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On the First African Spiders of the Family Orsolobidae (Araneae, Dysderoidea)

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ABSTRACT

The first African representatives of the austral spider family Orsolobidae are described. Two new genera are established: *Afrilobus*, containing three new species (*A. capensis* and *A. australis* from the

Cape Province of South Africa, and *A. jocquei* from Malawi), and *Azania lobus*, containing one new species, *A. lawrencei*, from Transvaal, South Africa.

INTRODUCTION

The spider family Orsolobidae, as recently delimited by Forster and Platnick (1985), contains 170 species from Australia, Tasmania, New Zealand, the Auckland and Campbell Islands, Chile, Argentina, and the Falkland Islands. Given this Gondwanan distribution, of course, the group might reasonably be expected to occur in southern Africa as well, but no orsolobids have previously been recorded from that continent. Recently, while examining dysderoid spiders in the collections of the Musée Royal de l'Afrique Centrale, Tervuren (MRAC), the Natal Museum, Pietermaritzburg (NM), the

National Collection of Arachnida, Pretoria (NCP), and the Transvaal Museum, Pretoria (TM), we discovered several specimens whose identities as orsolobids are confirmed by the presence of the elevated tarsal organs (figs. 2, 3, 16, 17, 24, 25, 35, 36, 38) that are synapomorphic for the family. The known distribution of the Orsolobidae now presents a strikingly austral pattern (fig. 1). Noteworthy is the penetration of the group into tropical Africa (in regions of montane forest in Malawi), and the occurrence of representatives in the nonforest fynbos biome on the Cedarberg Mountains of the western Cape Prov-

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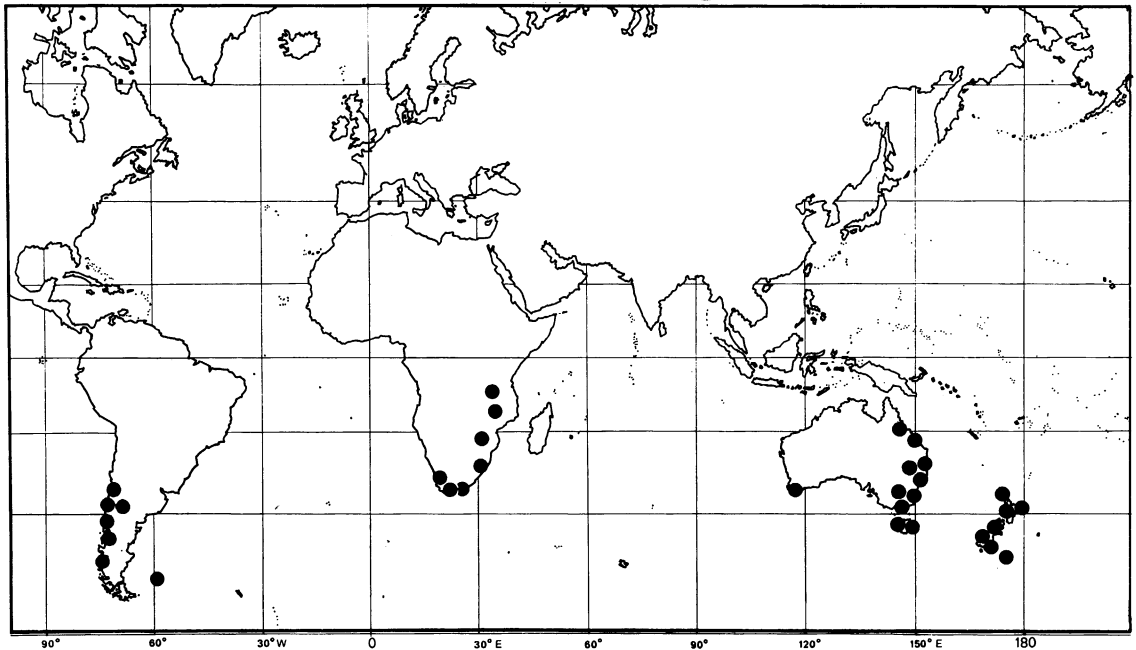


Fig. 1. World distribution of Orsolobidae.

ince, South Africa (orsolobids are also known from nonforest, alpine tussock habitats in New Zealand). In addition to the adult specimens described below, unnamed South African juvenile specimens are known from the Grootberg Mountains of the southwestern Cape Province (TM), and from the montane forest at Karkloof in Natal (NM).

Judging by the structure of the tarsal organs, male pedipalps, and especially the female genitalia, which have one or two narrow anterior receptacula in addition to the characteristic anteromedian rods and wide median receptaculum (figs. 26–30), the species assigned below to *Afrilobus* and *Azanielobus* seem to be more closely related to Australian *Tasmanoonops* than to the numerous other orsolobid genera known from southern South America and New Zealand. If the closest relatives of the African taxa are indeed Australian, the orsolobids may conform to a pattern also found in the palpimanoid lineage (Forster and Platnick, 1984), in which African and Australian taxa (the Archaeidae) form the sister-group of taxa from New Zealand and southern South America (the Mecysmauchenidae).

We are indebted to Mr. P. M. C. Croeser

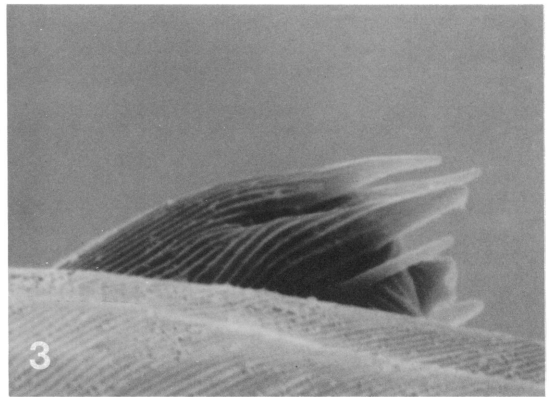
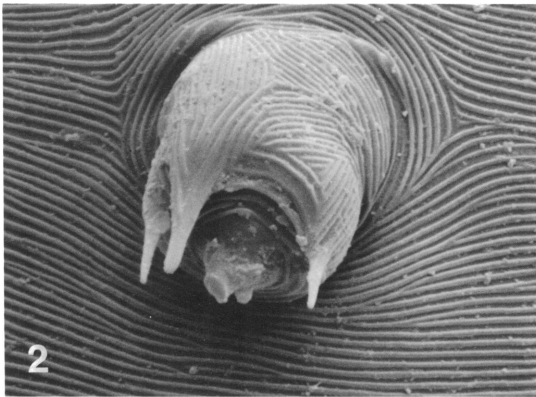
(NM) and Drs. A. S. Dippenaar (NCP), S. Endrödy-Younga (TM), and R. Jocqué (MRAC) for making these specimens available for study, to Ms. Teresa Meikle Griswold for preliminary sorting of litter arachnids belonging to NM and TM, to Mr. John Murphy of Hampton, England, for doing much preliminary sorting of material in MRAC, to Dr. R. R. Forster of the Otago Museum, Dunedin, for providing photographs (figs. 26–30) and helpful comments on a draft of the manuscript, to Dr. R. J. Raven of the Queensland Museum for helpful comments on a draft of the manuscript, and to Dr. M. U. Shadab, Mr. A. Simon, and Ms. L. Duffy of the American Museum for assistance with illustrations and scanning electron micrographs. The format of the descriptions follows that of Forster and Platnick (1985).

Afrilobus, new genus

TYPE SPECIES: *Afrilobus capensis*, new species.

ETYMOLOGY: The generic name is a contraction of African *Orsolobus* and is masculine in gender.

DIAGNOSIS: Specimens of *Afrilobus* can be

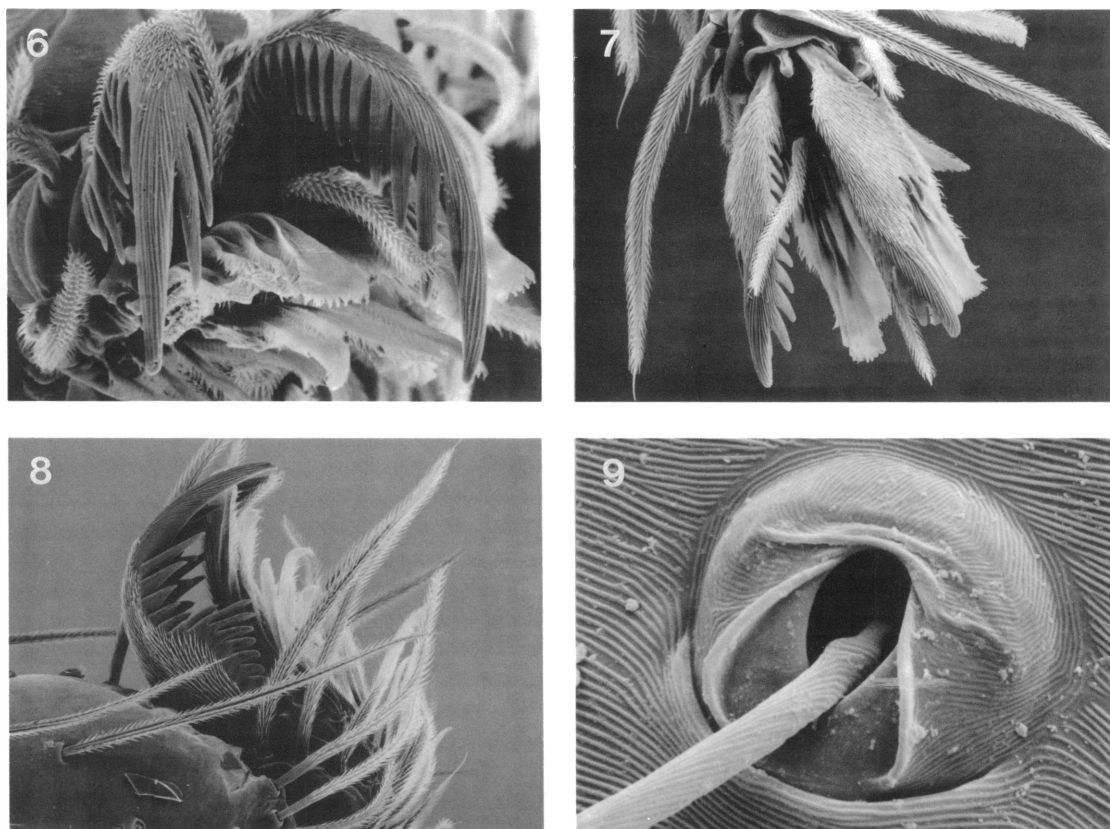


Figs. 2-5. *Afrilobus capensis*, new species, male. 2. Tarsal organ from leg IV, dorsal view. 3. Tarsal organ from leg III, lateral view. 4. Distal end of tarsus IV, dorsal view, showing two proprioceptor bristles and onychium. 5. Proprioceptor bristle, dorsal view.

distinguished from those of the only other African orsolobid genus, *Azaniolobus*, by their abdominal markings. In having the abdominal dorsum suffused with purple pigment interrupted only by pale hairline chevrons (as in Forster and Platnick, 1985: figs. 396, 398, 474, 483, 618), *Afrilobus* resembles the Chilean genus *Mallecolobus*, the Australian genus *Hickmanolobus*, and the New Zealand genera *Waipoua*, *Tautukua*, *Bealeyia*, *Maoriata* (in part), and *Pounamuella*. It can immediately be separated from all those genera except *Mallecolobus* by having a sternum with long, triangular extensions to, and slight elevations opposite, each coxa, and also from the last five genera in not having any sensory lobes of the tarsal organ elongated. *Afrilobus* may be further distinguished from *Hickmanolobus* by having leg spines and lateral flanges on the tarsal claws (figs. 8, 15, 23), and from

Mallecolobus by having the tarsal organ low, with short cuticular lobes (figs. 3, 16, 24).

DESCRIPTION: Moderate size orsolobids with abdominal dorsum suffused with purple pigment interrupted only by narrow, pale chevrons. Chelicerae with two promarginal and two retromarginal teeth, retromarginals more widely spaced than promarginals. Sternum not produced at labial border, with long, triangular extensions to, and slight elevations opposite, each coxa. Colulus small, pigmented lobe. Spines present on tibiae and metatarsi III and IV, and occasionally on tibiae I and II. Claws with outer row of teeth not restricted to lateral flange, with tufts of few spatulate hairs (figs. 6-8, 15, 23); palpal claw of female smooth. Tarsal organ relatively low, with 3 to 18 short marginal cuticular lobes and 2 to 3 short receptor lobes (figs. 2, 3, 16, 17, 24, 25); bothria with ele-



Figs. 6–9. *Afriobus capensis*, new species, male. 6. Claws of leg IV, distal view. 7. Same, dorsal view. 8. Claws of leg III, lateral view. 9. Trichobothrial base from metatarsus IV, dorsal view.

vated ridges (fig. 9); proprioceptor bristles fringed (figs. 4, 5). Male palp with all segments stout, unmodified; bulb with separate embolus and functional conductor (figs. 10–13, 18–21). Posterior spiracles closer to each other than are pulmonary spiracles, linked at least externally by narrow groove. Female genitalia (at least in *A. australis*) with anterior elements consisting of long median rod accompanied by wide membranous receptaculum as well as narrow, weakly sclerotized receptaculum bent posteriorly at about half its length; posterior receptaculum oval, wide, preceded by sclerotized triangular lobe leading to narrow, sclerotized receptaculum bent anteriorly at about one-third its length.

Afriobus capensis, new species
Figures 2–13

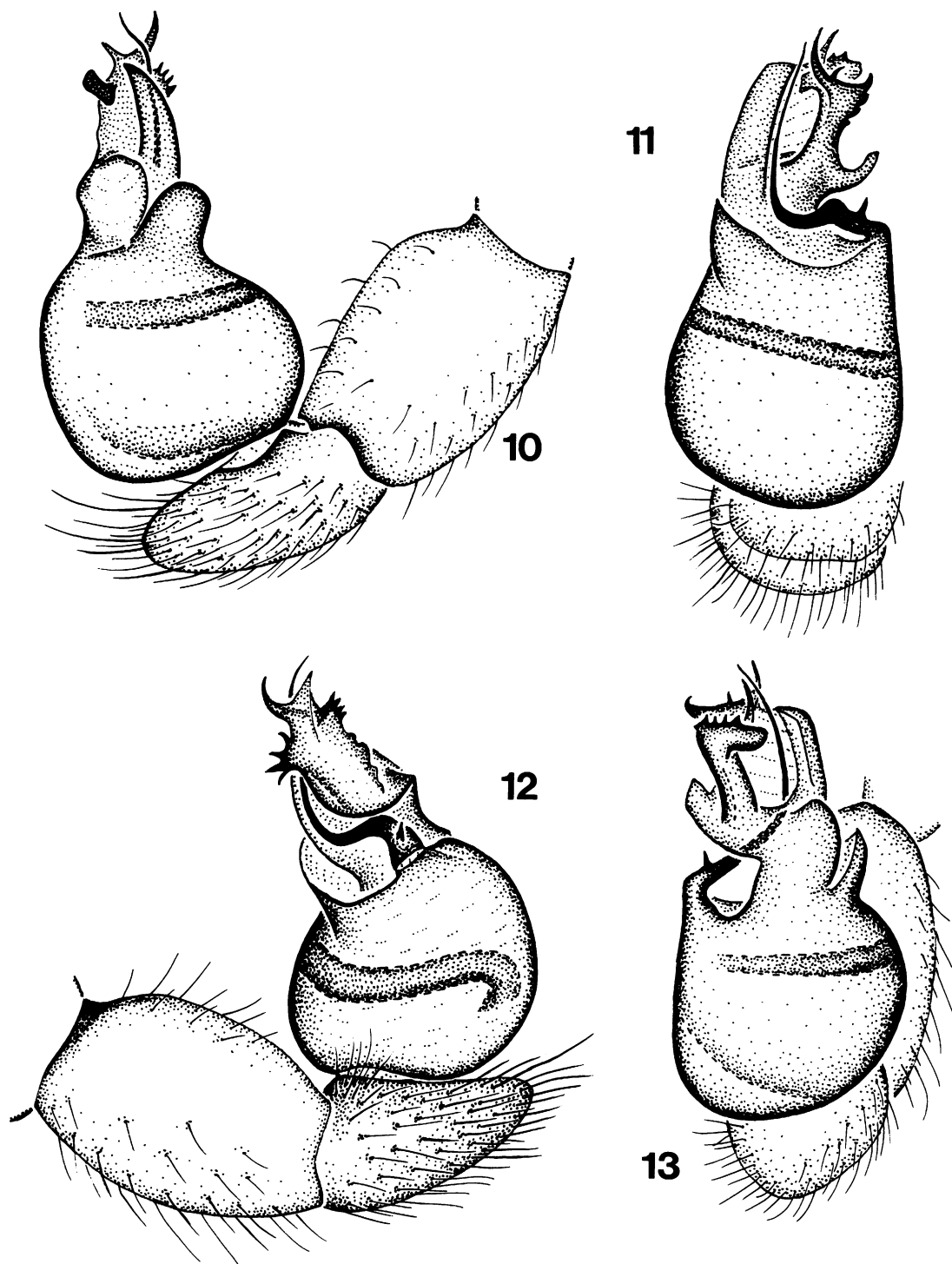
TYPE: Male holotype taken in humus under bush or large stones at an elevation of 500–1100 m at Sederberg, Clanwilliam District,

Cape Province, South Africa (July 1962; N. Leleup), deposited in MRAC.

ETYMOLOGY: The specific name refers to the type locality.

DIAGNOSIS: Males of *A. capensis* can be distinguished from those of *A. jocquei* by their much more elaborate palpi (figs. 10–13), from males of that species and females of *A. australis* by having only three or four cuticular lobes on the tarsal organ (figs. 2, 3), and also from females of the last species by lacking apical maculations on the femora.

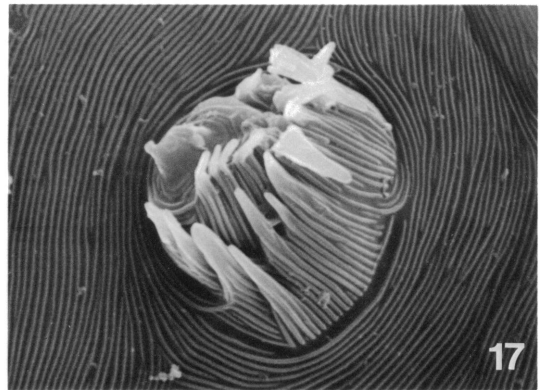
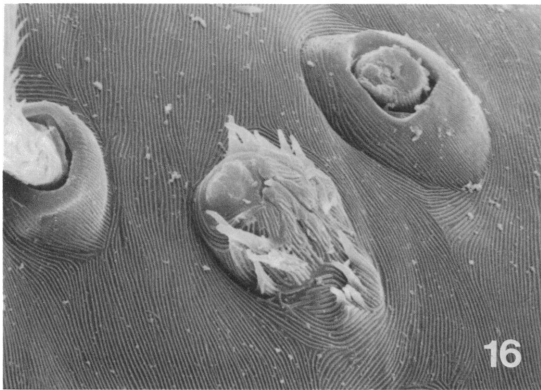
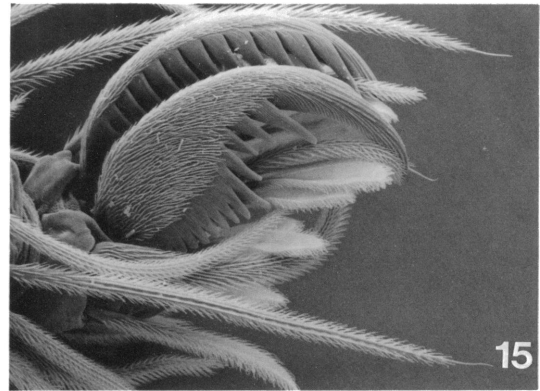
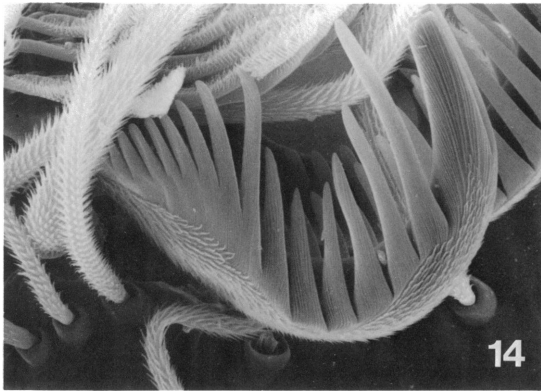
MALE: Total length 3.50. Carapace 1.42 long, 1.13 wide. Abdomen 1.83 long, 1.08 wide. Carapace yellow, anterior portion of pars thoracica with faint traces of darkened reticulations, margins bearing long setae; black pigment along margins of eyes; chelicerae, mouthparts, and sternum yellow; abdomen white, suffused dorsally and laterally with purple pigment interrupted only by hair-line chevrons, venter darkened only near spinnerets; legs pale yellow, darkest distally.



Figs. 10–13. *Afrilobus capensis*, new species, left male palp. 10. Prolateral view. 11. Ventral view. 12. Retrolateral view. 13. Dorsal view.

Ocular area 0.24 long, 0.49 wide, occupying 0.43 of carapace width. Eye length ratio, ALE:

PME:PLE, 1.0:1.1:1.3; PME 0.15 long, separated by one-third their width from ALE;



Figs. 14–17. *Afrilobus jocquei*, new species, male. 14. Claws of leg I, lateral view. 15. Claws of leg IV, lateral view. 16. Tarsal organ from leg I, distolateral view. 17. Tarsal organ from leg IV, lateral view.

PLE separated by three times their length. Clypeus 0.10 high. Chelicerae 0.49 long, with dorsal patch of erect setae at apex, two promarginal, and two widely spaced retromarginal teeth, most proximal retromarginal tooth situated opposite most distal promarginal tooth. Sternum 0.82 long, 0.70 wide, narrowly truncated posteriorly; labium 1.17 long, 0.21 wide; pedipalpal coxa 0.44 long, 0.21 wide. Leg formula 4213. Spination: tibiae: III p1-1-1, r1-0-1; IV p1-1-1, r1-1-1; metatarsi: III p1-0-1, r0-0-2; IV p1-1-1, v2-2-2, r1-1-1. Tarsal organ with three short cuticular lobes on leg III, four on leg IV (figs. 2, 3). Claws relatively short, lateral flange occupying about half of length, with about eight teeth on flange and five distal to flange (figs. 6–8). Leg measurements:

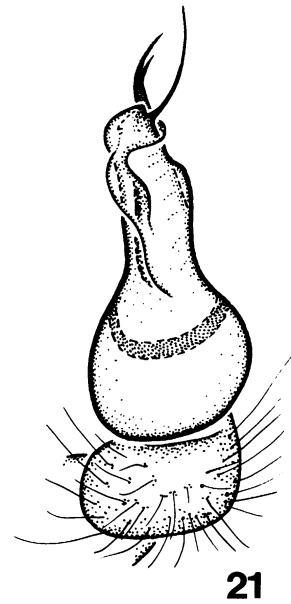
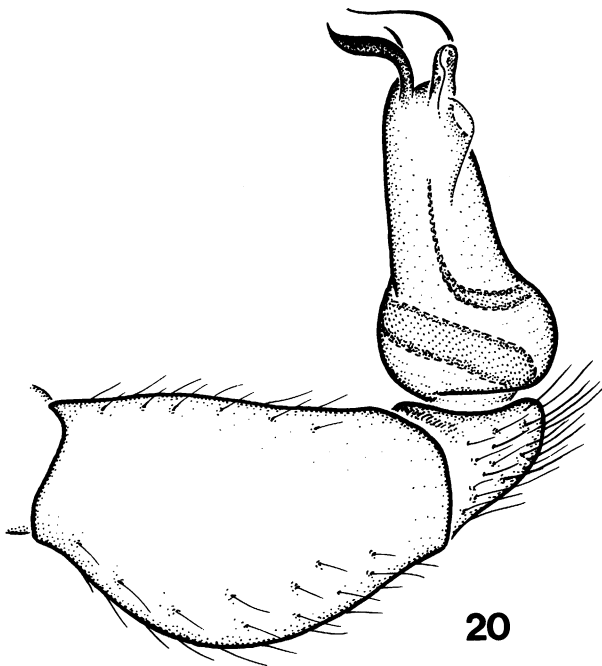
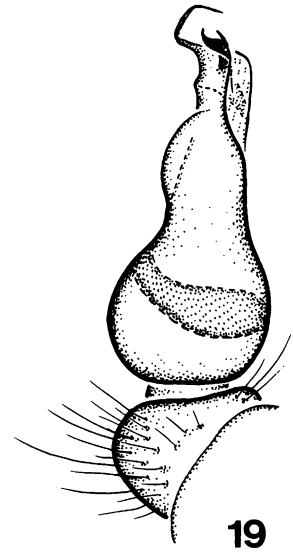
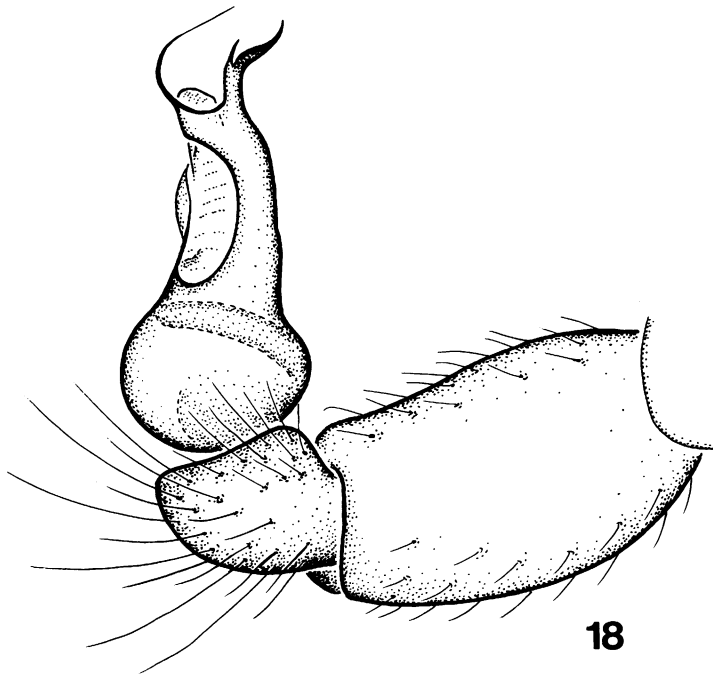
| | I | II | III | IV | Palp |
|------------|-------------|-------------|-------------|-------------|-------------|
| Femur | 1.47 | 1.53 | 1.36 | 1.68 | 0.52 |
| Patella | 0.60 | 0.60 | 0.45 | 0.58 | 0.29 |
| Tibia | 1.31 | 1.39 | 1.10 | 1.38 | 0.40 |
| Metatarsus | 1.36 | 1.40 | 1.20 | 1.70 | — |
| Tarsus | <u>0.70</u> | <u>0.75</u> | <u>0.60</u> | <u>0.61</u> | <u>0.29</u> |
| Total | 5.44 | 5.67 | 4.71 | 5.95 | 1.50 |

Palpal bulb rotund; embolus originating retrolaterally, bearing spine at base; conductor elaborate, serrate dorsally and ventrally (figs. 10–13).

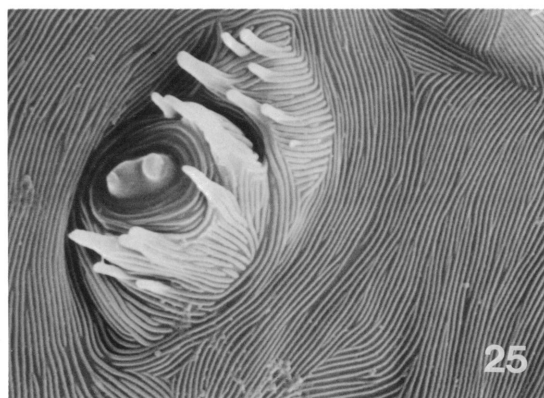
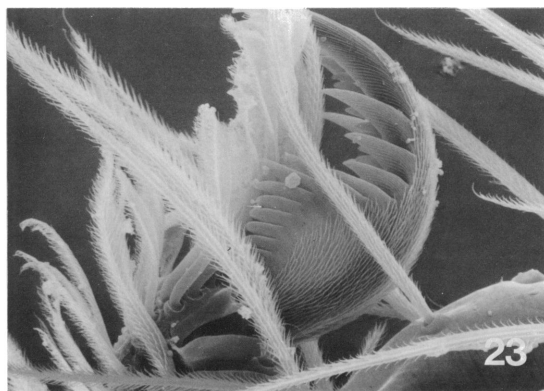
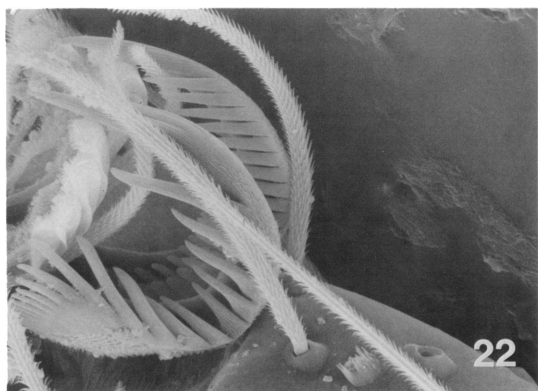
FEMALE: Unknown.

OTHER MATERIAL EXAMINED: None.

DISTRIBUTION: Known only from the Cedarberg Mountains in the western Cape Province, South Africa.



Figs. 18–21. *Afriolobus jocquei*, new species, left male palp. 18. Prolateral view. 19. Ventral view. 20. Retrolateral view. 21. Dorsal view.



Figs. 22–25. *Afrilobus australis*, new species, female. 22. Claws of leg I, lateral view. 23. Claws of leg IV, lateral view. 24. Tarsal organ from leg I, distolateral view. 25. Tarsal organ from leg IV, distolateral view.

***Afrilobus jocquei*, new species**

Figures 14–21

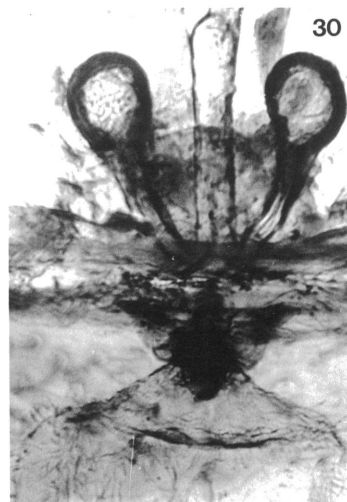
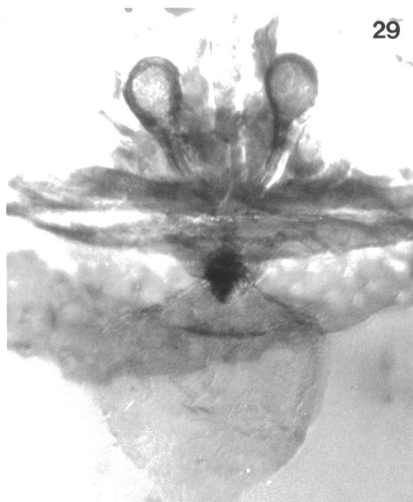
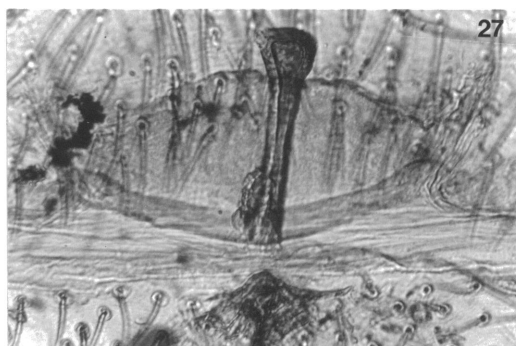
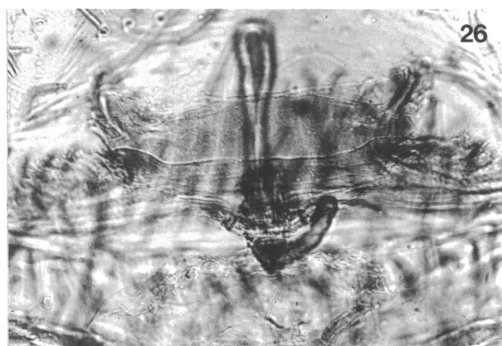
TYPE: Male holotype taken under *Philippia* at an elevation of 2850 m on West Peak, Mt. Mulanje, Malawi (Sept. 18, 1981; R. Jocqué), deposited in MRAC; paratype male, same data, deposited in AMNH.

ETYMOLOGY: The specific name is a patronym in honor of the collector of the type series.

DIAGNOSIS: Males can be distinguished from those of *A. capensis* by the less elaborate palpi (figs. 18–21) and by having the tarsal organ with more than 10 cuticular lobes (figs. 16, 17), and from *A. australis* by having posterolateral dark longitudinal bands on patellae I–III and lacking dorsolateral apical maculations on the femora.

MALE: Total length 3.41. Carapace 1.43 long, 1.20 wide. Abdomen 1.91 long, 1.13 wide. Carapace yellow, with black pigment

along margins of eyes, pars thoracica with faint radial reticulations and paired dark central marks, margins bearing long setae; chelicerae, mouthparts, and sternum yellow; abdomen white, with faint purple mottling dorsally, broken posterodorsally by white hairline chevrons, purple around base of spinnerets, pale ventrally; legs and palpi yellow-white, femora, especially I and II, dusky apically; patellae I–III with posterior dark longitudinal bands. Ocular area 0.25 long, 0.55 wide, occupying 0.46 of carapace width. Eye length ratio, ALE:PME:PLE, 1.18:1.18:1.0; PME 0.15 long, separated by one-third their width from ALE, PLE separated by four times their length. Clypeus 0.08 high. Chelicerae 0.60 long, with two promarginal and two retromarginal teeth; most proximal retromarginal tooth situated distad of most distal promarginal tooth. Sternum 0.79 long, 0.68 wide, narrowly truncate posteriorly; labium 0.21 long, 0.23 wide; pedipalpal coxa



Figs. 26–30. Female genitalia of African Orsolobidae; photographs by R. R. Forster. 26–28. *Afrilobus australis*, new species. 29, 30. *Azanialobus lawrencei*, new species.

0.41 long, 0.19 wide. Leg formula 4213. Spination: tibiae: III p1-1-0, r1-0-1, v0-0-1; IV d0-1-0, p1-1-1, v0-0-1; metatarsi: III p0-1-1, r0-1-0, v0-0-2; IV p0-1-1, r1-1-2, v0-2-2. Tarsal organ (fig. 17) with two short receptor lobes and 15–18 short marginal cuticular lobes, several removed as proximal group on tarsus I (fig. 16). Claws with narrow (fig. 14) to broad (fig. 15) lateral flange, about nine teeth on flange and 4–6 distal to flange. Leg measurements:

| | I | II | III | IV | Palp |
|------------|-------------|-------------|-------------|-------------|-------------|
| Femur | 1.50 | 1.61 | 1.31 | 1.73 | 0.56 |
| Patella | 0.68 | 0.68 | 0.45 | 0.60 | 0.30 |
| Tibia | 1.43 | 1.50 | 1.09 | 1.39 | 0.45 |
| Metatarsus | 1.46 | 1.54 | 1.28 | 1.80 | — |
| Tarsus | <u>0.75</u> | <u>0.75</u> | <u>0.56</u> | <u>0.60</u> | <u>0.21</u> |
| Total | 5.82 | 6.08 | 4.69 | 6.12 | 1.52 |

Palpal bulb slender, with ventral concavity;

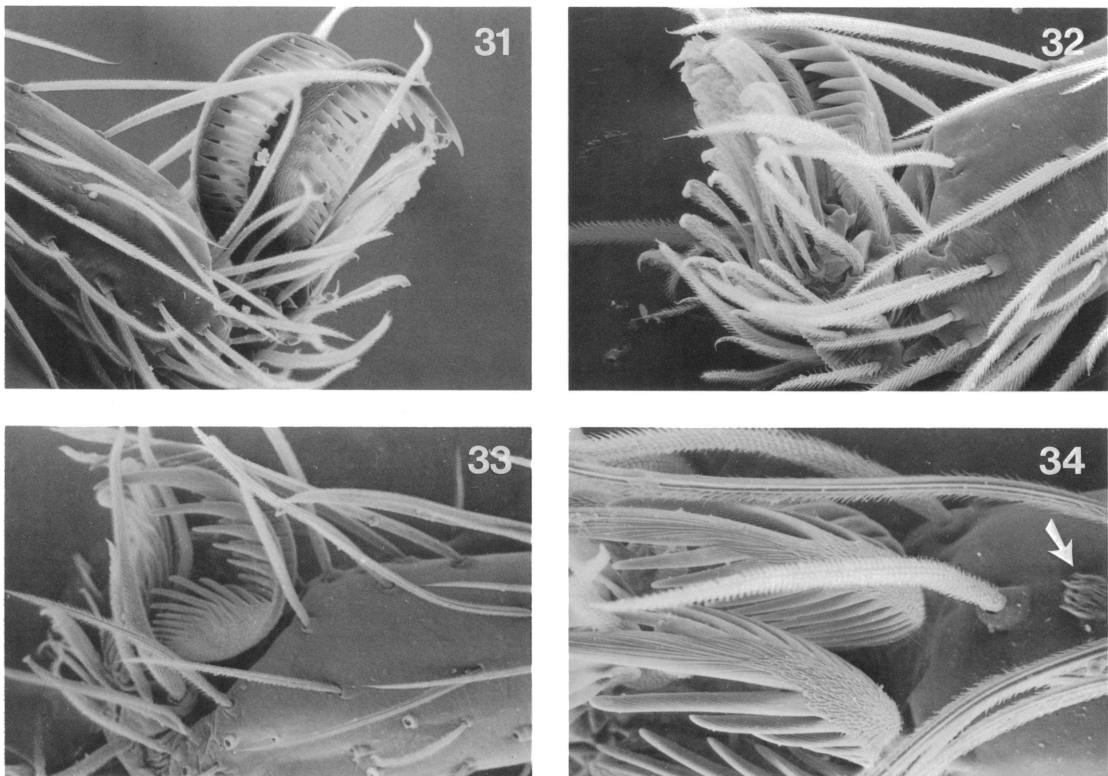
embolus slender, curved, conductor flattened, bifurcate (figs. 18–21).

FEMALE: Unknown.

VARIATION: Median paired dark markings on the carapace may be present or absent; purple markings on the abdominal dorsum vary from faint to dark; tibiae I and II may have apical, anteroventral spines.

OTHER MATERIAL EXAMINED: MALAWI (all collected by R. Jocqué, in MRAC): Mount Mulanje, Lichenya plateau, Sept. 5, 1981, *Widdringtonia* evergreen forest, 1♂, Sapitwa peak, red route, Sept. 12, 1981, elev. 2750–2820 m, 1♂, same, elev. 2800 m, 1♂; Nyika Plateau, Chelinda, Dec. 8, 1981, elev. 2300 m, 1♂, same, pine plantation, 1♂, Chisanga falls, Dec. 9, 1981, elev. 1800 m, 2♂, Dambo, Dec. 12, 1981, elev. 2350 m, 1♂.

DISTRIBUTION: Known from montane regions of northern and southern Malawi.



Figs. 31–34. *Azanialobus lawrencei*, new species, leg claws. 31, 32. Male. 33, 34. Female. 31. Leg I, lateral view. 32. Leg IV, lateral view. 33. Leg I, lateral view. 34. Same, dorsal view, with tarsal organ (arrow).

Afrilobus australis, new species

Figures 22–28

TYPES: Female holotype swept from vegetation at Diepwalle, Knysna Forest, Cape Province, South Africa (June 15, 1976; N. Dippenaar), deposited in NCP; two paratype females, same data, deposited in AMNH and NCP.

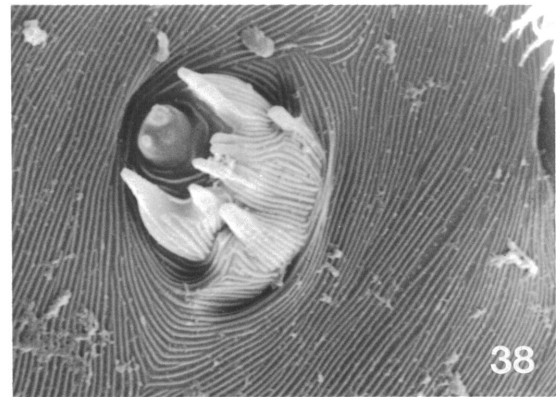
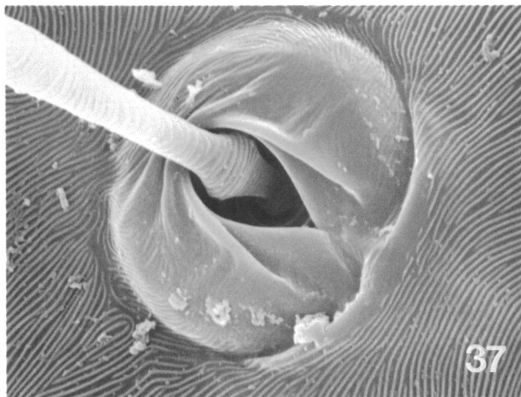
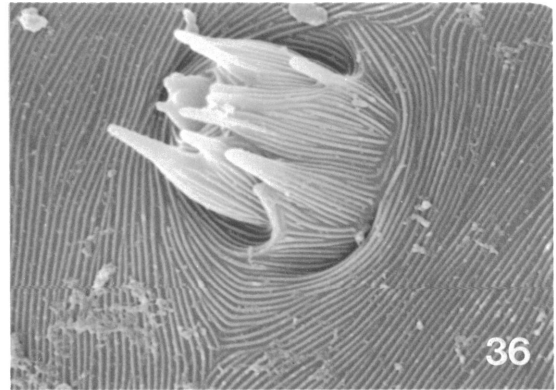
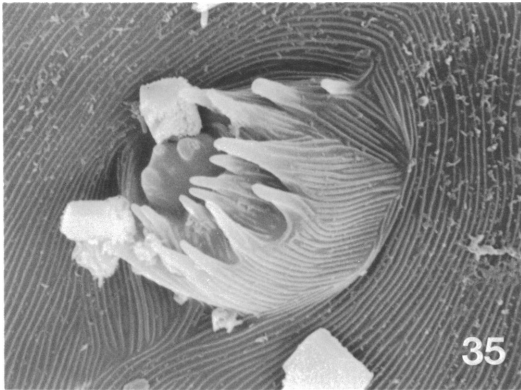
ETYMOLOGY: The specific name refers to the occurrence of this species in the southernmost part of Africa.

DIAGNOSIS: Females of this species can be distinguished from *A. capensis* in having the femora maculate apically and a tarsal organ with more than 15 cuticular lobes (figs. 24, 25), and from *A. jocquei* in having the femora maculate apically and lacking posterolateral longitudinal bands on patellae I–III.

MALE: Unknown.

FEMALE: Total length 3.43. Carapace 1.34 long, 1.11 wide. Abdomen 2.06 long, 1.28

wide. Cephalothorax yellowish brown, black around eyes, with dark reticulations, especially behind eyes and on foveal region, faint reticulations on sides, and dark margins; abdomen white, suffused dorsally and posterolaterally with purple pigment, broken by anteromedian white band and posterodorsal hairline white chevrons, venter with two dark, longitudinal bands anterior to spinnerets; femora I–IV white, distally with dorsolateral purple maculations, patellae to tarsi yellow-brown. Ocular area 0.22 long, 0.46 wide, occupying 0.41 of carapace width. Eye length ratio, ALE:PME:PLE, 1.0:1.2:1.1, PME 0.13 long, separated by one-fourth their length from ALE. Clypeus narrow, 0.08 high. Chelicerae 0.52 long, with two promarginal and two retromarginal teeth. Sternum 0.72 long, 0.66 wide; labium 0.17 long, 0.23 wide; pedipalpal coxae 0.34 long, 0.16 wide. Leg formula 4213, legs slender, finely setose. Spination: tibiae: III d0-0-1, p0-0-1, r0-0-1,



Figs. 35–38. *Azania lobus lawrencei*, new species, male. 35. Tarsal organ from leg I, lateral view. 36. Tarsal organ from leg IV, lateral view. 37. Bothrium from metatarsus IV, dorsal view. 38. Tarsal organ from leg IV, distolateral view.

v0-0-2; IV d0-0-1, p1-0-1, r1-1-1, v0-0-2; metatarsi: III p1-1-1, r1-1-1, v0-0-2. Tarsal organ (fig. 24) low, with 2–3 short receptor lobes and 16–18 short cuticular lobes, 6 removed as proximal group on tarsus IV (fig. 25). Claws (figs. 22, 23) with lateral flange occupying one-third to one-half their length, with about 9 teeth on flange and 4–8 distal to flange. Leg measurements:

| | I | II | III | IV | Palp |
|------------|-------------|-------------|-------------|-------------|-------------|
| Femur | 1.23 | 1.28 | 1.09 | 1.49 | 0.47 |
| Patella | 0.62 | 0.62 | 0.47 | 0.53 | 0.26 |
| Tibia | 1.04 | 1.06 | 0.74 | 1.11 | 0.30 |
| Metatarsus | 1.06 | 1.11 | 1.00 | 1.38 | — |
| Tarsus | <u>0.60</u> | <u>0.60</u> | <u>0.43</u> | <u>0.47</u> | <u>0.55</u> |
| Total | 4.55 | 4.67 | 3.73 | 4.98 | 1.58 |

Anterior genitalic elements consisting of wide, oval, membranous receptaculum, hollow median sclerotized rod, and narrow, weakly

sclerotized, submedian receptaculum bent posteriorly at about half its length (figs. 26, 28); posterior genitalic elements consisting of wide, oval, membranous receptaculum preceded by sclerotized triangular lobe leading to narrow, weakly sclerotized receptaculum bent anteriorly at about one-third its length (fig. 27).

VARIATION: One paratype female has anteroventral spines on tibiae I and II.

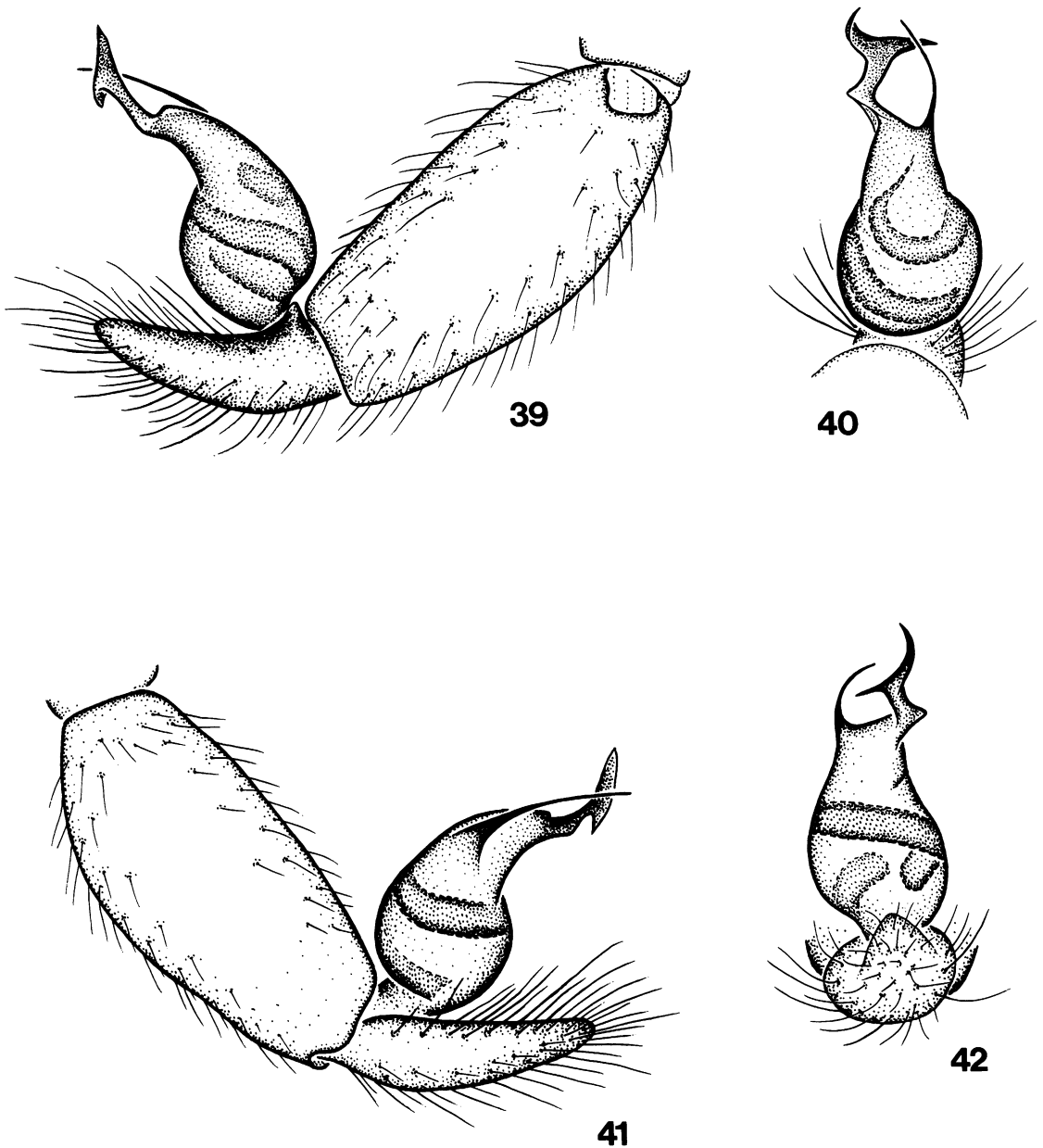
OTHER MATERIAL EXAMINED: None.

DISTRIBUTION: Known only from the Knysna Forest in the southern Cape Province, South Africa.

Azania lobus, new genus

TYPE SPECIES: *Azania lobus lawrencei*, new species.

ETYMOLOGY: The name is a contraction of the word Azania, an ancient term referring



Figs. 39–42. *Azania lobus lawrencei*, new species, left male palp. 39. Prolateral view. 40. Ventral view. 41. Retrolateral view. 42. Dorsal view.

to the southeastern part of Africa, and *Orsolobus*, and is masculine in gender.

DIAGNOSIS: *Azania lobus* may be distinguished from all other orsolobids by the structure of the anterior elements of the female genitalia, which include two extremely large and heavily sclerotized anterior receptacula in addition to the median anterior rod

and membranous receptaculum (figs. 29, 30). It shares with a group of genera (*Afrilobus*, *Orsolobus*, *Chileolobus*, *Mallecolobus*, and *Osornolobus*) a sternal margin with triangular points directed toward the coxae and setose bumps situated opposite coxae I–III, but may be distinguished from those genera by having the claws sexually dimorphic (figs. 31–34).

Azania lobus may be distinguished from *Af-rilobus*, *Chileolobus*, and *Osornolobus* by its lack of chevrons on the abdomen, and from the latter two genera by having the tarsal organ a low mound (figs. 35, 36, 38). *Azania lobus* may be distinguished from *Orsolobus* and *Mallecolobus* by having spines on legs I and II and teeth on the claws extending distad of the outer flange (figs. 33, 34).

DESCRIPTION: Relatively large orsolobids (total length 3.4–4.5), pale, with abdominal markings uniform to absent. Body and legs finely setose. Carapace broadly oval, length about 1.2 times width, narrowed anteriorly, low, length more than three times height, domed. Chelicerae slender, vertical, promargin of fang furrow with two teeth, retromargin with one or two teeth, fang slender, curved before apex. Sternum heart-shaped, not produced at labial border, about as wide as long, broadly truncate between coxae IV; margin with triangular points directed toward coxae and setose bumps opposite coxae I–III. Labium short, width equal to or greater than length. Pedipalpal coxae parallel, slender, length about 1.8 times width, concave in middle. Coxae cylindrical, short, length one-fifth to one-fourth that of femora. Spines present on all legs. Tarsal organ a low mound surmounted by 8–16 short cuticular lobes, with two or three short receptor lobes in center (figs. 35, 36, 38); bothria with elevated ridge (fig. 37), proprioceptor bristles fringed. Claws of female with low outer flange, teeth extending beyond flange (figs. 33, 34), male flange weak (fig. 32) or lacking (fig. 31); tufts present below claws. Palpal claw of female smooth. Abdomen cylindrical, without scuta. Posterior spiracles closer together than anterior ones, joined by weak external transverse groove. Spinnerets slender, subequal in length. Colulus large, setose. Male palp with tibia stout, cymbium tapering to apex, bulb with distal processes. Female genitalia with two enlarged anterior receptacula and spherical posterior receptaculum (figs. 29, 30).

Azania lobus lawrencei, new species

Figures 29–42

TYPES: Holotype male taken at an elevation of 1800 m at Mariepskop, Transvaal, South Africa (March 1960; R. F. Lawrence;

NM 7462), deposited in NM (type no. 3367); paratype female, same data, deposited in NM.

ETYMOLOGY: The specific name is a patronym in honor of R. F. Lawrence, collector of the types and pioneer in the study of the cryptic arthropods of the forests of southern Africa.

DIAGNOSIS: This species can be distinguished from all other orsolobids by the characters of the genus, and by details of the male (figs. 39–42) and female (figs. 29, 30) genitalia.

MALE: Total length 3.43. Cephalothorax, abdomen, and legs pale yellowish white; black pigment surrounding eyes and extending between ALE and PME, ALE and PLE; abdomen with faint mottling on dorsum, diffuse purple-brown ring surrounding base of spinnerets. Carapace 1.55 long, 1.30 wide, 0.49 high, thoracic declivity sloping gradually. Ocular area 1.9 times wider than long, occupying 0.43 of carapace width; posterior eye row 1.1 times width of anterior row. Eye length ratio, ALE:PME:PLE, 1.0:1.2:1.0; PME separated by one-fourth their diameter, in line with ALE; PLE separated by 2.8 times their diameter. Clypeus 0.69 length of PME, weakly concave, with several pairs of cruciate setae. Chelicerae 0.68 long, slightly bowed outward apically, promargin and retromargin each with two teeth, most proximal promarginal tooth situated opposite most distal retromarginal tooth. Sternum 0.85 long, 0.81 wide; labium 0.25 long, 0.25 wide, apex truncate; pedipalpal coxae 0.48 long, 0.28 wide. Leg formula 2(1=4)3, legs slender, finely setose. Spination: femora: I p0-0-2; tibiae: I p0-1-0; II p0-0-1; III d1-2-2; IV d1-2-2; metatarsi: III d2-2-2, r0-1-2, v0-0-2; IV d2-2-2, r0-1-2, v0-0-2. Claws slender, outer flange weak (IV, fig. 32) or lacking (I, fig. 31), with 10–15 pairs of slender teeth. Leg measurements:

| | I | II | III | IV | Palp |
|------------|------|------|------|------|------|
| Femur | 1.94 | 1.98 | 1.68 | 2.04 | 0.68 |
| Patella | 0.72 | 0.74 | 0.57 | 0.62 | 0.36 |
| Tibia | 1.76 | 1.87 | 1.23 | 1.64 | 0.77 |
| Metatarsus | 1.87 | 2.00 | 1.62 | 2.15 | — |
| Tarsus | 0.83 | 0.81 | 0.62 | 0.68 | 0.45 |
| Total | 7.12 | 7.40 | 5.72 | 7.13 | 2.26 |

Abdomen 1.96 long, 1.11 wide. Palpus (figs. 39–42) without spines, setose; bulb pyriform,

reservoir making $1\frac{1}{3}$ turns around base, apex with posterior slender embolus and anterior conductor terminating in curved, broadly triangular flange.

FEMALE: Total length 4.35. Markings as in male. Carapace 1.70 long, 1.36 wide, 0.55 high, thoracic declivity concave. Ocular area 2.1 times wider than long, occupying 0.84 of carapace width; posterior eye row 1.1 times width of anterior row. Eye length ratio, ALE: PME:PLE, 1.0:1.1:1.1, PME separated by one-fourth their diameter, in line with ALE; PLE separated by 2.6 times their diameter. Clypeus 0.69 length of PME, convex, with cruciate setae. Chelicerae 0.64 long, straight, with one or two retromarginal teeth. Sternum 0.87 long, 0.89 wide; labium 0.27 long, 0.31 wide, apex rounded; pedipalpal coxa 0.47 long, 0.25 wide. Leg formula (2=4)13, legs slender, finely setose. Spination: palpus, patella 1 ventral, tibia and tarsus, 1 median anterolateral, 2 anteroventral; legs, tibiae: I p1-1-1; II p0-0-1; III d2-2-2, v0-0-2; IV d2-2-2, v0-0-2; metatarsi: III d0-1-1, p1-1-1, v1-1-1-2; IV d2-2-2-2, v2-2-2-2. Claw of palpus

slender, smooth, nearly straight; leg claws (figs. 33, 34) with outer row of 6–7 teeth set on basal flange, with 4–6 teeth of increasing length distal to flange, inner row of 16–18 slender teeth; legs III and IV with flange and teeth shorter. Leg measurements:

| | I | II | III | IV | Palp |
|------------|-------------|-------------|-------------|-------------|-------------|
| Femur | 1.74 | 1.76 | 1.51 | 1.83 | 0.64 |
| Patella | 0.79 | 0.77 | 0.62 | 0.70 | 0.34 |
| Tibia | 1.53 | 1.64 | 1.15 | 1.51 | 0.51 |
| Metatarsus | 1.66 | 1.70 | 1.47 | 1.94 | — |
| Tarsus | <u>0.74</u> | <u>0.74</u> | <u>0.57</u> | <u>0.62</u> | <u>0.81</u> |
| Total | 6.46 | 6.61 | 5.32 | 6.60 | 2.30 |

Abdomen 2.83 long, 1.72 wide. Genitalia with sclerotized central, cylindrical rod and pair of large, lateral, lobate receptacula in addition to small membranous receptaculum; posterior receptaculum large, spherical, anteriorly sclerotized (figs. 29, 30).

OTHER MATERIAL EXAMINED: None.

DISTRIBUTION: Known only from the type locality in montane forest in the Drakensberg Mountains, Transvaal, South Africa.

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