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# Four new species of the genus *Neodindymus* Stehlík, 1965 (Heteroptera, Pyrrhocoridae)

by Jaroslav L. Stehlík

Abstract. Four new species of the genus *Neodindymus* Stehlík, 1965 are described, namely *N. albofasciatus* sp.nov. (Malawi), *N. excisus* sp.nov. (Tanzania, Congo-Kinshasa), *N. parvus* sp.nov. (Congo-Kinshasa), *N. pilifer* sp.nov. (Congo-Kinshasa, Zimbabwe, Kenya). *Cenaeus unicolor* Cachan, 1952 is synonymised with *Neodindymus migratorius* (Distant, 1903).

Key words. Heteroptera - Pyrrhocoridae - Neodindymus - new species - Ethiopian region

# Introduction

STEHLÍK (1965), in his revision of some genera of subsaharan Pyrrhocoridae, established the genus *Neodindymus* Stehlík, 1965 for African species relative to the genus *Dindymus* Stål, 1861 (which is limited to the Oriental region including the "tropical" parts of China and Australia). Excepting the type species *Dindymus basilewskyi* Schouteden, 1957, several other species formerly classified within *Dindymus, Cenaeus* Stål, 1861, and *Dysdercus* Guérin Ménéville, 1831 have been transferred to *Neodindymus*. LINNAVUORI (1988) decribed another species from West Africa. At present the following species belong to the genus *Neodindymus: N. acutus* Stehlík, 1965, *N. antennatus* (Distant, 1881), *N. basilewskyi* (Schouteden, 1957), *N. bipustulatus* (Stål, 1874), *N. brunneus* Stehlík, 1965, *N. elegans* Linnavuori, 1988, *N. flavipes* (Signoret, 1858), *N. leleupi* Stehlík, 1965, *N. migratorius* (Distant, 1903), *N. schoutedeni* Stehlík, 1965, *N. sjostedti* (Schouteden, 1910), and *N. tenebrosus* (Blöte, 1933). Another four species are described in the present communication. The biology of the species is not known in detail. It appears that they are associated with higher altitudes, where they live in plant detritus.

STEHLÍK (1965) described the genital capsule, paramera and vesica in males of several species. In some species there is also a distinct asymmetry of the paramera and an interesting adaptation of the male's anal tube (large, flattened), taking the form of a flap above the genital chamber to prevent parasitisation of the soft parts (phallus) by mites, and as a consequence the prolongation of the vesica so that it can be more easily ejected from under this flap. In various species of this genus there is a trend towards this type. Parasitisation by mites has been found in one species of this genus in which a large number of these parasites was observed in the large and dorsally open genital capsule. In females the outer genitalia and their parts have been described. They are well differentiated in this genus and very suitable for taxonomic discrimination (despite slight modifications in some individuals). Also several spermathecae have been described. As the phallus had not been described to date, a figure is presented in this work.

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## Material and methods

In describing the new species, the terminology of body parts used by DOESBURG (1968) in his work on *Dysdercus* has been adopted. In the genital capsule, I have used more specific terms for the individual parts as proposed by SCHAEFER (1977) who also studied the genital capsule of *Pyrrhocoris apterus* (Linnaeus, 1758).

The exact citation of the type material poses a problem. Part of material was collected at a time when geographical names were different from those used today (e.g. Democratic Republic of Congo or Congo Kinshasa – only a short time ago Zaïre – where names of provinces and their delimitation have changed several times; the last state structure dates from Dec. 18, 2005).

This problem is resolved here by giving the name as given on the locality labels of the type specimens, followed, where necessary, by the new topographical name and/or supplementary information in square brackets.

#### Abbreviations

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# Taxonomy

#### *Neodindymus albofasciatus* sp.nov. (Figs 1–3)

**Type material.** Holotype female: Nyasaland [now Malawi], Mlanje [Mulanje, South Malawi], 2000'17.12.1944 (NHMZ). Paratype: ditto, 18.12.1944 (NHMZ).

**Description.** Head red, base of head and frons very dark (not delimited), antennae black, last segment only black in a narrow ring at base and in distal half, other part whitish. Labium almost black. Pronotal collar (markedly), lateral margin of pronotum up to posterior margin of callar lobe (less markedly), and posterior margin of pronotum whitish. Callar lobe and membrane black, pronotal lobe dark olive-brown, scutellum, clavus and corium brownish-black except yellowish-white costal margin. Corium in front of apex with rather wide, whitish, transverse band. Pleura I–III medially red, margins reddish. Prosternal collar, posterior pleural flange I–III, epicoxal lobes I–III, pronotal epipleuron (with a reddish tinge) whitish, ventrites proximally widely on II–V, narrowly on VI, in VII somewhat wider than on VI yellowish white. Distal parts of ventrites II–V reddish, of VI and VII reddish black. Female genitalia dark red. Legs black with red tinge.

Body rather plump. Frons somewhat elevated. Antennae rather short, thick. First segment longer, third becoming substantially wider from base towards apex. Callar lobe much elevated and large compared to pronotal lobe (more than usual in this genus). Pronotal lobe flat, becoming somewhat wider towards base. Lateral margin medially

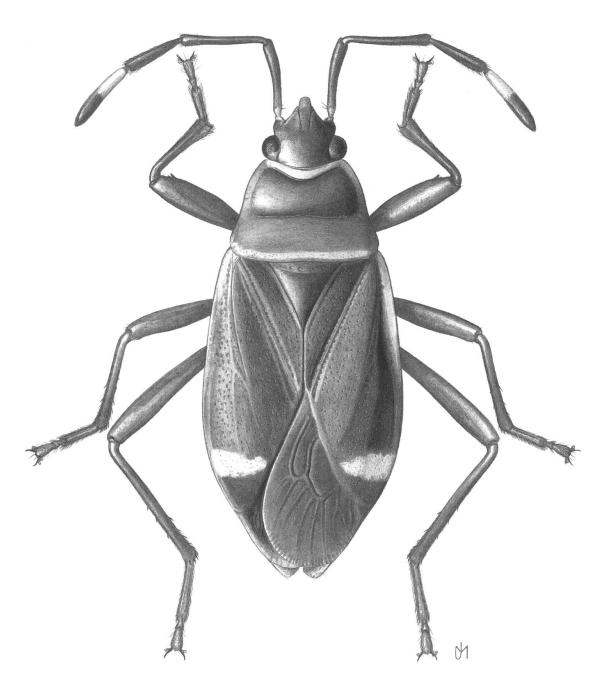
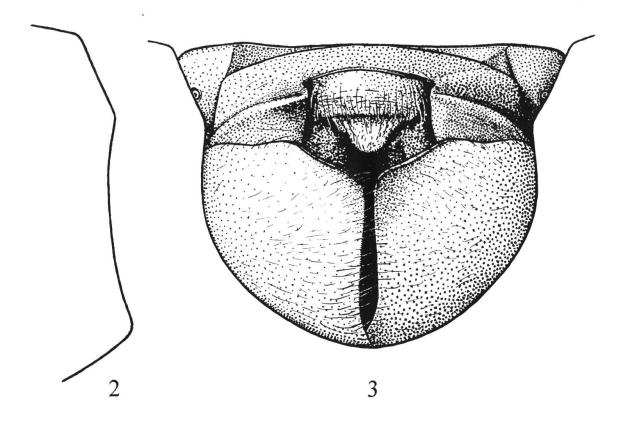


Fig. 1. Neodindymus albofasciatus sp.nov.: holotype female.

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**Figs 2–3.** *Neodindymus albofasciatus* sp.nov.: 2, posterior edge of female abdominal segment VII, lateral view; 3, outer female genitalia.

little depressed, on pronotal lobe almost undeveloped. Membrane small, barely reaching apex of abdomen. Apex of femur with one medium-sized denticle and a very small denticle close to it. Labium reaches no further than between the metacoxae. Ventrite VII not even slightly protruding to point in lateral view (Fig. 2).

Female genitalia. Valvifer I of considerable size, almost reaching anal tube, outer margins running in parallel, very close to each other. Anal tube in vertical position, rather long but narrow. Only leterotergites VIII and IX visible, other parts covered by valvifer I (Fig. 3).

Puncturation. Mesoscutum, clavus and corium with almost irregular and shallow punctures. Whitish transverse band in front of apex of corium without punctures.

Measurements (mm). Females (first holotype, paratype in parenthesis). Head: width (including eyes) 2.02 (2.00), interocular width 1.24 (1.13); antenna: 1.57 (-), II 2.05 (-), III 1.51 (-), IV 1.84 (-); pronotum: collar length 0.27 (0.29), callar lobe length 0.92 (0.86), pronotal lobe length 1.30 (1.24), total length 2.48 (2.38), width 3.89 (3.67); scutellum: length 1.73 (1.62), width ? (1.67); corium: length 7.02 (6.48), width 2.62 (2.48); body length 12.15 (11.34).

# Distribution. Malawi.

**Derivatio nominis.** The specific epithet *albofasciatus* is composed of the Latin adjective *albus*, *-a*, *-um* (white) and the Latin adjective *fasciatus*, *-a*, *-um* (striped).

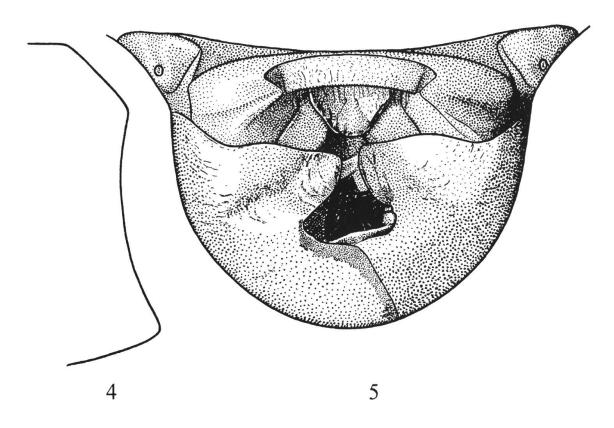
**Differential diagnosis.** This species differs from all other species (except *N. leleupi* and *N. bipustulatus*) by the band on the apex of its corium. In contrast to the new species, *N. leleupi* has a white band that tapers towards the distal margin of the corium and continues as a thin stripe to the claval apex. It also has a very small callar lobe compared if considered in relation to the surface of the pronotal lobe, its antennae are more slender, particularly the third segment, the membrane is larger and valvifer I is very deeply indented. In *N. bipustulatus*, the white parts have a pink tinge, the last antennal segment is all yellowish white, and the species occurs only on the island of Zanzibar.

# *Neodindymus excisus* sp.nov. (Figs 4, 5)

**Type material.** Holotype female: S.W. Tanganyika [Tanzania], Mt Mbize, 12 miles N.E. Sumbawanga, VI.1960, en sous-bois, sur plantes bases, 2.400 à 2.600 m, N. Leleup (MRAC). Paratype: Terr. Tanganika [now Tanganyika prov., Congo-Kinshasa], Malonge, II. 1943, J. Brédo, 1 female (ISNB).

Description. Base of head and frons dark brown, paraclypei, maxillar plates, tempus and head ventrally in holotype bright red, in paratype red coloration less distinct. Head lateral of anterior part of eye and in front of eye, antennifer dorsally, clypeus, bucculae, labium (except last segment, which is reddish) yellowish- white. Antennae black, segment IV only narrowly at base and on more than two-thirds distally, in basal third with light annulus. Pronotal collar, lateral margin at level of callar lobe wider, at level of pronotal lobe very narrowly, and posterior margin of pronotum narrowly yellowishwhite. Callar lobe brownish-black with rusty tinge, posterolateral horns somewhat lighter, pronotal lobe light olive-brown. Mesoscutum red, mesoscutellum purple, in paratype in front of apex almost black and extreme apex whitish. Clavus and corium olive brown, apex of corium and membrane reddish. Costal margin up to level of middle of claval commisure, anal vein, in holotype also narrow band up to middle of distal margin and hypocostal lamina, yellowish white. Narrow band on distal margin present in holotype widens distally to a small extent and bends towards costal margin (very unclear coloration). Prosternal collar, pronotal epipleuron, posterior pleural flange I-III, epicoxal lobes I-III, coxae, trochanters, and medial carina of basisternum whitish. In holotype pleura I-III, basisterna I-III, ostiole of scent glands bright red. Pleuron I laterally of epicoxal lobe, and pleura II-III whitish basally (lateral of epicoxal lobe). However, this coloration does not reach outer margin of pleura. In paratype, pleura I brown, II-III light brown. In holotype, ventrites, tergites, and dorsal laterotergites yellowish white, ventral laterotergites and bases of zygosternae III-VII orange, outer female genitalia (particularly valvifer I), distal part of tergite VI and entire tergite VII red. In paratype, ventrites II-VII and all tergites yellowish white, valvifer I brownish (not bright red as in holotype). Legs light brown.

Body of medium size, sides almost parallel. Head rather narrow, eyes little elevated, frons only only slightly bulging. Antennal segment I rather short, III widening only



Figs 4–5. *Neodindymus excisus* sp.nov.: 4, posterior edge of female abdominal segment VII, lateral view; 5, outer female genitalia.

slightly towards apex. Labium reaches only very a very short way beyond metacoxae. Pronotum in anterior part slightly, in posterior part more strongly, diverging laterally. Lateral margin in dorsal view narrow, only slightly bent upwards, in dorsolateral view rather wide, not laminiform, edge sharp, but not markedly so. Anterior rim of lateral margin slightly rounded, at level of callar lobe base slightly sinuate. Callar lobe rather large, pronotal lobe evenly and markedly elevated above level of callar lobe. Membrane reaches substantially beyond abdomen. Legs short and strong. Profemur in apical part with one medium-sized and one smaller denticle. Tibiae in distal parts with rather small spines standing out only a little way. In lateral view posterior margin of laterotergite VII much rounded, margin of zygosternum VII medially distinctly wider than laterally. In caudal view not the slightest indication of a point visible (Fig. 4).

Female genitalia (Fig. 5). Valvifer I large, reaching anal tube. Both sides of it partially overlapping at base, outer margin with substantial, deep indentation (diagonally to the base towards the sides and almost rounded), upper margin almost horizontal. Laterotergite IX rather small, almost quadratic. Anal tube rather narrow, ventrally with an everted tongue-shaped structure.

Clavus and corium with even, dense and fine punctures on entire surface except costal margin.

Measurements (mm). Females. Holotype first, paratype in parentheses. Head: width (including eyes) 1.81 (1.84), interocular width 1.03 (1.16), length 1.60 (1.73); antenna: I 1.62 (1.62), II 1.94 (2.00), III 1.38 (1.40), IV 1.73 (1.78); pronotum: collar length 0.16 (0.19), callar lobe length 0.62 (0.59), pronotal lobe length 1.30 (1.40), total length 2.08 (2.21), width 3.67 (3.78); scutellum: length 1.51 (1.67), width 2.05 (2.11); corium: length 5.94 (6.16), width 2.12 (2.16); body length 11.66 (11.39).

Distribution. Tanzania, Congo-Kinshasa.

**Derivatio nominis.** The specific derives from the Latin adjective *excisus*, *-a*, *-um* (excirpated, note: valvifer I).

**Differential diagnosis.** The similar *N. parvus* sp.nov. is somewhat larger, with longer antennae, more parallel body, the pronotal lobe more elevated, and the membrane larger. The deep incision on valvifer I in *N. excisus* makes it clearly different from *N. parvus*. A similar incision on valvifer I is found in *N. leleupi*; however, in this species, ventrite VII protrudes medially into a point.

# Neodindymus parvus sp.nov. (Figs 6–12)

**Type material.** Holotype male: [Congo-Kinshasa, Tanganyika prov.], Mont Kabobo, Terr. Albertville [now Kalemie], Hte Kiymbi, 1.850 m, X.1958, Biot. No. 45 Humus en forêt, N. Leleup (MRAC).

Paratypes: ditto, 1 female; ditto, 1.700 m, IX.1959, Biot. No. 27 Humus en forêt, N. Leleup, 1 male, 1 female; ditto, N. Hte Kiymbi, 2.200 m, X.1958, Biot. No. 38 Humus en forêt, N. Leleup, 1 male; ditto, Hte Kiymbi, 1.800 m, X.1958, Biot. No. 41 Humus en forêt, N. Leleup, 1 male; Kivu [Congo-Kinshasa, Nord Kivu prov.], Terr. Masisi, Lac Ndalaga, 1.800 m, VI.1959, Biot. No. 86 Marais, dans racines herbacées, N. Leleup, 1 male (all l'I.R.S.A.C., MRAC).

**Description.** Base of head and frons black, base of clypeus, paraclypei, maxillary plates, tempus, and head ventrally red. Base of clypeus and maxillary plates sometimes dark. Head in front of eyes, antennifers dorsally and adjacent parts of paraclypei, clypeus (except basal half), bucculae, and labium (except last segment, which is reddish) yellowish-white. Head along genogular furrow often with very feeble yellowish-white band. Eye with reddish tinge. Antennal segments I-III (I somewhat lighter laterally), segment IV on its base and on distal two-thirds black, with lighter annulus on basal third. Pronotal collar yellowish-white, lateral margin as well (but this coloration fades out towards base of pronotum), posterior margin of pronotum narrowly darker yellowishwhite. Callar lobe brownish-black, pronotal lobe dark olive-brown. Mesoscutellum dark brown with purple tinge. Clavus and corium dark olive-brown, costal margin up to level of middle of claval commissure (here fading away), anal vein on clavus (narrowly and faintly), narrow band on corium up to two basal thirds of distal margin (here fading away) and hypocostal lamina yellowish-white. Rarely light coloration on distal margin of corium absent. Membrane brownish-black. Prosternal collar, pronotal epipleuron, posterior pleural flanges I-III, epicoxal lobes I-III, coxae, trochanters and medial carina of basisterna I-III yellowish-white. Pleura I-III and basisterna I-III red. Legs light ochre. Ventrites yellowish-white, in males ventrites III-V at base orange, ventrite

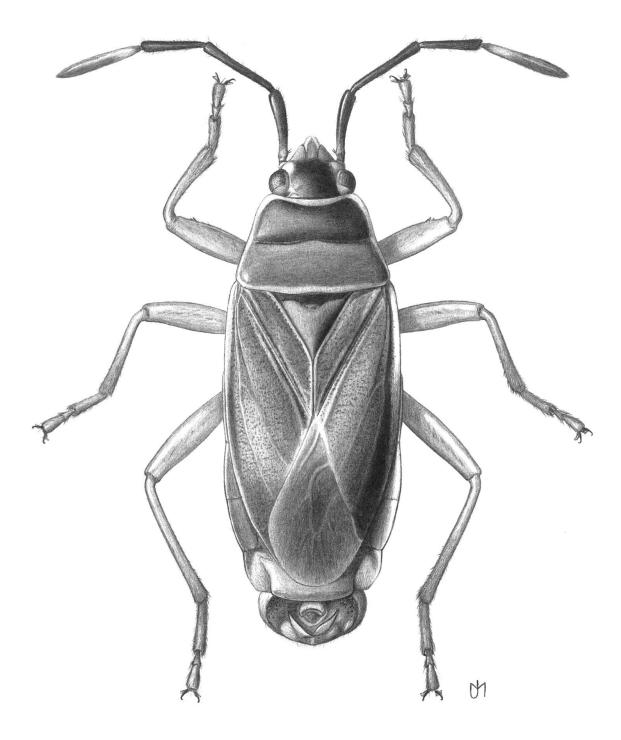


Fig. 6. Neodindymus parvus sp.nov.: holotype male.

VI–VII, ventrite VI on approximately first distal third, ventrite VII on distal half, urite VIII basally, genital capsule from outside and inside, red. Parameres muddy yellowish-white, apex blackish. In females bases of ventrites III–VI with rather narrow orange band, band on ventrite VII red. Female genitalia all red.

Body small, in females of oval egg-shape, antennae and legs short. Head narrow, eves little convex, frons in males slightly, in females more elevated. Head in lateral view rather short. Labium reaches between metacoxae. Pronotum widening only slightly towards base. Lateral margin in dorsal view very narrow, almost horizontal, in dorsolateral view wide, keel-shaped, not laminiform, edge rounded, margins almost straight, at level of callar lobe base only very slightly sinuate. Callar lobe large, markedly elevated above level of pronotal lobe, which is flat and only little elevated towards basal margin of pronotum. Pronotal lobe anteromedially markedly elevated in most cases, mediolaterally with very slight depressions. Margins of hemielytrae in males almost parallel, in females rather markedly divergent posteriad. Costal margin narrow, membrane small, rather short, in females of same length as abdomen, in males not reaching posterior margin of tergite VII or exceeding it only slightly. Abdominal segment VII in males of substantial width. Legs short and strong. Femora (in particular profemora) conspicuously thick around centre. Profemora in apical part with one medium-sized and one very small denticle. Tibiae ventrally with rather thin spines standing out only slightly.

Genital capsule (Fig. 8) transversally oval. Just below ventral rim with marked furrow of the same length as the slightly elevated and in dorsal view almost straight ventral rim, which bears only a very faint, small tubercle medially. Ventral rim ceases mediolaterally, continuing structure widens towards genital chamber, merges into conspicuous, rounded tubercle. Lateral and dorsal rim sharp, lateral and dorsal rim infolding wide, bowl-shaped, merging evenly. Lateral rim infolding with fine black spines in distal two-thirds. Anal tube normally developed, directed upwards at an angle.

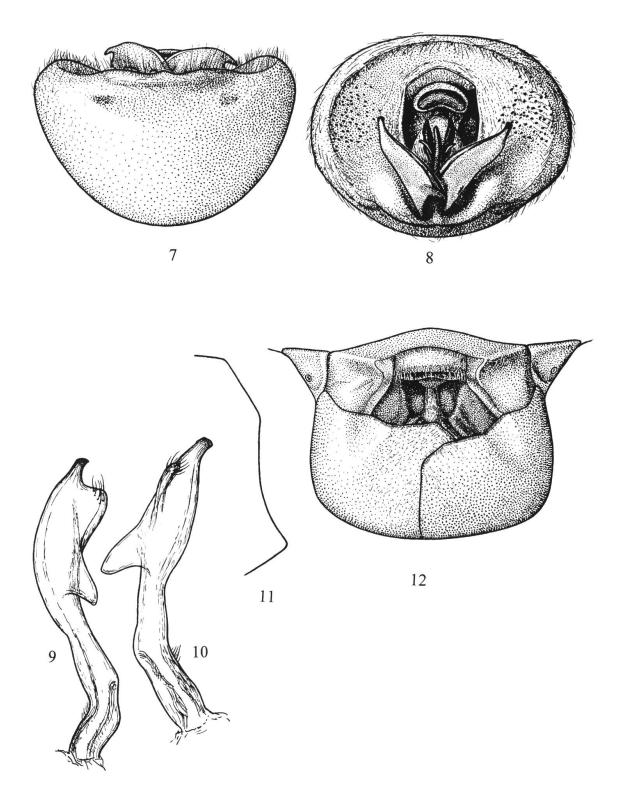
Paramere (Fig. 9, 10) at level of ventral rim very wide, flat, on outer side with large point directed downwards, towards apex markedly but gradually tapering, distally somewhat bent, point blunt with tiny denticle directed laterally. In lateral view strongly elevated in front of apex with sensory hairs. Upper margin of this elevated part almost perpendicular to pointed apex.

In lateral view, ventrite VII in females laterally narrower than medially, posterior margin of ventrite VII in caudal view straight, medially with not even the slightest indication of a point (Fig. 11).

Female genitalia (Fig. 12). Both sides of valvifer I overlap partially on outer side and reach approximately to middle of genitalia. Outer margin of valvifer I not indented, upper margin almost horizontal, irregular.

Puncturation. Clavus and corium with even, dense and fine punctures on entire surface except costal margin. Body bare.

Measurements (mm). Males. Head: width (including eyes) 1.52 (1.46–1.57), interocular width 0.85 (0.81–0.86), length 1.33 (1.30–1.35); antenna: I 1.28 (1.24–1.32), II 1.48 (1.40–1.57), III 1.15 (1.12–1.19), IV 1.50 (1.46–1.54), pronotum: collar length 0.14 (0.11–0.16), callar lobe length 0.57 (0.54–0.59), pronotal lobe length 0.98



**Figs 7–12.** *Neodindymus parvus* sp.nov.: 7, genital capsule – posterior view; 8, genital capsule – dorsal view; 9–10, two different views on paramere; 11, posterior edge of female abdominal segment VII, lateral view; 12, outer female genitalia.

(0.97-1.00), total length 1.68 (1.62-1.70), width 2.84 (2.81-2.89); scutellum: length 1.20 (1.19-1.22), width 1.46 (1.40-1.49); corium: length 4.62 (4.48-4.81), width 1.63 (1.59-1.67); body length 8.27 (8.10-8.56).

Females (second paratype in parenthesis). Head: width (including eyes) 1.78 (1.76), interocular width 1.03 (1.05), length 1.62 (1.57); antenna: I 1.46 (1.44), II 1.65 (1.62), III 1.35 (1.30), IV 1.67 (1.73); pronotum: collar length 0.16 (0.15), callar lobe length 0.63 (0.62), pronotal lobe length 1.13 (1.13), total length 1.93 (1.89), width 3.46 (3.35); scutellum: length 1.51 (1.40), width 1.89 (1.84); corium: length 5.94 (5.67), width 2.21 (1.94); body length 10.53 (10.10).

Distribution. Congo-Kinshasa.

**Derivatio nominis.** The specific derives from the Latin adjective *parvus*, *-a*, *-um* (little).

**Differential diagnosis.** Similar to *N. excisus* sp.nov. but smaller, with shorter antennae. Body (particularly in females) not parallel, pronotal lobe almost flat, membrane smaller, outer margin of valvifer I without deep indentation.

# *Neodindymus pilifer* sp.nov. (Figs 13–21)

**Type material**. Holotype male: Congo Belge [now Congo-Kinshasa], P. N. U. [Park National Upemba, Haut Lomami prov.], Gorges de la Pelenge, 1.150 m, 10.–14.VI.1947, Mis. G.F. de Witte, 468a (MRAC). Paratypes: S. Rhodesia [now Zimbabwe], Cloudlands 6.000', Wumbu Mts., 6.–17. April 1923, 1 male, 1 female (NHMZ); S. Rhodesia [now Zimbabwe], Chirinda [now ?Chicamba] Forest, 5.I.1948, 1 male, 1 female (NHMZ); Ngong [Kenya] 1 female (BMNH).

**Description.** Head including bucculae and first labial segment (others somewhat darker, the last reddish) light yellow, dorsally on head with large red spot (sometimes dark) expanding from base of head. Distally it covers dorsal part of paraclypei and basal half of clypeus. Head laterally with red band from base to tempus and further to gena, including antennifer. Red coloration ventrally marked off by genogular furrow. Eyes reddish. Antennae conspicuously black except about one basal third of last segment, which is yellowish-white. Pronotal collar and lateral margin of pronotum pale yellowish, callar lobe red, pronotal lobe olive greyish-brown. Scutellum brownish-red. Clavus, corium and membrane olive greyish-brown, costal margin light, light coloration fades away at level of claval apex. Thorax ventrally, including femores, epicoxal lobes, base of pleuron II (near posterior posterior pleural flange II), and ventrites honey-yellow, except pleura I–III (except base of pleuron II), basisterna I–III, ostiole of scent glands, in males urite VIII and genital capsule, in females outer female genitalia, which are red. Tarsus I and tibia (except extreme base) markedly black. Apex of tibia and tarsi II–III sometimes a little brighter.

Body large, elongate oval, legs and antennae slender, long. Head of substantial width, frons rather flat, eyes much elevated. Antennal segments I–III conspicuously long. Segment I thicker only in last third, II and III slender, both thicker only at their very apex. Labium very long, reaching to first third of ventrite V. Pronotum in anterior part slightly, in posterior part markedly, widening towards base. Callar lobe small, evenly elevated, pronotal lobe of substantial size, towards base markedly elevated above level

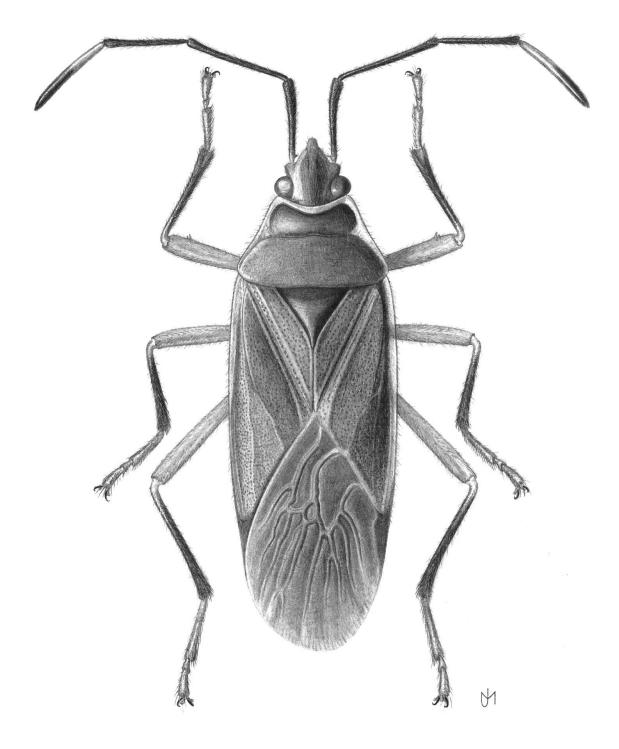


Fig 13. Neodindymus pilifer sp.nov.: holotype male.

of callar lobe and bearing a rather large depression on each side laterally. Lateral margin rather broad, laminiform, bent upwards, particularly at level of callar lobe, in anterior part somewhat rounded, at level of callar lobe quite sinuate, edge sharp.

Margins of hemielytrae almost parallel. Membrane large, markedly exceeding abdomen. Profemur medially not much thicker, nor much stronger than remaining two pairs of femora. Anteroventrally with one larger and one smaller denticle.

Genital capsule (Figs 14, 15) in dorsal view not oval, but somewhat elongate and tapering towards dorsal rim. Ventral wall with marked furrow under ventral rim. Ventral wall with ventral rim above this furrow rather strongly arched in lateral view. Ventral rim rises to a deep indentation at centre; upper margin of the indentation angle protrudes into small, somewhat thickened point. Ventral rim mediolaterally thickened. Ventral rim infolding drops almost vertically into genital chamber. Lateral and dorsal rim sharp, lateral rim infolding with small black denticles, in anterior part wide, almost horizontal, in posterior part narrower, markedly dropping into genital chamber. Dorsal rim infolding rather narrow. Anal tube large, almost horizontal and flat, covering half of phallus. Inner part of genital chamber with dense, light hairs.

Paramere (Fig. 16, 17) rather narrow, markedly bent at centre and somewhat arched, somewhat elevated, laminiform. In lateral view with almost triangle-shaped bow anterior to the bend. Apex of paramere blunt.

Phallus. Vesica long, processus conjunctivae I chitinous, II and III membranous, bag-like, basal plate more chitinous (Figs 20, 21).

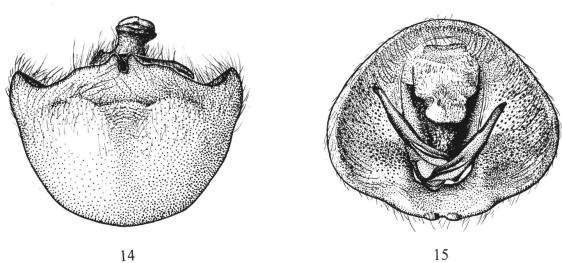
Ventrite VII in females in lateral view medially bow-like sinuate (Fig. 18), in caudal view lacking point medially.

Female genitalia (Fig. 19). Valvifer I large, reaching almost to end of second half of genitalia. Both sides of valvifer I overlap substantially at base and are thus not parallel to one another. Outer margin with markedly wide but rather shallow indentation, on top of outer margin both sides of valvifer I some distance from each other. Upper margin almost horizontal, but medially elevated, valvifer I with marked oblique depression. Anal tube wide, with tongue-shaped structure.

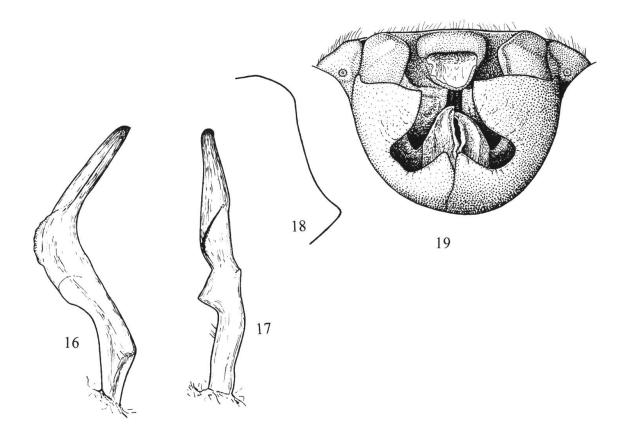
Puncturation. Clavus and corium with even, dense and fine punctures on entire surface except costal margin.

Pilosity. Dorsally entire body (except membranes) covered by yellow pubescence, ventrally only in some places. Antennal segments I–III with shorter and longer black hairs, which stand out considerably. Hairs on segment I much denser and shorter, with smaller difference in length between short and long hairs than on segments II and III. Segment IV covered only by light longer pubescence. Tibiae with dense, light hairs that stand out, some being longer than others.

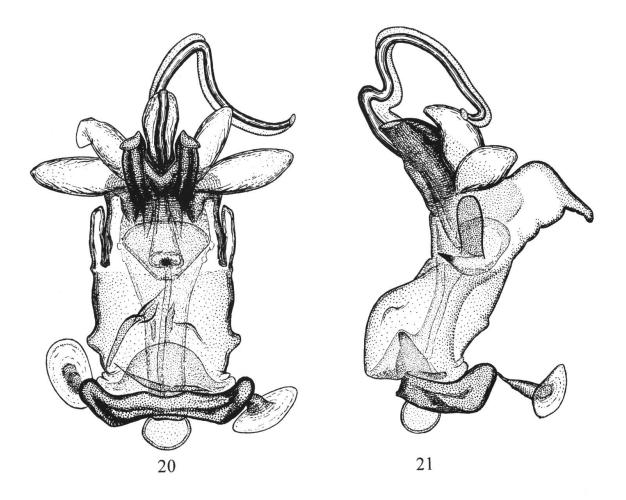
Measurements (mm). Males. Head: width (including eyes) 1.91 (1.86-1.97), interocular width 1.01 (1.00-1.03); antenna: I 2.34 (2.32-2.38), II 2.67 (2.65-2.81), III 1.89 (1.78-1.97), IV 2.32 (2.21-2.46); pronotum: collar length 0.26 (0.24-0.29), callar lobe length 0.47 (0.38-0.54), pronotal lobe length 1.44 (1.35-1.54), total length 2.11 (2.05-2.21), width 3.65 (3.54-3.73); scutellum: length 1.46 (1.40-1.51), width 2.02 (1.89-2.16); corium: length 6.28 (5.94-6.48), width 2.20 (2.16-2.24); body length 12.52 (11.93-13.55).



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Figs 14-19. Neodindymus pilifer sp.nov.: 14, genital capsule - posterior view; 15, genital capsule - dorsal view; 16-17, two different views on paramere; 18, posterior edge of female abdominal segment VII, lateral view; 19, outer female genitalia.



Figs 20-21. Neodindymus pilifer sp.nov.: 20, phallus, caudal view; 21, phallus, lateral view.

Females. Head: width (including eyes) 2.28 (2.24–2.30), interocular width 1.26 (1.24–1.30); antenna: I 2.85 (2.70–2.92), II 3.39 (3.24–3.46), III 2.35 (2.27–2.43), IV 2.43 (-); pronotum: collar length 2.87 (0.24–0.29), callar lobe length 0.61 (0.59–0.65), pronotal lobe length 1.90 (1.86–1.94), total length 2.76 (2.73–2.81), width 4.54; scutellum: length 1.90 (1.86–1.94), width 2.50 (2.43–2.59); corium: length 7.85 (7.34–8.26), width 2.72 (2.70–2.75); body length: 15.43 (14.90–15.82).

Distribution. Congo-Kinshasa, Zimbabwe, Kenya.

**Derivatio nominis.** The specific derives from the Latin noun *pilus*, *-i*, m. (hair) and the Latin verb *fero* (to carry).

**Differential diagnosis.** In contrast to all other species, which are naked, this species is covered in hair. Further, it is conspicuous for its size, long antennae and labium.

# Neodindymus migratorius (Distant 1903)

Dysdercus migratorius Distant, 1903 Cenaeus unicolor Cachan 1952 syn.nov.

Material studied. *Cenaeus unicolor*, holotype female: Madagascar, Est, Marohita, Mananjary (Geay); (MNHM).

**Remarks.** I found the holotype studied to be synonymous with *Neodindymus migratorius* from East Africa and Sri Lanka. This is the only species of the genus with a range exceeding the actual Ethiopian region.

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## References

- CACHAN P. (1952): *Pyrrhocoridae de Madagascar*. Memories de l'Institut Scientifique de Madagascar (E) 1(1): 71–92.
- DOESBURG P. H. van, Jr. (1968): A revision of the New World species of Dysdercus Guérin Ménéville (Heteroptera, Pyrrhocoridae). Zoologische Verhandlingen No. 97: 215 pp + 16 Pls.
- LINNAVUORI R. E. (1988): Berytidae and Pyrrhocoridae (Heteroptera) from Nigeria and the Ivory Coast, with remarks on the occurence in the adjacent countries. Annales Entomologici Fennici 54: 11–18.
- SCHAEFER C. F. (1977): Genital capsule of the trichophoran male (Hemiptera: Heteroptera: Geocorisae). International Journal of Insect Morphology and Embriology 6(5–6): 277–301.
- STEHLIK J. L. (1965): Mission Zoologique de l' I.R.S.A.C. en Afrique orientale (P. Basilewsky N. Leleup 1957). Pyrrhocoridae (Het.). Acta Musei Moraviae, Scientiae Naturales (Brno) 50: 211–252.

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