basoventral process. Outer surstylus enlarged, larger than cercus; inner surstylus greatly reduced, seems to be complicated. Epandrial lobes prominent, 2 pairs, with short setae.

Female. Similar to male except lacking male secondary sexual characters, otherwise as follows : face wide, approximately 3 times as long as wide; femora without remarkable hairs. Fore tibia with 1 anterodorsal and 1 posterodorsal setae at basal fifth, without distinct dorsal setae in the middle. Fore tarsus simple. 7th abdominal segment entirely brown, oviscapit yellow, with yellow cilia.

Length (mm) : body 6.0, antenna 1.2, wing 5.2/1.5; hypopygium 1.0.

Distribution. Kenya.

Etymology. The species is named after the type locality.

Diagnosis. The new species belongs to *acrosticalis* group of species, being close to *T. fursovi* GRICHANOV, 1996, differing in absence of long ventral hairs on mid and hind femora, absence of dorsal seta on fore basitarsus, having ornamented 2-4th segments of fore tarsus, narrow metallic stripe on mesonotum, greatly enlarged surstylus etc.

3. *Tenuopus acrosticalis* CURRAN

Material examined. 1♀, Urundi, Butana, 24.V.1950, 1800 m, F. FRANÇOIS / R.I.Sc.N.B. IG 24452; 1♀, Urundi, Bururi, VI.1948, alt. 1950 m, F. FRANÇOIS / R.I.Sc.N.B. IG 24452; 1♀, Urundi, Bururi, V.1948, alt. 2000 m, F. FRANÇOIS / R.I.Sc.N.B. IG 24452; 1♀, Urundi, Terr. Bururi, Matana, VIII.1948, alt. 1900 m, F. FRANÇOIS / R.I.Sc.N.B. IG 24452; 1♀, Urundi, Terr. Bururi, Shimabara, 3.V.1948, alt. 1350 m, F. FRANÇOIS / R.I.Sc.N.B. IG 24452; 1♀, Congo belge : Bambesa, 12.VIII.1938, J. VRIJDAGH/ R. Mus. Hist. Nat. Belg. I.G. 12054 / P. VANSCHUYTBROECK Det. *Tenuopus guttatus* PAR. [RINS]; 1♀, Kenya : Trans. Nzoia, #70, Mount Elgon Nat Park, 01°05'N, 34°49'E, 2320 m, Date : 23.XI.1992, J. LONDT & A. WHITTINGTON, Kitum Cave/forest path [NMP]; 1♂, Rep. Centrafric., La Maboque, 28.IX.1970, L. MATILE rec. [MNHP].

4. *Tenuopus cognatus* PARENT

Type material examined. 2♀, Paratype / S. Africa, R.E. TURNER, Brit. Mus. 1926-232 / Zululand, Eshowe, 6-31.V.1926 / *Tenuopus cognatus* PAR. Cotype / Paratype [red label; MNHP]; ♂, Mossel Bay, Cape Prov. 15-28.III.1922 / S. Africa, R.E. TURNER, Brit. Mus. 1922-153 / *Tenuopus erroneus* PAR. Cotype / Paratype.[red label; MNHP].

Material examined. 1♀, South Africa : Natal, Giant's Castle Game Res., in jasuti area, SE2929AB, JGH LONDT, 5-11.XII.1983; 1♂, South Africa : Natal, Nkandhla Forest Res., 28°43'22"S, 31°08'08"E, 1150 m, JGH LONDT, Mistbelt Mixed Forest, Date : 27.I.1988; 1♀, South Africa : Natal, Karkloof Nature Res., 29°18'10"S, 30°13'40"E, JGH LONDT, 1260 m, Mixed *Podocarpus* For. Edge, Date : 11.XI.1988 [NMP].

Remark. A male paratype labelled by PARENT as *Tenuopus erroneus* has simple fore tarsus, representing evidently *T. cognatus*.

5. *Tenuopus erroneus* PARENT

Material examined. 1♂, South Afr. : Cape Prov., Hogsback, 3226DB, 13-16.XII.1985, J & B LONDT, Forest & forest margins; 1♀, Resolution, Albany Distr., 2/I.1929, A. WALTON; 1♀, S. Africa, Natal, #5G, Springside N.R., 29°46'S, 30°46'E, Date : 1/10/1994, Col. : C.R. CRADOCK [NMP].

6. *Tenuopus frontalis* CURRAN

Type material examined. Holotype : «Typus ♀» [red label] / Musee du Congo, Mayumbe : Kitrionga, 15.VII.1926, A. COLLART / R. Det. F. 1344 / *Tenuopus frontalis* CURRAN, Det. C.H. CURRAN [RMCA].

7. *Tenuopus guttatus* PARENT

Material examined. 1♂, Côte d'Ivoire, Tai, 15-20.VIII.1978, G. COUTURIER leg / Forêt dense, sempervirente [MNHP].

8. *Tenuopus maculatus* PARENT

Material examined. 3♂♂, Kenya, Taita Hills, Mt. Kasigau, 21-27.VII.1998 [RMCA]; 1♂, Tanzania, Marangu, 9-11.I.72, A. FREIDBERG [TAU].

9. *Tenuopus unicolor* BECKER

Material examined. 2♀♀, Congo Belge : P.N.G. Miss H. DE SAEGER, Dedegwa, 21.V.1952, H. DE SAEGER, 3499 [RMCA].

Key to known species of *Tenuopus* CURRAN

1. Wings with maculations 2
- Wings monochrome, usually hyaline 3

2. Wings with one apical spot along costa *maculatus* PARENT
- Wings with three rounded spots in apical half, in females somewhat diffused *guttatus* PARENT
3. Males 4
- Females 11
4. Acrostichals weak, in a single row on the anterior fourth of mesonotum . 5
- Acrostichals strong, arranged in two rows extending to posterior third of mesonotum 6
5. Hind tarsus entirely black, fore tarsus simple *cognatus* PARENT
- Hind tarsus yellow at base, 4-5th segments of fore tarsus with short lateral black plumage *erroneus* PARENT
6. Mid femur with 6-8 long black ventral bristles in the middle half, longer than diameter of femur, and with some white hairs; fore basitarsus 1.5 times as long as fore tibia, with four dorsal setae *zverevi* GRICHANOV
- Mid femur with hairs only, fore basitarsus no much longer than fore tibia, with no more than two dorsal setae 7
7. Mid femur with black ciliation or bare; hind femur bare, fore basitarsus with no more than one dorsal seta 8
- Mid and hind femora with white hairs beneath, fore basitarsus with 2 dorsal setae 10
8. Fore basitarsus with one dorsal seta; other tarsomeres simple *kononenkoi* GRICHANOV
- Fore basitarsus without setae; 3-5th segments of fore tarsus with posterior and posteroventral rows of strong setulae 9
9. 2nd segment of fore tarsus bearing short anterior comb of hairs, as long as diameter of tarsomere, elongate posterior and posteroventral setulae; 3-5th segments ventrally bare, slightly swollen at apex; 4-5th segments with 1-2 long apicodorsal hairs *ntchisi* GRICHANOV, sp.n.
- 1-2nd segments of fore tarsus with elongate posteroventral setulae; 4-5th segments ventrally bare *taitensis* GRICHANOV, sp.n.
10. Median green-brownish vitta of mesonotum half as wide as surface between dorsocentral bristles, surstylus not bifurcated *fursovi* GRICHANOV
- All the surface between dorsocentrals black-green, surstylus bifurcated .. *acrosticalis* CURRAN
11. Acrostichals in a single row or absent 12
- Acrostichals in two rows, sometimes irregular 15

2. Acrostichals strong, extending to posterior third of mesonotum; frons black, pollinose 13
 Acrostichals weak and restricted to anteriormost of mesonotum, or absent; frons shining blue 14
3. First flagellomere oval, with rounded apex *unicolor* BECKER
 First flagellomere subtriangular, with sharp or right-angular apex
 *shcherbakovi* GRICHANOV
4. Hind tarsus entirely black; R_{4+5} and M_1 reach costa at wing apex
 *cognatus* PARENT
 Hind tarsus yellow at base; M_1 reaches costa before wing apex
 *erroneus* PARENT
5. Fore tibia with two basal dorsal setae only, fore basitarsus without dorsal setae 16
 Fore tibia with two basal dorsal and two dorsal setae in the middle; fore basitarsus with 1-2 dorsal setae; acrostichals arranged in two regular rows 17
6. Acrostichals weak, arranged in irregular two rows; CuA_1 no more than 2.5 times longer than *m-cu* *kononenkoi* GRICHANOV
 Acrostichals arranged in two regular rows; CuA_1 more than 3 times longer than *m-cu* *taitensis* GRICHANOV, sp.n.
7. Frons entirely pollinose, fore basitarsus 1.2 times longer than fore tibia ..
 *acrosticalis* CURRAN
 Frons more than half shining green; fore basitarsus as long as fore tibia ..
 *frontalis* CURRAN

Subfamily Diaphorinae

Genus *Dactylonotus* PARENT

Dactylonotus univittatus (LOEW, 1858), comb. n.

(Fig. 3)

Saucropus univittatus LOEW, 1858 :373 (1860 :351) [deposition of types unknown]

Neurigona univittata (LOEW) BECKER, 1923 :13

Material examined : 2♂♂, Transvaal, Entabeni For. Station, Zoutpansberg Range, Jan. 1975, Stuckenberg, indigenous for., 2230Cc; South Africa : Natal, Giant's Castle Game Res., in jasuti area, SE2929AB, JGH LONDT, 5-11.XII.1983 [NMP].

Additional material [erroneously labelled by me : *Dactylonotus rudebecki* VANS.]. 5♂♂, 23♀♀, South Africa : Natal, Cathedral Peak Area, XII, 26-27, 1977, 2829CC, R.M. MIL-

LER, indigenous for.; South Africa, Natal, Pietermaritzburg, Town Bush, M.E. IRWIN, 5.XI.1972 (2930Cb); S. Africa, N. Transvaal, Entabeni For. Station, Zoutpansberg Range, Jan. 1975, STUCKENBERG, forest margin, 2230CC; 1♂, 5♀♀, South Africa : Natal, Giant's Castle Game Res., in jasuti area, SE2929AB, JGH LONDT, 5-11.XII.1983; South Africa : W. Cape, #4, Robinson Pass, 3322Cc, 35 km N Mossel Bay, 12.I.1983, mnt spring, R. MILLER & P. STABBINS [NMP].

Description. Male. Frons small, wider than face, white pollinose, with medial depression, slightly prominent around base of antennae. Face densely white pollinose, almost parallel-sided, 2 times as high as wide at clypeus. Occiput flat, black, white pollinose. One pair of long ocellar and short postvertical setae; no vertical setae. Postocular setae black in upper part and white in lower part of head. Eyes with short white hairs. Antennae inserted at upper fourth of head, orange, 1st flagellomere blackish dorsally and apically; antenna 1.5 times longer than height of head; scape long, bare; pedicel with long, slightly widened at apex, dorsolateral (interior view) process, covered with dorsal and ventral setulae; 1st flagellomere long, widest at apex of pedicel, with acute apex, 3 times as long as high in middle, entirely covered with mi-

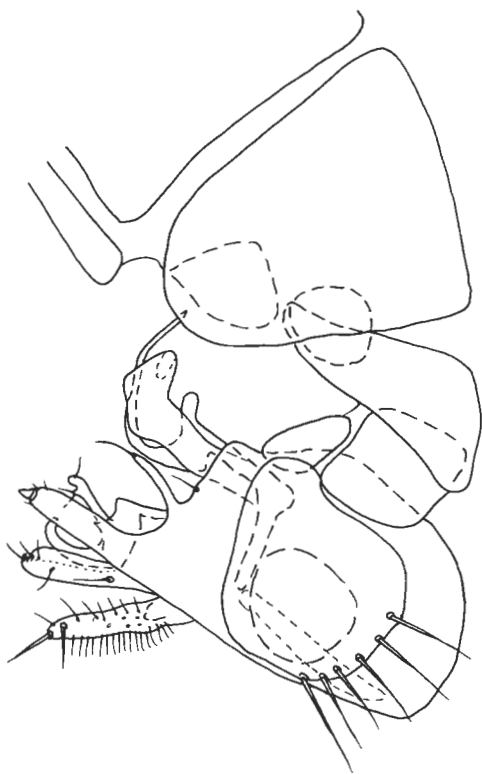


Fig. 3. *Dactylonotus univittatus* (LOEW). Postabdomen, left lateral view.

croscopic hairs; arista with microscopic hairs, inserted at basal 1/4 of dorsal side of 1st flagellomere. Length ratio of scape to pedicel to first flagellomere (dorsal to ventral sides) to arista, 20 : 29 : 35 : 59 : 75. Palpus and proboscis short, yellow, with sparse light and dark cilia.

Thorax mostly yellow; mesonotum usually brownish, with broad median metallic blue-green stripe embracing area between 3-6th pairs of dorsocentrals; scutellum dorsally blue-violet with yellow margin; pleura with a small black spot below calypter; thoracic pollination weak. Propleura with several light hairs in upper part and 2 strong yellow-brown setae in lower part. Mesonotum with 1 humeral, 1 posthumeral, 2 notopleural, 1 presutural, 1 sutural, 2 supraalar and 1 postalar setae. Six pairs of dorsocentral setae somewhat decreasing in size anteriorly, with several scattered hairs in front of the 1st pair; acrostichals biseriate, increasing in length posteriorly. Scutellum with two long strong and two short fine lateral setae, half as long as medians, dorsally bare.

Legs including coxae yellow, apical segments of all tarsi brownish. Fore coxa anteriorly with short yellow hairs and five or six black lateral and apical setae of various length in one row. Mid coxa anteriorly and apically with black cilia. Mid and hind coxae with black external seta at base. Fore femur bare; mid and hind femora with one strong subapical anterior setae. Mid femur with several elongate posteroventral hairs in middle. Fore tibia with 3 dorsal and 1-2 posterior setae. Fore tarsus with asymmetric claws : anterior claw larger and stronger curved than posterior claw. Length ratio of fore coxa to femur to tibia to tarsus (segments from first to fifth), 90 : 115 : 125 : 79 : 31 : 20 : 10 : 10. Mid tibia with 3 anterodorsal, 3 posterodorsal, 3 or 4 short posteroventral setae. Length ratio of mid coxa to femur to tibia to tarsus (segments from first to fifth), 80 : 145 : 170 : 92 : 42 : 23 : 20 : 12. Hind tibia with 3 anterodorsal, 4-5 posterodorsal, 4-6 short ventral setae. Length ratio of hind coxa to femur to tibia to tarsus (segments from first to fifth), 50 : 160 : 205 : 52 : 59 : 35 : 24 : 19. All tibiae with strong apical setae; all tarsi simple, with small pulvilli.

Wing greyish, almost hyaline; veins brown. R₁ short, ending at basal 2/5 of wing. Ratio of parts of costa from humeral crossvein to M₁₊₂, 130 : 200 : 65 : 32. R₂₊₃ and R₄₊₅ slightly curved posteriad at extreme apex. M₁₊₂ almost straight. Crossvein *m-cu* weakly concave; ratio of *m-cu* to apical part of CuA₁, 1 : 2. Anal vein distinct; anal angle obtuse; alula undeveloped. Lower calypter yellow, with brown cilia. Halter yellow.

Abdomen with widely yellow sides or mostly yellow, darkened distad, having more or less large subtriangular dorsal spots on each tergite, with black hairs and marginal setae; 5th segment mostly brown or black; 6th segment very small. Hypopygium brown or black. 8th segment with 6 black macrochaetae. Epandrium subrectangular. Aedeagus pointed at apex. Two epandrial setae positioned on distal side of epandrium, one of them (dorsal) pedunculate. Three pairs of epandrial (?) lobes yellow-brown, with rounded apices and short setae; lateral lobe the longest, with small apical thick seta. Surstylus straight, with several setae as figured. Cercus very short, yellow, with light cilia and brown setae.

Length (mm) : body 4.6-5.3; antenna 1.5; wing 4.7-5.7/1.7-2.0; hypopygium 1.1.

Distribution. South Africa.

Diagnosis and remark. A key to known species of *Dactylonotus* was given by GRICHANOV, 1998. *D. univittatus* differs from 5 other species of the genus in the shortest 1st flagellomere, short subapical arista, normal tarsal pulvilli and bare femora in male, ratio of length to height of 1st flagellomere in female. Male and female antennae are rather similar to those figured for *D. grandicornis* by PARENT (1934 : Figs. 56, 59), but the latter species has two ventral rows of black setae on male mid femur, the setae are nearly as long as diameter of femur. The description of *Saucropus univittatus* is based on female only. Our material examined corresponds entirely to description of the female by LOEW (1860) who has used mostly colour characters variable to a some extent. In fact, only one character from the LOEW's description does not allow to associate his female with *D. grandicornis*. The latter has equal in length first two segments of hind tarsus, whereas *D. univittatus* has hind basitarsus distinctly shorter than the next segment. See also remark by BICKEL, 1999. *D. univittatus* is also close to *D. rudebecki* VANSCHUYTBROECK, differing in morphology of antennae and small tarsal pulvilli in males.

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