

**Afrotropical Asilidae (Diptera) 13.**  
**The genus *Neolophonotus* Engel, 1925. Part 2.**  
**The *suillus* species-group (Asilinae: Asilini)**

by

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ABSTRACT

The *suillus* species-group of the genus *Neolophonotus*, containing 52 species, is dealt with; 34 new species are described.

New species: *anomalus*, *antidasophrys*, *atopus*, *bezzii*, *bimaculatus*, *braunsi*, *carorum*, *chainei*, *crassifemoralis*, *crinitus*, *depilis*, *dondoensis*, *hara*, *hessei*, *io*, *irwini*, *kolochaetes*, *ktenistus*, *lightfooti*, *louisi*, *macquarti*, *macromystax*, *manselli*, *pilosus*, *pinheyi*, *rossi*, *seymourae*, *soutpanensis*, *stuckenbergi*, *tanymedus*, *variabilis*, *zambiensis*, *zogreus*, *zopherus*.

New synonyms: *Lophonotus cupreus* Loew, 1858 = *Lophonotus flavibarbis* Macquart, 1838; *Lophonotus ursinus* Schiner, 1867 = *Lophonotus leoninus* Schiner, 1867; *Neolophonotus obtusus* Hull, 1967 & *Neolophonotus robustus microspinosus* Hull, 1967 = *Dysmachus robustus* Ricardo, 1922; *Asilus chalcogaster* Wiedemann, 1819, & *Dysmachus americanus* Macquart, 1846 = *Dasygogon suillus* Fabricius, 1805.

INTRODUCTION

This is the second paper in a series dealing with *Neolophonotus*. In the first part (Londt 1985\*) I gave an account of my conclusions concerning the taxonomy of the genus, and it is necessary for the reader to refer to that paper before attempting to utilise the present study.

My first contribution dealt with the subdivision of *Neolophonotus* into six species-groups and included an account of three of these (viz. *chionthrix*, *squamosus* and *angustibarbus* species-groups). In this paper I deal with one of the larger species-groups, the *suillus* group, which contains the genotype, *Dasygogon suillus* Fabricius, 1805 (Fig. 1). I hope to produce studies of the last two groups (viz. *comatus* and *pellitus* species-groups) in the near future.

The *suillus* group corresponds closely to Engel's (1925) subgenus *Neolophonotus* and it is one of the more distinctive of the groups.

MATERIALS AND METHODS

All details of materials and methods used in this study have already been described (Londt 1985).

\* Reference: Londt, J. G. H. 1985. Afrotropical Asilidae (Diptera) 12. The genus *Neolophonotus* Engel, 1925. Part 1. The *chionthrix*, *squamosus* and *angustibarbus* species-groups (Asilinae: Asilini). *Ann. Natal Mus.* 27(1): 39–114.

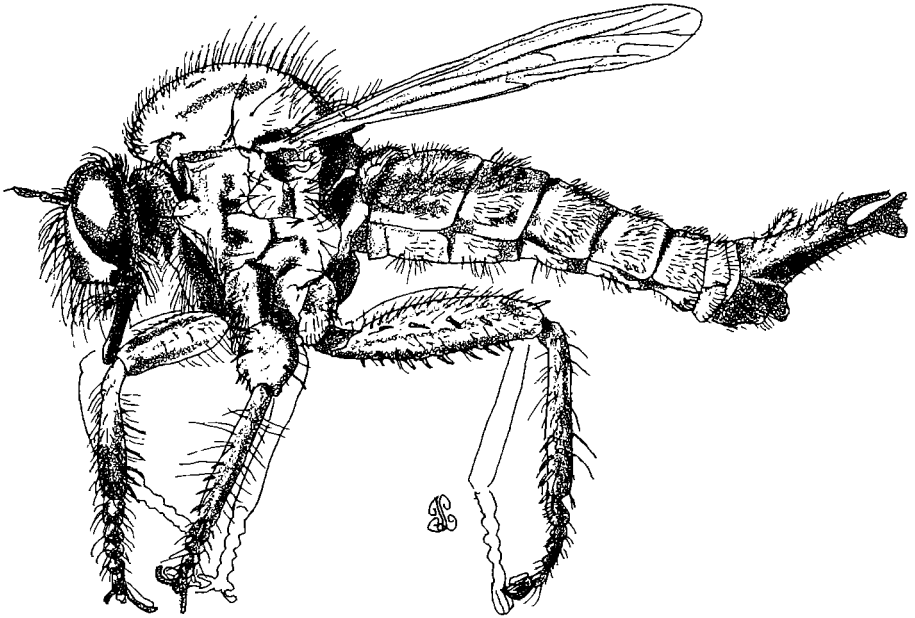


Fig. 1. *Neolophonotus suillus* (Fabricius) entire male.

TAXONOMY

The *Neolophonotus suillus* species-group

The group is characterised by the following combination of characters: metacoxa (cx3) lacks lateral bristles; postpronotal lobes equipped with well-developed setae; mane quite well developed and entirely black (in some species it is rather sparse and in others is bordered by shorter, pale setae).

Although primarily a group inhabiting the southern parts of Africa, there are a few species occurring in East Africa as far north as Ethiopia (Table 1).

Key to the species of the *Neolophonotus suillus* species-group

The following key is useful for the identification of male specimens. Females may also key out correctly but little reliance should be placed on the identification of females. In all cases the reader is urged to check identifications of males by clearing and examining the genitalia and comparing these with the drawings provided in this paper. The male genitalia are most important in the taxonomy of this genus.

The *suillus* group has been divided into three sections on the basis of the ratio 'eye height to depth of lower facial margin ratio' (measurements taken with head in lateral view as shown by Londt 1985). It is essential that this ratio is correctly ascertained before the following key is used.

- 1. Eye height:depth of lower facial margin ratio less than 5 (species in this group have deep facial margins or 'jowls') ..... 3
- This ratio greater than 6 ..... 2

TABLE 1

The distribution and seasonal incidence of species belonging to the *Neolophonotus suillus* species-group.

Species	Distribution (Climatic regions)												Seasonal incidence (Months of the year)													
	M	A	K	W	S	SE	E	D	L	H	NT	B	Z	J	F	M	A	M	J	J	A	S	O	N	D	
<i>anomalus</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	—		
<i>antidasophrys</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	*	—	—	—	—	—	—	—		
<i>atopus</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—		
<i>bezzii</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	no data						—	—	—
<i>bimaculatus</i>	*	*	*	*	—	—	—	—	—	—	—	—	—	—	—	*	*	—	*	*	*	*	*	*	*	
<i>braunsi</i>	*	*	—	*	*	—	—	—	—	—	—	—	—	—	—	*	*	*	*	*	*	*	*	*		
<i>carorum</i>	—	—	—	—	—	*	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—		
<i>chaineyi</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	*	—	—	—	—		
<i>chubbii</i>	—	—	—	—	—	*	—	—	—	*	—	—	—	—	—	*	*	*	*	—	—	—	—	—		
<i>congoensis</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	*	—	—	—	—	—	—	—		
<i>crassifemorialis</i>	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*		
<i>crinitus</i>	*	—	*	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	*	*		
<i>depilis</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	*	—	—		
<i>dondoensis</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	—	—	—	*		
<i>flavibarbis</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	—	—	—		
<i>forcipatus</i>	*	*	*	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	*	*	—	*		
<i>grossus</i>	*	—	*	*	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	*	*	*		
<i>hara</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	—	—		
<i>hessei</i>	*	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	*	—		
<i>hirtipes</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	—	—	—		
<i>holoxanthus</i>	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	no data						—	—	—	—
<i>io</i>	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	*	*	—	*	—	—	—	—	—		
<i>irwini</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—		
<i>kolochaetes</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	*	—	—	—		
<i>ktenistus</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	*	*	—	—	—	—	—	—		
<i>leoninus</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	*	*	—	—		
<i>leucopygus</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	*	—		
<i>lightfooti</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*		
<i>louisi</i>	*	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	—	—		
<i>macquarti</i>	*	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*		
<i>macromystax</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—		
<i>manselli</i>	—	—	—	—	—	—	—	—	—	—	—	*	*	—	—	—	—	—	—	—	—	—	—	—		
<i>orientalis</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	*	—	—	—	—	—	—	—	—		
<i>pilosus</i>	*	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	—	—	—		
<i>pinheyi</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—		
<i>porcellus</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	*	*	—	*	—	—	—	—	*	—	*		
<i>rhodesii</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	*	—	—	—	—	—	—	—	—		
<i>robustus</i>	—	—	—	*	*	—	*	—	—	*	*	*	*	*	*	*	*	*	*	—	—	—	—	—		
<i>rossi</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	*	—	—	—	—	—	—	—		
<i>rufus</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	*	*	—		
<i>seymourae</i>	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	—		
<i>soutpanensis</i>	—	—	—	—	—	—	—	—	—	*	—	—	—	*	—	—	—	—	—	—	—	—	—	—		
<i>stannus</i>	—	—	—	—	—	—	—	—	—	—	*	—	*	*	*	*	*	*	*	*	*	—	—	—		
<i>stuckenbergi</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	*	—	—	—		
<i>suillus</i>	*	*	*	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	*	*	*	*	*	*		
<i>tanymedus</i>	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—		
<i>tibialis</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	*	*	*	*		
<i>variabilis</i>	*	*	*	—	*	—	—	*	—	*	—	—	—	—	—	—	—	*	—	—	*	*	*	*		
<i>virescens</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	*	*		
<i>zambiensis</i>	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—		
<i>zograus</i>	—	—	—	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—		
<i>zopherus</i>	*	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	*	—	—		

Abbreviations: M — Mediterranean region of south-western Cape.  
A — Southern Cape Coastal region.  
K — Little and Great Karoo region.  
W — Desert and Poor Steppe region.  
S — Southern and Northern Steppe regions.  
SE — South-eastern Cape Coastal region.  
E — Subtropical region.  
D — Drakensberg region.  
L — Transvaal Lowveld region.  
H — Highveld region.  
NT — Northern Transvaal region.  
B — Botswana and Northern Namibian regions.  
Z — Localities north of South Africa, Botswana and Namibia.

- |     |   |                               |
|-----|---|-------------------------------|
| 2.  | Eye height:depth of lower facial margin ratio greater than 6 but less than 13 .....                   | 22                            |
| —   | This ratio greater than 14 .....  | 50                            |
| 3.  | Mane composed of tightly packed setae along entire length .....                                       | 4                             |
| —   | Mane composed of loosely arranged setae, especially in posterior part ...                             | 7                             |
| 4.  | Large species (wing length > 11 mm); male genitalia as in Figs 174–176 .....                          | <b>zopherus</b> sp. n.        |
| —   | Smaller species (wing length < 10 mm) .....   | 5                             |
| 5.  | Setae of scutellar disc reddish .....   | <b>rufus</b> Macquart         |
| —   | Setae of scutellar disc black and white .....   | 6                             |
| 6.  | Facial pruinescence confined to a narrow strip adjacent to eye ...                                    | <b>depilis</b> sp. n.         |
| —   | Facial pruinescence covering most of face including that part immediately below mystacial setae ..... | <b>pilosus</b> sp. n.         |
| 7.  | All katetergal setae black .....  | 8                             |
| —   | Katetergal setae yellowish or of two different colours .....  | 9                             |
| 8.  | Mystax uniformly yellow-white .....   | <b>grossus</b> Bromley        |
| —   | Mystax white with black setae laterally .....   | <b>crassifemoralis</b> sp. n. |
| 9.  | Katetergal setae of two different colours (usually black and yellowish) ...                           | 10                            |
| —   | All katetergal setae yellow or orange .....   | 13                            |
| 10. | Pale setae of mystax white .....  | <b>crinitus</b> sp. n.        |
| —   | Pale setae of mystax yellow .....   | 11                            |
| 11. | Postpronotal lobe with white setae only .....   | <b>virescens</b> Engel        |
| —   | Postpronotal lobe with black and white setae mixed .....  | 12                            |
| 12. | Legs uniformly dark red-brown .....   | <b>leucopygus</b> Engel       |
| —   | Proximal parts of tibiae yellow .....   | <b>loui</b> sp. n.            |
| 13. | Pale setae of mystax white .....  | 14                            |
| —   | Pale setae of mystax yellow or orange .....   | 15                            |
| 14. | Mystax entirely white .....   | <b>grossus</b> Bromley        |
| —   | Mystax black and white .....  | <b>hara</b> sp. n.            |
| 15. | 5 or more notopleural bristles .....  | 16                            |
| —   | 3 (rarely 4) notopleurals .....   | 17                            |
| 16. | Postpronotal setae yellow; mystax yellow; tibiae yellow and black .....                               | <b>tibialis</b> Macquart      |
| —   | Postpronotal setae black; mystax black and reddish; tibiae reddish and black .....                    | <b>leoninus</b> Schiner       |
| 17. | Male epandrial lobes long (longer than hind tarsus) .....   | 18                            |
| —   | Male epandrial lobes short (shorter than hind tarsus) .....   | 20                            |
| 18. | Epandrial lobe not forked distally .....  | <b>variabilis</b> sp. n.      |
| —   | Epandrial lobe forked distally .....  | 19                            |
| 19. | Male genitalia as in Figs 146–149 .....   | <b>suillus</b> Fabricius      |
| —   | Male genitalia as in Figs 45–47 .....   | <b>flavibarbis</b> Macquart   |

20. *Mystax* uniform yellow . . . . . 21  
 — *Mystax* yellow with marginal setae black . . . . . **braunsi** sp. n.
21. Postpronotal lobe dark red-brown, resembling mesonotum, with shiny orange setae; femora uniform dark red-brown . . . . . **hessei** sp. n.  
 — Postpronotal lobe red-brown, contrasting with dark red-brown mesonotum, with black and white setae; femora with dorsal surface clearly darker than ventral . . . . . **zogreus** sp. n.
22. Katetergal setae black . . . . . **bimaculatus** sp. n.  
 — Katetergal setae yellow or white . . . . . 23
23. Katetergal setae white . . . . . 24  
 — Katetergal setae yellow . . . . . 32
24. Hind femur with few black bristles and many, very long, white setae (longer than the bristles) . . . . . **io** sp. n.  
 — Bristles of hind femur of two colours and fine setae not all longer than bristles . . . . . 25
25. Mane with tightly packed setae; acrostichals in anterior part of mane long and obvious . . . . . 26  
 — Mane with loosely arranged setae; acrostichals if present not much different from mane in anterior part . . . . . 29
26. Wing length less than 6 mm . . . . . **atopus** sp. n.  
 — Wing length greater than 6 mm . . . . . 27
27. *Mystax* yellow and black . . . . . **ktenistus** sp. n.  
 — *Mystax* white and black . . . . . 28
28. Hind femur with black bristles ventrally . . . . . **chainei** sp. n.  
 — Hind femur with yellow bristles ventrally . . . . . **tanymedus** sp. n.
29. Wing length less than 10 mm . . . . . 30  
 — Wing length greater than 10 mm . . . . . 31
30. Postpronotal lobe orange (rest of mesonotum black) . . . . . **lightfooti** sp. n.  
 — Postpronotal lobe black like rest of mesonotum . . . . . **soutpanensis** sp. n.
31. Femora unicolourous black . . . . . **manselli** sp. n.  
 — Femora with distal tips yellowish . . . . . **dondoensis** sp. n.
32. T3 without discal bristles . . . . . 33  
 — T3 with definite discal bristles . . . . . 37
33. Pale setae of *mystax* yellow . . . . . **holoxanthus** Engel  
 — Pale setae of *mystax* white . . . . . 34
34. At least a few black setae on scutellar disc . . . . . 35  
 — All setae of scutellar disc yellow . . . . . **hirtipes** (Ricardo)
35. Bristles of scutellar margin whitish; epandrium without longish, narrow, ventrodiscal lobe (East Africa) . . . . . **orientalis** (Ricardo)  
 — Bristles of scutellar margin yellowish and/or black; epandrium with longish, narrow ventrodiscal lobe (South Africa) . . . . . 36

36. Male genitalia as in Figs 48–51; ventrodiscal lobe of epandrium distinctly forked at tip . . . . . **forcipatus** (Macquart)  
— Male genitalia as in Figs 95–97; ventrodiscal lobe of epandrium not forked at tip . . . . . **macquarti** sp. n.
37. Wing length less than 6 mm . . . . . **macromystax** sp. n.  
— Wing length greater than 7 mm . . . . . 38
38. Mane with a small cluster of white setae at anterior end . . **congoensis** Ricardo  
— Mane uniformly black . . . . . 39
39. Setae of postpronotal lobe long and well developed . . . . . 40  
— Setae of postpronotal lobe short and poorly developed . . . . . 47
40. Major mesonotal bristles black . . . . . 41  
— Major mesonotal bristles yellow or orange . . . . . 43
41. All setae of T3 pale yellow (may be 2 or 3 black ones on dorsal hind margin) . . . . . **stannus** Ricardo  
— Dorsal part of T3 with black setae from anterior to posterior margins . . . 42
42. Tarsi blackish . . . . . **zambiensis** sp. n.  
— Tarsi yellow-brown . . . . . **porcellus** Speiser
43. Setae on posterior side of midcoxa and hind trochanter black . . . . **rossi** sp. n.  
— These setae yellow . . . . . 44
44. Bristles on ventral aspect of hind femur black . . . . . **carorum** sp. n.  
— These bristles yellow . . . . . 45
45. Terga 2 and 3 with all dorsal setae yellow (Zimbabwe) . . . . . **pinheyi** sp. n.  
— Terga 2 and 3 with at least some dorsal setae black (South Africa) . . . . . 46
46. Male genitalia as in Figs 26–29 . . . . . **chubbii** Bromley  
— Male genitalia as in Figs 132–135 . . . . . **seymourae** sp. n.
47. T3 lacking discal bristles . . . . . **bezzii** sp. n.  
— T3 with at least one well-developed bristle . . . . . 48
48. Pale setae of mystax yellow . . . . . **anomalus** sp. n.  
— Pale setae of mystax white . . . . . 49
49. Presutural bristles yellow-white . . . . . **robustus** Ricardo  
— Presutural bristles black . . . . . **kolochaetes** sp. n.
50. Katetergal setae black and white . . . . . **irwini** sp. n.  
— Katetergal setae yellow . . . . . 51
51. Mane poorly developed; fine setae of hind femur shorter than bristles  
**stuckenbergi** sp. n.  
— Mane well developed; fine setae of hind femur longer than bristles . . . . . 52
52. Notopleural bristles black; anterior face of fore coxa with a few black setae laterally . . . . . **antidasophrys** sp. n.  
— Notopleural bristles brown-yellow; anterior face of fore coxa with white setae only . . . . . **rhodesii** (Ricardo)

***Neolophonotus anomalus* sp. n.**

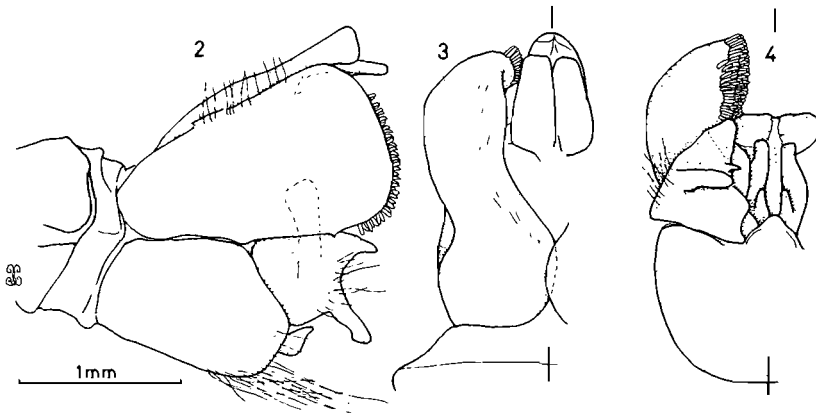
Figs 2-4

**Etymology:** Gr. *anomalos* = inconsistent, unusual. Refers to the fact that this species seems to have its true affinities with the *angustibarbus* species-group even though it keys to the *suillus* group.

**Description:** Based on unique holotype ♂.

**Head:** Scape and pedicel brown; rest dark red-brown to black; all setae black except for a few white ones laterally on scape. Eye: face ratio 1:0,22; eye: lower facial margin ratio 7,3:1. Mystax yellow with shorter black setae laterally (mixed on lower facial margin). Occipital setae: upper—black; central—yellow; lower—white.

**Thorax:** ktg s orange; mtanepst s yellow. Mesonotal setae: acr if present not differentiated from mane; dc black, ca. 5 pairs, a few anterior of suture; pprn short yellow and black; 2/2 black npl; 3/3 black spal; 2/2 black pal. Mane with tightly packed black setae along entire length (somewhat shorter anteriorly). Scutellum with 3 black marginal bristles and fine yellow and black setae; disc mainly with white setae (few small black ones centrally). Wing: 8,8 × 3,1 mm; membrane transparent, colourless and without markings. Legs: femora dark red-brown, dorsoproximal parts of tibiae orange-brown, rest red-brown; cx1 with yellow bristles and setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange and black, long setae white and brown, short setae white.



Figs 2-4. *Neolophonotus anomalus* sp. n. male holotype (Strandfontein) genitalia. 2. Lateral. 3. Dorsal. 4. Ventral.

**Abdomen:** Dark red-brown, fine gold pruinose. T3 with 3 orange marginal and 2 orange discal bristles; fine setae yellow laterally, black dorsally. S3 with 4 orange bristles and long white-yellow setae. Genitalia as in Figs 2-4; hypandrium with dorsoventrally-flattened distal process medially; gonocoxite with a proximally directed finger-like process; epandrium truncate distally and with many stumpy setae; aedeagus with bulbous tip.

Female: Unknown.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Strandfontein (3017DC), iii.1950, Zinn & Hesse (SAM). SAM Type No. 3976.

Distribution: Known only from the type-locality on the west coast of the Cape Province in the Desert and Poor Steppe climatic region.

Remarks: The male genitalia of *anomalus* strongly resemble those of *angustibarbus* (Loew), especially in the form of the hypandrium, gonocoxite and aedeagus. *N. anomalus* has, however, a well-developed mane and so keys to the *suillus* species-group.

***Neolophonotus antidasophrys* sp. n.**

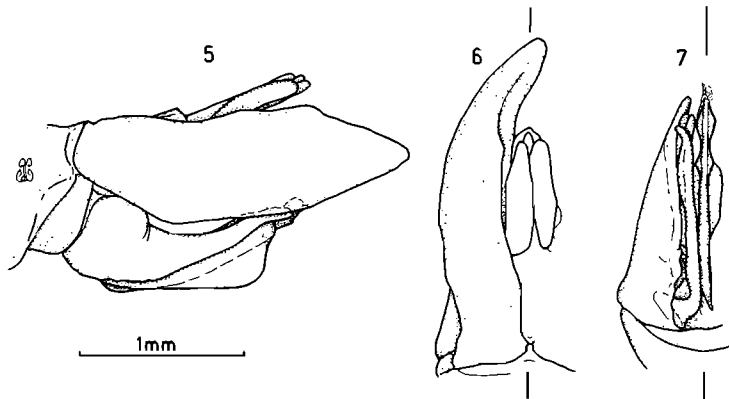
Figs 5-7

Etymology: Gr. *anti* = like, *Dasophrys* a related genus. Refers to the fact that this species looks very like some species of *Dasophrys*.

Description: Based on unique holotype ♂.

*Head*: Antenna dark red-brown to black; Scape and pedicel with black setae except for those on the dorsal aspect of scape which are yellow. Eye:face ratio 1:0,23; eye:lower facial margin ratio 20,0:1. Mystax mixed black and white (mostly black above and white below). Occipital setae: upper—black (a few yellow); central—long black; lower—white.

*Thorax*: ktg s and mtanepst s orange. Mesonotal setae: acr long black and obvious in anterior region of mane; dc black, weak, go anterior of suture; pprn longish yellow (a few black); 2/2 orange npl; 1/1 black spal (plus 1/1 black setae); 1/1 black pal (plus 2/2 black setae). Mane with tightly packed black setae along entire length. Scutellum with 7 black marginal bristles; disc with black bristles and black (centrally) and white (laterally) setae. Wing: 6,9 × 2,5 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, dorsoproximal parts of tibiae brown-yellow; cx1 with white setae anteriorly (a few black ones laterally);



Figs 5-7. *Neolophonotus antidasophrys* sp. n. male holotype (Pungue Gorge) genitalia. 5. Lateral. 6. Dorsal. 7. Ventral.



cx3 lacking bristles laterally. Hind femur: bristles orange and dark red-brown, setae longish, yellow, white or black (few).

*Abdomen*: Dark red-brown, gold-silver pruinose. T3 and S3 with fine yellow and black setae only (no bristles). Genitalia as in Figs 5–7; hypandrium small; gonocoxite elongate and tapering distally, extends beyond tip of gonostylus; epandrium elongate, narrowly rounded distally; aedeagus elongate and straight.

Female: Unknown.

Material examined: ZIMBABWE: 1♂ (holotype), Pungue Gorge (1832BD), v.1964, Col. C. A. Green (NM). NM Type No. 3062.

Distribution: Known only from the type-locality in the eastern highlands of Zimbabwe near the Inyanga Mountains.

Remarks: *N. antidasophrys* has a gently convex face (in lateral view) and rather setacious legs. The mane is, however, well developed and the male genitalia do not conform well with the general form associated with the genus *Dasophrys*.

### ***Neolophonotus atopus* sp. n.**

Figs 8–10

Etymology: Gr. *atopos* = out of place, odd. Refers to the fact that this species is atypical of the *suillus* group. The gonostylus is very long and unlike the condition normal in the group.

Description: Based on unique holotype ♂.

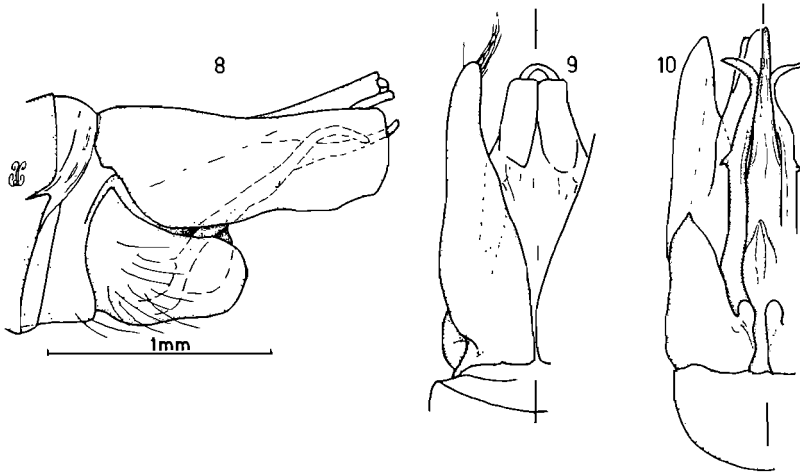
*Head*: Antenna dark red-brown; scape with black and white setae both dorsally and ventrally, pedicel with black setae only. Eye:face ratio 1:0,19; eye:lower facial margin ratio 9,6:1. Mystax black and white (black tends to be more central and on lower facial margin). Occipital setae: upper—black; central—black; lower—white.

*Thorax*: ktg s and mtanepst s white. Mesonotal setae: acr long, black in anterior part of mane; dc black, ca. 6 pairs, a few anterior of suture; pprn of moderate length, white; 3/3 npl (2 white, 1 black); 2/2 black spal; 1/1 black pal (plus 1/1 black setae). Mane with tightly packed black setae along entire length (a few shorter white ones bordering). Scutellum with 2 black marginal bristles; disc with 4 black bristles and white setae (few small black ones centrally). Wing: 5,9 × 1,8 mm; membrane transparent, colourless and without markings. Legs: uniform dark red-brown; cx1 with white bristles and setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles and long setae black and white, short setae black (ventrally) and white (dorsally and laterally).

*Abdomen*: Dark red-brown, fine gold-silver pruinose. T3 with 3–4 white marginal and 8–10 white discal bristles; fine setae white laterally, black dorsally. S3 with ca. 6 white bristles and long white setae. Genitalia as in Figs 8–10; hypandrium short; gonocoxite well developed, broadly rounded distally; gonostylus elongate with a small spine laterally at about mid-length; aedeagus elongate with a pointed tip.

Female: Unknown.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Aggenys



Figs 8–10. *Neolophonotus atopus* sp. n. male holotype (Aggenys) genitalia. 8. Lateral. 9. Dorsal. 10. Ventral.

(Aggenys) or Bushmanland between Springbok and Pella (2818BB), x.1939, Mus. Staff (SAM). SAM Type No. 3977.

Distribution: Known only from the type-locality in the north-eastern Cape Province and within the Desert and Poor Steppe climatic region.

Remarks: An anomalous species which may be related to members of the *chionthrix* species-group.

#### *Neolophonotus bezzii* sp. n.

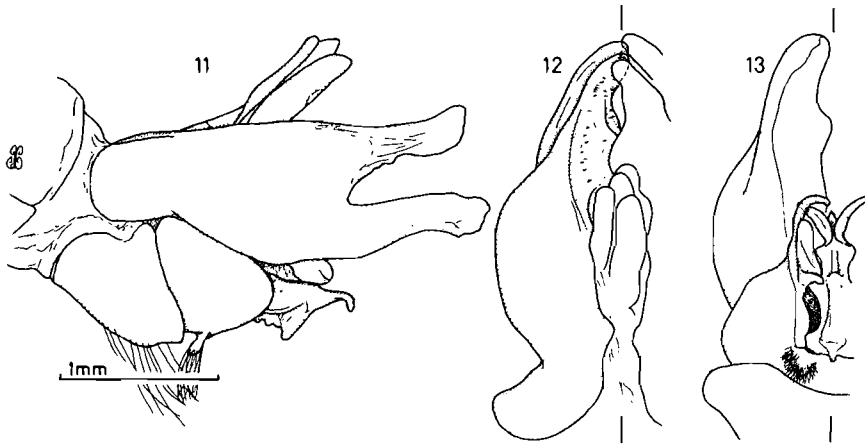
Figs 11–13

Etymology: Named after Prof. Mario Bezzi, one of the pioneer taxonomists who worked on Afrotropical Asilidae.

Description: Based on holotype ♂.

*Head*: Antenna dark red-brown; scape and pedicel with black setae. Eye:face ratio 1:0,23; eye:lower facial margin ratio 7,8:1. Mystax yellow with black laterally (black long in upper parts and short below). Occipital setae: upper—black; central—yellow; lower—pale yellow.

*Thorax*: ktg s and mtanepst s yellow-white. Mesonotal setae: acr long black and obvious in anterior region of mane; dc black, ca. 8 pairs, go anterior of suture; pprn short yellow; 2/2 yellow npl (plus 1 black seta on left side); 3/3 black spal; 1/2 black (1 yellow on right side) pal. Mane weak, especially in posterior part, black along entire length. Scutellum with 8 yellow marginal bristles; disc with yellow and black setae only (no bristles). Wing: 8,1 × 2,9 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, dorsoproximal parts of tibiae brown-yellow; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles yellow and black, long setae white (a few black ventrally), short setae white.



Figs 11–13. *Neolophonotus bezzii* sp. n. male holotype (Abyssinia) genitalia. 11. Lateral. 12. Dorsal. 13. Ventral.

**Abdomen:** Dark red-brown, silver-gold pruinose. T3 with 3 yellow marginal bristles and fine white setae (no discal bristles). S3 with 4 white bristles and fine, long, white setae. Genitalia as in Figs 11–13; gonocoxite rounded and with a small hairy lobe at its base on ventral aspect; epandrium forked distally; aedeagus with wing-like processes on either side of tip.

**Female:** Similar to ♂. Cerci spine-like, forming the elements of a two-pronged fork-like structure.

**Material examined:** ETHIOPIA: 1♂ (holotype), 'Abyssinia', (ZSM).

**Note:** I have also seen 1♂ 1♀ without labels (ZSM) which were probably collected with the holotype. These are in poor condition and are not included in the type series.

**Distribution:** The exact type-locality is not known, but it is certain that the specimens came from Abyssinia (now Ethiopia).

**Remarks:** A distinctive species with no obvious close relatives.

### *Neolophonotus bimaculatus* sp. n.

Figs 14–16

**Etymology:** *L. bis* = twice, *maculatus* = spotted. Refers to the appearance of the scutellum which has two clusters of white setae (appearing as spots to the naked eye).

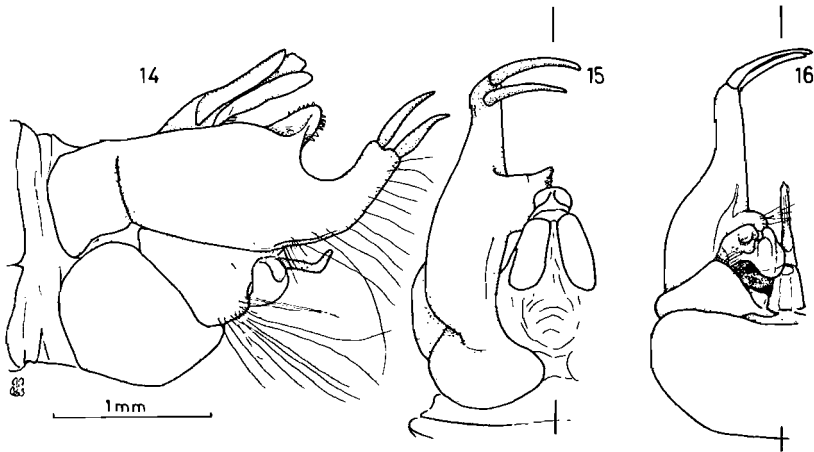
**Description:** Based on holotype ♂.

**Head:** Antenna dark red-brown to black; setae black and white. Eye:face ratio 1:0,28; eye:lower facial margin ratio 7,0:1. Mystax white with long black setae laterally (black and yellow on lower facial margin). Occipital setae: upper and central—black and yellow; lower—white.

**Thorax:** ktg s black; mtanepst s black and brown. Mesonotal setae: acr black, well developed anteriorly; dc black, ca. 9 pairs, a few anterior of suture; pprn yellow

and white; 2/2 black npl; 2/3 black spal; 2/2 black pal (with 1/2 black setae). Mane with tightly packed black setae along entire length (white setae bordering black). Scutellum with 7 black marginal bristles and fine white setae; disc with *ca.* 10 black bristles, fine setae black and white (white ones laterally). Wing: 8,5 × 2,8 mm; membrane transparent, colourless and without markings. Legs: femora dark red-brown, rest yellow-brown (tibiae not clearly bicoloured); cx1 with white bristles and setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black (a few black), long setae black, orange and white (few), short setae longish white.

*Abdomen:* Dark red-brown, silver-gold pruinose. T3 with long white setae laterally, shorter black ones dorsally (no bristles). S3 with long black and short white setae. Genitalia as in Figs 14–16 (paratype illustrated); epandrium bifurcate distally, lower prong equipped with 2 strongly developed bristles; aedeagus shortish, straight, narrow.



Figs 14–16. *Neolophonotus bimaculatus* sp. n. male paratype (15 km SE Lambert's Bay) genitalia. 14. Lateral. 15. Dorsal. 16. Ventral.

*Paratypes:* 4♂ 8♀ from same locality as holotype. ♀ similar to ♂ but pruinescence is golden, and white setae are yellow. Cerci spine-like, forming the elements of a two-pronged fork-like structure.

*Material examined:* SOUTH AFRICA: *Cape Province:* 5♂ (holotype & paratypes) 8♀ (paratypes), 15 km SE Lambert's Bay (3218AB), 1.ix.1981, Londt, Schoeman & Stuckenberg, Westcoast Strandveld (NM—NM Type No. 3063); 2♂ 4♀, 3 km W Leipoldtville (3218AB), 1.ix.1981, Londt, Schoeman & Stuckenberg, Westcoast Strandveld (NM); 8♂ 7♀, Soutpan N Elandsbaai (3218AB), 1.ix.1981, Londt, Schoeman & Stuckenberg, Westcoast Strandveld (NM); 10♂ 5♀, 2,5 mi S Elandsbaai (3218AD), 16.ix.1972, Irwin, coastal sand dunes (NM); 11♂ 6♀, 4,5 mi S Elandsbaai (3218AD), 17.ix.1972, Irwin, 5 ft alt, coastal sand plain (NM); 1♂, Calitzdorp (3321DA), 28.x.1947, Pretorius (NM); 1♂, Ceres (3319AD), ix.1927, Ac. US (NM); 1♀, Belville (Bellville—3318DC), ix.1944 (NM); 1♀, Piquetberg (3318AD), 1.x.1937, Ac. US (NM); 1?, Hopefield (Cape Town—3318AB),

28.ix.1928, Ac. US (NM); 1 ♀, Worcester (3319CB), xii.1965, Louw (NM); 1 ♂, Vredenburg (3217DD), 3.x.1946, Prins (NM); 1 ♂, Vredendal (3118CB), viii.1944 (NM); 1 ♂, Vredendal (3118CB), 18.vii.1947, v. Zyl (NM); 1 ♂, Tulbagh (3319AC), ix.1947, Theron (NM); 1 ♂, Wellington (3318DB), 9.ix.1927, Ac. US. (NM); 1 ♀, 30 km NE Wellington (3319CA) Bainskloof Pass, 27.ix.1979, Londt, stream edges (NM), 1 ♂, South Africa, ix.1947, v. d. M (NM); 1 ♂, Bredasdorp (3420CA), 5.x.1941 (NM); 1 ♀, Addo (3325BC), 3.ii.1964, Erasmus (NM); 1 ♂, Ladismith (3321AD), x.1923, Brauns (NM); 1 ♀, Grootvlei Pass (3118DC), 18.x.1981, Schoeman (NM); 1 ♂ 4 ♀, 10 km W Garies (3018CA), 3.ix.1981, Londt, Schoeman & Stuckenberg, Namaqualand broken veld (NM); 1 ♂ 1 ♀, 10 km E Garies (3017DB), 3.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 1 ♂ 2 ♀, 7 mi NE Garies (3018CA), 9.ix.1972, Irwin, 950 ft, sandy hillside with flowing stream (NM); 3 ♂ 2 ♀, Garies (3017DB), 9.ix.1972, Irwin (NM); 1 ♀, 12 mi NNE Garies (3018AC), 9.ix.1972, Irwin, 1 350 ft, nr. waterfall (NM); 4 ♂, 42 km NE Garies (3018AC), 15.x.1977, Miller 700 m, nr. Wolfhok (NM); 3 ♂ 2 ♀, 30 km S Clanwilliam (3218BD), 31.viii.1981, Londt, Schoeman & Stuckenberg, Karroid broken veld (NM); 2 ♂, 32 km NE Clanwilliam (3219AA) Brandewyn R., 2–3.x.1977, Miller (NM); 4 ♂ 2 ♀, 13 km W Clanwilliam, 15.ix.1972, Irwin, hillside with flowers (NM); 2 ♂ 2 ♀, Clanwilliam (3218BB), ix.1928, Brauns (NM); 1 ♂, Clanwilliam (3218BB), ix.1947, Walters (NM); 1 ♂, Clanwilliam (3218BB), 26.ix.1927, Ac. US (NM); 1 ♂, 10 km SE Vanrhynsdorp (3118DA), 14.x.1977, Miller, along river (NM); 2 ♂ 2 ♀, 10 km N Vanrhynsdorp (3118DA), 2.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 2 ♂ 3 ♀, 45 km N Vanrhynsdorp (3118BA), 4.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 1 ♂, Van Rhyn's Pass (3118DA), 4–5.xi.1933, van Son (NM); 2 ♂, Vanrhynsdorp (3118DA), vii–viii.1927, van Son (NM); 4 ♂ 2 ♀ 1?, Vanrhynsdorp (3118DA), viii.1927, Brauns (NM); 1 ♀, Vanrhynsdorp (3118DA), ix.1928, Brauns (NM); 2 ♂ 2 ♀, 10 km NE Muizenberg (3418AB), 28.xi.1981, Stuckenberg, coastal macchia (NM); 2 ♂ 1 ♀, 10 km NE Muizenberg (3418AB), 12.ix.1981, Londt, Schoeman & Stuckenberg, coastal macchia (NM); 2 ♂ 2 ♀, Outskirts of Klaver (3118DC), 2.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 1 ♂, Klaver (3118DC), 19.ix.1917, Roberts (NM); 1 ♂ 6 ♀, Knersvlakte (3118BC), 2.ix.1981, Londt, Schoeman & Stuckenberg, rocky hillside veget. Succulent Karoo (NM); 1 ♂ 1 ♀, 12 km W Soutfontein (3017DA), 4.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 1 ♂, 20 km N Citrusdal (3218DB), 31.viii.1981, Londt, Schoeman & Stuckenberg (NM); 1 ♂, Grahamstown (3326BC), 28.x.1970, Londt, Hilton farm (NM); 1 ♂ 1 ♀, Gifberg, 23 km SE Vanrhynsdorp (3118DC), 15.ix.1982, Schoeman (NM); 1 ♂ 1 ♀, 10 km E Port Nolloth (2916BD), 15.ix.1982, Schoeman (NM); 2 ♀, Studer's Pass, Wolfhok (3018AC), 13.ix.1982, Schoeman (NM); 2 ♂ 1 ♀, Wallekraal (3017BC), 12.ix.1982, Schoeman (NM); 1 ♀, 6 mi W Nieuwoudtville (3119AC), 11.ix.1972, Irwin, 2 500 ft, nr. top of escarpment (NM); 1 ♂ 1 ♀, 25 km E Nieuwoudtville (3119AC), 5.ix.1981, Londt, Schoeman & Stuckenberg, W Mountain Karoo (NM); 4 ♂ 2 ♀, 5 km N Nieuwoudtville (3119AC), 5.ix.1981, Londt, Schoeman & Stuckenberg, W Mountain Karoo (NM); 1 ♀, 5 km W Nieuwoudtville (3119AC), 5.ix.1981, Londt, Schoeman & Stuckenberg, macchia with Proteas (NM); 1 ♂, 25 km N Middelpos

(3120CC), 6.ix.1981, Londt, Schoeman & Stuckenberg, W Mountain Karoo (NM); 2♂ 2♀, Witsand S Heidelberg (3420BD), 9.ix.1981, Londt, Schoeman & Stuckenberg, coastal macchia (NM); 2♂, Kommetjie hillside (3418AB), 12.ix.1981, Londt, Schoeman & Stuckenberg, macchia vegetation (NM); 6♂ 6♀, 5 km E Lambert's Bay (3218AB), 31.viii.1981, Londt, Schoeman & Stuckenberg, Westcoast Strandveld (NM); 1♂ 1♀, 2 mi NNE Pakhuis Farm (3219AA) Pakhuis Mts, 14.ix.1972, Irwin, 1 800 ft (NM); 3♂, Pakhuis Pass (3219AA) Clanwilliam Dist., 17–19.x.1964, Stuckenberg (NM); 1♀, Pakhuis Pass (3219AA) East side, 17.viii.1973, Irwin, 600 m, meadow with flowers (NM); 1♂, 11 mi NNE Hondeklipbaai (3017AB), 8.ix.1972, Irwin, 200 ft, reddish sand, shrubs (NM); 2♂ 1♀, Hout Bay (3418AB), 11.ix.1967, Ross & Leech (CAS); 1♂, Stones Hill (Grahamstown—3326BC), viii.1923, Whitworth (AM); 2♀, Hilton, Grahamstown (3326BC), 5.xi.1969, Gess (AM); 1♂, G'town (Grahamstown—3326BC), Sept., Rogers (AM); 1♀, Kowie (Port Alfred—3326DB), ix.1945, Borak (AM); 1♂, Jakkalsputs (2818DD), Dept Ento (NMB); 1♂ 1♀, Tygerberg, N Cape Town (3318CD), 1.x.1972, Pinhey (NMZ); 1♂, Kapocberg nr. Darling (3318AD), 14.ix.1969, Nat Mus (NMZ); 1♀, Katzenberg Hill, Mamre (3318CB), 30.ix.1972, Pinhey (NMZ); 1♀, Stellenbosch (3318DD), x.1927, v. Dyk (NMZ); 1♂, Saldanha B (3317BB), ix.1912, L.P. (ZSM); 3♂, Cape Town (3318CD) (ZSM); 1♂, Capland (ZSM); 2♀, PN (ZSM NM); 1♂ 1♀, Kl Brakriver, George (3322CD), 1.x.1922, Brauns (ZSM); 1♂ 1♀, Stellenbosch (3318DD), Brauns (ZSM); 1♂, Stellenbosch (3318DD), 1927, Brauns (ZSM); 2♂ 1♀, O'okiep (Okiep—2917DB), 28.viii.1896 (ZSM SAM); 1♀, Touws R (3320AC), Purcell (ZSM); 8♂ 2♀, Palmietrivier Mond, Caledon (3419AB), x.1924, Brauns (ZSM NM); 1♂, Clanwilliam (3218BB) Nardouw, ix.1941, Mus Staff (SAM); 1♀, Strandfontein, False Bay (3418BA), 1.xi.1960 (SAM); 13♂ 8♀, Botterkloof Pass (3119CD) top of, 13.ix.1972, Irwin, white sand dune assoc (NM); 5♂, same loc., 16.viii.1973, Irwin, 700 m, white dune assoc (NM); 10♂ 4♀, 14 mi SE Langebaan (3318AA), 18.ix.1972, Irwin, 200 ft, coastal dunes and sandy plain (NM); 1♂, 21 km S Langebaan (3318AA), 18.viii.1973, Irwin, coastal dunes (NM); 1♂, Brenton on Sea (3423AA), 10.xii.1979, Londt & Stuckenberg, dune & hillside vegetation (NM); 5♂ 3♀, Saldanha (3317BB), 8–9.x.1977, Miller, malaise trap (NM); 2♂ 3♀, 3 km S Darling (3318AD), 28.ix.1979, Londt, well veget. hillside above wheatlands (NM); 1♂, Darling (3318AD), 20.ix.1932, Ac. US (NM); 4♂ 1♀, 2 km N Calvinia (3119BD), 5.ix.1981, Londt, Schoeman & Stuckenberg, False Succulent Karoo (NM); 2♂ 1♀, Brandkop area, Calvinia Dist (3119AC), 14.x.1964, Stuckenberg (NM); 5♂ 5♀, 13.5 mi SSW Springbok NE Nuweputs Farm (2917DD), 7.ix.1972, Irwin, 2 600 ft (NM); 5♂ 6♀, 2 mi SW Brandkop (3119AC), 12.ix.1972, Irwin, 1 300 ft., stream bed (NM); 1♂ 1♀, Springbok (2917DB) Lammerhoek, 5–8.ix.1962, Vari & Goode (NM); 2♂ 5♀, 25 km N Kamieskroon (2917DD), 5.ix.1983, Stuckenberg & Londt, rocky hillside veget. (NM); 1♀, Studer's Pass, 22 km NE Garies (3018AC), Londt & Stuckenberg, stream edge & rocky slopes (NM); 1♂ 1♀, 17 km S Kamieskroon (3017BD), 5.ix.1983, Londt & Stuckenberg, slopes with succulent plants & bushes (NM); 2♂ 2♀, 8 km E Kamieskroon (3018AA), 5.ix.1983, Londt & Stuckenberg, montane old land with rocks and bushes nearby (NM); 5♂ 7♀, 13k SE Port Nolloth (2917AC), 3.ix.1983,

Stuckenberg & Londt, Westcoast Strandveld (NM); 2♀, Richtersveld, 40 km S Ochta Mine (2816BD), 2.ix.1983, Londt & Stuckenberg, mixed Karoo bush with few flowers (NM); 1♂, McDougal Bay area 5 km S Port Nolloth (2916BD), 3.ix.1983, Londt & Stuckenberg, Westcoast Strandveld (NM); 2♂ 3♀, Aninaus Pass (2917BA), 15 km W Steinkopf, 4.ix.1983, Londt & Stuckenberg, rocky hillside & dry river (NM); 13♂ 6♀, 34,5 km S Soetwater (3119CD), 29.ix-1.x.1977, Miller, malaise trap (NM); 2♂ 1♀, Silver Sands, 2 km N Betty's Bay (3418BD), 23.ix.1979, Londt, vegetated dune (NM); 6♂ 6♀, 15 km W Malmesbury (3318BC), 28.ix.1979, Londt, old lands—sandy soil & Acacias (NM); 1♂ 1♀, Kleinmond (3419AC), 25.ix.1979, Londt, swept from veget. on banks of river (NM); 1♂, 8 km S Alexandria (3326CD), 3.xi.1978, Miller & Londt, road & forest margin (NM); 1♂, Doringbos on Doring River (3119CC), 14.ix.1972, Irwin, 500 ft, riverbank sand dunes (NM); 1♀, Knersvlakte North of Vanrhynsdorp (3118BC), 6-9.x.1964, Stuckenberg (NM); 3♀, 1 km NW Bergrivier, Ryk Melch Rest Camp (3218CD), 7.x.1977, Miller (NM); 1♂, Karooport, 36 km ENE Ceres (3319BA), 18.viii.1973, Irwin, 880 m, small dunes in pass (NM); 6♂ 3♀, Strandfontein (3017CB—not 3418BA as on label), 10-12.x.1977, Miller, Groot-Sandleegte (NM); 2♂ 2♀, Ysterfontein (3318AC), 28.ix.1979, Londt, vegetated dunes nr. land reclamation stn. (NM); 14♂ 11♀, Somerset W. Strand (3418BB), 1.x.1925, Brauns (NM); 2♂, Somerset Strand (3418BB), 1926, Brauns (NM); 4♂ 4♀, Jeffrey's Bay (3424BB), 2.xi.1978, Miller & Londt, dune veget. (NM); 1♂, Jeffrey's Bay (3424BB), 23.xii.1922, Brauns (NM); 2♂ 1♀, Brakriver, Mossel Bay (3422AA), 1.x.1921, Brauns (NM); 2♂ 3♀, Kl Brakriver, George (3322CD), 1.x.1922, Brauns (NM); 2♂ 2♀, Modderfontein Willowmore (3323AD), 1.x.1920 & 15.x.1921, Brauns (NM); 1♀, Port Elizabeth (3325DC), 24.viii.1958, Taylor (NM); 6♂ 5♀, Stellenbosch (3318DD), ix.1926, Brauns (NM); 7♂, Stellenbosch (3318DD), 10.x.1925 26.ix.1926 16 & 21.x.1926 5.xi.1925 7.xi.1926, Brauns (NM); 1♂, Stellenbosch (3318DD), ii.1965, Louw (NM); 1♂, Stellenbosch (3318DD), 28.x.1946, Walsh (NM); 1?, Stellenbosch (3318DD), x.1957, du T (NM); 1♀, Stellenbosch (3318DD), 21.ix.1946, Truter (NM); 1♀, Stellenbosch (3318DD), x.1948, Viljoen (NM); 33♂ 13♀ 4?, Stellenbosch (3318DD), various dates in v vi vii viii ix x i ii of years between 1926-1948, Ac. US (NM); 13♂ 10♀, Calvinia (3119BD), ix.1947, Mus Exp (SAM); 86♂ 51♀ 14?, Graafwater (3019CC), x.1947 (SAM); 9♂ 3♀ 1?, Het Kruis (3218DA), x.1947 (SAM); 6♂ 5♀, Paleisheuwel (3218BC), xi.1948 (SAM); 5♂ 5♀, E Pakhuis Pass (3218BB), ix.1947 (SAM); 10♂ 10♀, Wallekraal Namaqualand (3017BC), x.1950 (SAM); 1♂ 5♀, Lammerskraal, Prince Albert Dist. (3222CD), ix.1947 (SAM); 2♂ 1♀, Papendorp, Olifants River (3118CA), x.1950 (SAM); 6♂ 2♀, Oudtshoorn, Zebra (3322CB), x.1951 (SAM); 1♀, Goedehoop, Heidelberg Dist. (3420BB), x.1951 (SAM); 35♂ 22♀ 2?, Hopefield (3318AB), 9.60 (SAM); 55♂ 35♀ 1?, Ysterfontein, (3218BA), 9.60 (SAM); 1♂ 4♀, Pakhuis Pass (3218BB), ix.1961 (SAM); 19♂ 13♀, 4 m S Clanwilliam (3218BB), ix.1961 (SAM); 21♂ 19♀, 8 m N Citrusdal (3219CA), ix.1961 (SAM); 2♀, 7 m S Loeriesfontein (3019CD), ix.1961 (SAM); 7♂ 3♀, Strandfontein (3418BA), 1.xi.1960 (SAM); 4♂, Worcester—Du Toit's Kloof (3319CA), 17.x.1966 (SAM); 1♀, Laingsburg Dist. (3320BB), x.1964, Pretorius (SAM); 1♂ 1♀, Melkbosstrand (3318CB), 29.viii.1965, Gess (SAM); 2♂ 5♀ 1?,

7–10 m SW Matjiesfontein (3320BA), 15.x.1966 (SAM); 124♂ 93♀ 1?, Pearly Beach, Bredasdorp (3419CB), ix.1959 (SAM); 11♂ 9♀, Milnerton, Cape Town (3318CD), ix.1965, Gess (SAM); 2♂ 1♀, Moordenaars Karoo, (3221CC), x.1952, Swanepoel (SAM); 1♂, Outiep Garies (3017DB), ix.1953 (SAM); 1♂, Oudtshoorn Dist. (3322CB), x.1952, Mus Exp (SAM); 1♂ 1♀, Bulhoek, Klawer (3118DC), x.1950 (SAM); 2♂ 2♀, Klipvlei, Garies (3017DB), xi.1931 (SAM); 18♂ 16♀, Bowesdorp (Kamieskroon—3017BB), ix.1941 (SAM); 7♂ 3♀, Clanwilliam, Nardouw (3218BB), ix.1941, Mus Staff (SAM); 23♂ 17♀ 1?, Augusfontein (Calvinia—3119BD), ix.1947 (SAM); 1♂ Groendal, Uitenhage (3325CD), x.1938 (SAM); 1♂, French Hoek Pass, Villiersdorp side (3319CC), x.1936 (SAM); 5♀, Leeuwkloof, Nieuwveld, Beaufort W. (3222BC), x.1935 (SAM); 4♂ 1♀, Cold Bokkeveld, Ceres Dist. (3319AB), 15–30.x.1929 (SAM); 4♂ 3♀ 1?, Knersvlakte (3118BC), ix.1941 (SAM); 1♂ 1♀, Nieuwoudtville, Brandkop (3119DD), ix.1941 (SAM); 9♂ 2♀, Mitchell's Pass, Ceres Dist. (3226DB), x.1934 (SAM); 1♂, Buffels River, Ladismith Div. (3321AD), x.1937 (SAM); 1♀, Port Elizabeth (3325DC), xi.1889 (SAM); 1♂, Constantia (Cape Town—3318DC), ix.1896 (SAM); 1♂ 1♀, Knysna (3423AA), x.1916 (SAM); 1♂ 1♀, Kraaifontein (3318DC) Cape Colony, Lightfoot (SAM); 2♂ 2♀, O'okiep (2917DB), ix.1890 (SAM); 1♀, Grahamstown (3326BC) (SAM); 1♂ 2♀, Elands Bay (3218AD) Baboon Point, 26.ix.1978, Whitehead (SAM); 1♂ 1♀, Mamre (3318CB) Silverstream Strand, 26.ix.1978, Whitehead (SAM); 2♂, 20 km N Clanwilliam (3218BB), 9.ix.1982, Grielum Whitehead (SAM); 1♂, Vermont Dunes (3419AC), 23.ix.1979, Whitehead (SAM); 1♀, Klipfontein, 12 km W Steinkopf (2917BC), 2.x.1981, Whitehead (SAM); 1♂, Oorlogskloof, Nieuwoudtville (3119AC), 27.v.1978 (SAM); 1♀, Garies 29 k S (3018CA), 28.viii.1980 Whitehead; 2♂, Cape Point Reserve (3418AD), 18.ix.1975, Whitehead (SAM); 1♀, Boschkloof Clanwilliam Div (3218BB), ix.1938, Mus Staff (SAM); 1♀, Jackalswater Namaqualand, vi.1938, Smithers (SAM); 1♀, Between Kamieskroon & Springbok (2917DD), x.1939, Mus Staff (SAM); 1♂, Onrust (?), 5.x.1975, Whitehead (SAM); 1♀, Olifantsrivier between Klawer & Clanwilliam (3218BB) (SAM); 5♂ 1♀, Ramskop Camp Clanwilliam (3218BB), 22.viii.1984, Whitehead & Macpherson (SAM); 1♀ 1?, 6 m S Garies (3018CA) (SAM); 1♀, Hester Malan Res. Springbok (2917DB), 17.ix.1983, Whitehead (SAM); 1♂, 20 km S Nuwerus (3118AB), 10.ix.1983, Whitehead (SAM); 1♂ 6 km N Clanwilliam (3218BB), 9.ix.1983, Whitehead (SAM); 1♀, Bidouw Pass (3219AB), 8.ix.1983, Whitehead (SAM); 32♂ 11♀, 5 m N Nieuwoudtville (3119AC), ix.1961, SAM (SAM); 11♂ 13♀, Saldanha Bay (3317BB), ix.1960, SAM (SAM); 7♂ 5♀, near Doornbosch, ix.1961 (SAM); 23♂ 12♀, Leipoldtville, Elands Bay (3218AB), x.1947, Mus Exp (SAM); 1♂ 1♀, Kamieskroon (3017BB), Mus Staff (SAM); 1♂, Olifants River bet. Citrusdal & Clanwilliam, x–xi.1931, Mus Staff (SAM); 1♂, Boschkloof, Clanwilliam Div. (3218BB), ix.1936, Mus Staff (SAM); 1♀, Touwsrivier (3320AC), Purcell (SAM); 1♂, Mossel Bay (3422AA), 1896 (SAM). NAMIBIA: 1♂, Klipfontein (? 1817DC), 22.ix.1922, Robson (NM); 1♀, 30 km N Rosh Pinah (2716DA), 1.ix.1983, Londt & Stuckenberg, green bushes & flowers; 1♀, Namuskluft 88, Luderitz, SE 2716DD, 12–15.ix.1973, H14193 (SMW); 1♀, same loc., 7–15.x.1970, H11077 (SMW); 1♀, same loc., 7–14.x.1970, H11116 (SMW).



Distribution: *N. bimaculatus* has a wide distribution (Fig. 180). Probably centred on the south-west Cape Province, the species is found along the west coast as far north as southern Namibia (a specimen labelled Klipfontein SWA may indicate that the species extends much further north than suspected—the only place with this name known to me is in 1817DC, but there are likely to be other smaller places or farms known by this name) and along the southern Cape coast as far as Port Alfred. While the species is most commonly encountered on beaches or within short distances of them, it is also found on sandy soils some distance from the coast. The species has been recorded from the following climatic regions of southern Africa—Desert and Poor Steppe; Mediterranean; Little and Great Karoo; Southern Cape Coastal.

Prey records: A number of specimens studied have been pinned together with prey; the prey insects are: Diptera (Bombyliidae 6, Calliphoridae 2, Ceratopogonidae 1, Bibionidae 1, Asilidae 1 *Gonioscelis* sp.), Coleoptera (Scarabaeidae 6, ? Curculionidae 1), Hymenoptera (Apidae 4), Isoptera (Hodotermitidae 3), Homoptera (Cercopidae 1).

Habits: My own observations suggest that adults are invariably found resting on the ground, usually on sandy soil. They produce an audible buzz in flight. When disturbed they fly for a short distance only.

Remarks: Although here described as new, this is probably the best known of all the species of *Neolophonotus*. It was Macquart (1838) who first provided a description of it, together with a simple, but quite unmistakable illustration of the male genitalia. He wrongly called it *Lophonotus suillus* without first checking the Fabricius specimens. Subsequent workers, including Engel (1927), followed Macquart and perpetuated his mistake. Thus, the species accepted by many previous workers as *suillus* was misidentified and has never been named.

*N. bimaculatus* is very distinctive and does not appear to have any obvious relative in this or any of the other species-groups.

#### ***Neolophonotus braunsi* sp. n.**

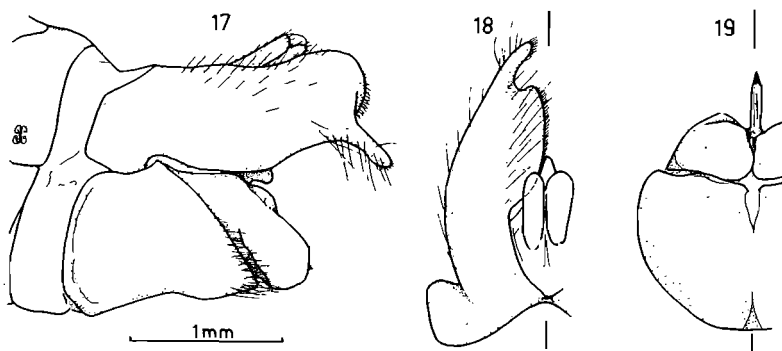
Figs 17–19

Etymology: Named after Dr H. Brauns whose collecting brought this and many other interesting species of Asilidae to our attention.

Description: Based on holotype ♂.

*Head*: Antenna dark red-brown; setae black and yellow-brown. Eye:face ratio 1:0,26; eye:lower facial margin ratio 3,9:1. Mystax brown-yellow with black setae laterally (more abundant in upper parts). Occipital setae: upper and central—brown-yellow; lower—yellow-white.

*Thorax*: ktg s and mtanepst s yellow-brown. Mesonotal setae: acr well developed, black; dc well developed black, a few anterior of suture; pprn long yellow-white; 3/3 yellow-brown npl; 3/3 yellow-brown and black spal; 2/2 yellow-brown and black pal. Mane with loosely arranged black setae along entire length (well developed anteriorly). Scutellum with 5 black marginal bristles; disc with black bristles and yellow-white and black setae. Wing: 8,7 × 3,1 mm; membrane transparent,



Figs 17–19. *Neolophonotus braunsi* sp. n. male holotype (Stellenbosch) genitalia. 17. Lateral. 18. Dorsal. 19. Ventral.

colourless and without markings. Legs: dark red-brown, dorsoproximal parts of tibiae paler brown; cx1 with yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles yellow-brown and black, setae yellow-white.

**Abdomen:** Dark red-brown, silver pruinose. T3 without bristles; fine setae moderately long, yellow laterally, black dorsally. S3 with long white-yellow setae. Genitalia as in Figs 17–19; hypandrium well developed; gonocoxite well developed and projecting beyond hypandrium; epandrium almost parallel-sided and with a short, subapical, ventrally-directed, simple projection; aedeagus short and pointed apically.

**Paratypes:** 32♂ 25♀ 4?; very similar to male holotype. Sexual dimorphism slight. ♀ ovipositor and cerci laterally compressed.

**Material examined:** SOUTH AFRICA: *Cape Province:* 1♂ (holotype), Stellenbosch (3318DD), 5.x.1926, Dr H. Brauns (NM); 1♂ (paratype), same data but 1.ix.1923 (NM); 1♀ (paratype), same data but 25.ix.1925 (NM); 2♂ 1♀, same data but x.1925 & 10.x.1925 (NM); 1♀ (paratype), same data but 5.xi.1925 (NM); 1♀ (paratype), same data but xi.1926 (NM); 1♂ 5♀ 1? (paratypes), same data but ix.1926 (NM); 1♂ 15♀ 3? (paratypes), same data but 5 8 10 13 15 17 19 23 25.x. & 5.xi.1926 (NM); 16♂ (paratypes), Stellenbosch (3318DD), various dates—17.ix.1923 26.ix.1928 3 & 10.x.1928 2.ix.1929 15.ix.1934 26.ix.1936 2.x.1936 25.ix.1938 28.i.1940 13.iv.1940 29.ii.1941 24.iv.1941 29.ix.1942 22.i.1944 15.ix.1944, some with Ac. US (NM); 1♂ (paratype), Stellenbosch (3318DD), ix.1930, Lawrence (SAM); 1♂ (paratype), Stellenbosch (3318DD), 25.x.1925 (NMZ); 1♂ (paratype), 5 km E Wellington on Bainskloof Pass (3319CA), 27.ix.1979, Londt, east slopes (NM); 1♂ (paratype), Du Toits Kloof, Paarl Dist. (3319CA), 27–28.ix.1959, Stuckenberg, 2 000–3 500 ft (NM); 1♂ (paratype), Burgersdorp (3026CD), i.1930, Ac. US (NM); 1♂ (paratype), Calvinia (3119BD), 15.v.1933 (NM); 1♂ (paratype), Franschoek Pass (3319CC), 7–8.x.1959, Stuckenberg (NM); 1♂ (paratype), Paarl (3318DB), 1.x.1937, Ac. US (NM); 1♂ (paratype), Wildernis (Wilderness—3322DC), 1.x.1935, Ac. US (NM); 4♂ 1♀ (paratypes), Ysterfontein (3218BA), ix.1960, SAM (SAM); 1♂ (paratype), Ceres

(3319AD), x.1940, Smithers, SA Museum (SAM). NM Type No. 3064. SAM Type No. 3978.

Distribution: Found mainly in the Mediterranean climatic region but examples from the Southern Steppe region, the Desert and Poor Steppe region and Southern Cape Coastal region.

Remarks: *N. braunsi* has a male genital form which allies it to certain other members of this species-group, including—*crassifemoralis*, *crinitus*, *depilus*, *forcipatus*, *lightfooti*, *grossus*, *hara*, *hessei*, *zogreus*, *hirtipes*, *macquarti*, *pilosus*, *rufus*, *zopherus* and *tibialis*.

***Neolophonotus carorum* sp. n.**

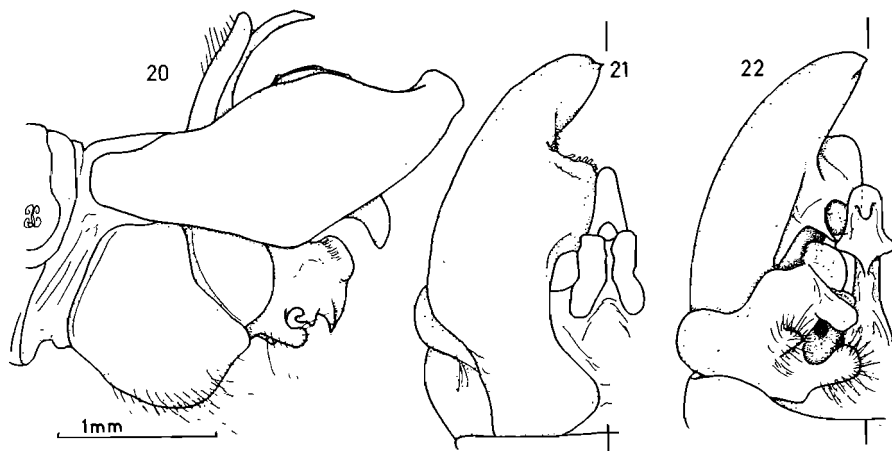
Figs 20–22

Etymology: Named for George and Cathy Car who collected the holotype.

Description: Based on unique holotype ♂.

*Head*: Antenna dark red-brown to black; setae black (few white on dorsal aspect of scape). Eye:face ratio 1:0,23; eye:lower facial margin ratio 7,5:1. Mystax yellow-white with black setae laterally (mixed on lower facial margin). Occipital setae: upper and central—yellow and black; lower—yellow-white.

*Thorax*: ktg s and mtanepst s brown-yellow. Mesonotal setae: acr well developed, black; dc ca. 10 black and yellow (yellow more posteriorly); pprn fine yellow; 3/3 brown-yellow npl; 3/3 brown-yellow spal; 1/1 brown-yellow (plus 1/1 brown-yellow setae) pal. Mane with tightly packed black setae along entire length. Scutellum with 9 yellow marginal bristles; disc with ca. 12 yellow bristles and yellow (lateral) and black (central) setae. Wing: 8,9 × 3,1 mm; membrane transparent, slightly yellow stained, without markings. Legs: dark red-brown, dorsoproximal parts of tibiae brown-yellow; cx1 with yellow-white setae anteriorly; cx3 lacking bristles laterally.



Figs 20–22. *Neolophonotus carorum* sp. n. male holotype (Ubombo–Josini turnoff) genitalia. 20. Lateral. 21. Dorsal. 22. Ventral.

Hind femur: bristles black and orange, long setae black and white, short setae white (dorsally) and black (ventrally).

*Abdomen:* Dark red-brown, red-gold pruinose. T3 with *ca.* 5 yellow marginal bristles, fine setae long, yellow laterally, black dorsally. S3 with long yellow setae. Genitalia as in Figs 20–22; similar to certain species in the *angustibarbus* group; gonocoxite well developed and complicated in structure; epandrial processes elongate with mid-dorsal setose projections (seen in dorsal view). Aedeagus thick, with a ventrally-directed hooked process subapically.

Female: Unknown.

Material examined: SOUTH AFRICA: *Natal:* 1♂ (holotype), Ubombo—Jozini turnoff (2732AC), 11.v.1981, C. A. & N. G. Car (SAM). SAM Type No. 3979.

Distribution: Known only from the type-locality situated in the Subtropical climatic region of South Africa.

Remarks: Somewhat similar to *chubbii*, *pinheyi* and *seymourae* but separated from these by having black bristles ventrally on the hind femora and distinctive male genitalia.

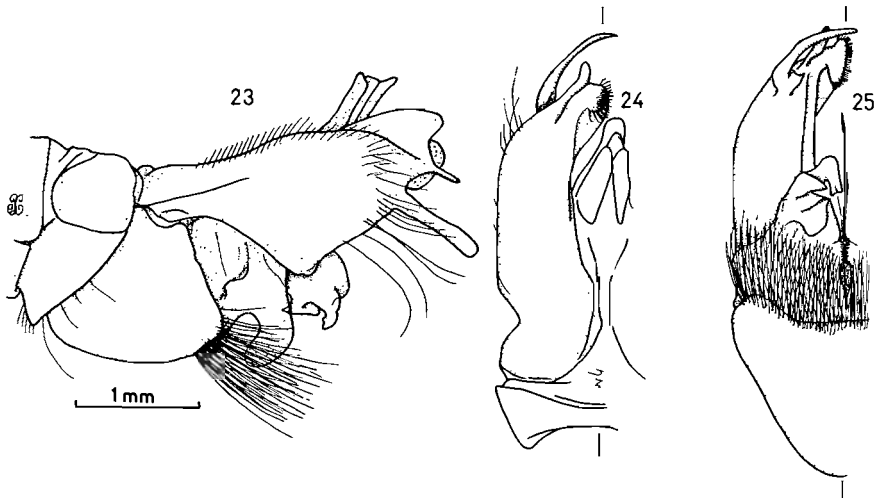
#### *Neolophonotus chaineyi* sp. n.

Figs 23–25

Etymology: Named after Mr John Chainey, British Museum (Natural History), who has assisted me in many ways throughout this study.

Description: Based on holotype ♂.

*Head:* Antenna black; setae black. Eye:face ratio 1:0,24; eye:lower facial margin ratio 8,8:1. Mystax white with abundant black setae laterally (no white setae on lower facial margin). Occipital setae: upper—black (1 white), central—black and white, lower—white.



Figs 23–25. *Neolophonotus chaineyi* sp. n. male holotype (10 mi S Kaabora) genitalia. 23. Lateral. 24. Dorsal. 25. Ventral.

*Thorax:* ktg s and mtanepst s white. Mesonotal setae: acr shortish, well developed, black; dc ca. 7–8 pairs black (anteriorly) and white (posteriorly) go anterior of suture; pprn long white; 2/2 black npl; 3/3 black spal; 2/2 black pal. Mane with tightly packed black setae along entire length. Scutellum with 8 white marginal bristles; disc with black (centrally) and white (laterally) setae. Wing: 8,3 × 2,8 mm; membrane transparent, slightly yellow stained at tip and without markings. Legs: dark red-brown, dorsoproximal parts of tibiae yellow-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and brown-yellow, long setae black and white, short setae white and black.

*Abdomen:* Dark red-brown, gold-silver pruinose. T3 with 3–4 weak yellow marginal bristles; fine setae white laterally, black dorsally. S3 with black and white setae mixed. Genitalia as in Figs 23–25; hypandrium well developed; gonocoxite well developed and projecting beyond hypandrium; epandrium moderately elongate and with various subapical prongs and processes. Aedeagus long and thin. Paratype: 1♂ similar to holotype. Female unknown.

Material examined: UGANDA: 1♂ (holotype), 10 miles South of Kaabora (Kabora—now Abola 1°45'N:33° 19'E), 14.viii.1958, J. Bowden (BM). ZAÏRE: 1♂ (paratype), Kivou, Kadjudju (Kajuju—2°09'S:28°54'E). 1933, G. Babault (MNP).

Distribution: Central Africa.

Remarks: A distinctive species, most closely related to *holoxanthus*.

### *Neolophonotus chubbii* Bromley, 1947

Figs 26–29

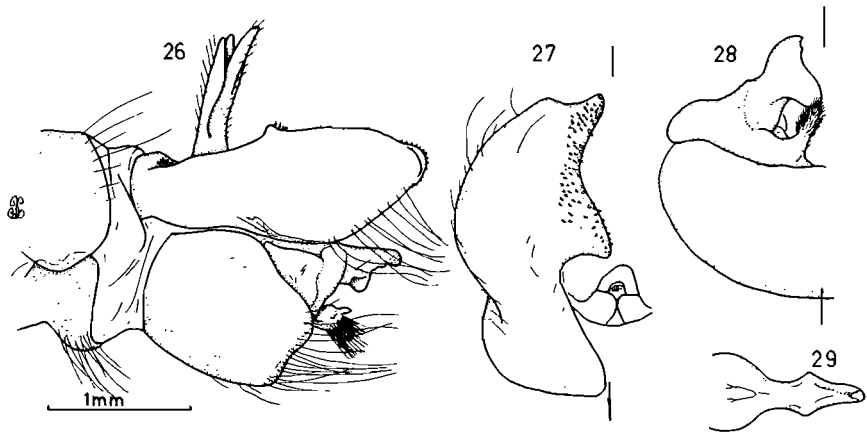
*Neolophonotus chubbii* Bromley, 1947:116; Hull, 1962:532; Oldroyd, 1981:340.

Redescription: Based on holotype ♂.

*Head:* Antenna dark red-brown; setae black ventrally, pale yellow dorsally. Eye:face ratio 1:0,24; eye:lower facial margin ratio 7,5:1. Mystax pale yellow with black interspersed. Occipital setae: upper—long pale yellow and shorter black; central—pale yellow; lower—yellow-white.

*Thorax:* ktg s and mtanepst s pale yellow. Mesonotal setae: acr well developed, black; dc pale yellow, a few anterior of suture; pprn long yellow; 3/3 yellow npl; 4/4 yellow spal; 2/2 yellow pal. Mane with tightly packed black setae along entire length. Scutellum with 9 yellow marginal bristles; disc with ca. 8 yellow bristles and yellow (laterally) and black (centrally) setae. Wing: 9,3 × 3,3 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, dorsoproximal parts of tibiae brown-yellow; cx1 with yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles yellow-brown (2 small black ones distally), long and short setae yellow.

*Abdomen:* Dark red-brown, silver-gold pruinose. T3 with 3–5 yellow marginal bristles; fine setae moderately long, yellow laterally, shortish black and white dorsally. S3 with long yellow setae. Genitalia as in Figs 26–29; hypandrium well developed; gonocoxite well developed and projecting beyond hypandrium;



Figs 26–29. *Neolophonotus chubbii* Bromley male holotype (Krantzkloof) genitalia. 26. Lateral. 27. Dorsal. 28. Ventral. 29. Aedeagus.

epandrium simple in lateral aspect, and with two widely spaced, inwardly directed, projections in dorsal view; aedeagus shortish, dilated basically and subapically.

Female: Similar to ♂. Cerci spine-like, forming a two-pronged fork-like structure.

Material examined: SOUTH AFRICA: *Natal*: 1♂ (holotype), Krantzkloof (2930DD), 30.i.1919, Marley (DM); 1♂, Krantzkloof, 4–17 (? iv.1917), Marley (NM); 1♀, Krantzkloof, 3–15 (?iii.1915), Marley (NM); 1♂, Krantzkloof, 13.v.1915, Marley (SAM); 1♀, Eshowe (2831CD), 24.i.1924, H.W. B–M (NM); 2♂ 1♀, Uvongo (3030CD), 30.v.1984 6.vi.1984, Wheeler, gumtrees (NM); SWAZILAND: 1♂ 1♀, SE 2630Dd (near Sicunusa), 5.iv.1981, Scheepers (NM).

I have also seen 1♀, Nhlanganose, 3027Ac, v. d. Hoven (NM) which was apparently collected in south-eastern parts of the Orange Free State near Zastron. I cannot find a place by the name of Nhlanganose anywhere in southern Africa and doubt that the species would occur in the Zastron area. It is possible that the collector mistakenly wrote 3027Ac for 2730Ac in which case the place would be near Volksrust—a more likely area.

Distribution: Known with certainty from the Subtropical and Transvaal Lowveld climatic regions.

Remarks: *N. chubbii* is closely related to *seymourae*, *pinheyi* and *carorum*.

### *Neolophonotus congoensis* (Ricardo, 1920)

Figs 30–32

*Dysmachus congoensis* Ricardo, 1920:383.

*Neolophonotus (Lophybus) congoensis*; Engel, 1927:163. Hull, 1962:533.

*Neolophonotus congoensis*; Oldroyd, 1981:340.

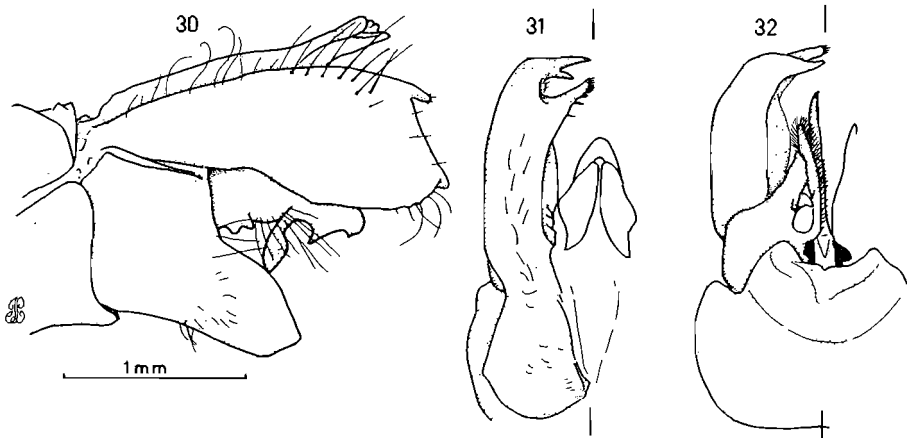
Redescription: Based on lectotype ♂.

*Head*: Antenna dark red-brown to black; setae black (pedicel with only a single black seta dorsally). Eye:face ratio 1:0,28; eye:lower facial margin ratio 10,1:1. *Mystax* yellow-white with black setae laterally (more abundant and longer in upper

part). Occipital setae: upper—black (yellow-white behind); central—yellow-white; lower—white.

*Thorax*: ktg s and mtanepst s yellow-white. Mesonotal setae: acr not obvious; dc 7–8 black, a few anterior of suture (absent on posterior part of mesonotum); pprn long yellow-white; 3/3 brown-yellow npl; 1/1 broken spal; 1/1 black pal. Mane with moderately well-developed black setae along entire length, except for a small cluster of white setae anteriorly. Scutellum with 8 yellow-white and black marginal bristles; disc with black (centrally) and yellow-white (laterally) setae. Wing: 7,7 × 2,5 mm; membrane transparent, colourless and without markings. Legs: dark red-brown to black (tibiae not obviously different); cx1 with white-yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles brown-yellow and black, long setae pale yellow, short setae pale yellow.

*Abdomen*: Dark red-brown, silver-gold pruinose. T3 with 3 brown-yellow marginal bristles; fine setae shortish brown-yellow. S3 with long brown-yellow setae. Genitalia as in Figs 30–32; hypandrium well developed, projecting markedly posteriorly; gonocoxite well developed and with various projections and a mid-ventral club-like process; epandrial lobes elongate, with inward pointed forked tip.



Figs 30–32. *Neolophonotus congoensis* (Ricardo) male lectotype (Lualaba River) genitalia. 30. Lateral. 31. Dorsal. 32. Ventral.

Paralectotypes: 1♂ 3♀, similar to lectotype.

Lectotype designation: Ricardo (1920) lists two 'types', a male and a female, and mentions that there are 'Other males and one female from same locality'. I regard all Ricardo's specimens as syntypes and here designate one of the males as lectotype and the other specimens as paralectotypes. It should be noted that there are actually three females involved, and not two as indicated by Ricardo.

Material examined: ZAIRE: 1♂ (lectotype), Lualaba R., 15.v.1907, Neave, 2 500–4 000' (BM); 1♂ 3♀ (paralectotype), same locality, 15 23 & 24.v.1907, Neave, 2 500–4 000' (BM). There are at least two streams with the name Lualaba

(0°26'N: 25°20'E & 3°01'S: 26°56'E) the first mentioned is the more likely (as it is close to Stanleyville) and so I here designate this as the type-locality.

Distribution: Eastern Zaïre.

Remarks: A fairly distinctive and isolated species.

***Neolophonotus crassifemoralis* sp. n.**

Figs 33–35

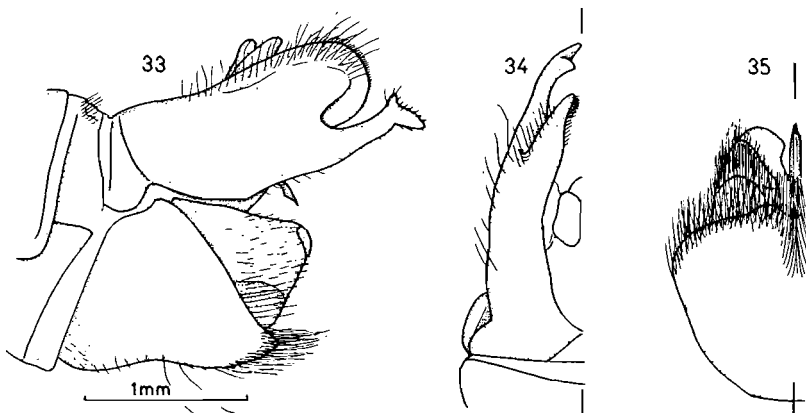
Etymology: *L. crassus* = thick, stout; *femora* = thigh. Refers to the stout femora possessed by this species.

Description: Based on unique holotype ♂.

*Head*: Antenna black; setae dark red-brown. Eye:face ratio 1:0,29; eye:lower facial margin ratio 3,8:1. Mystax yellow white with few black setae laterally. Occipital setae: upper and central—brown-yellow, lower—yellow-white.

*Thorax*: ktg s and mtanepst s dark red-brown. Mesonotal setae: acr not obvious; dc poorly developed (like setae) black; pprn long white; 2/2 brown and black npl; 2/3 black spal; 1/1 black pal. Mane weakly developed, loosely arranged black setae along entire length (particularly weak posteriorly). Scutellum with 5 white weak marginal bristles accompanied by black and yellowish setae; disc with black (centrally) and white (laterally) setae. Wing: 7,1 × 2,5 mm; membrane transparent, and without markings. Legs: dark red-brown to black, dorsoproximal parts of tibiae dark brown; cx1 with yellow and white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles red-brown, long setae brown-yellow, short setae rather longish, white and dark red-brown.

*Abdomen*: Dark red-brown, silver pruinose. T3 with longish shiny white setae laterally, dark red-brown setae dorsally. S3 with black and shiny white setae. Genitalia as in Figs 33–35; hypandrium well developed; gonocoxite well developed, not projecting much beyond hypandrium; epandrial lobes almost



Figs 33–35. *Neolophonotus crassifemoralis* sp. n. male holotype (Faraway) genitalia. 33. Lateral. 34. Dorsal. 35. Ventral.



parallel sided in lateral view, with a ventral, posteriorly-directed projection. Aedeagus short and thin.

Female: Unknown.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Faraway, 10 km W Grahamstown (3326AB), 6.xii.1976, malaise trap (NM). Collected by R. Miller. NM Type No. 3065.

Distribution: Known only from the type-locality in the Eastern Cape Province (Southern Cape Coastal climatic region).

Remarks: Closely related to a number of other south-western Cape species (see under *braunsi*).

***Neolophonotus crinitus* sp. n.**

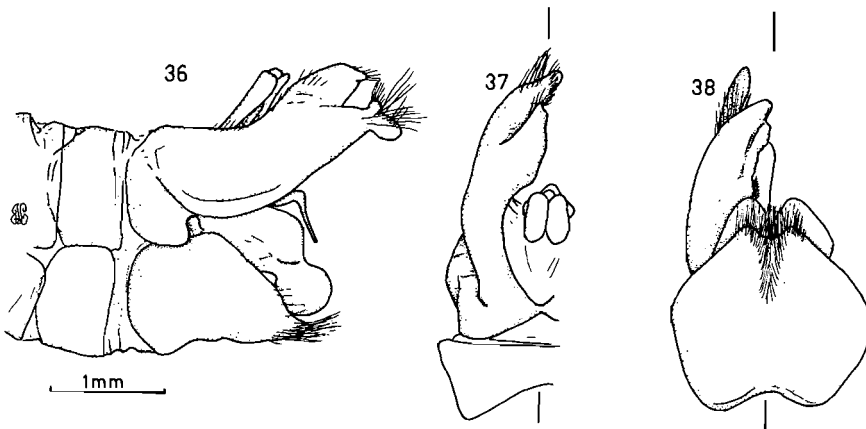
Figs 36–38

Etymology: *L. crinitus* = hairy. Refers to the black bristles present at the tips of the epandrial lobes.

Description: Based on holotype ♂.

*Head*: Scape and pedicel yellow-brown, remaining parts dark red-brown; setae dark red-brown, except for those on dorsal side of scape which are yellow. Eye:face ratio 1:0,24; eye:lower facial margin ratio 4,6:1. Mystax white with black setae laterally (white on lower facial margin). Occipital setae: upper and central—yellow-brown and black; lower—white.

*Thorax*: ktg s black and yellow-brown, mtanepst s yellow-brown. Mesonotal setae: acr not obvious; dc ca. 8 pairs, black, go anterior of suture; pprn fine white; 2/2 brown (plus one black seta on left side) npl; 3/3 black spal; 1/1 black (plus ca. 4 black setae) pal. Mane weakly developed, loosely arranged black setae along entire length. Scutellum with 6 black marginal bristles, disc with ca. 7 black bristles and black (centrally) and white (laterally) setae. Wing: 6,6 × 2,3 mm; membrane



Figs 36–38. *Neolophonotus crinitus* sp. n. male paratype (42 km NE Garies) genitalia. 36. Lateral. 37. Dorsal. 38. Ventral.

transparent, colourless and without markings. Legs: uniform red-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange and short black, long setae black and white, short setae rather longish, white (dorsally) and black (ventrally).

*Abdomen:* Dark red-brown, gold-silver pruinose. T3 with fine yellow-white setae laterally and black setae dorsally. S3 with long yellow-white (a few black) setae. Genitalia as in Figs 36–38 (paratype illustrated); hypandrium well developed; gonocoxite well developed, with rounded lobe distally; epandrial lobes gently upturned in lateral view, with a ventral, posteriorly-directed projection which has strong black setae. Aedeagus short, thin and with a down-turned tip.

Paratypes: 14♂ 13♀, similar to holotype. ♀ cerci laterally compressed.

Material examined: SOUTH AFRICA: *Cape Province:* 1♂ (holotype), Brandkop area (3119AC) Calvinia District, 14.x.1964, B & P Stuckenberg (NM); 1♂ (paratype), 42 km NE Garies (3018AC), 15.x.1977, Miller, malaise trap (NM); 1♂ (paratype), Moordenaars Karoo (3221CC), x.1952, Swanepoel, Mus. Expd. (SAM); 1♂ 3♀ (paratypes), 18 m E of Touws R. to Hondewater (3322DA), xii.1962, SAM (SAM); 1♂ (paratype), O'okiep (Okiep—2917DB), xi.1885 (SAM); 1♂ (paratype), 20 km S Clanwilliam (3218BD), 14.x.1981, Whitehead (SAM); 2♂ 2♀ (paratypes), Bulhoek, Klaver–Clanw. (3218BB), x.1950, Mus. Expd. (SAM); 1♂ 1♀ (paratypes), Olifantsriver between Klaver and Clanwilliam (3218BB) (SAM); 1♂ 1♀ (paratypes), Paleisheuvel (3218BC), ix.1948, Mus. Exp. (SAM); 1♂ 4♀ (paratypes), Bowesdorp (Kamieskroon—3017BB), xi.1931, Mus. Staff (SAM); 1♂ 2♀ (paratypes), Ceres (3319AD), x.1940, Smithers (SAM); 1♂ (paratype), Meiringspoort (3322BC), 11–12.xii.1979, Londt & Stuckenberg, rocky hillside & stream edge (NM); 1♂ (paratype), Citrusdal Dist. (3219CA), xi.1948, Mus Exp (SAM); 1♂ (paratype), Cold Bokkeveld (3319AB), 15–30.x.1924, Versfeld (SAM). NM Type No. 3066. SAM Type No. 3980.

*Distribution:* Found primarily in the southern parts of the Desert and Poor Steppe climatic region but isolated examples from adjacent regions such as the Mediterranean region and the Little and Great Karoo region.

*Remarks:* A member of a large subgroup (see under *braunsi*) but easily distinguished on male genital features.

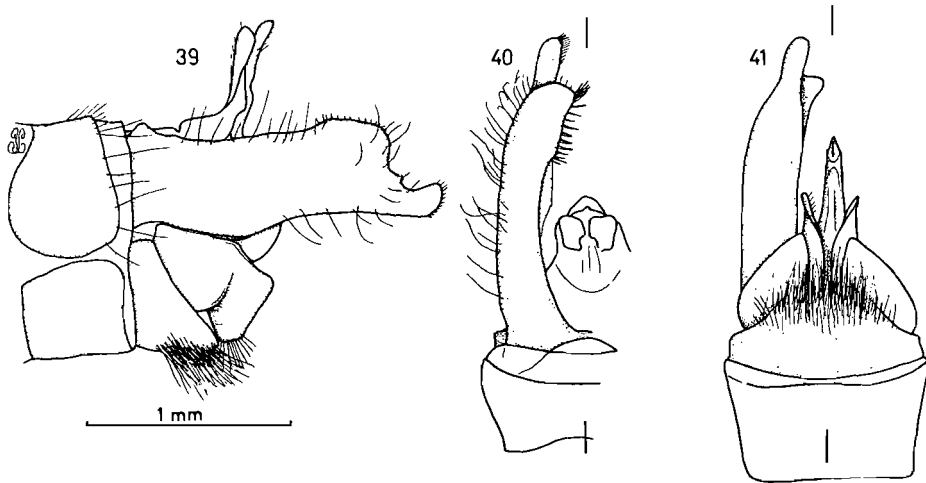
### ***Neolophonotus depilis* sp. n.**

Figs 39–41

*Etymology:* L. *depilis* = without hair, bald. Refers to the lack of pruinescence on all but the lateral margins of the face.

*Description:* Based on holotype ♂.

*Head:* Antenna dark red-brown to black; scape with black and yellow setae, pedicel with black setae only. Eye:face ratio 1:0.28; eye:lower facial margin ratio 3.9:1. Mystax white with black setae laterally (yellow on lower facial margin). Occipital setae: upper—black (1 yellow); central—black (few orange); lower—white and yellow-white.



Figs 39–41. *Neolophonotus depilis* sp. n. male paratype (10 km E Kamieskroon) genitalia. 39. Lateral. 40. Dorsal. 41. Ventral.

**Thorax:** *ktg* s and *mtanepst* s black. Mesonotal setae: *acr* longish black in anterior part; *dc* ca. 7 pairs, black, *go* anterior of suture; *pprn* fine black and white; 2/2 orange *npl*; 2/2 black (plus black setae) *spal*; 1/1 black (plus ca. 8 black setae) *pal*. Mane with tightly packed black setae along entire length (a small section just anterior of mid-length characteristically weaker). Scutellum with 7 black marginal bristles; disc with narrow central strip of black setae (like an extension of mane) and white setae laterally. Wing: 7,2 × 2,4 mm; membrane transparent, colourless and without markings. Legs: black with dorsoproximal part of tibiae brown; *cx1* with white setae anteriorly; *cx3* lacking bristles laterally. Hind femur: bristles black and orange, long setae black and white and yellow, short setae rather longish, white (dorsally and laterally) and black (ventrally).

**Abdomen:** Dark red-brown, silver pruinose. T3 with long black and white setae laterally and black setae dorsally. S3 with black setae (a few white laterally on hind margin). Genitalia as in Figs 39–41 (paratype illustrated); hypandrium smallish; gonocoxite well developed, with distal and down-turned; epandrial lobes almost parallel-sided in lateral view, with a posteriorly-directed projection. Aedeagus shortish, thick and with an up-turned tip.

Paratypes: 13♂ 10♀, similar to holotype. ♀ cerci laterally compressed and with soft setae.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), 5♂ 3♀ (paratypes), 10 km E Garies (3017DB), 3.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 1♂ (paratype), 30 km S Clanwilliam (3218DB), 31.viii.1981, Londt, Schoeman & Stuckenberg, Karroid broken veld (NM); 1♀ (paratype), 8 km E Kamieskroon (3018AA), 5.ix.1983, Londt & Stuckenberg, montane old land with rocks & bushes nearly (NM); 1♂ 1♀ (paratypes), 10 km E Kamieskroon (3018AA), 17.x.1977, Miller, 630 m, malaise trap (NM); 1♂ 1♀ (paratypes), Aninaus Pass (2917BA) 15 km W Steinkopf, 4.ix.1983, Londt &

Stuckenberg, rocky hillside & dry river (NM); 2♂ 1♀ (paratypes), near Doornbosch, ix.1961, SAM (SAM); 2♂ (paratypes), Nieuwoudtville, Brandkop (3119AC), ix.1941, Mus. Staff (SAM); 1♂ (paratype), O'okiep (2917DB), 5.ix.1886 (SAM); 1♂ (paratype), Nieuwoudtville (3119AC), 10.x.1974 (SAM); 3♀ (paratypes), Bowesdorp (Kamieskroon—3018AA), ix.1941, Mus. Staff (SAM); 1♀ (paratype), Clanwilliam, Nardouw (3118DC), ix.1941, Mus. Staff (SAM). NM Type No. 3066. SAM Type No. 3981.

Distribution: A western Cape species inhabiting the southern parts of the Desert and Poor Steppe climatic region (one record is adjacent to the Mediterranean region).

Habits: My observations suggest that this species rests on small woody plants in arid areas.

Remarks: A species similar to *pilosus* (and various other species—see under *braunsi*) from which it is easily distinguished by the almost apruinose face.

### *Neolophonotus dondoensis* sp. n.

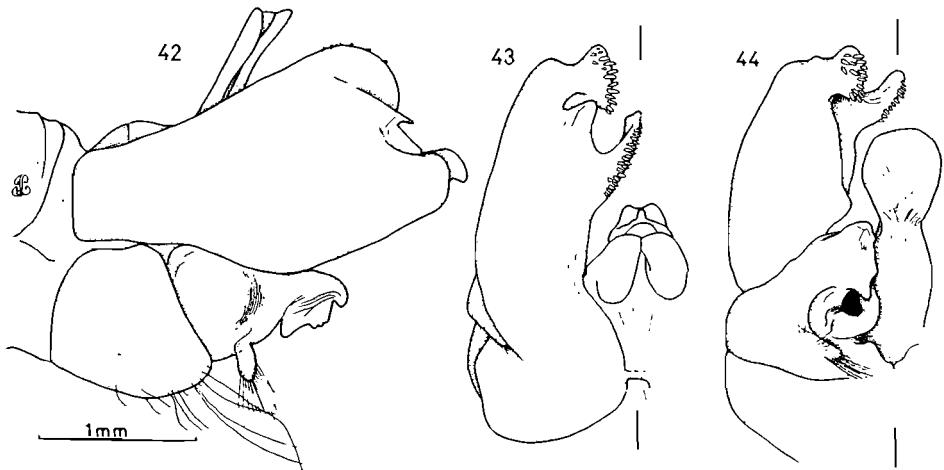
Figs 42–44

Etymology: Named after the type-locality, Dondo Forest.

Description: Based on holotype ♂.

*Head*: Scape and pedicel orange-brown, rest dark red-brown; setae black. Eye: face ratio 1:0,25; eye:lower facial margin ratio 7,7:1. Mystax yellow-white with few black setae laterally (mixed on lower facial margin). Occipital setae: upper —black and white; central—white (few black dorsally); lower—white.

*Thorax*: ktg s and mtanepst s white. Mesonotal setae: acr not obvious; dc ca. 6 pairs black, behind suture; pprn pale yellow-white; 2/2 black npl; 4/4 black spal; 2/2 black pal (plus 2/2 yellow or black setae). Mane very weak (absent in central region)



Figs 42–44. *Neolophonotus dondoensis* sp. n. male holotype (Dondo Forest) genitalia. 42. Lateral. 43. Dorsal. 44. Ventral.

black, sparse in posterior part. Scutellum with *ca.* 14 white marginal bristles; disc with *ca.* 10 white bristles and black and white setae. Wing: 11,6 × 4,0 mm; membrane transparent, colourless and without markings. Legs: femora dark red-brown with orange-brown tips (both proximal and distal), tibiae yellow-brown, tarsi orange-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and yellow, long setae white (a few black), short setae white, longer black ventrally.

*Abdomen:* Dark red-brown, gold pruinose. T3 with *ca.* 5 yellow marginal bristles; fine setae shortish white, black dorsally; S3 with long white setae only. Genitalia as in Figs 42–44; hypandrium moderately developed; gonocoxite well developed and projecting well beyond hind margin of hypandrium; epandrial lobes divergent distally with distal projections and lobes; aedeagus with well-developed bulbous head.

Paratypes: 1♂ 2♀, similar to holotype. ♀ cerci spine-like, forming the elements of a two-pronged fork-like structure.

Material examined: MOZAMBIQUE: 1♂ (holotype) 1♂ 2♀ (paratypes), Dondo Forest, Dondo (1934DA), 18.vi.1968 (holo) 4.xi.1967 (1♂ 1♀ paras) 16.vi.1968, Nat. Mus. Bulawayo (1♂ 1♀ leg. E. Pinhey) (NMZ NM). NM Type No. 3068.

Distribution: Known only from the type-locality in central Mozambique.

Remarks: *N. dondoensis* is a distinctive species most closely related to *orientalis*, *porcellus*, *stannus* and *zambiensis*.

### *Neolophonotus flavibarbis* (Macquart, 1838)

Figs 45–47

*Lophonotus flavibarbis* Macquart, 1838:127.

*Asilus flavibarbis*; Walker, 1855:712.

*Lophonotus cupreus* Loew, 1858:364. **Syn. n.**

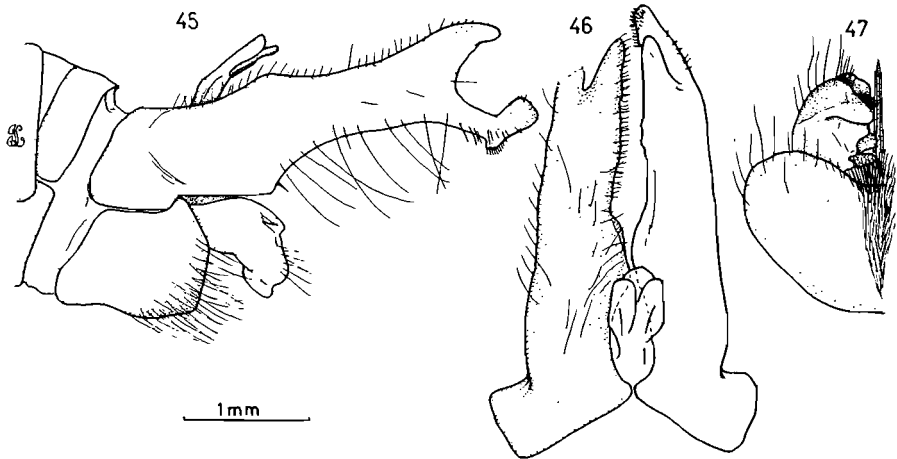
*Dysmachus flavibarbis*; Kertész, 1909:176.

*Neolophonotus flavibarbis*; Hull, 1962:532. Oldroyd, 1981:340.

Redescription: Based on neotype ♂ (= holotype of *cupreus*).

*Head:* Antenna dark red-brown; setae black ventrally, yellow dorsally. Eye:face ratio 1:0,26; eye:lower facial margin ratio 4,5:1. Mystax yellow with few black setae laterally (not on lower facial margin). Occipital setae: upper—long yellow, few black below; central—yellow; lower—yellow.

*Thorax:* ktg s and mtanepst s orange. Mesonotal setae: acr black, well developed anterior of suture; dc black, go anterior of suture; pprn longish yellow; 2/3 orange npl; 3/3 orange (1 black) spal; 2/2 orange (plus well-developed seta) pal. Mane moderately well developed, black, sparse in posterior part. Scutellum with *ca.* 8 black marginal bristles (some quite weak); disc with *ca.* 6 black bristles and black (central) and yellow (laterally) setae. Wing: 9,3 × 3,1 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, tibiae and tarsi slightly paler brown; cx1 with yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange dorsally shorter black ventrally, long setae yellow, short setae yellow.



Figs 45–47. *Neolophonotus flavibarbis* (Macquart) male neotype (Cap B. Sp.) genitalia. 45. Lateral. 46. Dorsal. 47. Ventral.

**Abdomen:** Dark red-brown, silver-gold pruinose. T3 without bristles; fine setae yellow laterally, black dorsally; S3 with yellow setae only. Genitalia as in Figs 45–47; hypandrium poorly developed; gonocoxite well developed and projecting well beyond hind margin of hypandrium; epandrial lobes elongate, forked distally; aedeagus small and slender.

**Female:** Similar to ♂. Cerci rounded, laterally flattened and with fine setae.

**Neotype designation:** Macquart's male specimen from 'Cap' cannot be located. His brief description contains a few important clues relating to the identity of the species. Macquart states that the mystax is yellow with black setae along the edges ('Mystace flavo, nigro limbato'). This combination is found in a few species occurring in the south-western Cape (eg. *suillus*, *variabilis*, *cupreus*) but as he also states that the mesonotal bristles are reddish ('Soies rouges ala base des ailes') and that some of the leg bristles are reddish ('Pieds enivreux, a duvet et poils blancs; soies rouges et noires'), I am reasonably certain that he was dealing with the species subsequently redescribed by Loew as *cupreus*. In the interests of taxonomic stability, I hereby designate the holotype of *cupreus* as neotype of *flavibarbis*.

**Material examined:** SOUTH AFRICA: *Cape Province:* 1♂ (neotype = holotype of *cupreus*), Cap B. Sp., Tollin, 10275 (ZMB); 7♂ 3♀, Cape Town, Lions Head (3318CD), 29.ix.1979, Londt, E slopes above Signal Hill Rd. (NM); 1♂, Cape Town, Table Mtn. (3318CD), 29.ix.1979, Londt, stony slopes above Camps Bay (NM); 1♂ 3♀, Cape Town, near 12 Apostles (3318CD), 5.x.1974, de Moor, Nat. Museum S. R. (NMZ); 1♀, Cape Town, Sea Point (3318CD), 29.ix.1974, de Moor (NMZ).

**Distribution:** All known specimens were collected on the Cape Peninsula, within a short distance of Cape Town.

**Remarks:** *N. flavibarbis* is closely related to *suillus* and *variabilis* but has distinctive male genitalia.

*Neolophonotus forcipatus* (Macquart, 1838)

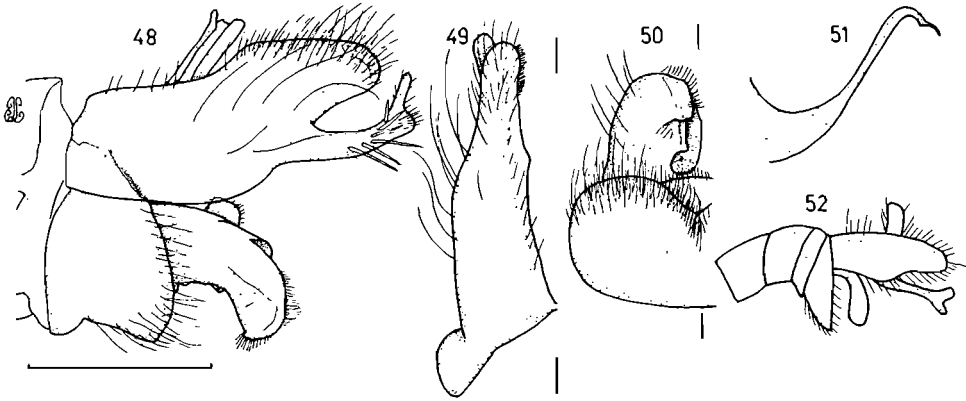
Figs 48–52

*Lophonotus forcipatus* Macquart, 1838:127.*Asilus forcipatus*; Walker, 1855:713.*Dysmachus forcipatus*; Kertész, 1909:276.*Neolophonotus forcipatus*; Hull, 1962:532. Oldroyd, 1981:340.

Redescription: Based on neotype ♂.

**Head:** Antenna dark red-brown; setae black and yellow on both scape and pedicel (no black ones dorsally on scape). Eye:face ratio 1:0,24; eye:lower facial margin ratio 5,6:1. Mystax white with fine, black, sparse setae laterally. Occipital setae: upper—yellow and black; central—yellow; lower—white.

**Thorax:** ktg s black and orange; mtanepst s orange. Mesonotal setae: acr black, anterior of suture; dc ca. 9 black go anterior of suture; pprn long white (few black); 2/3 orange npl; 3/3 black spal; 2/2 black (plus 3/3 strong black setae) pal. Mane sparse black (has thicker tuft anteriorly) particularly weak posteriorly. Scutellum with 6 black marginal bristles; disc with black (centrally) and yellow (laterally) setae. Wing: 8,1 × 2,8 mm; membrane transparent, colourless and without markings. Legs: femora dark red-brown with proximodorsal parts of tibiae yellow-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and brown-yellow, long setae black and white, short setae white (few black ventrally).



Figs 48–52. *Neolophonotus forcipatus* (Macquart). 48–51. Male neotype (20 km SE Ashton) genitalia. 48. Lateral. 49. Dorsal. 50. Ventral. 51. Aedeagus. 52. Lateral aspect of genitalia redrawn from Macquart (1838).

**Abdomen:** Dark red-brown, gold-silver pruinose. T3 with no bristles but yellow setae laterally, black dorsally; S3 with long yellow setae only. Genitalia as in Figs 48–51 (Sevenweekspoor ♂ illustrated); Hypandrium shortish; gonocoxite well developed and projecting well beyond hind margin of hypandrium; epandrial lobes divergent distally with lower projection narrower than upper one and with forked tip; aedeagus slender, sinuous (shaped like a swan's neck).

**Female:** Similar to ♂, cerci laterally compressed and with many fine setae.

Neotype designation: All efforts to locate Macquart's male from 'Du Cap', collected by M. Serville, failed. In the interests of taxonomic stability I believe it necessary to designate a neotype for this species. I have determined the identity of *forcipatus* chiefly on the basis of Macquart's illustration of the male genitalia (here reproduced as Fig. 52). Although in general features *forcipatus* is very like both *hirtipes* Ricardo and *macquarti* sp. n. the male genitalia show consistent differences: the tip of the upper lobe of the epandrium lacks the strong orange bristles found in *macquarti* and the tip of the lower lobe is clearly forked (unlike the condition found in both other species).

Material examined: SOUTH AFRICA: *Cape Province*: 4♂ (including neotype) 3♀, 20 km SE Ashton (3320CC), 25.ix.1979, J. Londt, stony hillside with woody vegetation (NM); 2♀, Montagu (3320CC), 25.ix.1979, Londt, hillside SE of town (NM); 1♂ 2♀, Louterwater (3323DC), 13.xii.1979, Londt & Stuckenberg, grass & hillside macchia (NM); 1♂ 1♀, Meiringspoort (3322BC), 11–12.xii.1979, Londt & Stuckenberg, rocky hillside & stream edge (NM); 1♂ 1♀, 20 km SE Ashton (3320CC), 10.ix.1981, Londt, Schoeman & Stuckenberg, false macchia slopes (NM); 1♀, Outskirts of Ashton (3320CC), 10.ix.1981, Londt, Schoeman & Stuckenberg, false macchia slopes (NM); 1♂, Sevenweekspoor, Laingsburg Dist. (3321AD), 19–22.ix.1959, Stuckenberg (NM); 1♀, St. bosch (Stellenbosch—3318AD), 15.i.1939 (NM); 1♂, Mossel B. (Mossel Bay—3422AA), 1891 (NM); 2♂ 1♀, Uniondale (3323CA) Dist., x.1952, Mus. Expd. (SAM). NM Type No. 3082 (neotype).

Distribution: Southern and south-western Cape in the Mediterranean, Little and Great Karoo and Southern Cape Coastal climatic regions.

Remarks: *N. forcipatus* is similar to a number of other south-western Cape species (see under *braunsi*).

### *Neolophonotus grossus* Bromley, 1936

Figs 53–55

*Neolophonotus grossus* Bromley, 1936:130. Hull, 1962:532. Oldroyd, 1981:340.

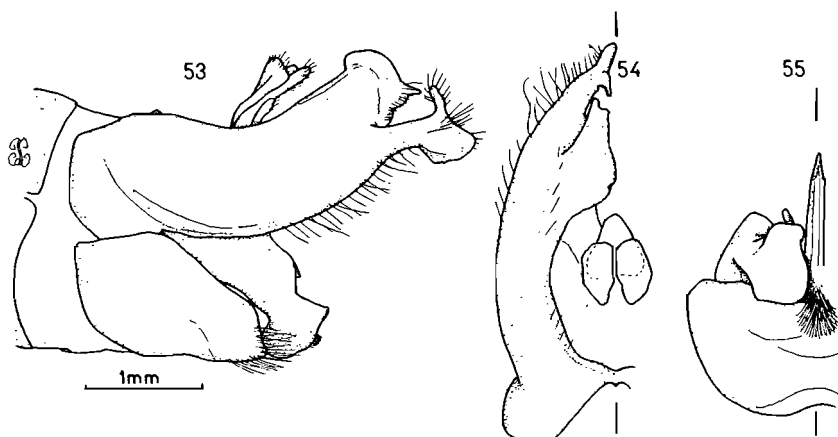
Redescription: Based on holotype ♂.

*Head*: Antenna dark red-brown to black; setae dark red-brown. Eye:face ratio 1:0,28; eye:lower facial margin ratio 3,1:1. Mystax white-yellow. Occipital setae: upper, central and lower all white.

*Thorax*: ktg s brown-yellow, mtanepst s brown-yellow and white. Mesonotal setae: acr not distinguishable from setae of mane; dc few, weak, black, posterior of suture only; pprn fine yellow; 4/3 brown-yellow (1 black) npl; 3/3 black (1 brown-yellow) spal; 5/6 black pal. Mane very short, black, wider anterior of suture. Scutellum with 11 black marginal bristles; disc with black bristles and black and white setae mixed. Wing: 12,6 × 4,5 mm; membrane transparent, pale yellow and without markings. Legs: blackish; cx1 with white-yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange-brown and black, long setae white, short setae white.

*Abdomen*: Dark red-brown, silver pruinose. T3 without bristles; fine setae white (laterally) and black (dorsally); S3 with white setae only. Genitalia as in Figs





Figs 53–55. *Neolophonotus grossus* Bromley male holotype (Colesberg) genitalia. 53. Lateral. 54. Dorsal. 55. Ventral.

53–55; hypandrium moderately developed; gonocoxite well developed and projecting far beyond hind margin of hypandrium; epandrial lobes elongate, forked distally, lower lobe with small, thumb-like, upper process; aedeagus small and slender.

Female: Similar to  $\delta$ . Cerci laterally compressed.

Material examined: SOUTH AFRICA: *Cape Province*: 1 $\delta$  (holotype), Colesberg (3025CA), ix.1917, Dr. Brauns (NM); 1 $\text{f}$  (allotype), Willowmore (3323AD), 19.xi.1916, Brauns (NM); 1 $\delta$ , Bedford (3226CA) Huntley Glen, 25.x.1982, Schoeman (NM); 2 $\text{f}$ , Sutherland (3220BC), 19.x.1982, Schoeman (NM); 1 $\text{f}$ , Middelburg (3126BD), 24.i.1973, Holm, malaise trap (NCI); 3 $\delta$  3 $\text{f}$ , Paleisheuvel (3218BC), ix.1948, Mus. Expd. (SAM); 1 $\text{f}$ , Koup Siding, Laingsburg (3320BB), x.1952, Mus. Expd. (SAM); 1 $\delta$ , Willowmore (3323AD), x.1952, Mus. Expd. (SAM); 1 $\text{f}$ , R. Sonder End (3419BB) Oudebosch, xi–xii.1928, Barnard, 1500' (SAM); 2 $\delta$  1 $\text{f}$ , Bulhoek (3118DD) Klaver–Clanw., x.1950, Mus. Expd. (SAM); 1 $\delta$  1 $\text{f}$ , Bowesdorp (Kamieskroon—3017BB), ix.1931, Mus. Staff (SAM); 1 $\text{f}$ , Wallekraal (3017BC), x.1950 (SAM); 1 $\delta$ , The Kloof, Fraserburg Div. (3121DC), xi.1935, Mus. Staff (SAM); 1 $\text{f}$ , Jackalsfontein (3025CA), x.1935, Mus. Staff (SAM).

Distribution: Widely spread from Namaqualand to the Eastern Cape Province. Occurs in the Desert and Poor Steppe, Mediterranean, Little and Great Karoo, Southern Cape Coastal and Southern Steppe climatic regions.

Remarks: Although very similar to a number of other south-western Cape species (see under *braunsi*), the genitalia of *grossus* are perhaps most similar to *crinitus*.

### *Neolophonotus hara* sp. n.

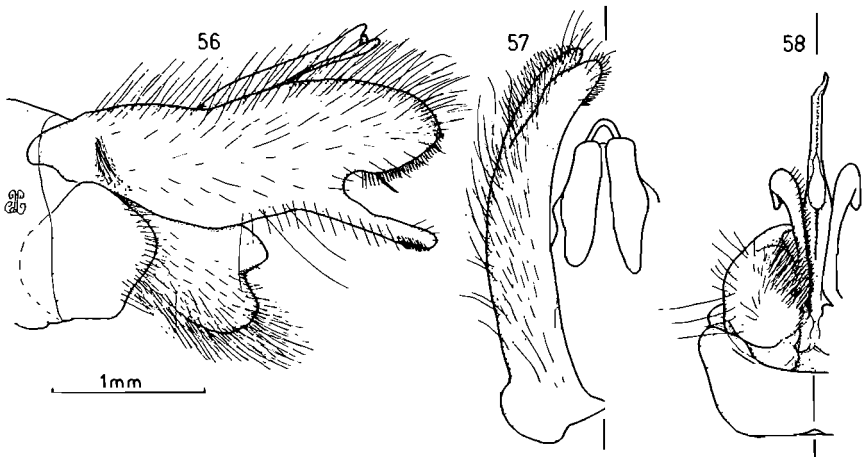
Figs 56–58

Etymology: L. *hara* = pen (animal enclosure). Refers to the name of the type-locality, Wallekraal, which in English means a walled animal enclosure.

Description: Based on holotype ♂.

**Head:** Antenna (broken off beyond pedicel) dark red-brown; setae black. Eye: face ratio 1:0,29; eye:lower facial margin ratio 3,7:1. Mystax black with central cluster of white setae. Occipital setae: upper—black and yellow; central—longish yellow; lower—white.

**Thorax:** *ktg* s and *mtanepst* s yellow (few white). Mesonotal setae: *acr* not obvious; *dc ca.* 9 pairs black, *go* anterior of suture; *pprn* fine yellow (1 black); 3/3 black (2 yellow) *npl*; 2/2 black (plus 2/3 black setae) *spal*; 5/5 black *pal* (plus 3/3 black setae—1 yellow). Mane very weak black, particularly sparse in posterior part. Scutellum with 10 yellow marginal bristles; disc with *ca.* 20 yellow bristles and black and yellow setae. Wing: 9,9 × 3,2 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae brown-yellow; *cx1* with yellow-white setae anteriorly; *cx3* lacking bristles laterally. Hind femur: bristles black and orange, long setae yellow and black, short setae white laterally and dorsally, longer black ventrally.



Figs 56–58. *Neolophonotus hara* sp. n. male holotype (Wallekraal) genitalia. 56. Lateral. 57. Dorsal. 58. Ventral.

**Abdomen:** Dark red-brown, silver pruinose. T3 with fine setae longish yellow (few white) laterally, longish black dorsally; S3 with long white setae only. Genitalia as in Figs 56–58; hypandrium poorly developed; gonocoxite broad in lateral view and projecting well beyond hind margin of hypandrium; epandrial lobes forked distally; aedeagus longish, moderately slender.

**Paratypes:** 2♂ 6♀; similar to holotype. ♀ cerci laterally compressed, with fine setae.

**Material examined:** SOUTH AFRICA: *Cape Province:* 1♂ (holotype), 2♂ 6♀ (paratypes), Wallekraal (3017BC), x.1950, Mus. Expd. (SAM NM). NM Type No. 3069. SAM Type Nos 3982 & 3983.

**Distribution:** Known only from the type-locality in Namaqualand (Desert and Poor Steppe region).

Remarks: Although similar to a number of other south-western Cape species (see under *braunsi*) *hara* has distinctive male genitalia.

***Neolophonotus hessei* sp. n.**

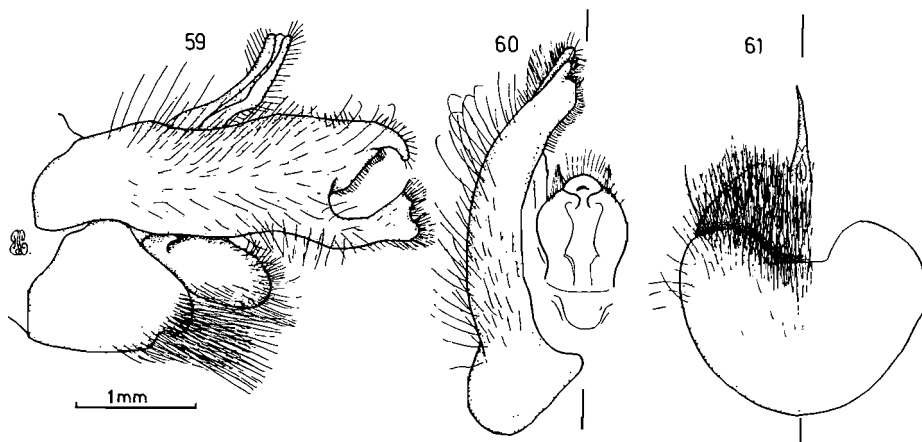
Figs 59–61

Etymology: Named after Dr A. J. Hesse, who added many interesting specimens to the collections of the South African Museum, Cape Town.

Description: Based on holotype ♂.

*Head*: Scape and pedicel dark brown, rest dark red-brown to black; setae yellow, a few black dorsally on scape and ventrally on pedicel. Eye:face ratio 1:0,35; eye:lower facial margin ratio 3,6:1. Mystax yellow (few black and orange setae on lower facial margin). Occipital setae: upper and central—longish orange; lower—white.

*Thorax*: ktg s and mtanepst s orange. Mesonotal setae: acr not obvious; dc ca. 10 pairs black, go anterior of suture; pprn orange; 4/4 orange npl; 5/5 black (plus other black setae) spal; ca. 7/7 black and orange pal. Mane weak, black, particularly sparse in posterior part. Scutellum with 14 black and orange marginal bristles; disc with ca. 20 black bristles and long black and orange setae. Wing: 11,1 × 3,6 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae reddish; cx1 with yellow and white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and orange, long setae yellow, short setae rather long, yellow, few white proximally on dorsal surface.



Figs 59–61. *Neolophonotus hessei* sp. n. male paratype (E Pakhuis Pass) genitalia. 59. Lateral. 60. Dorsal. 61. Ventral.

*Abdomen*: Dark red-brown, silver pruinose. T3 with fine setae longish orange (few black dorsally, few white laterally) no bristles; S3 with long white setae only. Genitalia as in Figs 59–61 (paratype illustrated); hypandrium poorly developed; gonocoxite rounded distally in lateral view, projecting well beyond hind margin of

hypandrium and with a characteristic dorsally-directed hook-like process basally; epandrial lobes forked distally; aedeagus longish, slender.

Paratypes: 24♂ 25♀ 2? similar to holotype. ♀ cerci laterally compressed, with fine setae.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), 4♂ 5♀ (paratypes), East of Pakhuis Pass (3218BB), ix.1947, Mus. Expd. (SAM NM); 2♂ 2♀ (paratypes), Citrusdal Dist. (3219CA), xi.1948 (SAM); 8♂ 8♀ (paratypes), Het Kruis (3218DA) (SAM); 6♂ 6♀ (paratypes), Bulhoek (3218BA) Klawer-Clan., x.1950, Mus Expd (SAM); 3♂ 4♀ (paratypes), Clanwilliam (3218BB) Nardouw, ix.1941, Mus. Staff (SAM); 1♂ 2? (paratypes), Olifants River (3218BD), bet. Citrusdal & Clanwilliam, x-xi.1931, Mus. Staff (SAM). NM Type No. 3070. SAM Type Nos 3984 & 3985.

Distribution: Found in the Clanwilliam area in the Mediterranean and Desert and Poor Steppe climatic regions.

Remarks: *N. hessei* resembles a number of south-western Cape species (see under *braunsi*) but particularly *zograeus*.

*Neolophonotus hirtipes* (Ricardo, 1920)

Figs 62-64

*Dysmachus hirtipes* Ricardo, 1920:382.

*Neolophonotus hirtipes*; Hull, 1962:532. Oldroyd, 1981:340.

Redescription: Based on lectotype ♂.

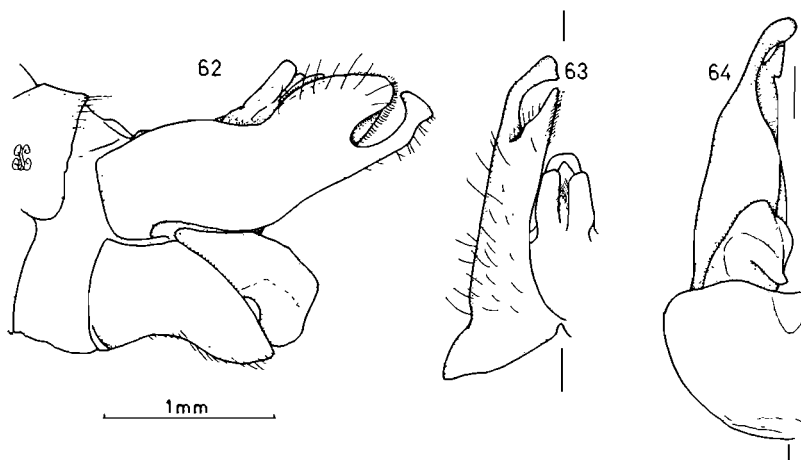
*Head*: Antennae missing (Hex River ♂ has dark red-brown to black antennae with black and white setae). Eye:face ratio 1:0,20; eye:lower facial margin ratio 9,5:1. Mystax white with fine black setae laterally. Occipital setae: upper and central—longish white-yellow; lower—white.

*Thorax*: ktg s and mtanepst s yellow. Mesonotal setae: acr not obvious; dc weak yellow; pprn long yellow-white; 4/4 yellow npl; 5/4 yellow spal; ca. 3/3 yellow pal. Mane weak black, particularly sparse in posterior part. Scutellum with ca. 12 yellow marginal bristles; disc with all bristles and setae yellow. Wing: 8,0 × 3,2 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae reddish; cx1 with yellow-white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and brown-yellow, long setae yellow, short setae yellow.

*Abdomen*: Dark red-brown, gold-silver pruinose. T3 with longish yellow setae (no bristles); S3 with long yellow-white setae. Genitalia as in Figs 62-64; hypandrium moderately well developed; gonocoxite rounded distally in lateral view and slightly downward directed, projecting a little beyond hind margin of hypandrium; epandrial lobes forked distally.

Female: Similar to ♂. Ovipositor laterally compressed; cerci rounded in lateral aspect and bearing fine setae.

Lectotype designation: Ricardo mentioned two males and a female, and called one male and one female (those from 3 500 ft) the 'types'. The single male (from 4 000 ft) apparently was given no type status. The latter male is in the BM labelled



Figs 62–64. *Neolophonotus hirtipes* (Ricardo) male lectotype (Matroosberg) genitalia. 62. Lateral. 63. Dorsal. 64. Ventral.

as a 'type' while in the SAM I found 1♂ 1♀ (3 500 ft) and 1♂ (4 000 ft). Two of these SAM specimens have Ricardo determination labels (1♀—3 500 & 1♂ 4 000 ft) while the others (1♂ 1♀—3 500 ft) do not. It appears, therefore, that Ricardo did see only three specimens but that only the female was collected at 3 500 ft. As I regard all Ricardo's specimens to be syntypes I hereby designate the single male in the BM (from 4 000 ft) the lectotype and the pair of Ricardo determined specimens in the SAM as paralectotypes. The other pair of SAM specimens (male now donated to NM) were apparently not sent to Ricardo and are therefore not part of the original type series.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (lectotype), Ceres Div. Matroosberg (3319BC), 4 000', i.1917, Lightfoot (BM); 1♂ 1♀ (paralectotypes), same data (♂—4 000' ♀—3 500') (SAM); 1♂ 1♀, same data but 3 500' (NM SAM); 1♂, Hex River (3319CB), 6.i.1983 (ZSM). SAM Type No. 3986.

Distribution: Found in the mountainous region around Ceres in the Mediterranean climatic region.

Remarks: Related to a number of other south-western Cape species (see under *braunsi*).

### *Neolophonotus holoxanthus* Engel, 1927

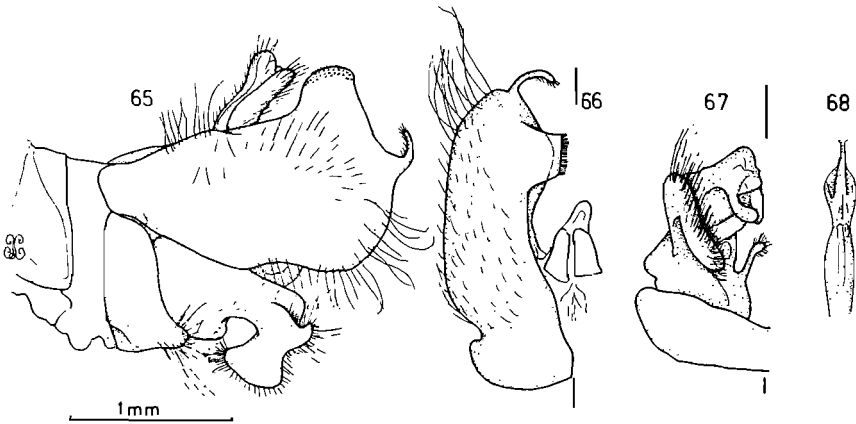
Figs 65–68

*Neolophonotus* (*Neolophonotus*) *holoxanthus* Engel, 1927:155.  
*Neolophonotus holoxanthus*; Hull, 1962:532. Oldroyd, 1981:340.

Redescription: Based on lectotype ♂.

*Head*: Scape and pedicel brown-yellow, flagellum dark red-brown; setae yellow and dark red-brown. Eye:face ratio 1:0,26; eye:lower facial margin ratio 11,2:1. Mystax yellow with few black setae on lower facial margin. Occipital setae: upper—fine black (yellow behind); central—yellow; lower—fine yellow.

**Thorax:** *ktg* s and *mtanepst* s thin yellow. Mesonotal setae: *acr* not obvious; *dc* weak black anteriorly, few yellow posterior of suture; *pprn* fine long yellow; 2/3 yellow *npl*; 2/3 yellow *spal*; 3/3 yellow *pal*. Mane black, well developed with fine yellow setae bordering. Scutellum with *ca.* 8 fine yellow marginal bristles; disc with fine yellow setae (few black centrally). Wing: 6,5 × 2,3 mm; membrane transparent, colourless and without markings. Legs: dark red-brown to black; *cx1* with yellow setae anteriorly; *cx3* lacking bristles laterally. Hind femur: bristles black (ventrally) and yellow (dorsally), long setae yellow, short setae yellow.



Figs 65–68. *Neolophonotus holoxanthus* Engel male (Abessinien) genitalia. 65. Lateral. 66. Dorsal. 67. Ventral. 68. Aedeagus.

**Abdomen:** Dark red-brown, silver pruinose. T3 with long yellow setae (no bristles); S3 with long yellow setae. Genitalia as in Figs 65–68; epandrium with small finger-like process on distal margin; hypandrium with large ventrally-directed process (shaped like the head of an axe); aedeagus with a short terminal filament.

**Female:** Ovipositor compressed, cerci rounded in lateral aspect, with fine setae.

**Lectotype designation:** Engel did not designate a holotype but merely listed 20 males and 8 females as having been studied. These were apparently from Colubi, Abyssinia, and collected by G. Kristensen. I have seen a series of specimens collected at Harrar by G. Petersen, one male of which is labelled 'Type von holoxanthus Engel, 1927/Ann. Transvaal Mus. XII p. 155'. Another male is labelled 'Abyssinia *Lophonotus holoxanthus* Typus Hrm'. Engel (1927) ascribed *holoxanthus* to 'Herm. in litt'. and so I believe that the series from Harrar must be that seen by Engel; evidently he made a mistake in his paper when he said they were from Colubi and that they had been collected by Kristensen. I therefore designate one of the Harrar males as lectotype and label it accordingly. The other specimens are all accepted as paralectotypes.

**Material examined:** ETHIOPIA: 21 ♂ (lectotype, paralectotypes) 6 ♀ (paralectotypes), Abessinien, Harrar (= Harer 9°19'N:42°07'E), G. Petersen (ZSM, NM); 4 ♂ 1 ♀ (paralectotypes), Harrar, Abyssin. (ZSM).

**Distribution:** Known only from Ethiopia.

Remarks: Engel (1927) placed '(? = *rufus* Macq.)' under the heading for *holoxanthus*, thus indicating a tentative synonymy. I have studied Macquart's holotype of *rufus* and can state that it represents a species quite different from *holoxanthus*.

*N. holoxanthus* is distinctive and distantly related to a few East African species (see discussion).

***Neolophonotus io* sp. n.**

Figs 69–71

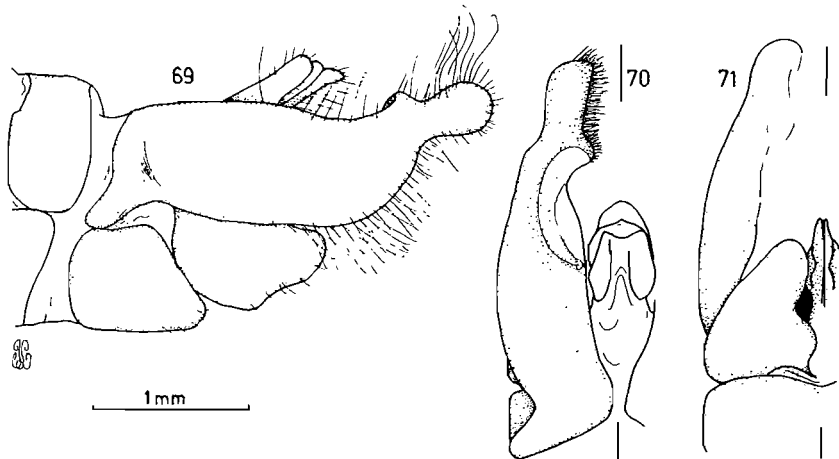
Etymology: Gr. *Io* = daughter of the Greek river-god Inachus. Refers to the riverine habitat with which this species is closely associated.

Description: Based on holotype ♂.

*Head*: Antenna black; setae predominantly white but black ones are found amongst the white on ventral aspects of both scape and pedicel. Eye:face ratio 1:0,20; eye:lower facial margin ratio 7,1:1. Mystax black and white mixed. Occipital setae: upper—fine black; central—longish white; lower—white.

*Thorax*: ktg s and mtanepst s white. Mesonotal setae: acr not obvious; dc ca. 9 pairs black, go anterior of suture; pprn fine white (1 or 2 black); 6/5 fine black npl; 2/2 black (plus fine black setae) spal; 4/4 black pal (plus long white setae). Mane well developed, black with white setae bordering. Scutellum with 12 fine black marginal bristles and fine white setae; disc with ca. 40 fine black bristles and many fine white setae. Wing: 8,1 × 2,7 mm; membrane transparent, colourless and without markings. Legs: black with proximodorsal parts of tibiae yellow-brown; cx1 with long white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black (only 4), shorter than majority of setae, setae very long and white (equally long dorsally and ventrally).

*Abdomen*: Dark red-brown, silver pruinose. T3 with fine setae longish white laterally, few black dorsally; S3 with very long white setae only. Genitalia as in Figs



Figs 69–71. *Neolophonotus io* sp. n. male paratype (Cathedral Peak) genitalia. 69. Lateral. 70. Dorsal. 71. Ventral.

69–71 (paratype illustrated); hypandrium poorly developed; gonocoxite broad in lateral view and projecting well beyond hind margin of hypandrium; epandrial lobes elongate, with a setose posteriorly-directed process apically; aedeagus shortish, broad basally.

Paratypes: 13♂ 20♀; similar to holotype. ♀ cerci spine-like, forming a two-pronged fork-like structure. ♀ not as setose as ♂.

Material examined: SOUTH AFRICA: *Natal*: 1♂ (holotype) 5♂ 6♀ (paratypes), Cathedral Peak area, Mlambojha R. nr. Hotel (2829CC), 13.vii.1984, Londt, below 1 700 m (NM); 3♂ 13♀ (paratypes), same data but 30.v.1983 (NM SAM); 1♂ (paratype), Royal Natal Nat. Park (2828DB), 28–29.iv.1984, Londt, forest margins & grasslands (NM); 4♂ 1♀ (paratypes), Drakensberg NP, S–E Cathedral Area (2829CC), vii.1946, Marriott (NCI). NM Type No. 3071. SAM Type No. 3987.

Distribution: Known only from the Natal Drakensberg mountain range in the Drakensberg climatic region.

Remarks: This species frequents boulders in and along the banks of mountain streams at foothill altitudes (*ca.* 1 700 m). Despite intensive collecting in adjacent areas specimens were found only in this situation. A distinctive species with no obvious close relative.

#### ***Neolophonotus irwini* sp. n.**

Figs 72–74

Etymology: Named for Dr Michael Irwin who added many interesting specimens to the collections of the Natal Museum.

Description: Based on unique holotype ♂.

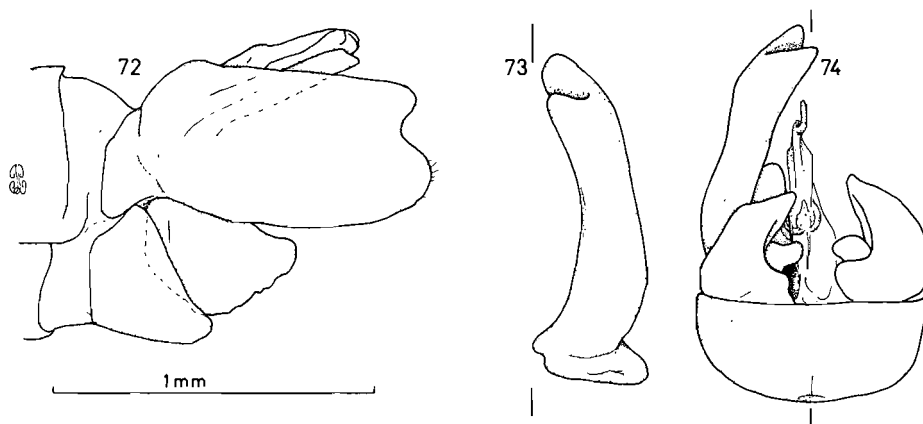
*Head*: Antenna black; setae black and white (black setae predominate ventrally). Eye:face ratio 1:0,19; eye:lower facial margin ratio 16,7:1. Mystax black and white mixed. Occipital setae: upper and central—black; lower—white.

*Thorax*: ktg s and mtanepst s black and white (black longer). Mesonotal setae: acr not obvious; dc *ca.* 6 pairs black, go anterior of suture; pprn fine white; 2/2 black npl; 2/2 black spal; 1/1 black pal. Mane well developed black, with white setae bordering. Scutellum with 8 black marginal bristles and white setae; disc with black bristles and white setae. Wing: 5,3 × 1,7 mm; membrane transparent, colourless and without markings. Legs: uniform black; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black, long and short setae white and black.

*Abdomen*: Dark red-brown, silver pruinose. T3 with black and white setae (black dorsally and on posterior margin); S3 with white setae (few black on hind margin). Genitalia as in Figs 72–74; hypandrium poorly developed; gonocoxite tapering distally in lateral view and projecting well beyond hind margin of hypandrium; epandrial lobes shortish, with a notch distally; aedeagus with sinuous terminal filament.

Female: Unknown.





Figs 72–74. *Neolophonotus irwini* sp. n. male holotype (Pakhuis Mts.) genitalia. 72. Lateral. 73. Dorsal. 74. Ventral.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), 2 mi. NNE Pakhuis Farm, Pakhuis Mts. (3218AA), 14.ix.1972, M. E. & B. J. Irwin, 1 800 ft (NM). NM Type No. 3072.

Distribution: Known only from the type-locality near Clanwilliam in the southern part of the Desert and Poor Steppe climatic region.

Remarks: Without obvious affinities.

#### *Neolophonotus kolochaetes* sp. n.

Figs 75–77

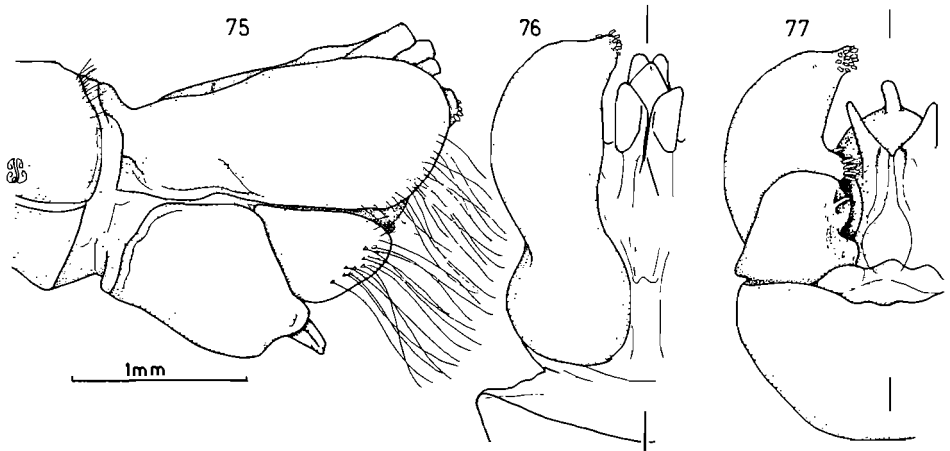
Etymology: Gr. *kolos* = short, *khaite* = mane. Refers to the short mane of this species.

Description: Based on holotype ♂.

*Head*: Antenna black with junctions between segments yellowish; setae black dorsally, black and white mixed ventrally. Eye:face ratio 1:0,23; eye:lower facial margin ratio 7,1:1. Mystax white with black setae laterally (mixed on lower facial margin). Occipital setae: upper—black and white; central—pale yellow; lower—white.

*Thorax*: *ktg s* and *mtanepst s* pale yellow-white. Mesonotal setae: *acr* not obvious; *dc ca.* 6 pairs black, *go* anterior of suture; *pprn* short white; 2/2 black *npl*; 3/3 black *spal*; 3/3 black and white *pal*. Mane short, black, stronger posteriorly. Scutellum with 8 black and yellow-white marginal bristles; disc with sparse black and white setae. *Wing*: 9,3 × 3,2 mm; membrane transparent, colourless and without markings. *Legs*: red-brown, proximodorsal parts of tibiae yellow-brown; *cx1* with white setae anteriorly; *cx3* lacking bristles laterally. Hind femur: bristles yellow and black, setae white.

*Abdomen*: Dark red-brown, gold-silver pruinose. T3 with 2 yellow marginal and 2 yellow discal bristles, setae short white laterally and black dorsally; S3 with *ca.* 7



Figs 75–77. *Neolophonotus kolochaetes* sp. n. male paratype (Robertson) genitalia. 75. Lateral. 76. Dorsal. 77. Ventral.

short yellow bristles along hind margin and long white setae. Genitalia as in Figs 75–77 (paratype illustrated); hypandrium moderately well developed; gonocoxite broadly rounded distally in lateral view and projecting well beyond hind margin of hypandrium; epandrial lobes simple and with two setose processes distally and midventrally; aedeagus large and with winged ventrolateral processes.

Paratypes: 2♂ 1♀; similar to holotype. ♀ cerci spine-like, forming a two-pronged fork-like structure.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Robertson (3319DD), 27.iv.1943, Anderson (NM); 2♂ (paratypes), Robertson, 19 & 21.ix.1927, Ac. US. (NM); 1♀ (paratype), Robertson, 20.iv.1947, Pickard (NM). NM Type No. 3073.

Distribution: Known only from the type-locality of Robertson in the Mediterranean climatic region.

Remarks: Like *anomalus* this species resembles members of the *angustibarbus* species-group in male genital form.

### *Neolophonotus ktenistus* sp. n.

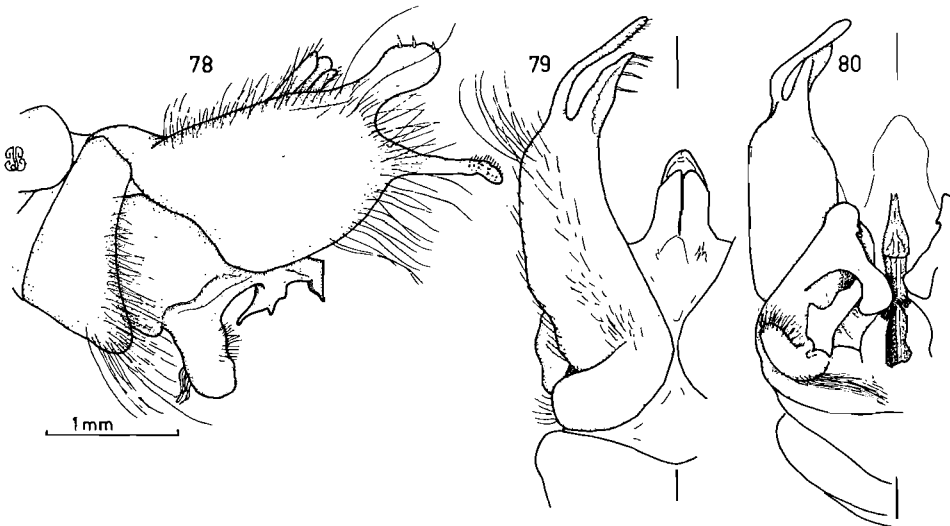
Figs 78–80

Etymology: Gr. *ktenistos* = combed. Refers to the very bristly posteroventral surfaces of the hind femora.

Description: Based on holotype ♂.

*Head*: Antenna dark red-brown, base of pedicel yellow-brown; setae black. *Eye*: face ratio 1:0,22; eye:lower facial margin ratio 8,7:1. *Mystax* yellow with black setae laterally and dorsally. *Occipital setae*: upper—black and white; central—long white; lower—pale yellow.

*Thorax*: ktg s and mtanepst s white. Mesonotal setae: acr black anterior of suture; dc ca. 8 pairs black, go anterior of suture; pprn fine yellow; 3/3 yellow npl; 3/3 black spal; 2/2 black (plus 2/2 black and white setae) pal. Mane black. Scutellum with 8 yellow-white marginal bristles; disc with ca. 6 yellow-white bristles and black (centrally) and yellow-white (laterally) setae. Wing: 11,3 × 4,1 mm; membrane transparent, colourless except for darkly stained membrane at tips of R<sub>1</sub>, R<sub>2+3</sub> and R<sub>4</sub>. Legs: dark red-brown with tibiae brown-yellow (except distal tip); cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles yellow and black (posteroventral parts with a good cluster), long setae white, short setae rather longish, white (laterally and dorsally) and black (ventrally).



Figs 78–80. *Neolophonotus ktenistus* sp. n. male paratype (26 km S Sa da Bandeira) genitalia. 78. Lateral. 79. Dorsal. 80. Ventral.

*Abdomen*: Dark red-brown, gold pruinose. T3 with long yellow setae only; S3 with long yellow setae only. Genitalia as in Figs 78–80 (paratype illustrated); hypandrium poorly developed; gonocoxite well developed and with a prominent ventral projection; epandrial lobes bifurcate distally, both lobes with an arrangement of setae at their tips; aedeagus of moderate length and with pointed tip.

Paratypes: 1♂ 2♀; similar to holotype. ♀ cerci spine-like, forming a two-pronged fork-like structure.

Material examined: ANGOLA: 1♂ (holotype) 1♀ (paratype), Cacula (1414CA), 25.v.1958, E. S. Ross & R. E. Leech, 1 530 m (CAS); 1♂ (paratype), 28 km South Sa da Bandeira (1513AB), 5.iv.1970, Ross (CAS); 1♀ (paratype), 6 mi. NW of Chibia (1513BA), 20.v.1958, Ross & Leech, 1 500 m (CAS).

Distribution: Known only from three localities in Angola.

Remarks: Most closely resembling East African species such as *dondoensis*, *orientalis*, *porcellus*, *stannus* and *zambiensis*.

*Neolophonotus leoninus* (Schiner, 1867)

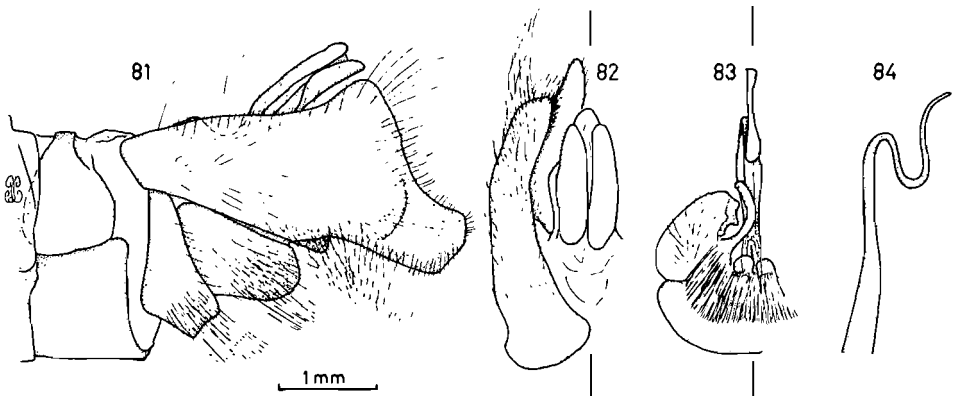
Figs 81–84

*Lophonotus leoninus* Schiner, 1867:402.*Lophonotus ursinus* Schiner, 1867:403. **Syn. n.***Dysmachus leoninus*; Kertész, 1909:278. Ricardo, 1920:378.*Dysmachus ursinus*; Kertész, 1909:282. **Syn. n.***Neolophonotus (Neolophonotus) leoninus*; Engel, 1927:156.**Redescription:** Based on holotype ♀ of *L. leoninus*.

**Head:** Antenna dark red-brown to black; setae black. Eye:face ratio 1:0,31; eye:lower facial margin ratio 3,3:1. Mystax yellow with shortish black setae laterally. Occipital setae: upper—ginger; central—ginger; lower—yellow.

**Thorax:** ktg s and mtanepst s long yellow. Mesonotal setae: acr not obvious; dc ginger, go anterior of suture; pprn long ginger; 7/7 yellow-brown npl; ca. 7/7 yellow-brown spal; ca. 8/8 yellow brown pal. Mane black along entire length. Scutellum with ca. 12 yellow-brown marginal bristles; disc with brown-yellow setae only. Wing: 16,1 × 5,3 mm; membrane transparent, slightly yellowish and without markings. Legs: dark red-brown to black except proximal parts of tibiae which are red-brown; cx1 with yellow and ginger setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles brown-red, long setae yellow, short setae rather long, yellow.

**Abdomen:** Dark red-brown, gold pruinose. T3 with long yellow setae only; S3 with long yellow setae. Ovipositor shortish, laterally flattened; cerci laterally flattened, with fine setae.



Figs 81–84. *Neolophonotus leoninus* (Schiner) male (Paarl) genitalia. 81. Lateral. 82. Dorsal. 83. Ventral. 84. Aedeagus.

**Male:** Similar to ♀. Genitalia as in Figs 81–84 (Paarl ♂ illustrated); hypandrium poorly developed; gonocoxite broadly rounded distally in lateral view and projecting beyond hind margin of hypandrium; epandrial lobes almost triangular in shape and densely setose; aedeagus long and sinuous.

**Material examined:** SOUTH AFRICA: *Cape Province*: 1♀ (holotype of *leoninus*),

Cap (NMW); 1♂ (holotype of *ursinus*), Cap (NMW); 1♂, Palmietriver near mouth, Caledon (3419AB), 20.x.1924, Dr Brauns (NM); 1♂, Franschoek (3319CC), 28.ix.1944 (NM); 1♀, Franschoek (3319CC), 6.vi.1944 (NM); 1♂, Stellenbosch (3318DD), vi.1964, Lombard (NM); 1♀, Stellenbosch (3318DD), 10.x.1940 (NM); 1♂ 1♀, Paarl (3318DB), 8.ix.1917, Roberts (NM); 2♀, Du Toits Kloof (3319CA) Paarl Distr., 27–28.ix.1959, Stuckenberg, 2 000–3 000 ft (NM); 1♂, Ysterfontein (3218BA), 9.60 (SAM); 1♂ 1♀, Wit River Valley, Bains Kloof (3319CA), xii.1949, Mus. Expd. (SAM); 1♂, Stellenbosch (3318DD), Jonkershoek, 5.x.1974, Whitehead (SAM); 1♂, Banhoek Valley, Stellenbosch, x.1934, Mus. Staff (SAM).

Distribution: Restricted to the Mediterranean climatic region of the south-western Cape Province.

Remarks: I have seen the holotypes of both *leoninus* and *ursinus* and consider them to be conspecific. Engel (1927) placed '(= ? *phoeax* Walk.)' under his heading for *leoninus*, thus indicating his uncertainty about the position of *phoeax*. My examination of Walker's broken holotype of *phoeax* supports both Hull's (1962) and Oldroyd's (1981) decisions that *phoeax* and *chalcogaster* are synonymous (see under *suillus* in this paper).

*N. leoninus*, a large and distinctive species, has no obvious relative but resembles *virescens*, *leucopygus* and *louisi*.

### *Neolophonotus leucopygus* Engel, 1927

Figs 85–87

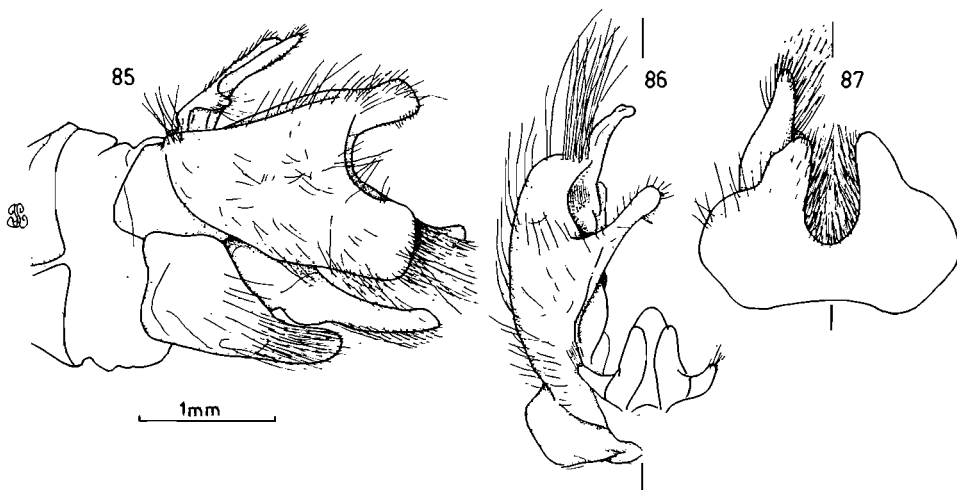
*Neolophonotus (Neolophonotus) leucopygus* Engel, 1927:156–7.  
*Neolophonotus leucopygus*; Hull, 1962:532. Oldroyd, 1981:340.

Redescription: Based on lectotype ♂.

**Head:** Antenna broken off (O'okiep ♂—dark red-brown to black; setae dark red-brown to black). Eye: face ratio 1:0,29; eye: lower facial margin ratio 3,7:1. Mystax bright yellow with shortish black setae laterally especially in dorsal part. Occipital setae: upper—orange and black; central—long black; lower—yellow-white.

**Thorax:** ktg s and mtanepst s pale brown and white. Mesonotal setae: acr not obvious; dc fine black, go anterior of suture; pprn long pale brown and white; 6/6 (3 black & 3 brown) npl; 2/2 black spal (plus 3/3 weaker black seta-like bristles); ca. 4/4 brown and dark-brown pal. Mane shortish, sparse, dark red-brown, setae arranged loosely along entire length. Scutellum with ca. 13 black marginal bristles; disc with some black bristles and brown and white setae. Wing: 10,4 × 3,6 mm; membrane transparent, colourless and without markings. Legs: dark red-brown to black, tibiae brown; cx1 with bright yellow setae anteriorly (a few short black ones); cx3 lacking bristles laterally. Hind femur: bristles few black (1 or 2 brown), long setae yellow-white, short setae rather long, yellow.

**Abdomen:** Terga dark red-brown with orange-brown lateral and posterior margins; gold pruinose. T3 with long white setae laterally, shorter dark red-brown dorsally;



Figs 85–87. *Neolophonotus leucopygus* Engel male lectotype (Springbok) genitalia. 85. Lateral. 86. Dorsal. 87. Ventral.

S3 with long white setae. Genitalia as in Figs 85–87; covered with many dark setae; hypandrium moderately well developed, hind margin bifurcate; gonocoxite elongate in lateral view and projecting beyond hind margin of hypandrium; epandrial lobes shortish, with prominent process dorsally; aedeagus short with pointed terminal filament.

Female: Ovipositor shortish, laterally compressed; cerci laterally compressed, with fine setae.

Lectotype designation: Engel (1927) mentioned one male from O'okiep and two males from Springbok but did not designate a holotype. I have seen all these specimens and have found one of the males from Springbok to represent a different species (*lightfooti*). I hereby designate the other male from Springbok as lectotype of *leucopygus*. The male from O'okiep is considered a paralectotype.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (lectotype), Namaqualand, Springbok (2917DB), x.1890, R. M. Lightfoot (ZSM); 1♂ (paralectotype), O'okiep (O'okiep Myn—2917DB), 22.ix.86 (ZSM); 1♂, 10 km E Kamieskroon (3018AA), 17.x.1977, Miller, 630 m, malaise trap (NM); 1♂ 2♀, 25 km W Kamieskroon (2917DD), 5.ix.1983, Stuckenberg & Londt, rocky hillside veget. (NM); 1♂, Aninaus Pass (2917BA), 15 km W of Steinkopf, 4.ix.1983, Londt & Stuckenberg, rocky hillside & dry river (NM); 1♂ 2♀, Studer's Pass, 22 km NE of Garies (3018AC), 6.ix.1983, Londt & Stuckenberg, stream edge & rocky slopes (NM); 1♂ 1♀, Klipvlei, Garies (3018AC), xi.1931, Mus. Staff (SAM).

Distribution: Known only from Namaqualand in the southern parts of the Desert and Poor Steppe climatic region.

Prey record: One male was collected with prey (Hymenoptera—Vespidae).

Remarks: A distinctive species most closely related to *lousi*, *virescens* and *leoninus*.

***Neolophonotus lightfooti* sp. n.**

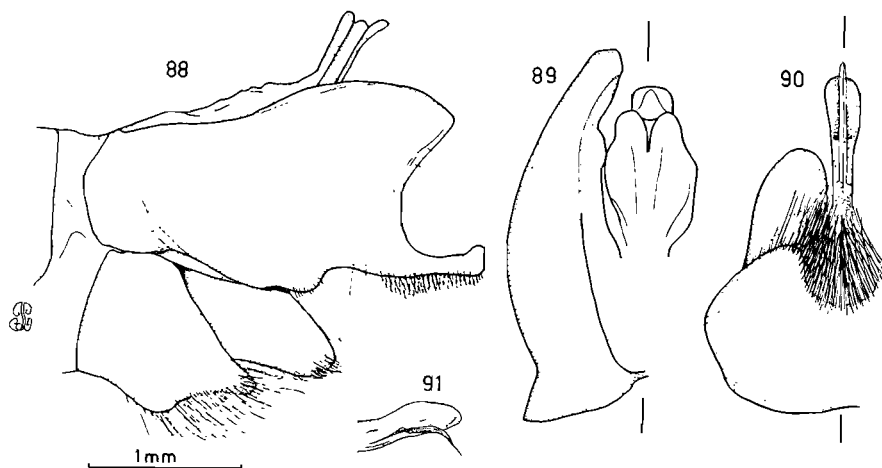
Figs 88–91

**Etymology:** Named for R. Lightfoot who collected the holotype.

**Description:** Based on unique holotype ♂.

**Head:** Antenna dark red-brown, junctions between segments orange-yellow; setae dark red-brown (few white laterally on scape). Eye: face ratio 1:0,25; eye: lower facial margin ratio 6,3:1. Mystax white, few dark red-brown setae laterally and on lower facial margin. Occipital setae: upper—dark red-brown and white; central—black and white; lower—white.

**Thorax:** ktg s and mtanepst s white. Mesonotal setae: acr not obvious; dc ca. 7 pairs black, go anterior of suture; pprn long white; 2/3 black npl; 4/3 black spal; 3/3 black pal. Mane black along entire length, loosely arranged. Scutellum with 10 black and white marginal bristles; disc with black and white bristles and black (centrally) and white (laterally) setae. Wing: 9,1 × 2,9 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae orange-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange and dark brown, long setae white (dorsally) and brown (ventrally), short setae rather long, white (laterally and dorsally), brown (ventrally).



Figs 88–91. *Neolophonotus lightfooti* sp. n. male holotype (Springbok) genitalia. 88. Lateral. 89. Dorsal. 90. Ventral. 91. Aedeagus.

**Abdomen:** Dark red-brown, silver pruinose. T3 with long white setae laterally, longish black dorsally; S3 with long white setae. Genitalia as in Figs 88–91; hypandrium moderately well developed, hind margin bifurcate; gonocoxite rounded distally in lateral view and projecting well beyond hind margin of hypandrium; epandrial lobe with longish process ventrodistally; aedeagus with slightly bulbous head with short, pointed filament ventrally.

**Female:** Unknown.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Namaqualand, Springbok (2917DB), xi.1890, R. Lightfoot (ZSM).

Distribution: Known only from the type-locality in the Desert and Poor Steppe climatic region.

Remarks: The holotype is one of the males mentioned by Engel (1927) when describing *leucopygus*. It is not conspecific with the other male listed under that species. *N. lightfooti* appears most closely related to *tibialis*.

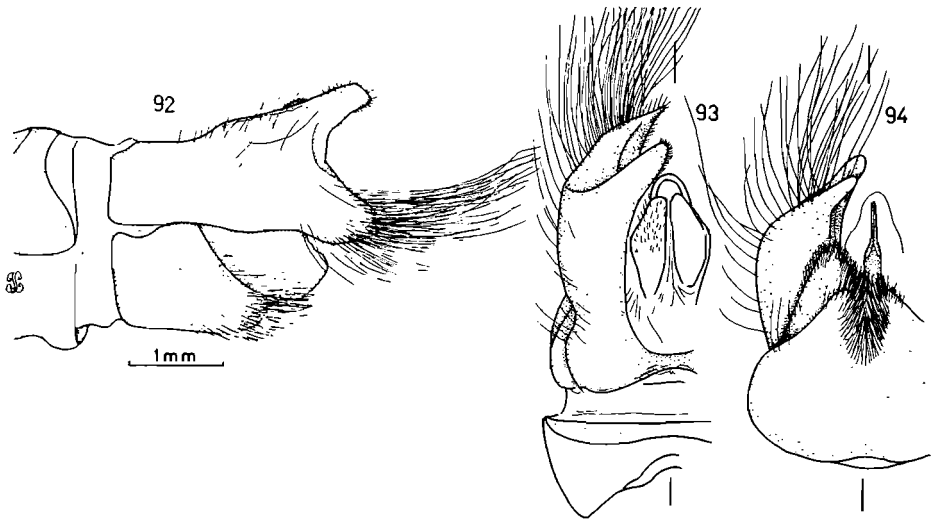
***Neolophonotus louisi* sp. n.**

Figs 92–94

Etymology: Named for my friend Mr Louis Schoeman who collected most of the type-specimens for the Natal Museum.

Description: Based on holotype ♂.

*Head*: Antenna black; scape with white setae (few black), pedicel with black setae (few white). Eye:face ratio 1:0,27; eye:lower facial margin ratio 4,7:1. Mystax yellow, few small black setae laterally in dorsal part. Occipital setae: upper—white and black; central—white; lower—white.



Figs 92–94. *Neolophonotus louisi* sp. n. male paratype (Hantamsberg) genitalia. 92. Lateral. 93. Dorsal. 94. Ventral.

*Thorax*: ktg s and mtanepst s white (few black). Mesonotal setae: acr not obvious; dc weak black, go anterior of suture; pprn long black and white; 3/3 black npl; 4/4 black spal; 6/8 black pal. Mane weak black along entire length, loosely arranged. Scutellum with 22 black and white marginal bristles; disc with black and yellow setae (some quite well developed). Wing: 12,0 × 4,0 mm; membrane transparent, slightly yellow stained at tip and without markings. Legs: dark red-brown to black, proximal half of tibia yellow; cx1 with white and black setae anteriorly; cx3 lacking



bristles laterally. Hind femur: bristles black, long setae white and black, short setae rather long, white, few black ones ventrally.

*Abdomen*: Dark red-brown, gold pruinose. T3 with long white setae laterally, black dorsally; S3 with long white setae. Genitalia as in Figs 92–94 (paratype illustrated); hypandrium moderately well developed, hind margin bifurcate; gonocoxite rounded distally in lateral view and projecting beyond hind margin of hypandrium; epandrial lobe with well-developed process dorsally; aedeagus slender with pointed apex.

Paratypes: 2♂ 5♀, similar to holotype. ♀ cerci laterally compressed, with fine setae.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype) 2♀ (paratypes), Hantamsberg (3119BC), 22.x.1982, L. E. Schoeman (NM); 1♂ (paratype), Hantamsberg (3119BC) N of Calvinia, 15.ix.1982, L. E. Schoeman (NM); 2♀ (paratypes), Sutherland (3220BC), 19.x.1982, L. E. Schoeman (NM); 1♂ 1♀ (paratypes), De Doorns, Meiringshoep (3319CD), 19.x.1982, V. B. Whitehead (SAM). NM Type No. 3074. SAM No. 3988.

Distribution: Southern parts of the Desert and Poor Steppe and the Mediterranean climatic regions.

Remarks: *N. louisi* is most closely related to *leucopygus*, but is also related to both *virescens* and *leoninus*.

#### ***Neolophonotus macquarti* sp. n.**

Figs 95–97

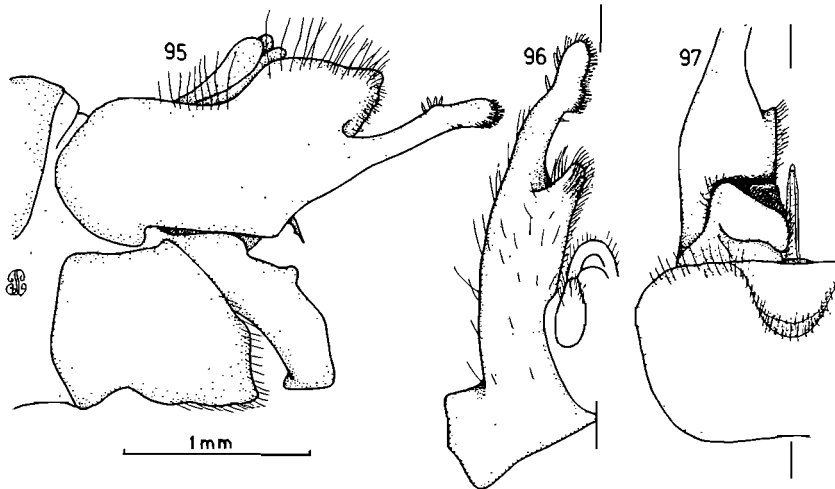
Etymology: Named for Pierre J. M. Macquart, a pioneer in the study of Afrotropical Asilidae.

Description: Based on holotype ♂.

*Head*: Antenna black; scape with black and yellow setae, pedicel with black setae only. Eye:face ratio 1:0,22; eye:lower facial margin ratio 5,6:1. Mystax soft white, few black setae laterally but not on lower facial margin. Occipital setae: upper—black and white; central—black; lower—white.

*Thorax*: ktg s and mtanepst s yellow. Mesonotal setae: acr not obvious; dc ca. 8 pairs black (few yellow posteriorly), go anterior of suture; pprn long white; 3/4 yellow npl; 5/5 yellow spal (plus few black setae); 3/5 yellow pal (plus few large setae). Mane black along entire length, loosely arranged posteriorly. Scutellum with 14 yellow (one black) marginal bristles; disc with ca. 8 yellow bristles and black (centrally) and white (laterally) setae. Wing: 8,1 × 2,9 mm; membrane transparent, colourless and without markings. Legs: dark red-brown to black, proximodorsal parts of tibiae orange-brown; cx1 with white setae anteriorly, bordered with black ones. cx3 lacking bristles laterally. Hind femur: bristles orange laterally (short black ventrolaterally) long setae yellow and black, short setae rather long, yellow laterally and dorsally, black ventrally.

*Abdomen*: Dark red-brown, silver-gold pruinose. T3 with long shiny white setae laterally, longish black dorsally; S3 with long shiny white setae. Genitalia as in Figs



Figs 95-97. *Neolophonotus macquarti* sp. n. male paratype (Olifants River) genitalia. 95. Lateral. 96. Dorsal. 97. Ventral.

95-97 (paratype illustrated); hypandrium moderately well developed; gonocoxite elongate, directed ventrally and projecting beyond hind margin of hypandrium; epandrial lobe with longish process ventrodistally; aedeagus with short, downward-curved, pointed tip.

Paratypes: 10♂ 6♀ similar to holotype. ♀ cerci laterally compressed, with fine setae.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype) 1♂ 1♀ (paratypes), Jonkershoek (3318DD), 13.xii.1979, G. Giliomee (NM); 2♂ 1♀ (paratypes), same data but 11.xii.1979 (1♀) 2 & 5.xii.1880 (2♂) (NM); 1♂ (paratype), Fr.hoek (Franschhoek 3419AA), 8.xii.1942, Van Heerden (NM); 1♂ (paratype), Uniondale (3323CA), 25. xii.1914, Brauns (NM); 2♂ 2♀ (paratypes), Upper Sources Olifants River, Ceres (3319AD), xii.1949, Mus. Exp. (SAM); 3♂ 2♀ (paratypes), Gt Wint-hoek, Tulbagh (3319AC), 4 500', xi.1916, Lightfoot (SAM). NM Type No. 3075. SAM Type No. 3989.

Distribution: Known from the Mediterranean and Little and Great Karoo climatic regions.

Remarks: *N. macquarti* resembles a number of south-western Cape species (see under *braunsi*).

### *Neolophonotus macromystax* sp. n.

Figs 98-100

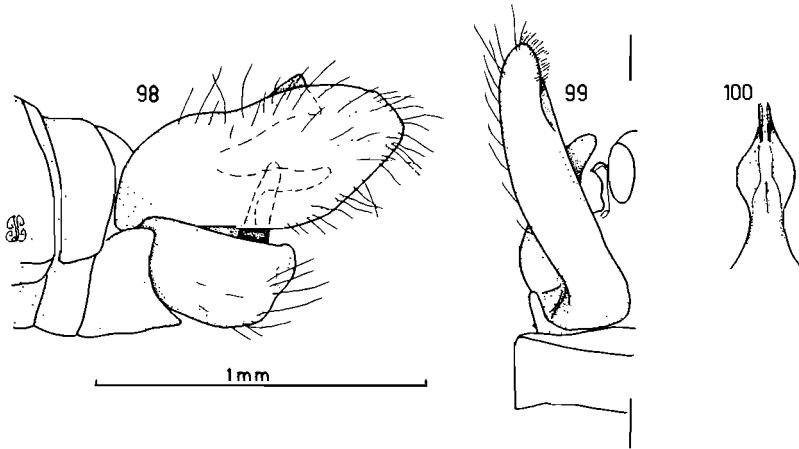
Etymology: Gr. *macros* = long; *mystax* = hair of upper lip. Refers to the well-developed mystax of this species.

Description: Based on unique holotype ♂.

*Head*: Antenna dark red-brown; setae black and brown-yellow. Eye:face ratio

1:0,23; eye:lower facial margin ratio 10,4:1. Mystax black and brown-yellow mixed. Occipital setae: upper—long black; central—yellow; lower—white.

*Thorax*: ktg s and mtanepst s thin brown-yellow. Mesonotal setae: acr long black in anterior region; dc long black, go anterior of suture; pprn long black and brown setae; 3/3 black npl; 2/2 black spal; 1/1 black pal. Mane well developed, black with brown-yellow setae laterally. Scutellum with 3 black marginal bristles; disc with 6 black bristles and white setae. Wing:  $4,6 \times 1,4$  mm; membrane transparent, colourless and without markings. Legs: dark red-brown, tibiae and tarsi paler; cx1 with yellow-white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles yellow-brown and dark red-brown, long setae dark red-brown, short setae shiny white.



Figs 98–100. *Neolophononus macromystax* sp. n. male holotype (Arniston) genitalia. 98. Lateral. 99. Dorsal. 100. Aedeagus.

*Abdomen*: Dark red-brown, silver and gold pruinose. T3 with 3 dark red-brown marginal bristles and one dark red-brown discal bristle, setae sparse black over most of surface, few white ones laterally; S3 with long dark red-brown setae. Genitalia as in Figs 98–100; hypandrium poorly developed; gonocoxite broadly rounded (rather truncate) distally, in lateral view, and projecting well beyond hind margin of hypandrium; epandrial lobe simple; aedeagus short, pointed apically.

Female: Unknown.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Arniston (3420CA), 22.viii.1973, M. E. Irwin, 10 m, low coastal dunes (NM). NM Type No. 3076.

Distribution: Known only from the type-locality in the Mediterranean climatic region.

Remarks: A distinctive species resembling members of the *comatus* species-group, but lacking bristles on the lateral aspect of cx3.

***Neolophonotus manselli* sp. n.**

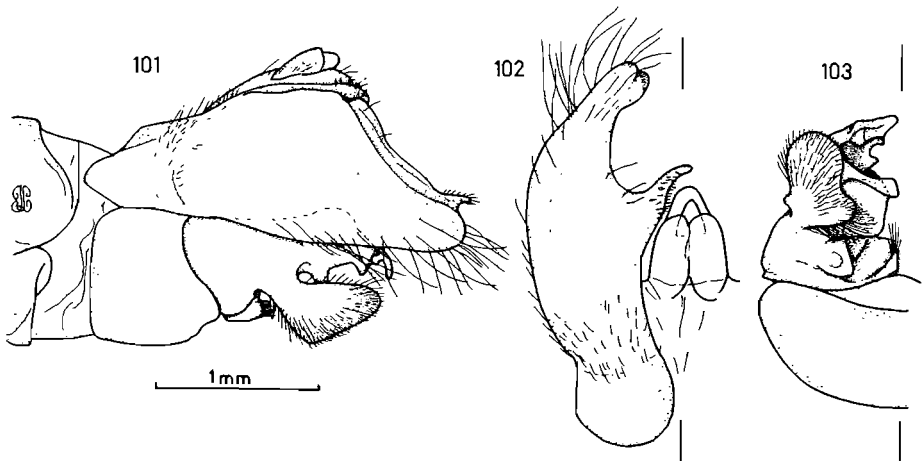
Figs 101–103

**Etymology:** Named for my friend Mervyn Mansell, who has assisted me with loans of material from the NCI.

**Description:** Based on holotype ♂.

**Head:** Antenna black, junctions between segments orange; setae black. Eye:face ratio 1:0,25; eye:lower facial margin ratio 7,3:1. Mystax white, thick yellow bristles in lower part, black on lower facial margin. Occipital setae: upper—black and white; central—long white; lower—white.

**Thorax:** ktg s and mtanepst s white. Mesonotal setae: acr not obvious; dc ca. 9 pairs black, go anterior of suture; pprn long white; 2/2 brown-yellow npl; 3/3 black spal; 2/2 black pal. Mane black along entire length, rather short anteriorly. Scutellum with ca. 12 black and yellow-white marginal bristles; disc with ca. 12 black and yellow-white bristles and black (centrally) and white (laterally) setae. Wing: 11,6 × 4,0 mm; membrane transparent, colourless and without markings. Legs: femora dark red-brown, tibiae yellow-brown, tarsi dark brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and yellow-brown, long setae white, short setae white (few black ventrally).



Figs 101–103. *Neolophonotus manselli* sp. n. male paratype (Lealui) genitalia. 101. Lateral. 102. Dorsal. 103. Ventral.

**Abdomen:** Dark red-brown, silver-gold pruinose. T3 with 3 yellow marginal bristles and white setae (few black dorsally); S3 with long and short white setae. Genitalia as in Figs 101–103 (paratype illustrated); hypandrium moderately well developed; gonocoxite with a large paddle-like process ventrolaterally; epandrial lobe almost triangular in lateral aspect.

**Paratype:** 1♂, similar to holotype but in poor condition. Female unknown.

**Material examined:** NAMIBIA: 1♂ (holotype), Border Beacon No. 4, 20 km SW

Andara (1821AB) Caprivi Strip, 11.iv.1970, H. Brown (NCI). ZAMBIA: 1♂ (paratype), Rhodesia de Nord, Haut-Zambeze Lealui (1523AA), 1919, V. Ellenberger (MNP).

Distribution: Known only from the Caprivi Strip and south-western Zambia.

Remarks: A distinctive species with no obvious relative.

*Neolophonotus orientalis* (Ricardo, 1920)

Figs 104–106

*Dismachus orientalis* Ricardo, 1920:389.

*Neolophonotus (Neolophonotus) orientalis*; Engel, 1927:157.

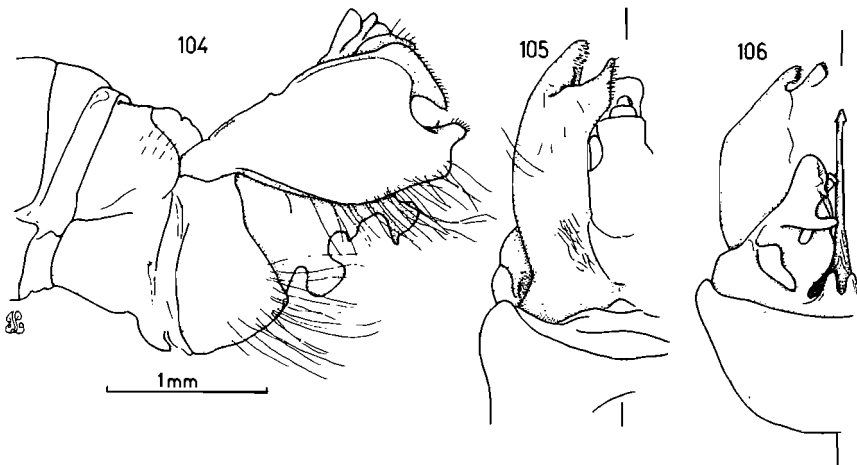
*Neolophonotus orientalis*; Hull, 1962:532. Oldroyd, 1981:341.

Redescription: Based on lectotype ♂.

**Head:** Antenna dark red-brown; setae black. Eye:face ratio 1:0,26; eye:lower facial margin ratio 9,4:1. Mystax white with black setae laterally and dorsally. Occipital setae: upper—black and white; central—white; lower—white.

**Thorax:** *ktg* s and *mtanepst* s thin pale yellow-white. Mesonotal setae: *acr* few weak white anteriorly; *dc* white, *go* anterior of suture; *pprn* long, wavy, white; 2/2 yellow-white *npl*; 4/4 weak yellow-white *spal*; 2/2 yellow-white *pal* accompanied by a few yellow-white strong setae. Mane black, well developed, few white setae bordering. Scutellum with *ca.* 12 long white marginal bristles; disc with white setae laterally, few black centrally. Wing: 8,6 × 3,0 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae brown-yellow; *cx1* with white setae anteriorly; *cx3* lacking bristles laterally. Hind femur: bristles black and yellow, long setae white-yellow (wavy at tips), short setae white-yellow.

**Abdomen:** Dark red-brown, silver-gold pruinose. T3 with long yellow-white setae with wavy tips; S3 with long yellow-white setae. Genitalia as in Figs 104–106;



Figs 104–106. *Neolophonotus orientalis* (Ricardo) male lectotype (Mombasa) genitalia. 104. Lateral. 105. Dorsal. 106. Ventral.

epandrial lobes bifurcate distally; hypandrium covered with long yellow-white setae; gonocoxite well developed with various lobes and processes; aedeagus elongate, thin, with tip sagittate.

Paralectotype: 1♂, similar to lectotype.

Lectotype designation: Ricardo (1920) mentioned two males, one being called a 'type'. I consider both specimens to be syntypes and so hereby designate Ricardo's male from Mombasa as the lectotype and the other male as paralectotype.

Material examined: KENYA: 1♂ (lectotype), Mombasa (0439BA), 1906–225, A. J. Cholmley (BM); 1♂ (paralectotype), Narok Masai Reserve (= Masai Mara Game Reserve—0134BD), 27.iii.1914, Capt. A. O. Luckman (BM); 1♂, Masai Reserve, 2–25.ii.1914, Luckman (BM); 1♀, Kabete (0037CC), 24.v.1913, Anderson (BM).

Distribution: Known only from Kenya.

Remarks: There are four specimens in the BM, two of which were apparently not seen by Ricardo although they were collected at about the same time as the two recorded by her. Engel (1927) recorded a single male from Narok, Masai Reserve, collected by Capt. Luckman on 17.iii.1914, which was apparently in the BM. This specimen can no longer be found.

*N. orientalis* is most closely related to *dondoensis*, *porcellus*, *stannus* and *zambiensis*.

### ***Neolophonotus pilosus* sp. n.**

Figs 107–109

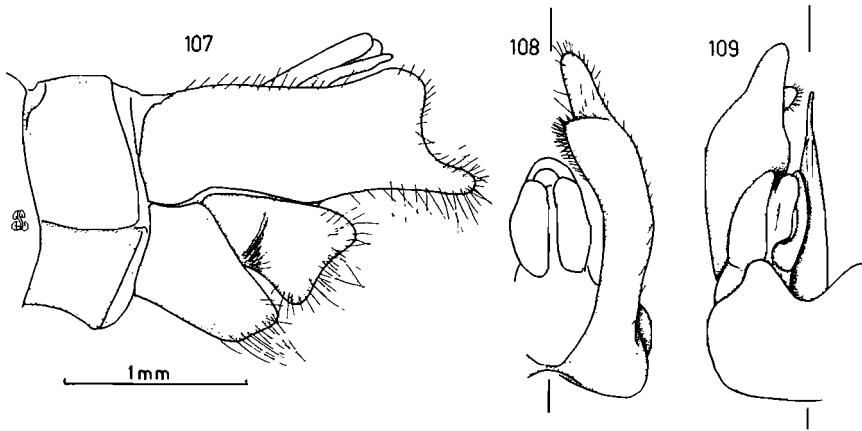
Etymology: *L. pilosus* = hairy. Refers to the extensive pruinescence found on the face of this species (in contrast to the condition found in the closely related, and possibly sympatric, species *depilus*).

Description: Based on holotype ♂.

**Head:** Antenna dark red-brown to black; scape with black and white setae ventrally, white setae dorsally; pedicel with black setae (1–2 white ones dorsally). Eye: face ratio 1:0,26; eye: lower facial margin ratio 3,9:1. Mystax white with black setae laterally and along lower facial margin. Occipital setae: upper—black (1 yellow); central—weak, long, black; lower—white.

**Thorax:** ktg s and mtanepst s black. Mesonotal setae: acr black but not differentiated clearly from setae of mane; dc ca. 8 pairs, black, going anterior of suture; pprn long, black and white; 2/3 orange; 3/3 black; 2/2 black pal accompanied by a number of strong black setae. Mane black, well developed along entire length. Scutellum with ca. 12 black marginal bristles; disc with white setae laterally, black setae centrally, no obvious bristles. Wing: 9,7 × 3,1 mm; membrane transparent, colourless and without markings. Legs: black, proximodorsal parts of tibiae red-brown; cx1 with white setae anteriorly bordered by black ones; cx3 lacking bristles laterally. Hind femur: bristles short, orange and black, long setae black and white, short setae rather long, white dorsally, black ventrally.

**Abdomen:** Dark red-brown, silver pruinose. T3 with fine, almost transparent, setae



Figs 107–109. *Neolophonotus pilosus* sp. n. male paratype (Klawer) genitalia. 107. Lateral. 108. Dorsal. 109. Ventral.

laterally, black setae dorsally and a few mid-laterally; S3 with black and white setae, those on hind margin being thickish and black. Genitalia as in Figs 107–109 (paratype illustrated); epandrial lobes bifurcate distally, lower prong longer and narrower than upper one (in lateral view); hypandrium, in ventral view, bifurcate; gonocoxite well developed, distal tip with a truncate appearance distally; aedeagus elongate, tapering to a slender tip.

Paratypes: 4♂ 15♀ 1?, similar to holotype. Ovipositor laterally compressed: cerci rounded in lateral aspect, laterally compressed and with fine setae.

Material examined: SOUTH AFRICA: *Cape Province*: 2♂ (holotype and paratype) 9♀ (paratypes), Outskirts of Klawer (3118DC), 2.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 1♂ 4♀ (paratypes), 3 km W Leipoldtville (3218AB), 2.ix.1981, Londt, Schoeman & Stuckenberg, Succulent Karoo (NM); 2♀ (paratypes), 5 km E Lambert's Bay (3218AB), 31.viii.1981, Londt, Schoeman & Stuckenberg, Westcoast Strandveld (NM); 1♂ (paratype), 4 m S Clanwilliam (3218BB), ix.1961, (SAM); 1♂ 1? (paratypes), 8 m N Citrusdal (3219CA), ix.1961, (SAM). NM Type No. 3077. SAM Type No. 3990.

Distribution: South-western Cape Province, corresponding with the northern parts of the Mediterranean climatic region and southern parts of the Desert and Poor Steppe region.

Remarks: Resembling a number of other south-western Cape species (see under *braunsi*) but most similar to *depilis*.

#### ***Neolophonotus pinheyi* sp. n.**

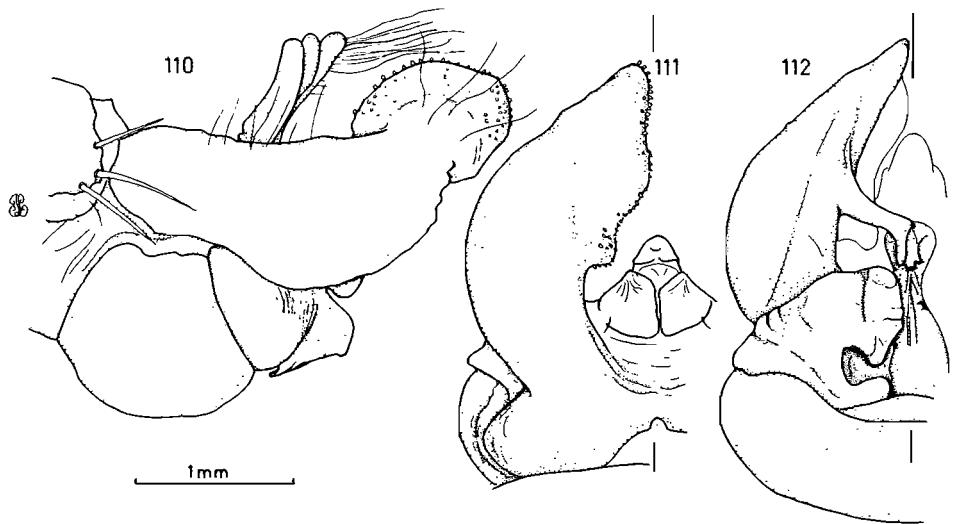
Figs 110–112

Etymology: Named for Dr Elliott Pinhey, formerly of the National Museum of Bulawayo, Zimbabwe, who collected the types, and assisted me with the loan of specimens.

Description: Based on holotype ♂.

**Head:** Antenna dark red-brown to black; scape and pedicel with black setae ventrally (1 yellow one) and yellow setae dorsally. Eye:face ratio 1:0,24; eye:lower facial margin ratio 7,3:1. Mystax white with black setae laterally. Occipital setae: upper—yellow and black; central—long, yellow (few black in dorsal part), lower—white and pale yellow-white.

**Thorax:** ktg s and mtanepst s brown-yellow. Mesonotal setae: acr black anteriorly; dc ca. 11 pairs, black anteriorly, yellow posteriorly; pprn long yellow; 3/3 yellow; 3/3 black; 3/3 yellow (1 black) pal; Mane black, well developed, bordered by shorter yellow setae. Scutellum with 12 yellow marginal bristles; disc with ca. 14 yellow bristles and yellow setae. Wing: 9,9 × 3,9 mm; membrane transparent, colourless and without markings. Legs: dark red-brown to black, proximodorsal parts of tibiae light brown; cx1 with white and yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles stout yellow (1 black), long setae yellow (few black), short setae yellow.



Figs 110–112. *Neolophonotus pinheyi* sp. n. male holotype (Inyanga) genitalia. 110. Lateral. 111. Dorsal. 112. Ventral.

**Abdomen:** Dark red-brown, fine gold pruinose. T3 with 4 yellow marginal bristles and moderately long yellow setae; S3 with long yellow setae only (no bristles evident). Genitalia as in Figs 110–112; tip of epandrium expanded into a flat, setose lobe distally, and with a long, inwardly directed process mid-ventrally; hypandrium slightly bulbous in ventral view; gonocoxite well developed, with irregular hind margin in lateral aspect; aedeagus club-like.

Paratype: 1♀, similar to holotype. Cerci spine-like, forming a two-pronged fork-like organ.

Material examined: ZIMBABWE: 1♂ (holotype) 1♀ (paratype), Troutbeck



Distr., Inyanga (1832BA), 6 600–7 000', 18–23.iv.1977, E. Pinhey (NMZ). These specimens were copulating when captured.

Distribution: Known only from the eastern highlands of Zimbabwe.

Remarks: This species is similar to *carorum*, *chubbii* and *seymourae*.

*Neolophonotus porcellus* (Speiser, 1910)

Figs 113–115

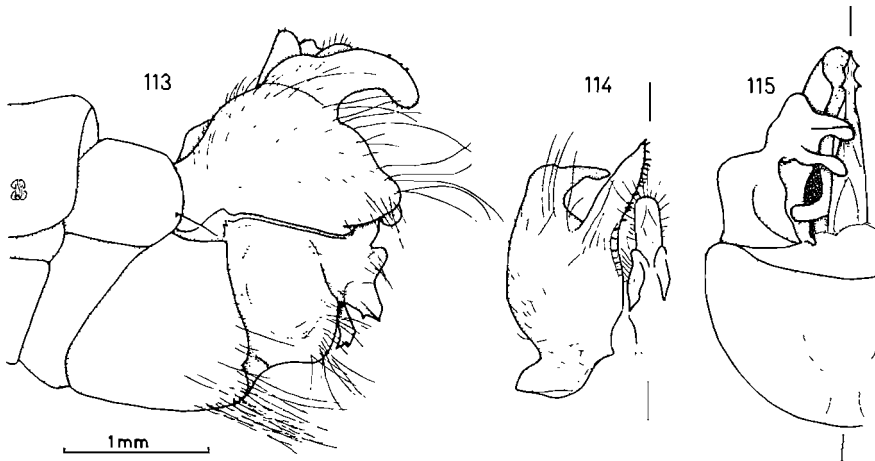
*Dysmachus porcellus* Speiser, 1910:102. Ricardo (1920):379.

*Neolophonotus (Neolophonotus) porcellus*; Engel, 1927:158.

*Neolophonotus porcellus*; Hull, 1962:532. Oldroyd, 1981:341.

Redescription: Based on lectotype ♂.

**Head:** Antenna dark red-brown, lighter at junction between pedicel and flagellum; setae dark red-brown except for a few yellow ones on dorsal aspect of scape. Eye:face ratio 1:0,21; eye:lower facial margin ratio 7,3:1. Mystax mixed yellow and black. Occipital setae: upper—long yellow and shorter dark red-brown; central—longish yellow; lower—fine yellow.



Figs 113–115. *Neolophonotus porcellus* (Speiser) male lectotype (Meru) genitalia. 113. Lateral. 114. Dorsal. 115. Ventral.

**Thorax:** ktg s and mtanepst s brown-yellow. mesonotal setae: acr not evident; dc black, go anterior of suture; pprn long, dark red-brown and yellow; 3/3 (2 brown 1 yellow) npl; 4/4 black; 2/2 brown-yellow pal. Mane short black, weakly developed. Scutellum with 10 brown-yellow marginal bristles; disc with 3 brown-yellow and 2 black bristles as well as fine yellow setae laterally and black setae centrally. Wing: 10,8 × 3,9 mm; membrane transparent, colourless and without markings. Legs: femora black, tibiae brown-orange with yellow proximodorsal parts, tarsi brown-orange; cx1 with long shiny orange-yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and brown-yellow, long setae few yellow and black, short setae fine yellow.

*Abdomen:* Dark red-brown, gold pruinose. T3 with short yellow setae laterally, short black dorsally; S3 with moderately long orange and black setae. Genitalia as in Figs 113–115; epandrial lobes bifurcate distally; gonocoxite well developed; aedeagus elongate, thin, with barbed tip.

Paralectotypes: 2♂ 1♀, similar to lectotype.

Lectotype designation: Speiser (1910) mentioned five males and one female, collected in January 1906 on Meru at 3 000 m, and a single female from Kibonoto on Kilimandjaro at an altitude of 2 000–3 500 m. I have located six of these specimens. Speiser did not designate a holotype (although the Meru female has the word 'type' written on its determination label). I hereby designate the male in the ZMB as lectotype. This specimen has a red 'Paratype' label which must have been placed on the pin by a more recent worker. The other 'cotypes' studied (and listed herein) are considered paralectotypes.

Material examined: TANZANIA: 1♂ (lectotype), Meru (0336BA), Jan, Sjøstedt, 3 000 m (ZMB); 2♂ 1♀ (paralectotypes), same data as lectotype (NRS); 1♂ (paralectotype), same data as lectotype (ZSM); 1♀ (paralectotype), Kilimandjaro Kibonoto (0337BB), 6 Oct 1905–6, Sjøstedt, 2 000–3 500 m (MNP); 1♂ 3♀, Mt Meru, tete de source, savane a Hagenia, Olkokola, versant N. O. 27/28.vi.1957, 2 900 m, Mission Zoolog. I.R.S.A.C. en Afrique orientale, Basilewsky & Leleup (KMT); 1♀, Kilimandjaro, versant Sudest, Kilema (0337BB), zone des cultures, iii.1912, Alluaud & Jeannel, 1 440 m (ZSM). KENYA: 13♂ 7♀, Camp III de Elgon (1°08'N:34°33'E), Zone des Bruyères, est 2 500 m, 1932–33, Mission de l'Omo, Arambourde Chappuis & Jeannel (MNP & NM); 1♂, Vallée du Kedong (0136BA), xii.1911, Gromier, 1 600 m (MNP); 2♀, Nairobi (0136BD), ii.1923, B.B. (MNP); 3♂, Kijabe (0036DC), St. 27, xii.1911, Alluaud & Jeannel (ZSM); 2♂ 2♀, 5–7 miles into Kenia Forest, near Luchi R. (?), 9–10.ii.1911, Anderson (ZSM).

Distribution: East Africa (Kenya and Tanzania).

Remarks: *N. porcellus* closely resembles two other species—*stannus* and *zambien-sis*.

*Neolophonotus rhodesii* (Ricardo, 1920)

Figs 116–118

*Dysmachus rhodesii* Ricardo, 1920:381.

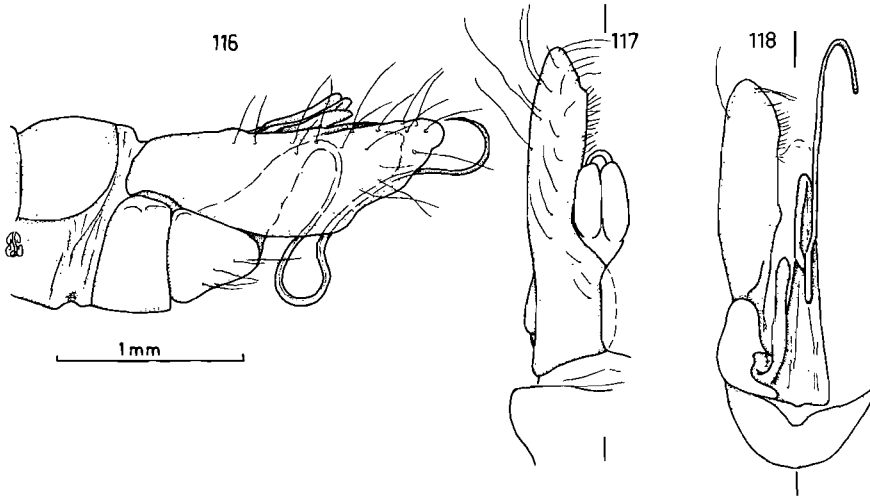
*Neolophonotus (Lophopeltis) rhodesii*; Hull, 1962:533.

*Neolophonotus rhodesii*; Oldroyd, 1981:341.

Redescription: Based on lectotype ♀.

*Head:* Antenna dark red-brown to black; setae black ventrally, fine yellow laterally and dorsally. Eye:face ratio 1:0,21; eye:lower facial margin ratio 10,6:1. Mystax yellow-white with black setae laterally and dorsally. Occipital setae: upper—black and yellow; central—black; lower—white.

*Thorax:* ktg s and mtanepst s thin yellow. Mesonotal setae: acr black anteriorly; dc weak yellow, go anterior of suture; pprn fine long yellow; 2/2 orange-brown npl; 2/1 orange-brown spal; 1/1 orange-brown pal. Mane black, well developed. Scutellum with 7 long orange-brown (5) and black (2) marginal bristles; disc with long black



Figs 116–118. *Neolophonotus rhodesii* (Ricardo) male (Salisbury) genitalia. 116. Lateral. 117. Dorsal. 118. Ventral.

bristles and yellow setae (few black centrally). Wing:  $5,8 \times 1,9$  mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae yellow-brown; cx1 with yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles dark red-brown and orange, long setae yellow, short setae rather long, yellow.

*Abdomen*: Dark red-brown, silver pruinose. T3 with long yellow setae; S3 with long yellow-white setae. Ovipositor laterally compressed, cerci rounded in lateral aspect, with fine setae.

*Male*: Genitalia as in Figs 116–118 (Salisbury ♂ paralectotype illustrated); epandrial lobes elongate, simple; gonocoxite short with a rounded distal end; gonostylus elongate; aedeagus long and sinuous.

*Lectotype designation*: Ricardo mentioned a 'type' male and a 'type' female and 'other males and females' from Salisbury, Rhodesia, lodged in the 'Cape Museum Coll'. I looked for this material and found one female and one specimen lacking most of its abdomen, in the BM ('Presented Cape Museum') and 3♂ 1♀ in SAM. It appears, therefore, that Ricardo studied only six specimens. I designate the intact female in the BM as lectotype and consider all the other specimens to be paralectotypes.

*Material examined*: ZIMBABWE: 1♀ (lectotype) 1? (paralectotype), Salisbury (= Harare 1731CC), R. W. Tucker (BM); 3♂ 1♀ (paralectotypes), Salisbury, v.1917, R. W. Tucker (SAM NM). SAM Type No. 3991. NM Type No. 3178.

*Distribution*: Known only from Zimbabwe.

*Remarks*: *N. rhodesii* is distinctive and has much in common with species of *Dasophrys*. The male wing has no costal expansion, the mane is well developed and the ovipositor is not particularly elongate; these features support the inclusion of this species in *Neolophonotus*.

*Neolophonotus robustus* (Ricardo, 1922)

Figs 119–124

*Dysmachus robustus* Ricardo, 1922:55.*Neolophonotus (Neolophonotus) robustus*; Engel, 1927:158.*Neolophonotus robustus*; Cuthbertson, 1937:19. Hull, 1962:532. Oldroyd, 1981:341.*Neolophonotus robustus microspinosus* Hull, 1967:263. **Syn. n.***Neolophonotus (Lophybus) obtusus* Hull, 1967:264. **Syn. n.****Redescription:** Based on lectotype ♂.

**Head:** Antenna dark red-brown, distal end of scape shiny orange-brown; setae black except for a few white ones ventrally. Eye:face ratio 1:0,28; eye:lower facial margin ratio 6,3:1. Mystax uniform pale yellow. Occipital setae: upper—pale yellow-white; central—pale yellow-white; lower—white.

**Thorax:** ktg s and mtanepst s yellow-white. Mesonotal setae: acr not obvious; dc white postsuture, 2 black anterior of suture; pprn short pale yellow; 3/2 yellow-white npl; 2/2 yellow-white spal; 2/2 yellow-white pal. Mane weak black, better developed posterior of suture. Scutellum with ca. 18 yellow-white marginal bristles; disc with long pale yellow-white setae (few black centrally). Wing: 13,7 × 4,6 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximodorsal parts of tibiae red-brown; cx1 with yellow-white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles short yellow-white (a few black apically), long setae yellow, short setae yellow.

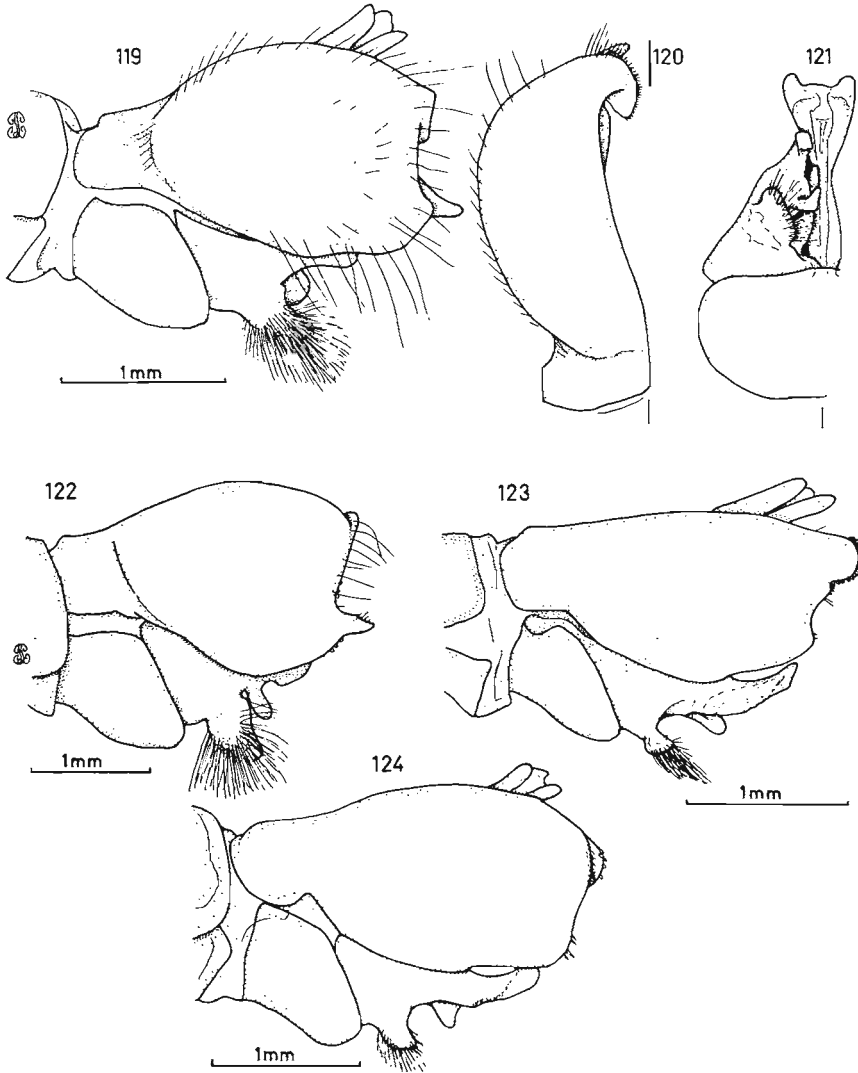
**Abdomen:** Dark red-brown, gold pruinose. T3 with ca. 4 yellow-white marginal bristles and short, medium and long yellow-white setae; S3 with long yellow setae. Genitalia as in Figs 119–121 (Sawmills ♂ illustrated); hypandrium moderately well developed; gonocoxite with large, ventral process bearing long setae; epandrial lobe broad with inwardly directed processes distally; aedeagus moderately long, with wing-like processes laterally at tip.

**Female:** Ovipositor laterally compressed, cerci spine-like, forming a two-pronged fork-like structure.

**Lectotype designation:** Ricardo mentioned a 'type' male and a 'type' female and 'other males and females' from Pretoria. I consider all her specimens to be syntypes and hereby designate one of the males in the BM as lectotype. The other specimens from Pretoria are to be considered as paralectotypes.

**Variation:** Some variation in size and in the shape of various parts of the male genitalia exists. Individuals from Namibia, Botswana and the northern Cape may be somewhat smaller than individuals from the eastern parts of the species range. This smaller size results in a simplification of male genital structures (ie. various processes of the male epandrium are not as well developed). Some of the accepted variation is illustrated in Figs 122–124.

**Material examined:** SOUTH AFRICA: 3♂ 4♀ Africa Occ (ZSM). *Transvaal:* 1♂ (lectotype), Pretoria (2528CA), iii.1914 (BM); 3♂ 5♀ (paralectotypes), Pretoria (2528CA), ii.1914, 9.iii.1914, 28.iii.1914, 25.iv.1914, Miss J. Brincker (BM); 1?, Zoutpansberg Dist., Nghelele (?), 23.iv.1954, Balfour-Brown, edge of mealie fields, Stn. No. 189. (BM); 1♂, Montrose Mine (2430CA), 7.iv.1980, du Toit (NM); 1♂, 50 km N Louis Trichardt (SE2229DD), 20.iv.1978, Herholdt (NM);



Figs 119–124. *Neolophonotus robustus* (Ricardo) male genitalia. 119–121 (Sawmills). 119. Lateral. 120. Dorsal. 121. Ventral. 122. Quithing male, lateral. 123. Karasberge male, lateral. 124. Khorixas male, lateral.

1♂, Pta (= Pretoria 2528CA), v.1968, PCS (NM); 1♂, Boekenhoutskloof, 30 km NE Pretoria (2528CB), 7.iv.1976, Bernon (NM); 2♂ 1♀, same locality, 29.iii.1977 & 8.iv.1978, Bernon (NM); 1♂, SE2531Ad, 15.iv.1981, Mostert (NM); 2♂ 2♀, Chuniespoort (2429BC), 1.iv.1979, Schoeman (NM); 1♀, Rashoop (2527DB), 27.iv.1980, Bampton (NM); 1♀, Rustenburg (2527CA), 12–15.iii.1947, Capener (NM); *Orange Free State*: 2♂ 2♀, Norval Pont (3025CB), 30.iii.1943, 14.iv.1934, 16.iv.1943 (BM); *Natal*: 1♂, Ndumu Game Reserve (2632CD), 16.iv.1976, Cunningham (NM); 6♂ 6♀, Sodwana Bay (2732DA), 4, 5, 6, 8, 9, 13 & 19.v.1981,

Car (SAM); *Cape Province*: 1♂, Glen (2723CD), 1.v.1942, Ac.US (NM); 1♂, NNE of Twee Riveren (2620BC), 16–23.iv.1970, Lamoral (NM); 1♂, 85 km W Van Zylsrus (2721AB), 22.iii.1982, Londt & Schoeman, dry area shrubs/sand (NM); 1♂, Brandvlei (3020BC), iii.1956, Brown (NCI); 1♀, Kimberley (2824DB), 22.iv.1946, Power (AM). *BOTSWANA*: 4♂ 6♀, Damara Pan (2222AB), 15–21.iv.1930, V.–L. Kal. Exp. (NM); 3♂ 5♀, Kaotwe (2223CA), 8–12.iv.1930, V.–L. Kal. Exp. (NM); 5♂ 1♀, Metsimaklaba (2426CA), 3–12.iii.1930, V.–L. Kal. Exp. (NM); 4♀, Gomodima (?), 1–5.iv.1930, V.–L. Kal. Exp. (NM); 1♀, Kuke Pan (2122AB), 21–30.iii.1930, V.–L. Kal. Exp. (NM); 1♀, Lekwabi Pan (? = Lekwebe 2424AA), iv.1906, Schofield (NM); 1♀, Matokwe (?), 7.iii.1963, Oatley (NM). *NAMIBIA*: 3♀, Gemsbok Pan (? 2319CC), 23.iv.–5.v.1930, V.–L. Kal. Exp. (NM); 1♂ 2♀, Gobabis (2218BD), 17 & 18.iv.1981, Whitehead (SAM); 1♂ 1♀, Outjo (1916DA), 10.iii.1979, Whitehead (SAM); 1♂, Kaoko Otavi (1813BC), iii.1926, Mus. Expd. (SAM); 1♂, Kaross (1914BC), ii.1925, Mus. Expd. (SAM); 1♂, Farm Portsmut 33, Windhoek Dist. (2217CA), 14–24.iv.1972, Strydom & Jones (NM); 1♂ 1♀, Karasberge, Farm Noachabib (2718BC), 8–10.iv.1972, Jones & Strydom (NM); 1♂ 2♀, 30 km SW Gross Barmen (2216AB), 24.iv.1983, Stuckenberg & Londt, thornveld (NM); 2♂ 2♀, 26 km N Windhoek, Road 1/6, 22°20'S:17° 55'E, 29.iii.1984, Londt & Stuckenberg, dry stream bed *Acacia* riparian woodland (NM); 1♀, 115 km SW Grootfontein, Rd 2512, 20°12'S:17°42'E, 20.iii.1984, Stuckenberg & Londt, woodland with sparse grass between trees (NM); 1♀, 30 km SE SE Tsumeb, Rd 72, 19°25'S:17°42'E, 22.iii.1984, Stuckenberg & Londt, mixed woodland and roadside grass (NM); 2♀, 7 km SW Gross Barmen (2216BA), 24.iv.1983, Stuckenberg & Londt, thornveld (NM); 5♂ 1♀, Okahandja (2116DD), 24.iv.1983, Londt & Stuckenberg, riverine vegetation (NM); 9♂ 6♀, Aris 30 km S Windhoek (2217CA), 18.iv.1983, Stuckenberg & Londt, thornveld (NM); 1♂, Good Hope 397, Gobabis, SE2219Ab, 22–24.v.1973, H13207 (SMW); 1♂, Gautsche Pan, Bushmanland, 19°48'S:20°35'E, 9–13.vi.1971, H2169 (SMW); 1♂ 1♀, Ondangwa 38 km SE Ovamboland, SE1715Dd, 9.v.1971, H2484 (SMW); 3♂ 2♀, Khorixas, Bethamis 514 (2014AD), 12.v.1978, Whitehead (SAM); 1♂ 1♀, Ameib, 3 km N Usakos (2115DC), 9.v.1978, Whitehead (SAM); 1♀, Ondongua (= Ondangua—1715DD), iv.1923, Mus Exped (SAM). *ZIMBABWE*: 1♂ 1♀, Bulawayo (2028BA), 25.iv.1920 & 8.5.1920, Rhod. Mus. (BM); 5♂, Matop Hills, iv.1932, Mackie (BM); 2♀, Umtali, Xmas Pass (1832DD), v.1932, Ogilvie (BM); 1♂ 1♀, Sawmills (1928CA), 1.iv.1923, Stevenson (NM); 1♂ 1♀, Bulawayo (2028BA), 11.iv.1923 & 26.iv.1923, Stevenson (NMZ); 1♂, Bindura (1731AD), v.1938, Nat. Mus. S. Rhodesia (NMZ); 1♂, Nyomondhlovu (?), 3.iv.1960, Nat. Mus. S. Rhodesia (NMZ); 3♂ 3♀, Bulawayo (2028BA), 18.iv.1915, 6.iv.1920, 25.iv.1920, 13.v.1923, 20.v.1923, Rhod. Mus. (NMZ); 1♂, Bulawayo (2028BA), 21.iii.1925, Stevenson (NM); 1♂ 1♀ 2♀, Umvumvumu, Umtali Dist. (1932CB), vi.1932, Sheppard (NM); 1♂, Hillside (1731CC), 7.iv.1923, Swinburne & Stevenson (NM); 1♀, Chishawasha (1731CA), iv.1969, Watsham (NM). *MOZAMBIQUE*: 1♂, Ricadla (? = Ricatla 2532DC), 20.iv.1982, Feijen (NM); 1♂, Inhaca (2632BB), 20.iv.1980, Feijen (NM). *LESOTHO*: 1♂ (holotype of *obtusius*), Quthing (3027BC), 15.iii.1951, Swedish S. Afr. Expd. 1950–51 Brinck & Rudebeck (ZML).

Distribution: A species with a wide distribution (Fig. 180) involving Namibia, Botswana, southern Zimbabwe, southern Mozambique, northern Cape Province of South Africa, Orange Free State, Natal and Lesotho.

Prey records: One male and one female captured in Namibia were carrying prey; both were feeding on Curculionidae (Coleoptera). A female collected at Sodwana Bay was feeding on a grasshopper (Orthoptera: Acrididae).

Remarks: Hull's subspecies *microspinosus* corresponds with the smaller individuals mentioned above, while his species *obtusus*, described from Lesotho, represents *robustus* as found in the eastern parts of its range. *N. robustus* is an isolated species with no obvious relatives.

### ***Neolophonotus rossi* sp. n.**

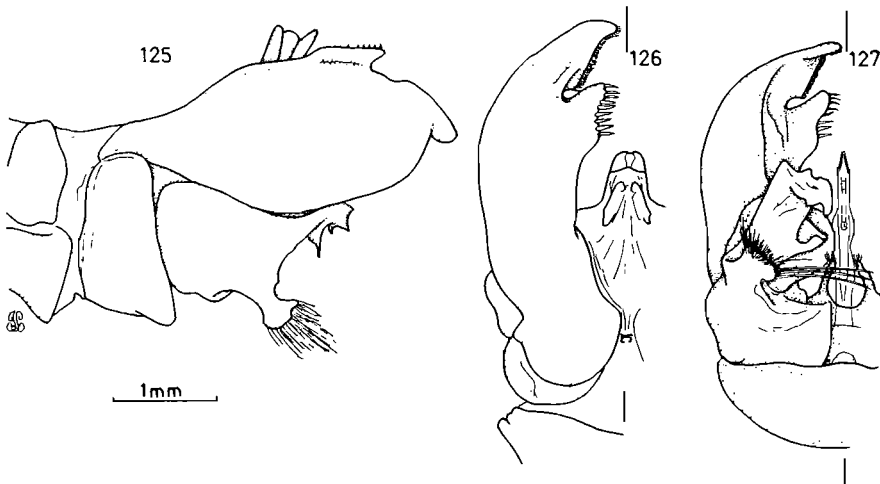
Figs 125–127

Etymology: Named for Dr E. S. Ross who collected many interesting Asilidae from various parts of Central Africa.

Description: Based on holotype ♂.

**Head:** Antenna dark red-brown; setae black. Eye:face ratio 1:0,23; eye:lower facial margin ratio 7,1:1. Mystax pale yellow with black setae laterally and on lower facial margin. Occipital setae: upper—black and yellow; central—yellow; lower—pale yellow.

**Thorax:** ktg s and mtanepst s yellow. Mesonotal setae: acr black anteriorly; dc ca. 9 pairs black and yellow, go anterior of suture; pprn fine, long, wavy, yellow; 3/2 yellow npl; 2/2 black and yellow spal; 2/2 yellow and black pal. Mane black, few lateral yellow setae. Scutellum with ca. 14 long yellow marginal bristles; disc with ca. 8 long yellow bristles and yellow (laterally) and black (centrally) setae. Wing: 10,0 × 3,3 mm; membrane transparent, slightly yellow stained at tip. Legs: dark



Figs 125–127. *Neolophonotus rossi* sp. n. male holotype (Cacula) genitalia. 125. Lateral. 126. Dorsal. 127. Ventral.

red-brown to black, proximodorsal parts of tibiae brown-yellow; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and yellow, long setae yellow and black, short setae rather long, yellow dorsally and laterally, black ventrally.

*Abdomen*: Dark red-brown, gold pruinose. T3 with *ca.* 3 small yellow marginal bristles, setae long yellow. S3 with long black and yellow setae. Genitalia as in Figs 125–127; epandrium with two differently shaped distal lobes equipped with short stubby setae; gonocoxite with a prominent, ventrally-directed, setose lobe; aedeagus elongate with sharply-pointed tip and an unusual bifurcate structure at its base in ventral aspect.

Paratype: 1 ♀, similar to holotype. Cerci not markedly laterally compressed, with a sharply upturned distal tip.

Material examined: ANGOLA: 1 ♂ (holotype), Cacula (1414CA), 25.v.1958, E. S. Ross & R. E. Leech, 1 530M (CAS); 1 ♀ (paratype), 10 mi N Chicuma (1314BD), 26.v.1958, E. S. Ross & R. E. Leech, 1 520 m (CAS).

Distribution: Known only from Angola.

Remarks: A distinctive species with no obviously close relatives.

### *Neolophonotus rufus* (Macquart, 1838)

Figs 128–131

*Lophonotus rufus* Macquart, 1838:129.

*Asilus rufus*; Walker, 1855:712.

*Dysmachus rufus*; Kertész, 1909:280.

*Neolophonotus rufus*; Hull, 1962:532. Oldroyd, 1981:341.

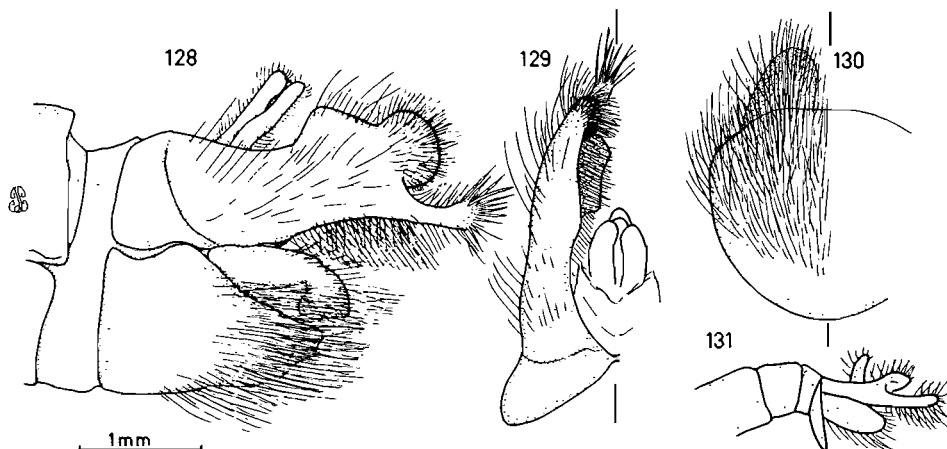
Redescription: Based on holotype ♂.

*Head*: Scape and pedicel orange-brown, flagellum dark red-brown; setae shiny orange. Eye:face ratio 1:0,26; eye:lower facial margin ratio 3,9:1. Mystax shiny orange with black setae laterally and dorsally. Occipital setae: upper —long orange; central—orange; lower—yellow-orange.

*Thorax*: ktg s and mtanepst s long shiny orange. Mesonotal setae: acr shortish black anteriorly; dc orange, go anterior of suture; pprn fine orange; 3/3 brown-orange npl; 3/3 brown-orange spal; 4/4 brown-orange pal. Mane black with short setae bordering. Scutellum with 10 orange-brown marginal bristles; disc with long orange-yellow setae (no obvious bristles). Wing: 8,6 × 3,0 mm; membrane transparent, colourless and without markings. Legs: femora dark brown-red, rest brown-orange except for proximodorsal parts of tibiae which are brown-yellow; cx1 with long yellow-orange setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles brown-orange (dorsally and laterally) and black (ventrally), setae orange-brown.

*Abdomen*: Dark red-brown, fine gold pruinose. T3 and S3 with long yellow setae. Genitalia as in Figs 128–130; epandrium bifurcate distally, lobes bearing strong setae; hypandrium with few well-developed black setae amongst the many yellow ones (these obscure much of the shape of underlying structures); gonocoxite hooked distally; aedeagus elongate, slender with tip abruptly bent downwards.





Figs 128–131. *Neolophonotus rufus* (Macquart) holotype male (Afrique) genitalia. 128. Lateral. 129. Dorsal. 130. Ventral. 131. Redrawn illustration from Macquart (1838).

Female: Cerci laterally compressed, rounded in lateral view and with fine setae.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), 'Afrique Delalande' (MNP); 2♂ 1♀, Saldanha Bay (3317BB), ix.1960, SAM (SAM NM); 1♂ 1♀, Graafwater (3218BA), x.1947, Mus. Exp. (SAM); 1♀, Cape Point Nature Reserve (3418AD), 24.xi.1964, Capener (NCI); 1♂, Milnerton nr Cape Town (3318CD), 22.x.1963, Nat. Museum, S.R. (NMB); 2♂ 1♀, Hopefield (3318AB), 9.60 (SAM).

Distribution: Known only from the Mediterranean climatic region of the south-western Cape Province.

Remarks: It appears that the single male in the NMP was the only specimen available to Macquart and therefore the holotype. *Lophonotus rufus* was one of the few species illustrated by Macquart. He presented two drawings of the male genitalia which, although small and lacking detail, do show the characteristic shape of the epandrial lobes (Fig. 131).

*Neolophonotus rufus* Hull, 1967 was identified as a homonym by Oldroyd (1981) who gave the species the new name *rufulus*. Hull's species is, however, conspecific with *Neolophonotus micropterus* (Macquart, 1838) and will be dealt with in a future paper in which all the species of the *pellitus* species-group will be described.

*N. rufus* is related to a number of other south-western Cape species (see under *braunsi*).

#### ***Neolophonotus seymourae* sp. n.**

Figs 132–135

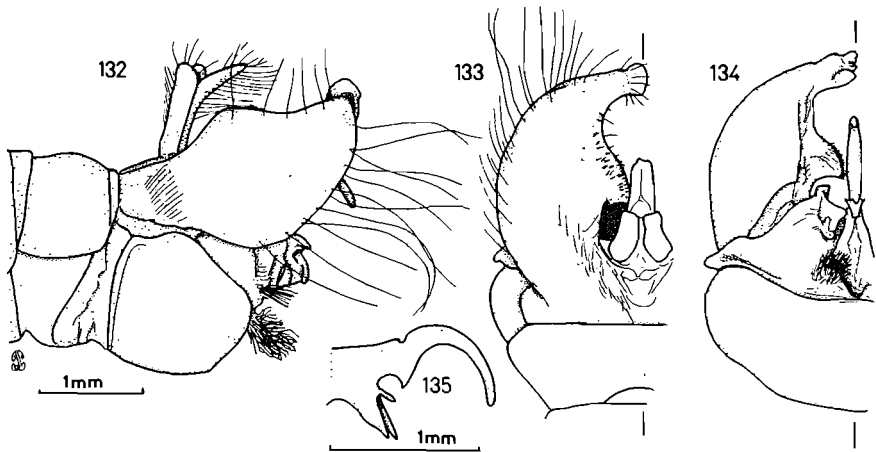
Etymology: Named for Mrs Annette Seymour who, as a technician at the Natal Museum, has rendered me much assistance.

Description: Based on holotype ♂.

*Head*: Antenna dark red-brown, base of flagellum orange; scape with black setae ventrally, yellow setae dorsally; pedicel with black and yellow setae ventrally and

yellow setae dorsally. Eye:face ratio 1:0,24; eye:lower facial margin ratio 6,9:1. Mystax long yellow-white with shorter black setae laterally. Occipital setae: upper—yellow-white (1 black); central—long yellow; lower—pale yellow-white.

*Thorax*: ktg s and mtanepst s yellow. Mesonotal setae: acr black anteriorly; dc ca. 12 pairs, black anteriorly and yellow posteriorly, go anterior of suture; pprn long, yellow; 3/3 yellow-white npl; 4/4 yellow-white spal plus 1–2 strongish setae; 1/1 yellow-white pal plus 3 strong setae. Mane black, bordered by yellow setae anteriorly. Scutellum with 10 long white marginal bristles; disc with ca. 12 long white bristles and white (laterally) and few yellow (centrally) setae. Wing: 9,5 × 3,5 mm; membrane transparent, slightly yellow stained at tip. Legs: black, proximodorsal parts of tibiae yellow-brown; cx1 with white setae anteriorly bordered by a number of shiny yellow setae; cx3 lacking bristles laterally. Hind femur: bristles yellow-white (1 black one distally), long setae yellow (a few black ventrally), short setae yellow.



Figs 132–135. *Neolophonotus seymourae* sp. n. male paratype (12 km E Barberton) genitalia. 132. Lateral. 133. Dorsal. 134. Ventral. 135. Aedeagus.

*Abdomen*: Dark red-brown, silver-gold pruinose. T3 with 4–5 yellow marginal bristles, setae long white laterally, a few black setae dorsally on hind margin. S3 with long white and yellow setae. Genitalia as in Figs 132–135 (paratype illustrated); epandrial lobes turned inwards towards each other; hypandrium with a bulbous appearance in lateral view; gonocoxite with a ventrally-directed, setose process; aedeagus with downturned distal end and various ventrally situated processes as illustrated.

Paratype: 1♂, similar to holotype. ♀ unknown.

Material examined: SOUTH AFRICA: *Transvaal*: 1♂ (holotype), 10 km E Barberton on Saddleback Pass (SE2531CC), 7.iv.1985, J. Londt, rocky slope (NM); 1♂ (paratype), 12 km E Barberton on Saddleback Pass (SE2531CC), 7.iv.1985, J. Londt, grass and edge of forest patch (NM). NM Type No. 3078.

Distribution: Known only from the type-locality situated in the Transvaal Lowveld climatic region. The specimens were collected in grass on north-facing slopes.

Remarks: *N. seymourae* closely resembles *chubbii*, *carorum* and *pinheyi*.

***Neolophonotus soutpanensis* sp. n.**

Figs 136–138

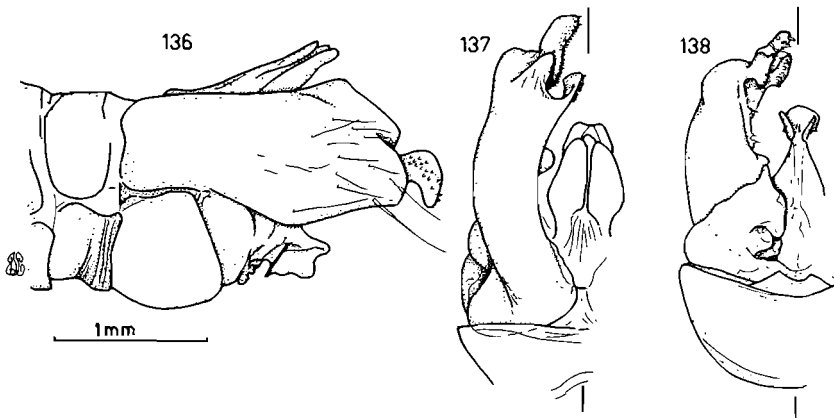
Etymology: Named after the type-locality, Soutpan, in the Soutpansberg mountains.

Description: Based on unique holotype ♂.

*Head*: Antenna dark red-brown, pedicel and adjacent ends of scape and flagellum yellow-brown; setae black (1–2 small white setae on scape). Eye:face ratio 1:0,24; eye:lower facial margin ratio 7,2:1. Mystax white with black setae laterally and on lower facial margin. Occipital setae: upper—white (1 black); central—white; lower—white.

*Thorax*: ktg s and mtanepst s white. Mesonotal setae: acr not evident; dc ca. 7 pairs black, go anterior of suture; pprn long, wavy, white; 2/2 yellow npl accompanied by 1 yellow or black seta; 3/3 black spal; 2/2 black pal. Mane black, weakly developed. Scutellum with ca. 14 long white marginal bristles; disc with white bristles and setae (few black centrally). Wing: 7,7 × 2,5 mm; membrane transparent, colourless and without markings. Legs: dark red-brown, proximordorsal parts of tibiae brown-yellow; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles yellow-white and black, long setae white (a few black ventrally), short setae white (black ventrally).

*Abdomen*: Dark red-brown, silver and gold pruinose. T3 with 5 white marginal bristles, setae white laterally, black setae dorsally. S3 with long white setae only. Genitalia as in Figs 136–138; epandrial lobes with various distal processes as illustrated; hypandrium with a bulbous appearance in lateral view; aedeagus with bulbous tip and a pair of subapical processes.



Figs 136–138. *Neolophonotus soutpanensis* sp. n. male holotype (Soutpan) genitalia. 136. Lateral. 137. Dorsal. 138. Ventral.

Female: Unknown.

Material examined: SOUTH AFRICA: *Transvaal*: 1♂ (holotype), Soutpan (2229CD), Soutpansberge, 23–24.ii.1980, J. Londt & L. Schoeman, bushveld vegetation (NM). NM Type No. 3079.

Distribution: Known only from the type-locality situated in the Northern Transvaal climatic region.

Remarks: A distinctive species with no obvious relative.

*Neolophonotus stannus* (Ricardo, 1925)

Figs 139–141, 178

*Dysmachus stannus* Ricardo, 1925:239.

*Neolophonotus stannusi*; Hull, 1962:532. *Syn. n.*

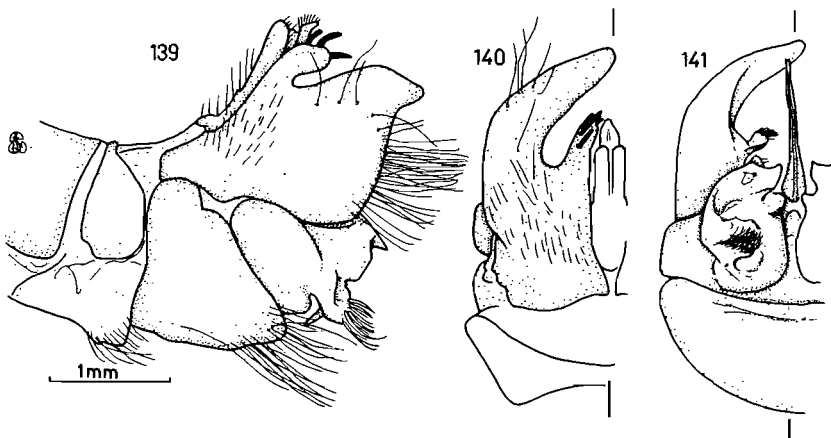
*Neolophonotus stannus*; Oldroyd, 1981:341.

Redescription: Based on lectotype ♂.

*Head*: Antenna black; setae black. Eye:face ratio 1:0,24; eye:lower facial margin ratio 11,3:1. Mystax white with black setae laterally and on lower facial margin. Occipital setae: upper—long black; central—black and white; lower—yellow-white.

*Thorax*: ktg s and mtanepst s pale yellow. Mesonotal setae: acr black anteriorly; dc black, go anterior of suture; pprn longish white; 2/2 black npl; 2/2 black spal; 3/3 black pal. Mane black with few short white setae bordering in anterior part. Scutellum with ca. 14 white marginal bristles; disc with many black setae centrally and some white ones laterally. Wing: 11,4 × 3,6 mm; membrane transparent, colourless (except for a darker patch where R2 + 3 reaches wing margin. Legs: black except for proximal half of tibiae which are orange; cx1 with yellow-white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black, long and short setae white-yellow.

*Abdomen*: Dark red-brown, red-gold pruinose. T3 with 3 weak pale yellow



Figs 139–141. *Neolophonotus stannus* (Ricardo) male lectotype (Zomba) genitalia. 139. Lateral. 140. Dorsal. 141. Ventral.

marginal bristles, setae long yellow; S3 with long pale yellow setae. Genitalia (paralectotype illustrated) as in Figs 139–141; epandrium bifurcate, a dorsally-situated lobe bearing strong, black, stout setae; gonocoxite with setose, ventrally-directed lobe; aedeagus elongate.

Female: Ovipositor not markedly flattened laterally; cerci spine-like, forming the elements of a two-pronged fork-like structure (Fig. 178).

Lectotype designation: Ricardo (1925) does not state how many specimens she studied and designated both a male 'type' and a female 'type'. The BM collection contains 4♂ 1♀ 1?, and the SAM has 1♂, collected at Zomba by Stannus; so I assume that this series was all that was available to Ricardo. I here designate one of the males as lectotype and the remaining specimens as paralectotypes.

Material examined: MALAWI: 4♂ (lectotype & paralectotypes), 1♀, 1? (paralectotypes), Zomba (1535AD), 1924–207, H. S. Stannus (BM); 1♂ (paralectotype), Zomba (1535AD), H. S. Stannus (SAM—'Presented by G R' SAM Type No. 3993). TANZANIA: 1♂ 1♀, Morogoro (0637DC), 1957, Halcrow, on river bank (BM); 1♀, Kilossa, 22.v.1922, Loveridge (BM); 1♀, Handeni (0538AC), 23.viii.1916, Lamborn, 2 800' (BM). KENYA: 1♀, Nairobi (0136BD), vi.1930 (BM). ZIMBABWE: 1♂, Bulawayo, Matopos (2028AD), M'chabezi valley, 28.ii.1965, Nat. Museum S.R. (NMB); 1♀, Nyamondhlovu (?), 3.iv.1960, Nat. Museum S. Rhodesia (MNB); 1♀, Bulawayo, Khami (1927CD), v.1955, Nat. Museum S. Rhodesia (NMB); 1♀, Runde Tribal trustland (2029BB), 22.iv.1971, Payne (NMB); 2♂ 1♀ 1?, CRS (?) (NMB); 1♂, Filabusi (2029CB) Fletcher's Farm, 12.iv.1974, de Moor (NMB); 1♂, Bindura (1731AD), v.1938, Nat. Museum S. Rhodesia (NMB); 1♂, Salisbury (= Harare 1731CC), 28.iv.1939, Dept. Agric. (NMB); 1♂, Hopefontain (2028BC) Bulawayo, 6.v.1923, Stevenson (NM); 2♂, Matopos (2028AD), 17.iv.1923, Stevenson (NM); 1♂ 1♀, Bulawayo (2028BA), 23.iii.1924 & 12.iv.1925, Stevenson (NM); 1♂, Zambeze, Nhandoula, env. de Chiramba (1932DA), 1929, Lesne (MNP). SOUTH AFRICA: *Transvaal*: 2♂ 1♀, Pafuri 22°27'S:31°17'E, N Kruger Nl. Pk., nr. Levubu Riv., 22–23.iv.1981, Miller & Stabbins (NM); 2♂, Pafuri, 17.v.–9.vi.1979, Braak, Malaise Trap (NM). Note: The ♀ from Kenya lacks dark marking near wing tip and may not be conspecific.

Distribution: Known from the northern Transvaal of South Africa, Zimbabwe, Malawi, Tanzania and possibly Kenya.

Remarks: Engel (1927) placed '(? = *stannus* Ric.)' under his heading for *virescens*. I have seen the types of both species and can state that they are not conspecific. *N. stannus* is closely related to *porcellus*, *orientalis*, *dondoensis* and *zambiensis*.

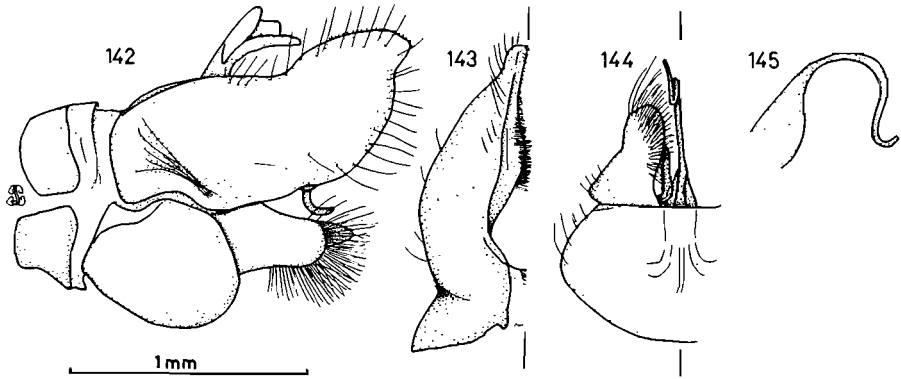
### ***Neolophonotus stuckenbergi* sp. n.**

Figs 142–145

Etymology: Named for Dr Brian Stuckenberg in appreciation for the guidance he has given me during my research on Asilidae.

Description: Based on holotype ♂.

*Head*: Antenna black; setae white, a few black bristles ventrally on both scape and pedicel. Eye:face ratio 1:0.22; eye:lower facial margin ratio 18,7:1. Mystax black



Figs 142–145. *Neolophonotus stuckenbergi* sp. n. male paratype (Namib Desert Park) genitalia. 142. Lateral. 143. Dorsal. 144. Ventral. 145. Aedeagus.

and white (mostly white in upper part, mostly black in lower part). Occipital setae: upper—yellow-white (1 black); central—white; lower—white.

**Thorax:** ktg s yellow-white, mtanepst s white. Mesonotal setae: acr not evident; dc ca. 6 pairs black, go anterior of suture; pprn few, white; 2/2 brown-yellow npl; 2/2 brown-yellow black spal; 1/1 black pal. Mane black, weakly developed, few white setae bordering in anterior part. Scutellum with 2 white marginal bristles accompanied by white setae; disc with white setae laterally and black centrally. Wing: 4,8 × 1,6 mm; membrane transparent, colourless except for a small greyish area where  $R_{2+3}$  joins wing margin. Legs: femora dark red-brown, tibiae and tarsi brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and brown-yellow, few white, short setae recumbent white (few black distally).

**Abdomen:** Dark red-brown, fine gold pruinose. T3 without bristles, setae white, thickish, recumbent; few black setae dorsally. S3 with few, recumbent, black and white setae only. Genitalia as in Figs 142–145 (paratype illustrated); epandrial lobes simple, internal faces with many tiny setae distally; hypandrium with a bulbous appearance in lateral view; aedeagus with a sinuous, slender tip and broad base.

**Paratypes:** 13♂ 7♀, similar to holotype. Ovipositor somewhat laterally compressed; cerci spine-like, forming a two-pronged fork-like structure.

**Material examined:** SOUTH AFRICA: *Cape Province:* 12♂ (holotype & paratypes) 5♀ (paratypes), Richtersveld, 1 km E Grootderm (2816DA), 2.ix.1983, J. Londt & B. Stuckenberg, foot of small hill (NM). NAMIBIA: 1♂ (paratype), S. E. corner of Namib Desert Park near Knamhoek Farm (2315DB), 15.ii.1974, M. E. Irwin, 860 m, vegetated moving dunes (NM); 1♂ 2♀ (paratypes), Klinghartsberge (2715BC), 3.iv.1980, Whitehead (SAM). NM Type No. 3080. SAM Type No. 3994.

**Distribution:** Known only from the western part of southern Namibia and the north-western Cape Province in the Desert and Poor Steppe climatic region.

Habits: The Richtersveld types were collected, and the species was seen in large numbers, on sandy soil at the foot of a small hill.

Remarks: A small and unusual species, difficult to place in a species-group, but distinctive and having no obvious relative.

*Neolophonotus suillus* (Fabricius, 1805)

Figs 1, 146–151, 177

*Dasypogon suillus* Fabricius, 1805:168.

*Asilus chalcogaster* Wiedemann, 1819:35. **Syn. n.**

*Lophonotus auribarbis* Macquart, 1838:126. Schiner, 1867:400. **Syn. n.**

*Lophonotus suillus*; Macquart, 1838:126.

*Lophonotus americanus* Macquart, 1846:215. **Syn. n.**

*Asilus phoeax* Walker, 1849:412. **Syn. n.**

*Asilus suillus*; Walker, 1855:712.

*Lophonotus chalcogaster*; Loew, 1858:363. Loew, 1860:152. Schiner, 1867:400. Hermann, 1907:75.

**Syn. n.**

*Dysmachus americanus*; Kertész, 1909:274. **Syn. n.**

*Dysmachus auribarbis*; Kertész, 1909:275. Ricardo, 1920:240. **Syn. n.**

*Dysmachus chalcogaster*; Kertész, 1909:275. Ricardo, 1920:241. **Syn. n.**

*Dysmachus suillus*; Kertész, 1909:281.

*Neolophonotus (Neolophonotus) chalcogaster*; Engel, 1927:153. **Syn. n.**

*Neolophonotus (Neolophonotus) suillus*; Engel, 1927:159.

*Neolophonotus suillus*; Hull, 1962:532. Oldroyd, 1981:341.

*Neolophonotus chalcogaster horridans* Hull, 1967:262. **Syn. n.**

Redescription: Based on lectotype ♂.

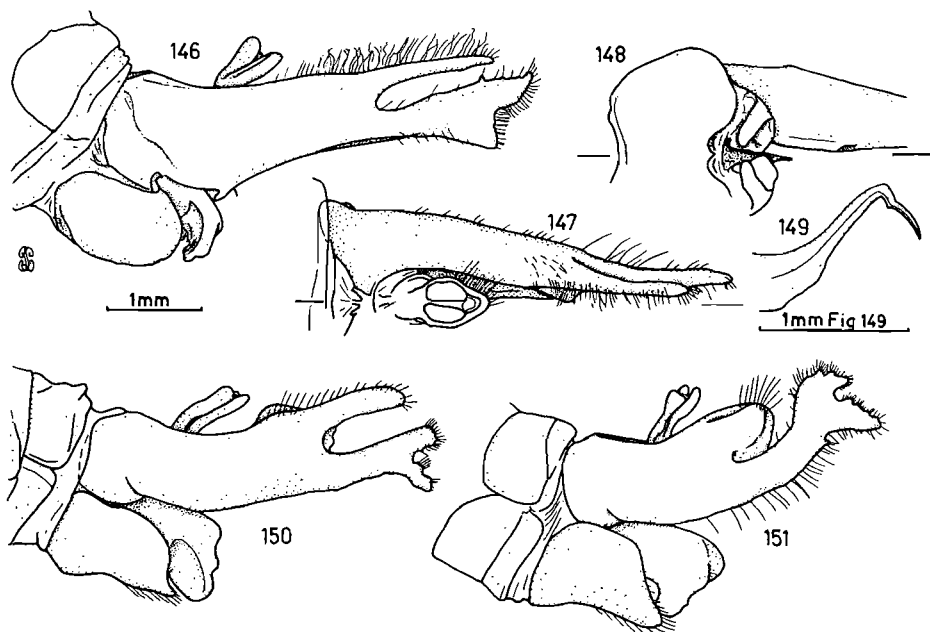
**Head:** Antenna dark red-brown; setae dark red-brown and yellow. Eye:face ratio 1:0,27; eye:lower facial margin ratio 3,9:1. Mystax bright yellow with few dark red-brown setae bordering in upper part. Occipital setae: upper—yellow; central—yellow; lower—white-yellow.

**Thorax:** ktg s and mtanepst s fine brown-yellow. Mesonotal setae: acr black anteriorly; dc ca. 8 pairs black, go anterior of suture; pprn yellow; 3/2 brown-yellow npl; 3/4 brown-yellow spal; 4/4 brown-yellow pal. Mane short black, sparse except for anterior part. Scutellum with ca. 10 brown-yellow marginal bristles; disc with ca. 10 brown-yellow bristles and yellow (laterally) and black (centrally) setae. Wing: 11,3 × 3,9 mm; membrane transparent, slightly brown-yellow stained. Legs: black except for proximal half of tibiae which are brown-red; cx1 with yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles short black (ventrally) longer orange-brown (dorsally and laterally), long setae white-yellow, short setae yellow.

**Abdomen:** Blackish, fine gold pruinose. T3 and S3 with fine long yellow setae only. Genitalia as in Figs 146–149; epandrium elongate, bifurcate distally, upper prong pointed, lower prong expanded distally and itself somewhat bifurcate; hypandrium small; gonocoxite with downward-directed tip; aedeagus elongate, pointed, and with an abrupt kink subapically.

Paralectotypes: 1 ♀, similar to lectotype. Ovipositor laterally compressed, cerci rounded in lateral view and bearing fine setae (Fig. 177).

Lectotype designation: There is 1 ♂ and 1 ♀ in the ZMC which are considered to be the only syntypes of *suillus*. I hereby designate the male as lectotype and the female as paralectotype.



Figs 146–151. *Neolophonotus suillus* (Fabricius). 146–149. Male lectotype (Cap B. Sp.) genitalia. 146. Lateral. 147. Dorsal. 148. Ventral. 149. Aedeagus. 150–151. Variations from Willowmore, lateral.

Variation: There is some variation in the shape of the male epandrium. The upper prong may be slightly or considerably reduced in size (Figs 150–151). Specimens exhibiting considerable reduction in the development of the epandrium tend to be smaller and occur on the edges of the species' distribution where conditions may not be entirely favourable.

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (lectotype) 1♀ (paralectotype), Cap. B. Sp. (ZMC); 1♀ (type of *chalcogaster*), Cape Good Hope (ZMC); 1♀ (type of *americanus*) 'Brasile' (HEC); 1? (type of *phoeax*), S. Afr, 44–6 (BM); 6♂ 3♀, 3 km S Darling (3318AD), 28.ix.1979, Londt, well-vegetated hillside above wheatfields (NM); 4♂ 7♀, Prince Alfred Pass summit (3323CC), 11.xii.1979, Stuckenberg & Londt, old lands (NM); 1♀, 5 km SW Swellendam (3420AB), 24.ix.1979, Londt, rocky slope above Breede River (NM); 1♂, 10 km N Tulbagh (3319AA), 27.ix.1979, Londt, lower slopes of mts. hard soil woody veget. (NM); 1♂ 1♀, Cape Town, Table Mtn. (3318CD), 29.ix.1979, Londt, stony slopes above Camps Bay (NM); 7♂ 5♀, 9 km SW Willowmore (3323AD), 30–31.x.1978, Londt & Miller, open Karoo scrub (NM); 2♂, 25 km W Uniondale (3323CA), 31.x.1978, Miller & Londt (NM); 1♂ 4♀, 1 km NE Uniondale (3323CA), 31.x.1978, Miller & Londt, rocky hillside scrub (NM); 7♂ 2♀, Stellenbosch (3318DD), 15.x.1916, Brauns (NM); 1♂, same data but 1.xi.1915 (NM); 9♂, 2♀, same data but xi.1924 (NM ZSM); 2♂ 4♀, same data but xii.1924 (NM); 5♂ 1♀, same data but 5.xi.1925 (NM); 6♂ 2♀, same data but 25.xi.1925 (NM); 2♂, same data but 1.xii.1925 (NM); 1♀, same data but 5.xii.1925 (NM); 1♂ 2♀, same data but 10.x.1925 (NM); 14♂ 5♀ 2?, same data but 5, 8, 10, 11, 15, 16, 20, 25, 30, 31.x.1926



(NM); 1 ♀, same data but x.1924 (NM); 1 ♀, same data but 5.xii.1926 (NM); 1 ♀, same data but 20.ix.1926 (NM); 4♂ 3♀, same data but 2, 4, 5, 7, 9, 25.xi.1926 (NM); 1♂ 1♀, same data but x.1927 (NM); 2♂ 1♀, same data but 1927 (ZSM); 1♂ 1♀, Stellenbosch, xi.1881 (ZSM); 1♂ 1♀, Willowmore (3323AD), 10.xi.1920, Brauns (NM); 1♂, Willowmore Modderfontein, 15.x.1921, Brauns (NM); 1♂, Vanrhynsdorp (3118DA), viii.1927, Brauns (NM); 1♀, Tulbagh (3319AA), xii.1921, Brauns (NM); 9♂ 15♀ 1?, Stellenbosch, various dates in vii, viii, ix, x, xi.1927–1942, Ac. US. (NM); 2♂ 4♀ 1?, Stellenbosch, various dates in i, v, vii, ix.1939–1944 (NM); 3♂, Stellenbosch, 28.x.1964, Swart (NM); 1♂, Stellenbosch, 10.xi.1926, Nel (NM); 1♀, Stellenbosch, 10.ix.1947, Mullins (NM); 1♀, Stellenbosch, 15.x.1921, Brain (NM); 1♂, Stellenbosch, xi.1947, Theron (NM); 2♂, Stellenbosch, xi.1960, Smith (NM); 1♂, Stellenbosch, 17.x.1973, Ricketts (NM); 1♂, Stellenbosch, 13.xii.1943, Le Roux (NM); 1♂, Stellenbosch, x.1927, De Villiers (NMZ); 1♀, Stellenbosch, 25.x.1925 (NMZ); 3♀, Jonkershoek Stellenbosch, 5 & 12.xii.1979, Giliomee (NM); 1♂, Stellenbosch, 18.x.1946, Malan (NM); 1♀, Stellenbosch, x.1951, du T (NM); 1♀, Stellenbosch, 28.x.1946, Walsh (NM); 2♀, Van Rhyn's Pass (3119AC), 4–5.xi.1933, Van Son (NM); 1♂, Assegaaibos, La Motta (3321DA), x.1940, Van Son (NM); 1♂, Darling (3318AD), 5.v.1939 (NM); 1♂, Riversdale (3421AB), 2.i.1933 (NM); 1♂ 1♀, Claremont (3318CD), 10 & 17.xii.1926, Ac.US. (NM); 1♂, Vredenburg (3217DD), 25.ix.1949 (NM); 1♀, Swartbergpas (3419AB), 9–19.xii.1968, Potgieter & Jones (NM); 1♀, Worcester (3319CB), 26.ix.1942, Ac.US. (NM); 1♀, Caledon (3419AB), 15.i.1941 (NM); 1♀, Betty's Bay (3418BD), 7.x.1964, Swart (NM); 2♂, Nieuwoudtville (3119AC), xi.1921 (AMNH); 3♂ 2♀, Capland, Brauns (ZSM); 2♀, Cape Town (3318CD) (ZSM); 1♂, Cape Town, ii.1915, Lightfoot (NMZ); 1♀, Matroosberg (3319BC), Ceres Div., xi.1917, Lightfoot (NMZ); 1♀, Signal Hill, Cape Town (3318CD), 6.ix.1969, Dickson (NMZ); 1♀, Bonteberg NW Darling (3319BD), 3.x.1973, Dickson (NMZ); 1♂, Wynberg (3318CD), 25.xi.1918, Smit (NCI); 1♂ 2♀, ? locality (ZSM); 1♀, Matjiesfontein (3320BA), xi.1910, Lightfoot (ZSM); 2♂, Rust en Vrede (3322AD) Oudtshoorn Dist., x.1951, Mus. Expd. (SAM); 1♂, Moordenaars Karoo (3320BB), Swanepoel, x.1952, Mus. Exp. (SAM); 1♀, Table Mtn. (3318CD), 2.xii.1921, Bevis (DM); 3♂ 1♀, Burntkraal Grahamstown (3326BC), 1.x.1969, Gess (AM); 2♂, Strowan Grahamstown, 7.x.1968 & 22.x.1969, Gess (AM); 1♀, Montagu (3320CC), 25.ix.1979, Londt, hillside SE of town (NM); 1♀, Stellenbosch (3318DD), 1887 (SAM); 2♂, Stellenbosch, xi.1930, Lawrence (SAM); 1♂, Cape Town (3318CD), 1913, Peringuey (SAM); 3♂ 4♀, Ceres Matroosberg (3319BC), 3 500', xi.1917, Lightfoot (SAM); 1♂ 3♀ 1?, Ceres (3319BC), xi.1940, Smithers (SAM); 2♀, Hex River (3319CB), 1884 (SAM); 1♂, Simonstown (3418AB), ix.1892, de la Garde (SAM); 1♀, Gt Wint-hoek Tulbagh (3319AC), 4 500', xi.1916, Lightfoot (SAM); 1♀, Matjiesfontein (3320AB), xi.1910, Lightfoot (SAM); 1♂, 7–10 m SW Matjiesfontein, 15.x.1966 (SAM); 1♂, 18 m E of Touws R (Touwsrivier—3320AC) to Hondewater, xii.1962 (SAM); 2♂ 2♀, Somerset West (3418BB), xi.1930, Hesse (SAM); 7♂ 3♀ 2?, Het Kruis (3218DA), x.1947, Mus Staff (SAM); 3♂ 5♀, Citrusdal Dist (3219CA), xi.1948, Mus. Expd. (SAM); 2♂ 1♀, Paleisheuwel (3218BC), xi.1948, Mus. Expd. (SAM); 24♂ 24♀ 2?, Upper Sources Olifants River Ceres (3319BC), xii.1949, Mus. Exp

(SAM); 3♂ 6♀ 1♀, Rust en Vrede, Oudtshoorn Dist (3222CA), x.1951, Mus. Expd. (SAM); 1♀, Witte River (3318DB) Wellington, 1 500', xi.1922, Lawrence (SAM); 1♀, Swartberg Pass, Prince Albert Div (3322AC), 5 000–6 000', xi.192?, Barnard (SAM); 1♀, French Hoek (Franschhoek 3319CC), xii.1932, Barnard (SAM); 1♂ 1♀, French Hoek, i.1936, Wood (SAM); 1♀, Cape Town (3318CD) Table Mtn, ii.1919, Barnard (SAM); 1♀, Michells Pass (3319AD) Ceres Dist, x.1934, Mus. Staff (SAM); 1♀, Nieuwoudtville (3119AA) Brandkop, ix.1941, Mus. Staff (SAM); 2♂ 2♀, Moordenaars Karoo (3221CC), x.1952, Swanepoel (SAM); 12♂ 15♀ 1♀, Wit River Valley (3319CA) Bainskloof, xii.1949, Mus. Exp (SAM); 1♂, Ysterfontein (3218BA), 9.60 (SAM); 1♀, Langebergen Swellendam (3420AB), 3 000–5 000', x.1925, Barnard (SAM); 1♂, Uniondale Dist (3323CA), x.1952, Mus Expd (SAM); 2♂ 8♀, Constable (? 2523CD), xii.1962 (SAM); 2♂ 6♀, Verkeerde Vlei (? 3022AC), xii.1960 (SAM); 1♂, Matroosberg Sta (3319BC), xii.1962, (SAM); 1♀, Worcester, Du Toits Kloof (3319CB), 17.x.1966 (SAM); 1♂, Bot Riv Est, Delpport, (3319AC), 28.x.1982, Whitehead (SAM); 1♂ 1♀, Olifants River bet Citrusdal & Clanwilliam (3218BD), x–xi.1931, Mus. Staff (SAM); 2♀, Rust en Vrede, Oudtshoorn Dist (3322CA), x.1951, Mus. Expd. (SAM).

Distribution: Largely confined to the Mediterranean and Little and Great Karoo climatic regions of the south-western Cape Province (Fig. 181).

Prey records: Seven specimens studied were pinned with their prey: Coleoptera (Scarabaeidae 3, Chrysomelidae 1), Hymenoptera (Apidae 1, Sphecidae 1), Diptera (Bombyliidae 1).

Remarks: *N. suillus* is the oldest species to be described in the genus and is the type species (as *auribarbis*). Macquart (1838) illustrated the male genitalia of a species he incorrectly identified as *suillus*. In subsequent years a number of authors failed to examine the Fabricius material and so perpetuated Macquart's error. When I saw the types I was surprised to find that *suillus* and another evidently well-founded species, *chalcogaster*, were conspecific and that the species originally illustrated by Macquart was unnamed (see *bimaculatus*).

While working at the HEC I chanced upon the unique type of *Dysmachus americanus* Macquart and immediately recognised it to be *N. suillus*. The specimen is, therefore, incorrectly labelled as having been collected in Brazil. Only one other species of *Dysmachus* has been recorded from the Neotropical zoogeographical region, *D. strigitibia* Curran, and it would be interesting to restudy this species as it seems unlikely that it is a *Dysmachus*.

Hull's subspecies of *chalcogaster*, *horridans*, is merely a variant of *suillus*.

Other accepted synonyms listed above were determined by previous workers.

*N. suillus* is most closely related to *flavibarbis* and can only be separated from this species on male genital characteristics.

### ***Neolophonotus tanymedus* sp. n.**

Figs 152–154

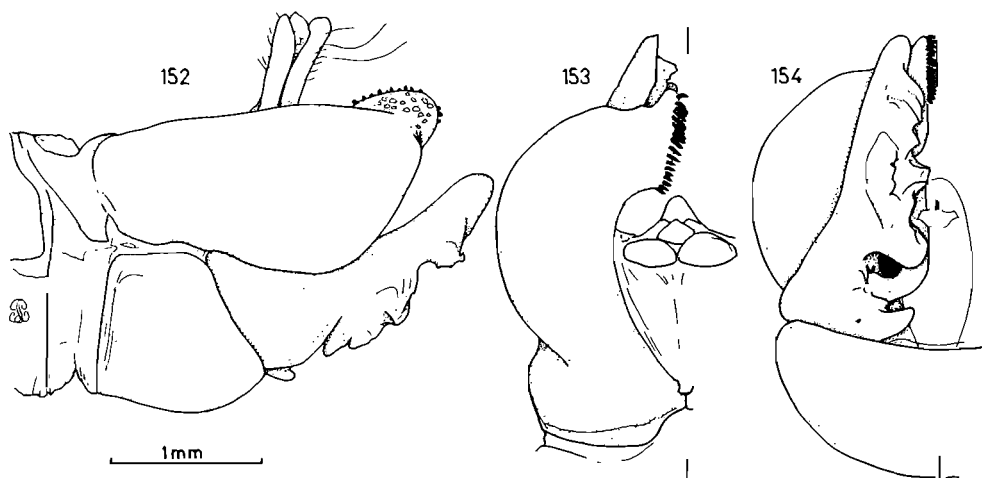
Etymology: Gr. *tany* = long, *medos* = genital. Refers to the elongate gonocoxite of this species.

Description: Based on holotype ♂.

**Head:** Antenna dark red-brown; setae black (a few yellow setae on ventral surface of scape). Eye: face ratio 1:0,24; eye: lower facial margin ratio 7,1:1. Mystax white with black setae laterally and dorsally. Occipital setae: all white.

**Thorax:** ktg s and mtanepst s white. Mesonotal setae: acr not evident; dc ca. 7 pairs pale yellow-white, go a little anterior of suture; pprn yellow-white; 3/3 pale yellow npl; 4/4 yellow spal; 3/3 yellow pal. Mane black, weakish anteriorly. Scutellum with 12 white marginal bristles; disc with 6 white bristles accompanied by white and black setae. Wing: 10,1 × 3,7 mm; membrane transparent, colourless and unmarked. Legs: dark red-brown to black, tibiae proximodorsally yellow-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles short yellow, long setae white (few black), short setae longish yellow-white.

**Abdomen:** Dark red-brown, gold-silver pruinose. Genitalia as in Figs 152–154; epandrial lobes simple, internal faces with many tiny setae distally; gonocoxite complex in shape and elongate (extends beyond epandrial lobes); aedeagus swollen.



Figs 152–154. *Neolophonotus tanymedus* sp. n. male holotype (Umguza River) genitalia. 152. Lateral. 153. Dorsal. 154. Ventral.

**Paratypes:** 4♀. Ovipositor tubular; cerci spine-like, forming a two-pronged fork-like organ.

**Material examined:** ZIMBABWE: 1♂ (holotype), Umguza Riv. Bulawayo (2028BA), 24.v.1923, R. Stevenson (NMZ); 1♀ (paratype), same data (ZSM); 1♀ (paratype), Bulawayo, 23.iii.1923, R. Stevenson (NMZ); 1♀ (paratype), Bikita (2031BA), 8.v.1969, Nat. Mus. (NMZ); 1♀ (paratype), Salisbury (Harare—1731CC), 3.v.1938, Cuthbertson (NMZ).

**Distribution:** Known only from Zimbabwe.

**Remarks:** A distinctive species with a superficial resemblance to *soutpanensis*.

*Neolophonotus tibialis* (Macquart, 1838)

Figs 155–157

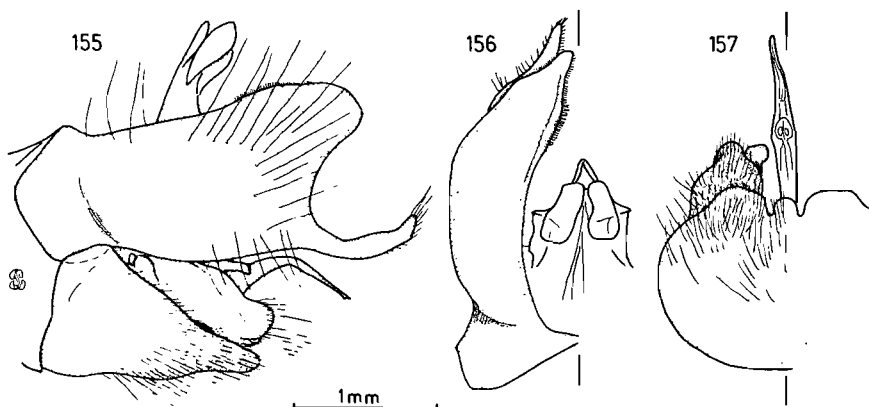
*Lophonotus tibialis* Macquart, 1838:126.*Asilus tibialis*; Walker, 1855:713.*Dysmachus tibialis*; Kertész, 1909:281. Ricardo, 1920:377.*Neolophonotus (Neolophonotus) tibialis*; Engel, 1927:160.*Neolophonotus tibialis*; Hull, 1962:532. Oldroyd, 1981:341.

**Redescription:** Based on holotype ♀ (supplementary information taken from other specimens—indicated in brackets).

**Head:** Antenna broken off (black; setae and bristles black—a few yellow-brown). Eye:face ratio 1:0,32; eye:lower facial margin ratio 4,1:1. Mystax fine yellow. Occipital setae: all yellow.

**Thorax:** ktg s and mtanepst s longish yellow. Mesonotal setae: acr broken (short black); dc few black anteriorly (brown-yellow posteriorly); pprn long yellow; 5/5 yellow npl plus strong setae; 5/5 yellow spal plus strong setae; 5/5 yellow pal plus strong setae. Mane weakly developed, few widely separated setae. Scutellum with ca. 14 yellow marginal bristles; disc with yellow bristles and setae. Wing: 12,7 × 4,0 mm; membrane transparent, slightly yellow stained. Legs: dark red-brown except for proximal half of tibiae which are brown-orange; cx1 with longish yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange, few black ventrally, long setae yellow, short setae yellow.

**Abdomen:** Dark red-brown to black; fine gold pruinose. T3 and S3 with fine long yellow setae only. Ovipositor shortish, laterally compressed; cercus round in lateral view, bearing fine setae.



Figs 155–157. *Neolophonotus tibialis* (Macquart) male (Stellenbosch) genitalia. 155. Lateral. 156. Dorsal. 157. Ventral.

Male genitalia (Figs 155–157 Stellenbosch ♂ illustrated); epandrial lobe with ventral finger-like projection in lateral view; hypandrium and gonocoxite with many tightly packed setae distally; aedeagus elongate with distal half of penisfillum downward turned.

Material examined: SOUTH AFRICA: *Cape Province*: 1♀ (holotype), Cap de Bonne—Esperance, 1820, Delalande (MNP); 5♂ 6♀, Stellenbosch (3318DD), various dates in x, xi.1915–1926, Brauns (NM); 1♂ 1♀, Stellenbosch, x & xi.1925, Brauns (ZSM); 2♂ 1♀, Stellenbosch, Cape Colony (ZSM); 1♂ 4♀, Stellenbosch, various dates in vii, ix, x.1928–1938, Ac.US (NM); 1♀, Stellenbosch, ix.1947, Myburgh (NM); 1♀, Stellenbosch, 28.x.1947 (NM); 1♀, Stellenbosch, i.1947, v. d. Walt (NM); 3♂, Gouda (3319AC), 27.ix.1979, Londt, open grassland along edges old wheatlands (NM); 2♀, 3 km S Darling (3318AD), 28.ix.1979, Londt, well vegetated hillside above wheatlands (NM); 1♀, Simondium (3318DD), 8.x.1927, Lochner (NMZ); 1♀, Koelefontein Hills, Robertson (3319DD) Karoo, 2.xii.1962, Nat. Museum S.R. (NMZ); 1♂, no data (SAM); 3♂ 1♀, Stellenbosch (3318DD), x.1888 (SAM); 1♂ 2♀, Stellenbosch, 11.87 (= xi.1887) (SAM); 1♂, Malmsb. (= Malmesbury—3318BC) (SAM).

Distribution: Confined to the Mediterranean climatic region of the south-western Cape Province.

Remarks: A large, distinctive species, similar to a number of other south-western Cape species (see under *braunsi*) but easily distinguished.

### ***Neolophonotus variabilis* sp. n.**

Figs 158–164

Etymology: *L. variabilis* = variable. Refers to the considerable variation that occurs over the range of this species.

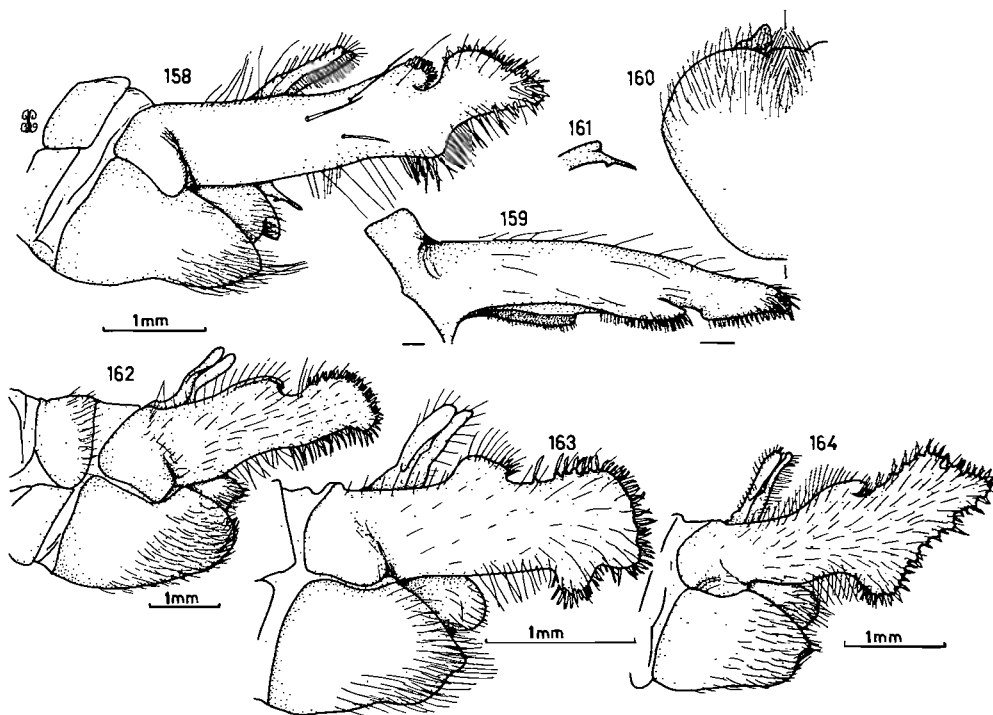
Description: Based on holotype ♂.

*Head*: Antenna black; scape and pedicel with black and yellow setae. Eye: face ratio 1:0,24; eye: lower facial margin ratio 4,5:1. Mystax yellow (with fine black setae laterally). Occipital setae: upper—yellow; central—longish yellow; lower—yellow-white.

*Thorax*: ktg s and mtanepst s yellow. Mesonotal setae: acr not clearly differentiated from mane; dc ca. 10 pairs black, go anterior of suture; pprn 3 yellow; 4/4 yellow npl; 4/4 (3 yellow, 1 black) spal; 10/10 black and yellow pal. Mane black, loosely arranged setae along entire length. Scutellum with ca. 10 black and yellow marginal bristles; disc with black and yellow bristles accompanied by yellow (laterally) and black (centrally) setae. Wing: 10,4 × 3,7 mm; membrane transparent, colourless and without markings. Legs: femora black, rest dark red-brown except for proximodorsal parts of tibiae which are yellow-brown; cx1 with white (a few yellowish) setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles brown-yellow and black, long setae yellow, short setae yellow.

*Abdomen*: Dark red-brown, gold pruinose. Genitalia as in Figs 158–161 (paratype illustrated). Epandrial lobes elongate, bifurcate distally, distal lobes bearing stout yellow setae; gonocoxite short, rounded distally; aedeagus short, with deflexed tip.

Paratypes: 10♂ 17♀, similar to holotype. Ovipositor short, laterally compressed; cerci rounded in lateral view and finely setose.



Figs 158–164. *Neolophonotus variabilis* sp. n. male genitalia 158–161. Paratype (Palmietriver mouth) 158. Lateral. 159. Dorsal. 160. Ventral. 161. Aedeagus. 162. Grahamstown male, lateral. 163. New Hanover male, lateral. 164. Cathedral Peak male, lateral.

Variation: Males demonstrate considerable geographic variation as illustrated (Figs 162–164).

Material examined: SOUTH AFRICA: *Cape Province*: 1♂ (holotype), Diepkloof ca. 20 km E De Rust (3322BD), 12.xii.1979, J. Londt & B. Stuckenberg, dry rocky hillside & stream (NM); 1♂ 3♀ (paratypes), Louterwater (3323DC), 13.xii.1979, Londt & Stuckenberg, grass & hillside macchia (NM); 4♀ (paratypes), Tsitsikama Coastal National Park (3423BB), 8.xii.1979, Londt & Stuckenberg, open area with flowers (NM); 1♂ 4♀ (paratypes), Prince Alfred Pass summit (3323CC), 11.xii.1979, Stuckenberg & Londt, old lands (NM); 1♂ 2♀ (paratypes), Kliphuisvlei, Swartbergpas (3419AB), 13.xii.1968, Potgieter & Jones (NM); 3♂ 3♀ (paratypes), Grootvadersbos (3420BB), 1–6.xi.1940, G. van Son (NM); 2♂ 1♀ (paratypes), Robinson Pass, Mossel Bay (3422AA), 25.ix.1922, Brauns (NM); 1♂ (paratype), George (3322CD), i.x.1920, Brauns (NM); 1♂ (paratype), Palmietriver mond Caledon (3419AB), x.1924, Brauns (NM); 23♂ 20♀ 1? (3♂ 3♀ paratypes), Goedehoop, Heidelberg Dist. (3420BB), x.1951 (SAM); 1♂ 1?, Robinson Pass, Mossel Bay, 25.ix.1922, Brauns (ZSM); 1♂, Kruis Valle, N of Buffelsnek, Prince Alfred pass N of Knysna (3323CC), 22.x.1970, Cottrell (NMZ); 11♂ 7♀, Jonkershoek, Stellenbosch (3318DD), various dates 2, 7, 5, 11, 13.xii.1980, Giliomee (NM); 2♂ 2♀, Strowan, Grahamstown (3326BC), 27.xi.1968 & 22.x.1969, Gess (AM); 1♂, same locality, 14.x.1967, Jacot-Guillarmod (AM);

1♀, Assegaaibosch (3321DA), 13.xi.1972, Bayliss (AM); 1♂, Grahamstown (3326BC), xi.1911, Cherry (AM); 1♂, Grahamstown, 19.xi.1958, Jacot-Guillarmod (AM); 1♂, Grahamstown, 25.v.1957, Lock (AM); 1♀, Grahamstown, 25.xi.1910, Mally (NCI); 1♀, Bushmans (= Boesmansriviermond 3326DA), xii.1945, Frank (AM); 1♂ 2♀, Naudesnek summit *ca.* 15 km E Rhodes (3028CC), 8–9.i.1979, Londt & Stuckenberg, grassland & stream edge (NM); 1♂, Cape Town (3318CD) Table Mtn, 2 500', 20.x.1918, Barnard (SAM); 1♂, Hott-Holl Mts, Caledon (3419AB), 4 000', 1916 (SAM); 1♂, Hott-Holl Mts, East side, 4 000', i.1933 (SAM); 1♂ 3♀, Ceres Dist., Matroosberg (3319AD), 3 500' & 5 000', i & xi.1917, Lightfoot (SAM); 1?, Steenbras Rd, Caledon (3419AB), 1916, Barnard (SAM); 1♂ 3♀ 1?, Gt Wint-hoek, Tulbagh (3319AA), 4 500', xi.1916 (SAM); 1♂, Montagu (3320CC), x.1919 (SAM); 2♀, Upper Sources, Olifants River, Ceres (3319AD), xii.1949 (SAM); 1♂, Cloete's Pass (3321DD), x.1937 (SAM); 1♀, Willow Riv., Uitenhage (3325CD), x.1938 (SAM); 2♂ 3♀, Tradouw Pass, Swellendam Dist. (3420AB), xi.1925 (SAM); 1♂ 2♀, Burghersdorp (3026CD), xi.1939 (SAM); 1♂, French Hoek (Franschhoek—3319CC), xii.1932 (SAM); 1♂ 3♀, 7 Weeks Poort Berg, Ladismith (3320BD), 5 500–7 000' (SAM); 1♀, Genadendal (3419BA), i.1937 (SAM); 1♂ 1♀, Slypsteen Towerwaterkloof, Willowmore Dist (3323AB), x.1938 (SAM); 1♂, Albert Dist, bet. Burgersdorp & Nooitgedacht (SAM); 1♂ 1♀, Onrust, 5.x.1975, Whitehead (SAM). *Natal*: 4♂ 5♀, Giants Castle G. Res. (2929AD), 22.xi.1982, Miller, 19–2 200♂ (NM); 2♂ 3♀, Cathedral Peak area (2829CC), 14–18.xi.1982, Barraclough, forest & grassland (NM); 1♂ 1♀, Bushmans Nek (2929CC), 29.xii.1982, Manning, dry rocky slopes (NM); 2♂, 3 km SE Nottingham Road (2929BD), 11.xi.1979, Miller & Stabbins, around Rawdons Hotel (NM); 1♀, Brooksnek (3029CB), 7.i.1981, Schoeman (NM); 1♂, Mt. Currie (3029CB) nr Kokstad, 6.i.1981, Schoeman (NM); 1♀, Cathedral Peak, Indumeni Gorge (2829CC), 19.xii.1978, Lamoral, grassland protea (NM); 1♀, Mount Bulwer (2929DD), 31.x.1981, Manning, open grassland (NM); 4♂ 5♀, Bushmans Nek (2930CC), 16.xi.1981, Londt, slopes above hotel (NM); 2♂, Noodsberg, New Hanover Dist (2930BC), 13.xi.1960, Schofield (NM); 3♂ 3♀, Cathedral Peak area (2829CC), 16–18.xii.1977, Londt (NM); 6♂ 2♀, Cathedral Peak area (2829CC), 20.xi.1979, Londt, *ca.* 6 000' grassland (NM); 8♂ 4♀, Cathedral Peak area (2829CC), 14–18.ix.1982, Barraclough, forest & grassland (NM); 2♀, Cathedral Peak area (2829CC), 26.xi.1983, Croeser (NM); 6♀, Injasuti Nature Res. (2929AB), 5–11.xii.1983, Londt (NM). *LESOTHO*: 4♀, Jordan Valley nr. Likhahlang Pass (2928AC), 6.i.1954, Bevis (DM); 3♂ 2♀, Ox-Bow, Butha Buthe (2828CC), 15–25.i.1962 & 7.ii.1961, Nayler (DM); 1♂, Haha-la-Sekhonyane (?), 30.xii.1946, Jacot-Guillarmod (AM); 1♀, Mamalapi Mnt. (2928AC), 27.xii.1948, Jacot-Guillarmod (AM). NM Type No. 3081. SAM Type No. 3995.

**Distribution:** Widespread from southern Cape coast to upper levels of the Drakensberg Mountains, including the Southern Cape Coastal, Little and Great Karoo, Drakensberg and southern parts of the Highveld climatic regions (Fig. 181).

**Remarks:** Related to *suillus* and *flavibarbis*.

*Neolophonotus virescens* Engel, 1927

Figs 165–167

*Neolophonotus (Neolophonotus) virescens* Engel, 1927:161.  
*Neolophonotus virescens*; Hull, 1962:532. Oldroyd, 1981:341.

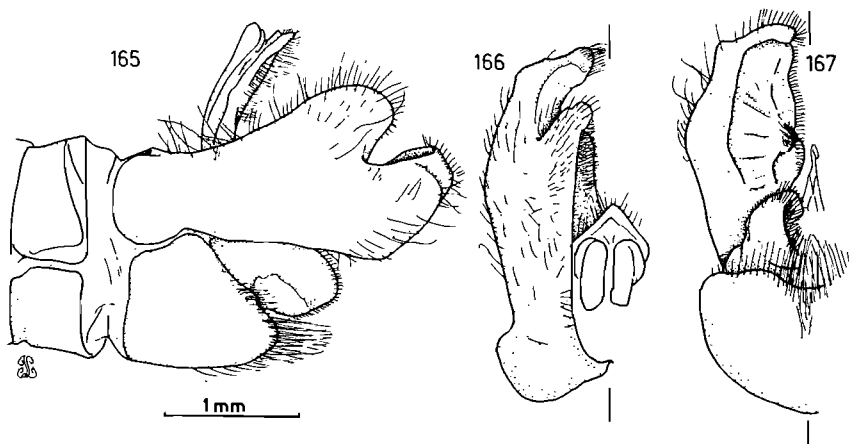
Redescription: Based on lectotype ♂.

**Head:** Antenna dark red-brown to black; scape with black (ventrally) and shiny yellow-white (dorsally) setae, pedicel with black setae (a few yellow-white ones dorsally). Eye:face ratio 1:0,26; eye:lower facial margin ratio 4,5:1. Mystax shiny yellow-white with fine black setae dorsally and laterally. Occipital setae: upper—black; central—fine longish black; lower—yellow-white.

**Thorax:** ktg s black and white, mtanepst s longish yellow-brown and white. Mesonotal setae: acr not evident; dc black, go anterior of suture; pprn long white; 4/3 orange (1 black) npl; 3/3 black spal; 3/3 black pal. Mane weakly developed, dark red-brown. Scutellum with ca. 4 yellow-white marginal bristles; disc with white (laterally) and black (centrally) setae. Wing: 7,9 × 2,7 mm; membrane transparent, slightly brown stained. Legs: dark red-brown except for proximal parts of tibiae which are dark brown; cx1 with longish yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles orange-brown and black dorsally and short black ventrally, long setae pale yellow-white, short setae rather long, white (few black ventrally).

**Abdomen:** Dark red-brown; silver pruinose. T3 and S3 with fine yellow-white setae (few black dorsally on posterior margin). Genitalia as in Figs 165–167; epandrial lobes bifurcate distally, upper and lower lobes broadly-rounded distally; gonocoxite rounded distally; aedeagus shortish, slender with downturned tip.

Lectotype designation: Engel (1927) did not designate a holotype but merely recorded that he had seen two males and one female from Stellenbosch. I have seen these specimens and here designate one of the males as lectotype and the other two individuals as paralectotypes.



Figs 165–167. *Neolophonotus virescens* Engel male lectotype (Stellenbosch) genitalia. 165. Lateral. 166. Dorsal. 167. Ventral.



Material examined: SOUTH AFRICA: *Cape Province*: 2♂ (lectotype & paralectotype) 1♀ (paralectotype), Stellenbosch (3318DD), 25.ix.1925, Brauns (ZSM); 10♂ 9♀, Upper Sources Olifants River, Ceres (3319AD), xii.1949, Mus. Expd. (SAM NM); 1♂, Gt Wint-hoek, Tulbagh (3319AA), 4 500', xi.1916, Lightfoot (SAM); 2♂ 4♀, Paleisheuvel (3218BC), xi.1948, Mus. Expd. (SAM).

Distribution: Confined to the Mediterranean climatic region of the south-western Cape Province.

Remarks: As already mentioned under *stannus*, Engel's *virescens* is another species. *N. virescens* is distinctive but bears some resemblance to *leucopygus*, *louisii* and *leoninus*.

### *Neolophonotus zambiensis* sp. n.

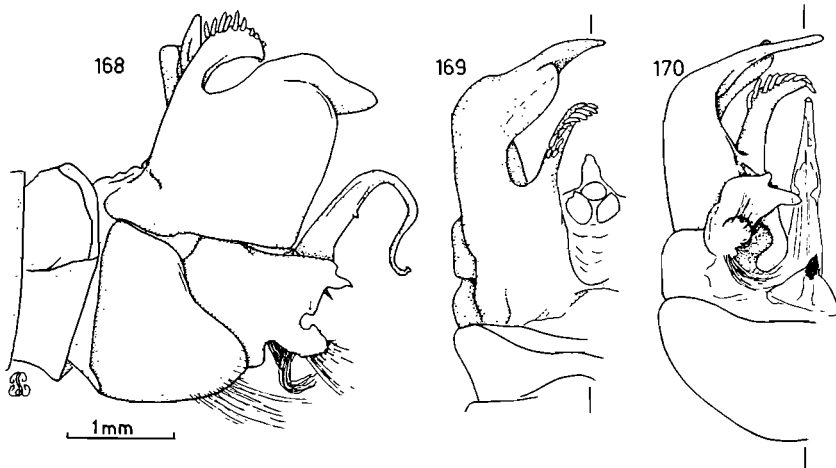
Figs 168–170

Etymology: Named after the country of origin—Zambia.

Description: Based on unique holotype ♂.

*Head*: Antenna dark red-brown to black; setae all black. Eye:face ratio 1:0,24; eye:lower facial margin ratio 9,8:1. Mystax white centrally, black laterally and on lower facial margin. Occipital setae: upper—black; central—black and yellow; lower—white.

*Thorax*: ktg s and mtanepst s yellow. Mesonotal setae: acr few black anteriorly; dc ca. 16 pairs black, go anterior of suture (few white posteriorly); pprn fine yellow-white (wavy); 2/2 black npl; 5/4 black spal; 2/2 black pal (plus 2/2 black setae). Mane black, well developed. Scutellum with 13 long yellow-white marginal bristles; disc with long brown-yellow bristles accompanied by black and white setae. Wing: 10,4 × 3,6 mm; membrane transparent, colourless except for slightly darker region at area where R<sub>1+2+3</sub> and R<sub>4</sub> reach margin. Legs: dark red-brown to black, tibiae yellow-brown proximodorsally; cx1 with white setae anteriorly; cx3 lacking



Figs 168–170. *Neolophonotus zambiensis* sp. n. male holotype (Isombo River) genitalia. 168. Lateral. 169. Dorsal. 170. Ventral.

bristles laterally. Hind femur: bristles black (1 yellow mid-dorsally), long setae yellow (dorsally and laterally) and black (ventrally), short setae rather long, white (dorsally and laterally) and black (ventrally).

*Abdomen*: Dark red-brown, fine gold-silver pruinose. Genitalia as in Figs 168–170; epandrial lobes broad with dorsal setose process; gonostylus with various processes and a ventral setose lobe; aedeagus convoluted and with sinuous tip.

Female: Unknown.

Material examined: ZAMBIA: 1♂ (holotype), Isombo River, Ikelenge N. Mwinilungo (1124AB), 28.iv.1972, Pinhey & de Moor, Nat. Mus. Bulawayo (NMZ).

Distribution: Known only from the type-locality in Zambia.

Remarks: *N. zambiensis* is closely related to *porcellus* and *stannus*.

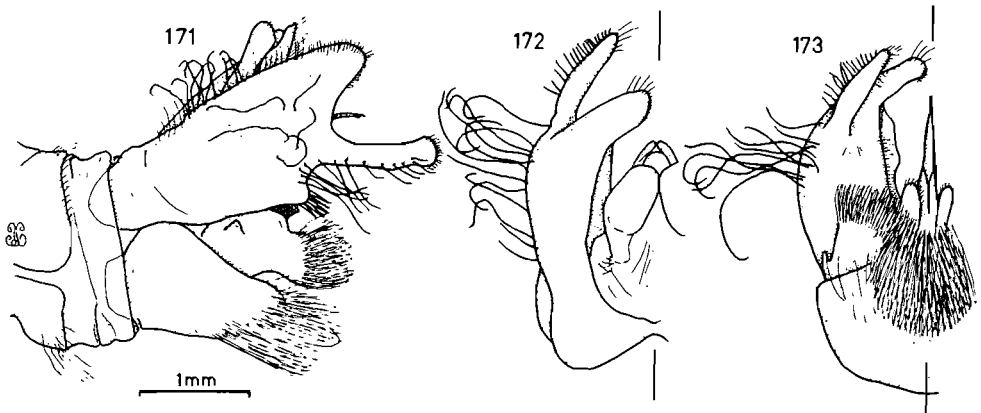
### *Neolophonotus zogreus* sp. n.

Figs 171–173

Etymology: Gr. meaning a catcher of animals, referring to the predatory habits of the species.

Description: Based on holotype ♂.

*Head*: Antenna dark red-brown to black, junctions between segments orange-brown; setae all white. Eye:face ratio 1:0,29; eye:lower facial margin ratio 3,9:1. Mystax yellow-white. Occipital setae: upper—yellow-white; central and lower—white.



Figs 171–173. *Neolophonotus zogreus* sp. n. male holotype (Klipvei) genitalia. 171. Lateral. 172. Dorsal. 173. Ventral.

*Thorax*: ktg s and mtanepst s white. Mesonotal setae: acr black (not clearly differentiated from mane); dc ca. 12 pairs black, go anterior of suture; pprn dark red-brown and white; 4/2 yellow & black npl; 3/3 black spal; 6/6 black pal. Mane black, weakly developed, sparse. Scutellum with 8 black, brown and white marginal bristles; disc with black bristles accompanied by black and white setae.

Wing: 10,8 × 3,4 mm; membrane transparent, colourless. Legs: femora red-brown to black dorsally, orange-brown ventrally; rest red-brown to dark red-brown; cx1 with white setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black (1 or 2 white), long and short setae white.

*Abdomen*: Dark red-brown, fine silver pruinose. Genitalia as in Figs 171–173; epandrial lobes with long and short posteriorly directed processes; gonocoxite with spur at base; aedeagus thin and tapering to a fine downwardly-directed point.

Paratype: 1♂, similar to holotype. ♀ unknown.

Material examined: SOUTH AFRICA: *Cape Province*: 2 ♂ (holotype & paratype), Klipvlei, Garies (3017DB), xi.1931, Museum Staff (SAM NM). SAM Type No. 3992. NM Type No. 3381.

Distribution: Known only from the type-locality in Namaqualand (Desert and Poor Steppe climatic region).

Remarks: *N. zogreus* is closely related to *hessei*.

### *Neolophonotus zopherus* sp. n.

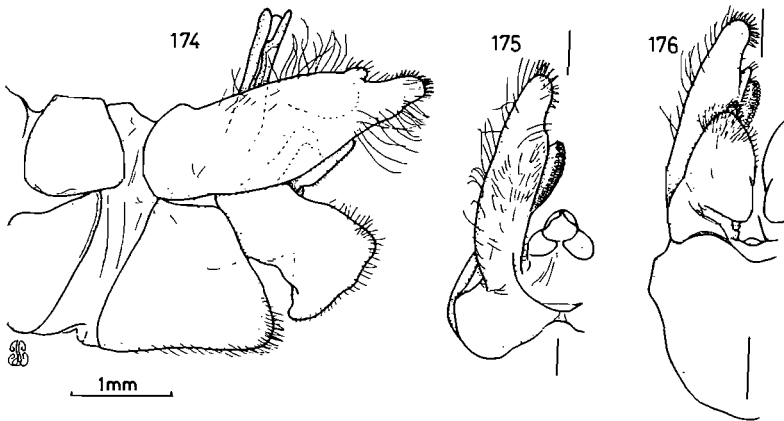
Figs 174–176

Etymology: Gr. *zopheros* = dusky, referring to the dull appearance of the species.

Description: Based on holotype ♂.

*Head*: Antenna dark red-brown to black; setae pale yellow and black. Eye:face ratio 1:0,26; eye:lower facial margin ratio 3,1:1. Mystax yellow-white, with black setae bordering. Occipital setae: upper—pale yellow and black; central—fine black; lower—white.

*Thorax*: ktg s orange, mtanepst s orange-yellow. Mesonotal setae: acr not clearly differentiated from mane; dc ca. 13 pairs black (orange behind suture) go anterior of suture; pprn fine black and white; 2/3 orange; 3/3 orange spal; 10/10 orange (1 black) pal. Mane black, well developed. Scutellum with 12 orange and black



Figs 174–176. *Neolophonotus zopherus* sp. n. male holotype (Cold Bokkeveld) genitalia. 174. Lateral. 175. Dorsal. 176. Ventral.

marginal bristles; disc with orange and black bristles accompanied by black and white setae. Wing: 12,8 × 4,5 mm; membrane slightly yellow stained, transparent. Legs: dark red-brown, proximal parts of tibiae slightly lighter; cx1 with pale yellow setae anteriorly; cx3 lacking bristles laterally. Hind femur: bristles black and orange, long setae yellow and black, short setae pale yellow.

*Abdomen:* Dark red-brown, fine silver pruinose. Genitalia as in Figs 174–176; epandrial lobes with setose lobe on inside surface; gonocoxite large, bulbous and with ventrally directed distal lobe; aedeagus slender with a downwardly-directed point.

*Paratype:* 1 ♀, similar to holotype. Ovipositor laterally compressed; cerci oval in shape (lateral aspect) and with fine setae.

*Material examined:* SOUTH AFRICA: *Cape Province:* 1 ♂ (holotype) 1 ♀ (paratype), Cold Bokkeveld, Ceres Dist. (3319AD), x.1934 (♂) 15–30.x.1934 (♀), M. Versfeld (SAM). SAM Type No. 4631.

*Distribution:* Known only from the type-locality in the Mediterranean climatic region.

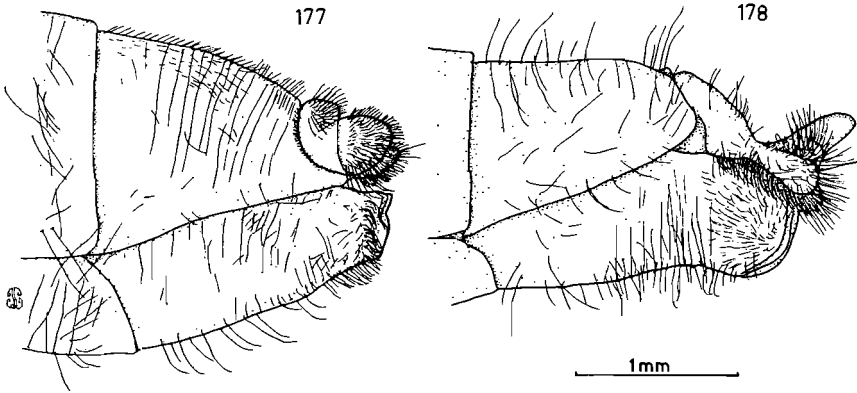
*Remarks:* *N. zopherus* is an isolated species with no obvious relative.

#### DISCUSSION

In the first paper of this series on *Neolophonotus* (Londt 1985) I stressed that the use of species-groups was a means of conveniently handling the numerous species. I made it clear that the definition of these groups did not imply phylogenetic relationships, although they do, however, often contain at least some natural sets of related species. This is particularly evident in the *suillus* species-group, and this discussion is devoted to a preliminary survey of the relationships found within the group. Much of the analysis is founded on observable similarities in genital morphology.

The *suillus* group, with its very wide distribution (Fig. 179) and 52 described species, appears to be composed essentially of two fairly large subgroups (here conveniently called A and B). There are only a few species which do not appear to fall easily into one of these subgroups and these will be discussed separately.

Group A is made up of 23 species which have their distribution centre in the south-western parts of South Africa. The species included are: *braunsi*, *forcipatus*, *hirtipes*, *macquarti*, *crassifemoralis*, *zopherus*, *rufus*, *crinitus*, *grossus*, *depilis*, *pilosus*, *tibialis*, *lightfooti*, *flavibarbis*, *suillus*, *variabilis*, *hara*, *hessei*, *zogreus*, *virescens*, *leoninus*, *leucopygus* and *lousi*. On inspection it will be noted that four of these (*forcipatus*, *hirtipes*, *macquarti* and *lightfooti*) are isolated in the first couplet of the key on the basis of their slightly under-developed 'jowls'. These four species fall just outside the limits set for keying purposes but are otherwise unmistakable members of this subgroup. All known females of species belonging to subgroup A possess the same type of laterally compressed, rounded cerci (Fig. 177), while members of group B have well-sclerotised, upwardly-pointing, spine-like cerci (Fig. 178). Although virtually nothing is known about the biology of species in the *suillus* group it appears that members of the two large subgroups may not share a common oviposition behaviour.



Figs 177–178. *Neolophonotus* female genital types. 177. Rounded cerci of *suillus*. 178. Prong-like cerci of *stannus*.

Members of subgroup A can be arranged into smaller groups on the basis of male genital characteristics. The four species, *leucopygus*, *louisi*, *virescens* and *leoninus* appear to form a reasonably distinctive cluster (the first two possibly being sister-species). The remaining 18 species, although all rather similar, can be grouped into smaller sets of closely related species. I suggest that *forcipatus*, *macquarti*, *braunsi* and *hirtipes* probably form a 'natural' group (the first two may be sisters) quite closely related to *crinitus* and *grossus* (possible sisters), *depilis* and *pilosus* (possible sisters), *crassifemoralis*, *zopherus* and *rufus*. Both *tibialis* and *lightfooti* have a similar appearance and seem to be related to the last 10 species mentioned. The three species *flavibarbis*, *suillus* (possibly sisters) and *variabilis* appear to form a small subsection of group A, while the affinities of *hara*, *hessei* and *zogreus* are far more obscure (although *hessei* and *zogreus* may be sisters).

Group B contains some 15 species inhabiting the eastern parts of the African continent from South Africa in the south to Ethiopia in the north. Those thought to belong to this group are *dondoensis*, *orientalis*, *porcellus*, *stannus*, *zambiensis*, *bezzii*, *ktenistus*, *chaineyi*, *holoxanthus*, *manselli*, *rossi*, *robustus* (possibly), *tanymedus*, *soutpanensis* and *congoensis*. Although the females of species in this group have upwardly-directed, spine-like cerci (Fig. 178), a feature common to other species groups, this subgroup is not well defined. What can be said, however, is that the first five mentioned species are very closely related and form a distinctive section (*stannus* and *zambiensis* possibly being sister-species). Both *bezzii* and *ktenistus* appear to be related to these five while *chaineyi*, *holoxanthus*, *manselli*, *rossi* and possibly *robustus* may constitute another group (a tentative suggestion). The last three species *tanymedus*, *soutpanensis* and *congoensis* may belong to group B but their affinities are not easily assessed.

Of the 14 species not allocated to either group A or B, four, *chubbii*, *seymourae* (possible sisters), *carorum* and *pinheyi*, form a distinctive little subgroup of their own. These four are found in the south-eastern parts of southern Africa and, therefore, fall between the distribution areas of the two large subgroups (A and B) already discussed.

The remaining 10 species do not fall into any of the sets already mentioned and need to be handled separately.

*N. anomalus* and *kolochaetes*, two very similar species, appear most closely related to certain species in the *angustibarbus* species-group (handled in Part 1). They do, however, have well-developed manes of uniform coloration and therefore key out as members of the *suillus* group.

*N. macromystax*, *irwini* and *io* may be unusual members of the *comatus* species-group (not yet reviewed) lacking metacoxal bristles.

*N. atopus* has similarities with members of the *chionthrix* group and it is possible that the unique holotype represents an anomaly.

*N. bimaculatus*, although a very common, widespread, easily identified species, does not have obvious affinities with other species in the *suillus* species-group.

*N. stuckenbergi* is peculiar, and although included in this species-group of *Neolophonotus* it may belong to an undescribed genus.

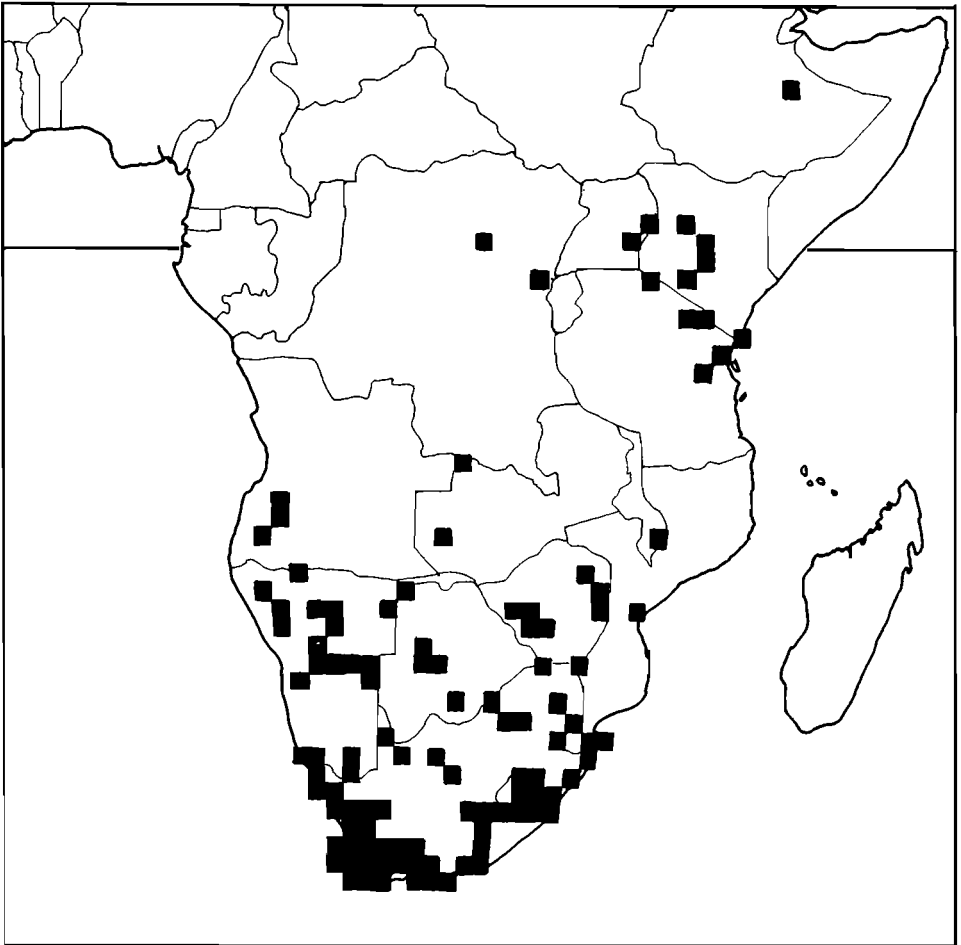


Fig. 179. Distribution of species of the *Neolophonotus suillus* species-group.

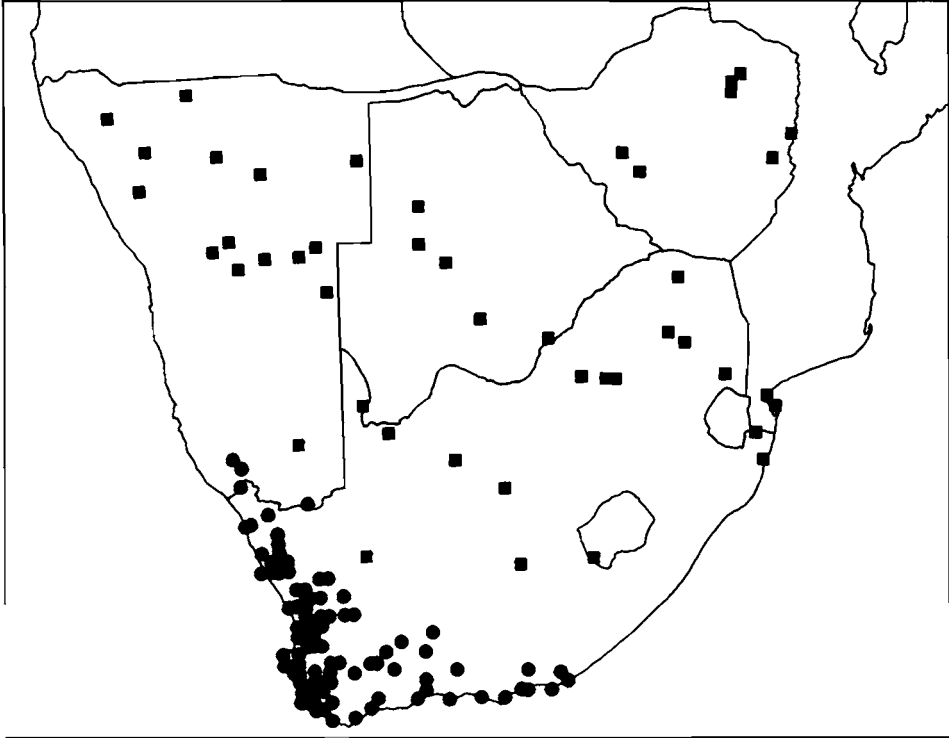


Fig. 180. Distribution of selected southern African *Neolophonotus* species. ● = *bimaculatus*, ■ = *robustus*.

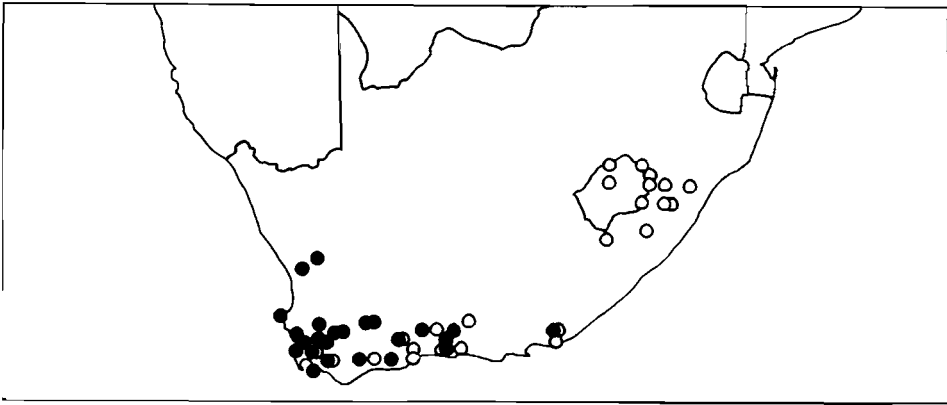


Fig. 181. Distribution of selected southern African *Neolophonotus* species. ● = *suillus*, ○ = *variabilis*.

The last two species to be included in the *suillus* group are almost certainly misplaced. Both *rhodesii* and *antidasophrys* are anomalous species sharing features of both *Dasophrys* and *Hippomachus*. As they key out as species of *Neolophonotus*, I am leaving them in this genus until their positions can be better assessed.

## ACKNOWLEDGEMENTS

I am grateful to the Council for Scientific and Industrial Research for a grant in support of my work on the Afrotropical Asilidae. I wish to thank Dr Brian Stuckenberg for comments on the manuscript, Mrs Annette Seymour for technical assistance rendered, and the many curators of collections studied, for their patience throughout my work on *Neolophonotus*.

Date received: 5 September 1985.

INDEX OF SPECIES OF *NEOLOPHONOTUS* INCLUDED IN THIS PAPER

Names in italics are synonyms of the species shown in brackets following the name.

<i>Species</i>	<i>Page</i>	<i>Species</i>	<i>Page</i>
<i>americanus</i> Macquart, 1846 (= <i>suillus</i> )		<i>leucopygus</i> Engel, 1927	557
<i>anomalus</i> sp. n.	519	<i>lightfooti</i> sp. n.	559
<i>antidasophrys</i> sp. n.	520	<i>louisii</i> sp. n.	560
<i>atopus</i> sp. n.	521	<i>macquarti</i> sp. n.	561
<i>auribarbis</i> Macquart, 1838 (= <i>suillus</i> )		<i>macromystax</i> sp. n.	562
<i>bezzii</i> sp. n.	522	<i>manselli</i> sp. n.	564
<i>bimaculatus</i> sp. n.	523	<i>microspinosus</i> Hull, 1967 (= <i>robustus</i> )	
<i>braunsi</i> sp. n.	529	<i>obtusus</i> Hull, 1967 (= <i>robustus</i> )	
<i>carorum</i> sp. n.	531	<i>orientalis</i> (Ricardo, 1920)	565
<i>chainei</i> sp. n.	532	<i>phoeax</i> Walker, 1849 (= <i>suillus</i> )	
<i>chalcogaster</i> Wiedemann, 1819 (= <i>suillus</i> )		<i>pilosus</i> sp. n.	566
<i>chubbii</i> Bromley, 1947	533	<i>pinheyi</i> sp. n.	567
<i>congoensis</i> (Ricardo, 1920)	534	<i>porcellus</i> (Speiser, 1910)	569
<i>crassifemoralis</i> sp. n.	536	<i>rhodesii</i> (Ricardo, 1920)	570
<i>crinitus</i> sp. n.	537	<i>robustus</i> (Ricardo, 1922)	572
<i>cupreus</i> Loew, 1858 (= <i>flavibarbis</i> )		<i>rossi</i> sp. n.	575
<i>depilis</i> sp. n.	538	<i>rufus</i> (Macquart, 1838)	576
<i>dondoensis</i> sp. n.	540	<i>seymourae</i> sp. n.	577
<i>flavibarbis</i> (Macquart, 1838)	541	<i>soutpanensis</i> sp. n.	579
<i>forcipatus</i> (Macquart, 1838)	543	<i>stannus</i> (Ricardo, 1925)	580
<i>grossus</i> Bromley, 1936	544	<i>stuckenbergi</i> sp. n.	581
<i>hara</i> sp. n.	545	<i>suillus</i> (Fabricius, 1805)	583
<i>hessei</i> sp. n.	547	<i>tanymedus</i> sp. n.	586
<i>hirtipes</i> (Ricardo, 1920)	548	<i>tibialis</i> (Macquart, 1838)	588
<i>holoxanthus</i> Engel, 1927	549	<i>ursinus</i> Schiner, 1867 (= <i>leoninus</i> )	
<i>horridans</i> Hull, 1967 (= <i>suillus</i> )		<i>variabilis</i> sp. n.	589
<i>io</i> sp. n.	551	<i>virescens</i> Engel, 1927	592
<i>irwini</i> sp. n.	552	<i>zambiensis</i> sp. n.	593
<i>kolochaetes</i> sp. n.	553	<i>zograus</i> sp. n.	494
<i>ktenistus</i> sp. n.	554	<i>zopherus</i> sp. n.	595
<i>leoninus</i> (Schiner, 1867)	556		