

Hemiptera of the Sudan, with remarks on some species of the adjacent countries. 4. Miridae and Isometopidae

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The species of Miridae and Isometopidae found on the author's field trips to the Sudan and the adjacent countries in 1961 - 1963 are listed. The following 25 genera and subgenera are described: *Deraeocoris* Kb. subgen. *Afroderaeus*, *Yambio*, *Oreolygus*, *Orthops* Fb. subgen. *Verdeius*, *Jiggiga*, *Grewiocoris*, *Aloea*, *Ruwaba*, *Glaphyrocoris* Rt. subgen. *Pongocoris*, *Shendina*, *Zinjolopus*, *Somalocoris*, *Dignata*, *Darectagela*, *Ghazalocoris*, *Waupsallus*, *Godatatra*, *Nubata*, *Atractofomellus*, *Ethatractus*, *Indatractus*, *Oreocapsus*, *Thymopsallus*, *Darfuromma*, and *Campylomma* Rt. subgen. *Sthenaromma*. The following 259 species and subspecies are described: *Monalocoris punctipennis*, *Prodromus ibbaicus*, *Kunungua pallida*, *Deraeocoris pallens* ssp. *atramentarius*, *D. dentifer*, *D. lucidus*, *D. martini* ssp. *australis*, *D. morosus*, *D. inflaticeps*, *D. langannus*, *D. oparicus*, *Cranocapsus affinis*, *C. niloticus*, *C. rivularis*, *Platycapsus pilosus*, *P. lateralis*, *Fingulus longiceps*, *F. longiceps* ssp. *ifensis*, *Cyrtopellis longicornis*, *C. tuberculifer*, *C. montivaga*, *C. brunneicollis*, *C. brunneicollis* ssp. *alkannae*, *C. flavoviridis*, *C. falciger*, *C. virgator*, *C. fagoniae*, *C. pochalla*, *C. pavoniae*, *C. diabolus*, *Dicyphopsis spectabilis*, *Nabidomiris giloicus*, *Collaria nigra*, *Schoutedenomiris longicornis*, *Pleurochiloporus rubrinervis*, *Phytocoris geminus*, *P. duplicatus*, *P. advenus*, *P. bilineatus*, *P. kansisrob*, *P. excellens*, *P. procerus*, *P. crotonis*, *P. maichevicus*, *P. dulcis*, *Megacoelum superbum*, *M. rubrolineatum*, *M. quadrituberculatum* ssp. *nomadicum*, *M. angustulum*, *Yambio chaetacme*, *Y. clavicornis*, *Cyphoxacioris dolosus*, *C. aspersus*, *Oxaccicoris brunneipennis*, *O. elongatus*, *Stenotus halthor* spp. *probus*, *S. aureus*, *Paurolygus ciliaris*, *Tingitotum sabulicolum*, *T. lucidiceps*, *Taylorilygus morosus*, *T. figuratus*, *T. obscuripes* ssp. *plagiatus*, *T. dispar*, *T. caucanthus*, *T. tessellatus*, *T. nairobiensis atricollis*, *T. pseudopunctatus*, *T. longicornis*, *T. suturalis*, *T. compactus*, *Lygidolon elegans*, *Oreolygus ericae*, *O. triangulum*, *O. nigrisulcus*, *O. sexvittatus*, *O. maesae*, *O. junipericolus*, *O. junipericolus* ssp. *frigidus*, *O. rubidus*, *O. viridipennis*, *Orthops podocarpi*, *O. nigriscutum* ssp. *arcanus*, *O. versicoloreus*, *Yngveella scutellaris* ssp. *iokaste*, *Horvathiella umbrina*, *Bowdenella hirtula*, *B. gloriosa*, *Probosciodocoris tamburanus*, *P. bifasciatus*, *P. saginatus*, *P. asper*, *Polymerus xerophilus*, *Charagochilus pallidus*, *C. mollis*, *Halticus punctiger*, *Nanniella palustris*, *N. gracilis*, *Orfhotylus acaciicola* ssp. *chariensis*, *O. polemon*, *O. massawanus*, *O. indigoferae*, *O. asper*, *O. kenamuke*, *O. vittiger*, *O. rubrocuneatus*, *O. tamarindi*, *O. tamarindi* ssp. *nubaensis*, *O. strigilifer*, *O. mollis*, *O. repandus*, *O. compactus*, *O. omanensis*, *O. halaibicus*, *O. halaibicus* ssp. *abbreviatus*, *Pseudoloxops sudanicus*, *Druthmarus tibialis*, *Jiggiga nigra*, *Grewiocoris elongatus*, *G. harrarensis*, *Malacocoris montanus*, *Hyalosomalla depressa*, *Mecomma fumida*, *Cyrtorrhinus viridis*, *Pilophorus pilosus* ssp. *brevicollis*, *P. minutissimus*, *Ambonea v-rubra*, *A. tamaricis*, *A. russeola*, *A. uniformis*, *Aloea cunealis*, *A. cunealis* ssp. *persimilis*, *A. planiceps*, *A. nigriflora*, *A. callosa*, *Trichophorella monticola*, *T. palustris*, *T. ocellaris*, *T. pilipes*, *Aeolocoris curtulus*, *A. decarinatus*, *A. pusillimus*, *A. nigrinus*, *Diocoris pilosus*, *Formicopsella magniceps*, *Kapoeta somalica*, *Aspidacanthus globicollis*, *Glossopeltis combrelicola*, *G. ornatus*, *Ruwaba elegans*, *Allocomimus hilaris*, *Glaphyrocoris v-albus*, *G. torridus*, *G. varians*, *G. varians* ssp. *microphthalmus*, *G. antennalis*, *G. opertus*, *Lae-mocoris nomadicus*, *L. angusticollis*, *L. pygmaeus*, *Plagiorrhama ruficollis*, *P. punctatulus*, *P. monticolus*, *P. quadripunctatus*, *P. sororeulus*, *P. curtipes*, *P. lucidulus*, *P. jocosus*, *P. jocosulus*, *Shendina globiceps*, *Zinjolopus elegans*, *Z. albostrigatus*, *Somalocoris pulcher*, *Dignata ocellaris*, *Ectagela suavis*, *E. safahana*, *E. vitellina*, *E. ghazalensis*, *E. novella*, *E. bicuspadata*, *E. trichilliae*, *E. armata*, *E. darfarensis*, *Darectagela celata*, *Ghazalocoris modestus*, *Ellenia anuak*, *E. mollis*, *E. guttata*, *E. hyaliniipennis*, *E. picticornis*, *Schoerederiella nigra* ssp. *pallidicornis*, *S. paludicola*, *Nubata longiceps*, *Waupsallus rubromaculatus*, *W. tricuspidatus*, *W. dentatus*, *W. hilaris*, *Godatatra pul-*

chella, *G. aqualla*, *G. ectagela*, *Yotata nigricornis*, *Psallus jurorum*, *Stigmocorista rorida*, *S. velata*, *S. crassa*, *S. marcida*, *Compsidolon torridum*, *C. surdum*, *Ethtractus planicornis*, *Indatractus pantherinus*, *Plagiognathidea griseescens* ssp. *atricapillus*, *P. flavescens*, *P. minuta*, *P. simplex*, *Oreocapsus pallipes*, *O. immundus*, *O. lividus*, *O. nemoralis*, *O. serotinus*, *O. tristis*, *Anonychella abendica*, *Thymopsallus alpinus*, *T. ericetorum*, *Gedioris lepladeniae*, *G. vitellinus*, *G. hargeisanus*, *Darfuromma celqta*, *Campylomma mundrica*, *C. somalica*, *C. imitans*, *C. montana*, *C. hilaris*, *Stenocapsus crotonicolus*, *S. minutus*, *S. admittens*, *Psallomimus ornatus*, *P. insignitus*, *P. tibialis*, *P. bicoloripes* ssp. *plagiatus*, *Auchenocrepis gracilis*, *Tuponia adenica*, *T. platycranoides*, *T. somalica*, *T. diversa*, *T. ornatipes*, *Aphaenophyes richteri* ssp. *elongatus*, *A. juniperinus*, *Eurycranelia nubica*, *Isometopus pictus*, *I. lunaris*, *I. niger*, *Magnocellus scutellaris*, *Mgiomma montana*, *M. zandana* and *M. juniperina*. Statistical data and illustrations of the male genitalia of several previously known species are included.

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The present paper is a continuation of the author's previous survey (LINNAVUORI 1971a, 1971b, 1973b, 1974) on the Hemiptera fauna of the Sudan, based on collections made on my field trips in 1961 - 1963 to the Sudan, Eritrea, Ethiopia, Somalia and South Yemen. Concerning details of these trips the reader is referred to the preface of the first part of this survey and to the map of the collecting localities (Fig. 1).

The most important paper on the African Miridae is still B. POPPIUS' »Die Miriden der äthiopischen Region» (1912, 1914). After that only a few scattered papers dealing with the group have appeared, such as ODHIAMBO's works on East African Miridae (1958 - 1959).

Excluding ODHIAMBO's papers, the former descriptions of the Miridae species are often too incomplete for a safe identification. Fortunately most of Poppius' types are located in the Zoological Museum of the University of Helsinki and were therefore available for identification of my material. The large amount of new species from the Sudan and the adjacent areas is not surprising, since only a relatively small number of species of this largest Heteropterous family has hitherto been described from the Ethiopian Region. A great number of undescribed species can still be expected to be found from the other parts of this immense region.

List of the collecting localities, indicated with numbers: In the text the collecting localities have been replaced by numbers: 6 = Ed Damer, 61 - 52 = Tambura - Wau (the

specimen found on journey from Tambura to Wau), 73 - 75 = Opari - Magwe, etc.

The Sudan

Northern Province

- 1 Debeira 6 - 13. X. 1962
- 2 Wadi Halfa 14 - 17. X. 1962
- 3 Abu Hamed 18 - 20. X. 1962
- 4 Abidiya 18 - 20. X. 1962
- 5 Athara 27 - 30. X. 1962
- 6 Ed Damer 5 - 10. VII. 1961, 27 - 30. X. 1962
- 7 Shendi 2 - 5. XI. 1962

Khartoum

- 8 Wad Hassuna 5 - 6. XI. 1962
- 9 Khartoum 30. VI - 3. VII. 1961, 7. XI. 1962

Kassala

- 10 Jebel Elba 10 - 14. XII. 1962
- 11 Mersa Halaib 10 - 14. XII. 1962
- 12 Mohammed Qol 15. XII. 1962
- 13 Port Sudan 15. XII. 1962
- 14 Suakin 5. XII. 1962
- 15 Abend Pass 5. XII. 1962

16 Sinkat 15. XII. 1962

17 Erkwit 5 - 10. VII. 1961,

4. XII. 1962

18 Haiya 1 - 3. XII. 1962

19 Kassala 29 - 30. XI. 1962

Blue Nile

- 20 El Geteina 11. V. 1963
- 21 Wad Medani 11 - 14. XI. 1962
- 22 Singa 15 - 17. XI. 1962
- 23 Umm Banein 14. XI. 1962
- 24 Abu Hashim 23 - 24. XI. 1962
- 24 Galegu 23 - 24. XI. 1962
- 25 Ed Damazin 15 - 17. XI. 1962
- 26 Ingessana Mts. 17 - 22. XI. 1962
- 27 Wad es Zaki 10. V. 1963
- 28 El Jebelain 2. I. 1963
- 29 Kosti 22. I. 1963
- 30 Wusa's 23 - 24. I. 1963
- 31 Umm Koweika 23 - 24. I. 1963
- 32 Selima 24. I. 1963
- 33 Tendelti 25. I. 1963

Kordofan

- 34 Umm Ruwaba 25 - 28. I. 1963
- 35 El Obeid 29. I. 1963
- 36 Dilling 30. I - 1. II. 1963
- 37 Jebel Shivai 6 - 7. II. 1963
- 38 Umm Shuheita 6 - 7. II. 1963
- 39 Talodi 12 - 13. II. 1963
- 40 Kadugli 2 - 14. II. 1963
- 41 Keilak Lake 8 - 11. II. 1963
- 42 El Lagowa 14. II. 1963
- 43 Babanusa 15. II. 1963

Darfur

- 44 Ed Daein 3 - 7. V. 1963
- 45 Abu Matariq 2. V. 1963
- 46 Safaha 30. IV. 1963

Bahr el Ghazal

- 47 Aweil 19. II. 1963
- 48 Wararalr 18. II. 1963
- 49 Godatair 19. II. 1963
- 50 Khor Kyom 18. II. 1963
- 51 Pongo R. 18. II. and 28. IV. 1963

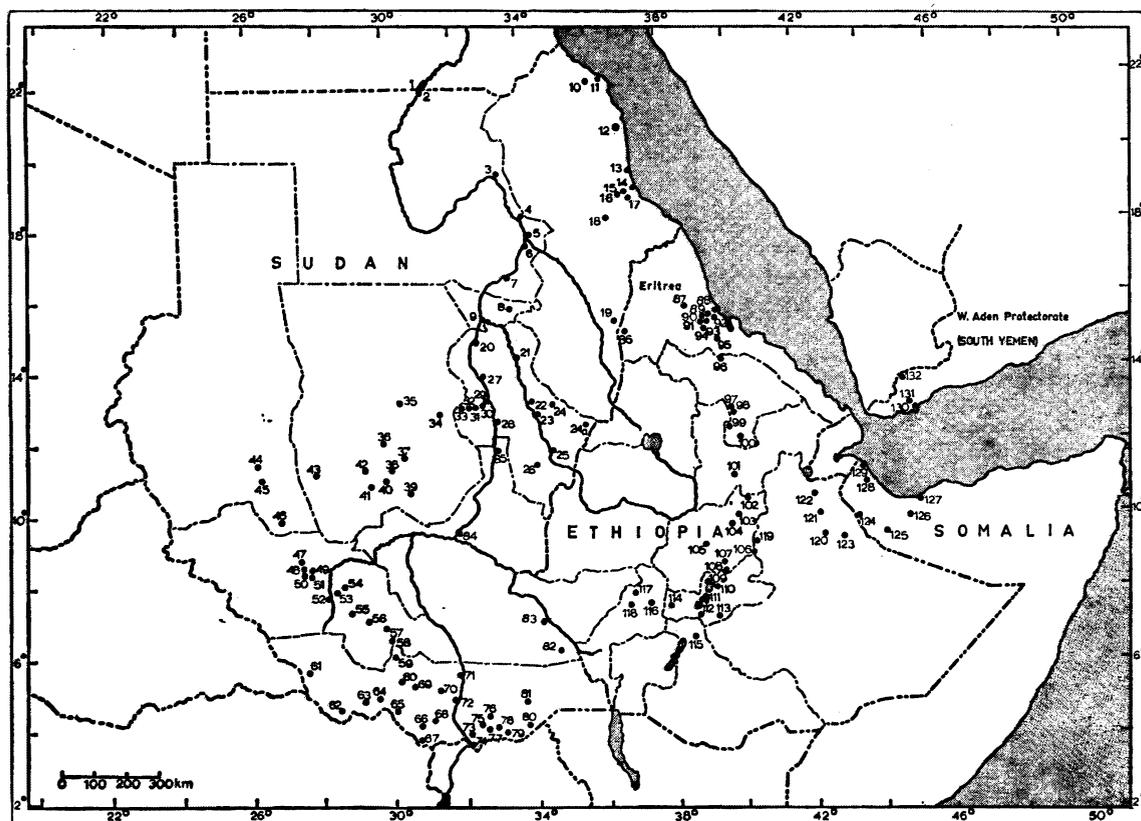


Fig. 1. The localities studied.

- 52 Wau 19 - 20. II and 27. IV. 1963
 53 Gwurra 21. II. 1963
 54 Maleit Lake 21. II. 1963
 55 Tonj 22. II. 1963
 56 Gel R. 22. II. 1963
 57 Rumbek 22. II. 1963
 58 N'Boloko 23. II. 1963

Equatoria

- 59 Mwolo 23. II. 1963
 60 Mundri 24. II. 1963
 61 Tambura 25 - 26. IV. 1963
 62 Yambio 18 - 25. IV. 1963
 63 Ibba 16. IV. 1963
 64 Maridi 15. IV. 1963
 65 Senamblo 14 - 15. IV. 1963
 66 Yel 12 - 13. IV. 1963
 67 Iwatoka 12 - 13. IV. 1963
 68 Loka forest 8 - 10. IV. 1963
 69 Lirek 25 - 26. II. 1963
 70 Lalyo 25 - 26. II. 1963
 71 Terakeka 2 - 6. III. 1963

- 72 Juba 27. II. - 2. III. 1963
 73 Opari 13. III. 1963
 74 Nimule 10 - 13. III. 1963
 75 Magwe 13. III and 31. III. 1963
 76 Torit 24 - 25. III. 1963
 77 Lotti forest 14 - 17. III and
 28 - 31. III. 1963
 78 Kateri (Katire) 18. III. 1963
 79 Gilo 18 - 24. III. 1963
 80 Nagichot 26. III. 1963
 81 Kapoeta 26. III. 1963

Upper Nile

- 82 Boma 26 - 27. III. 1963
 83 Pochalla 13. I. 1963
 84 Malakal 5 - 20. I. 1963
 85 Renk 2 - 4. I. 1963

Eritrea

- 86 Tessenei 22. V. 1963
 87 Keren 23 - 24. V. 1963
 88 Massawa 27 - 30. V. 1963

- 89 Allet 25 - 26. V. 1963
 90 Ghinda 25 - 26. V. 1963
 91 Asmara 23 - 24. V. 1963
 92 Dogali 25 - 26. V. 1963
 93 Embatcalla 25 - 26. V. 1963
 94 Decamere 25 - 26. V. 1963
 95 Addi Catch (Adi Kaie) 31. V. 1963

Ethiopia

- 96 Adigrat 31. V. 1963
 97 Amba Alagi 1. VI. 1963
 98 Mai Chew (Mai Chio) 1. VI. 1963
 99 Alamata 1. VI. 1963
 100 Raia Plain 1. VI. 1963
 101 Dessie 2. VI. 1963
 102 Karakore 2. VI. 1963
 103 Mussolini Pass 3. VI. 1963
 104 Debra Berhan 3. VI. 1963
 105 Sululta 11. VI. 1963
 106 Awash 6 - 9. VI. 1963
 107 Nazareth (Adama)
 20 - 21. VI. 1963

108 Koka Dam 6 - 9. VI. 1963	117 Agaro 12 - 17. VI. 1963	125 Hargeisa 23 - 28. VI. 1963
109 Zwai Lake 6 - 9. VI. 1963	118 Belleta forest 12 - 17. VI. 1963	126 Daragodleh 25 - 27. VI. 1963
110 Asella 21. VI. 1963	119 Machi 6 - 9. VI. 1963	127 Berbera 2 - 27. VI. 1963
111 Langanno Lake 6 - 9. VI. 1963	120 Harrar 22. VI. 1963	128 Silli 29. VI. 1963
112 Shashamanni (Wondo cloud forest) 6 - 9. VI. 1963	121 Faramala Lake 22. VI. 1963	129 Zella 30. VI. 1963
113 Agheresalam 6 - 9. VI. 1963	122 Dire Dawa 22. VI. 1963	
114 Omo Valley 12 - 17. VI. 1963	123 Jiggiga (Jijiga) 22 - 23. VI. 1963	<i>South Yemen</i>
115 Wondo 6 - 9. VI. 1963		130 Sheikh Othman 9 - 15. VII. 1963
116 Maigudo Mt. 12 - 17. VI. 1963	<i>Somalia</i>	131 Lahej 9 - 15. VII. 1963
	124 Borama 29. VI. 1963	132 Dhala 9 - 15. VII. 1963

I. Miridae

Bryocorinae

✓ *Monalocoris* Db.

Sthenarusoides Dist., listed as a strict synonym of *Monalocoris* by CARVALHO (1957: 110), is, in my opinion, a separate subgenus differing as follows:

Monalocoris s. str.

Elytra rather horizontal and impunctate; costal margin ± broadly laminate especially basally, left stylus bifurcate with a strongly produced sensory lobe, right stylus very small.

Sthenarusoides Dist.

Elytra rather convex, strongly decliving ventrad laterally, distinctly punctate; costal margin narrow, not laminate; left stylus not bifurcate, sensory lobe obtuse, right stylus well developed.

To *Sthenarusoides* belong *M. montanus* (Dist.), the type species, from Seychelles, *M. parvulus* Rt. from Madeira and the following new species.

M. (Sthenarusoides) punctipennis sp. n.

Length 2.2 - 2.75 mm. Shiny black. Head yellow-brown, 1st and 2nd antennal joints yellow-brown, 2nd joint in apical part ± broadly fuscous, 3rd and 4th joints black, the extreme base of the former pale. Legs yellow-brown, femora usually with a fuscous apical ring.

A very small species much resembling *M. parvulus* Rt. Hair covering dense, brownish. Ocular index (♂♀) 2.3 - 2.9. Antennae short, proportions between joints 5:16:9:7, 2nd joint thickening apicad, 1.23 (♂) or 1.07 (♀) × as long as diatone. Rostrum extending to middle coxae. Pronotum with a broader and shinier collar than in the other species, calli rather large, disc densely and coarsely punctate. Scutellum finely wrinkled. Elytra coarsely and densely punctate save apically. Styli as in Figs. 2 a - d.

Equatoria: Lotti forest, 1 ♂, type and many paratypes, 14 - 17. III. 1963; near Gilo, 1 paratype, 18 - 24. III. 1963. Nigeria, Erin-Odo, 1 paratype, 16. XI. 1970, J. Medler. On *Pteridium aquilinum* in a rain forest.

Very near to *M. parvulus* Rt., but much smaller, with larger eyes, shorter and dissimilarly coloured antennae and different genitalia.

Prodromus Dist.

P. kawandanus Odh. - 78 - 79, 1 ex.; 68, several exx., 62, 1 ex. Previously known from Uganda.

✓ *P. aethiopicus* Pop. Right stylus in Fig. 2 f - g, genital segment in Fig. 2 e. 72, several exx.; 60, 1 ex.; 60 - 70, several exx. E. Africa.

✓ *P. ibbaicus* sp. n.

Length 4 mm. Like *P. aethiopicus* Pop., but 1) eyes smaller, 2) proportions between antennal joints 9:18:22:25, 1st joint 0.54 - 0.6 × as long as diatone, 2nd slightly shorter than total length of pronotum, 3rd and 4th joints infuscate (in *aethiopicus* 1st joint 0.7 × as long as diatone, 2nd as long as or slightly longer than pronotum, 3rd distinctly shorter than 2nd, proportions between joints 12:22:17:?), 3) rostrum short, not extending to middle coxae (slightly beyond middle coxae in *aethiopicus*), 4) pronotum considerably shorter and broader, 1.2 - 1.3 × as broad as long, and coarsely punctate (in *aethiopicus* only 1.15 × as broad as long, densely and finely punctate) and 5) right stylus (fig. 2 h) much shorter and more strongly curvate.

Equatoria: Ibba - Yambio, 1 ♂, type and 2 ♀ paratypes, 16. IV. 1963.

In *P. joveri* De Lattre and *P. thaliae* Ch. even the 1st and 2nd antennal joints are fuscous. In *P. kawandanus* Odh. these joints are red and the 2nd joint is distinctly longer than the pronotum etc.

Kunungua Cv.

K. pallida sp. n.

Length 4 mm. Shiny. Pale greyish ochraceous (possibly greenish in life). Vertex and frons golden. Calli yellowish. Scutellum slightly infumated. Apical part of clavus embrowned. Dorsum of abdomen somewhat darkened. Under surface, antennae and legs pale.

Robust, body 2.75 × as long as broad. With short, pale and erect hair covering, longest on clavus. Head 0.64 × as broad as pronotum, strongly declivous, nearly vertical apically in lateral view; frons moderately convex, separated from the prominent tylus by a transverse suture. Antennal pits close to eyes. Vertex with a shallow median furrow. Eyes prominent and substylate, ocular index 2.12. Antennae gracile, with short and smooth hairs, proportions between joints 9:16:7:?, 1st joint as long as synthipsis, 2nd slightly shorter than diatone (16:17.5). Rostrum extending to near middle coxae. Pronotum 1.17 × as broad as long, lateral margins shallowly concave, basal margin nearly straight, humeral angles broadly rounded; collar densely punctate, nearly as broad as calli; these rather elevated, separated from each other medially by a longitudinal depression; disk strongly convex, very densely and regularly punctate. Visible part of scutellum small, sharp-tipped, impunctate. Elytra only very obsoletely punctate, embolium swollen, cuneus twice as long as broad, membranal cell angulate at apex. Legs gracile, short-haired.

pronotum with relatively fine puncturation (as compared, e.g., with the preceding species). Scutellum densely punctate. Elytra rather opaque, finely punctate. Male genitalia as in Fig. 30 s-u.

Kassala: Erkowit, 1 ♂, type and 2 ♀ paratypes, 5-10. VII. 1961.

C. mollis sp. n.

Length 3.25 mm. Opaque. Blackish brown. Head with a pale roundish spot at either eye and another at antennal pits. Antennae uniformly black. Collar slightly paler. Elytra dark brown, base of clavus and of corium, a triangular medio-apical spot on corium and medio-basal and apical angle of cuneus yellow-brown. Membrane and veins dark brown. Ostiolar peritremes white. Legs yellow-brown, apical half of hind femora dark brown.

Hair covering long and brownish, adpressed pubescence very sparse. Head 0.85 × as broad as pronotum, ocular index 1.5. Antennae gracile, proportions between joints 8 : 23 : 14 : 20, 2nd joint 0.87 × as long as basal width of pronotum. Rostrum extending well beyond hind coxae. Pronotum 1.6 × as broad as long, collar slightly thicker than 1st antennal joint, disk densely but rather finely punctate and rugose. Scutellum transversely wrinkled, shagreened. Elytra very obsoletely punctate. Larger cell of membrane angular at apex. Proportions between joints of hind tarsi 10 : 14 : 14 (in *pallidus* 11 : 14 : 15). Male genitalia as in Fig. 30 v-y.

Ivory Coast, Lamto, 1 ♂, type (my collection), 17. XII. 1965, D. Gillon. Chad, near Fort Lamy, 1 ♂ paratype (Mus. Paris), 15. VII. 1963, J. Péricart.

Near *C. obscurellus* Odh. (Uganda), but differing in the broader vertex, the larger size the dissimilarly coloured elytra, the longer rostrum and the shape of the left stylus.

Orthotylinae

Halticus H.

Two species of the genus (*H. minutus* Rt. and *H. tibialis* Rt.), both with paleotropical ranges, have been recorded from Africa.

✓ *H. tibialis* Rt.

Left stylus as in Fig. 31 a-c.

72-74, several exx.; 30 km. N of 71 several exx. On an unidentified representative of Cucurbitaceae. Range in Africa: W. Africa, Congo, E. Africa.

H. minutus Rt. is a very similar species, differing in the paler femora with a distinctly pale apex. Also the hind tibiae are only faintly darkened basally.

✓ *H. punctiger* sp. n.

Length 2.7 mm. Shiny black. 1st and 3rd antennal joints pale, 2nd black. Rostrum yellow-brown. Femora dark brown, anterior and middle femora ventrally paler. Tibiae black in basal half, apically pale. Tarsi pale with the last joint dark.

Macropterous, slender, resembling *H. luteicollis* (Pz.) in body form. Hair covering black. Pear-shaped, distinctly broadening caudad. Head 0.7 × as broad as pronotum, in apical view slightly higher than broad, ocular index 2.66. Proportions between antennal joints 7 : 25 : 22 : ?, 2nd joint as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum, scutellum and elytra densely and distinctly punctate, the puncturation becoming sparser

towards apex of elytra. Pronotum 1.8 × as broad as long, strongly tapering apicad. Elytra longer than abdomen.

Equatoria: Yei-Iwatoka, 1 ♀, type, 12-13. IV. 1963. Easily recognized by the punctate upper surface.

✓ *Nanniella* Rt.

CARVALHO (1958: 61) has listed *Nanniella* as a synonym of *Falconia* Dist. (a neotropical genus). *Falconia* Dist., of which the species *F. poetica* Dist. (= *caduca* Dist.) was studied, differs from *Nanniella* in the larger size, the yellowish ground colouring, the distinctly globose frons, the large eyes, the gracile rostrum, the very long 1st antennal joint, the longer and anteriorly distinctly constricted pronotum, the large well-raised calli etc. *Falconia* belongs to the tribe Orthotylini, while the structure of the head, the strongly incrassate 1st joint of the rostrum etc. show *Nanniella* to be a representative of the tribe Halticini, in which it was placed by POPPIUS 1914: 82-83. Two species of the genus (*N. chalybaea* Rt. and *N. reuteri* Pop.) have previously been known.

Key to the species

- 1 (2) A large and remarkably gracile species. Length 3.5-3.75 mm., body about 3.8 × as long as broad at pronotum *gracilis*
- 2 (1) Smaller species, length at most 3 mm., body at most 3.5 × as long as broad at pronotum 3
- 3 (4) Antennae black with 1st joint totally or only basally pale yellow *chalybaea*
- 4 (3) Antennae yellow with minor fuscous markings 5
- 5 (6) 2nd antennal joint apically infuscate. Cuneus short, blackish *reuteri*
- 6 (5) 2nd antennal joint totally pale, Cuneus longer, basally black, apically broadly pale yellow *palustris*

✓ *N. chalybaea* Rt.

Length 2.5-3 mm. ♂ parallel-sided, about 3.5 × as long as broad at pronotum, ♀ elongately ovate, about 3 × as long broad. Antennae black, 1st joint totally or only basally pale yellow. Legs yellow-brown, often ± lightly embrowned (the different colours not sharply contrasted). Eyes prominent, ocular index 1.3-1.8 (♂) or 2.25 (♀). Proportions between antennal joints 6 : 23 : 15 : 15, total length of antennae about 0.8 × as long as body. Pronotum 1.6-1.7 × as broad as long, relatively finely punctate. Styli as in Fig. 31 d-g. Full description in POPPIUS 1914:83.

Type studied: Zaïre, Kinchassa, 1 ♂ cotype, here selected as the lectotype, Waelbroeck, Mus. Helsinki.

63-62, several exx.; 68, 2 exx.; 64, 1 ex., 61-52, 1 ex. 62 several exx.; 66-64, several exx. In moist localities. Previously known from Zaïre.

✓ *N. palustris* sp. n.

Length 2.5-2.8 mm. Less elongate than *chalybaea*, about 3 × as long as broad. Puncturation much coarser. Very close to *reuteri* Pop. differing as follows:



Fig. 31. *Halticus tibialis* Rt.: a - c left stylus. - *Nanniella chalybea* Rt.: d - e left and f - g right stylus. - *N. palustris* sp. n.: h - j same. - *N. gracilis* sp. n.: k - l same. - *Orthotylus priesneri* Schm.: m processes of vesica; n lower process of same; o dorsal process of same (marked with arrow in Fig. m). - *O. acacicola* Ldb. (paratype): r left and q right stylus; p processes of vesica. - *O. acacicola chariensis* ssp. n.: s - t styli; u dorsal process of vesica (marked with arrow in Fig. p).

reuteri Pop.

2nd antennal joint apically infusate.

Cuneus shorter, black or blackish brown.

Legs pale yellow, tibiae apically slightly infusate.

Eyes larger, ocular index 2.0 - 2.57.

Pronotum longer and flatter, less coarsely punctate, lateral margins distinctly insinuated, calli somewhat elevated.

Styli as in Fig. 30 h - j.

Equatoria: Loka forest, 1 ♂, type and 1 ♀ paratype, 8 - 10. IV. 1963. From a swampy meadow. Also known from Zaire (Katanga).

Material of *N. reuteri* studied: E. Africa, Langenburg, 3 ♀♀, types, Fülleborn, Mus. Helsinki.

palustris n. sp.

2nd antennal joint totally pale.

Cuneus longer, basally black, apically broadly pale yellow.

Legs yellow-brown, tibiae apically more distinctly embrowned, in ♀ also apex of hind femora and base of hind tibiae embrowned.

Eyes smaller, ocular index 2.77 - 3.0.

Pronotum broader, more convex, remarkably coarsely punctate, lateral margins only slightly insinuated, calli not elevated, also scutellum and elytra somewhat more coarsely punctate.

✓ *N. gracilis* sp. n.

Length 3.5 - 3.75 mm. Shiny black. Hair covering greyish. Antennae with 1st and 2nd joints and base of 3rd narrowly yellowish, other parts black. Femora yellow-brown, on anterior surface somewhat infumed, tibiae black, tarsi bicoloured, 1st and 2nd joints yellowish, 3rd joint black (colours sharply contrasted). Cuneus apically broadly pale, membrane dark with paler spots.

The largest and most gracile species. Body about 3.8 × as long as broad at pronotum. Ocular index 2.1 - 2.2. Antennae long and gracile, nearly as long as body, proportions between joints 10 : 34 : 22 : 20, 2nd joint 1.5 (♂) or 1.2 (♀) × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum much narrower than in the other species, only 1.4 × as broad as long, lateral margins shallowly insinuated, collar distinct (nearly absent in the others), disk rather coarsely punctate. Scutellum and elytra distinctly punctate. Elytra longer than abdomen. Legs remarkably long. Styli as in Fig. 31 k - l.

Equatoria: near Gilo, 1 ♂, type and some paratypes, 18 - 24. III. 1963. On mountain meadows.

Orthotylus Fb.

The genus comprises a large amount of Palearctic species, but rather few species have been described from Africa south of the Sahara. The examination of my material revealed several

species from the Sudan and the adjacent areas, which suggests that the genus is probably well represented in other parts of Africa too. Most species in my material belong to the *priesneri* group (relatively small species with opaque and coriaceous elytra, with also dark hairs occurring on the upper surface and with characteristic genitalia). LINDBERG (1958:103) regarded a species of the group, *O. acacicola* Ldb., as belonging to *Orthotylus* s.str., while WAGNER (1960: 93 - 94) assumed another species, *O. macrophthalmus* Wgn., to be a *Melanotrichus* Rt. Despite the dark hairs of the upper surface, whose density varies in the different species, I concur with LINDBERG. At any rate the structure of the penis is so different that the group cannot be connected with *Melanotrichus*. The species of the group seem to live on *Acacia* and related plants. The second group, the *tamarindi* group is recognized by the dentate processes or teeth at the genital opening of the pygophore. In the arid areas of the region studied some *Melanotrichus* (*Halocapsus* Pt.) species occur, being closely related to certain Mediterranean or Eremian forms of the subgenus. It seems best to locate *Orthotylus ericinellae* Pop. in the subgenus *Litocoris* Fb., although it has a simple penis without the dentate processes existing in the Palearctic species of the subgenus.

1. *priesneri* group

✓ *O. priesneri* Schm.

A variable species in size and ocular index. The latter usually 0.67 - 0.96 (♂) or 1.4 - 1.5 (♀) in the Erkowit population 1.0 - 1.09 (♂). Upper surface also with black hairs. Male genitalia illustrated previously (LINNAVUORI 1961: 5 - 6). Additional illustrations of penis in Fig. 31 m - o, the lower appendage with two branches: one straight and thin, the other shorter, narrowly triangular and dentate, the upper appendage gracile. 6, many exx.; 6 - 7, several exx.; 9 several exx.; 17, several exx., 11, 1 ex.; 14, several exx.; 21, several exx.; 36 - 40, 1 ex.; 35, several exx.; 35 - 36, 2 exx.; 32, 1 ex.; 45, 2 exx. On *Acacia*. At lamp. Common in the arid areas of the Sudan. Eremian (Egypt, Israel, Eritrea, Somalia, Arabia).

✓ *O. priesneri* Schm. ssp. *macrophthalmus* Wgn., status n.

Orthotylus macrophthalmus WAGNER 1960: 93 - 94.

Differs from the nominate form in the ocular index: 1.1 - 1.2 (♂) or 1.65 - 1.7 (♀). The Erkowit population is intermediate between the nominate form and ssp. *macrophthalmus*.

Material studied: Saudi-Arabia: El Riyadh, 1 ♂, IX. 1958, Diehl.

✓ *O. acacicola* Ldb.

For description see LINDBERG 1958: 103 - 104. Very near to *priesneri* but differing in some details of the genitalia:

right stylus (Fig. 31 q) shorter and apically blunter and provided with minute teeth on inner surface but not at apex; left stylus (Fig. 31 r) with a broadly rounded sensory lobe, hypophysis rather broad; penis (Fig. 31 p) much as in *priesneri*, but the upper appendage shorter and thicker.

Material studied: Cape Verde Is., 1 ♂ paratype, Lindberg.

✓ *O. acacicola* Ldb. ssp. *chariensis* ssp. n.

Like the nominate form, but 1) apex of right stylus (Fig. 31 t) narrower, 2) dorsal margin of left stylus (Fig. 31 s) insinuated, sensory lobe therefore narrower and strongly prominent, hypophysis narrower, 3) dorsal appendage of penis (Fig. 31 u) somewhat longer and narrower.

Chad, Bas-Chari, near Fort Lamy, 1 ♂, type, Péricart. Cameroon, Bas-Chari, 2 ♀ paratypes, near Fort Fourreau, Péricart. Type and a paratype in Mus. Paris, a paratype in my collection. On *Acacia nilotica* and *Albizzia chevalieri*.

The subspecies shows some intermediate characters between *priesneri* and *acacicola*. Additional material is needed from West Africa to elucidate the taxonomic relations of these forms.

✓ *O. polemon* sp. n.

Length 3.5 mm. Resembling *priesneri*. Ocular index 0.8. Head 0.7 × as broad as pronotum. Proportions between antennal joints 7 : 30 : 26 : ?, 2nd joint slightly longer than basal width of pronotum. Rostrum extending to middle coxae. Genitalia as in *priesneri* with the following differences: right stylus (Fig. 32 b) club-shaped, bearing a row of 7 teeth on inner surface; left stylus (Fig. 32 a) with somewhat broader hypophysis; penis with the apical process (Fig. 32 c - d) shorter and the upper branch shorter and thicker, lower branch as in Fig. 32 e.

Saudi-Arabia, Mahdatha, 1 ♂, type in my collection.

✓ *O. massawanus* sp. n.

Length 3 mm. Like *O. priesneri*. Ocular index 0.8 - 1.0 (♂) or 2.0 (♀). Male genitalia; right stylus (Fig. 32 f) broader, provided with about 4 apical teeth and some small tubercles on inner surface; left stylus (Fig. 32 g) large, sensory lobe rounded, hypophysis long, strongly tapering apicad; penis (Fig. 32 h - i) much as in *priesneri*, but apical process shorter and bent ventrad and the upper and lower appendages somewhat shorter.

Eritrea, 89, some paratypes; Massawa, 1 ♂, type and a paratype, 27 - 30. V. 1963. At lamp.

✓ *O. indigoferae* sp. n.

Length 3.3 - 3.5 mm. Much like *priesneri*. Opaque. Head, pronotum and scutellum fulvous with a pale longitudinal median band. Antennae yellowish. Elytra green, partly with fulvous tinge; membrane and inner vein dark smoky, outer veins whitish. Under surface and legs yellowish.

Elongate. Upper surface with blackish and yellowish hairs and dense silvery tomentum. Head small, 0.8 - 0.85 × as broad as pronotum, eyes rather small, ocular index 1.4 (♂) or 2.3 - 2.57 (♀). Proportions between antennal joints 8 : 30 : 26 : 14, 2nd joint 1.1 - 1.15 × as long as basal width of pronotum. Rostrum extending to hind coxae. Male genitalia: right stylus (Fig. 32 k) long and narrow, strongly dentate; left stylus (Fig. 32 j) much as in *massawanus*; penis (Fig. 32 l) with the upper vesical appendage long and narrow with apex expanded and dentate, and the lower appendage long, simple and falcate and directed basad.

South Yemen: Wadi Tiban, N.W. of Jebel Jihaf, 1 ♂ type and 1 paratype, 22. X. 1937, Scott & Britton. Yemen: Usaifira, near Ta'izz, some paratypes, 13. XII. 1937, Scott &

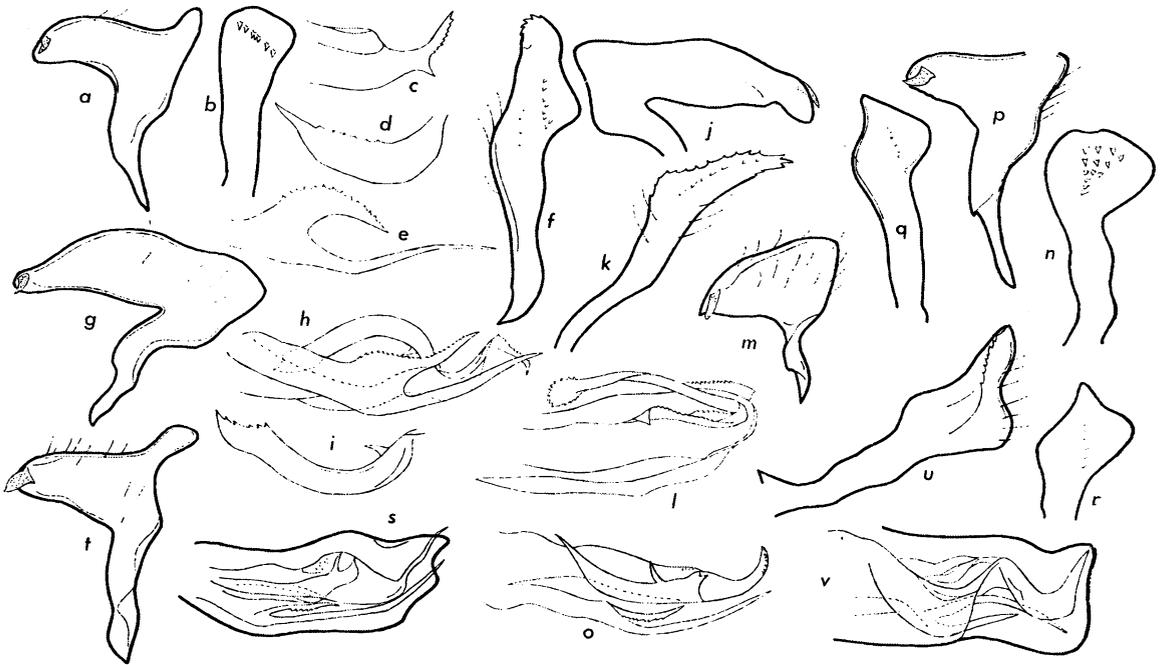


Fig. 32. *Orthotylus polemon* sp. n.: a - b styli; c apical, d dorsal and e ventral process of vesica. - *O. massawanus* sp. n.: f - g styli; h processes of vesica; i dorsal process of same. - *O. indigoferae* sp. n.: j - k styli; l processes of vesica. - *O. asper* sp. n. m - n styli; o processes of vesica. - *O. kenamuke* sp. n.: p - r styli; s penis. - *O. vittiger* sp. n.: t - v same.

Britton. Type and paratypes in British Museum, paratypes also in my collection. On *Indigofera oblongifolia*.

✓ *O. asper* sp. n.

Length 3.5 mm. Like *O. priesneri*. Ocular index 0.55 (♂) or 1.4 (♀). Male genitalia; right stylus (Fig. 32 n) with strongly expanded apex bearing a group of coarse teeth; left stylus as in Fig. 32 m; penis (Fig. 32 o) with a claw-like apical process; upper vesical appendage smooth, falcate, with a claw-like subbasal process.

Equatoria: Yei - Maridi, 1 ♂, type 13 - 15. IV. 1963. Moreover the following ♀♀ probably belong to the species: 72, 2 ♀♀; 60, 1 ♀; 30 km N of 71, 3 ♀♀. Found in the last-named locality on *Tamarindus indicus*.

✓ *O. kenamuke* sp. n.

Length 3.5 mm. Like *priesneri*, but hair covering of upper surface nearly totally pale (at most a few scattered darker hairs present). Ocular index 0.6 - 0.7 (♂) or 2.0 (♀). Costal margin of elytra only slightly paler. Male genitalia: right stylus (Fig. 32 q - r) with apex irregularly squarish, bearing a few minute teeth on inner surface; left stylus (Fig. 32 p) nearly as in *asper*, but sensory lobe narrower; apical process of penis (Fig. 32 s) gracile, flagellate.

Equatoria: Kapoeta - Boma, 1 ♂, type and 8 paratypes, 26 - 27. III. 1963. Probably on *Tamarindus indicus*.

✓ *O. vittiger* sp. n.

Length 2.75 - 3 mm. Like *priesneri*, but smaller. Upper surface usually with a pale longitudinal line from head to tip

of scutellum. Ocular index 0.95 (♂) or 1.55 (♀). Male genitalia: right stylus (Fig. 32 u) expanded below the narrowish apex, a dentate ridge on the inner surface; left stylus (Fig. 32 t) with a narrow, strongly prominent sensory lobe; apical process of penis (Fig. 32 v) rather thick, hook-shaped.

Equatoria: Kapoeta - Boma, 1 ♂, type and several paratypes, 26 - 27. III. 1963.

✓ *O. rubrocuneatus* sp. n.

Length 3 mm. Opaque. Greenish with a golden tinge. Antennae bright yellow. Anterior and lateral margins of pronotum and costal margin of elytra whitish. Cuneus purple, lateral margin narrowly whitish. Membrane and veins dark brown. Under surface pale. Legs yellowish.

Small and robust. Hair covering yellowish. Eyes large (vertex of the examined specimen shrunken between eyes). Proportions between antennal joints 5 : 29 : ? : ? , 2nd joint as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum transverse, about 2.2 × as broad as long. Male genitalia: right stylus (Fig. 33 d) short, broadly club-shaped; left stylus (Fig. 33 c) triangular in outline. Vesical appendages as in Fig. 33 a - b.

Somalia, Hargeisa, 1 ♂, type, 23 - 28. VI. 1963. At lamp.

2. *tamarindi* group

✓ *O. tamarindi* sp. n.

Length 2.5 - 3 mm. Rather opaque, pale green (probably brighter green in life). Head and pronotum somewhat paler. Antennae yellowish. Membrane pale, veins greenish. Legs yellowish green.



Fig. 33. *Orthotylus rubrocuneatus* sp. n.: a processes of vesica; b lower process of same, ventral aspect; c - d styli. - *O. tamarindi* sp. n.: e pygophore from side; f - g right and h left styli; i penis. - *O. tamarindi nubaensis* ssp. n.: j - k right styli; l dorsal process of vesica (marked with arrow in Fig. i). - *O. strigillifer* sp. n.: m pygophore from side; n process marked with arrow in Fig. m, broad aspect; o - p styli; q penis; r ventral process of same.

Parallel-sided, nearly $3 \times$ as long as broad at pronotum. Hair covering of upper surface pale, longish, semi-erect. Head about $0.73 \times$ as broad as pronotum, vertex basally only faintly margined, ocular index 0.9 (δ) or 1.6 (η). Proportions between antennal joints $6 : 22 : 19 : 9$, 2nd joint slightly shorter than basal width of pronotum. Rostrum extending to hind coxae. Pronotum twice as broad as long. Male genitalia: genital segment with long dentate processes on right side of genital opening (Fig. 33 e); Styli as in Fig. 33 f - h; Vesical appendages as in Fig. 33 i.

Northern Province: Ed Damer-Shendi, 1 δ , type and many paratypes, 1. XI. 1962. On *Tamarindus indicus*.

✓ *O. tamarindi* Lv. ssp. *nubaensis* ssp. n.

Length 3.25 mm. Like the nominate form, but somewhat robuster and hair covering darker. Ocular index 1.1 (δ). Right stylus as in Fig. 33 j - k. Subapical dorsal process of penis (Fig. 33 l; marked with arrow) narrower.

Kordofan: Kadugli, 1 δ , type, 2 - 14. II. 1963. At lamp.

✓ *O. strigillifer* sp. n.

Length 3.5 - 4 mm. A pale green elongate species resembling *O. mollis*. Head $0.7 \times$ as broad as pronotum. Eyes much smaller, ocular index $0.90 - 1.09$ (δ) or 1.8 (η). Proportions between antennal joints $7 : 29 : 22 : 10$, 2nd joint $1.18 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum transverse, more than twice as broad as long. Genitalia characteristic, as in Fig. 33 m - r.

Equatoria: Kapoeta - Boma, 1 δ , type and 6 paratypes, 26 - 27. III. 1963.

✓ *O. mollis* sp. n.

Length 3.5 mm. Rather shiny. Yellowish green. Antennae and legs yellowish. Membrane whitish, veins green.

Elongate, body about $3.4 \times$ as long as broad at pronotum. Hair covering pale. Head about $0.72 \times$ as broad as pronotum. Vertex basally only faintly margined, eyes large, ocular index $0.70 - 0.77$ (δ) or 1.5 (η). Antennae long, proportions between joints $8 : 30 : 25 : 13$, 2nd joint $1.2 \times$ as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum slightly more than twice as broad as long. Elytra rather hyaline. Male genitalia as in Fig. 34 a - e.

77, 1 paratype; 74, 1 paratype; Torit - Kapoeta, 1 δ , type and 4 paratypes, 26. III. 1963.

✓ *O. repandus* sp. n.

Length 4 mm. Pale ochraceous (probably green in life). Antennae and legs yellow-brown. Membrane pale, veins yellowish.

A parallel-sided medium-sized species with pale hair covering. Body $3.2 \times$ as long as broad at pronotum. Head $0.7 \times$ as broad as pronotum, vertex basally only faintly margined, eyes large, ocular index $0.67 - 0.86$ (δ) or 1.9 (η). Antennae long, proportions between joints $8 : 38 : 30 : 15$, 2nd joint $1.5 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum twice as broad as long. Male genitalia characteristic, as in Fig. 34 f - i.

Equatoria: Kapoeta - Boma, 1 δ , type and 2 paratypes, 26 - 27. III. 1963; 72, 2 paratypes. On *Tamarindus indicus*.



Fig. 34. *Orthotylus mollis* sp. n.: a pygophore from side; b - c right and d left stylus; e penis. - *O. repandus* sp. n.: f right stylus; g processes of pygophore; h left stylus; i processes of vesica. - *O. compactus* sp. n.: j pygophore from side; k right and l left stylus; m processes of vesica; n ventral process of same (broken in Fig. m).

✓ *O. compactus* sp. n.

Length 3 - 4.5 mm. Rather shiny, greenish yellow. Antennae and legs yellow-brown. Elytra green, membrane pale, veins green.

Remarkably robust, elongately ovate, 2.7 - 3.0 × as long as broad at pronotum. Hair covering pale. Head 0.7 × as broad as pronotum, vertex basally sharply marginate and provided with a median longitudinal depression, ocular index 1.5 (♂) or 2.18 (♀). Proportions between antennal joints. 7 : 30 : ? : ?, 2nd joint as long as basal width of pronotum. Rostrum extending to near hind coxae. Pronotum slightly more than twice as broad as long, calli distinctly elevated. Male genitalia: right side of genital segment (Fig. 34 j) with numerous black teeth; right stylus (Fig. 34 k) small, ovate; left stylus as in Fig. 34 l, sensory lobe completely rounded; vesical appendages as in Fig. 34 m - n.

Equatoria: Torit - Kapoeta, 1 ♂, type and 1 paratype, 26. III. 1963; 52, 1 paratype. Not closely related to the preceding species and possibly representing another group.

3. Subgenus *Melanotrichus* Rt. (= *Halocapsus* Pt.)

✓ *O. (M.) martini* Pt. - 14, 1 ex. At lamp. Eremian, previously known from Algeria.

✓ *O. (M.) pusillus* Rt. - 14, several exx. On *Suaeda monoica* bushes in salt marshes. Eremian (Israel, Egypt, Arabia, Eritrea, Somalia).

✓ *O. (M.) omanensis* sp. n.

Length 3.2 mm. Rather shiny. Green. Antennae yellowish. Legs yellowish green.

Robust, parallel-sided, 2.5 × as long as broad. Hair covering pale, also silvery adpressed pubescence present. Head about 0.7 × as broad as pronotum, in apical view 1.4 × as broad as high, base of vertex distinctly marginate, ocular index 2.0. Antennae long, proportions between joints 6 : 27 : 22 : ?, 2nd joint 0.9 × as long as basal width of pronotum. Rostrum extending to hind coxae. Male genitalia: right stylus (Fig. 35 c - d) incrassate, with a long hypophysis; left stylus (Fig. 35 a - b) with some minute teeth in sensory lobe, hypophysis long; penis as in Fig. 35 e.

Oman, 1 ♂, type, in my collection.

Near *O. hirtulus* Wgn., but smaller, without black hairs, sensory lobe of left stylus with a small apical spine and right stylus dissimilar. *O. arabicus* Wgn. is smaller and more elongate, the base of the vertex is not marginate and the styli are differently shaped.

✓ *O. (Melanotrichus) monticolus* sp. n.

Length 3.5 mm. Relatively opaque. Pale yellowish. Antennae and legs yellowish. Membrane smoky, veins yellowish.

Robust, 2.6 × as long as broad. Semi-erect hair covering completely pale, smooth silvery hairs sparse. Head nearly as broad as pronotum, in apical view 1.5 × as broad as high, vertex distinctly marginate, ocular index 1.50 - 1.63 (♂). Proportions between antennal joints 5 : 22 : 18 : 12, 2nd joint slightly longer than basal width of pronotum. Rostrum extending to hind coxae. Pronotum 1.8 × as broad as long. Hind tibia 3.4 × as long as tarsus. Male genitalia much as in *O. halabicus*, but hypophysis of left stylus (Fig. 35 f - g) thinner and penis (Fig. 35 i - j) robust; right stylus (Fig. 35 h) straighter.

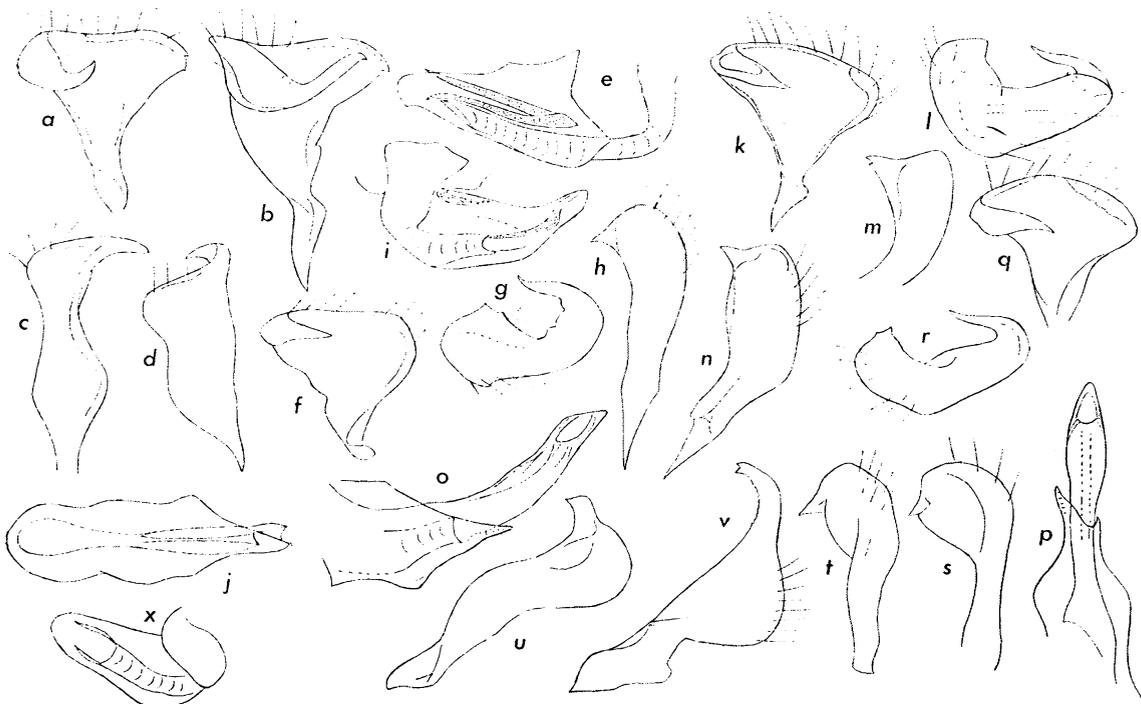


Fig. 35. *Orthotylus omanensis* sp. n.: a - b left and c - d right stylus; e penis. - *O. monticolus* sp. n.: f left stylus; g same from above; h right stylus; i penis from side; j same, ventral aspect. - *O. halaibicus* sp. n.: k left stylus; l same from above; m sensory lobe of same; n right stylus; o penis from side; p same, ventral aspect. - *O. halaibicus abbreviatus* ssp. n.: q - r left and s - t right stylus. - *O. ericinellae* Pop.: u right and v left stylus; x penis.

Kassala: Erkowit, 1 ♂, type and 1 ♂, paratype, 5 - 10. VII. 1961. At lamp.

Recognized by the pale hair covering, the broad head with large eyes, etc.

✓ *O. (Melanotrichus) halaibicus* sp. n.

Length 3.5 mm. Shiny. Yellowish or yellowish green. Membrane slightly smoky, veins greenish. Antennae and legs yellowish.

Body robust, only 2.6 × as long as broad at pronotum. Hair covering remarkably long, mainly pale, on cuneus darker, silvery adpressed hairs sparse. Head broad, 0.7 × as broad as pronotum, in apical view 1.40 - 1.57 × as broad as high, vertex basally distinctly marginate, eyes prominent, ocular index 1.40 - 1.67 (♂) or 2.2 (♀). Proportions between antennal joints 6 : 27 : 21 : 11, 2nd joint slightly shorter than basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.4 × as broad as long. Elytra longer than abdomen. Hind tibia 3.6 × as long as tarsus. Male genitalia: right stylus as in Fig. 35 n; left stylus (Fig. 35 k - m) with a rather thick hypophysis, sensory lobe with a few minute apical teeth. Penis (Fig. 35 o - p) remarkably gracile.

10, several paratypes; 11, several paratypes; 12, 1 paratype; Suakin, 1 ♂, type and 1 paratype, 5. XII. 1962. On *Suaeda monoica* in salt marshes on the Red Sea coast.

Recognized by the robust body, the long hair covering, the shape of the head etc.

✓ *O. (Melanotrichus) halaibicus* Lv. ssp. *abbreviatus* ssp. n.
Length 3 mm. Much smaller and more gracile than the

nominate form, ocular index 1.6 - 1.7 (♂), 2nd antennal joint slightly longer than basal width of pronotum. Genitalia (Fig. 35 q - t) as in the nominate form, but the expanded apical part of right stylus smaller.

Arabia, near Lith, 1 ♂, type (British Museum) and 1 ♂ paratype (in my collection), 1945, Uvarov.

4. Subgenus *Litocoris* Fb.

✓ *O. (Litocoris) ericinellae* Pop.

For description see Poppius 1914: 69. Male genitalia as in Fig. 35 u - x. *O. ericinellae* differs in the simple structure of the penis from the Palaearctic species of the subgenus.

Material studied: Ethiopia, 98, 3 exx. On *Erica arborea*. Otherwise known from Kilimandjaro on *Ericinella manni*.

Pseudoloxops Kk.

✓ *P. sudanicus* sp. n.

Length 4 mm. Like *P. coccineus* (M. - D.), but smaller, with less intense red markings, with pale hind femora marked apically only with a narrow red ring and with dissimilar genitalia (Fig. 36 a - f).

Measurements: ocular index 1.33 (♂) or 2.0 (♀). Proportions between antennal joints 11 : 41 : 14 : 10, 2nd joint 1.2 - 1.3 × as long as basal width of pronotum. Rostrum extending to hind coxae.

Kassala: Kassala, 1 ♂, type, 30. XI. 1962; 72, 2 paratypes. At lamp.

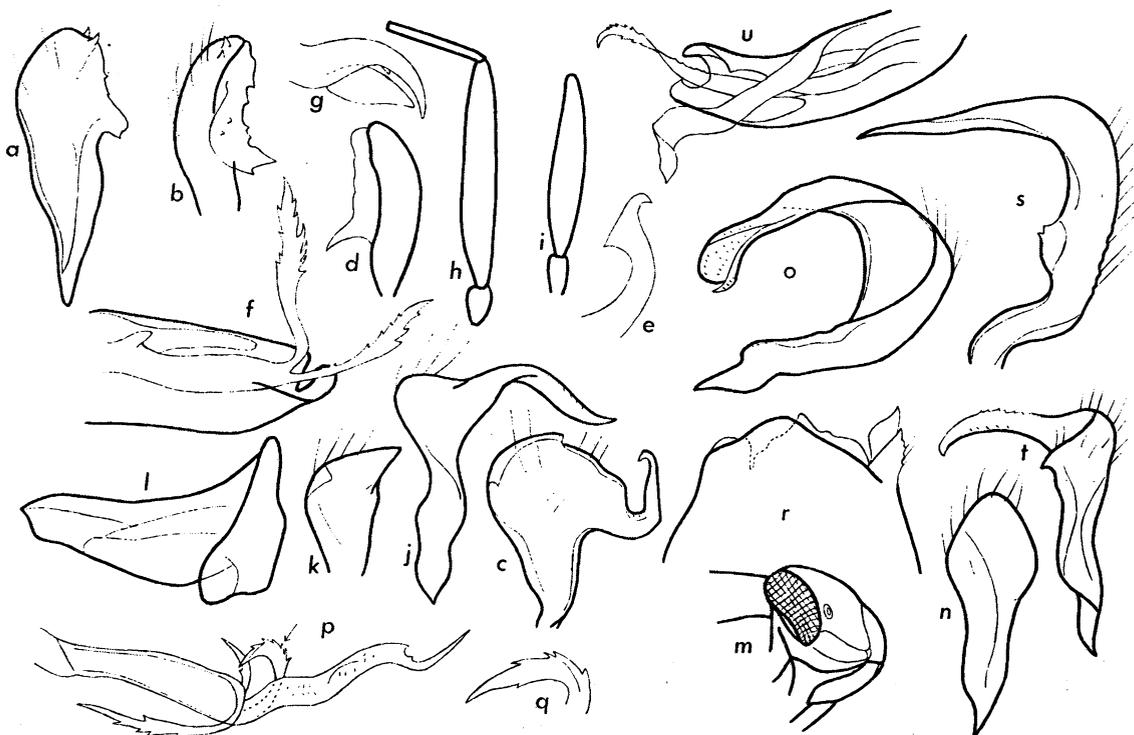


Fig. 36. *Pseudoloxops sudanicus* sp. n.: a - b right and c left stylus; d sensory lobe, e hypophysis of the latter from above; f penis. - *Druthmarus tibialis* sp. n.: g claw; h 1st and 2nd antennal joints (♂); i same (♀); k right, j left stylus; l penis. - *Jiggiga nigra* gen. et sp. n.: m head from side; n right and o left stylus; p processes of vesica; q process marked with arrow in Fig. o, broad aspect. - *Grewiocoris elongatus* gen. et sp. n.: r pygophore from above; s right and t left stylus; u penis.

Druthmarus Dist.

✓ *D. tibialis* sp. n.

Length 2.5 - 2.75 mm. Shiny black with a ± distinct metallic lustre. Head with a roundish pale spot near either eye. 3rd and 4th antennal joints pale. Costal margin basally and extreme base of corium pale. Anterior femora pale yellowish, extreme apex darkened, other femora black. Tibiae pale with basal third usually black. Tarsi basally pale, apically infusate. Tibial spines pale.

Somewhat *Halticus*-shaped. Body about twice as long as broad. With longer dark or brownish hairs and silvery adpressed pubescence. Head 0.7 × as broad as pronotum, 1.5 × as broad as high in apical view, vertex with an upturned hind margin owing to a transverse subbasal depression, ocular index 1.5 - 1.6. Eyes granulate. Proportions between antennal joints 5 : 24 : 12 : ?, 1st joint thick, conical, 2nd (Fig. 96h - i) incrassate, flattened, 1.0 (♂) or 0.8 (♀) as long as basal width of pronotum; hair covering of 1st and 2nd joints long dense and black; apical joints thin, with smooth hair covering. Rostrum extending to middle coxae. Pronotum twice as broad as long, strongly widening caudad, lateral and basal margins straight, calli large but weakly developed and finely shagreened, disk obsoletely punctate and rugose. Scutellum shagreened. Elytra with minute knobs, shagreened. Legs gracile, 1st joint of hind tarsi shorter than 2nd. Claw in Fig. 36 g. Right stylus (Fig. 36 k) small.

Left stylus (Fig. 36 j) with a long and slender hypophysis and a roundly prominent sensory lobe. Penis (Fig. 36 l) simple.

Near 79, 2 paratypes; Kateri - Gilo, 1♂, type and 1 paratype, 18. III. 1963. In mountain meadows.

D. congolensis Cv. is bigger and more opaque owing to the strong microsculpturing of the upper surface. The legs are dark brown. The vertex is much broader and the head flattish. The 2nd antennal joints is much more strongly flattened and therefore much broader.

Jiggiga gen. n.

Robust black species somewhat resembling *Strongylocoris* Blc. in general appearance. Hair covering black. Head (Fig. 36 m) short and broad, strongly declivous right from base, in apical view about 1.4 × as broad as high, in side view about 1.2 × as high as long; basal margin of vertex sharp and upturned, with a transverse depression in front of it; frons rather convex, shiny, strongly declivous, tylus prominent, lora moderately swollen. Eyes rather small. Antennae arising near lower angle of eyes, rather thin, 2nd joint shorter than basal width of pronotum.

Rostrum short, extending to near middle coxae. Pronotum nearly twice as broad as long, distinctly broadening caudad, lateral margins straight, not carinate, basal margin only very faintly insinuated, disk rather convex, sloping apicad, obsoletely punctate, calli small and only weakly elevated. Scutellum shagreened, apically sparsely and obsoletely punctate. Elytra longer than abdomen, distinctly and rather densely punctate, shagreened. Legs relatively gracile, claws of the common type. Genital segment without appendages. Right stylus straight and small. Left stylus large, nearly circularly curvate. Penis with dentate vesical appendages.

Type: *J. nigra* Lv.

Much resembling certain forms of the tribe Halticini, but the structure of the penis of the Orthotylini type.

✓ *J. nigra* sp. n.

Length 3–3.5 mm. Shiny black with a bluish tinge.

Parallel-sided (♂) or ovate (♀), body about 2.1 × as long as broad. Hair covering black. Head 0.65 × as broad as pronotum, ocular index 2.0. Proportions between antennal joints 6 : 29 : ? : ?; 1st joint 0.54 × as long as synthlipsis, 2nd 0.8 × as long as basal width of pronotum. Elytra (♂) longer than or (♀) as long as abdomen, leaving part of connexivum visible laterally. Male genitalia as in Fig. 36 m–q.

Somalia, Jiggiga – Hargaisa, 1 ♂, type and 1 ♀ paratype, 23. VI. 1963. Swept from a dry *Acacia* savanna.

✓ *Grewiocoris* gen. n.

Elongate or elongately ovate, shiny black species with long erect yellowish hair covering on upper surface and yellow antennae and legs. Head short and broad, strongly declivous, vertical, in lateral view distinctly higher than long; tylus moderately developed, lora swollen, frons only faintly convex, vertex flat with two faint depressions, base distinctly marginate. Antennae gracile, arising near lower median angle of eyes. Eyes relatively large, granulose. Rostrum extending to hind coxae. Pronotum sloping apicad, flattish, sides straight or slightly insinuated, basal margin straight, calli rather faintly developed, disk finely punctate and rugose. Scutellum flat. Elytra well-developed. Legs gracile, tibial spines delicate and pale, 3rd joint of hind tarsi longer than 2nd. Male genitalia: genital segment short, truncate, provided with appendages; right stylus much bigger than left; penis with well-developed, dentate vesical appendages.

Type: *G. elongatus* Lv.

Resembling *Heterocordylus* Fb., but differing in the short head, the long erect hair covering, the genitalia etc.

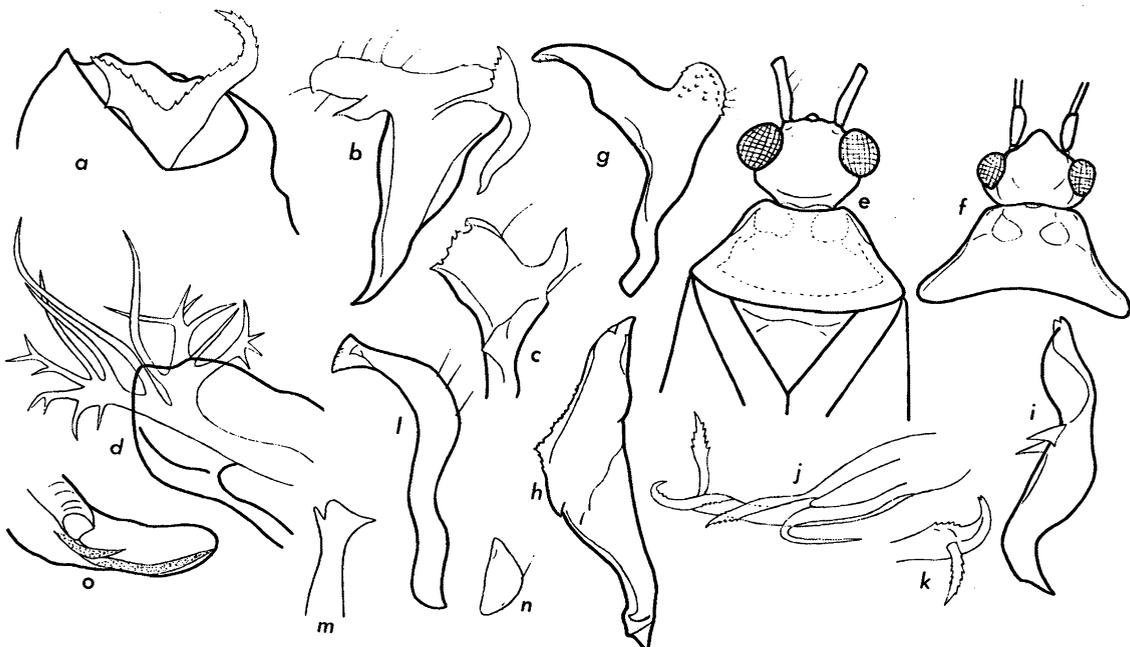


Fig. 37. *Grewiocoris harrarensis* sp. n.: a pygophore from above; b right and c left stylus; d penis in ventral aspect. — *Hyalosomella gracilis* Pop.: e head and thorax; g left and h–l right stylus; j processes of vesica; k apical process of same. — *H. depressus* sp. n.: f head and pronotum; i–m left, n right stylus; o penis.

✓ *G. elongatus* sp. n.

Fig. 39. Length 4.25 mm. Shiny black. Antennae yellow-brown, apical third of 2nd joint embrowned. Legs yellow.

Parallel-sided, $3.25 \times$ as long as broad. Hair covering long, erect and yellowish. Head $0.7 \times$ as broad as pronotum, in apical view $1.35 \times$ as broad as high, in lateral view $1.33 \times$ as high as long, eyes large, prominent, ocular index 1.13. Antennae relatively incrassate, proportions between joints 7 : 28 : 22 : ?, 2nd joint $0.9 \times$ as long as basal width of pronotum. Rostrum extending to apex of middle coxae. Pronotum twice as broad as long, lateral margins slightly insinuated, calli distinct and moderately swollen, impunctate, with a median depression; disk distinctly punctate, finely rugose. Scutellum and elytra shagreened. Genital segment (Fig. 36 r) with a dentate knob on the left side of the genital opening. Styli and penis as in Fig. 36 s - u.

Equatoria: Kapoeta - Boma, 1 ♂, type, 26 - 27. III. 1963. At lamp.

✓ *G. harrarensis* sp. n.

Length 3.25 - 3.5 mm. Rather shiny. Black. Antennae yellow, extreme base of 1st joint dark. Legs pale yellow.

Ovate, body $2.4 \times$ as long as broad. Hair covering dense, erect and yellow. Head $0.66 \times$ as broad as pronotum, in apical view $1.27 \times$ as broad as high, in side view $1.3 \times$ as high as long, eyes smaller, ocular index 1.8 (♂) or 2.1 (♀). Antennae gracile, proportions between joints 7 : 23 : 18 : 16, 2nd joint $0.8 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum nearly twice as broad as long, lateral margins straight, calli only faintly developed, without a median depression; disk only obsoletely punctate but distinctly rugose and shagreened. Elytra finely and densely punctate and shagreened. Genital segment (Fig. 37 a) with a large, bifurcate dorsal process. Styli and penis as in Fig. 37 b - d.

Ethiopia, near Harrar, 1 ♂, type and 4 paratypes, 22. VI. 1963. On *Grewia tenax*.

Malacocoris Fb.✓ *M. montanus* sp. n.

Length 5 mm. Yellow-green (probably brighter green in life). Antennae yellow, 1st joint with a longitudinal blackish stripe. Membrane with some roundish green spots. Legs yellow.

Long and gracile, $3.5 \times$ as long as broad. Hair covering erect and yellowish. Head $0.7 \times$ as broad as pronotum, vertex basally not marginate, eyes small, ocular index 2.25. Antennae long, proportions between joints 11 : 44 : 27 : ?, 1st joint $0.64 \times$ as long as diatone, 2nd $1.9 \times$ as long as basal width of pronotum. Rostrum extending far beyond hind coxae. Pronotum remarkably narrow, $1.8 \times$ as broad as long, lateral and basal margins shallowly insinuated; disk convex, sloping laterad; calli large (occupying half the length of pronotum), fused and swollen. Scutellum well elevated. Elytra much longer than abdomen. Legs long and gracile.

Ethiopia, Agheresalam (alt. 2 900 m), 1 ♀, type, 8. VI. 1963.

Resembling *M. chlorizans* (Pz.), but much bigger, with differently shaped pronotum etc.

Zanchius Dist.

✓ *Z. brevitarsis* (Wgn.) - 1, 1 ex.; 6, several exx.; 9, several exx.; 26, 2 exx.; 21 several exx.; 36 - 40, 1 ex.; 52, 1 ex.; 72, 1 ex. On *Abutilon*, *Gossypium* and other *Malvaceae*, once

on *Trichilia emetica* (Meliaceae). At lamp. Eremian (Egypt, Arabia, Eritrea).

✓ *Hyalosomella* Pop.

Near *Zanchius*, but vertex basally distinctly marginate, antennae unicoloured without red markings, pronotum broad, depressed, with lateral margins \pm carinate and calli small and separate.

In both genera the anterior margin of the pronotum is collar-shaped (not a genuine collar). For this reason *Hyalosomella* was placed in Dicyphinae (Macrolophinae) by POPPIUS (1914).

✓ *H. gracilis* Pop.

Fig. 37 e. Length 4.5 mm. Head, anterior part of pronotum and base of scutellum whitish yellow. Other parts green. Antennae yellow, 1st joint pale or partly infumated. Apical two-thirds of clavus, medio-apical area and latero-apical angle of corium and lateral and median margins of cuneus verdigris green, membrane nearly colourless, veins bright green. Inner cell with a greenish spot. Under surface and legs yellowish.

Body slender. Hair covering pale and erect. Head $1.7 \times$ as broad as long, seen from above nearly truncate apically, vertex basally distinctly marginate medially, ocular index $1.27 - 1.45$ (♂). Proportions between antennal joints 12 : 37 : 23 : 22, 1st joint with some longer semi-erect hairs, $0.68 \times$ as long as diatone, 2nd $1.42 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum $1.9 \times$ as broad as long, basal margin straight, lateral margins shallowly insinuated, disk flattish, calli small. Base of scutellum only apically uncovered. Male genitalia as in Fig. 37 g - k.

Near 79, 1 ex.; 78 - 79, 2 exx. On *Hagenia abyssinica*. In Eritrea I found it on *Rhus abyssinica*.

The type from Africa or., Moschi, Katona in Mus. Helsinki is a teneral female, which, however, agrees well with the Sudanese males.

✓ *H. depressus* sp. n.

Fig. 37 f. Length 3 - 3.5 mm. Opaque. Green. Head, antennae, pronotum, excl. the basal margin, and scutellum yellow. Membrane hyaline, veins greenish. Legs yellow.

A small ovate species, body nearly $3 \times$ as long as broad. Hair covering fine and pale. Head $1.9 \times$ as long as broad, finely microsculptured, vertex flat, with a faint depression near either eye, base sharply carinate, apical margin of head, seen from above, protruding medially, ocular index 1.81 (♂) or 1.75 (♀). Antennae short, proportions between joints 5 : 22 : 15 : ?, 1st joint $0.4 \times$ as long as diatone, 2nd as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum twice as broad as long, lateral and basal margins distinctly insinuated, disk finely microsculptured, basally flat, apically shallowly convex, calli small but distinct. Elytra rather coriaceous. Male genitalia as in Fig. 37 l - o.

Blue Nile: Wad Medani, 1 ♂, type, 11 - 12. XI. 1962; 84, 1 paratype; 36 - 40, 1 paratype; 41, 1 paratype; 72, 1 paratype. On *Gardenia ternifolia*.

Differing much from the preceding species and only tentatively placed in the genus.

Felisacodes Bgr.

F. bryocorina (Pop.) - Near 79, several exx. Previously known from E. Africa and Ethiopia.

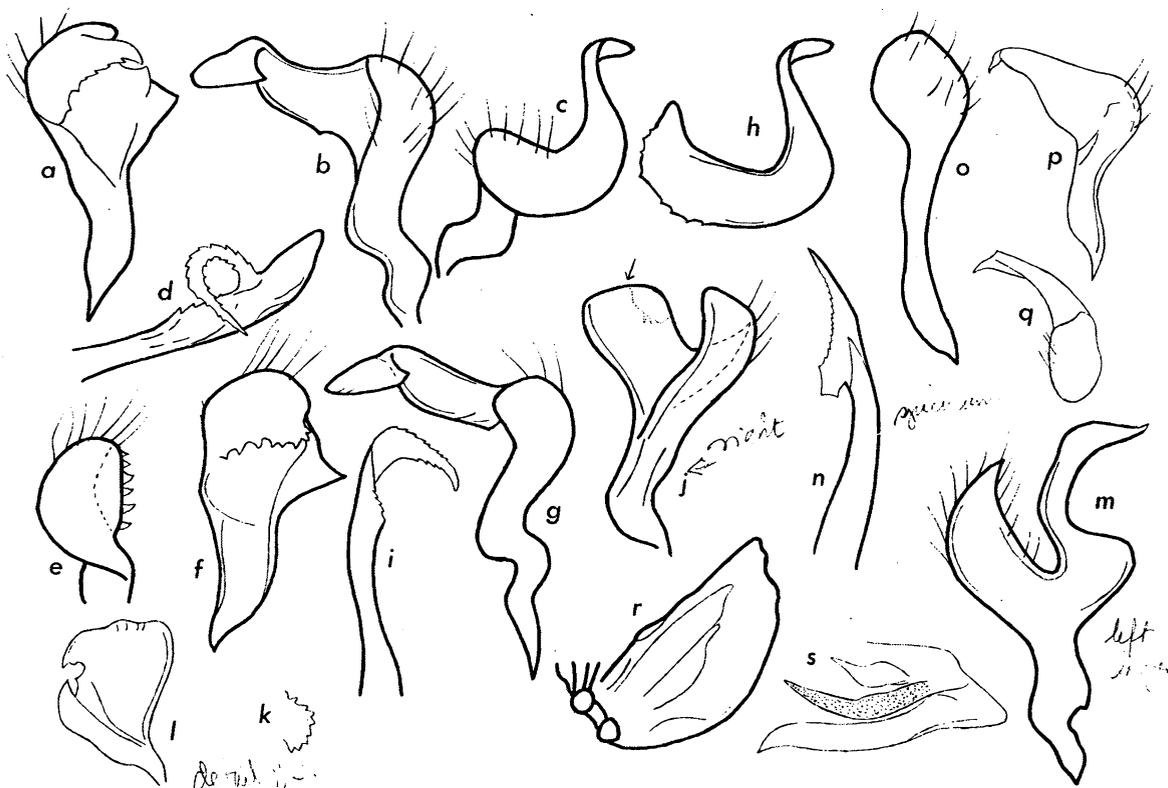


Fig. 38. *Mecomma fumida* sp. n.: a right, b - c left stylus; d spiculum. - *M. grandis* Cv. & Sw.: e - f right, g - h left stylus; i spiculum. - *Cyrtorhinus viridis* sp. n.: j right stylus; k - l detailed figures of lobe marked with arrow in Fig. j; m left stylus; n spiculum. - *Nycticapsus melanocephalus* Pop.: o right, p - q left stylus; r penis; s spiculum.

Mecomma Fb.

M. fumida sp. n.

♂ f. macr. Length 3.5 mm. Like *M. ambulans* (Fn.), but much smaller. Ocular index 1.4. Proportions between antennal joints 7 : 28 : 21 : 11, 2nd joint 1.28 × as long as basal width of pronotum. Pronotum 1.33 × as broad as long. Genitalia as in Fig. 38 a - d.

♀ f. brach. Length 2.75 - 3 mm. Black. Vertex with a small pale spot near basal angle of either eye. Antennae dark brown, 1st joint pale at least basally or entirely pale, 2nd pale in basal two-thirds, sometimes extreme base somewhat embrowned, 3rd with a pale base. Legs yellow-brown.

General shape as in *M. ambulans*, but body much smaller, the elytra longer, the antennae more gracile and the hair covering shorter. Head slightly narrower than pronotum, ocular index 1.33. Antennae remarkably thin, proportions between joints 7 : 26 : 22 : 12, 2nd joint about 1.3 × as long as basal width of pronotum. Pronotum 1.4 × as broad as long, broadening basad, lateral margins shallowly insinuated, calli prominent, disk transversely wrinkled. Elytra relatively long, as in *M. orientalis*, convex, finely punctate and transversely rugose.

Ethiopia, Belleta forest. 1 ♂, type and 1 paratype, 13 - 14. VI. 1963; Gembé, near 117, some paratypes. Among undergrowth in cloud forests.

Near *M. orientalis* Cv. & Sw. (antennae bicoloured in ♀), but pronotum (♀) distinctly broadest basally, with differently shaped right stylus and stouter vesical spiculum.

M. grandis Cv. & Sw.

Male genitalia as in Fig. 38 e - i.

Near 79, 3 exx. Previously known from Ethiopia, occurring there in *Podocarpus* and *Juniperus* forests as also in the Sudan.

Cyrtorhinus Fb.

C. viridis sp. n.

Length 3.5 - 4 mm. Head and anterior part of pronotum yellowish. Anterior part of head sometimes slightly embrowned. 1st antennal joint dark brown with base and apex whitish, basal quarter of 2nd dark brown, other parts yellowish brown, other joints dark brown. Base of pronotum and scutellum greenish yellow. Elytra bright green, membrane greyish smoky, veins nearly colorless. Under surface yellow. Legs greenish yellow, extreme base of tibiae black.

Macropterous. Slender. Hair covering pale, smooth. Ocular index 1.58 - 1.78. Proportions between antennal joints 8.5 : 24 : 16 : ?, 2nd joint 1.35 (♂) or 1.03 × (♀) as long as basal width of pronotum. Pronotum nearly twice as broad as

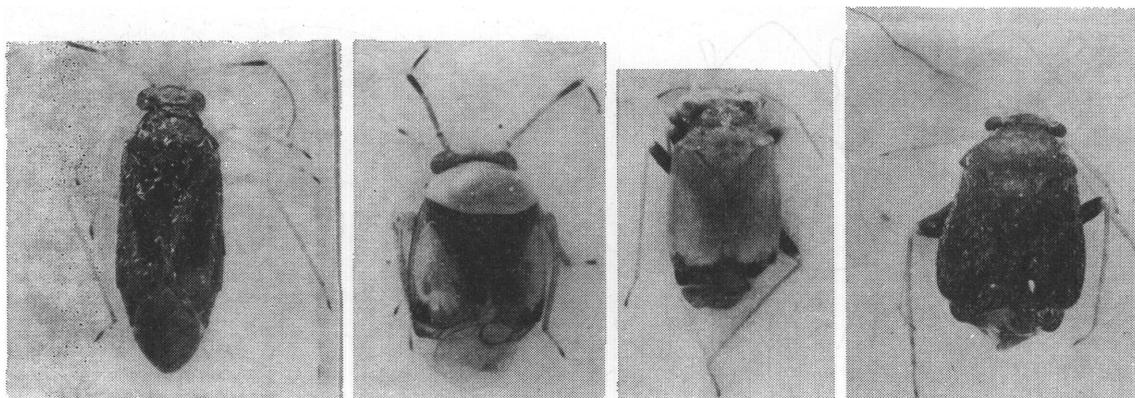


Fig. 39. From left: *Grewiocoris elongatus* gen. et sp. n., *Payrolygus ciliaris* sp. n., *Aloea cunealis* gen. et sp. n. and *Ambonea uniformis* sp. n.

long, lateral margins strongly insinuated, calli moderately elevated. Male genitalia as in Fig. 38 j - n.

22 - 25, 3 paratypes; 84, several paratypes; Equatoria: Juba, 1 ♂, type, 27. II - 2. III. 1963; 74, several paratypes; 30 km. N of 71, 1 paratype. In swampy meadows and shores. Also known from Zaire (Katanga).

Near *C. lividipennis* Rt. (S. and E. Asia, Oceania), but differs in the colouring (in *lividipennis* head, pronotum and scutellum with ± well-developed blackish markings and elytra yellowish or yellowish green). The sensory lobe of the left stylus is somewhat longer and the hypophysis more curvate. Moreover the spiculum of the vesica is less expanded subapically.

Nycticapsus Pop.

Incorrectly regarded as a synonym of *Mecomma* by CARVALHO & SOUTHWOOD 1955: 43. Differing from *Mecomma* in the absence of sexual dimorphism (also ♀♀ always macropterous), in the remarkably globose and strongly shiny, finely marginate head, the broad collar area of the pronotum and the male genital structure. For complete description see POPPIUS 1914: 73.

N. melanocephalus Pop.

Male genitalia as in Fig. 38 o - s.

Near 79, several exx.; 78 - 79, several exx.; 68, several exx.; 77, many exx.; 62, several exx. In moist meadows and in undergrowth of luxuriant forests. Previously known only from Lake Nyasa. I have several specimens also from Ethiopia.

Lasiomimus Pop.

L. coleopratus Pop. - 77, 1 ex. At lamp. E. Africa (Victoria Nyanza).

Pilophorus H.

P. pilosus Odh. - Head and pronotum in Fig. 40 a. - 24 - 24 a, 1 ex.; 22 - 25, 1 ex.; 77, 2 exx.; 74, 1 ex. At lamp. Previously known from Uganda. I have seen specimens from Eritrea and Cameroon.

P. pilosus Odh. ssp. *brevicollis* ssp. n.

Robuster than the nominate form; pronotum (Fig. 40 a - b) broader and distinctly shagreened, lateral margins only shallowly insinuated, basal margin only 1.25 × as broad as apical margin and groups of silvery hair on elytra only weakly developed.

77, 1 ♀ paratype; Yei- Iwatoka, 1 ♀, type, 12 - 13. IV. 1963.

P. minutissimus sp. n.

Length 1.75 - 2.0 mm. Opaque. Blackish brown. 1st and 4th antennal joints red, 2nd dark brown, 3rd and base of 1st pale ochraceous. Elytra dark brown, apically slightly shinier, clavus dark yellowish brown; a transverse stripe of silvery tomentum along basal margin of clavus and of scutellum, corium with only about 5 groups of silvery hairs along claval suture. Legs yellowish; apical third of fore and middle and apical two-thirds of hind femora purplish or dark brown; fore and middle tibiae with a dark longitudinal stripe on outer surface; hind tibiae dark brown with apex and base whitish.

Very small, but rather robust, body 2.4 × as long as broad. Hair covering yellowish, smooth. Head 0.75 - 0.80 × as broad as pronotum, ocular index 1.53 (♂) or 1.4 (♀). Antennae short, proportions between joints 3 : 11 : 7 : 6, 2nd joint clavate, 0.70 - 0.73 × as long as diatone. Rostrum extending to middle coxae. Pronotum 1.8 × as broad as long, transverse, strongly broadening caudad, lateral margins straight or slightly insinuated. Scutellum flat. Elytra short, only a little longer than abdomen. Hind femora incrassate, tibial spines black.

81 - 82, 1 paratype; Lalyo - Juba, 1 ♂, type and 3 paratypes, 26 - 27. II. 1963; 30 km. N of 71, 1 paratype. Somalia, 125, 3 paratypes. At lamp.

Easily recognized by the size and the absence of transverse bands of silvery tomentum on corium.

Ambonea Odh.

Closely related to the Palaearctic genus *Hypseloecus* Rt. The African species described below live on parasitic plants of the family Loranthaceae, growing on *Acacia* and *Tamarix*, and the only European species of *Hypseloecus*, *H. visci* (Pt.), lives on *Viscum album*, which belongs to the same family. Unfortunately all the specimens of *Ambonea* in my collection

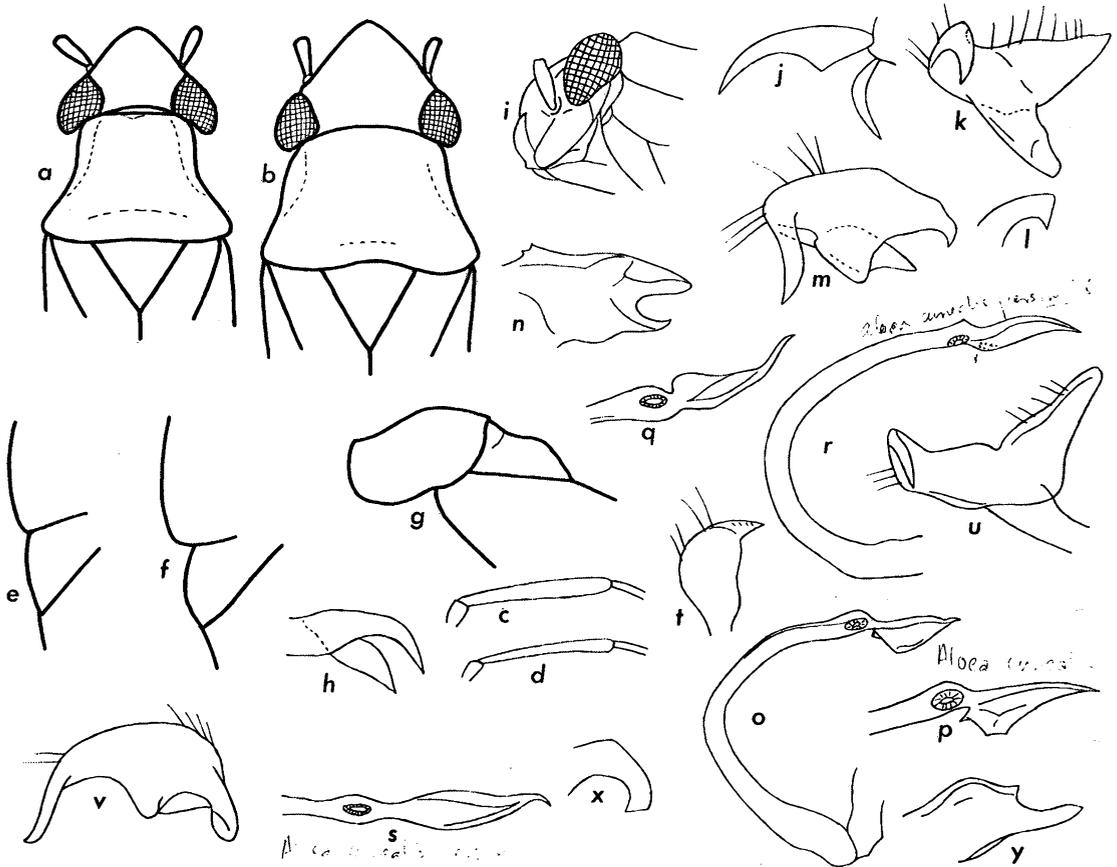


Fig. 40. *Ptilophorus pilosus* Odh.: a head and thorax. - *P. pilosus brevicollis* ssp. n.: b same. - *Ambonea v-rubra* sp. n.: c antenna. - *A. tamaricis* sp. n.: d same. - *A. russeola* sp. n.: e cuneus. - *A. uniformis* sp. n.: f same; h claw; g pronotum and scutellum from side. - *Aloea cunealis* gen. et sp. n.: i head from side; j claw; k left stylus, median aspect; m same from above; l hypophysis of same, broad aspect; n theca; o - q vesica. - *A. cunealis persimilis* ssp. n.: r - s vesica. - *A. planticeps* sp. n.: t right, u - x left stylus (aspects as in k - m); y theca.

are females. Consequently the genital characters of the male cannot be compared in this study.

1. group: tibiae with dark spots, spines dark

A. v-rubra sp. n. 2 only

Length 3 mm. Blackish. Base of vertex narrowly reddish. 1st and 2nd antennal joints blackish brown, also other joints dark, base of 3rd whitish. Lateral margins of scutellum dark red, together forming a red V-shaped figure. Elytra blackish brown. Apical margin at cuneus and inner apical angle of corium dark red. Apex of cuneus reddish, membrane and veins brown. Under surface blackish, ostiolar peritremes white. Femora blackish, apex narrowly yellowish. Tibiae pale with large dark red spots with black spines, these spots often \pm confluent, tarsi pale with apex embrowned.

Robust, ovate, body $1.5 \times$ as long as broad. With longer brownish hairs and silvery adpressed pubescence. Finely shagreened. Head $0.8 \times$ as broad as pronotum, $1.64 \times$ as broad as high in apical view, eyes large, ocular index 2.0. Antennae

with 1st and 2nd joints incrassate (Fig. 40 c), 2nd $0.7 \times$ as long as basal width of pronotum, proportions between the joints 6 : 24 : 13 : ?. Rostrum extending to near hind coxae. Scutellum flat. Calli of pronotum not elevated.

Equatoria: Yambio, 1 ♀, type, 18 - 25. IV. 1963.

A. opima Odh.: only apical third of 2nd antennal joint black, apex of scutellum yellowish, apices of all femora broadly white with red markings and length of body 3.1 - 3.55 mm.

A. maesta Odh.: length of body 2.35 - 2.8 mm., only apical third of 2nd antennal joint black and apex of scutellum yellow-brown.

A. tamaricis sp. n. 2 only

Length 2.8 mm. Dark coffee-brown. Vertex laterally near eyes whitish ochraceous. Antennae brown, 1st joint with a pale longitudinal stripe on dorsal surface, extreme base of 2nd and of 3rd joints pale. Apical margin of corium bordering cuneus narrowly pale. Membrane and veins brown. Under surface black, ostiolar peritremes whitish. Anterior

coxae whitish, femora black, apex narrowly pale. Tibiae pale with confluent dark red spots, spines black. Tarsi pale, apically embrowned.

Like the preceding species, but smaller and narrower, body $2 \times$ as long as broad. Head nearly $0.9 \times$ as broad as pronotum, $1.75 \times$ as broad as high in apical view, ocular index 3.1. Antennae (Fig. 40 d) gracile, proportions between joints 5 : 20 : 14 : 13, 2nd joint $0.7 \times$ as long as basal width of pronotum. Rostrum extending to near hind coxae. Calli weakly elevated. Scutellum flat.

Ethiopia, near Harrar, 1 ♀, type, 22 - 23. VI. 1963. On a parasitic plant of *Tamarix*.

2. group: tibiae unicoloured pale, spines pale

A. russeola sp. n.

Length 2.5 - 3 mm. Fairly shiny. Head laterally whitish yellow, otherwise reddish or orangish with a paler triangular median spot. Antennae yellowish, apical joints slightly darker. Margins and a median stripe on pronotum yellowish, disk with 2 large squarish brown spots. Scutellum orange, with 2 triangular median blackish basal spots and a pale median stripe. Elytra reddish brown; clavus, excl. a longitudinal stripe, and inner apical area of corium along claval suture dark brown, apical margin of corium laterally whitish; cuneus (Fig. 40 e) orangish, lateral and apical margins reddish. Membrane brownish smoky, veins orangish. Under surface blackish brown, ostiolar peritremes and fore coxae white. Femora pale yellow, hind femora with a broad blackish median ring. Tibiae and tarsi whitish yellow, spines pale.

Robust, $1.75 \times$ as long as broad. With yellowish or brownish longer hairs and adpressed silvery pubescence. Shagreened, pronotum also densely and finely punctate. Head $0.83 \times$ as broad as pronotum, in apical view $1.56 \times$ as broad as long, ocular index 2.1. Antennae gracile, proportions between joints 5 : 18 : 10 : 14, 2nd joint $0.8 \times$ as long as basal width of pronotum. Calli faintly swollen. Scutellum flat.

Northern Province: Ed Damer, 1 ♀, type, 5 - 10. VII. 1961, Ethiopia, near 120, 1 ♀, paratype. At Ed Damer on a parasite of *Acacia*, near Harrar on a parasite of *Tamarix*.

A. uniformis sp. n.

Fig. 39. Length 3.2 mm. Shiny black. A faint pale transverse spot near either eye. Antennae yellow. Elytra opaque, black, cuneus shinier, membrane basally dark, apically paler, smoky, veins pale. Femora black, apex narrowly pale. Under surface (incl. ostiolar peritremes and fore coxae) uniformly black. Tibiae and tarsi uniformly yellow-brown, spines pale.

Body distinctly broadening caudad, more convex than in the other species, $1.7 \times$ as long as greatest width. With brownish longer hairs and silvery adpressed pubescence, the latter dense especially on under surface. Head minutely punctate, $0.7 \times$ as broad as pronotum, in apical view $1.56 \times$ as broad as high, eyes small, ocular index 2.54. Antennae thin, proportions between joints 6 : 22 : 14 : 20, 2nd joint $0.9 \times$ as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum (Fig. 40 g) strongly broadening caudad, much more convex than in the other species, disk and the faintly developed calli densely and minutely punctate. Scutellum apically considerably inflated, minutely punctate. Elytra densely shagreened and finely punctate. A large notch between costal margin and base of cuneus (Fig. 40 f). Claw in Fig. 40 h.

Ethiopia, near Harrar, 1 ♀, type, 22 - 23. VI. 1963. On a parasite of *Tamarix*.

Aloea gen. n.

Small but robust, somewhat depressed, ochraceous, brownish or blackish species. Hair covering consists of pale or dark longer hairs and of silvery adpressed pubescence. Head unusually short and broad, concealing the anterior margin of pronotum, nearly vertical. Vertex strongly sloping anteriorly right from the sharp basal margin; frons usually \pm globose, tylus at most slightly prominent in lateral aspect. Eyes large, strongly prominent. Antennae long and gracile, arising near or slightly below lower angles of eyes, with smooth pale hairs, 1st joint with a few pale bristles, 1st and 2nd joints thicker than the apical ones. Pronotum transverse, lateral margins insinuated or straight, basal margin distinctly insinuated, humeral angles prominent; calli elevated or even humped, separate, disk \pm rugose. Base of scutellum \pm elevated, a transverse subbasal depression present. Elytra extending well beyond abdomen. Rostrum relatively long. Legs gracile. Femora at least partly darkened, tibiae whitish, spines delicate and pale, basal joint of hind tarsi shorter than the other joints together. Claws as in Fig. 40 j. Male genitalia: right stylus small; left stylus with a strongly produced sensory lobe, hypophysis long, ending in a slender apical part; penis small and simple, arcuate, gonopore subapical or relatively far from apex; theca separate, often provided with a small subapical tooth.

Type: *A. cunealis* Lv.

An easily recognized genus apparently related to *Hypseloecus* Rt. All species of the genus live on *Aloe*.

Key to the species

- 1 (2) Head and pronotum shiny. Black or blackish brown *A. nigrifluta*
- 2 (1) Totally opaque species 3
- 3 (4) Legs pale, only hind femora dark brown. General colour black or blackish brown *A. callosa*
- 3 (3) All femora darkened except apically. Colour not black 5
- 5 (6) Length 2.5 - 2.75 mm. General colour pale ochraceous. Head nearly as broad as pronotum *A. cunealis*
- 6 (5) Length 2.7 - 3 mm. General colour coffee-brown. Head only $0.78 \times$ as broad as pronotum *A. planiceps*

A. cunealis sp. n.

Fig. 39. Length 2.5 - 2.75 mm. Pale ochraceous, opaque. Head, pronotum and scutellum with a reddish brown tinge. Cuneus and apical angle of corium purplish, membrane brownish smoky, paler near cuneus, veins concolorous. Under surface purplish. Femora purplish with apex ochraceous, tibiae and tarsi whitish.

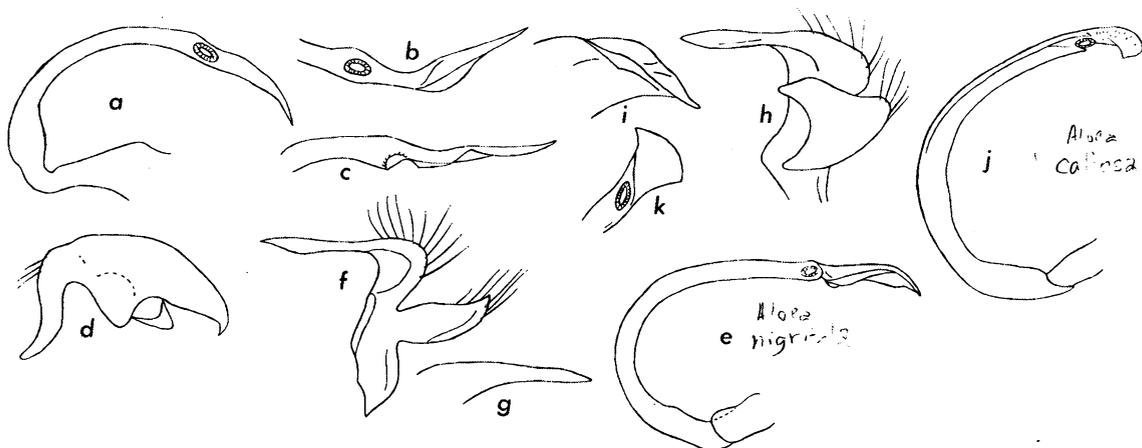


Fig. 41. *Alopea planiceps* sp. n.: a - c penis. - *A. nigrifluta* sp. n.: d left stylus from above; e penis. - *A. callosa* sp. n.: f left stylus, median aspect; h same from side; g hypophysis of same; i theca; j - k vesica.

Parallel-sided, about 2.1 - 2.3 × as long as broad. Hair covering of upper surface yellowish, partly darkish in apical part of elytra, silvery tomentous hairs rather scanty. Head strongly transverse and short in dorsal aspect, densely microsculptured, 0.9 × as broad as pronotum, in apical view 1.21 × as broad as high; frons moderately convex, tylus not extending beyond frons in lateral view (Fig. 40 l); basal margin of vertex with a triangular lateral elevation on either side, ocular index 1.67 - 2.0. Eyes large. Rostrum extending to middle coxae. Proportions between antennal joints 6 : 17 : 12 : 14, 1st joint 0.8 × as long as synthlipsis, 2nd about 0.88 × as long as basal width of pronotum. Lateral margins of pronotum distinctly insinuated, basal margin shallowly insinuated, calli prominent, disk opaque, rugose, densely microsculptured, humeral angles protruding. Male genitalia as in Fig. 40 k - q.

Somalia, near Hargeisa, 1 ♂, type and many paratypes, 23 - 28. VI. 1963.

✓ *A. cunealis* Lv. ssp. *persimilis* ssp. n.

Like the nominate form, but calli of pronotum more humped and the basal margin medially more strongly insinuated. Penis (Fig. 40 r - s) longer, straighter and somewhat thinner.

Equatoria: Kapoeta - Boma, 1 ♂, type, 26 - 27. III. 1963. Eritrea, 91 - 94, 1 ♂, paratype.

✓ *A. planiceps* sp. n.

Length 2.7 - 3 mm. Opaque. Head ochraceous, basal margin with 2 triangular fuscous areas. Antennae yellowish. Pronotum and scutellum coffee-brown, the former medially ± paler. Elytra yellowish brown, apical half somewhat darker, cuneus with slight reddish tinge, membrane smoky, with an irregular broken paler transverse area, veins somewhat paler. Under surface dark brown. Femora dark reddish brown, other parts of legs ochraceous.

Ovate, 2.0 - 2.2 × as long as broad, lateral margins of elytra distinctly curved. Hair covering of upper surface brown, silvery hairs rather scanty. Head smaller than in the other species, about 0.76 × as broad as pronotum, 1.24 × as broad as high in apical view; vertex and frons flat, ocular index 1.6.

Proportions between antennal joints 9 : 20 : 15 : 7, 1st joint 0.9 × as long as synthlipsis, 2nd about 0.88 × as long as basal width of pronotum. Rostrum extending to hind coxae. Lateral margins of pronotum straight, humeral angles relatively rounded, calli rather small, disk opaque and densely microsculptured. Male genitalia as in Fig. 40 t - y and 40 a - c.

15, 1 paratype; 17, 1 paratype. Somalia, Hargeisa, 1 ♂, type and 1 paratype, 23 - 28. VI. 1963.

✓ *A. nigrifluta* sp. n.

Length 2.75 mm. Black or dark coffee-brown. Head, pronotum and scutellum shiny. Antennae yellowish, base of 1st joint dark. Elytra dark coffee-brown, opaque, membrane and veins brownish smoky. Femora dark brown, tibiae and tarsi pale ochraceous.

Parallel-sided, 2.1 - 2.6 × as long as broad. Hair covering yellowish brown, silvery tomentous hairs numerous, occurring in groups all over upper surface. Head 0.9 × as broad as pronotum, in apical view 1.3 × as broad as high; frons remarkably convex, shiny and only faintly microsculptured; vertex flat, strongly sloping, ocular index 1.67 (♂) or 2.18 (♀). Proportions between antennal joints 7 : 19 : 15 : 20, 1st joint 0.8 - 0.7 × as long as synthlipsis, 2nd 0.76 × as long as basal width of pronotum. Rostrum extending far beyond hind coxae. Lateral margins of pronotum strongly insinuated, humeral angles prominent, calli well developed, disk transversely wrinkled and microsculptured. Penis as in Fig. 41 e. Other genitalia as in *cunealis*. Left stylus in Fig. 41 d.

Yemen, Kaulat-el-Asakeir, near San'a, 9 400 ft., 1 ♂, type and 6 paratypes, 4. II. 1938, Petrie, British Museum, paratypes also in my collection.

✓ *A. callosa* sp. n.

Length 3 - 3.25 mm. Opaque. Black or blackish brown. Head medially and apically somewhat paler. Antennae pale yellow, only extreme base of 1st joint reddish. Legs pale yellowish, only hind femora dark brown.

Elongate, 2.4 - 2.7 × as long as broad. Densely and strongly shagreened. Hair covering blackish, silvery hairs sparse. Head about 0.84 × as broad as pronotum, in apical view

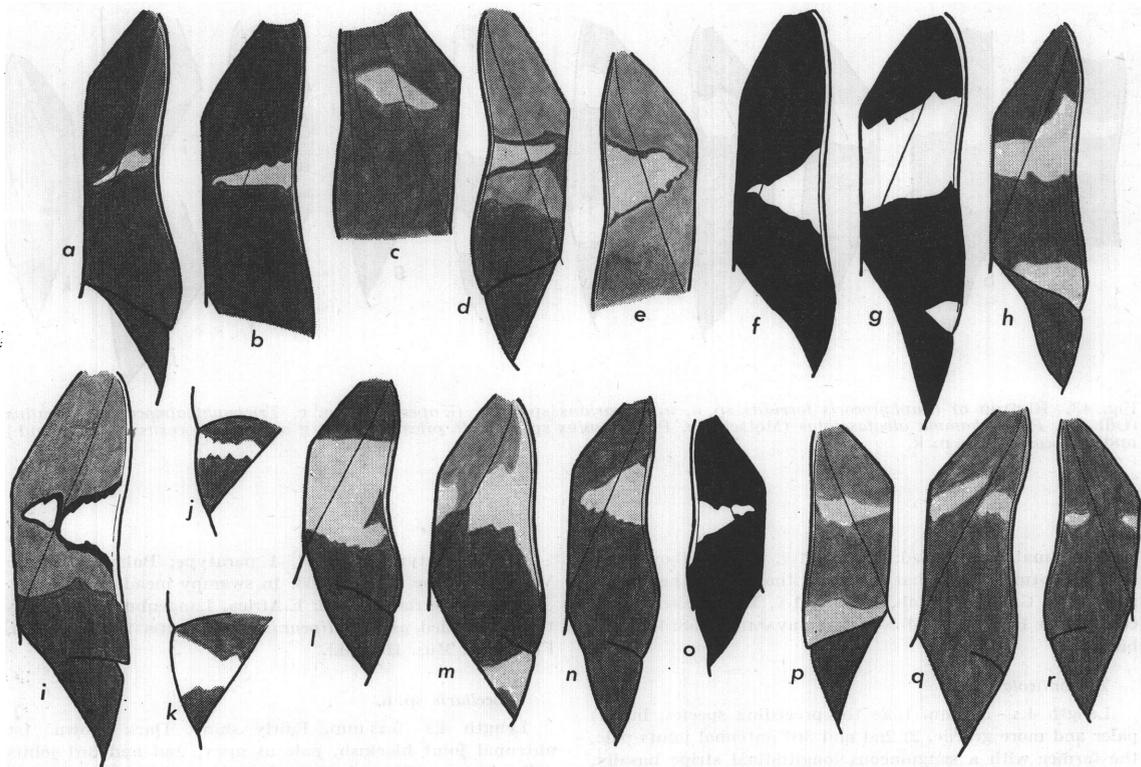


Fig. 42. Elytron of *Diocoris pilosus* sp. n. a, *D. agelastus* Kk. b, *Chaetocapsus binotatus* Pop. c, *Formicopsella magniceps* sp. n. d, *F. regneri* Pop. e, *Systellonotidea triangulifer* Pop. f, *Skukuza zeugma* (Odh.) g, *S. somatica* sp. n. h, *Aspidacanthus globicollis* sp. n. i, *Glossopeltis combreticolus* sp. n. l, *G. ornatus* sp. n. m, *Ruwaba elegans* gen. et sp. n. n, *Allooomimus hilaris* sp. n. o, *Systellonotopsis bifasciatus* Pop. p, *Glaphyrocoris v-albus* sp. n. q and *G. torridus* sp. n. r. - Cuneus of *Glossopeltis conradti* Pop. j and *G. albosignatus* (Rt.) k.

about $1.22 \times$ as broad as high; frons only moderately swollen, strongly shagreened and finely transversely striate laterally, ocular index 1.67 (δ) or 2.27 (η). Proportions between antennal joints 11 : 25 : ? : ?, 1st joint slightly longer (δ) or shorter (η) than synthipsis, 2nd slightly shorter than or $0.8 \times$ as long as (δ) basal width of pronotum. Antennae of δ thicker than in η . Rostrum extending to middle coxae. Lateral margins of pronotum strongly insinuated; basal margin laterally transverse, medially suddenly insinuated, calli prominent, nearly humped. Legs longish. Male genitalia as in Fig. 41 f-k.

Equatoria: near Gilo, alpine zone, 1 δ , type and 3 paratypes, 18-24. III. 1963.

Hallodapinae

Trichophorella Rt.

The genus is characterized by the hair covering of the upper surface (long erect dark bristles and smooth yellowish short hairs), the strongly prominent, medially keeled tylus, separated from the frons by a distinct notch (Fig. 44 l), the long 1st antennal joint etc. For a complete description see POPPIUS 1914: 30-31. Until now

only three species (*T. sordidipennis* Rt., *T. australis* Schuh and *T. rubella* Odh.) have been known.

T. sordidipennis Rt.

Length 4.5-5.5 mm. Fairly shiny. Pale orangish. Head with a faint reddish median line and a few transverse arcs of the same colour. Antennae dark or reddish brown, 1st joint pale at apex and on median surface, apex of the others narrowly whitish. Elytra yellowish orange, cuneus pale or dark, membrane brownish smoky. Under surface laterally reddish. Middle and hind coxae whitish. Femora dark reddish brown. Legs otherwise orangish, hind tibiae reddish.

Narrow. Eyes relatively small, ocular index 1.04 (δ) or $1.8-2.1$ (η). Proportions between antennal joints 16 : 53 : 38 : 27 (δ) or 20 : 60 : ? : ? (η), 1st joint $0.8-1.05 \times$ as long as diatone, provided with erect bristles and tuberculate, 2nd $1.8-2.0 \times$ as long as basal width of pronotum, $3.0-3.3 \times$ as long as 1st. Rostrum extending to base of abdomen. Setae of tibiae normal. Male genitalia: genital segment (Fig. 44 a) with a sharp subapical median tooth on ventral surface; right stylus (Fig. 44 e) rather straight, a small subapical tooth present; left stylus as in Fig. 44 b-d; theca as in Fig. 44 f; vesica short (Fig. 44 g).

70, 2 exx.; 76-81, 2 exx.

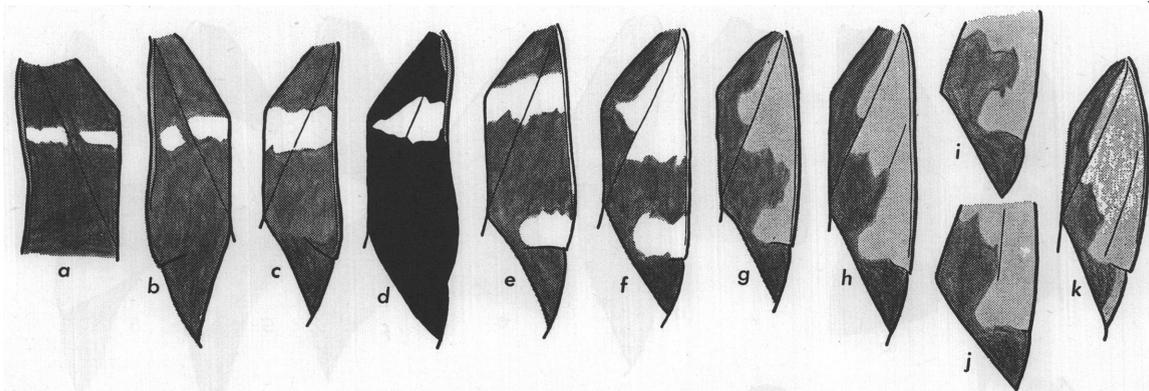


Fig. 43. Elytron of *Glaphyrocoris torridus* sp. n. a, *G. varians* sp. n. b, *G. opertus* sp. n. c, *Trichophthalmocapsus pumilus* (Odh.) d, *Plagiorhanna albofasciatus* (Motsch.) e, *P. sororculus* sp. n. f, *P. pilosus* (Pop.) g and i, *P. jocosus* sp. n. h and j and *P. jocosus* sp. n. k.

Other material studied: Assinie, 1 ♀, type (without head and pronotum, somewhat robuster than the other specimens) and Guinea, Addah, 1 ♂ and 1 ♀, Mus. Helsinki. Records from Ethiopia and Nyasa (CARVALHO 1958: 180) dubious.

✓ *T. monticola* sp. n.

Length 4.5–5.0 mm. Like the preceding species, but 1) paler and more gracile, 2) 2nd and 3rd antennal joints pale, the former with a sanguineous longitudinal stripe basally, 3) tibiae pale, 4) eyes slightly smaller, ocular index 2.2 (♀), 5) antennae much longer, proportions between joints 27 : 70 : 40 : ?, 1st joint 1.42 × as long as diatone, 2nd 2.33 × as long as basal width of pronotum and 5) hairs of legs long as in *T. pilipes*, although less numerous.

Equatoria: Lotti forest, 1 ♀, type and 1 ♀ paratype, 14–17. III. 1963. From mesic mountain meadows above the forest.

Resembling *T. australis* Schuh (South Africa) in the long 1st antennal joint, but differing in the pale coloured pronotum and scutellum and the longitudinal sanguineous stripe of the 2nd antennal segment.

✓ *T. palustris* sp. n.

Length 4.5–5.5 mm. Rather shiny. Yellow-brown. 1st antennal joint reddish brown, apex narrowly pale, 2nd basally narrowly redish, 4th embrowned in basal half. Head and pronotum with a golden tinge. Cuneus purplish, membrane brownish smoky. Legs yellowish or reddish brown, middle and hind coxae whitish; femora, especially hind femora, reddish brown with paler apex, also hind tibiae reddish brown.

Elongate, 3.3 × as long as broad, parallel-sided. Eyes rather small, ocular index 1.0 (♂) or 2.0 (♀). Antennae long, proportions between joints 20 : 50 : 33 : 21, 1st joint with erect hairs, 0.8 (♂) or 1.0 (♀) × as long as diatone, 2nd 1.34 (♂) or 1.8 (♀) × as long as basal width of pronotum, about 2.6 × as long as 1st. Rostrum extending to base of abdomen. Pronotum distinctly broadening caudad. Setae of legs normal. Male genitalia: genital segment unarmed; right stylus (Fig. 44 h) with a strongly recurved hypophysis; left stylus large, as in Fig. 44 i–j; theca as in *ocellaris*; vesica (Fig. 44 k) long.

84, 2 paratypes; 85–84, 1 paratype; Bahr el Ghazal: Wau, 1 ♂, type, 19. II. 1963. In swampy meadows.

Other material studied: E. Africa, Langenburg, 1 ♂ paratype (recorded as *sordidipennis* by POPPIUS 1914: 30–31), Fülleborn, Mus. Helsinki.

✓ *T. ocellaris* sp. n.

Length 4.5–5.25 mm. Fairly shiny. Dark brown. 1st antennal joint blackish, pale at apex, 2nd and 3rd joints yellow-brown, 4th embrowned. Elytra dirty dark yellowish brown, sometimes with a slight reddish tinge, cuneus blackish, membrane dark. Middle and hind coxae whitish. Femora dark brown, pale at apex. Legs otherwise yellowish brown, hind tibiae darker.

Narrow, body 3.75 × as long as broad. Eyes large, ocular index 0.80–0.88 (♂). Antennae long, proportions between joints 21 : 52 : 38 : 24, 1st joint with erect bristles, 0.87 × as long as diatone, 2nd 1.73 × as long as basal width of pronotum, 2.5 × as long as 1st. Rostrum extending to base of abdomen. Pronotum narrower than in the other species. Setae of legs normal. Male genitalia: genital segment (Fig. 44 m) with a sharp apex; right stylus (Fig. 44 p) with a strong, slaw-like hypophysis; left stylus large (Fig. 44 n–o); theca as in Fig. 44 q; vesica as in *palustris*.

Equatoria: Yei–Maridi, 1 ♂, type and 1 ♂ paratype, 13. IV. 1963. In a swampy meadow.

T. rubella Odh. (Uganda) is very similar to *T. ocellaris*, but differs especially in the shape of the theca and the right stylus (ODHIAMBO 1959 d: 679).

✓ *T. pilipes* sp. n.

Fig. 51. Length 3.5 mm. Shiny. Head brown, strongly shiny. 1st antennal joint black, apically pale, 2nd and 3rd joints whitish ochraceous, 4th dark brown, apex pale. Pronotum black. Scutellum dark brown. Elytra greyish ochraceous, cuneus purplish, membrane greyish. Under surface dark brown. Middle and hind coxae whitish. Femora black, with apex narrowly pale. Legs otherwise pale ochraceous, fore and middle tibiae with a brownish median ring, hind tibiae medially broadly blackish.

Small and relatively broad, body 3.2 × as long as broad. Hair covering as in the other species of the genus. Head not

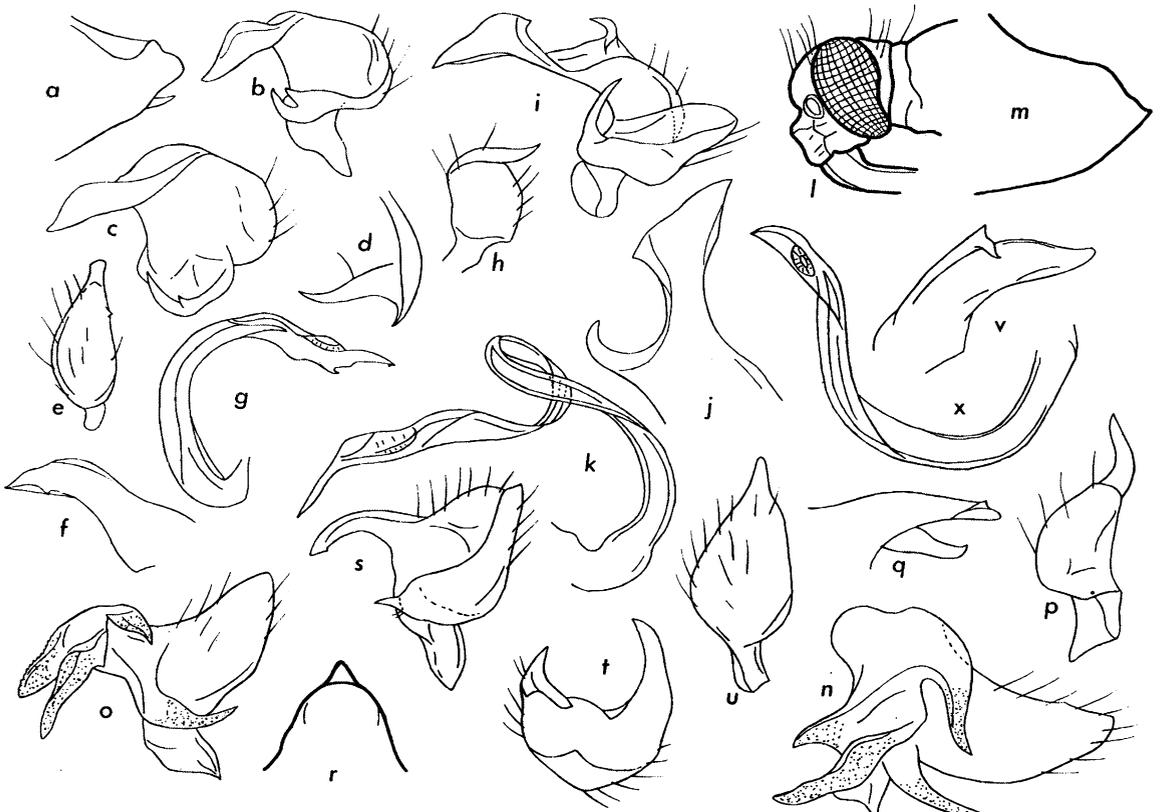


Fig. 44. *Trichophorella sordidipennis* Rt.: a pygophore from side; b - c left stylus; d sensory lobe of same; e right stylus; f theca; g vesica. - *T. palustris* sp. n.: h right stylus; i left stylus; j hypophysis of same from above; k vesica. - *T. ocellaris* sp. n.: l head from side; m pygophore from side; n - o left and p right stylus; q theca. - *Azizus oculatus* (Pop.): r pygophore from above; s - t left and u right stylus; v theca; x vesica.

microsculptured (in the other species shagreened), eyes small, ocular index 1.7s. Proportions between antennal joints 8 : 35 : 24 : 19, 1st joint with erect bristles, 0.47 × as long as diatone, 2nd 1.3 × as long as basal width of pronotum, 4.4 × as long as 1st. Rostrum short, extending to middle coxae. Pronotum twice as broad as long, collar narrow. Hind tibiae with remarkably long erect hairs (the longest hairs 3.4 × as long as the cross-section of the tibia).

Equatoria: Mundri, 1 ♀, type, 25. II. 1963. At lamp.

Differs rather much from the other species of the genus. Males are needed to elucidate its relationship to them.

✓ *Azizus* Dist. (= *Megacoeloides* Pop.)

Very near *Aeolocoris* Rt., but 1st antennal joint dark and provided with erect pale hairs (not bristles), also the hair covering of the upper surface pale and smooth with only a few erect hairs. Male genital structure as in *Aeolocoris*. A complete description is given in POPPIUS 1914: 33 - 34. The African species of the genus are:

A. oculatus (Pop.) (Togo), *A. dispar* Odh. (Uganda) and *A. basilewskyi* Cv. (Congo).

✓ *A. oculatus* (Pop.)

Male genitalia as in Fig. 44 r - x.

Material studied: Togo, Kete-Kratji, 1 ♂, selected here as the lectotype and 1 ♀ cotype, Zech, Mus. Helsinki.

✓ *Aeolocoris* Rt.

Aeolocoris REUTER 1903: 17. Type: *A. alboconsersus* Rt. *Carinonotus* LINDBERG 1956: 54 - 56. Type: *C. phytocoroides* Ldb., syn. n.

Description in POPPIUS 1914: 34 - 35 and in LINDBERG 1956: 54 - 56.

Acrorrhinium Nh. is a closely related genus differing in the absence of erect silvery bristles on the upper surface and in the produced frontal process of the male (absent in *Aeolocoris*).

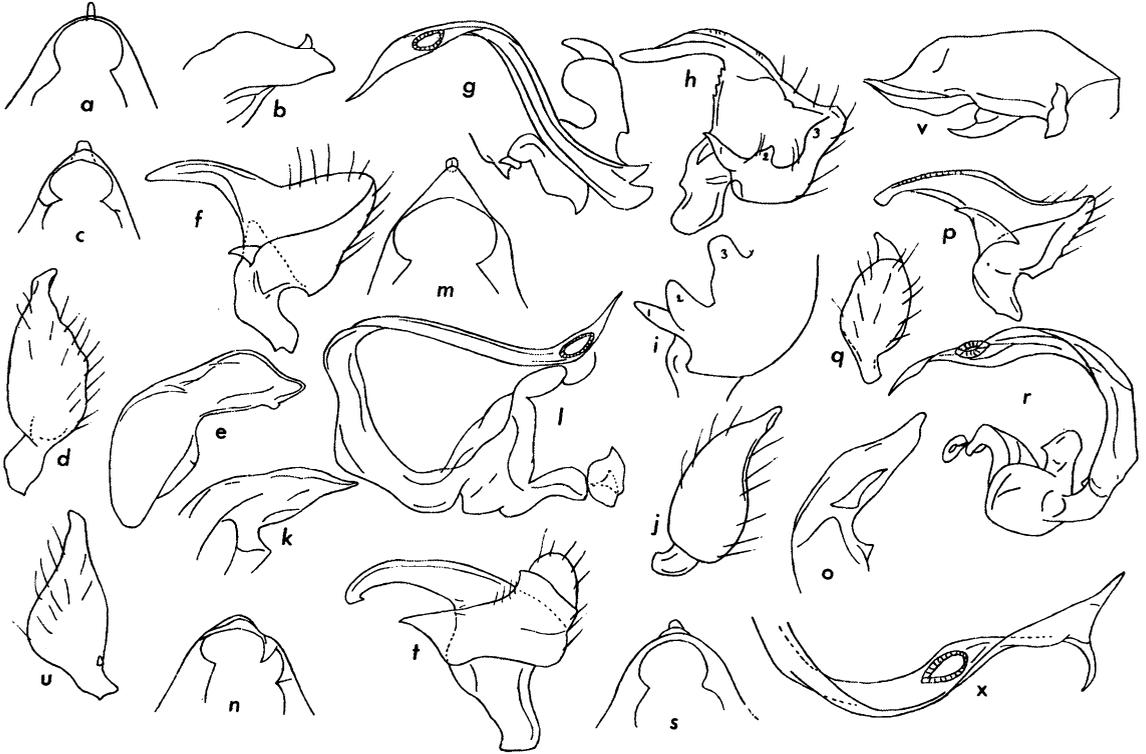


Fig. 45. *Aeolocoris alboconserspersus* Rt.: a pygophore from above; b theca. — *A. curtulus* sp. n.: c pygophore from above; d right stylus; f left stylus; e theca; g vesica. — *A. decarinatus* sp. n.: h left stylus; i sensory lobe of same from above; j right stylus; k theca; l vesica; m pygophore from above. — *A. pusillus* sp. n.: n pygophore from above; o theca; p left stylus; q right stylus; r vesica. — *A. nigrinus* sp. n.: s pygophore from above; t left stylus from side; u right stylus; v theca; x vesica.

Key to the species

- 1 (6) Pronotum with a short basal median carina 2
 2 (3) Cuneus pale, with dark irroration
 *A. alboconserspersus*
 3 (2) Cuneus uniformly dark 4
 4 (5) 2nd antennal joint not thickening apicad. Calli normal *A. curtulus*
 5 (4) 2nd antennal joint thickening apicad. Calli remarkably prominent *A. turgidus* Odh. (Kenya, Somalia)
 6 (1) Pronotum ecarinate 7
 7 (8) Uniformly dark coffee-brown. Elytra with a ± weakly developed whitish transverse band just caudad of tip of scutellum *A. nigrinus*
 8 (7) Greyish brown species with dark irroration 9
 9 (10) Length 3.5 – 4 mm. Antennae uniformly dark brown, only 1st joint apically and basally narrowly pale *A. pusillimus*
 10 (9) Length 4.5 – 5 mm. 1st and 2nd antennal joints dark with pale irroration, the other joints predominantly pale *A. decarinatus*

✓ *A. alboconserspersus* Rt.

Aeolocoris alboconserspersus REUTER 1903: 17.

Carinonotus phytocoroides LINDBERG 1956: 54 – 56, syn. n.

Completely described by LINDBERG 1956: 54 – 56. Ocular index 0.75 – 0.84 (♂) or 1.4 (♀). 1st antennal joint 0.6 (♂) or

0.75 (♀) × as long as diatone. Male genital segment and theca as in Fig. 45 a – b. Vesica long, strongly S-shaped.

1, 2 exx.; 6, several exx.; 17, several exx.; 24 – 24 a, 1 ex.; 22 – 25, several exx.; 35, 2 exx.; near 39, 2 exx.; 72, 2 exx.; 76 – 81, 1 ex. At lamp. Eremian (Arabia, French Somaliland, Ethiopia, Tunisia).

✓ *A. curtulus* sp. n.

Length 4.5 – 5 mm. Like the preceding species, but 1) smaller and darker with cuneus uniformly dark brown, 2) 1st antennal joint in male much shorter, 0.46 (♂) or 0.7 (♀) as long as diatone, 3) ocular index 0.67 (♂) or 1.61 (♀), 4) apical process of male genital segment (Fig. 45 c) thicker, theca (Fig. 45 e) without a sharp subapical tooth and vesica (Fig. 45 g) much shorter and not strongly S-shaped. Right stylus as in Fig. 45 d.

Equatoria: Kapoeta – Boma, 1 ♂, type and 4 paratypes, 26 – 27. III. 1963. At lamp.

Closely related to *A. turgidus* Odh., but 2nd antennal joint not thickening apicad, pronotum narrower with normally developed calli, 2nd joint of hind tarsi shorter than 3rd and theca broader and provided with a subapical ventral knob.

✓ *A. decarinatus* sp. n.

Length 4.5 – 5 mm. Like *A. alboconserspersus*, but 1) smal-

ler, 2) pronotum remarkably pale, yellowish with only calli surrounded by reddish brown dashes, and considerably broader, $1.8 \times$ as broad as long, and flatter, without the basal median carina, 3) cuneus uniformly dark brown and 4) styli (Fig. 45 h - i) differently shaped, the sensory lobe of the left stylus with 3 processes, apical process of genital segment (Fig. 45 m) thicker, theca (Fig. 45 k) without a subapical tooth and vesica (Fig. 44 l) dissimilarly curved.

Ocular index 0.74 (σ) or 1.33 (ρ). 1st antennal joint $0.7 \times$ as long as diatone.

Bahr el Ghazal: Wau. 1 σ , type, 19. II. 1963; 72, 1 ρ paratype. At lamp.

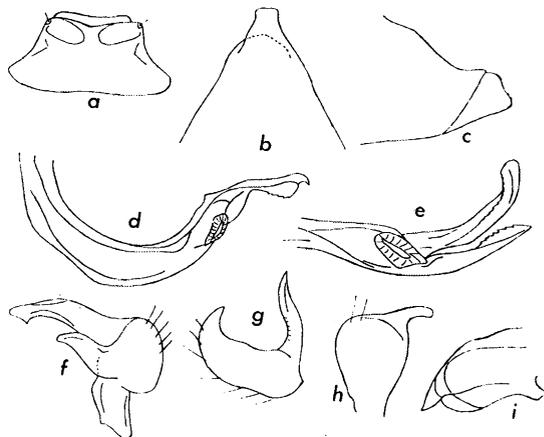


Fig. 46. *Kapoetius rotundifrons* Schmitz: a) pronotum; b) pygophore, ventral aspect; c) same from side; d - e) vesica; f - g) left and h) right stylus; i) theca.

✓ *A. pusillimus* sp. n.

Length 3.5 - 4 mm. Resembling *alboconspersus*, but 1) much smaller 2) antennae uniformly dark brown, except apex and base of 1st joint, which are narrowly pale, 3) cuneus uniformly dark brown, 4) eyes remarkably small, ocular index 1.25 (σ) or 1.5 (ρ), 5) pronotum without the basal median carina, 6) femora uniformly dark reddish brown without pale irroration, 7) male genital segment (Fig. 45 n) without apical process, theca (Fig. 45 o) with a subbasal claw-like process and vesica (Fig. 45 r) much shorter. Styli as in Fig. 45 p - q.

1st antennal joint $0.8 \times$ as long as diatone.

Kordofan: near Talodi, 1 σ , type and 1 ρ paratype, 12 - 13. II. 1963. At lamp.

✓ *A. nigrinus* sp. n.

Length 4.5 - 5.5 mm. Subopaque. Uniformly dark coffee-brown. 1st antennal joint with minute pale knobs. Elytra with a whitish transverse band (usually \pm reduced or totally absent) just caudad of tip of scutellum. Middle and hind coxae pale.

With the general shape of the genus. With short erect and usually dark setae. Ocular index 0.7 (σ) or 1.45 - 1.50 (ρ). Proportions between antennal joints 13 : 44 : 34 : 25, 1st joint $0.5 \times$ as long as diatone, 2nd $1.3 \times$ as long as basal width of pronotum. Rostrum extending well beyond hind coxae. Pronotum without a median carina. Hind tibiae more flattened and provided with longer hairs than in the other species. Male genitalia: genital segment (Fig. 45 s) with a short apical process; styli as in Fig. 45 t - u; theca (Fig. 45 v) with a claw-like subbasal process; vesica (Fig. 45 x) with a thin, claw-like apical process.

Bahr el Ghazal: Wau, 1 σ , type and 1 paratype, 19. II. 1963; 72 - 74, 2 paratypes; 74, 1 paratype. At lamp.

Kapoetius Schmitz

✓ *K. rotundifrons* Schmitz. - Fig. 46. - 81 - 82, several exx. At lamp in sandy places. Endemic.

Diocoris Kk.

SCHUH (1974: 122) synonymized the genus *Systellonotidea* Pop. with *Diocoris* basing his opinion on the fact that of the former genus only the male, of the latter only the female sex was known at the time of the description, and that the recorded distinguishing characters were caused by the sexual dimorphism. After studying an adequate material of both sexes of *Diocoris*

agelastus Kk. (Ivory, Coast, Lamto, D. Gillon leg.) and *Systellonotidea triangulifer* Pop. I am convinced that the genera are separate. The following differences were observed: In *Diocoris* σ the head appears narrower owing to the smaller eyes and the basal margin of the vertex is narrowly but distinctly carinate (completely smooth in *Systellonotidea*). In *Diocoris* the pronotum is relatively longer and much less strongly broadening basad with the collar only faintly indicated. In *Systellonotidea* (Fig. 47h) the pronotum is strongly broadening basad and the collar is distinct. In the female sex the differences are still more evident. In *Diocoris* (Fig. 47 a - b) the head is only a little broader than the pronotum, the eyes touch the anterior margin of the pronotum and the basal margin of the vertex is faintly carinate. The pronotum is only slightly broadening caudad and flat, the disk in profile not raising above the vertex, and the collar is indistinct. In *Systellonotidea* (Fig. 47 j) the eyes are small and do not touch the anterior margin of the pronotum, and the base of the vertex is ecarinate. The pronotum is strongly broadening caudad as in σ with the disk sloping apicad forming in profile a distinct insinuation behind the vertex, the collar is distinct. In both sexes the hind tibiae (Fig. 47 c) are shorter and flattened in *Diocoris*, long and gracile in *Systellonotidea*.

✓ *D. pilosus* sp. n.

Figs. 42 a, 47 a - c. Length 4.5 mm. Opaque, only apex of corium and cuneus shiny. Blackish. Vertex basally tinged

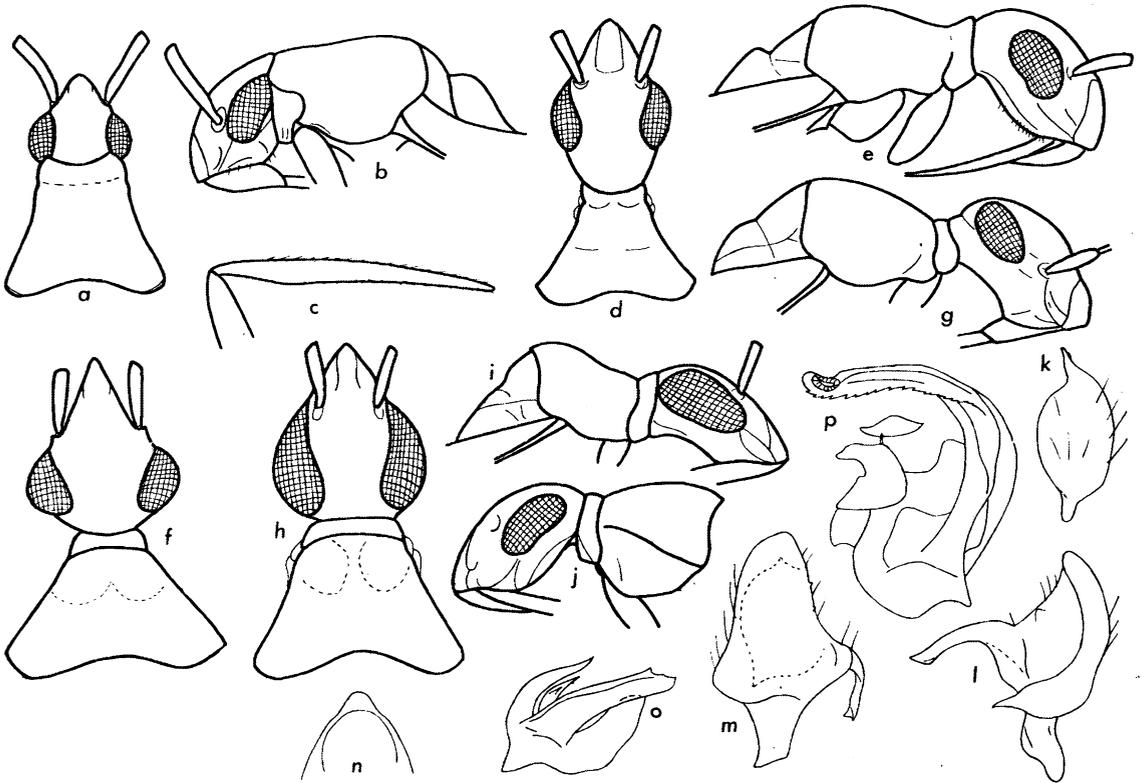


Fig. 47. *Diocoris pilosus* sp.n.: a head and pronotum; b same from side; c hind tibia. — *Formicopsella magniceps* sp. n.: d head and pronotum; e same from side. — *Skukuza somatica* sp. n.: f head and pronotum; k right stylus; l left stylus; m same from below; n pygophore from above; o theca; p vesica. — *K. zeugma* (Odh.): g head and pronotum from side. — *Systellonotidea triangulifer* Pop.: h head and pronotum (♂); i same from side; j same (♀).

with reddish brown. Antennae dark brown, 1st joint dirty yellowish brown. Elytra blackish brown, with an oblique whitish transverse stripe at middle, outer part of corium basally brown, costal margin yellowish brown, membrane dark brown. Legs dark brown, knees and apical half of anterior and of middle tibiae yellow-brown.

Elongate. Upper surface with short and rather dense erect brown hair covering. Head nearly vertical, flattish, somewhat longer than broad in apical view, more than twice as high as broad in side view, tylus not prominent, eyes touching anterior margin of pronotum; vertex distinctly shagreened, slightly marginate basally, ocular index 2.52. Antennae starting slightly below middle of anterior margins of eyes, long and gracile, with smooth hair covering, proportions between joints 15 : 37 : 34 : 19, 1st joint $0.7 \times$ as long as diatone, 2nd $1.16 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum narrow, $1.2 \times$ as broad as long, broadening moderately caudad, lateral margins shallowly and basal margin distinctly insinuated; collar broad, not distinctly separated from disk, the latter strongly shagreened and posteriorly finely transversely wrinkled, calli not differentiated. Scutellum convex, with a transverse median impression. Elytra slightly longer than abdomen. Legs long, tibiae flattened, hind tibiae clavate, densely setose. Proportions between hind tarsal joints 10 : 14 : 14.

Equatoria: Tambura — Wau road, 1 ♀, type, 25 — 26. IV. 1963. At lamp.

Recognized by the erect and dense hair covering and the colour markings of elytra.

D. agelastus Kk.

Very similar to the preceding species, but hair covering smooth (only head with some longer erect hairs), shagreening of head and of pronotum fainter, the latter not distinctly transversely wrinkled and the pale stripe of elytra (Fig. 42 b) straight.

Material studied: Guinea, Addah, 1 ♀, type, Mus. Helsinki.

Chaetocapsus Pop.

✓ *C. binotatus* Pop.

Colour pattern of elytra as in Fig. 42 c. For description see POPPIUS 1914: 38 — 39.

Material studied: Togo, Kete-Kratji, 1 ♂, type, Zech, Mus. Helsinki.

Formicopsella Pop.

F. magniceps sp. n.

Figs. 42 d, 47 d — e. Length 5 mm. Opaquely shiny. Dark brown. Antennae dark brown, 1st and 3rd joints yellowish brown. Clavus and basal two-thirds of corium reddish brown with a whitish triangular transverse spot, surroundings of spot fuscous, costal margin whitish, apical third of corium and cuneus and membrane dark brown. Under surface blackish. Legs yellowish brown, tarsi somewhat darker.

Hair covering of upper surface short and erect. Head large, convex, $1.3 \times$ as long as broad in apical view, $1.6 \times$

as high as broad in lateral view, ventral margin with numerous bristles, eyes remarkably small, ocular index 2.7. Antennae relatively incrassate (especially apical joints), proportions between joints 13 : 38 : 33 : 20, 1st joint $0.46 \times$ as long as diatone, 2nd $1.4 \times$ as long as basal width of pronotum. Rostrum short, not extending to middle coxae. Pronotum somewhat broader than long. Elytra as long as abdomen. Legs relatively short.

Equatoria: Kapoeta - Boma, 1 ♀, type, 26 - 27. III. 1963.

✓ *F. regneri* Pop.

Very similar to the preceding species, but the white triangle of elytra much broader (Fig. 42 e). Head considerably shorter and broader, in apical view $1.16 \times$ as long as broad, in lateral view $1.5 \times$ as high as broad, ocular index 2.55. Eyes shorter, in lateral view $1.5 \times$ as high as broad ($1.73 \times$ in *magnumiceps*). Proportions between antennal joints 14 : 39 : 35 : ?, 1st joint $0.56 \times$ as long as diatone, 2nd $1.3 \times$ as long as basal width of pronotum.

Material studied: E. Africa, Daressalam, Pangani, 1 ♀, type, Regner, Mus. Helsinki.

✓ *Systellonotidea* Pop.

Differs from *Formicopsella* in the larger eyes extending to near apicolateral angles of pronotum (Fig. 47 h - j), in the clavate 2nd antennal joint (especially in ♀), in the longer rostrum, in the longer and thinner legs and in the longer tibial bristles. For further description see POPPIUS 1914: 49.

✓ *S. triangulifer* Pop.

Systellonotidea triangulifer POPPIUS 1914: 49 - 50.

Diocoris triquetrus ODHIAMBO 1959 d: 644 - 647, syn. n.

Elytra as in Fig. 42 f. - 52, several exx.; 72 - 74, 1 ex.; 68, 1 ex.; 61 - 52, 1 ex.; 66 - 64, several exx. At lamp.

Other material studied: E. Africa, Fl. Tana, 1 ♂, type of *S. triangulifer*, Mus. Helsinki. General distribution: E. Africa.

✓ *Skukuza* Schuh

Systellonotus-shaped, medium-sized species. Hair covering silvery and rather smooth. Head large, sharply triangular, relatively flat, slightly longer than broad in apical view, twice as high as broad in side view, tylus normal, vertex shagreened, flattish, with a slight median impression, sometimes also with faint transverse furrows, base not marginate. Eyes rather small, not extending to anterior margin of pronotum, facets convex, not haired. Antennae long and gracile, with only smooth hairs, starting distinctly below anterior margin of eyes. Rostrum extending to middle coxae. Pronotum broader than long, strongly broadening caudad, lateral margins straight, basal margin medially insinuated; collar narrow, distinctly separated from the disk, calli not differentiated, disk moderately convex and sloping apicad. Scutellum relatively convex with a transverse impression in the middle. Elytra longer than abdomen. Legs long and gracile, tibiae with distinct spines, 1st joint of hind tarsi distinctly longer than 2nd. Claws

with small pseudarolia. Male genitalia: genital segment conical; right stylus broadly ovate; left stylus with a strongly prominent sensory lobe bearing a process turned mesad; theca with basal processes; vesica incrassate, dentate in apical part, gonopore near apex.

Type: *Skukuza slateri* Schuh.

Easily recognized by the structure of the head, the markings of the elytra, the short 2nd joint of hind tarsi etc.

✓ *S. zeugma* (Odh.)

Formicopsella zeugma ODHIAMBO 1959d: 652 - 655.

Head and elytra as in Figs. 47 g, 42 g. For further description see ODHIAMBO 1959d: 652 - 655.

81 - 82, 1 ex. Otherwise known from Kenya and Somalia.

✓ *S. somalica* sp. n.

Figs. 42 h, f. Length 5.5 mm. Opaque. With relatively short and smooth silvery hair covering. Dark brown to reddish brown. Antennae dark yellowish brown. Elytra dark brown, the transverse whitish median fascia broadening laterad, apical margin of corium broadly white, cuneus blackish brown, membrane brownish smoky, apically darker. Under surface blackish, ostiolar peritremes whitish. Legs dark reddish brown, tibial spines dark brown.

Gracile. Vertex distinctly transversely furrowed, ocular index 1.6. Proportions between antennal joints 10 : 40 : 35 : 29, 2nd joint $1.2 \times$ as long as basal width of pronotum. Proportions between hind tarsal joints 19 : 15 : 15. Male genitalia as in Fig. 47 k - p.

Somalia, Hargeisa, 1 ♂ type and 3 ♂ paratypes, 23 - 28. VI. 1963. At lamp.

In *S. slateri* Schuh (South Africa) the antennae are bicoloured, the basic colouring is dull grey brown, the anterior whitish fascia of the elytra is considerably narrower and the ocular index is about 1.64.

Pangania Pop.

✓ *P. fasciatiennis* Pop.

Pangania fasciatiennis POPPIUS 1914: 48. - *Pangania venusta* ODHIAMBO 1959d: 657 - 659, syn. n.

Material studied: E. Africa, Daressalam, Pangani, 1 ♂, type of *fasciatiennis* and 4 paratypes, Regner, Mus. Helsinki.

Aspidacanthus Rt.

A characteristic genus, of which two species have been known: *A. myrmecoides* Rt. (Turkestan) and *A. bambeyi* Risb. (Senegal).

✓ *A. globicollis* sp. n.

Figs. 42 i, 48 a. Length 5 - 5.2 mm. Shiny, reddish brown. 1st and 2nd antennal joints whitish or yellowish brown, other joints dark brown. Elytra with costal margin and a transverse triangular fascia white, the latter interrupted at the claval suture and surrounded by black, cuneus and apical third of corium shiny, dark brown, other parts of elytra opaque, reddish brown. Abdomen black. Legs dark brown, apical part of tibiae yellowish brown.

♂ macropterous resembling *A. bambeyi*. Hair covering brownish. Head shagreened and in places finely tuberculate, nearly as broad as pronotum, in apical view $1.07 \times$ as long as broad, in side view $1.67 \times$ as high as broad, ocular index 2.7. Proportions between antennal joints 7 : 28 : 19 : 15, 2nd

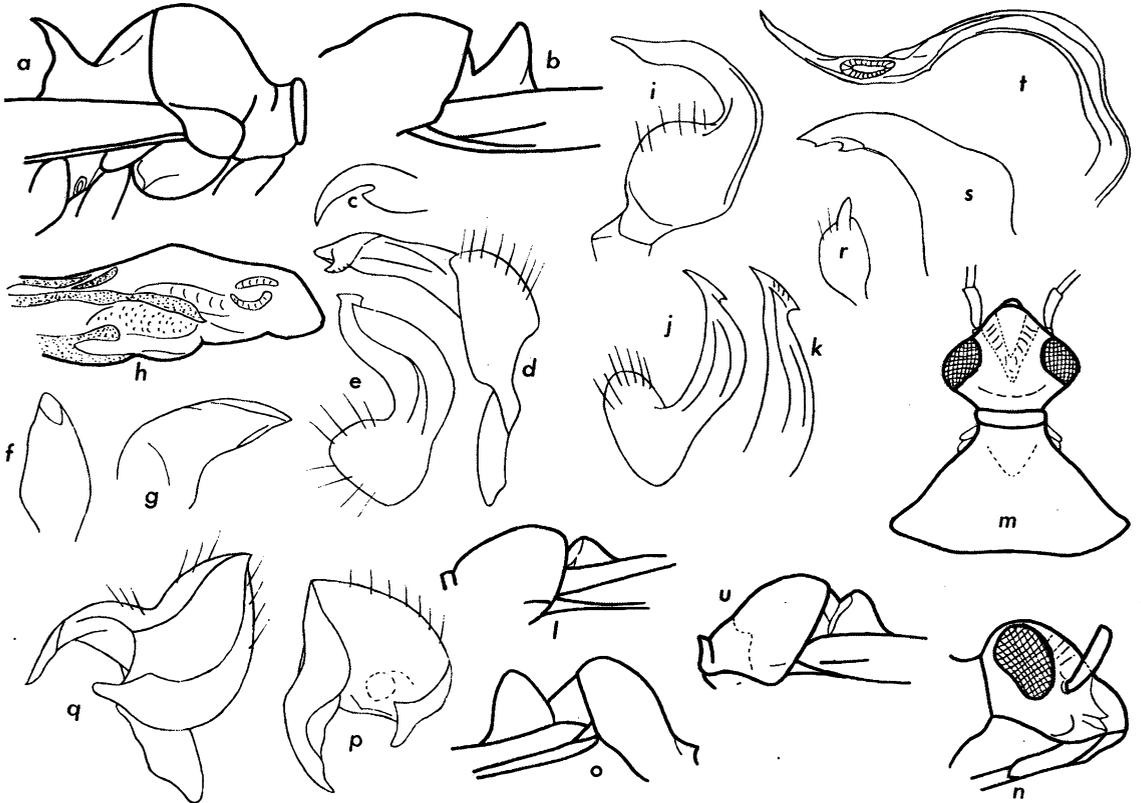


Fig. 48. *Aspidacanthus globicollis* sp. n.: a thorax from side. - *Glossopeltis conradti* Pop.: b same; c claw; d - e left and f right stylus; g theca; h vesica. - *G. albosignatus* (Rt.): i - k left stylus. - *G. ornatus* sp. n.: l pronotum and scutellum from side. - *G. combreticolus* sp. n.: u same. - *Ruvaba elegans* gen. et sp. n.: m head and pronotum; n - o same from side; p - q left and r right stylus; s theca; t vesica.

joint nearly as long as basal width of pronotum. Rostrum extending to fore coxae. Pronotum basally strongly convex, globose, shagreened and finely punctate. Scutellum with a subvertical apical spine. Elytra much longer than abdomen, distinctly constricted at middle.

♀ brachypterous. Head very large, shagreened, $1.6 \times$ as broad as pronotum, in apical view $1.18 \times$ as high as broad, in side view $1.6 \times$ as high as broad, ocular index 4.6. Proportions between antennal joints 8 : 30 : 21 : 15, 2nd joint $1.43 \times$ as long as basal width of pronotum. Pronotum small, basal part only moderately convex, lateral margins insinuated. Scutellum as in ♂. Elytra reduced, scale-like, covering only base of abdomen. Abdomen strongly expanded, twice as long as broad, strongly constricted basally.

17, 2 paratypes; 21, Umm Barona, several paratypes; 33 - 34, 2 paratypes; Darfur: Ed Daein, 1 ♂, type and 1 paratype, 3 - 7. V. 1963; 72, 1 paratype; 30 km. N of 71, 1 paratype. Eritrea, 91 - 94, 1 paratype. Among vegetation in dry sandy places, also on bushes like *Guiera senegalensis*. Myrmecophilous like many other species of the subfamily.

Much like *A. bambeyi* Risb., but pronotum (♂) much more globose basally, scutellar spine directed more vertically dorsad and the pattern of elytra dissimilar (in *bambeyi* the elytra provided with 2 pale spots, the larger not divided at middle). *A. myrmecoides* Rt. is smaller, has a much smaller pronotum, a more globose head, a longer hair covering etc.

Glossopeltis Rt. = *Dactylopsylla*

Glossopeltis REUTER 1903: 13. Type: *G. coutierei* Rt.

Tylopeltis REUTER 1904 a: 4. Type: *T. albosignata* Rt., syn. n.

A characteristic genus, recognized, e.g., by the coarsely punctate upper surface, the shape of the claws (a strong basal tooth, absence of pseudarolia) (Fig. 48c) and the structure of the male genitalia: left stylus with a rounded sensory lobe without an apical tooth, the hypophysis long, curvate with an obliquely T-shaped apex; vesica short and broad (thin, band-shaped in all other genera known to me). The species of *Glossopeltis* and *Tylopeltis* have very similar genitalia and since the other differences mentioned in the original descriptions are also rather vague, I regard the latter genus as a synonym of the former. Until now three species have been known: *G. albosignata* (Rt.) (E. Africa, Congo), *G. conradti* Pop. (Togo) and *G. coutierei* Rt. (French

Somaliland). Two new species are described below. The Sudanese species, at least, is myrmecophilous. The species of the genus are easily recognized by the colour pattern of the elytra. The genus actually belongs to the subfamily Deraeocorinae (LINNAVUORI 1973a: 7-8).

✓ *G. conradti* Pop.

Fig. 42 j, 48 b. Resembling the following species, but 1) brouster, 2) white band of corium and clavus much narrower, base of cuneus with a white transverse band, 3) pronotum considerably broader, $1.7 \times$ as broad as long, with nearly straight lateral margins and coarser puncturation, 4) hump of scutellum much higher.

Ocular index 0.70. Head $0.66 \times$ as broad as pronotum. Proportions between antennal joints 8 : 35 : ? : ?, 2nd joint slightly shorter than basal width of pronotum. Male genitalia: right stylus (Fig. 48 f) small, elongately triangular; left stylus (Fig. 48 d-e) with rather thick hypophysis; theca simple (Fig. 48); vesica (Fig. 48 h) short and broad.

Material studied: Togo, Bismarckburg, 1 ♂, type, Conradt, Mus. Helsinki.

✓ *G. combreticolus* sp. n.

Length 3-4 mm. Shiny. Reddish or darker brown. 1st antennal joint yellow-brown, 2nd either uniformly dark brown or, usually, yellow-brown in basal two-thirds, dark apically, other joints dark brown, base of 3rd white. Anterior margin of collar and extreme margins of humeral angles of pronotum whitish. Elytra (Fig. 48 i) dark brown with a broad whitish transverse fascia containing a small fuscous triangular sublateral spot, this fascia sometimes (in the specimen from Juba) ochraceous and spotted with brown, being distinctly white only in caudal margin, cuneus uniformly dark, membrane dark brown. Under surface reddish brown, abdomen apically blackish. Coxae, base of femora and apex of tibiae whitish or yellow-brown, legs otherwise brown, tarsi yellow-brown.

Body nearly $3 \times$ as long as broad. Head obsoletely punctate, eyes in ♂ very large, ocular index 0.56, in ♀ smaller, ocular index 1.14. Proportions between antennal joints 8 : 30 : 11 : 9, 2nd joint nearly as long as basal width of pronotum, antennae more incrassate in ♂. Pronotum $1.4 \times$ as broad as long, strongly convex, lateral margins distinctly insinuated, disk clearly punctate, the coarseness of the puncturation varying with the individual. Apical hump of scutellum (Fig. 48 u) relatively blunt. Elytra longer than (♂) or as long as (♀) abdomen. Rostrum extending to hind coxae.

Kordofan: Dilling-Kadugli, ♂, type and 5 paratypes, 1-2. II. 1963; 44, 1 paratype; 72, 1 paratype. On *Combretum ghasalense* and *Guiera senegalensis*. Myrmecophilous.

✓ *G. ornatulus* sp. n.

Fig. 48 l. Length 3.5-4 mm. Shiny. Golden-brown. Antennae yellow-brown, 4th joint and apical third of 2nd dark brown. Elytra with a whitish pattern as in Fig. 42 m, the two claval spots together forming a well-defined whitish triangle; base of elytra paler, apical half dark brown, puncturation in basal half dark brown, otherwise concolorous; cuneus bicoloured, whitish with base dark brown and inner median margin apically dark purplish and connected by a callose whitish yellow stripe to the dark base, membrane brownish smoky, apically paler. Under surface dark brown. Legs pale ochraceous, femora dark brown in apical half, tibiae with a broad dark brown subbasal ring.

Resembling *G. combreticola*, but more slender, antennae longer and thinner, pronotum less convex and more finely

punctate and scutellar hump much smaller. Ocular index 0.67 (♂) or 1.56 (♀). Antennae gracile in both sexes, proportions between joints 8 : 30 : 14 : 11, 2nd joint as long as basal width of pronotum. Pronotum about $1.4 \times$ as broad as long.

Chad, Bas-Chari, Djimtilo, Gallery forest, 1 ♂, type and 5 paratypes, Péricart, Mus. Paris, paratypes also in my collection.

✓ *G. albosignatus* (Rt.), comb. n.

Tylopeltis albosignata REUTER 1904: 5.

Like *ornatulus*, but 1) much smaller, 2) 3rd antennal joint apically broadly dark, pattern of cuneus as in Fig. 42 k, hind tibiae more broadly dark, 3) head much smaller, $0.55 \times$ as broad as pronotum ($0.67 \times$ in *ornatulus*), eyes much smaller and less granulate, ocular index 1.33, 4) antennae shorter, proportions between joints 7 : 27 : 11 : 10, 2nd joint somewhat shorter than basal width of pronotum and 5) pronotum broader, $1.6 \times$ as broad as long, lateral margins straighter. Left stylus as in Fig. 48 i-k.

Material studied: E. Africa, Rukwasteppe, 1 ♂, Fromm, Mus. Helsinki.

✓ *Ruwaba* gen. n.

Medium-sized, strongly shiny species resembling *Glaphyrocoris* Rt. in colouring. Upper surface with long erect hairs. Head small, much narrower than pronotum, as long as broad in apical view, distinctly higher than broad in lateral view; tylus not prominent; frons with 2 longitudinal, rugose, transversely furrowed rows converging caudad, base of vertex completely immarginate, eyes small, not touching pronotum. Antennae long and gracile, smoothly haired, starting just at lower corner of eyes. Rostrum extending to base of abdomen. Pronotum strongly broadening caudad, humeral angles remarkably prominent, disk strongly decliving apicad, convex, not shagreened, anterior part with a median depression, collar narrow, well separated; basal margin of pronotum nearly straight. Scutellum with a high apical hump. Elytra longer than abdomen. Legs long and gracile (*Systellonotus*-type), tibiae with distinct spines. Male genitalia as in *Glaphyrocoris*.

Type: *R. elegans* Lv.

Differing from *Glaphyrocoris* in the structure of the head (eyes small and not touching the pronotum etc.), in the long and gracile antennae and in the gracile legs with distinct tibial spines. *Aspidacanthus* has a much larger head, a sharp-tipped scutellar hump etc.

✓ *R. elegans* sp. n.

Figs. 42 n, 48 m. Length 4.5 mm. Strongly shiny. Reddish brown. Antennae yellowish brown, gradually darkening apicad. Elytra dark coffee-brown with a large white triangle, membrane hyaline, medially smoky. Under surface reddish or dark brown. Middle and hind coxae whitish. Femora reddish brown, tibiae dark brown, tarsi pale.

Head $0.61 \times$ as broad as pronotum. Ocular index 1.8.

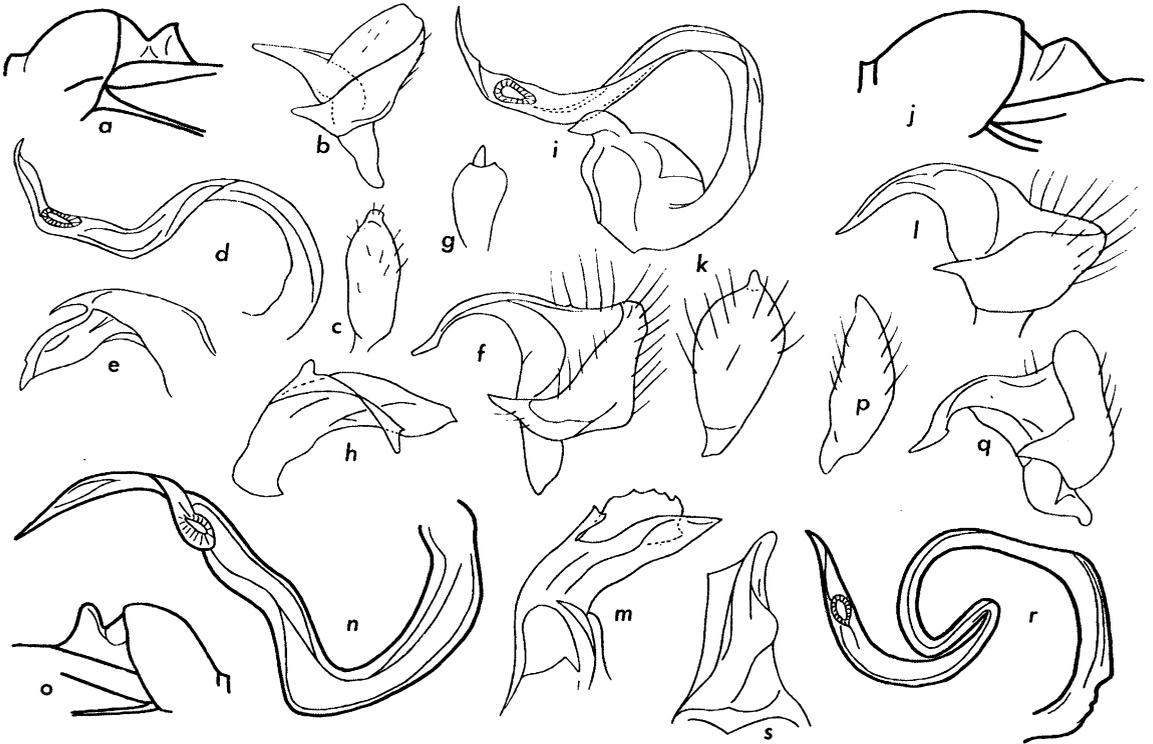


Fig. 49. *Alloemimus hilaris* sp. n.: a pronotum and scutellum from side; b left and c right stylus; e theca; d vesica. — *Glaphyrocoris nocturnus* (Lv.): f left and g right stylus; h theca; i vesica. — *G. v. albus* sp. n.: j pronotum and scutellum from side; k right and l left stylus; m theca; n vesica. — *G. torridus* sp. n.: o pronotum and scutellum from side; p right and q left stylus; r vesica; s theca.

Proportions between antennal joints 8.5 : 31 : 25 : 20, 2nd joint as long as basal width of pronotum. Pronotum 1.55 × as broad as long. Male genitalia: right stylus (Fig. 48 r) very small; left stylus and theca as in Fig. 48 p - q and s; vesica (Fig. 48 t) long and slender.

35 - 36, 1 ♂ paratype; 32, 1 ♂ paratype; Tendelti-Umm Ruwaba, 1 ♂, type and 1 ♂ paratype, 25 - 28. I. 1963. In sandy localities. Swept from *Guiera senegalensis*.

Alloemimus Rt.

✓ *A. hilaris* sp. n.

Fig. 42 o, 49 a. Length 2.75 - 3.5 mm. Shiny, black, with erect dark hairs. 1st antennal joint and base of 2nd yellow-brown, other parts of antennae dark brown. Elytra opaque, apical third of corium and cuneus shiny, dark brown or blackish, costal margin and a transverse triangular fascia whitish, membrane brownish smoky. Under surface black. Coxae and base of femora whitish. Legs otherwise dark brown with apex of femora ventrally pale and tibiae in apical half ± yellowish brown.

Slender, ant-shaped. Head convex, only very faintly microsculptured, eyes haired, ocular index 1.74 (♂) or 2.4 (♀). Head of ♀ much longer than in ♂. Antennae gracile, proportions between joints 6 : 21 : 15.5 : 12, 2nd joint somewhat shorter than basal width of pronotum. Rostrum extending slightly beyond anterior coxae. Pronotum strongly widening caudad (f. macr.) or narrower than head (f. brach.), collar shagreened, the convex disk with only very faint microsculpturing. Apical hump of scutellum sharp. Elytra longer (f. macr. ♂♀) or shorter (apical third of abdomen uncovered, f. brach.

♀) than abdomen. Legs gracile. Male genitalia as in Fig. 49 b - d.

Khartoum, 1 ♂, type and several paratypes, 30. VI - 3. VII. 1961; 4 c, 1 paratype; 46 - 45, 1 paratype; 51, 1 paratype; 72 - 71, 1 paratype; 70 - 72, 1 paratype; 76, 2 paratypes. Eritrea, 93 - 91, 1 paratype. Ethiopia, 11 c, 1 paratype; near 111, 1 paratype. Chad, Djimtilo, 1 paratype, Péricart, Mus. Paris. On *Acacia* together with ants.

Systellonotopsis Pop.

✓ Resembling *Glaphyrocoris*, but 1) 1st antennal joint remarkably long, 2) antennae starting quite near eyes, 3) eyes haired, 4) scutellum flat and 5) with different pattern on elytra.

✓ *S. bifasciatus* Pop.

Colouring of elytra as in Fig. 50 p. Description in Porpus 1914: 43 - 44.

Material studied: British Bechuanaland, 1 ♀, type, Seiner. Mus. Helsinki.

✓ *Glaphyrocoris* Rt.

Glaphyrocoris REUTER 1903: 15 - 16. Type: *G. unifasciatus* Rt.

Trachelonotus REUTER 1905: 13. Type: *T. unifasciatus* Rt. (= *iranicus* Lv.)

Linoceraea HORVATH 1913: 597. Type: *L. lunigera* Hiv.

Hypomimus LINDBERG 1940: 34. Type: *H. albosellatus* Ldb. (= *chobauti* Pt.)

The genus *Linoceraea* Hv. was synonymized with *Glaphyrocoris* by CARVALHO (1952: 70). Later on (LINNAVUORI 1965: 266) *Trachelonotus* Rt. was synonymized with the genus too. Also *Hypomimus* Ldb. is undoubtedly congeneric with *Glaphyrocoris*. SCHUH (1974: 84 - 85) regarded *Linoceraea* as a separate genus on the following reasons: 1) *G. unifasciatus* lacks a ridge or raised carina on the posterior margin of the vertex which is present in *lunigera*, 2) the head and eyes are distinctly concave behind in *unifasciatus* so that the anterior margin of the pronotum is obscured, whereas in *lunigera* the head is not concave behind and the anterior margin of the pronotum is not obscured and 3) the transverse fascia of the elytra in *unifasciatus* is narrower and very sharply delimited, whereas in *lunigera* it is broad and somewhat diffuse. According to the original description (REUTER 1903:15 - 16) of *G. unifasciatus* the scutellum is not humped apically (scutello parte apicale apicem versus fortiter declivi).

Besides the species mentioned below, I have examined the following other representatives of the genus: *chobauti* (Pt.) (the Atlas countries), *secundus* (Lv.) (Israel), *lunigerus* (Hv.) (N. Africa, Arabia), *rubalkhalicus* (Lv.) (Arabia), *puncticollis* (Lv.) (Iran), *iranus* (Lv.) (Iran), *nigeriensis* Lv. (Nigeria) and *rufiventris* Lv. (Nigeria). Unfortunately the type of *G. unifasciatus* was not available. A good figure in the original description is helpful, anyhow. Since altogether 13 species were studied, an adequate conception of the variability lines within the group could be obtained:

1) The head: The hind margin is either straight (*antennalis*, *nocturnus*, *torridus*), distinctly concave (*chobauti*, *nigeriensis*, *rufiventris*) or \pm slightly concave (other species). The basal margin of the vertex is distinctly carinate (*chobauti*, *iranicus*, *lunigerus*, *nigeriensis*, *puncticollis*, *rufiventris*, *secundus*), obtusely carinate (*torridus*, *v-albus*, *varians*) or ecarinate (*antennalis*, *nocturnus*). Also the length of the head is variable. 2) The antennae: relatively incrassate in all species. 3) The pronotum: As mentioned below the microsculpturing is either distinct or faint, in *puncticollis* the disk of the pronotum is punctate. Also the breadth and convexity of the pronotum is variable. 4) The scutellum: The apical hump is usually strong, in *iranicus*, *lunigerus*, *nigeriensis*, *rubalkhalicus*, *v-albus* and *varians* \pm blunt. 5) The elytra. Either totally shiny or broadly opaque at middle. The white pattern is greatly variable: broad and diffuse (*lunigerus*), broad and sharply delimited (*nigeriensis*, *puncticollis*), narrowish and rather diffuse (*nocturnus*) or narrow and sharp (e.g. in *rufiventris*). 6) The hind tarsi: The 3rd joint is usually distinctly shorter than the combined length of the 1st and 2nd joints, sometimes (*nigeriensis*, *rufiventris*) only slightly shorter.

The only difference between *G. unifasciatus* and the species studied remains in the shape of the scutellum. But

since a tendency towards reducing of the apical hump is seen in certain species, *unifasciatus* can be regarded as an extreme step in this evolutionary line. It represents in this feature an intermediate between the subgenus *Pongocoris* and *Glaphyrocoris* s.str., but since it in all other characters agrees with the other species, I regard it as strictly congeneric with them.

The species *kiritshenkoi* and *opertus* differ from the others in the small flattened body (elongate and cylindrical in the others), the completely flat apical part of the scutellum, the very broad fascia of the elytra and the more gracile legs. A new subgenus, *Pongocoris* is therefore established for them.

Linoceraea pauliani Vill. (Morocco) upon which WAGNER (1973: 342 - 343) based his opinion of the genus, differs from the others in the large size, the gracile antennae and the black colouring and may represent a separate genus. The species is unknown to me.

The centre of origin of the genus is in the savannah belt of Africa. An adaptation into arid conditions has taken place leading to radiation into the Eremian subregion from North Africa to Iran and the adjacent parts of Turkestan.

1. group: elytra opaque in basal two-thirds, head and pronotum distinctly microsculptured.

✓ *G. nocturnus* Lv.

Male genitalia as in Fig. 49 f - i. For description see LINNAVUORI 1964: 329.

17, 3 exx. At lamp. Also known from Somalia.

✓ *G. secundus* (Lv.)

WAGNER (1973: 341) synonymized *G. secundus* (Lv.) from Israel with *G. chobauti* (Pt.) from the Atlas countries. The proposed synonymy is incorrect and undoubtedly based on a misinterpretation of the original description (LINNAVUORI 1961: 5). Both species are very different. *G. secundus* is readily distinguished by the small size, the dark colouring, the very small eyes and narrow head, the more convex vertex and frons, the shorter antennae and the blunter scutellar hump. Several specimens of *G. chobauti* from Morocco, Granja del Muluya, Kebdana, A. Pardo leg., were studied.

2. group: elytra totally shiny, head and pronotum distinctly microsculptured.

✓ *G. v-albus* sp. n.

Length 4 mm. Like *nocturnus*, but 1) robuster, 2) eyes larger and antennae thicker, 3) elytra totally shiny and 4) the white bands of clavus (Fig. 42 q) oblique, together forming a V-shaped spot.

Head strongly shagreened and provided with faint transverse furrows, base rather distinctly marginate, ocular index 1.13 (δ) or 2.67 (η). Proportions between antennal joints 8:21:16:15, 2nd joint 0.65 \times as long as basal width of pronotum. Pronotum distinctly shagreened anteriorly. Apical hump of scutellum (Fig. 49 j) of moderate size. Male genitalia as in Fig. 49 k - n, much as in *nocturnus*, but robuster, hypophysis of left stylus regularly falcate and theca with an irregularly dentate subapical lamella.

Blue Nile: Wad Medani, 1 δ , type, 11 - 12. XI. 1962; 60, 1 η . At lamp.

✓ *G. torridus* sp. n.

Length 3.75 - 4 mm. Like *nocturnus*, but elytra totally shiny.

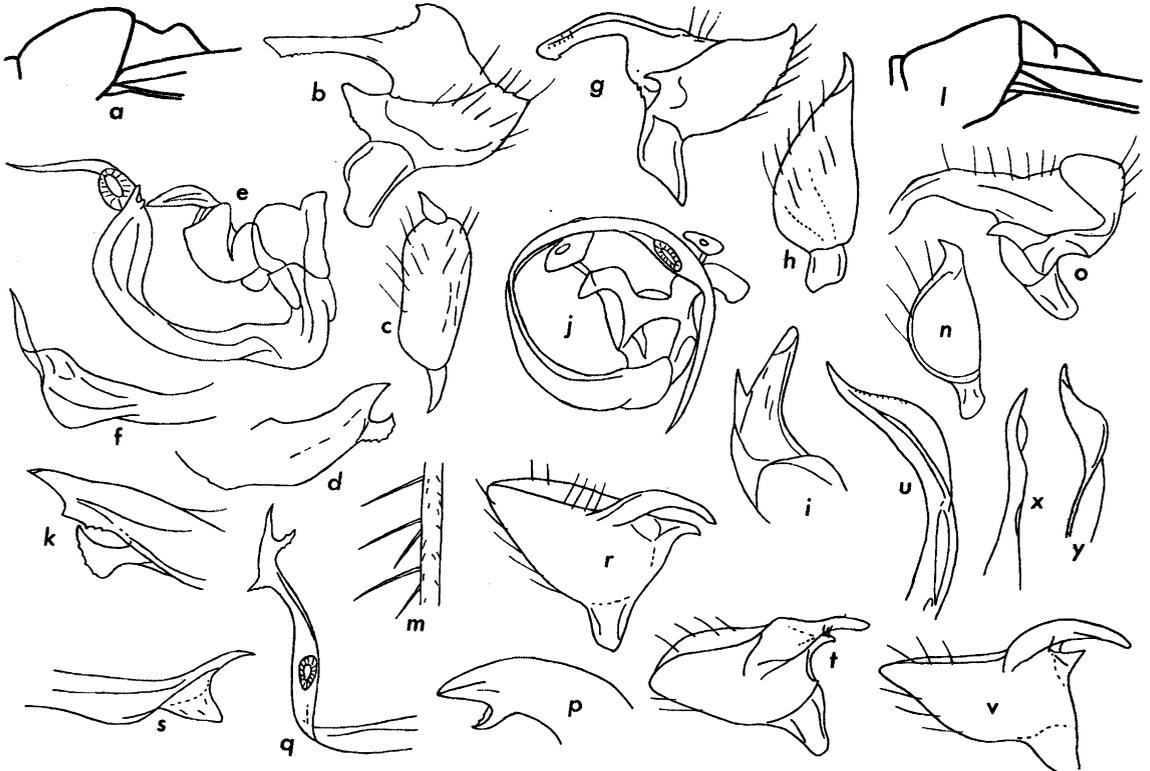


Fig. 50. *Glaphyrocoris varians* sp. n.: a pronotum and scutellum from side; b left and c right stylus; d theca; e-f vesica. - *G. antennalis* sp. n.: g left and h right stylus; i and k theca; j vesica. - *Trichophthalmocapsus pumilus* (Odh.): l pronotum and scutellum from side; m hind tibia; n right and o left stylus; p theca; q vesica. - *Laemocoris nomadicus* sp. n.: r left stylus; s apex of vesica. - *L. angusticollis* sp. n.: t-u same. - *L. pygmaeus* sp. n.: v-y same.

Gracile. Head strongly shagreened and distinctly transversely furrowed, base of vertex finely marginate, ocular index 1.15. Proportions between antennal joints 6:22:14:12, 2nd joint 0.84 × as long as basal width of pronotum. Pronotum distinctly shagreened and rugose also basally. Apical hump of scutellum (Fig. 49 o) prominent. Elytra with 2 small white spots (Fig. 42 r) or with a white transverse band, broken at middle (Fig. 43 a). Male genitalia as in Fig. 49 p-s.

Equatoria: Torit - Kapoeta, 1 ♂, type, 26. III. 1963; 81 - 82, 1 ♂ paratype. At lamp.

3. group: strongly shiny species, head only weakly shagreened, also microsculpturing of pronotum faint.

✓ *G. varians* sp. n.

Length 3.5 - 4 mm. Strongly shiny. Dark coffee-brown. Head reddish brown. Antennae dark brown, 1st joint and basal half of 2nd yellowish brown. Elytra dark yellowish brown, apically dark brown, with a well-developed white transverse band, broken at middle (Fig. 43 b), membrane brownish. Under surface dark yellowish brown. Legs yellowish brown.

Shorter and broader than the preceding species. Head

rather weakly shagreened, with faint transverse furrows, base faintly marginate, ocular index 0.93 - 1.14. Antennae rather gracile, proportions between joints 7:18:14:11, 2nd joint 0.8 × as long as basal width of pronotum. Pronotum only weakly shagreened and finely and sparsely punctate. Apical hump of scutellum (Fig. 50 a) relatively small. Male genitalia as in Fig. 50 b-f.

19, 1 paratype; 24 - 24 a, 3 ♂ paratype; 28, 1 ♂ paratype; Singa-Damazin, 1 ♂, type and 4 ♂ paratypes, 15 - 17. XI. 1962; 84, 1 ♂ paratype; 85 - 84, Geil, 2 ♂ paratypes. At lamp.

✓ *G. varians* Lv. ssp. *microphthalmus* ssp. n.

Length 3 - 3.5 mm. Smaller than the nominate form and considerably paler. Eyes much smaller, ocular index 1.33 - 1.62. Antennae slightly longer. Genitalia as in the nominate form.

Kordofan: El Obeid, 1 ♂, type, 29. I. 1963; 72, 3 ♂ paratypes. At lamp.

✓ *G. antennalis* sp. n.

Length 4 mm. Like the preceding, but somewhat robust. 1st and 2nd antennal joints and apical half of 3rd, yellowish brown, 4th joint and base of 3rd dark brown. Antennae remarkably thicker than in *variens*.

Head glabrous, base only faintly marginate, ocular index

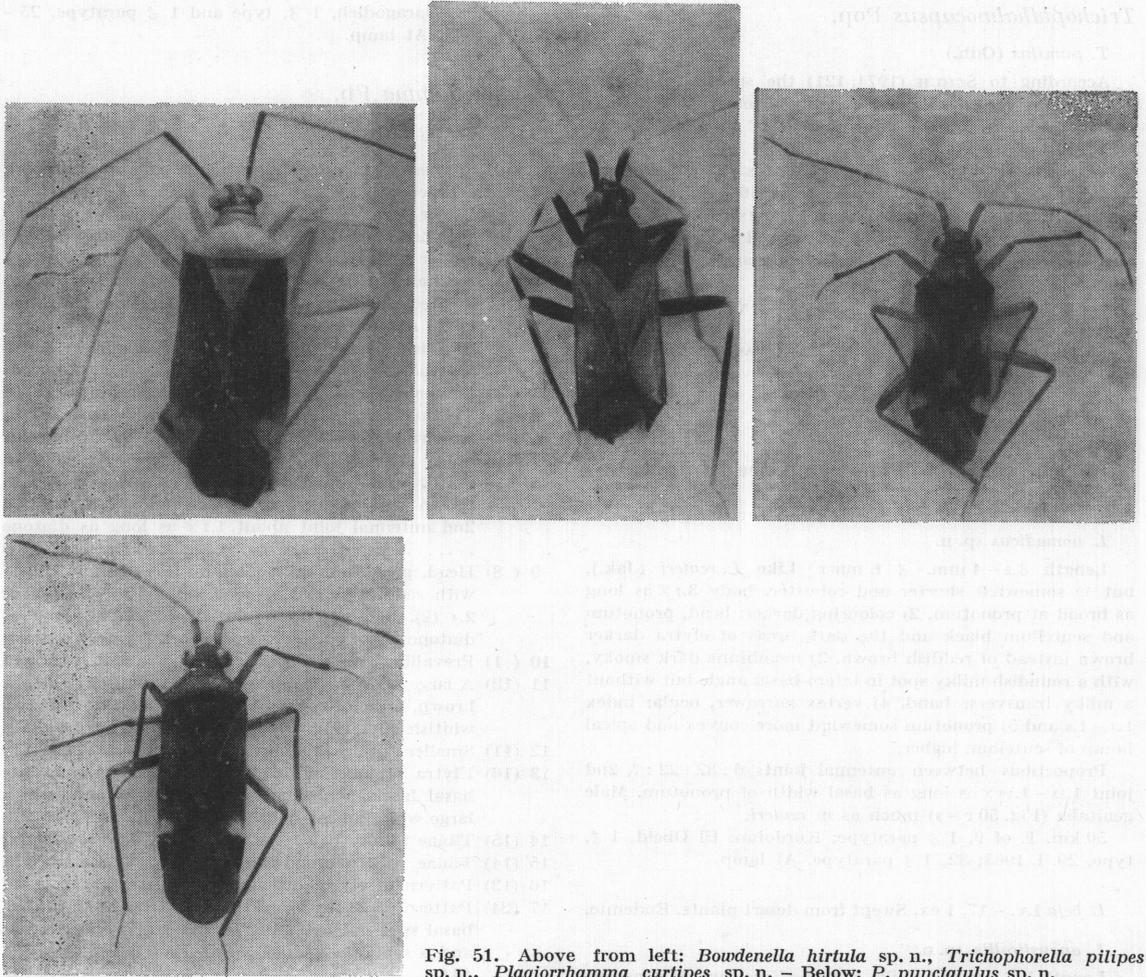


Fig. 51. Above from left: *Bowdenella hirtula* sp. n., *Trichophorella pilipes* sp. n., *Plagiorrhama curtipes* sp. n. – Below: *P. punctatulus* sp. n.

1.14. Proportions between antennal joints 7 : 20 : 15 : 14, 2nd joints $0.7 \times$ as long as basal width of pronotum. Male genitalia as in Fig. 50 g – k.

72, 1 ♂ paratype; Mundri, 1 ♂, type and 1 ♂ paratype, 24. II. 1963. At lamp.

Subgenus *Pongocoris* subgen. n.

Small, broad and flattish species. Apical hump of scutellum weakly developed. Elytra with a broad, uninterrupted white transverse fascia (Fig. 43 c). Legs, especially tibiae, more gracile.

Type: *Laemocoris kiritshenkoi* Pop. (redescribed in LINNAVUORI 1964: 328 – 329).

G. (Pongocoris Lv.) opertus sp. n.

Length 3 mm. Less shiny. Hair covering long, erect,

yellow-brown. Head dark reddish brown. Antennae yellowish brown. Pronotum and scutellum dark brown. Elytra (Fig. 42 c) brown, with a broad whitish transverse fascia, cuneus and apical angle of corium dark brown, membrane pale basally, brownish smoky apically. Under surface dark brown, metathorax yellow-brown. Legs yellow-brown.

Head $0.75 \times$ as broad as pronotum, vertex basally marginate, ocular index 1.0. Proportions between antennal joints 8 : 21 : 13 : 12, 2nd joint nearly $0.9 \times$ as long as basal width of pronotum. Pronotum only weakly convex, $1.9 \times$ as broad as long, disk shagreened. Apical hump of scutellum only weakly convex. Legs rather short-haired. Male genitalia much as in *kiritshenkoi*.

51, 1 ♂ paratype; 72, 1 ♂ paratype; Kapoeta – Boma, 1 ♂, type and 1 ♂ paratype, 26 – 27. III. 1963; 77, 1 ♂ paratype. At lamp.

Very similar to *G. kiritshenkoi* (Pop.), but less shiny, with smaller eyes and flatter scutellum.

Trichophthalmocapsus Pop.✓ *T. pumilus* (Odh.)

According to SCHUH (1974: 121) the species, originally described as *Systellonotopsis*, actually belongs to *Trichophthalmocapsus*. Scutellum and hind tibia in Fig. 59 l, m. Male genitalia in Fig. 49 n - q.

24 - 24 a, several exx.; 28, several exx.; 22 - 25, several exx.; 84, several exx.; 85 - 84, 1 ex.; 36 - 40, 1 ex.; 40, several exx.; near 39, several exx.; 45, 1 ex.; 63 - 62, 1 ex.; 72, several exx.; 72 - 74, 1 ex.; 74, several exx.; 62, several exx. At lamp. Also known from Uganda and Ethiopia.

Mimocapsus Wgn. (= *Paramimus* Wgn.)

M. quinque maculatus (Wgn.) - 10 (WAGNER 1951: 155). Endemic.

Laemocoris Rt.

For the revision of the genus see LINNAVUORI 1964: 323 - 326.

✓ *L. nomadicus* sp. n.

Length 3.5 - 4 mm. ♂ f. macr. Like *L. reuteri* (Jak.), but 1) somewhat shorter and robust, body 3.7 × as long as broad at pronotum, 2) colouring darker: head, pronotum and scutellum black and the dark areas of elytra darker brown instead of reddish brown, 3) membrane dark smoky, with a roundish milky spot in latero-basal angle but without a milky transverse band, 4) vertex narrower, ocular index 1.4 - 1.8 and 5) pronotum somewhat more convex and apical hump of scutellum higher.

Proportions between antennal joints 6 : 32 : 22 : ?, 2nd joint 1.15 - 1.28 × as long as basal width of pronotum. Male genitalia (Fig. 50 r - s) much as in *reuteri*.

50 km. E of 9, 1 ♂ paratype; Kordofan: El Obeid, 1 ♂, type, 29. I. 1963; 32, 1 ♂ paratype. At lamp.

✓ *L. beja* Lv. - 17, 1 ex. Swept from desert plants. Endemic.✓ *L. angusticollis* sp. n.

Length 3 - 3.25 mm. Like *L. nomadicus*, but 1) considerably smaller, 2) colouring dark or blackish brown instead of pure black, 3) vertex broader, ocular index 1.6 - 1.78, 4) 2nd antennal joint 1.34 × as long as basal width of pronotum, 5) pronotum broadening less caudad, head 0.7 × as broad as pronotum (0.53 × in *nomadicus*) and 6) vesica without a sharply defined subapical lobe.

Proportions between antennal joints 6 : 31 : 16 : 13. Male genitalia as in Fig. 50 t - u.

6, 1 ♂ paratype; Blue Nile: Wad es Zaki, 1 ♂, type, 10. V. 1963. At lamp.

Possibly the male of *L. beja*.

✓ *L. pygmaeus* sp. n.

Length 2.5 mm. ♂ f. macr. Like *nomadicus*, but much smaller and robust, body only 2.9 × as long as broad at pronotum, 2) membrane with a transverse hyaline band as in *reuteri*, 3) vertex broader, ocular index 1.75, 4) 2nd antennal joint only slightly longer than basal width of pronotum and 5) pronotum 1.64 × as broad as long (1.58 × in *nomadicus*, 1.41 × in *angusticollis*).

Head 0.65 × as broad as pronotum. Proportions between antennal joints 5 : 24 : 17 : ?. Male genitalia (Fig. 50 v - y) much as in *angusticollis*.

Somalia, Daragodleh, 1 ♂, type and 1 ♂ paratype, 25 - 27. VI. 1963. At lamp.

Plagiorrhamma Fb.

Key to the species

- 1 (10) Species with prevailing colour pale or yellowish ochraceous 2
- 2 (3) Upper surface with sparse round dark dots, elytra with 2 larger dark spots *P. quadripunctatus*
- 3 (2) Upper surface without dark dots 4
- 4 (5) A small gracile species, length 3 mm. Elytra ornamented with a band of dilute sanguineous irroration along suture in clavus, a similar large reddish area in apical part of corium; also costal margin and a central spot in cuneus reddish *P. ochraceus*
- 5 (4) Larger species. Elytra without red markings 6
- 6 (7) Opaque. Upper surface with very long, erect yellowish hairs *P. monticolus*
- 7 (6) Shiny species. Hair covering normal 8
- 8 (9) Head, pronotum and scutellum ± intensely reddish brown or ferruginous. Ocular index 1.4 - 1.7 (♂). 2nd antennal joint about 1.7 × as long as diatone *P. ruficollis*
- 9 (8) Head, pronotum and scutellum less strongly tinged with reddish brown. Ocular index 1.73 - 2.0 (♂) or 2.4 (♀). 2nd antennal joint 2.0 - 2.53 × as long as diatone *P. concolor*
- 10 (1) Prevailing colour dark 11
- 11 (12) A large dark species, length 3.5 - 4 mm. Elytra dark brown, apex of corium with a squarish or roundish whitish spot (Fig. 51) *P. punctatulus*
- 12 (11) Smaller species. Colouring different 13
- 13 (16) Elytra ornamented with a broad, complete white basal fascia across corium and clavus and with a large white apical spot on corium (Fig. 43 e) .. 14
- 14 (15) Tibiae totally pale *P. albofasciatus*
- 15 (14) Tibiae with a broad dark ring .. *P. sinuaticollis*
- 16 (13) Pattern of elytra different 17
- 17 (24) Pattern of elytra formed by a ± triangular whitish basal spot not extending to inner margin of clavus and a separate whitish apical spot in corium (Fig. 43 f) 18
- 18 (19) Hair covering of upper surface short, adpressed and silvery *P. costai*
- 19 (18) Hair covering of upper surface long, erect, yellowish 20
- 20 (21) Legs and antennae long and gracile as in *P. costai* *P. sororculus*
- 21 (20) Legs short and thick (Fig. 51), also antennae thicker 22
- 22 (23) Head and pronotum distinctly microsculptured. Ocular index 1.71 *P. curtipes*
- 23 (22) Head and pronotum only weakly microsculptured. Ocular index 1.05 *P. lucidulus*
- 24 (17) Pale basal and apical spots of elytra connected with each other along costal margin 25
- 25 (26) Dark transverse band separating pale basal and apical spots of elytra extending laterally to near costal margin (Fig. 43 g, i) *P. pilosus*
- 26 (25) Pale basal and apical spots of corium broadly connected with each other laterally 27
- 27 (28) Dark medio-apical area of corium very reduced (Fig. 43 k) *P. jocosulus*
- 28 (27) Pattern of elytra as in Fig. 43 h, j 29

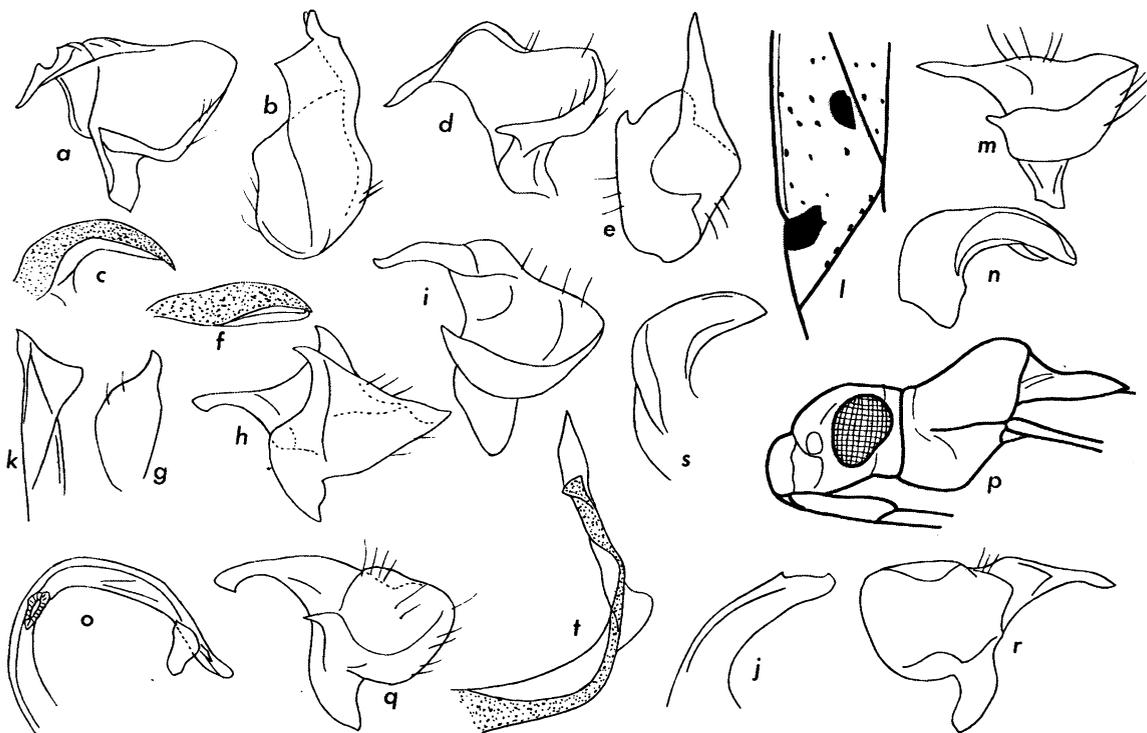


Fig. 52. *Plagiorrhama concolor* (Rt.): a - b left stylus; c theca. - *P. ruficollis* sp. n.: d - f same. - *P. monticolus* sp. n.: g right and h - i left stylus; j theca; k apex of vesica. - *P. quadripunctatus* sp. n.: l apex of elytron. - *P. albofasciatus* (Motsch.): m left stylus; n theca; o apex of vesica. - *P. curtipes* sp. n.: p head and thorax from side; q - r left stylus; s theca; t apex of vesica.

- 29 (30) Antennae remarkably thicker .. *P. discoidalis*
 30 (29) Antennae gracile (as, e.g., in *costai*) 31
 31 (32) Theca with a single, serrate appendage (Fig. 53 h - j). *P. similis*
 32 (31) Theca with a bifurcate appendage (Fig. 53 f - g) *P. jocosus*

P. poseidon (Kk.), unknown to me, is excluded from the key.

✓ *P. concolor* Rt.

Theca (Fig. 52 c) distinctly curvate. Left stylus as in Fig. 52 a - b.

50 km. E of 9, 1 ex.; near 43, 1 ex.; 96 - 40, 1 ex.; 35, 2 exx.; 35 - 36, 1 ex.; 40, 2 exx.; 32, several exx.; 33 - 34, several exx.; 45, several exx. At lamp. Apparently Eremian. Previously known from the Pontomediterranean area.

✓ *P. ruficollis* sp. n.

Like *P. concolor*, but 1) head, pronotum and scutellum more intensely reddish brown or ferrugineous, also antennae and legs more intensely reddish, 2) eyes larger, ocular index 1.4 - 1.7 (♂) (in *concolor* 1.73 - 2.0 (♂) or 2.0 (♀)), 3) 2nd antennal joint about 1.7 × as long as diatone (in *concolor* 2.0 - 2.53 ×), 4) theca (Fig. 52 f) thicker and straighter and 5) hypophysis of left stylus (Fig. 52 d - e) dissimilar, claw-like.

6, 1 ♂ paratype; Kassala: Kassala - Haiya, 1 ♂, type and 1 ♂ paratype, 1 - 3. XII. 1962; 24 - 24a, 1 ♂ paratype. At lamp.

✓ *P. punctatulus* sp. n.

Fig. 51. Length 3.5 - 4 mm. Shiny. Head dark reddish brown, subopaque. Antennae orangish, 4th joint dark. Pronotum and scutellum black. Elytra dark brown, apex of corium with a squarish or roundish whitish spot rarely also base of corium slightly paler, uncus dark purplish, membrane uniformly dark brown. Under surface dark reddish brown. Legs reddish brown, middle and hind coxae pale.

Robust, body 3.3 × as long as broad. Hair covering golden, adpressed. Head strongly shagreened, without a median sulcus, tylus strongly prominent, ocular index 1.4 (♂) or 2.27 (♀). Antennae relatively thick, proportions between joints 9 : 30 : 24 : 14, 1st joint 0.53 × as long as diatone, 2nd slightly longer than basal width of pronotum. Pronotum strongly broadening caudad, nearly twice as broad as long, anterior part shagreened, disk only very faintly shagreened, but finely punctate and rugose. Scutellum transversely wrinkled. Elytra finely punctate, longer (♂ ♀) than abdomen; hair covering of upper surface most distinct on elytra.

63 - 62, 1 paratype; 68, 1 paratype; Lotti forest, 1 ♂, type, 14 - 17. III. 1963; 66 - 64, 3 paratypes. At lamp. Also known from Zaire (Katanga).

✓ *P. monticolus* sp. n.

Length 3.25 - 4 mm. Opaque or subopaque. Pale reddish brown. Clavus and inner apical angle of corium and some-

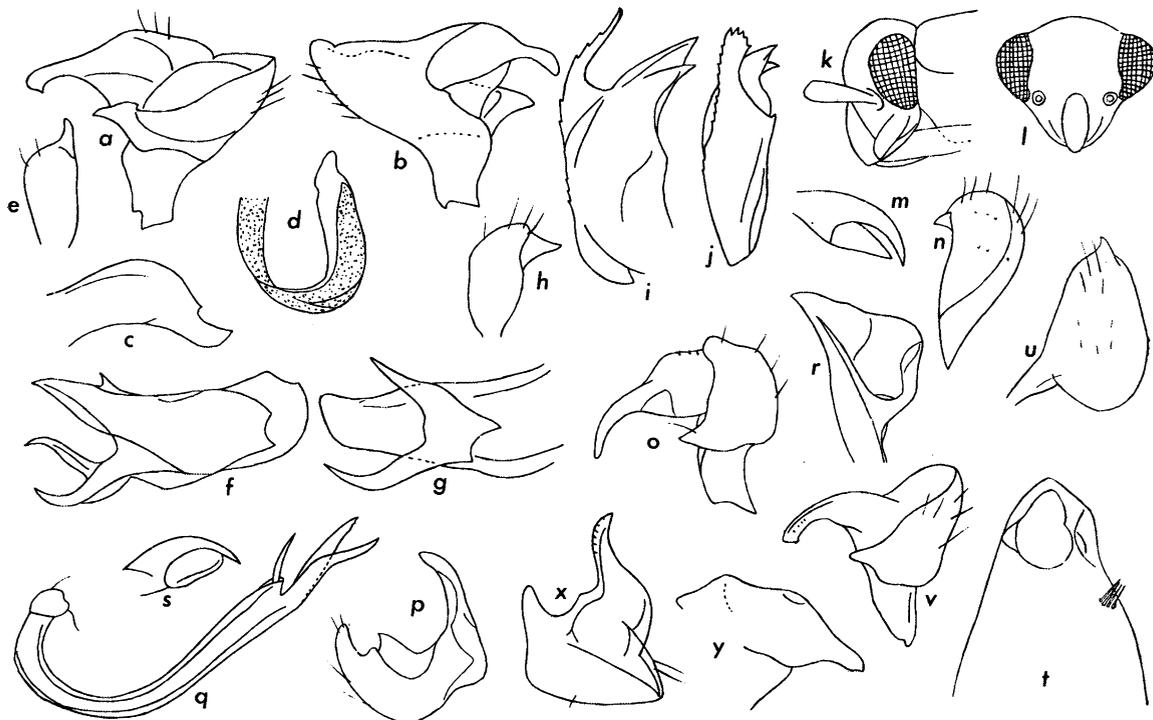


Fig. 53. *Plagiorrhama lucidulus* sp. n.: a - b left stylus; c theca; d apex of vesica. - *P. jocosus* sp. n.: e right stylus; f - g theca. - *P. similis* (Pop.) (type): h - j same. - *Shendina globiceps* gen. et sp. n.: k head from side; l same, frontal view; m claw; n right and o - p left stylus; q vesica; r theca. - *Zinjolopus elegans* gen. et sp. n.: s claw; t pygophore from above u right, v - x left stylus; y theca.

times also scutellum and posterior part of pronotum slightly (never sharply) embrowned.

Resembling *H. costai*: ♂ macropterous and ± parallel-sided, ♀ brachypterous, pear-shaped with elytra leaving the utmost tip of abdomen uncovered. Hair covering remarkably long, yellowish and erect. ♂ Head $0.56 \times$ as broad as pronotum. Vertex with a median sulcus, ocular index 1.8. Antennae long, proportions between joints 12 : 38 : 41 : 20, 1st joint remarkably long, $0.8 \times$ as long as diatone, with some erect hairs, 2nd joint $1.52 \times$ as long as basal width of pronotum. Pronotum strongly widening caudad, disk uneven, micro-sculptured. ♀ Head $0.75 \times$ as broad as pronotum, ocular index 2.5. Proportions between antennal joints 10 : 31 : 35 : 21, 1st joint $0.73 \times$ as long as diatone, 2nd $1.7 \times$ as long as basal width of pronotum. Pronotum only slightly broadening caudad. Male genitalia as in Fig. 52 g - k.

26, 2 paratypes; Equatoria: Lotti forest, 1 ♂, type and 6 paratypes, 14 - 17. III. 1963. In mesic mountain meadows.

✓ *P. ochraceus* Lv. - 5, 1 ex. 20. X. 1962, Panelius; 17, 1 ex. At lamp. Eremian. Previously known from Arabia.

✓ *P. quadripunctatus* sp. n.

Length 3 mm. Greyish ochraceous. Upper surface (head, pronotum, scutellum and elytra) with sparse round dark brown dots. Head with dark brown lateral area, sides with reddish tinge. Collar with several dark dots; calli with only 1 distinct dot with reddish surroundings; disk in addition to the general dotting also with fine brownish irroration. Elytra (Fig. 52 l) with a large round spot near apex of

claval suture in corium and a similar spot in basal lateral angle of cuneus dark purplish brown. Membrane brownish smoky. Under surface dark purplish. Legs and antennae absent in the specimen studied.

Gracile. Hair covering pale, rather smooth. Ocular index 2.0. Body otherwise much as in *P. costai*.

Equatoria: Juba, 1 ♂, type, 27. II - 2. III. 1963. Ivory Coast, Lamto, 4 paratypes, D. Gillon and A. Pollet (my collection). At lamp.

✓ *P. alboasciatus* (Motsch.) (= *reuteri* (Pop.))

Description in POPPIUS 1914:51 - 52. Elytra as in Fig. 43 e. Male genitalia as in Fig. 52 m - o.

23, several exx.; 77, 2 exx. At lamp.

Other material studied: E. Africa, Amani, 1 ♂, type, Vosseler, Mus. Helsinki. Palaetropical.

ODHIAMBO (1959d:664 - 668) described *P. tenuis* (Odh.) from Uganda. His records of *P. reuteri* are incorrect. He has certainly misinterpreted *P. reuteri*, since all the mentioned characters of *P. tenuis* (the reddish brown colouring the shape of the pronotum etc.) agree with *P. reuteri*. In the illustrations of the male genitalia, however, there are certain differences between *P. tenuis* and *P. reuteri* (absence of subapical lobe of vesica, shape of the sensory lobe and of the hypophysis of the left stylus). If ODHIAMBO's figures are precise, *P. tenuis* is a separate species. The genitalia of the type of *P. reuteri* were studied.

✓ *P. sinuaticollis* (Rt.), comb. n.

✓ *Laemocoris sinuaticollis* REUTER 1907; 23.

Like *P. reuteri*, but 1) ocular index 2.46 (♀) (in *reuteri* ♀ 1.9 - 2.13), 2) pronotum somewhat longer and narrower with the calli slightly more elevated and more distinctly separated from posterior part of disk and 3) tibiae dark brown with the apical third and extreme base pale (totally pale in *reuteri*).

Taxonomic status uncertain in absence of males.

Material studied: Zaïre, Kinshassa, 1 ♀, type, Schouteden, Mus. Tervuren.

✓ *P. costai* (Rt.) - 2, 2 exx.; 19, 2 exx.; 19-18, 1 ex.; 22-25, 1 ex.; 21, 2 exx. At lamp. Eremian (Cape Verde Is., Egypt, Israel).

✓ *P. sororculus* sp. n.

Length 3.5 mm. Like *H. costai*, but 1) more opaque; white markings of elytra (Fig. 43 f) larger, 2) upper surface with long, erect, whitish yellow hairs, 3) eyes considerably smaller, ocular index 1.62 - 1.88 (about 1.2 in *costai*), 4) shagreening of pronotum finer and denser and 5) females macropterous.

Proportions between antennal joints 7.5 : 25 : 23 : 15, 2nd joint 1.14 × as long as basal width of pronotum.

72, 2 paratypes; 70 - 72, 2 paratypes; Nimule, 1 ♂, type and 2 paratypes, 11 - 13. III. 1963; 76 - 81, 3 paratypes. At lamp.

✓ *P. curtipes* sp. n.

Fig. 51, 52 p. Length 2.5 - 3.5 mm. Shiny. Head reddish. Antennae fulvous. Pronotum black or reddish brown. Scutellum dark brown. Elytra dark brown, with two large, well-delimited whitish spots and a small pale spot at apex of clavus; membrane dark smoky, with a paler spot at lateral apical angle of cuneus. Under surface dark brown. Legs yellowish brown, apex of femora and tibiae reddish, tarsi pale.

Small, but relatively robust, body about 3.1 × as long as broad as pronotum. Hair covering long, erect, yellowish. Vertex distinctly shagreened, with a median sulcus, base marginate, ocular index 1.71. Antennae relatively thick, proportions between joints 8 : 21 : 19 : 13, 1st joint 0.62 × as long as diatone, provided with a few semi-erect hairs, 2nd as long as basal width of pronotum. Pronotum strongly widening caudad, 1.75 × as broad as long, lateral margins shallowly insinuated, disk uneven, finely and sparsely punctate, wrinkled and at calli also shagreened. Elytra (♂ ♀) longer than abdomen. Legs considerably shorter than in the other African species, save *lucidulus*, posterior femora remarkably thick. Male genitalia as in Fig. 52 q - t.

Equatoria: Yambio, 1 ♂, type and 3 paratypes, 17 - 25. IV. 1963; 66 - 64, 1 paratype. At lamp.

✓ *P. lucidulus* sp. n.

Length 3 mm. Like the preceding species, but 1) considerably more gracile, 2) the pale and dark markings of elytra more obscure, not sharply delimited, the pale marking yellowish, 3) eyes larger, ocular index 1.65, 4) antennae longer, proportions between joints 12 : 25 : 21 : 14, 1st joint 0.7 × as long as diatone, 2nd 1.13 × as long as basal width of pronotum, 4) vertex only faintly shagreened, shiny, 5) pronotum strongly shiny, only weakly microsculptured and 6) male genitalia as in Fig. 53 a - d.

Equatoria: Juba, 1 ♂, type, 27. II - 2. III. 1963. At lamp.

✓ *P. pilosus* Pop.

Description in POPPIUS 1914: 55. Length 2.75 - 3.25 mm.

Pattern of elytra as in Fig. 43 g, i. Also ♀ macropterous. Body narrow, 3.2 × as long as broad at pronotum. Ocular index 1.5 - 1.7 (♂) or 2.0 (♀). Proportions between antennal joints 6 : 22 : 20 : 15, 2nd joint only, slightly longer than basal width of pronotum.

51, 1 ex.; 52, several exx.; 72, 1 ex.; 81 - 82, 1 ex.; 70 - 72, several exx.; 61 - 52, 1 ex. At lamp.

Other material studied: W. Africa, Addah, 1 ♂, type and 1 paratype, Mus. Helsinki. I have seen specimens also from Cameroon.

✓ *P. jocosus* sp. n.

Length 2.5 - 3 mm. Subopaque. Head dark brown. Antennae yellowish, 1st joint with a dark base and a red apical ring. Pronotum, scutellum and dark markings of elytra blackish brown. Pale markings (Fig. 43 h, j) of elytra whitish yellow. Cuneus dark purplish. Membrane dark smoky with a round pale spot at tip of cuneus and another at the same level in the median margin. Under surface pale yellowish, apical half of abdomen dark brown. Legs pale yellowish, hind femora with red irroration in apical third, other femora only at apex; fore and middle tibiae with a ± developed red longitudinal stripe on outer surface.

Small, gracile, parallel-sided. Hair covering long, erect, pale yellow. Body about 4 × as long as broad at pronotum. Vertex with a median sulcus, ocular index 1.8 (♂) or 1.7 (♀). Antennae gracile, proportions between joints 5 : 22 : 23 : 17, 2nd joint slightly longer than basal width of pronotum. Pronotum 1.8 × as broad as long. Costal margin only weakly curved, elytra therefore nearly parallel-sided. Also ♀ macropterous. Right stylus (Fig. 53 e) with a weakly curvate apical process. Theca (Fig. 53 f - g) with a long bifurcate appendage.

72, 1 paratype; 81 - 82, 1 paratype; Lalyo - Juba, 1 ♂, type and 1 paratype, 26 - 27. II. 1963. At lamp.

✓ *P. similis* Pop.

Like *jocosus*, but 1) ocular index 2.0 (♂), 2) proportions between antennal joints 6 : 22 : 19 : ?, 2nd joint as long as basal width of pronotum, 3) right stylus (Fig. 53 h) with a strongly curvate and stout apical process and 4) theca (Fig. 53 i - j) with a single, dentate appendage.

Material studied: E. Africa, Kibwezi, 1 ♂, type, Scheffler, Mus. Helsinki.

✓ *P. discoidalis* Pop.

Very similar to the two preceding species, but differing in the remarkably thicker antennae. For description see POPPIUS 1914: 56.

Material studied: E. Africa, Darcsalam, Pangani, 1 ♂, type, Regner, Mus. Helsinki.

✓ *P. jocosulus* sp. n.

Length 3.2 mm. Like *H. jocosus*, but 1) broader, body 3.4 × as long as broad at pronotum, 2) dark colour of upper surface more brownish and pale colour more whitish, 3) dark medio-apical spot of corium (Fig. 43 k) small, not extending laterally to Cu (as it does in *jocosus*), 4) under surface and legs uniformly whitish yellow, 5) eyes smaller, ocular index 2.3, 6) antennae somewhat longer, proportions between joints 7 : 25 : 26 : ?, 2nd joint 1.2 × as long as basal width of pronotum, 7) pronotum more strongly widening basad, 2.1 × as broad as long, lateral margins more strongly insinuated and 8) costal margins of elytra distinctly curvate, elytra together elongately ovate in outline.

Kassala: Kassala - Hatya, 1 ♀, type, 1 - 3. XII. 1962.
At lamp.

Phylinae

Shendina gen. n.

Very small species. Parallel-sided. Hairs of upper surface black. Head (Fig. 53 k - l) vertical, globose, shiny, $0.73 \times$ as broad as basal width of pronotum, in apical view as broad as high, in side view $0.65 \times$ as long as high; tylus distinctly separated from frons, convex; vertex and frons remarkably convex, the former not marginate basally; eyes not granulate. Antennae short, arising near lower angle of eyes, 2nd joint nearly twice as long as diatone. Rostrum extending beyond hind coxae. Pronotum short, transverse, $2.5 \times$ as broad as long, anterior and basal margins insinuated, lateral margins straight, disk flat, calli not differentiated. Prosternal xyphus convex, immarginate. Elytra well developed, with callose pale areas with dark puncturation. Legs rather short, immaculate, apex of hind femora black; anterior and middle tibiae without bristles, spines of hind tibiae black. Hind tarsal joints short, proportions between joints 5 : 6 : 6. Claws (Fig. 53 m) short, provided with a distinct basal tooth, pseudarolia triangular, extending to near apex of claw, free. Male genitalia: right stylus small; left stylus with a strongly curvate, thin hypophysis, sensory lobe rather large, with an apical and a dorsal expansion; theca broad, triangular; vesica slender, straight in apical two-thirds, curvate basally, apex with short processes, gonopore in apical part.

Type: *S. globiceps* Lv.

✓ *S. globiceps* sp. n.

Length 1.5 mm. Head shiny, black, base of vertex with 2 roundish whitish spots. 1st antennal joint white, with a broad black median ring, 2nd whitish, with a narrow black subbasal ring and apical third fuscous, other joints fuscous, with a pale base. Other parts of upper surface opaque. Golden yellow. Anterior margin of pronotum paler. Clavus and a transverse band at apex of clavus in corium callose, whitish and sparsely spotted with brown. Cuneus orangish, with a whitish basal spot. Membrane brownish, apically with darker shadows, veins pale. Legs yellowish, anterior and middle knees fuscous, hind femora golden yellow with apex black, also hind tibiae basally darkened. Last tarsal joint fuscous.

Ocular index 2.0. Proportions between antennal joints 2.5 : 10 : 8 : ?. Male genitalia as in Fig. 53 n - r.

Northern Province: Shendi - Wad Hassuna, 1 ♂, type and 2 paratypes, 5 - 6. XI. 1962. Swept from desert grasses.

✓ *Camptotylus* Fb.

C. yersini (Ms.) - 2, 2 exx. On *Tamarix*. Holomediterranean.

✓ *Zinjolopus* gen. n.

Resembling *Paralopus* Wgn. (peculiarly striate elytra and large pseudarolia, Fig. 53 s, 55 c), but 1) head considerably shorter, 2) hair covering shorter and smoother, 3) antennae with dark markings, 4) femora and tibiae with distinct black spots, 5) tibial spines black and 6) pseudarolia shorter, slightly shorter than claw.

Type: *Z. elegans* Lv.

✓ *Z. elegans* sp. n.

Fig. 54. Length 2.75 - 3 mm. Shiny. Yellow. Head medially whitish. Antennae yellowish, 1st joint with 2 black spots on inner surface, also base of 2nd with a small black dot. Pronotum medially whitish with a roundish fulvous median basal spot on disk, sometimes also a lateral fulvous

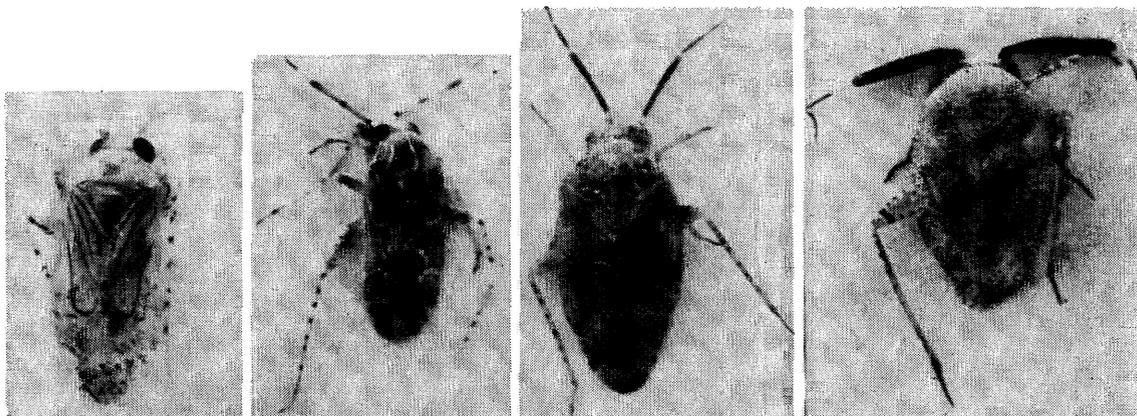


Fig. 54. From left: *Zinjolopus elegans* gen. et sp. n., *Z. albostrigatus* sp. n., *Yolvata nigricornis* sp. n. and *Indatractus pantherinus* gen. et sp. n.

spot on either side. Scutellum with 2 triangular whitish spots and sometimes with a roundish fulvous median spot. Clavus with two longitudinal black stripes, the pale intervening area elevated; corium with a black band near claval suture, a J-shaped black stripe at middle and a short transverse dark stripe in middle of apical margin; cuneus with dark hair-bearing dots, membrane yellowish brown, veins whitish. Legs whitish. Fore and middle femora with a few black apical dots, hind femora with a transverse subapical black stripe on caudal surface and 2 longitudinal black stripes between this and apex, also a few black spots present. Tibiae with distinct black spots.

Parallel-sided. Hair covering long, yellowish. Head twice as broad as long, in apical view $1.33 \times$ as broad as high, in side view $1.2 \times$ as high as long, strongly declivous, apical margin (side view) nearly vertical; tylus prominent, base of vertex not marginate, ocular index 1.2 (δ) or 1.88 (\varnothing). Proportions between antennal joints 6:21:12:9, 2nd joint somewhat shorter than basal width of pronotum. Rostrum extending to hind coxae. Pronotum with basal margin distinctly insinuated, lateral margins straight, not carinate. Proportions between hind tarsal joints 7:12:9. Male genitalia: genital segment (Fig. 53 t) long, narrowly conical, on the left side a group of stiff hairs; right stylus (Fig. 53 u) broad; left stylus as in Fig. 53 v-x; theca as in Fig. 53 y; vesica (Fig. 55 a-b) strongly twisted, subapically strongly expanded, gonopore in the expanded area, apex bifid.

41, 1 paratype; near 39, 1 paratype; 21, 1 paratype; Bahr el Ghazal: Wau, 1 \varnothing , type and 2 paratypes, 19. II. 1963; 72, 2 paratypes. At lamp.

✓ *Z. albostriatus* sp. n.

Fig. 54. Length 2.75 mm. Orangish. Head with a white median stripe. Antennae whitish, 1st joint with 2 longitudinal orangish bands, 2nd with apex, a median ring and extreme base fuscous or reddish, 3rd apically fuscous. Pronotum with lateral margins and 3 longitudinal callose stripes white, all these white stripes with narrow fuscous borders. Scutellum with basal triangles and a median stripe white and with narrow fuscous borders. Clavus with 1 elevated white longitudinal fuscous-bordered band; corium with a similar band from base to apical margin sending two branches mesad and one (along basal margin of cuneus) laterad, in apical half of corium an elevated band also present along costal margin, cuneus immaculate, membrane brown, veins white. Femora yellowish, with a faint reddish apical ring, hind femora with numerous black spots; tibiae whitish, with distinct black spots, tarsi yellowish brown.

Parallel-sided. Hair covering yellowish. Head $2.1 \times$ as broad as long, in apical view $1.15 \times$ as broad as long, in side view $1.3 \times$ as high as long; tylus prominent and provided with a white median keel. Ocular index 1.2 (δ) or 1.75 (\varnothing). Proportions between antennal joints 5:21:10:7, 2nd joint slightly shorter than basal width of pronotum. Rostrum extending beyond hind coxae. Basal margin of pronotum only shallowly insinuated, lateral margins sharp, carinate. Male genitalia: genital segment broadly conical, without a "brush"; right stylus (Fig. 53 g) long and narrow; left stylus as in Fig. 53 d-f; theca (Fig. 53 h) narrow; vesica (Fig. 53 i) gracile, only weakly twisted, gonopore far from apex, the latter thin, dentate.

Equatoria: Kapoeta-Boma, 1 δ , type and 1 \varnothing paratype, 26-27. III. 1963. At lamp.

The species differs much from *elegans* in the carinate tylus, the sharp lateral margins of the pronotum and the genitalia, but has similar claws.

Lasiolabops Pop.

✓ *L. obscurus* Pop. - 62, 1 ex. At lamp. W. Africa (Ghana, Nigeria, Togo).

Stirophyllus Wgn.

Recently revised by me (LINNAVUORI 1971a: 131-133).

✓ *S. aristidae* Wgn. - 6, 1 ex.; 7, some exx. Eremitian. Previously known from Algeria. Host: *Aristida acutiflora*.

✓ *S. erinyis* Lv. - 6, some exx.; 7, 1 ex.; 17, some exx. Endemic.

✓ *S. lineatus* Lv. Male genitalia in Fig. 55 j-o. South Yemen, 131-132, several exx. Endemic. In dunes on *Aeluropus littoralis*.

✓ *Somalocoris* gen. n.

Gracile, subopaque, whitish yellow species with contrasted dark markings on upper surface. Somewhat resembling certain *Orthotylus* species. Hair covering whitish. Head short, in apical view about $1.25 \times$ as broad as high, in side view slightly higher than long, strongly sloping ventrad, tylus well visible in lateral view, frons flattish, vertex flat, base completely immarginate; eyes large, granulose, extending laterally to ventral margin of head. Antennae long and gracile, 2nd joint slightly longer than basal width of pronotum, antennal pits close to eyes. Rostrum short, extending at most to middle coxae. Pronotum relatively long, at most twice as broad as long, lateral margins straight and subcarinate, basal margin only shallowly insinuated, disk flattish, calli not elevated. Scutellum flattish. Elytra coriaceous, long and narrow, cuneus remarkably long. Legs gracile, tibial spines pale and delicate, tibiae immaculate. Proportions between hind tarsal joints 7:10:11. Claws (Fig. 55 p) rather strongly curvate, pseudarolia very small. Male genitalia: right stylus small, with a claw-like apex; left stylus with a weakly developed, rounded sensory lobe, provided with a blunt apical tooth, hypophysis slender; theca complicated, with basal processes; vesica rather incrassate, curvate, with two apical branches, gonopore at the base of the bifurcation.

Type: *S. pulcher* Lv.

✓ *S. pulcher* sp. n.

Length 2.75-3 mm. Subopaque. Whitish yellow. Head brownish. Antennae yellow-brown. A broad, dark, coffee-brown, sharply delimited band extending from anterior margin of pronotum to tip of membrane, leaving the lateral margins of pronotum, costal margin of corium (Fig. 55 q),

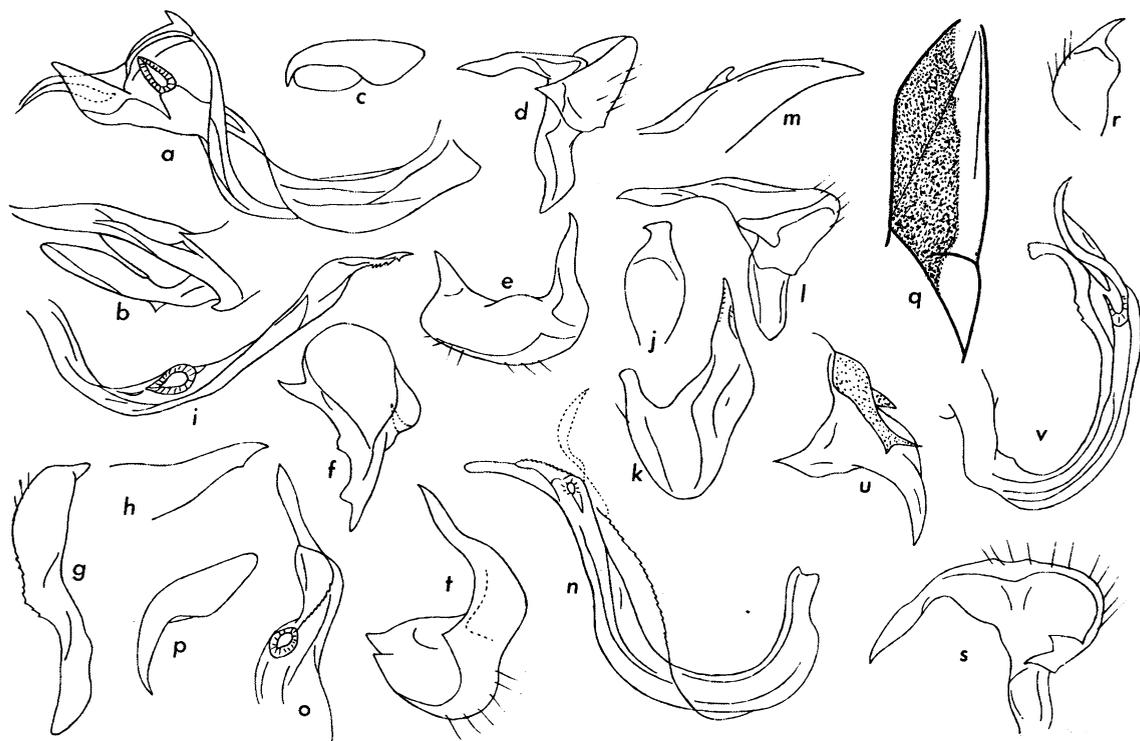


Fig. 55. *Zinjolopus elegans* gen. et sp. n.: a vesica; b apex of same. — *Z. albostrigatus* sp. n.: c claw; d – f left and g right stylus; h theca; i vesica. — *Strophylus lineatus* Lv.: j right and k – l left stylus; m theca n – o vesica. — *Somalocoris pulcher* gen. et sp. n.: p claw; q elytron; r right stylus; s – t left stylus; u theca; v vesica.

nearly the whole cuneus and the extreme margin of the membrane pale. Under surface and legs uniformly pale.

Long and gracile, 3 × as long as broad. Head 0.75 × as broad as pronotum, eyes large, ocular index 1.0 – 1.33 (♂) or 1.75 (♀). Antennae long, proportions between joints 5 : 20 : 17 : 11, 2nd joint 1.4 × as long as diatone and slightly longer than basal width of pronotum. Pronotum at most twice as broad as long. Male genitalia as in Fig. 55 r – v.

81 – 82, 4 paratypes. Somalia, near Borama, 1 ♂, type, 29. VI. 1963; 125, 6 paratypes. At lamp.

✓ *Dignaitis* gen. n.

Elongate, parallel-sided species. Hair covering brownish. Ground colouring dirty ochraceous with red irroration on upper surface, elytra also with obscure, minute dark dotting. Legs pale, immaculate, tibial spines pale brownish. Head small and short, much narrower than pronotum, tylus (Fig. 56 a) in lateral view distinctly visible; eyes very large, extending laterally to ventral margin of head, granulose; base of vertex bluntly marginate. Antennal pits touching eyes. Antennae long and gracile, 2nd joint distinctly longer than diatone. Rostrum

extending to hind coxae. Pronotum short and broad, transverse, about 2.45 × as broad as long, lateral margins straight, calli not elevated. Elytra longer than abdomen. Legs gracile, 3rd joint of hind tarsi shorter than 2nd. Claws (Fig. 56 b) falcate, without distinct pseudarolia. Male genitalia: right stylus and theca of the common shape; left stylus with a relatively small sensory lobe provided with a blunt apical tooth, hypophysis long and gracile; vesica rather short, weakly curvate, ending in a long falcate apical process, gonopore far from apex.

Type: *D. ocularis* Lv.

The absence of the pseudarolia shows affinities to certain genera of the *Atomoscelis* group, but the eyes are remarkably large, the colour markings different, the tibiae immaculate etc. The genus also somewhat resembles *Compsidolon* Rt., but is not closely related to it. The genus has been named after Osman Digna, the famous chief of the Hadendowa tribe.

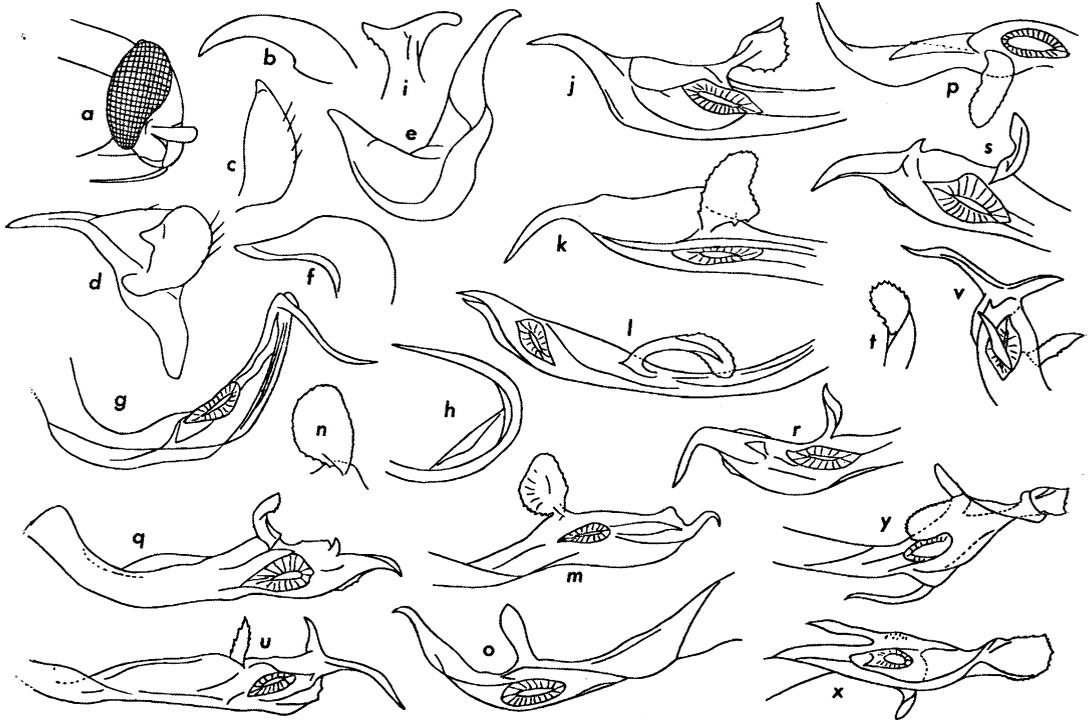


Fig. 56. *Dignaia ocularis* gen. et sp. n.: a head from side; b claw; c right, d - e left stylus; f vesica; g - h theca. - *Ectagela subfasciata* Wgn.: i dentate process of vesica. - *E. suavis* sp. n.: j - k apex of vesica. - *E. safahana* sp. n.: l same. - *E. vellelina* sp. n.: m same; n dentate process of vesica. - *E. ghazalensis* sp. n.: o - p apex of vesica. - *E. novella* sp. n.: q - s vesica; t dentate process of same. - *E. bicuspidata* sp. n.: u - v vesica. - *E. trichilliae* sp. n.: x - y same.

D. ocularis sp. n.

Length 2.5 mm. Rather shiny. Dirty yellowish brown. Head, incl. tylus, with several red lateral arcs. Antennae yellow-brown, 1st joint with a fulvous apical ring, 2nd and 4th joints slightly darker. Pronotum with faint filigranous reddish stripes and one more distinct median longitudinal band of the same colour. Scutellum with obscure fulvous markings. Clavus and corium with rather dense red irroration and very faint dark dotting; cuneus marked with red only laterally and apically, otherwise with minute dark dots, membrane uniformly brownish smoky, veins concolorous. Under surface and legs yellowish brown, apex of hind femora with slight fulvous tinge.

Parallel-sided, nearly 3 × as long as broad. Hair covering yellow-brown. Head 0.7 × as broad as pronotum, in apical view 1.45 × as broad as long, in side view 1.33 × as high as long, ocular index 0.9. Proportions between antennal joints 4 : 23 : 10 : 9, 2nd joint 1.45 × as long as diatone, and as long as basal width of pronotum. Proportions between hind tarsal joints 6 : 10 : 9. Male genitalia as in Fig. 55 c - h.

Kassala: Abend Pass, 1 ♂, type, 5. XII. 1962.

Ectagela Schmidt

Recently revised by WAGNER (1969, 1970a). *E. remanei* Wgn. and the Egyptian species *E. guttata* Schm. are excluded of the following key.

Key to the species

- 1 (4) Elytra with dense fuscous dotting 2
- 2 (3) Elytra with distinct red markings. Eyes larger, ocular index 1.22 (♂) or 2.0 (♀). Vesica (Fig. 57 e) thicker, the dentate subapical process not expanded apically *E. darfurensis*
- 3 (2) Red spots of elytra fainter. Eyes smaller, ocular index 1.7 (♂). Vesica (Fig. 57 f) longer and thinner the dentate subapical process expanded apically *E. punctata*
- 4 (1) Elytra without fuscous dotting 5
- 5 (16) Elytra with red spots (although sometimes ± faint) 6
- 6 (7) The dentate process of vesica (Fig. 56 i) foot-shaped. A larger species *E. subfasciata*
- 7 (6) The dentate process of vesica different 8
- 8 (9) Apex of vesica broad, dentate (Fig. 56 x - y) *E. trichilliae*
- 9 (8) Apex of vesica sharp 10
- 10 (13) Apex of vesica distinctly two-branched 11
- 11 (12) Apical branches of vesica (Fig. 56 u - v) strongly divergent *E. bicuspidata*
- 12 (11) Apical branches of vesica (Fig. 56 l) close to each other *E. safahana*
- 13 (10) Apex of vesica not bifid (in *novella* a subapical tooth present) 14
- 14 (15) A sharp, claw-like tooth at base of apical process of vesica (Fig. 56 q - t) *E. novella*



Fig. 57. *Ectagela armata* sp. n.: a vesica. - *E. furcata* Wgn.: b same; c process no 1, d process no 2 of same. - *E. darfurensis* sp. n.: e vesica. - *E. punctata* Wgn.: f vesica. - *Darectagela celata* gen. et sp. n.: g head from side; h antenna; i elytron; j right stylus; k theca; l - m vesica; n - p left stylus. - *Ghazalocoris modestus* gen. et sp. n.: q claw; r pygophore from above; s - t right, u - v left stylus; w theca; x vesica. - *Ellenia killimana* (Pop.): y claw; z pygophore from above (ex from Gilo); ä same (ex from Bellefa forest, Ethiopia).

- 15 (14) Apex of vesica without a subapical tooth (Fig. 56 j - k) *E. suavis*
 16 (5) Elytra without red spots 17
 17 (18) Vesica with two long, falcate apical processes (Fig. 57 b - d) *E. furcata*
 18 (17) Not as above 19
 19 (20) Vesica with 3 subapical dentate processes (Fig. 57 a) *E. armata*
 20 (19) Vesica different 21
 21 (22) Apical process of vesica (Fig. 56 m - n) short, claw-like *E. vitellina*
 22 (21) Apical process of vesica long, falcate (Fig. 56 o - p) *E. ghazalensis*

E. subfasciata Wgn.

E. subfasciata WAGNER 1970: 19 - 21. - *E. major* WAGNER 1970: 22 - 23, syn. n.

WAGNER has separated the species *E. subfasciata* and *E. major* mainly on the base of the size (*E. submaculata* length 2.5 - 2.8 mm. (♂♀), *E. major* 2.75 - 3.1 mm. (♂), 2.8 - 3.25 mm. (♀)), the ocular index (*E. subfasciata* ♂ 1.25, ♀ 1.54, *E. major* ♂ 1.40 - 1.45, ♀ 1.7 - 1.9) and the shape of the penis (the subapical process bifurcate in *E. major*, foot-shaped in *E. subfasciata*). A study of a large material in my collection revealed the following:

1) the size is variable even within a single population, e.g. in the large Khartoum population.

2) in the ocular index the following variability was observed: Jericho ♂ (belonging to the same series on which *E. major* was described) 1.2; Debeira ♀ 1.54; Ed Damer, Hudelba (type locality of *E. major*) ♀ 1.56; Khartoum ♂ 1.28 - 1.48, ♀ 1.47 - 1.81; Erkowit (type locality of *E. subfasciata*) ♂ 1.27 - 1.41, ♀ 1.8 - 1.81; Ed Daein ♂ 1.36.

No limit can be drawn between the two species in the ocular index.

3) vesica: the shape of the lateral process depends upon the angle in which it is observed. In one angle it resembles WAGNER's figure of *E. major*, in another the figure of *E. subfasciata*. It is always distinctly bifurcate, no differences were found in the studied specimens. Also the breadth of the apical part of the vesica is broader or narrower depending on the angle in which it is observed.

Consequently I am regarding *E. major* as a synonym of *E. subfasciata*.

Process of vesica as in Fig. 56 i.

Near 1, 1 ex.; 6, 1 ex., 5 exx., 1962 - 1963, Remane (WAGNER 1970:23); 9, numerous exx.; 17, several exx., several exx., 21 - 26. VI. 1965, Remane (WAGNER 1970: 21); 13, several exx., 12. IV. 1962, Remane (WAGNER 1970: 23); 21, 1 ex.; 33 - 34, 3 exx.; 44, 1 ex.; 52, 1 ex.; 72, 1 ex.; 60, 1 ex. Common in the dry sandy areas of the Sudan on *Acacia*,

Calotropis procera and *Gutera senegalensis*. Also at lamp. Eremian, known from Algeria, Israel and Jordanian.

✓ *E. remanei* Wgn. - 17, 8 exx., Remane (WAGNER 1970: 25), 1 ♀ collected by me from the same locality probably belongs to the species too. This endemic species has been described by WAGNER 1970: 23 - 25.

✓ *E. suavis* sp. n.

Length 2.5 mm. Like *guttata*, but much smaller and more broadly ovate. Antennae much shorter. Hair covering laterally long, dense and yellowish. Pronotum more convex.

Body 2 × as long as broad. Ocular index 0.8 - 1.1 (♂) or 1.3 - 1.4 (♀). Proportions between antennal joints 4 : 16 : 9 : 8. 2nd joint about 0.8 × as long as basal width of pronotum. Rostrum extending to middle coxae. Vesica (Fig. 56 j - k) much as in *guttata*, but the subapical dentate process irregularly ovate or roundish, apical process sharp, claw-like.

52, 1 paratype; Equatoria: Mundri, 1 ♂, type and several paratypes, 24. II. 1963. At lamp.

✓ *E. safahana* sp. n.

Length 2.5 - 2.75 mm. Like *guttata*, but much smaller. Hair covering long, whitish yellow. Ocular index 1.33 (♂) or 1.5 (♀). Proportions between antennal joints 4 : 13 : 10 : 7, 2nd joint slightly shorter than basal width of pronotum. Rostrum extending to hind coxae. Pronotum about twice as broad as long. Vesica (Fig. 56 l) long and slender, subapical dentate process long, recurved basad, apex of vesica sharp, bifid.

Darfur: Safaha - Abu Matariq, 1 ♂, type, 30. IV - 2. V. 1963; 72, 4 paratypes. At lamp.

Vesica as in *E. guttata* Schm., but somewhat more regularly curved and the lateral process longer, much less expanded apical and strongly recurved basad.

✓ *E. vitellina* sp. n.

Length 2.5 - 3 mm. Like *guttata*, but uniformly pale yellow, without red spots. Small membranal cell with a dark roundish spot.

Elongately ovate, yellow-haired. Ocular index 1.7 (♂) or 2.3 (♀). Antennae gracile, proportions between joints 7 : 24 : 13 : 8, 2nd joint slightly longer (♂) or shorter (♀) than basal width of pronotum. Rostrum extending to hind coxae. Pronotum slightly more than twice as broad as long. Vesica (Fig. 56 m - n) much as in *suavis*, but apical process more strongly curved and dentate subapical lobe broader.

26, 2 paratypes; Equatoria: Mundri, 1 ♂, type and several paratypes, 24. II. 1963. At lamp.

✓ *E. ghazalensis* sp. n.

Length 2.5 mm. A uniformly pale species resembling *vitellina*, but ocular index 1.22 (♂) and vesica (Fig. 56 o - p) with a long, falcate apical process and a parallel-sided dentate subapical lobe. Antennae absent in the specimen studied.

Bahr el Ghazal: Wau, 1 ♂, type, 19. II. 1963. At lamp.

✓ *E. novella* sp. n.

Length 2.5 mm. Like *guttata*, but smaller and the red spots on elytra fainter.

Ocular index 1.50 - 1.57 (♂) or 2.0 (♀). Proportions between antennal joints 5 : 20 : 13 : 10, 2nd joint as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.2 × as broad as long. Vesica (Fig. 56 q - t) rather short and

thick, apical process claw-like, bearing at base a small sharp tooth, the dentate subapical lobe recurved apical.

81 - 82, several paratypes; 77, 1 paratype; Torit - Kapoeta, 1 ♂, type and 2 paratypes, 26. III. 1963. At lamp.

✓ *E. bicuspidata* sp. n.

Length 2.5 mm. As *novella*.

Ocular index 1.5 (♂). Proportions between antennal joints 4 : 18 : ? : ?, 2nd joint 0.9 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.2 × as broad as long. Vesica (Fig. 56 u - v) with two strongly divergent apical processes, the dentate subapical lobe narrow.

Equatoria: Loka forest. 1 ♂, type, 8 - 10. IV. 1963.

✓ *E. trichillae* sp. n.

Length 2.5 mm. Like *novella*.

Ocular index 1.33 (♂) or 2.0 (♀). Proportions between antennal joints 4 : 19 : 12 : 8, 2nd joint as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2 × as broad as long. Vesica (Fig. 56 x - y) slender, apex expanded, roundedly truncate and dentate, a pair of slender subapical processes present, the dentate lobe rather broad.

Kordofan: Dilling - Kadugli, 1 ♂, type and 3 paratypes, 1 - 2. II. 1963; 52, 1 paratype, On *Trichilia emetica*.

✓ *E. armata* sp. n.

Length 3.2 mm. A unicoloured pale species resembling *vitellina*, but bigger.

Ocular index 1.5 - 1.9 (♂♀). Proportions between antennal joints 7 : 24 : 13 : 5, 2nd joint 0.9 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.2 × as broad as long. Vesica (Fig. 57 a) long and slender, with two falcate apical processes and 3 serrate subapical appendages.

Equatoria: Yei - Maridi, 1 ♂, type, 13. IV. 1963; 62, 1 ♀ paratype.

✓ *E. furcata* Wgn.

Length 2.75 mm. Uniformly greenish yellow, fulvous spots absent or at most very obscure. Outer membranal cell with the common fuscous spot.

Gracile. Ocular index 1.38 - 1.41 (♂) or 2.3 (♀). Proportions between antennal joints 5 : 22 : 10 : 9, 2nd joint 1.15 × as long as basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum about 2.1 × as broad as long. Vesica (Fig. 57 b - d) gracile, with two very long, falcate apical appendages, a sharp-tipped subapical process present, the dentate lobe narrow.

17, 6 exx., same locality, 2 exx., Remane (WAGNER 1970: 26). Endemic.

✓ *E. darfurensis* sp. n.

Length 2.3 mm. A small whitish, or whitish grey species. Elytra, incl. cuneus, with dense fuscous dotting and the same red spots as in *guttata*.

Elongately ovate. Hair covering whitish. Ocular index 1.22 (♂) or 2.0 (♀). Proportions between antennal joints 4 : 15 : 9 : 8, 2nd joint about 0.8 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.25 (♂) or 2.4 (♀) × as broad as long. Vesica (Fig. 57 e) with a thin straight apical process, the dentate subapical lobe narrow.

Darfur: Ed Daein, 1 ♂, type and numerous paratypes, 3 - 7. V. 1963; 33 - 34, several paratypes. On *Gutera senegalensis*.

✓ *E. punctata* Wgn.

Length 2.2 mm. Like *darfurensis*, but red markings less distinct and the dark dotting of elytra somewhat more intense.

Body more broadly ovate. Eyes smaller, ocular index 1.7 (♂). Proportions between antennal joints 4:17:7:7, 2nd joint 0.8 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum broader, 2.44 × as broad as long. Vesica (Fig. 57 f) more gracile, the subapical dentate lobe expanded apically.

6 (WAGNER 1969: 24); 17, 1 ex. Also known from Libya. Host: *Maerua crassifolia*.

✓ *Darectagela* gen. n.

Robust, ovate species. Hair covering pale. Pale grey, with fulvous markings of the *Ectagela* type, elytra also densely spotted with dark brown. Head relatively large, 0.8 × as broad as pronotum, 2.2 × as broad as long, in apical view 1.43 × as broad as high, in lateral view (Fig. 57 g) as high as long. Eyes large, granulose, lateral caudal margin with a fringe of bristles. Tylus prominent, medially carinately elevated; lora keeled; frons strongly declivous rather weakly convex; vertex narrower than eye, flat, basally immarginate; antennal pits touching eyes. 1st and 2nd antennal joints incrassate (Fig. 57 h), 2nd joint tapering apicad, shorter than basal width of pronotum, with short brown hairs. Rostrum extending to middle coxae. Pronotum convex, distinctly sloping laterad, calli small but rather distinct, lateral margins straight, also basal margin nearly straight. Legs not dark-spotted, tibial spines short, slender and pale (tarsi absent). Male genitalia: right stylus broad; sensory lobe of left stylus completely rounded, without an apical spine, hypophysis thick; theca with a strong basal hook; vesica strongly curvate, gracile, apex bifid, gonopore near base of bifurcation.

Type: *D. celata* Lv.

✓ *D. celata* sp. n.

Length 2.5 mm. Whitish, shiny. Frons with faint fuscous lateral arcs, vertex with 6 fulvous spots. Antennae pale. Pronotum with a V-shaped fulvous median spot in anterior margin and 4 longitudinal fulvous bands on disk. Scutellum with basal angles, a triangular median spot in basal margin and two large triangular spots in the apical part, fulvous. Elytra with dense fuscous dotting and fulvous pattern as in Fig. 57 i. Membrane hyaline, apex with two broken transverse smoky bands. Legs pale.

Broadly ovate. Ocular index 0.86. Proportions between antennal joints 5:16:?:?, 2nd joint 0.64 × as long as basal width of pronotum. Pronotum 2.3 × as broad as long. Male genitalia as in Fig. 57 j - p.

Somalia, Daragodleh, 1 ♂, type, 25 - 27. VI. 1963. At lamp.

A very characteristic genus and species (colour pattern, large eyes, keeled lora and tylus, shape of left stylus etc.).

✓ *Ghazalocoris* gen. n.

Elongate, whitish ochraceous species with yellowish hair covering and fulvous longitudinal markings. Head short, strongly sloping ventrad apically; tylus prominent, medially keeled; eyes large, granulose; antennal pits touching eyes; base of vertex immarginate. Antennae long, in ♂ rather thick, in ♀ gracile. Rostrum extending to apex of middle coxae. Pronotum rather narrow and convex, in ♀ broader, lateral margins straight, basal margin slightly insinuated, calli not differentiated. Elytra longer than abdomen. Hind femora with a few obscure darker spots, base of hind tibiae with some small dark spots, tibial spines very short, pale, 3rd joint of hind tarsi nearly as long as 2nd. Claws (Fig. 57 q) strongly curvate, pseudarolia small. Male genital segment sharply conical. Styli not haired; right stylus large, nearly rectangularly bent apically, sensory lobe small, with a small tooth, base of hypophysis with a spine; sensory lobe of left stylus prolonged into a long falcate process, also hypophysis long and falcate. Theca of common shape. Vesica short and rather broad, apex rounded and provided with some short processes, gonopore large and lying rather far from apex.

Type: *G. modestus* Lv.

The genus is well characterized by the unique type of the genitalia.

✓ *G. modestus* sp. n.

Length 3.2 - 3.5 mm. Whitish yellow, fairly shiny. Head with 2 faint fulvous longitudinal bands. Antennae bright yellow or fulvous (♂) or pale yellowish (♀). Pronotum with 4 faint, irregular, fulvous, longitudinal bands. Scutellum with a median Y-shaped fulvous figure, also basal angles fulvous. Clavus with one, corium with two fulvous longitudinal bands, membrane and veins whitish. Hind femora with some obscure darker spots, base of hind tibiae with some small dark dots.

Head in apical view 1.2 × as broad as high, in side view 1.2 × as high as long, ocular index 1.0 - 1.04 (♂) or 1.33 (♀). Proportions between antennal joints 5:27:13:11, 2nd joint as long as or slightly longer than basal width of pronotum. Pronotum 1.9 (♂) or 2.9 (♀) × as broad as long. Proportions between hind tarsal joints 8:12:11. Male genitalia as in Fig. 57 r - x.

45, 1 paratype; Bahr el Ghazal: Wau, 1 ♂, type, 6 paratypes, 19. II. 1963; 60, 3 paratypes; 61 - 52, 1 paratype; 66 - 64, 1 paratype. At lamp.

✓ *Tytthus* Fb.

T. parviceps (Rt.) - 6, several exx.; 7, 1 ex.; 19, 1 ex.; 29, 1 ex.; 21, several exx.; 22 - 25, several exx.; 23, several

exx.; 40, several exx.; 41, 1 ex.; 84, several exx.; 52, 1 ex.; 72, several exx.; 72-74, 1 ex.; 70-72, 1 ex.; 68, 1 ex.; 74, 1 ex. Common on different *Cyperaceae* on shores, swamps etc. Also at lamp. Intertropical.

Group of *Cephalocapsus* Pop.

WAGNER (1961: 85-110, 1970b) has paid attention to a special group of Phylinae with a claw-structure like that of the subfamily Orthotylinae (arolia well developed and apically \pm recurved mesad, Fig. 58 t). He includes in the group the following genera: *Cephalocapsus* Pop. (a synonym of *Paramixia*), *Schroederiella* Pop. (a subgenus of *Paramixia*), *Chinacapsus* Wgn. and *Lindbergocapsus* Wgn. The group also contains *Ellenia* Rt. (= *Marshalliella* Pop., *Melanotrichiella* Pop.) and *Paramixia* Rt. (= *Troitskiella* Pop.). The pseudarolia are well developed in *Chinacapsus* and *Lindbergocapsus*, but reduced or absent in the other genera. Owing to the claw-structure, *Ellenia* was included in Orthotylinae by POPPIUS (1914: 74-81) and CARVALHO (1958b: 59-60), as was also *Paramixia* by LINDBERG (1958: 105). The male genital structure of these genera is of the Phylinae type. Consequently I do not hesitate to regard them as belonging to Phylinae and so accept WAGNER's opinion.

Ellenia Rt. (= *Marshalliella* Pop., *Melanotrichiella* Pop.)

Description in POPPIUS 1914: 74 and 80. Claws relatively weakly curvate (Figs. 56 y, 58 l). Male genitalia rather similar in all species studied. Genital segment conical, sometimes ventrally keeled. Right stylus nearly parallel-sided, with a small apical tooth. Hypophysis of left stylus remarkably long, curvate, sensory lobe rather small, provided with apical prolongation. Vesica small and rather simple, with a claw-like apical process, gonopore subapical.

A key to the African species is published in LINNAVUORI 1973a: 90-91.

✓ *E. kiltmana* (Pop.)

Male genitalia: genital segment (Figs. 57 z-a, 58 a), ventro-apically strongly keeled, the strength of the keel somewhat variable; sensory lobe of left stylus (Fig. 58 b) strongly produced, hypophysis rather thick; theca (Fig. 58 c) sharp-tipped; vesica as in Fig. 58 d.

Near 79, many exx.; 78-79, several exx.; 77, 1 ex. Common in undergrowth of *Podocarpus*-*Juniperus* forests of the Imatong Mts. E. Africa (Kilimandjaro, Usambara). I have also specimens from Ethiopia. Recorded also from Senegal (CARVALHO 1958 b: 59).

✓ *E. obscura* (Pop.) - Near 79, 1 ex.; 78-79, several exx.

Together with the preceding species. E. Africa (Victoria Nyanza).

✓ *E. obscuricornis* (Pop.)

Description in POPPIUS 1914: 76. The following additional measurements may be given: Head $0.66-0.67 \times$ as broad as pronotum, ocular index 2.1 (δ) or 2.31 (\varnothing). 2nd antennal joint 3.6 (δ) or 4 (\varnothing) \times as long as 1st, 0.6 (δ) or 0.71 (\varnothing) as long as basal width of pronotum.

Material studied: S.Rhodesia, Chirinda, 1 δ and 1 \varnothing , cotypes, δ selected as the lectotype, Swynnerton, Mus. Helsinki.

✓ *E. similis* (Pop.)

Description in POPPIUS 1914: 77. The following additions may be made: Opaque. Dark spots of pronotum and elytra \pm confluent; latero-apical angle of corium with a black spot; cuneus nearly unmarked, pale (only a few quite small spots present in median margin). Head nearly $0.7 \times$ as broad as pronotum. Ocular index 2.18 . Antennae gracile, proportions between joints 7: 29: 23: 16, 2nd joint $0.83 \times$ as long as basal width of pronotum.

Material studied: Nyassa-Geb., 1 \varnothing , type, Fülleborn, Mus. Helsinki.

✓ *E. pallidicornis* (Pop.)

The species probably does not belong to the genus, since the head is much smaller, narrower and longer than in the other representatives of *Ellenia*. Unfortunately the type, a female, is rather fragmentary. Consequently the question of the correct genus must remain open, until additional material is obtained. Material studied: Cameroon, Dume, 1 \varnothing , type, Freyer, Mus. Helsinki.

✓ *E. anuak* sp. n.

Length 3-3.5 mm. Pale greenish yellow. 1st and 2nd antennal joints yellowish, the former with an incomplete dark ring, the latter with a black basal spot on outer surface, the other joints dark brown. Upper surface immaculate except for a very small black dot in apex of clavus, a few very small spots in inner apical margin of corium and an elongate black dash in inner margin of cuneus (Fig. 58 e), this pattern constant in all specimens. Legs yellowish. Femora with several black spots; tibiae with distinct black spots.

Small and rather broadly ovate. With yellowish and black hairs. Head about $0.7 \times$ as broad as pronotum. Eyes small, ocular index 2.0 (δ) or 2.44 (\varnothing). Antennae rather short, proportions between joints 5: 19: 15: 12, 2nd joint $3.6-3.8 \times$ as long as 1st, $0.6-0.7 \times$ as long as basal width of pronotum. Rostrum short extending only to near middle coxae. Pronotum $2.2-2.3 \times$ as broad as long. Male genitalia: genital segment not keeled; process of sensory lobe of left stylus (Fig. 58 f) not sharp; theca (Fig. 58 g) broad; vesica (Fig. 58 h) short, with a serrate lamella in apical half.

Upper Nile: Pochalla, 1 δ , type and several paratypes, 13. I. 1963.

Named after a native tribe inhabiting the area around Pochalla.

✓ *E. nigropunctata* (Pop.)

Description in POPPIUS 1914: 78. The following additions may be made: Head $0.67 \times$ as broad as pronotum. Ocular index $1.60-1.67$ (δ). Proportions between antennal joints 7: 33: 23: ?, 2nd joint nearly as long as basal width of pronotum. Male genitalia: genital segment not keeled; sensory lobe of left-stylus (Fig. 57 i) with a sharp-tipped prolongation, hypophysis slender; theca (Fig. 58 j) sharp-tipped;

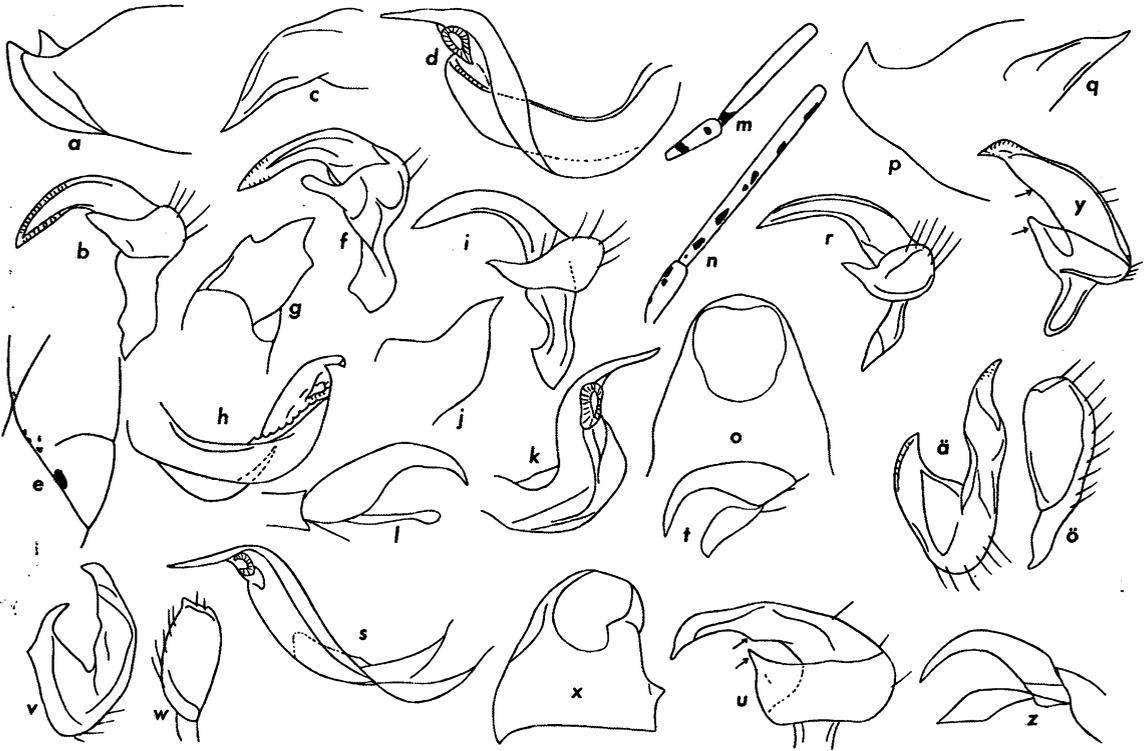


Fig. 58. *Elenia kilimana* (Pop.): a pygophore from side; b left stylus; c theca; d vesica. - *E. anuak* sp. n.: e elytron; f left stylus; g theca; h vesica. - *E. nigropunctata* (Pop.): i left stylus; j theca; k vesica; l claw. - *E. mollis* sp. n.: m 1st and 2nd antennal joints. - *E. picticornis* sp. n.: n same; o pygophore from above; p same from side; r left stylus; q theca; s vesica. - *Paramixia femoralis* (Pop.): t claw. - *P. nigra* (Pop.): u-v left, w right stylus. - *P. nigra* ssp. *pallidicornis* ssp. n.: z claw; x pygophore from above; y - ä left, ö right stylus.

vesica (Fig. 58 k) robust and rather short, apical process relatively long.

Material studied: E. Africa, Kilimandjaro, Kibonoto, 1 ♂, paratype, Sjöstedt, Mus. Helsinki. I have found the species in Ethiopia.

✓ *E. mollis* sp. n.

Length 3.5 mm. Fairly shiny. Pale yellowish. Head, pronotum and scutellum unmarked (or at most a few very faint and small brownish dots on pronotum). 1st and 2nd antennal joints (Fig. 58 m) yellow-brown, the former with two rings of black spots bearing bristles of the same colour, the latter with a narrow black basal ring, extreme base pale, 3rd and 4th joints embrowned. Elytra with dense fuscous spotting as in *nigropunctata*, although somewhat finer, tip of clavus black, latero-apical angle of corium pale, membrane hyaline with faint brownish shadows. Under surface pale, unmarked. Legs spotted with black as in *nigropunctata*.

A small, ovate species. With long black and short yellowish hairs. Head about $0.6 \times$ as broad as pronotum, eyes remarkably small, ocular index $2.50 - 2.93$ (♂) or 3.0 (♀), vertex less sharply marginate. Antennae thicker than in *nigropunctata* and *guttata*, proportions between joints $7 : 24 : 12 : 12$, 2nd joint $0.7 - 0.8 \times$ as long as basal width of pronotum. Rostrum extending to near middle coxae. Male genitalia nearly as in *nigropunctata*.

Ethiopia, Gembí near Agaro, 1 ♂, type and 2 paratypes, 15 - 16. VI. 1963; 118, 1 paratype. In cloud forests.

E. nigropunctata (Pop.): Also head, pronotum and scutellum dark-spotted, latero-apical angle of corium black, eyes much larger etc.

✓ *E. guttata* sp. n.

Length 4.5 mm. Shiny. Pale yellowish. Apex of frons and vertex each with two round black spots, these spots together forming a square. Antennae yellowish, 1st joint with a black subapical ring with 2 black bristles, 2nd joint with a black basal ring, extreme base pale. Pronotum with 2 black spots in apical margin and a row of 4 round black spots across middle of disk. Scutellum with apex and two round median basal spots black. Elytra hyaline, with sparse and relatively large, round, blackish spots (5 - 6 spots in clavus, about 20 in corium), lateral apical angles of corium black, cuneus immaculate, membrane nearly colourless, with 6 faint darker dashes apically. Under surface immaculate, yellowish. Femora with several large black spots, tibiae with distinct setigerous black spots.

Two specimens of the type series are considerably darker: 1st antennal joint with a broad black median ring. Head and pronotum with more numerous dark spots, the disk of the latter with a broad arcuate black band. Scutellum, excluding basal angles and extreme apex, black.

Ovate, with yellowish and darker hairs. Head $0.7 \times$ as

broad as pronotum, ocular index 1.82, eyes relatively small, vertex basally less sharply marginate. Antennae long and gracile, proportions between joints 8 : 30 : ? : ?, 2nd joint remarkably thin 3.8 × as long as 1st and nearly as long as basal width of pronotum. Rostrum extending to middle coxae. Elytra hyaline.

Ethiopia, Belleta forest, 1 ♀, type and 3 ♀ paratypes, 13 - 14. VI. 1963. In a cloud forest.

Easily recognized by the sparse dark spotting and the long and pale 2nd antennal joint.

✓ *E. immaculipennis* (Pop.) - Near 79, 1 ♀. Previously known from Victoria Nyanza.

✓ *E. pallida* (Pop.)

Description in POPPIUS 1914: 79. The following additions may be made: Head 0.61 × as broad as pronotum, ocular index 1.74 (♂) or 2.1 (♀). Proportions between antennal joints 7 : 34 : 22 : 13, 2nd joint nearly as long as basal width of pronotum.

Material studied: E. Africa, Amani, 1 ♂, type and 3 paratypes, Mus. Helsinki.

✓ *E. hyalinipennis* sp. n.

Length 4 mm. Uniformly pale greenish yellow. Also antennae pale, 1st joint with 2 very small dark spots, base of 2nd with a very faint dark spot. Femora with small dark spots. Hind tibiae with only very small dark spots. Elytra hyaline, immaculate.

Elongately ovate. Hair covering pale. Head 0.6 × as broad as pronotum. Eyes small, ocular index 3.0 (♀). Antennae long and gracile, proportions between joints 8 : 30, 24 : 11, 2nd joint 3.75 × as long as 1st, 0.9 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum relatively long, nearly twice as broad as long.

Equatoria: Kateri - Gilo, 1 ♀, type, 18. III. 1963.

Related to *E. pallida* and *E. unicolor* (Pop.). In the former the last antennal joints are dark, the rostrum shorter, the ocular index different etc. The latter is smaller, has a shorter rostrum etc.

✓ *E. picticornis* sp. n.

Length 4.75 mm. Shiny. Pale greenish yellow. Head yellowish ochraceous, with faint brownish lateral arcs on frons. 1st antennal joint (Fig. 58 n) with two rings of black spots with a black bristle, 2nd with several black spots (other joints absent). Pronotum and scutellum immaculate. Elytra hyaline, with only a few dark dots: in clavus only near suture, in corium only near claval suture and in costal and apical margins, latero-apical angle of corium pale, cuneus with only a small dark spot in median margin, membrane hyaline with obscure brownish shadows. Thorax with a round black spot behind eyes and a small black dot at base of fore coxae. Spotting of legs of the common type.

Rather parallel-sided, with long black and shorter yellowish hairs. Head broad, 0.6 × as broad as pronotum, eyes prominent, ocular index 1.57 (♂), vertex medially concave and basally distinctly marginate. Antennae remarkably long, proportions between joints 10 : 45 : ? : ?, 2nd joint 1.2 × as long as basal width of pronotum. Rostrum extending to near middle coxae. Callal area of pronotum relatively elevated. Male genitalia: genital segment (Fig. 58 o - p) broadly conical, not keeled, but apex upturned; left stylus as in Fig. 58 r; theca (Fig. 58 q) sharp; vesica (Fig. 58 s) more slender than in the other species studied.

Equatoria: near Gilo, 1 ♂, type, 18 - 24. III. 1963.

Paramixia Rt.

Paramixia REUTER 1900: 264. Type: *P. suturalis* Rt.

Troitskiella POPPIUS 1914: 81. Type: *T. minuta* Pop., syn. n.

Cephalocapsus POPPIUS 1914: 81 - 82. Type: *C. clypealis* Pop.

Troitskiella has incorrectly been regarded as a synonym of *Orthonotus* Stp. by WAGNER & WEBER 1964: 497.

✓ *P. suturalis* Rt. (s.str.)

Paramixia suturalis REUTER 1900: 264. - *Troitskiella minuta* POPPIUS 1914: 81 - 82, syn. n.

Elytron in Fig. 59 c. Male genitalia in Fig. 59 d - f.

Type examined: Victoria Nyanza, Bukoba, 1 ♂, type of *Troitskiella minuta*, selected here as lectotype, Troitski, Mus. Helsinki.

9, several exx.; 21, 1 ex.; 45, 1 ex.; 58, 1 ex.; 52, several exx.; 70 - 72, 1 ex.; Lirek hot spring, several exx., 25 - 26. II. 1963; 68, several exx.; 64 - 63, several exx.; 60, 1 ex.; 74, several exx.; 30 km N. of 71, 1 ex. On various *Cyperaceae* in moist localities. Also at lamp. Previously known from Egypt, Israel, the Cape Verde Is., E. Africa and Ethiopia.

✓ *P. (Schroederiella) nigra* (Pop.) ssp. *pallidicornis* ssp. n.

Length 2.75 - 3 mm. Shiny. Black or blackish brown. 1st and 2nd antennal joints yellow-brown, others and extreme base of 1st dark brown. Femora dark brown, with a faint paler apical ring. Tibiae greyish ochraceous, with distinct black spots and pale spines. Tarsi pale, apically infusate.

Elongately ovate, about 2.5 × as long as broad. With longer dark hairs and in places in elytra and under surface silvery adpressed pubescence. Head in apical view 0.8 × as high as broad; vertex shallowly depressed in basal angles near eyes and also faintly medially, base sharply marginate. Ocular index 2.25 (♂) or 2.5 (♀). Proportions between antennal joints 5 : 19 : 11 : 10, 2nd joint 0.87 (♂) or 0.7 (♀) × as long as basal width of pronotum. Rostrum extending well beyond hind coxae. Pronotum transverse, lateral margins curvate, disk shagreened and finely wrinkled, callal area not elevated. Also scutellum and elytra distinctly microsculptured (shagreened and minutely tuberculate). Femora with some long hairs. Proportions between hind tarsal joints 8 : 12 : 11. Claws as in Fig. 58 z. Male genitalia: genital segment (Fig. 58 x) with a knob on left side; right stylus as in Fig. 58 b; left stylus (Fig. 58 y - ā) with sensory lobe strongly prominent, hypophysis long; theca as in Fig. 59 a; vesica (Fig. 59 b) very long and thin, gonopore at base of bent apical part.

Equatoria: near Gilo, 1 ♂, type and many paratypes, 18 - 24. III. 1963. In under growth of *Podocarpus* forests and in alpine meadows.

The nominate form differs as follows: also 1st and 2nd antennal joints black, the latter with a broad pale median ring; pronotum less distinctly microsculptured; right stylus (Fig. 58 w) narrower and sensory lobe of left stylus (Fig. 58 u - v) more sharp-tipped.

Material studied: Killmandjaro, 1 ♂, type and 1 ♂ paratype, Schröder, Mus. Helsinki.

✓ *P. (Schroederiella) paludicola* sp. n.

Length 2.25 - 2.50 mm. Relatively shiny. Black or blackish brown. Antennae blackish, 2nd joint with extreme base pale and sometimes also with a paler median area. Under surface and legs blackish, femora basally pale; fore and middle tibiae yellowish brown, hind tibiae dark brown, spines pale, tarsi yellow-brown, apex darker.

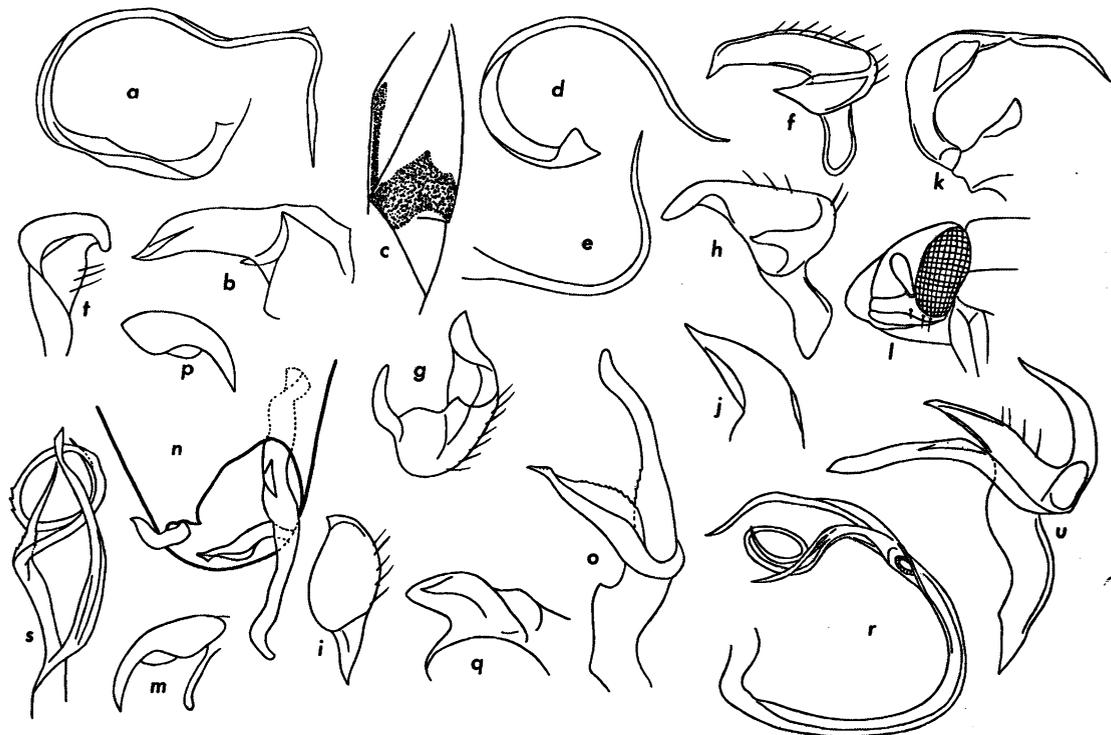


Fig. 59. *Paramixia nigra pallidicornis* ssp. n.: a vesica; b theca. - *P. suturalis* Rt.: c elytron; d vesica; e apex of same in broad aspect; f left stylus. - *P. paludicola* sp. n.: g - h left, i right stylus; j theca; k vesica. - *Nubata longiceps* gen. sp. n.: l head from side; m claw. - *Waupsallus rubromaculatus* gen. et sp. n.: n pygophore and styli from above; o right stylus; p claw; q theca; r - s vesica. - *W. tricuspidatus* sp. n.: t right, u left stylus.

Like *nigra*, but much smaller. Hair covering dark. Head in apical view 0.7x as high as broad, eyes small, ocular index 2.7 (σ) or 3.0 (?). Proportions between antennal joints $4:16:10:?$, 2nd joint $0.7-0.8\text{x}$ as long as basal width of pronotum. Rostrum extending well beyond hind coxae. Male genitalia: genital segment without a knob; right and left stylus as in Fig. 59 g - i; vesica shorter and basally broader than in the other species (Fig. 59 k). Theca in Fig. 59 j.

Equatoria: Loka forest, 1 ? , type and 1 σ paratype, 8 - 10. IV. 1963; 63 - 62, 3 paratypes. In swamps.

Nubata gen. n.

Psallus-like pale yellowish species with orange and reddish irroration. Antennae pale. Membrane dark brown with hyaline irroration. Tibiae with conspicuous black spots, spines pale.

Body ovate and robust. Upper surface with double hair covering, with long semidecumbent yellowish hairs and short smooth pale pubescence, cuneus also with black hairs. Head (Fig. 59 l) sharply triangular, long, in apical view only a little broader than high, in profile longer than high, tylus strongly prominent, vertex and frons flattish, base of vertex distinctly

marginate only laterally, eyes large. Antennae arising near lower margins of eyes, gracile, with short adpressed pale hairs, 2nd joint distinctly shorter than basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum with lateral margins strongly diverging caudad, straight, disk smooth, calli only faintly raised. Elytra a little longer than abdomen. Legs appearing rather short. Femora incrassate. Tibial spines delicate and rather adpressed. Proportions between hind tarsal joints $7:11:10$. Claws (Fig. 59 m) with distinct pseudarolia, arolia well-developed, parallel.

Type: *N. longiceps* Lv.

The genus is closely related to *Lindbergocapsus* Wgn. (Canary Islands, Morocco), but is readily distinguished by the structure of the head, the short antennae and the white tibial spines. The head in *Lindbergocapsus* is much shorter and broader, in apical view distinctly broader than high, in profile shorter than high with the tylus

only narrowly visible, the base of the vertex is distinctly marginate and the eyes are smaller. *Dominiquella* Lv. (Senegal) differs from *Nubaia* in the yellowish colouring, the simple hair covering, the unicoloured legs, the insinuated lateral margins of the pronotum, the reduced pseudarolia etc.

✓ *N. longiceps* sp. n.

Length 2.5 mm. Pale yellowish, with orangish and red irroration. Frons and vertex laterally with orangish tinge. Antennae yellow-brown, apically slightly darker, 1st joint with orangish tinge. Pronotum with orangish irroration especially anteriorly, where a broad M-shaped, irregular orangish figure is formed. Scutellum with minute orangish irroration. Elytra with rather dense orangish and reddish irroration; cuneus red, with pale irroration; membrane and veins dark brown, with hyaline irroration. Under surface with orangish irroration. Thorax medially largely fuscous. Femora in basal half dark brown, apically whitish with dense dark dotting especially on under surface. Legs otherwise whitish, tibiae with round black spots, spines pale and short.

Robust, ovate. Upper surface with longer, erect yellowish hairs and smooth shorter pale pubescence, cuneus also with black hairs. Head (Fig. 59 l) sharply triangular, long, $0.84 \times$ as broad as pronotum, in apical view $1.2 \times$ as broad as high, in side view as high as long; vertex flat, immarginate, ocular index 2.0, frons flattish, eyes granulose. Antennae gracile, proportions between joints 4 : 18 : 10 : 7, 2nd joint as long as diatone, $0.84 \times$ as long as basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum moderately convex, hind margin straight, calli not elevated. Tibial spines short. Proportions between hind tarsal joints 7 : 11 : 10.

Kordofan: Dilling - Kadugli, 1 ♀, type, 1 - 2. II. 1963.

✓ *Waupsallus* gen. n.

Ovate, whitish or whitish yellow species; elytra with small fuscous dots as in the genus *Compsidolon* Rt., cuneus marked with red. Hair covering relatively long, yellow; adpressed silvery hairs sparse. Hind femora with brown spots. Tibiae with small dark dots, spines pale; proportions between hind tarsal joints 7 : 11 : 10, claws as in Fig. 59 p, pseudarolia small.

General structure as in *Compsidolon*, but the male genital characters unique: genital segment broadly rounded apically; right stylus very large, of curious shape: basal part long, hypophysis long and falcate, sensory lobe with one or two strong prolongations; left stylus small, simple, without apical tooth; theca of common shape; vesica long, regularly arcuate, apex complicated with dentate processes, gonopore near bottom of apical appendages.

Type: *W. rubromaculatus* Lv.

Characterized by the strong development of the right stylus and the reduction of the left one.

✓ *W. rubromaculatus* sp. n.

Length 2.75 - 3 mm. Fairly shiny. Whitish. Antennae yellow, 1st joint unicoloured or at most with a very indistinct dark spot. Head with obscure fulvous markings. Pronotum with faint fulvous spots; 2 in extreme apical margin, a transverse row of 4 spots in callal area and a similar row across disk. Elytra with faint fuscous dots; cuneus at most with very faint traces of fuscous spots, but always with a row of 5 round purplish spots along inner margin, also inner apical angle of corium with a \pm developed larger purplish spot. Membrane with fuscous clouds and irroration. Under surface immaculate. Hind femora usually with small brown spots. Tibiae with faint dark spots.

Small, ovate. Head in apical view $1.45 \times$ as broad as high, in lateral view slightly higher than long, base of vertex not marginate, eyes granulose, ocular index (δ) 1.75 - 1.87. Antennae gracile, proportions between antennal joints 5 : 18 : 11 : 11, 2nd joint $0.75 - 0.80 \times$ as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum transverse, lateral margins slightly curvate or nearly straight, basal margin shallowly insinuated, callal area not differentiated. Elytra longer than abdomen. Male genitalia: genital segment (Fig. 59 n) apically broadly rounded; Sensory lobe of right stylus (Fig. 59 o) with a long, serrate appendage, apical part of stylus therefore two-branched; left stylus as in Fig. 59 n, small, apically strongly bent; theca (Fig. 59 q) short and broad; vesica (Fig. 59 r - s) slender, apical processes flagellate, the median one circularly recurved.

Bahr el Ghazal, R. Malmul - Tonj, 1 paratype, 22. II. 1963; 52, numerous paratypes; Equatoria: Ibba - Yambio, 1 ♂, type and several paratypes, 16. IV. 1963; 72, several paratypes; 68, 1 paratype; 64 - 63, several paratypes; 60, several paratypes; 59 - 60, 1 paratype; 74, 1 paratype; 61 - 52, 1 paratype; 30 km. N of 71, 1 paratype; 62, several paratypes; 66 - 64, 1 paratype. At lamp.

✓ *W. tricuspoidatus* sp. n.

Length 2.5 - 2.75 mm. Pale yellow. Antennae uniformly pale yellow. Head and pronotum immaculate. Elytra at most with very faint dark dotting, often entirely immaculate, inner margin of cuneus with a row of small roundish purple spots. Membrane infumed. Hind femora with only a few obscure brownish spots, spots of hind tibiae faint, brown.

Like the preceding species, but smaller and antennae somewhat more gracile. Male genitalia: genital segment and theca as in *rubromaculatus*; right stylus (Fig. 59 t) three-branched in apical part owing to two prolongations of the sensory lobe; left stylus as in Fig. 59 w; vesica (Fig. 60 a) rather short and thick, apical processes short, dentate.

74, 1 paratype; 62, 2 paratypes; 66 - 67, 1 paratype; Yei-Maridi, 1 ♂, type and 2 paratypes, 13. IV. 1963.

✓ *W. dentatus* sp. n.

Length 2.5 - 2.75 mm. ♂ Pale yellow, with intense red markings. Head with red lateral arcs and other red markings in apical part and basal margin of vertex. Antennae fulvous, 1st joint with a red ring, 2nd with a reddish basal ring. Anterior part of pronotum with several larger red spots, base with numerous dots of the same colour. Scutellum with red irroration including two irregular median stripes. Elytra reddish yellow with red spotting; cuneus basally and inner apical angle of corium deeper red, membrane dark brown. Under surface with fulvous and reddish markings. Hind femora with purplish spots, tibial spots likewise purplish. ♀ Pale yellow, with faint fulvous dotting and irroration on

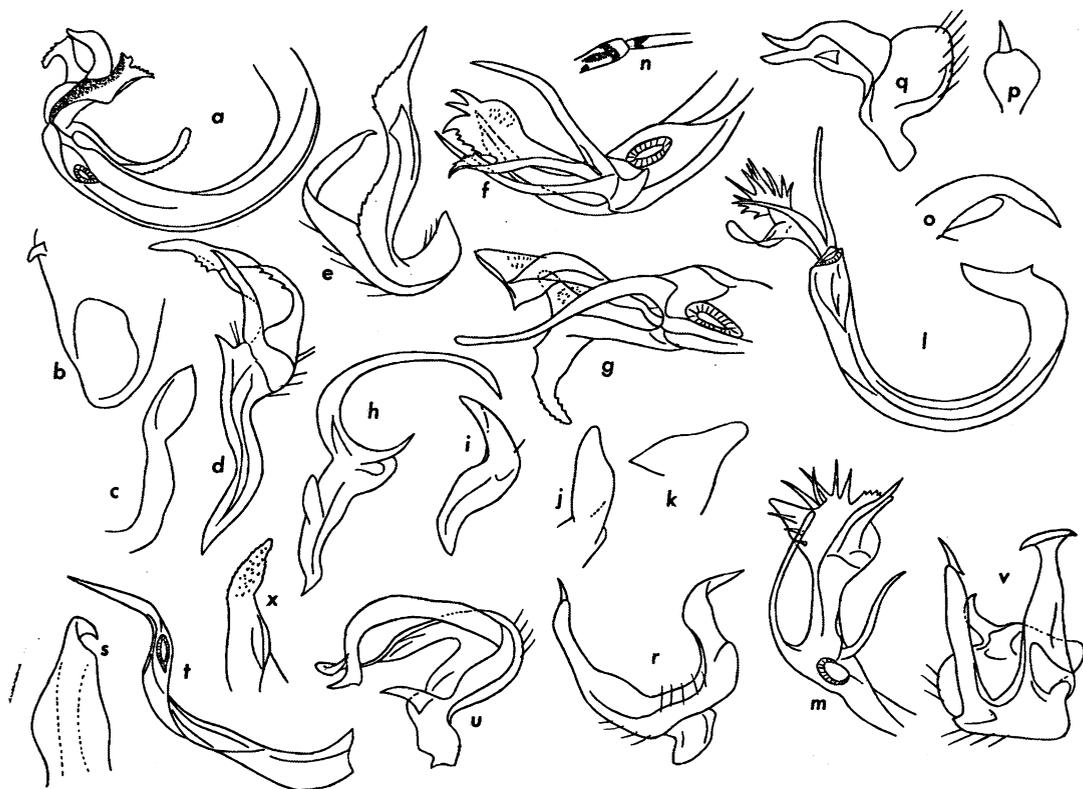


Fig. 60. *Waupsallus tricuspoidatus* sp. n.: a vesica. - *W. dentatus* sp. n.: b pygophore from above; c left, d - e right stylus; f - g vesica. - *W. hilaris* sp. n.: h right, i - j left stylus; k theca; l - m vesica. - *Godataira pulchella* gen. et sp. n.: n base of antenna; o claw; p right, q - r left stylus; s theca; t vesica. - *G. aqualla* sp. n.: u - v left stylus; x theca.

upper surface. Antennae pale, 1st joint only with a very faint trace of a dark ring. A purplish triangular area in base of cuneus and the adjacent inner apical angle of corium, median margin of cuneus with partly confluent purplish spots. Membrane dark, with hyaline irroration. Legs as in ♂.

Resembling the preceding species. Ocular index 1.75 (♂♀). Proportions between antennal joints 5 : 18 : 9 : 11, 2nd joint 0.72 × as long as basal width of pronotum. Rostrum extending to hind coxae. Male genitalia: genital segment (Fig. 60 b) with a knob on left side; right stylus (Fig. 60 d - e) two-branched in apical part, hypophysis thick, serrate; left stylus (Fig. 60 c) longish and narrow; theca of the common shape; vesica (Fig. 60 f - g) as in *tricuspoidatus*, but with longer and differently shaped apical appendages.

Ethiopia, Machi, 1 ♂, type and 1 ♀ paratype, 9. VI. 1963 On *Grewia mollis*.

W. hilaris sp. n.

Length 2 - 2.5 mm. Like *rubromaculatus*, but much smaller, more yellowish, elytra nearly immaculate, red colouring of cuneus more extensive, in ♂ entire cuneus red, membrane with more intense fuscous irroration, hind femora nearly unicoloured and tibial spots reddish brown.

Ocular index 1.22 (♂) or 1.9 - 2.14 (♀). Proportions between antennal joints 4 : 15 : 9 : 9, 2nd joint 0.7 × as long as basal width of pronotum. Rostrum extending to hind coxae. Male

genitalia: genital segment as in *rubromaculatus*; right stylus (Fig. 60 h) with a very long falcate hypophysis, but sensory lobe provided with only a short spine-like process; left stylus, theca and vesica as in Fig. 60 i - m.

Equatoria: Kapoeta - Boma, 1 ♂, type and 1 ♀ paratype, 26 - 27. III. 1963.

Godataira gen. n.

Small, *Psallus*-shaped species. Colouring pale yellowish or greyish, with conspicuous red markings, elytra often also with small fuscous dots. 1st and base of 2nd antennal joint with red or dark rings. Membrane with fuscous irroration. Hind femora with red or blackish spots. Dark spots of tibiae distinct, spines brown or pale. Hair covering of upper surface simple, yellowish. Head as in *Psallus* (tylus prominent, eyes large, granulose etc.), but base of vertex obtusely marginate (usually rounded in *Psallus*, except in the subgenus *Phylidea* Rt.). Antennae long. Rostrum extending to or beyond hind coxae. Pronotum transverse, lateral margins straight,

calli weakly developed. Proportions between hind tarsal joints 7 : 11 : 9. Claws (Fig. 60 o) long, falcate, pseudarolia well developed extending to middle of claw. Male genitalia: genital segment of the common shape; right stylus very small; left stylus peculiarly shaped, very large, two-branched, in dorsal view U-shaped; theca relatively long and narrow, sometimes apically minutely dentate; Vesica small, gracile, flagellate, gonopore rather far from apex.

Type: *G. pulchella* Lv.

✓ *G. pulchella* sp. n.

Length 2.2 - 2.5 mm. Whitish. Head with fulvous lateral arcs, tylus with a fulvous median stripe. Antennae whitish, 1st joint with a ring and a longitudinal stripe red (Fig. 60 n), 2nd with a narrow red basal ring, last joints slightly infuscate or fulvous. Pronotum with two red spots in apical margin and a row of 4 fulvous spots on disk, the spots often ± elongate forming 4 fulvous longitudinal bands. Scutellum with a median basal spot and 2 apical spots fulvous. Elytra with several larger fulvous, often ± coalescent spots and minute red dotting, inner margin of cuneus with red dashes, membrane pale, with fuscous irroration, veins pale, basally reddish. Under surface with fulvous markings. Fore and middle femora with a few, hind femora with several round purplish spots, apex of hind femora reddish. Tibiae with distinct purplish spots, spines brown.

Rather broadly ovate. Hair covering long, dense, yellowish. Head in apical view 1.14 × as broad as high, in side view slightly higher than long, eyes large, ocular index 0.91 (♂) or 1.1 (♀). Proportions between antennal joints 5 : 20 : 9 : 10, 2nd joint somewhat shorter than basal width of pronotum. Rostrum extending to hind coxae. Male genitalia as in Fig. 60 p - t.

Khartoum, 1 ♂, type and 1 ♀ paratype, 30. VI - 3. VIII. 1961; 4 paratypes.

✓ *G. aqualla* sp. n.

Length 2.5 mm. Like the preceding species, but body more elongate, pronotum, scutellum and especially elytra with small fuscous dots, basal ring of 2nd antennal joint fuscous, eyes smaller, ocular index 1.62 (♂) or 1.86 (♀) and rostrum extending distinctly beyond hind coxae. Male genitalia as in Figs. 60 u - x, 61 a.

Bahr el Ghazal: Godatair, 1 ♂, type and 2 paratypes, 19. II. 1963. On *Gardenia aqualla*.

✓ *G. ectagela* sp. n.

Length 2.5 - 3 mm. Whitish grey. Head with small fuscous dots, of which 4 in basal margin of vertex, frons with faint traces of fulvous lateral arcs. Antennae whitish, 1st joint with a transverse black subapical stripe, 2nd with a narrow black basal band. Pronotum with small fuscous dots, anterior margin with 2 fulvous spots, disk with a transverse row of 4 fulvous spots. Scutellum with a median spot and 2 apical spots fulvous. Elytra, incl. cuneus, with fuscous dotting, clavus and corium also with several fulvous spots. Membrane with dense fuscous irroration, veins apically white, basally fuscous. Hind femora with several black spots, other femora with only a few dark apical spots. Tibiae with black spots, spines pale brownish.

Hair covering greyish. Ocular index 1.54 (♂) or 1.75 (♀). Proportions between antennal joints 5 : 18 : 12 : 10, 2nd joint

0.82 (♂) or 0.9 (♀) as long as basal width of pronotum. Rostrum extending beyond hind coxae. Male genitalia as in Fig. 61 b - f.

6, 1 paratype; 6 - 7, 1 paratype; 15, 1 paratype; 14, 1 paratype; 9, several paratypes; 33 - 34, 3 paratypes. Eritrea, Massawa, 1 ♂, type and many paratypes, 27 - 30. V. 1963. On *Calotropis procera*.

Much resembling *Ectagela darfurensis* Lv., but differing in the dark spotted antennae, the absence of the black spot of the smaller membranal cell, etc.

✓ *Yotvata* Lv.

The original description (LINNAVUORI 1964: 331) should be modified as follows: 1) tibial spines pale (also in *acaicola*, not dark as erroneously recorded in the original description), 2) left stylus large, with a strongly expanded median part, hypophysis remarkably slender, sensory lobe with either one bifid or two separate processes, 3) theca unique, provided with one or two basal processes lying far from main part of theca and 4) vesica arcuate, simple gonopore rather far from apex.

The genitalia clearly distinguish the genus from *Psallus* and *Compsidolon*.

✓ *Y. picticornis* (Hv.) (= *acaicola* Lv.) - 6, many exx.; 7 - 8, 1 ex.; 21, several exx., 45, several exx. On *Acacia*. Eremian (Israel, Algeria, Egypt, Eritrea, Arabia).

✓ *Y. nigricornis* sp. n.

Fig. 54. Length 3.7 mm. Fairly shiny. Greyish yellow-brown, with dense dark brown or purplish dotting on upper surface. Tylus with purplish border, frons with lateral arcs of the same colour, basal margin of vertex with 4 small dark spots. Antennae black, upper surface of 1st joint whitish with a black subapical spot, extreme base and apex of 2nd white. Pronotum with dense dark dotting, disk also with some larger dark spots. Scutellum with dense dark dotting, base with a semilunar black spot. Elytra, incl. cuneus, with dense dark brown and purplish dotting. Membrane dark fuscous, with hyaline areas, veins paler. Under surface with brown and purplish spots. Femora with a reddish longitudinal band on both dorsal and ventral surfaces and with several round dark brown or black spots, the largest ones on anterior margin of hind femora. Tibiae with distinct dark spots each bearing a pale bristle.

Robust, elongately ovate. Hair covering yellowish, simple. Head 0.83 × as broad as pronotum, in apical view 1.4 × as broad as high, in lateral view slightly higher than long, eyes large, ocular index 1.0. Proportions between antennal joints 6 : 23 : 10 : 8, 1st and 2nd joints rather incrassate, the latter 0.72 × as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum 2.2 × as broad as long, calli slightly elevated. Claws as in *picticornis*. Male genitalia as in Fig. 61 g - m. Left side of genital segment with a small knob.

Equatoria: Mundri, 1 ♂, type, 24. II. 1963. At lamp. Easily recognized by the black antennae etc.

✓ *Psallus* Fb.

P. difficilis Odh. - 81 - 82, 1 ex. Previously known from Uganda.

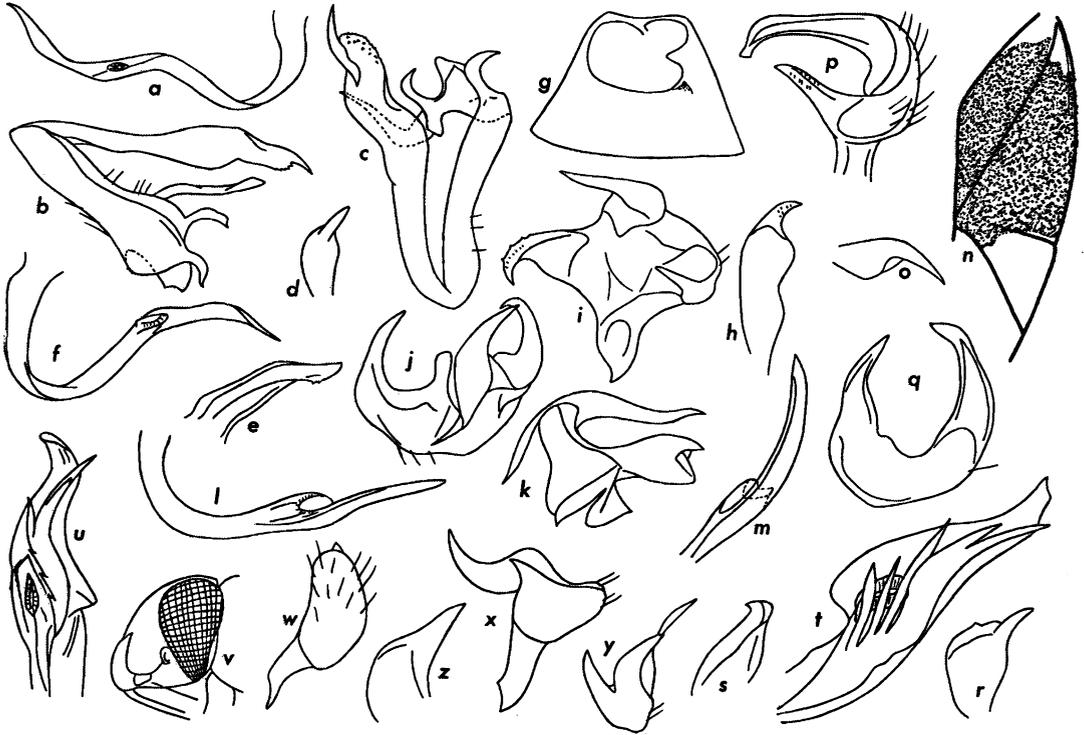


Fig. 61. *Godataira aqualla* sp. n.: a vesica. - *G. ectagela* sp. n.: b - c left, d right stylus; e theca; f vesica. - *Yotvata nigricornis* sp. n.: g pygophore from above; h right, i - j left stylus; k theca; l - m vesica. - *Psallus jurorum* sp. n.: n elytron; o claw; p - q left, r right stylus; s theca; t - u vesica. - *Stigmocorista rorida* sp. n.: v head from side; w right, x - y left stylus; z theca.

✓ *P. jurorum* sp. n.

Length 3.2 mm. Fairly shiny. Yellow-brown. Frons laterally with reddish tinge. Antennae yellow-brown, 1st joint with reddish tinge. Pronotum coffee-brown, anterior margin and calli slightly paler. Scutellum medio-basally embrowned, also apical part laterally infumed. Elytra dark coffee-brown (Fig. 61 n), base of clavus and of corium narrowly yellow-brown, apex of clavus faintly whitish brown, cuneus and extreme apico-lateral angle of corium pale, partly with reddish tinge. Membrane dark brown, basally paler, veins concolorous. Under surface mostly dark coffee-brown. Femora, excl. apex and base, coffee-brown, anterior and middle femora also with round darker spots. Tibiae and tarsi yellowish brown, the former with small dark spots each bearing a short black bristle.

Robust, parallel-sided, $2.1 \times$ as long as broad. Hair covering dark, in places yellowish. Head $0.64 \times$ as broad as pronotum, in lateral view $1.3 \times$ as high as long, eyes large, ocular index 1.07. Antennae incrassate, proportions between joints 5 : 27 : ? : ?, 2nd joint nearly $0.9 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Tibial spines short, scarcely longer than cross-section of tibia. Pseudarolia of claws (Fig. 61 o) small. Male genitalia as in Fig. 61 p - u.

Bahr el Ghazal: Wau, 1 ♂, type, 19. II. 1963. At lamp. Dedicated to a negro tribe of the Wau area.

The male genitalia much as in *P. difficilis* Odh., but the colouring, etc. entirely different. The two species do not belong to any of the Palearctic subgenera of *Psallus*. A new

subgenus will probably have to be established after a revision of the African species of the genus.

✓ *Stigmocorista* Ldb., status n.

Psallus subgenus *Stigmocorista* LINDBERG 1958:110. Type: *S. artemisiae* Ldb.

Description in LINDBERG 1958:110.

Resembling *Compsidolon* Rt., but differing as follows: 1) body small and more ovate, 2) colouring more yellowish or greenish with larger dark spots on upper surface; membrane without the typical dark irroration of *Compsidolon*, at most a few larger dark spots present, 3) head short and broad (Fig. 61 v), only relatively weakly produced in profile and 4) base of vertex distinctly sharp throughout its length (in *Compsidolon* slightly marginate only laterally).

The Sudanese species have only a simple hair covering, while the species from the Cape Verde Islands have also an adpressed silvery pubescence.

✓ *S. rorida* sp. n.

Length 2.5 – 2.75 mm. Pale greenish. Shiny. Antennae yellow-brown, 1st joint with 2 dark subapical spots. Entire elytra (excl. membrane) marked with round and relatively large dark fuscous spots; membrane greyish smoky, immaculate, veins pale. Legs yellow-brown. Fore and middle femora with minute dark spotting; dark spotting of hind femora more distinct, larger black spots present in caudo-ventral margin. Tibiae with black spines arising from distinct spots of the same colour.

A small species. ♂ elongately, ♀ more broadly ovate, body about 2.2 × as long as broad. Hair covering of upper surface simple, yellowish, rather long. Head (Fig. 61 v) short and broad, 1.5 – 1.6 × as broad as long, ocular index 1.4 (♂) or 2.0 (♀), eyes distinctly granulate. Proportions between antennal joints 5 : 21 : 13 : 7, 2nd joint somewhat shorter than basal width of pronotum. Rostrum extending distinctly beyond hind coxae. 2nd and 3rd joints of hind tarsi of equal length. Male genitalia as in Figs. 61 w – z, 62 a and ā.

Equatoria: Torit – Kapoeta, 1 ♂, type and many paratypes, 26. III. 1963.

✓ *S. velata* sp. n.

Length 3.5 mm. Like the preceding species, but bigger and vertex much narrower, ocular index 1.27 (♂). Male genitalia as in Fig. 62 b – g.

Ethiopia, near Nazareth, 1 ♂, type, 20 – 21. VI. 1963.

✓ *S. crassa* sp. n.

Length 3.5 mm. Opaque. Pale greyish ochraceous. Antennae pale yellowish brown. Basal margin of vertex with a row of very faint dark dots. Anterior part of pronotum greyish, posterior part with slight brownish tinge and marked with very faint dark dots. Base of scutellum yellowish, apical part with dark dots. Elytra as in *rorida*, but the dark spots larger; membrane brownish smoky, veins paler. Legs pale yellow-brown, fore and middle femora with a few dark spots, spotting of hind femora also sparser than in *rorida*. Tibiae with black spines arising from dark spots.

Resembling *rorida*, but robust. Hair covering yellowish, rather long; also shorter and smooth (not paler) hairs present. Head 1.6 × as broad as long, ocular index 1.08 (♂). Proportions between antennal joints 4 : 19 : ? : 7, 2nd joint 0.7 × as long as basal width of pronotum. Rostrum extending to hind coxae. 2nd joint of hind tarsi longer than 3rd. Male genitalia as in Fig. 62 h – k.

Somalia, Hargeisa, 1 ♂, type, 23 – 28. VI. 1963.

✓ *S. marcida* sp. n.

Fig. 64. Length 2.75 – 3 mm. Rather shiny. Pale yellowish. Head, pronotum, scutellum and elytra (excl. membrane) with numerous dark dots (smaller than in *rorida*). Antennae yellow-brown, 1st joint with a dark subapical dot. Membrane pale brownish smoky, veins pale. Legs pale yellow-brown, spotting and spinulation as in *rorida*.

Ovate, body twice as long as broad. Hair covering longish and yellowish; also shorter, scattered, more adpressed hairs of the same colour present. Head short and broad, 1.6 × as broad as long, ocular index 1.27 (♂) or 1.6 (♀). Proportions between antennal joints 4 : 16 : 10 : 6, 2nd joint only about 0.6 × as long as basal width of pronotum. Rostrum extending to near hind coxae. 2nd joint of hind tarsi somewhat longer than 3rd. Claw in Fig. 62 l. Male genitalia as in *crassa*, but vesica (Fig. 62 m – n) much more gracile.

Equatoria: Nimule, 1 ♀, type, 11 – 13. III. 1963; 72, 1 paratype.

Cameroon, Bas-Chari, near Fort Foureau, several exx., Péricart, Mus. Paris. On *Cissampelos mucronata*.

Compsidolon Rt.✓ *C. (Apsinthophylus) torridum* sp. n.

Length 3.5 – 4 mm. Pale greyish to greyish ochraceous, with minute dark dotting. Frons with about 6 darker lateral arcs on either side. Antennae pale yellowish, 1st joint with a small dark subapical dot. Pronotum usually with sparse, less distinct dark dotting apically and laterally. Base of scutellum yellowish, entire disk with distinct and rather dense dark dotting. Elytra, incl. cuneus, with distinct and relatively dense dark dotting, in ♀ the dotting less extensive especially in clavus and the adjacent corium. Membrane with distinct and dense dark irroration, inner basal angle dark fuscous, veins pale. Legs pale. Fore and middle femora with distinct but rather sparse dark spotting, hind femora densely spotted in apical two-thirds. Tibiae with distinct dark spots, spines pale.

A large species, ♂ parallel-sided, ♀ elongately ovate. Head 1.4 × as broad as long, ocular index 1.46 – 1.70 (♂) or 2.0 (♀). Antennae long, proportions between joints 6 : 25 : 16 : 9 (♂) or 6 : 23 : 15 : 7 (♀), 2nd joint 0.33 – 0.87 (♂) or 0.8 (♀) × as long as basal width of pronotum. Rostrum extending beyond hind coxae. 2nd joint of hind tarsi longer than 3rd. Male genitalia as in Fig. 62 o – s.

Eritrea, 91 – 94, 4 paratypes; Keren – Asmara, 1 ♂, type, 23 – 24. V. 1963. Ethiopia, 99 several paratypes. Swept from different herbs on dry mountain slopes.

Easily recognized by the large size, the pale 1st antennal joint, the pale tibial spines etc.

✓ *C. (Apsinthophylus) surdum* sp. n.

Length 3.5 mm. Like the preceding species, but 1) smaller and somewhat more gracile, 2) general colour more yellowish, head and pronotum immaculate, scutellum only faintly spotted, dark spotting of elytra also more reduced being distinctly visible only in lateral part of corium and in cuneus, dark irroration of membrane more reduced leaving large basal areas unmarked, 3) frons flatter, 4) antennae longer, proportions between joints 6 : 30 : 18 : 9 (♂) or 7 : 25 : 18 : 8 (♀), 2nd joint 1.03 (♂) or 0.9 (♀) as long as basal width of pronotum, 5) tibial spines more brownish and 6) apex of vesica longer and sensory lobe of left stylus with somewhat sharper tooth.

Head 1.4 × as broad as long, ocular index 1.6 (♂) or 1.9 (♀). Male genitalia as in Fig. 62 t – u and w.

Equatoria: Kateri – Gilo, 1 ♂, type and 1 ♀ paratype, 18. III. 1963. Swept from herbs on mountain slopes.

✓ *Atractotomellus* gen. n.

Like *Atractotomus* Fb., but 1) pterygodimorphic (♂ macropterous ♀ brachypterous), 2) head (Fig. 62 v) flattish, densely shagreened, base of vertex distinctly marginate, 3) hair covering of upper surface simple, consisting of pale adpressed hairs, 4) pronotum narrower and flatter, disk densely shagreened in apical half, transversely wrinkled posteriorly; scutellum also shagreened and wrinkled and 5) elytra densely punctate.

Other characters: 2nd antennal joint of ♀ much

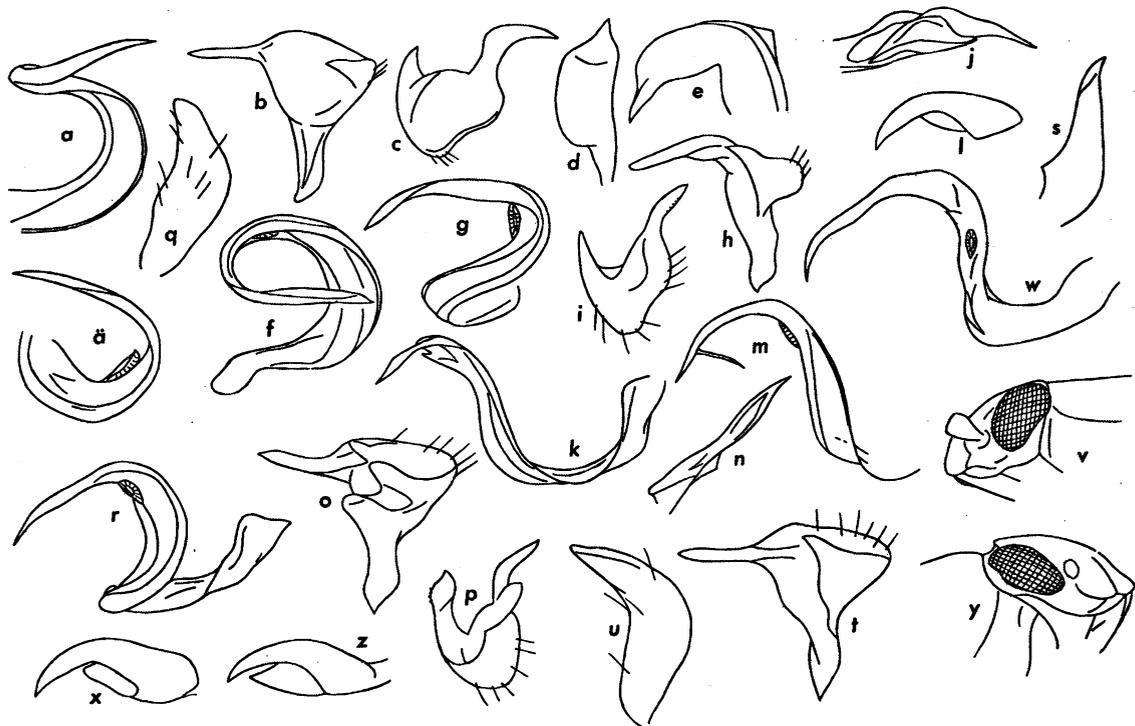


Fig. 62. *Stigmocorista rorida* sp. n.: a and a vesica. - *S. velata* sp. n.: b - c left, d right stylus; e theca; f - g vesica. - *S. crassa* sp. n.: h - i left stylus; j - k vesica. - *S. marcida* sp. n.: l claw; m vesica (thin bent subapical process possibly anomalous); n apex of same. - *Compidolon torridum* sp. n.: o - p left, q right stylus; r theca; s theca; t left, u right stylus; w vesica. - *Atractotomellus seorsus* (Odh.): v head (?) in lateral view; x claw. - *Ethatractus planicornis* gen. et sp. n.: y head from side; z claw.

thicker than in ♂. Tibiae not spotted with black. Claws as in Fig. 62 x. Male genitalia as in *Atractotomus* s.str. See also ODHIAMBO 1960: 513 - 516.

Type: *Atractotomus seorsus* Odh.

In *Atractotomus* the microsculpturing of the upper surface is always faint, as it is also in *Excentricoris* Rt. In the latter genus the tylus is also much more prominent.

A. seorsus (Odh.) - Near 79, 2 exx.; 78 - 79, 1 ex. From undergrowth of the *Podocarpus* zone. Previously known from Kenya.

Ethatractus gen. n.

Resembling *Atractotomus* Fb., but 1) head (Fig. 62 y) flat, base of vertex sharply marginate (nearly as in *Halticus* H.), 2) 2nd antennal joint (♂) (Fig. 63 a - b) strongly flattened, laminate, 3) rostrum short extending only to middle coxae, 4) hair covering of upper surface simple, dark, 5) tibiae black, 6) vesica dif-

ferently shaped, rather straight, apex expanded, membranous and finely dentate, and 7) pseudarolia of claws (Fig. 62 z) large, extending to apex of claw.

Type: *E. planicornis* Lv.

E. planicornis sp. n.

Length 2.5 mm. Black, with metallic lustre. 3rd antennal joint, a broad median ring in fore femora and base of tarsi pale.

Ovate, robust, not twice as long as broad. Hair covering dark. Entire upper surface densely and distinctly shagreened and minutely rugose, pronotum and scutellum also finely wrinkled. Head 0.7 × as broad as pronotum, in 1.25 × as broad as high, flat, vertex basally apical view sharply marginate, ocular index 1.8 (♂). Proportions between antennal joints 6 : 23 : 11 : ?, 1st and 2nd joints with dense black hair covering, the former conical, the latter (Fig. 63 a - b) strongly laminate, 0.8 × as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum twice as broad as long, lateral margins straight, hind margin slightly insinuated. Elytra somewhat longer than abdomen. Male genitalia as in Fig. 63 c - g.

Ethiopia, Bellela forest, 1 ♂, type and 1 ♂ paratype, 13 - 14. VI. 1963. Swept from a swampy meadow.

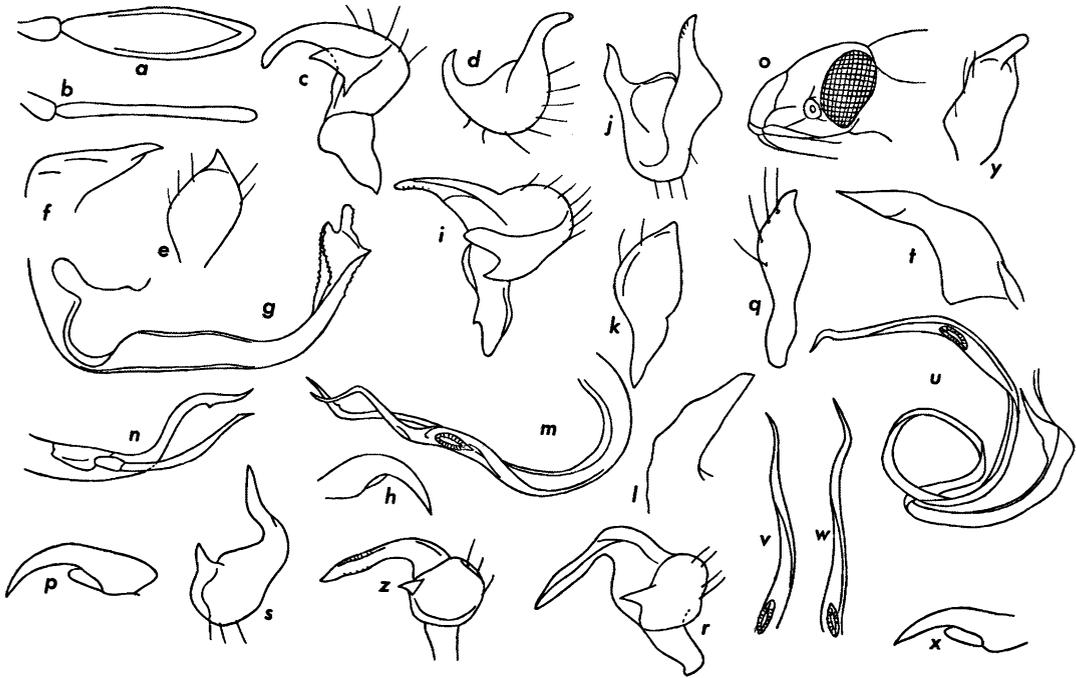


Fig. 63. *Ethatractus planicornis* gen. et sp. n.: a 2nd antennal joint in broad aspect; b same in narrow aspect; c - d left, e right stylus; j theca; g vesica. - *Indatractus pantherinus* gen. et sp. n.: h claw; i - j left, k right stylus; l theca; m - n vesica. - *Plagiognathidea grisescens* Pop.: o head from side; p claw; q right, r - s left stylus; t theca; u vesica; v - w apex of same from above. - *P. flavescens* sp. n.: x claw; y right and z left stylus.

Indatractus gen. n.

Near *Atractotomus* Fb. Body robust. Ground colour pale grey. Entire body densely spotted with dark brown. Hair covering whitish, simple. Femora densely marked with transverse black stripes. Tibiae with dark dots and black spines. Head as in *Atractotomus*: tylus well visible in profile, base of vertex not marginate. Eyes granulose. 1st and 2nd antennal joints strongly incrassate in both sexes, other joints thin and short. Rostrum extending to hind coxae. Pronotum transverse, callal area only faintly differentiated, lateral margins straight, basal margin only slightly insinuated. Elytra longer than abdomen. 2nd and 3rd joints of hind tarsi of equal length. Claws (Fig. 63h) with very small pseudarolia. Vesica long and slender, apically deeply split into two falcate branches, gonopore at the bottom of the bifurcation. Other genitalia of the common type.

Type: *I. pantherinus* Lv.

Easily distinguished from the related genera by the colouring, the whitish hair covering and

the structure of the claws. *Lepidocapsus* Pop. is apparently a related genus, differing in the double hair covering, the absence of the dark spotting, the pale tibial spines, the unicoloured tibiae and in the larger pseudarolia of the claws extending to the middle of the claw.

In the genus *Rakula* Odh. (Gabon) the general colour is black, the upper surface is provided with metallic shiny pubescence, intemixed with semierect pale or dark hairs, the vertex is distinctly carinate posteriorly and the vesica is short and provided with an apical gonopore.

✓ *I. pantherinus* sp. n.

Fig. 54. Length 2.75 - 3 mm. Opaque. Pale grey. Entire body (incl. membrane) densely spotted with dark brown. 1st and 2nd antennal joints black, 3rd white in basal half, apical half and 4th joint dark brown. Membrane whitish, dotted with dark brown. Mesothorax with a large ovate black area on either side. Femora densely marked with dark transverse stripes and spots, upper surface of hind femora spotted only apically. Tibiae with small black spots, extreme tip and tarsi black.

Ovate, robust. Head in apical view $1.33 \times$ as broad as high, ocular index 1.5 (♂) or 2.0 (♀). 1st and 2nd antennal joints strongly incrassate, other joints thin, proportions between joints 7 : 30 : 15 : 12, 2nd joint 1.43 (♂) or 1.3 (♀) as long as

diatone, nearly 1.0 (♂) or 0.81 (♀) × as long as basal width of pronotum. Male genitalia as in Fig. 63 i - n.

Eritrea, 88, several paratypes; Ailet, 1 ♂, type and 5 paratypes, 25 - 26. V. 1963. On *Indigofera spinosa*.

✓ *Plagiognathidea* Pop.

Description in POPPIUS 1914:99. Very close to *Malacotes* Rt. (e.g. dotting of hind tibiae, structure of claws, etc.), but differing in the much longer and thinner vesica ending in a single long flagellate apex. In *Malacotes* the vesica is considerably shorter and robuster and ends in two shorter, falcate appendages.

✓ *P. griseescens* Pop.

Head in Fig. 63 o. Claw in Fig. 63 p - u. Male genitalia as in Fig. 63 q - w. The species is easily recognized by the very long and thin vesica. The genital segment is unarmed, although mentioned as possessing a prong in the original description, where, however, the theca was meant.

15, 1 ex.; 26, 1 ex.; 33 - 34, 1 ex.; 52, several exx.; 72, several exx.; 72 - 71, 2 exx.; 70 - 72, 1 ex.; 30 km. N of 71, 1 ex. At lamp. Once on *Tamarindus indicus*.

Other material studied: Langenburg, E. Africa, 1 ♂, type, Fülleborn, Mus. Helsinki. I have seen specimens also from Cameroon, Bas-Chari, in Mus. Paris.

✓ *P. griseescens* Pop. ssp. *atricapillus* ssp. n.

Differs from the nominate form as follows:

nominate form	ssp. <i>atricapillus</i>
More elongate, body 2.7 - 2.8 × as long as broad, colouring usually more yellowish.	Robuster, ovate, body 2.1 - 2.5 × as long as broad, colouring more greenish.
Hair covering yellowish or yellowish brown.	Hair covering mainly dark brown.
Eyes larger, ocular index 1.73 - 1.9 (♂) or 2.14 - 2.28 (♀).	Eyes smaller, ocular index 2.0 - 2.14 (♂) or 2.0 - 2.42 (♀).
Dark dots of hind tibiae smaller. Genitalia similar in both forms.	Dark dots of hind tibiae larger.

21, 1 paratype; Kordofan: El Obeid, 1 ♂, type and 2 paratypes, 29. I. 1963; 32, 1 paratype; 33 - 34, 3 paratypes.

✓ *P. flavescens* sp. n.

Length 2.2 - 2.5 mm. Shiny. Uniformly yellowish. Membrane yellowish smoky, veins somewhat paler. Markings of femora as in *griseescens*, but fainter. Dark dots of hind tibiae smaller and fainter.

Like *griseescens*, but smaller. Hair covering yellowish. Head in apical view 1.36 × as broad as high, in lateral view slightly longer than high, ocular index 2.0 - 2.14 (♂) or 2.46 (♀). Proportions between antennal joints 4 : 15 : 9 : 8, 2nd joint about 0.7 × as long as basal width of pronotum. Rostrum extending well beyond hind coxae. Elytra longer than abdomen also in ♀. Claw as in Fig. 63 x. Male genitalia as in Figs. 63 y - z, 64 a - d. Vesica shorter than in *griseescens*.

81 - 82, 2 paratypes; Torit - Kapoeta, 1 ♂, type and several paratypes, 26 III. 1963.

Resembling *P. aervae*, but yellowish, membrane without dark shadows, eyes much smaller etc.

✓ *P. minuta* sp. n.

Length 2.5 mm. Shiny. Dirty olivaceous grey. Head yellowish. Antennae dark yellowish brown. Elytra (incl. cuneus) with very faint and small, dark, setigerous punctures. Legs dirty whitish ochraceous, femora with brown irroration; hind femora with dense fuscous irroration on under surface, but without any of the larger black spots present in the other species. Tibiae with only small dark dots, spines brownish.

Small but relatively robust. Hair covering brownish. Head in apical view 1.27 × as broad as high, in side view about as high as long, eyes small, ocular index 2.13 - 2.67 (♂). Antennae relatively thick, proportions between joints 3 : 15 : 10 : 6, 2nd joint about 0.68 × as long as basal width of pronotum. Rostrum extending only to hind coxae. Claw as in Fig. 63 g. Male genitalia as in Fig. 64 e - f, h - k.

Somalia, Hargeisa, 1 ♂, type and 4 ♂ paratypes, 23 - 28. VI. 1963. At lamp.

✓ *P. simplex* sp. n.

Length 2.5 - 2.7 mm. Dirty greyish or greenish ochraceous. Antennae pale ochraceous. Membrane smoky, basally somewhat paler. Legs pale ochraceous, femora with numerous small fuscous spots and a few larger black spots (two subapically in anterior margin, the others in posterior margin), tibiae with black dots, spines black.

Ovate. Hair covering long, pale. Head in apical view 1.25 × as broad as high, in side view about as high as long, ocular index 2.25 - 2.38 (♂ ♀). Proportions between antennal joints 4 : 14 : 10 : 9, 2nd joint 0.6 - 0.7 × as long as basal width of pronotum. Rostrum extending beyond hind coxae. Claws as in Fig. 64 l. Male genitalia as in Fig. 64 m - q.

Somalia, Hargeisa, 23 - 28. VI. 1963, 1 ♂, type, 1 ♀ paratype. At lamp.

✓ *P. aervae* (Ldb.), comb. n.

Malacotes aervae LINDBERG 1958: 114 - 115.

Whitish, membrane with dark spots. Tibial spines pale. Ocular index 1.67 (♂) or 1.5 (♀). Vesica as in Fig. 64 r.

3 - 4, several exx.; 6, many exx.; 6 - 7, several exx.; 7, several exx.; 17, several exx.; 14, several exx.; 21, 1 ex. On *Aerva javanica*. Eremian (Cape Verde Is., Eritrea, Somalia, Arabia).

✓ *Oreocapsus* gen. n.

Dimorphic: ♂ macropterous, parallel-sided, ♀ brachypterous, ± pear-shaped. Brownish. Hind femora with dark dots on under surface, often also ± darkened apically, hind tibiae usually with distinct dark spots, spines black. Hair covering simple, long, yellowish or brown. Head (Fig. 67 a) moderately declivous, sharply triangular, in apical view about 1.25 × as broad as high, in lateral view about as high as long; tylus well visible from side, dorsally merging into frons without a distinct limit; lora small; vertex basally immarginate or at most laterally finely marginate. Eyes large, granulate, in ♂ extending to ventral margin of head in lateral aspect. Antennae long, 1st joint with some long bristles, about 0.5 × as long as diatone. Rostrum ex-

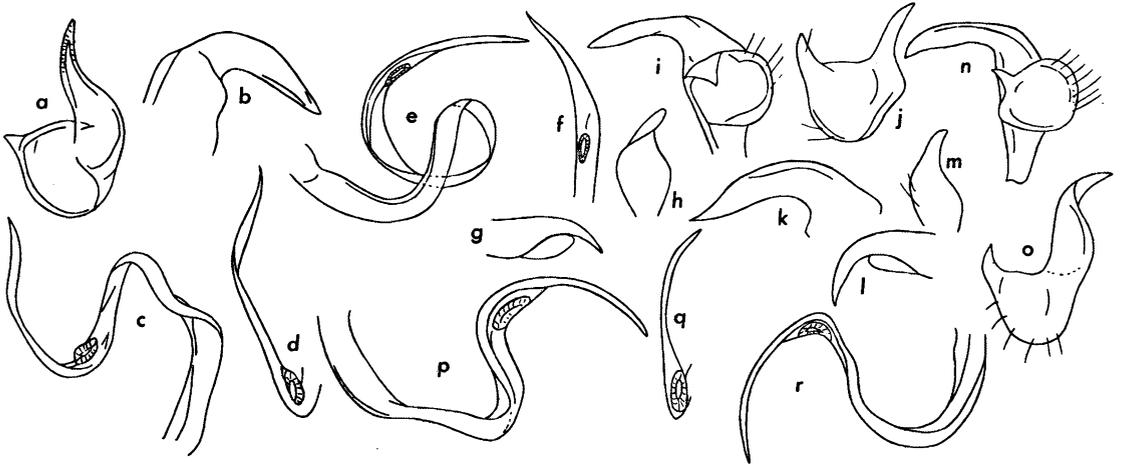


Fig. 64. *Plagiognathidea flavescens* sp. n.: a left stylus from above; b theca; c - d vesica. - *P. minuta* sp. n.: e - f vesica; g claw; h right, i - j left stylus; k theca. - *P. simplex* sp. n. l claw; m right, n - o left stylus; p - q vesica. - *P. aervae* (Ldb.): r vesica.

tending beyond hind coxae. Pronotum with lateral margins straight or slightly insinuated, calli faintly elevated, rather large. Elytra (δ) much longer than abdomen (save in *tristis*), in ♀ reduced, leaving apex of abdomen uncovered, membrane rudimentary. Legs long and gracile, 3rd joint of hind tarsi shorter than 2nd. Claws (Fig. 66 g) gracile, pseudarolia small. Male genitalia: genital segment ventrally keeled; vesica long, rather slender, arcuate, in apical part often deeply split, provided with short apical processes, gonopore apical; other genitalia of the common shape.

Type: *O. pallipes* Lv.

Key to species

Males

- 1 (6) Antennae black 2
- 2 (3) A large dark species, length 5 mm. Ocular index 1.4. Apical processes of vesica long (Fig. 66 r - s) *O. nemoralis*
- 3 (2) Smaller species, length at most 4 mm. Apical processes of vesica short 4
- 4 (5) Length 4 mm. Paler. Ocular index 2.1 - 2.5. The shorter apical process of vesica sharp (Fig. 66 e - f) *O. pallipes*
- 5 (4) Length 3.5 mm. Darker. Ocular index 1.9. The shorter apical process of vesica blunt (Fig. 66 l) *O. immundus*
- 6 (1) Antennae not completely black 7
- 7 (8) Brachypterous. Vesica (Fig. 67 h - i) with several apical spines *O. tristis*
- 8 (7) Macropterous 9
- 9 (10) Length 4.5 - 4.75 mm. Elytra without distinct pale markings. Ocular index 1.17 - 1.33. Apical processes of vesica divergent (Fig. 66 m - n) *O. lividus*

- 10 (9) Length 3.75 mm. Elytra with distinct whitish markings. Ocular index 1.9 - 2.25. Apical processes of vesica parallel (Fig. 67 h - c) *O. serotinus*

Females

- 1 (2) Pale greenish. Ocular index 2.82. Antennae yellowish, 1st joint with only a few small dark dots *O. pallipes*
- 2 (1) Not greenish. 1st antennal joint black basally 3
- 3 (4) Yellow-brown. Elytra with 3 red longitudinal bands *O. serotinus*
- 4 (3) Dark brown. Elytra not banded with red 5
- 5 (6) Small, length 2.25 - 2.75 mm. Elytra strongly shortened, leaving the 3 ultimate tergites uncovered .. *O. tristis*
- 6 (5) Larger species, length at least 3 mm. Elytra extending to base of the last tergite 7
- 7 (8) 2nd antennal joint yellowish *O. lividus*
- 8 (7) 2nd antennal joint bicoloured, basally yellow-brown, apically black *O. nemoralis*

✓ *O. pallipes* sp. n.

Length δ 4 mm., ♀ 3.2 - 3.5 mm. δ Yellow-brown or \pm darker brown, 3 longitudinal paler stripes on frons and base of vertex. Antennae black. In dark specimens base of cuneus whitish. Membrane dark brownish, veins paler. Under surface whitish ochraceous, sides dark-brown. Legs yellow-brown, hind femora with numerous round blackish spots on upper and under surface, but otherwise not embrowned, hind tibiae with small dark dots.

Elongate. Head about 0.65 \times as broad as pronotum, ocular index 2.1 - 2.5. Proportions between antennal joints 10: 38: 20: 19, 1st joint nearly 0.8 \times as long as diatone, 2nd 1.43 \times as long as basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum nearly 1.9 \times as broad as long, lateral margins insinuated. Male genitalia as in Fig. 66 a - f. Genital segment ventrally keeled.

♀ . Pale greenish. Antennae yellowish, 1st joint with some black bristles arising from small dark dots, hairs of antennae otherwise pale. Pronotum often with faint organish longitudinal stripes. Under surface pale. Markings of legs as in δ .

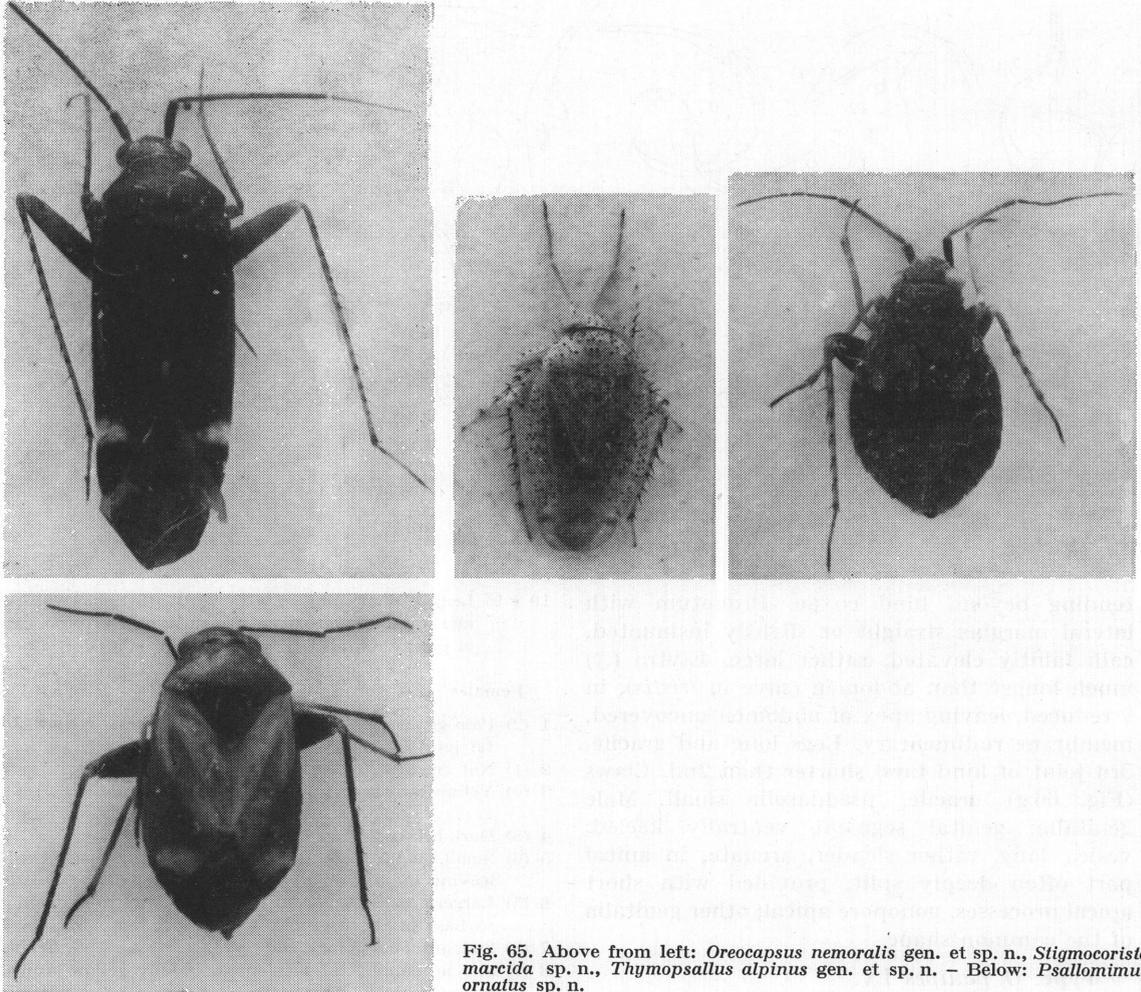


Fig. 65. Above from left: *Oreocapsus nemoralis* gen. et sp. n., *Stigmocorista marcida* sp. n., *Thymopsallus alpinus* gen. et sp. n. - Below: *Psallomimus ornatus* sp. n.

Narrowly pear-shaped. Head large, $0.84 - 0.9 \times$ as broad as pronotum, ocular index 2.62 . Proportions between antennal joints $10 : 36 : ? : ?$, 1st joint nearly $0.6 \times$ as long as diatone, 2nd $1.3 \times$ as long as basal width of pronotum. Pronotum nearly parallel-sided, nearly $1.7 \times$ as broad as long, lateral margins slightly insinuated. Elytra extending to base of last tergite, apex obliquely pointed, membrane rudimentary.

Ethiopia, Belleta forest, 1 ♂, type and many paratypes, 13 - 14. VI. 1963; 103, 1 paratype. On *Echinops* sp.

✓ *O. immundus* sp. n.

Length 3.5 mm. Like the preceding species, but darker coffee-brown with base of vertex and anterior margin of pronotum paler. Under surface dark brown. Hind femora embrowned, dark spotting therefore more indistinct. Head $0.7 \times$ as broad as pronotum, ocular index 1.9 . Proportions between antennal joints $8 : 28 : 15 : 11$, 1st joint nearly $0.5 \times$ as long as diatone, 2nd as long as basal width of pronotum. Pronotum twice as broad as long. Male genitalia as in Fig.

66 h - l, vesica apically deeply split, the short apical process blunt.

Yemen, 1 ♂, type, in my collection.

✓ *O. lividus* sp. n.

♂. Length 4.5 - 4.75 mm. Coffee-brown, base of vertex slightly paler. 1st antennal joint black, 2nd dark yellow-brown. Elytra with some deeper fuscous patches, membrane and veins dark brown. Under surface dark brown. Legs yellow-brown, hind femora embrowned in apical two-thirds, dark spotting therefore less distinct, hind tibiae with small dark dots.

Head nearly $0.7 \times$ as pronotum, eyes large, ocular index $1.17 - 1.33$. Proportions between antennal joints $11 : 40 : ? : ?$, 1st joint $0.55 \times$ as long as diatone, 2nd $1.3 \times$ as long as basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum twice as broad as long, lateral margins slightly insinuated. Elytra much longer than abdomen. Male genitalia as in Fig. 66 m - q.

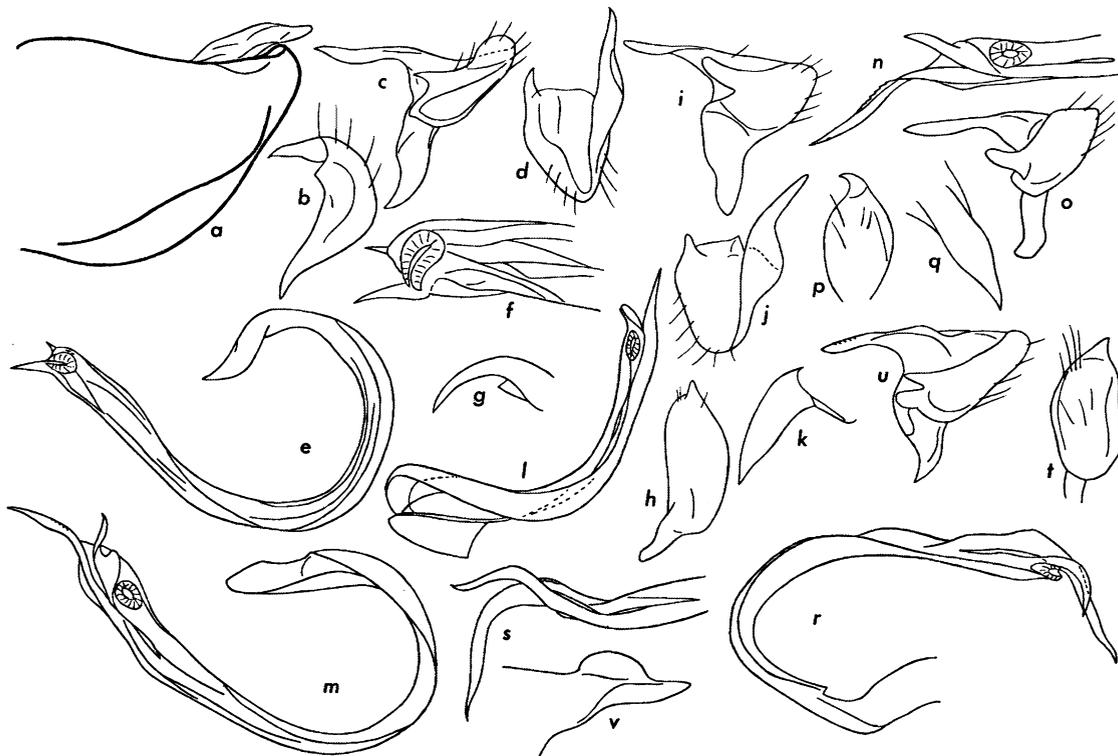


Fig. 66. *Oreocapsus pallipes* sp. n.: a pygophore and theca from side; b right, c - d left stylus; e - f vesica. - *O. immundus* sp. n.: g claw; h right, i - j left stylus; k theca; l vesica. - *O. lividus* sp. n.: m - n vesica; o left, p right stylus; q theca. - *O. nemoralis* sp. n.: r - s vesica; t right, u left stylus; v theca.

♀. Length 3 - 3.5 mm. Dark or reddish brown. 1st antennal joint dark brown, 2nd yellowish, other joints yellow-brown. Pronotum with 3 faint reddish longitudinal stripes. In pale specimens elytra with fuscous patches, at base of cuneus a triangular whitish spot, rudiment of membrane pale. Under surface dark brown, venter medially paler. Legs as in ♂.

Narrowly pear-shaped. Head nearly 0.9 × as broad as pronotum, large, ocular index 2.1. Proportions between antennal joints 11 : 37 : 21 : 16, 1st joint nearly 0.6 × as long as diatone, 2nd 1.6 × as long as basal width of pronotum. Pronotum somewhat broadening caudad, 1.3 × as broad as long, lateral margins straight. Elytra extending to base of last tergite, apex obliquely pointed, membrane rudimentary.

Ethiopia, Agheresalam (2900 m), 1 ♂, type and some paratypes, 8. VI. 1963; 116, 2 paratypes. In mountain meadows at high altitudes.

✓ *O. nemoralis* sp. n.

Fig. 65. ♂. Length 5 mm. Strongly shiny. Dark brown. Base of vertex paler. Antennae black. Base of cuneus with a distinct transverse triangular whitish spot, membrane and veins dark brown. Under surface uniformly dark. Colouring of legs as in *lividus*, but dark spotting of hind femora nearly absent and dark dots of hind tibiae very small.

The largest species. Head 0.6 × as broad as pronotum, ocular index 1.4. Proportions between antennal joints 12 : 43 : ? : ?, 1st joint nearly 0.6 × as long as diatone, 2nd

1.3 × as long as basal width of pronotum. Pronotum 1.3 × as broad as long, sides slightly insinuated. Elytra much longer than abdomen. Male genitalia as in Fig. 66 r - v.

♀. Length 3.5 mm. Dark brown. 1st antennal joint black, 2nd with basal half yellow-brown, apical half black. Elytra with an irregular subapical transverse stripe and rudiment of membrane pale. Legs as in male.

Pear-shaped. Head 0.8 × as broad as pronotum. Ocular index 1.9 - 2.1. Proportions between antennal joints 12 : 36 : ? : ?, 1st joint 0.6 × as long as diatone, 2nd 1.5 × as long as basal width of pronotum. Pronotum 1.7 × as broad as long, broadening basad, lateral margins slightly insinuated. Elytra nearly as long as abdomen, apex roundedly pointed, membrane rudimentary.

Ethiopia, Belleta forest, 1 ♂, type and 5 paratypes, 13 - 14. VI. 1963.

✓ *O. serotinus* sp. n.

♂. Length 3.75 mm. Brown with a reddish tinge. Base of vertex paler. 1st antennal joint black, 2nd yellowish, others yellow-brown. Scutellum with a reddish basal spot. Apico-lateral angle of corium, base of cuneus broadly and apex of same narrowly whitish. Membrane smoky, veins, at least, partly, reddish. Under surface dark brown. Legs pale yellow-brown, fore and middle femora with small brown spots, apical two-thirds of hind femora dark brown, spotting therefore obscure, hind tibiae with dark spots.

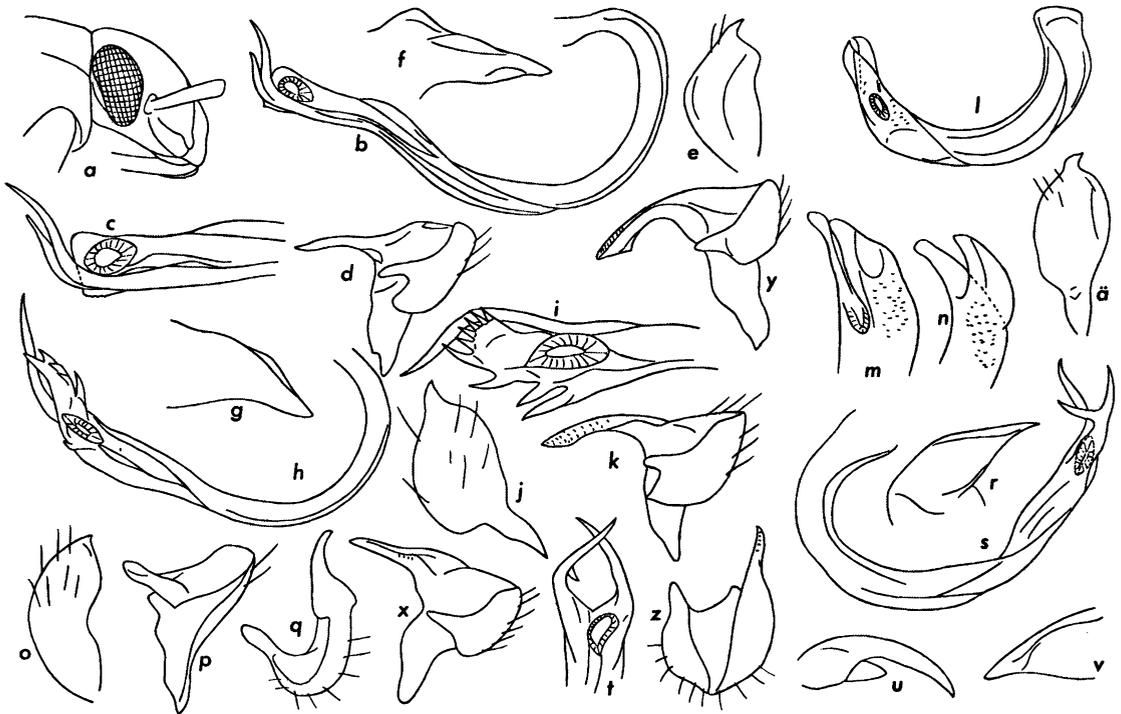


Fig. 67. *Oreocapsus lividus* sp. n.: a head from side. - *O. serotinus* sp. n.: b - c vesica; d left, e right stylus; f theca. - *O. tristis* sp. n.: g theca; h - i vesica; j right, k left stylus. - *Anonychhiella abendica* sp. n.: l - n vesica; o o right, p - q left stylus; r theca. - *Thymopsallus alpinus* gen. et sp. n.: s - t vesica; u claw; v theca; x left stylus. - *T. ericetorum* sp. n.: y - z left, a right stylus.

Rather gracile. Head nearly $0.7 \times$ as broad as pronotum, ocular index $1.9 - 2.25$. Proportions between antennal joints $10 : 33 : 17 : 15$, 1st joint nearly $0.8 \times$ as long as diatone, 2nd $1.3 \times$ as long as basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum $1.9 \times$ as broad as long, sides straight. Elytra longer than abdomen. Male genitalia as in Fig. 67 b - f.

♀. Length 3 mm. Yellow-brown. Frons laterally with slight reddish tinge. Antennae pale yellow, base of 1st joint dark, 3rd and 4th joints embrowned. Pronotum with 3 red longitudinal stripes. Scutellum with a triangular median figure. Elytra with 3 red longitudinal bands, apical part of corium embrowned between these bands, cuneus with a fuscous median spot. Dorsum of abdomen tinged with red, laterally embrowned. Under surface dark brown, venter medially pale, laterally with red spots. Legs pale yellowish, apical half of hind femora dark brown, hind tibiae with small black spots.

Pear-shaped. Head nearly $0.9 \times$ as broad as pronotum. Ocular index 2.55. Proportions between antennal joints $9 : 32 : 18 : 15$, 1st joint nearly $0.5 \times$ as long as diatone, 2nd $1.45 \times$ as long as as basal width of pronotum. Pronotum $1.83 \times$ as broad as long, broadening basad, sides nearly straight. Elytra extending to base of last tergite, apex obliquely pointed, membrane rudimentary.

Ethiopia, Mai Chew, 1 ♂, type and 4 paratypes, 31. V. 1963. Swept from mountain meadows (alt. 3 000 m.).

✓ *O. tristis* sp. n.

Length $2.25 - 2.75$ mm. Both sexes brachypterous. Dark

brown. Antennae yellowish, base of 1st joint dark. Scutellum medially whitish with a red longitudinal stripe. Sometimes also pronotum medially paler and banded with red. Elytra dark brown, with a transverse triangular subapical whitish spot. Legs yellow-brown, apical two-thirds of hind femora dark brown, hind tibiae immaculate.

Pear-shaped. Head nearly as broad as pronotum, ocular index (δ ♀) 2.2. Proportions between antennal joints $9 : 30 : ? : ?$, 1st joint $0.5 \times$ as long as diatone, 2nd $1.35 - 1.4 \times$ as long as basal width of pronotum. Rostrum extending beyond hind coxae. Pronotum $1.75 \times$ as broad as long, nearly parallel-sided or slightly broadening caudad, sides nearly straight. Elytra much shorter than abdomen leaving the 3 ultimate tergites uncovered, apically roundedly truncate, membrane totally absent. Male genitalia as in Fig. 67 g - k.

Ethiopia, Agheresalam, 1 ♂, type and 2 paratypes, 8. VI. 1963. From mountain meadows at high altitudes.

Anonychhiella Rt.

✓ *A. abendica* sp. n.

Length $2.25 - 2.5$ mm. Whitish green or pale green. Antennae yellowish. Elytra sometimes with very faint traces of 2 fulvous transverse bands, membrane milky. Legs whitish ochraceous, hind femora only with very faint and small brownish spots. Tibiae with distinct black spots, spines brown or black, sometimes nearly pale.

Small, ovate. Head $0.84 - 0.86$ (δ) or $0.85 - 0.89$ (δ) \times as broad as pronotum, ocular index $1.50 - 1.52$ (δ) or $1.50 -$

2.25 (♀). Antennae gracile, proportions between joints 3 : 19 : 12 : 8, 2nd joint about 0.86 (♂) or 0.75 (♀) × as long as basal width of pronotum. Rostrum extending beyond hind coxae. Hair covering of upper surface whitish. Claws without pseudarolia. Male genitalia: styli and theca as in Fig. 67 o - r; vesica (Fig. 67 l - n) robust, shallowly arcuate, with 2 blunt apical processes.

Kassala, Abend Pass, 1 ♂, type, 5. XII. 1962; several paratypes; 14, 1 paratype. Somalia, 126, several paratypes. South Yemen, 130 - 131, 3 paratypes. On *Salsola battae* and *Salsola* sp.

Componannus Rt.

✓ *C. antennalis* (Ldb.) - 22 - 25, 1 ex. Previously known from the Cape Verde Is.

Chamaepsallus Wgn.

✓ *C. signaticornis* (Rt.) - 1, several exx.; 6, numerous exx.; 7, several exx.; 2, several exx.; 9, several exx.; 15, 1 ex.; 17, numerous exx.; 19 - 18, 1 ex.; 14, several exx.; 29, several exx.; 27, 1 ex.; 21, several exx.; 35, several exx.; 40, several exx.; 39, 1 ex.; 33 - 34, several exx.; 45, several exx.; 52, 2 exx.; 81 - 82, 1 ex. Common on various herbs in sandy areas. Also at lamp. Eremian (Egypt - Iran, Arabia, Eritrea, Somalia).

✓ *Thymopsallus* gen. n.

Small dark brachypterous species with strongly reduced elytra, resembling *Platypsallus* J.Sb. in general appearance. Body pear-shaped, somewhat depressed. Hair covering relatively long, yellowish brown. Tibiae unicoloured, pale; spines black. Head nearly as broad as pronotum, in apical view about 1.25 × as broad as high, in lateral view as high as long, moderately sloping, tylus well visible from side, dorsally merging into convex frons without a depression; vertex rather convex, immarginate. Eyes largish, granulose, in side view extending near to ventral margin of head. Antennae long, 1st and 2nd joints rather thick, apical joints thin, 2nd as long as diatone, slightly shorter than basal width of pronotum, 1st joint with some dark bristles. Rostrum extending to hind coxae. Pronotum about twice as broad as long, slightly broadening caudad, lateral margins straight, disk convex, calli not differentiated. Elytra very short, covering only base of abdomen, squarish, apex truncate. Abdomen ovate, with smooth dense hairs and long erect bristles. Legs relatively thick. Proportions between hind tarsal joints 9 : 20 : 15, claws gracile (Fig. 67 u) with triangular pseudarolia. Vesica long, arcuate, with apical processes, gonopore near starting points of the processes. Other genitalia of the common form.

Type: *T. alpinus* Lv.

Differing from *Platypsallus* J.Sb. in the bigger size, the longer head, the much longer antennae,

the narrower pronotum, the dark tibial spines etc. and from *Chlamydatus* Ct. in the longer antennae, the differently shaped elytra, the genitalia etc.

✓ *T. alpinus* sp. n.

Fig. 65. Length 3.5 mm. Dark coffee-brown or blackish brown. 1st and 2nd antennal joints yellow-brown, apical joints dark. Femora dark brown, legs otherwise yellow-brown.

Head nearly as broad as pronotum, ocular index (♂ ♀) 2.44. Proportions between antennal joints 7 : 20 : 16 : 11, 2nd joint as long as diatone, nearly as broad as basal width of pronotum. Pronotum twice as broad as long. Male genitalia as in Fig. 67 s - t, v - x.

Ethiopia, Mussolini Pass, 1 ♂, type and 3 paratypes, 2. VI. 1963. On *Thymus schimperi* in mountain meadows.

✓ *T. ericetorum* sp. n.

Length 2.75 mm. Paler than *T. alpinus*. Brown, with reddish tinge. 1st antennal joint dark, 2nd yellowish brown, apical joints embrowned. Pronotum with basal margin and a median longitudinal band ochraceous, basal margin of pronotum with a red median stripe continuing on to the likewise ochraceous scutellum. Elytra yellowish brown, apically infusate. Under surface dark reddish brown. Legs as in the preceding species.

Smaller than *T. alpinus*. Head 0.9 × as broad as pronotum, ocular index 2.5. Proportions between antennal joints 7 : 20 : 15 : 13, 2nd 1.1 × as long as diatone, as long as basal width of pronotum. Male genitalia as in Figs. 67 y - ā, 68 a - c.

Ethiopia, Mai Chew, 1 ♂, type, 1. VI. 1963. Swept from various herbs in the *Erica arborea* zone.

✓ *Gediocoris* Wgn.

Closely related to *Campylomma* Rt. (the structure of the head, Fig. 68d - e), but differing in the robust body, the more abundant silvery tomentum of the upper surface, the pale tibial spines and the thicker and differently shaped vesica (though the vesica of *G. leptadeniae* somewhat resembles that of *Campylomma*).

✓ *G. leptadeniae* sp. n.

Length 2.2 - 3.5 mm. Opaque. Whitish yellow. Frons with faint yellowish lateral arcs. Antennae yellowish. Calli fulvous. Scutellum basally tinged with gold, medially slightly infusate and with faint dark irroration. Elytra with a ± distinct broad fuscous transverse band across apex of clavus and of corium, this band narrowing laterad and provided with darker irroration; in pale specimens only a roundish dark spot in inner apical area of elytra present; apical part of cuneus usually embrowned; membrane milky, veins concolorous. Femora with dense dark fuscous irroration the whitish tibial spines arising from small dark spots.

Broadly ovate, twice as long as broad. Hair covering of upper surface yellow, silvery tomentum dense. Head very short and strongly declivous (Fig. 68d - e) 0.8 - 0.83 × as broad as pronotum, eyes large, ocular index 1.0 - 1.1 (♂) or 1.60 - 1.63 (♀). Antennae short, 1st and 2nd joints increase in ♂, proportions between joints 3 : 16 : 9 : 7, 2nd joint 0.7 × as long as diatone, about 0.5 × as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum

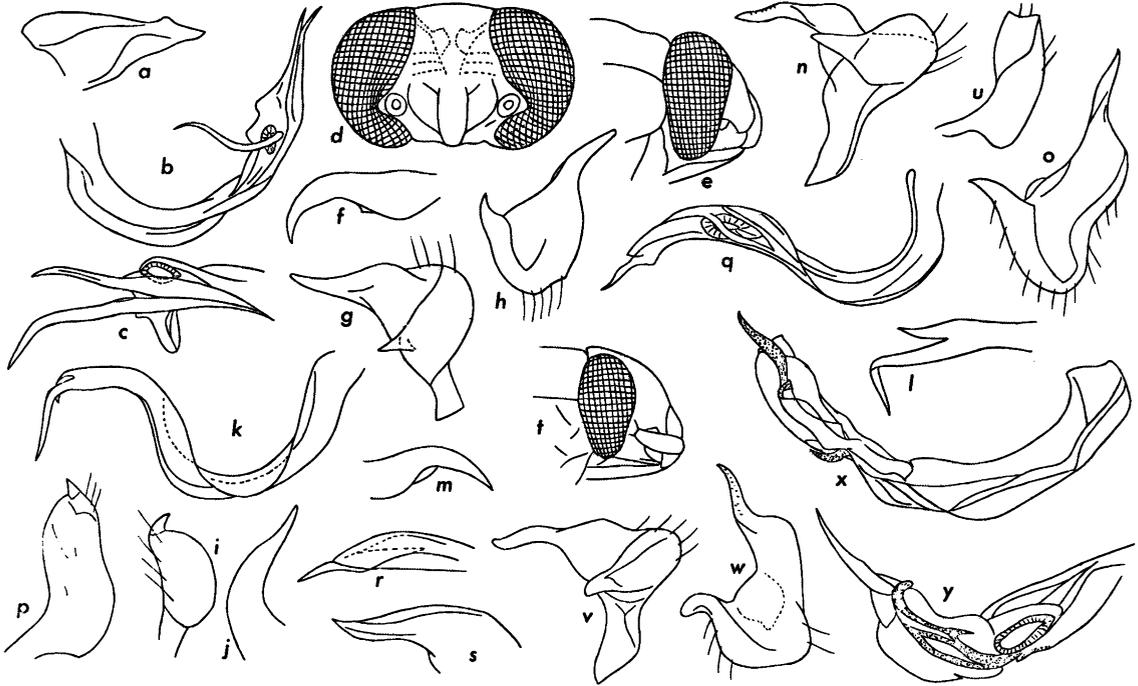


Fig. 68. *Thymopsallus ericetorum* sp. n.: a theca; b - c vesica. - *Gediocoris leptadeniae* sp. n.: d head in frontal view; e same from side; f claw; g - h left, i right stylus; j theca; k vesica; l apex of same from above. - *G. vitellinus* sp. n.: n - o left, p right stylus; q - r vesica; s theca. - *G. hargeisanus* sp. n.: m claw; t head from side; u right, v - w left stylus; x - y vesica.

strongly transverse, about $2.25 \times$ as broad as long. Proportions between hind tarsal joints 7 : 9 : 11. Claws as in Fig. 68f, pseudarolia very small. Male genitalia as in Fig. 68g - l, vesica thinner than in the following two species.

3 - 4, many paratypes; 6, several paratypes; 10, several paratypes; 14, several paratypes; 35, several paratypes; 35 - 36, 1 paratype; 40, 1 paratype; Tendelti - Umm Ruwaba, 1 ♂, type and several paratypes, 25. I. 1963. South Yemen, Anad, 9 - 15. VII. 1963. On *Leptadenia pyrotechnica* in sandy areas. Also at lamp.

✓ *G. vitellinus* sp. n.

Length 2.5 mm. Rather shiny. Uniformly pale yellow. Membrane and veins yellowish hyaline. Legs pale yellowish, femora with only faint and scattered irroration, dark tibial spots small, spines pale.

Ovate like the other species. Hair covering as in the preceding species. Head about $0.75 \times$ as broad as pronotum, ocular index 1.45 - 1.89 (♂) or 2.1 (♀). 2nd antennal joint slightly longer (♂) or shorter (♀) than diatone, 0.8 (♂) or 0.67 (♀) \times as long as basal width of pronotum. Rostrum extending to hind coxae. Proportions between hind tarsal joints 7 : 9 : 10. Male genitalia as in Fig. 68r - s.

South Yemen, Lahej - Dhala road, ♂, type and some paratypes, 9 - 15. VII. 1963. At lamp.

✓ *G. hargeisanus* sp. n.

Length 2.5 mm. Pale yellowish. Frons with fulvous lateral arcs. Antennae pale ochraceous, 1st and base of 2nd joint

with a few faint fuscous dots. Pronotum whitish, anterior part with two large roundedly squarish spots, separated medially from each other by a pale narrow longitudinal line. Scutellum dark brown, basal angles yellowish, a faint pale median stripe present. Base of elytra with a broad dark fuscous transverse band narrowing laterad and leaving the costal margin pale, also apex of clavus dark brown, rest of elytra yellow, base of cuneus white; membrane dark brown, base hyaline, inner vein dark, others white. Sides of thorax with brownish spots. Legs whitish. Femora strongly irrorate with dark brown, especially the under surface of hind femora; tibiae with small fuscous spots bearing pale spines.

Ovate. Hair covering long, whitish or yellowish, in places also darker, in addition silvery adpressed pubescence present, especially on elytra. Head $0.74 \times$ as broad as pronotum, ocular index 1.33 (♂). Antennae longish, proportions between joints 4 : 22 : 11 : 8, 2nd joint moderately incrassate, $1.1 \times$ as long as diatone, $0.8 \times$ as long as basal width of pronotum. Rostrum extending to middle coxae. Proportions between hind tarsal joints 7 : 11 : 13, claws as in Fig. 68m. Male genitalia as in Figs. 68t - y, 69 a.

Somalia, Hargeisa, 1 ♂, type and 1 ♂ paratype, 23 - 28. VI. 1963. At lamp.

✓ *Darfuromma* gen. n.

Very similar to *Gediocoris* (general habitus, structure of head, the transverse dark fasciation of elytra, the short and pale tibial spines) but

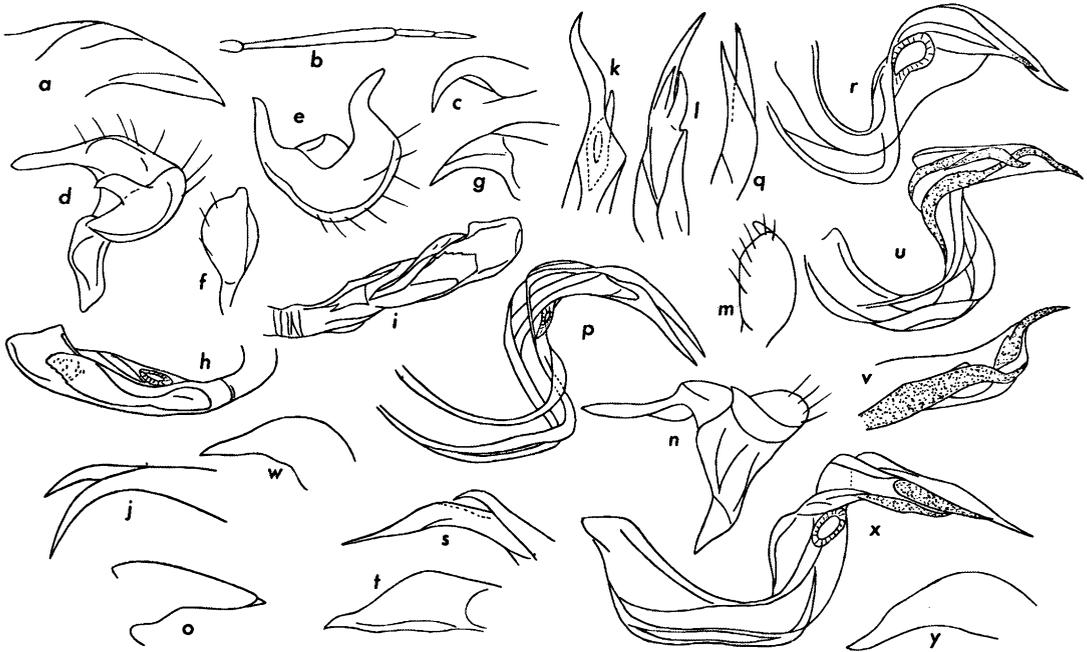


Fig. 69. *Gediocoris hargeisanus* sp. n.: a theca. - *Darfuromma vulnerata* gen. et sp. n.: b antenna (♀); c claw; d - e left, f right stylus; g theca; h - l vesica. - *Campylomma impicta* Wgn.: j apex of vesica. - *C. zizyphi* Rt.: k same (ex from Jebel Elba); l same (ex from Eritrea). - *C. mundrica* sp. n.: m right, n left stylus; o theca; p vesica; q apex of same from above. - *C. somalica* sp. n.: r - s vesica; t theca. - *C. imitans* sp. n.: u - v vesica; w theca. *C. montana* sp. n.: x vesica; y theca.

differing as follows: 1) upper surface with sanguineous markings, 2) hair covering of upper surface simple, short, yellowish (in the dark fasciae of elytra somewhat darker), adpressed silvery pubescence entirely absent, 3) 3rd and 4th antennal joints unusually short (Fig. 69 b), 4) pronotum finely but distinctly punctate, 5) tibiae without dark spots, spines shorter than diameter of tibia, 6) pseudarolia of claws (Fig. 69 c) larger and 7) vesica very different, unusually short and straight, broadening apicad, gonopore far from apex in the basal part.

Type: *D. vulnerata* Lv.

Somewhat resembling *Yotvata*, but differing in the short head, the more convex and punctate pronotum with shallowly curvate lateral margins, the immaculate tibiae etc.

D. vulnerata sp. n.

Length 2.5 - 2.75 mm. Fairly shiny, whitish ochraceous with sanguineous markings. Frons with several red lateral arcs, vertex basally with red spots or laterally totally red. Antennae pale yellowish, 1st joint sometimes with 2 small red dots. Pronotum with ± longitudinally arranged irregular

red spots and dashes, partly confluent and forming a filigranous red network, calli fulvous or reddish. Scutellum red with pale apex (♂) or pale with red irroration, base sometimes fulvous (♀). Elytra with a narrower basal and a broader apical transverse fuscous band, these bands poorly delimited, often rather faint, the basal band sometimes nearly absent (in this case the pattern much as in *Gediocoris leptadeniae*), moreover clavus and corium with sparse red irroration, cuneus pale, membrane pale brownish hyaline, veins whitish. Under surface with rather dense red irroration. Femora pale or with minute red dotting, tibiae and tarsi completely pale.

Ovate. With short, smooth and relatively sparse yellow hair covering (somewhat darker in fuscous bands of elytra). Head 0.75 (♂) or 0.60 (♀) × as broad as pronotum, in apical view 1.54 × as broad as high, in lateral view 1.2 × as high as long, eyes large, granulose, ocular index 0.80 - 0.92 (♂) or 1.18 (♀). Frons and vertex flattish, tylus prominent, well visible in profile, base of vertex immarginate. Proportions between antennal joints 4 : 19 : 8 : 5, 2nd joint incrassate (♂) or relatively gracile (♀), 0.70 - 0.82 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum rather convex, sloping both apicad and laterad, lateral margins not carinate straight or smoothly curvate, basal margin straight, calli weakly developed, disk finely punctate. Scutellum relatively tumid. Proportions between hind tarsal joints 4 : 8 : 9. Male genitalia as in Fig. 69 d - i. Vesica broadening apicad, provided with a serrate lateral lamella.

Darfur: Safaha - Abu Matariq, 1♂, type and 5 paratypes, 30. IV. - 2. V. 1963; 77, 1 paratype; 76 - 81, 1 paratype, 26. III. 1963. At lamp.

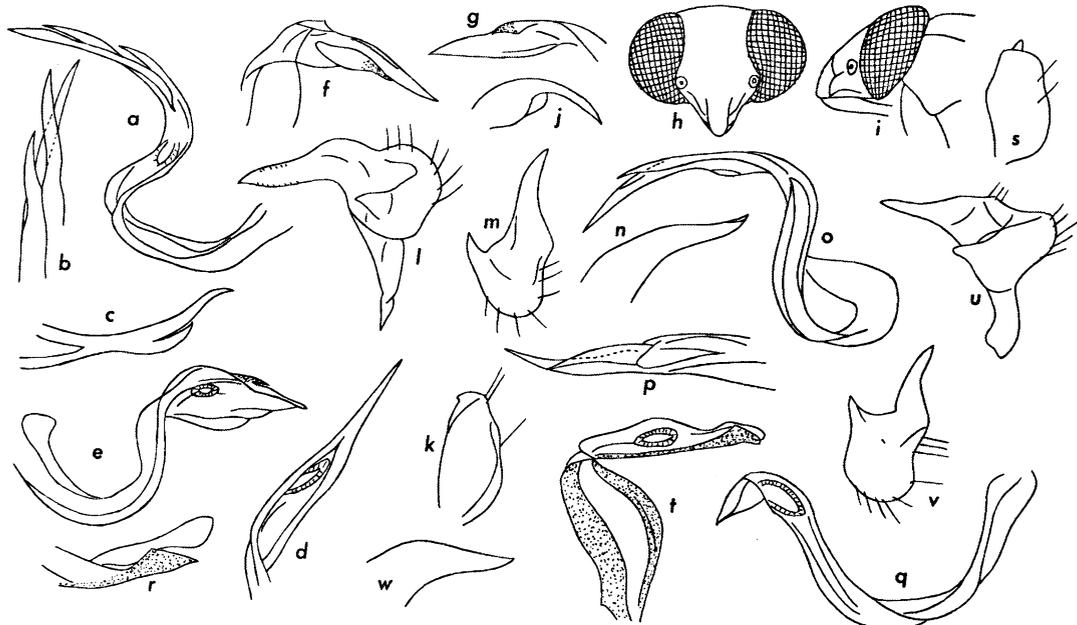


Fig. 70. *Campylomma angustior* Pop. (paratype): a - b vesica. - *C. citrinella* Odh.; c apex of vesica. - *C. plantarum* Ldb.; d same. - *C. hilaris* sp. n.: e vesica. - *Stenocapsus crotonicolus* sp. n.: f - g apex of vesica. - *S. elongatus* (Pop.) (paratype): h head in frontal view; i same from side; j claw; k right, l - m left stylus; n theca; o - p vesica. - *S. minutus* sp. n.: q vesica; r and t apex of same from above (of two exx); d right, u - v left stylus; w theca.

Campylomma Rt.

A large and difficult genus. The number of African species is certainly considerably higher than in the following key.

Key to the African species

- 1 (2) Pronotum, scutellum and elytra with red markings. Apical part of vesica (Fig. 70 e) strongly expanded *C. hilaris*
- 2 (1) Without red markings 3
- 3 (8) Hind femora with finer dark irroration (in *pallida* darkened), spots bearing black bristles not larger than other dots of irroration. Upper surface with distinct silvery pubescence 4
- 4 (5) Larger species, length 2 - 2.5 mm. Hind femora pale with dark irroration. 1st antennal joint of ♂ black *C. indigena* Ldb.
- 5 (4) Smaller species. If length 2 mm., then hind femora heavily darkened 6
- 6 (7) Length 2.0 - 2.2 mm. Hind femora heavily darkened. Ocular index 1.10 - 1.15 (♂) or 1.70 - 1.75 (♀) *C. pallida*
- 7 (6) Length at most 2 mm. Hind femora pale with dark irroration. Ocular index 1.75 (♂) or 1.85 (♀) *C. acaciae*
- 8 (3) Hind femora with larger black spots, the setigerous ones larger than the others. Upper surface without silvery tomentum, although sometimes provided with both darker and paler longer hairs 9
- 9 (12) 1st antennal joint completely black, 2nd bicoloured or totally black 10
- 10 (11) Apex on vesica (Fig. 70 d) simple .. *C. plantarum*

- 11 (10) Apex of vesica bifid (Fig. 70 c) *C. citrinella*
- 12 (9) Antennae pale, sometimes 1st joint and base of 2nd with small dark dots 13
- 13 (16) Apex of vesica with 3 long falcate processes 14
- 14 (15) Vesica slender (Fig. 70 a - b) *C. angustior*
- 15 (14) Vesica robust (Fig. 70 x) *C. montana*
- 16 (13) Vesica with two apical appendages 17
- 17 (18) Vesica strongly expanded at gonopore (Fig. 69 r - s) *C. somalica*
- 18 (17) Vesica different 19
- 19 (20) Apical part of vesica (Fig. 69 u - v) elongately triangular, with 2 somewhat undate processes, one of them minutely dentate *C. imitans*
- 20 (19) Not as above 21
- 21 (22) Apical processes of vesica (Fig. 69 p - q) of equal length *C. mundrica*
- 22 (21) Apical processes of vesica distinctly unequal in length 23
- 23 (24) Darker species (scutellum usually infumed, elytra darker, black tibial spots larger, hair covering of elytra darker). Ocular index 1.3 - 1.6 (♂). The shorter apical branch of vesica (Fig. 69 k - l) remarkably short and blunt *C. zizyphi*
- 24 (23) Pale species. The shorter apical branch of vesica (Fig. 69 j) longer and sharper 25
- 25 (26) Ocular index 1.14 - 1.23 (♂) or 1.9 (♀) *C. impicta*
- 26 (25) Ocular index 0.83 - 1.09 (♂) or 1.4 - 1.6 (♀) *C. unicolor*

Campylomma s. str.

Usually larger species. Hind femora with larg-

ish black spots, the setigerous ones larger than the others. Hair covering of upper surface simple or consisting of both dark and pale hairs (in *imitans* also some smooth whitish hairs present), without a distinct silvery pubescence.

✓ *C. impicta* Wgn.

Apex of vesica as in Fig. 69 j. As I have pointed out previously (LINNAVUORI 1961:21), the antennae of the species are not always uniformly pale, since, especially in the males, small dark spots may exist on the 1st and the base of the 2nd joint, as in *nicolasi* Pt. In the Sudanese material studied, the males of the populations from the Red Sea area always have dark markings on the antennae. I have seen similar specimens also from Arabia and Israel.

3-4, several exx.; 1, several exx.; 6, many exx.; 6-7, many exx.; 2, many exx.; 15, 1 ex.; 17, numerous exx.; 11, 1 ex.; 21, 2 exx.; 46-45, several exx. (unusually small specimens). Common in the northern parts of the Sudan on cultivated fields, but also in natural vegetation on *Acacia*, *Zizyphus* etc. Also at lamp. Eremian (Egypt, Israel, Iran, Arabia).

✓ *C. unicolor* Pop.

Campylomma unicolor POPPIUS 1914: 103. - *Campylomma livida* Rt. s. LINDBERG 1958:120, syn. n.

Very similar to the preceding species (also in genitalia) and differing mainly in the larger eyes, as indicated in the key. The dark markings of the antennae are overemphasized in the original description by POPPIUS: they are, in fact, very faint in ♂ and nearly absent in ♀. Ocular index of the types: 1.09 (♂) and 1.40 - 1.56 (♀). If LINDBERG's identification of *C. livida* REUTER (1884:199) is correct, then of course, this name has priority. *C. livida* is known from Australia, Oceania and E.S. Asia.

Types studied: E. Africa, Kilimatinde, 1 ♀, type, 1 ♀ paratype and 1 ♂ paratype, Claus, Mus. Helsinki.

19, 1 ex.; 9, many exx.; 21, several exx.; 35, several exx.; 35-36, several exx.; 40, several exx.; 33-34, many exx.; 30-31, 1 ex.; 52, several exx.; 72, several exx.; 70-72, 1 ex.; 81-82, 1 ex.; 60, several exx. On *Acacia* and other plants, at lamp. Apparently widely distributed in Africa (E. Africa, Ethiopia, Somalia, Chad, Cameroon, Senegal). *C. impicta* is possibly a northern race of *unicolor*.

✓ *C. zizyphi* Rt.

Closely related to the two preceding species and differing as indicated in the key. Vesica as in Fig. 69 k-1.

10, 1 ex. Previously known from Egypt, I have specimens also from the Red Sea mountain area of Eritrea. On *Zizyphus*.

✓ *C. mundrica* sp. n.

Length 2.5 mm. Like *C. unicolor*, but 1) antennae completely pale, 2) upper surface with both dark and yellowish hairs and 3) vesica (Fig. 69 p-q) much robuster, with falcate apical appendages of equal length.

Ocular index 1.04 - 1.20 (♂) or 1.7 (♀). Male genitalia as in Fig. 69 m-q.

Equatoria: Mundri, 1 ♂, type and 3 paratypes, 24. II. 1963. At lamp.

✓ *C. somalica* sp. n.

Length 2.5 mm. Yellowish ochraceous, with the same infumation on scutellum and elytra as in *zizyphi*, also cuneus

somewhat infumed. Under surface yellowish. Dark spotting of hind femora consisting only of small brown dots, otherwise of the same pattern as in the related species. Black tibial spines arising from distinct dark dots.

Resembling *C. zizyphi*. Hair covering of upper surface consisting of long dark hairs and partly (in elytra) of shorter pale hairs. Ocular index 1.1. Proportions between antennal joints 4:15:?:?, 2nd joint 0.8x as long as diatone. Rostrum extending to hind coxae. Theca (Fig. 69 t) sharp-tipped. Vesica (Fig. 69 r-s) strongly expanded at the gonopore, apex with two sharp processes of unequal length. Other genitalia of the shape common in the group.

Somalia, Hargeisa, 1 ♂, type, 23-28. VI. 1963. At lamp.

✓ *C. imitans* sp. n.

Length 2.5 mm. A small, yellow species. Antennae yellow-brown. Medio-apical angle of corium with an obscure darker spot. Membrane brownish smoky. Legs yellow-brown, hind femora with the common pattern of smaller and larger brown spots, tibiae with black spots and spines.

Elongately ovate. Hair covering brownish, elytra also with some smooth whitish hairs. Eyes large, ocular index 0.95. Proportions between antennal joints 3:14:8:6, 2nd joint 0.9x as long as diatone. Rostrum extending to hind coxae. Theca sharp-tipped (Fig. 69 w). Vesica (Fig. 69 u-v) robust, apical part elongately triangular, provided with two somewhat undate processes, one of them minutely dentate. Other genitalia of the common shape.

French Sudan, 1 ♂, type, in my collection.

✓ *C. montana* sp. n.

Length 2.5 mm. Greyish ochraceous, with a slight greenish tinge. Antennae uniformly pale. Apical part of scutellum, clavus and medio-apical area of corium broadly somewhat infumed, membrane brownish smoky. Under surface greenish. Legs yellow-brown, dark spotting of hind femora of the common type, well developed. Black tibial spines arising from distinct dark spots.

Resembling *C. zizyphi*. Hair covering yellowish. Ocular index 1.14. Proportions between antennal joints 4:16:?:?, 2nd joint nearly as long as diatone. Rostrum extending to hind coxae. Theca (Fig. 69 y) sharp-tipped. Vesica (Fig. 69 x) long and robust, provided with 3 long, falcate apical processes. Other genitalia of the common type.

Equatoria: Kateri - Gilo, 1 ♂, type, 18. III. 1963. Swept from mountain meadows.

Easily recognized by the partly infumed elytra, the long 2nd antennal joint, the shape of the vesica etc. Differs from the following species in the smaller size, the slightly shorter 2nd antennal joint, the infumed elytra and the robuster vesica.

✓ *C. angustior* Pop.

Campylomma angustior POPPIUS 1914: 103. - *C. longicornis* ODHIAMBO 1959: 425-427, syn. n.

The shape of the vesica (Fig. 70 a-b) is characteristic. *C. longicornis* Odh. is apparently a synonym. The types of *angustior* are teneral.

Material studied: E. Africa, Langenburg, 1 ♂, type and 3 paratypes, Fülleborn, Mus. Helsinki.

✓ *C. citrinella* Odh.

Apex of vesica as in Fig. 70 c.

26, 1 ex.; 72, 2 exx. At lamp. Previously known from Uganda.

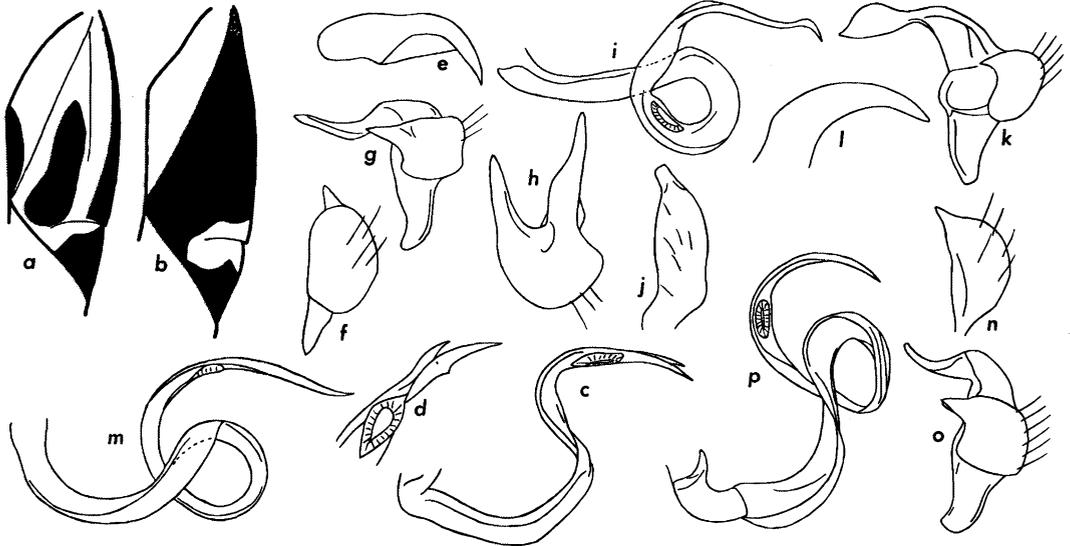


Fig. 71. *Stenocapsus admittens* sp. n.: a elytron. - *Psallomimus insignitus* sp. n.: b same. - *P. ornatus* sp. n.: c - d vesica. - *P. tibialis* sp. n.: e claw; f right, g - h left stylus; i vesica. - *P. lateralis* (Pop.): j right, k left stylus; l theca; m vesica. - *P. bicoloripes plagiatatus* ssp. n.: n right, o left stylus; p vesica.

C. plantarum Ldb.

- ✓ *Campylomma plantarum* LINDBERG 1958: 118 - 120. - *C. subflava* ODHIAMBO 1959: c 429 - 433, syn. n.

Apex of vesica as in Fig. 70 d.

26, several exx.; 21, 1 ex.; 44, 1 ex.; 52, 2 ex.; 72, 1 ex.; 72 - 71 1 ex. Previously known from the Cape Verde Is., Uganda and Kenya. I have seen specimens from Arabia and Ethiopia.

✓ *C. hilaris* sp. n.

Length 2 mm. Orangish ochraceous, 1st antennal joint totally and base of 2nd narrowly black, antennae otherwise yellow-brown. Eyes dark brown. Lateral margins of pronotum and entire scutellum red. Clavus orangish ochraceous, corium red, cuneus pale with apex and inner basal area red, membrane pale brownish, veins red. Under surface pale ochraceous, laterally ± intensely marked with red. Legs pale ochraceous, fore and middle femora with 2 small fuscous apical spots, hind femur apically reddish and heavily spotted with black, the spots ± confluent, tibiae with black spines arising from dark spots.

A small species. Hair covering yellowish. Ocular index 1.5 (♂) or 1.75 (♀). Proportions between antennal joints 3: 13: 9: 7, 2nd joint 0.9 × as long as diatone. Rostrum extending to middle coxae. Vesica (Fig. 70 e) slender, strongly expanded apically. Theca sharp-tipped. Other genitalia of the common type.

15, 1 paratype; 52, 2 paratypes; Equatoria: Juba, 1 ♂, type and several paratypes, 27. II. - 2. III. 1963; 30 km. N. of 71, several paratypes. South Yemen: 131, 1 paratype. On *Tamarindus indicus* and at lamp.

✓ Subgenus *Sthenaromma* subgen. n.

Usually small species. Hind femora with finer

dark irroration, the setigerous spots not larger than the other dots of irroration. Upper surface with distinct silvery pubescence besides the common hair covering.

Type: *Campylomma acaciae* Lv.

To this subgenus belongs also *Campylomma indigena* Ldb. from the Cape Verde Is.

- ✓ *C. (Sthenaromma) acaciae* Lv. - 6, numerous exx.; 7 - 8, several exx.; 17, numerous exx.; 10, 1 ex.; 19, several exx.; 19 - 18, 1 ex.; 14, several exx.; 29, several exx.; 36 - 40, 1 ex.; 35, several exx.; 81 - 82, many exx.; 76 - 81, several exx. On *Acacia*. At lamp. Eremian (N. Africa, Chad, Isreal, Ethiopia, Somalia, Arabia).

✓ *C. (Sthenaromma) pallida* (Wgn.), comb. n.

Sthenaropsis pallida WAGNER 1957: 94 - 95.

- 6, 1 ex.; 2, (WAGNER 1963: 484); 9, 1 ex.; 21, 1 ex. On *Acacia*. At lamp. Eremian (Iran, Eritrea).

✓ *Stenocapsus* Bgr. (= *Alluaudiella* Pop.)

Additions to the original description (POPPIUS 1914:97):

Dark coloured, often blackish species, with 1st and 2nd antennal joints black, hind femora apically dark brown, tibial spines black, hind tibiae often with black dots. Hair covering yellowish, sometimes also silvery hairs present. Head (Fig. 69 h - l) short and broad as in *Campylomma*, in apical view about 1.3 × as broad as high, in lateral view about 1.2 × as high as long, tylus not prominent but visible from the side, eyes very large (♂) extending laterally to

ventral margin of head; base of vertex sharp, but not upturned as in many species of *Sthenarus*. Pronotum strongly transverse, flattish, strongly broadening caudad, lateral margins straight, disk distinctly microsculptured, finely punctate and rugose and \pm shagreened. Elytra finely punctate. 3rd joint of hind tarsi distinctly shorter than 2nd, claws as in Fig. 70 j, pseudarolia small. Male genitalia of the same type as in *Campylomma*.

Differing from *Sthenarus* Fb.: 1) head much shorter, eyes larger and 2) 3rd joint of hind tarsi shorter than 2nd (at least as long as 2nd in *Sthenarus*). Close to *Campylomma*, but differing in the dark colouring, the darker hind femora (although the *Campylomma* pattern sometimes visible in *S. elongata*), in the microsculptured pronotum, and in the longer antennae.

All African species of *Sthenarus* examined by me belong either to *Stenocapsus* or to the following genus. The occurrence of *Sthenarus* in tropical Africa thus seems dubious.

✓ *S. leucochilus* (Rt.), comb. n.

✓ *Sthenarus leucochilus* REUTER 1905: 8. - *S. sordidus* ODHIAMBO 1959 c: 435 - 438, syn. n.

Near 79, 2 exx.; 72, 1 ex.; 77, 1 ex.; 78 - 79, several exx. Cape Verde Is., E. Africa, Madagascar, Seychelles, Réunion.

✓ *S. crotonicolus* sp. n.

Length 2.75 - 3.25 mm. Much like *leucochilus*, but robusiter. Shiny black. 1st antennal joint often slightly paler, 3rd and 4th joints pale, and basal margin of vertex also pale. Base of cuneus narrowly pale. Membrane blackish. Coxae dark. At least middle and hind femora blackish with apex and base narrowly brownish. Also fore femora \pm embrowned, in pale specimens dark, yellowish brown. Tibiae yellow-brown, hind tibiae often considerably darkened, spines black, arising from distinct dark dots.

Parallel-sided (δ) or ovate (\varnothing). Hair covering as in *leucochilus*. Ocular index 1.0 - 1.9 (δ) or 1.58 - 2.00 (\varnothing). Proportions between antennal joints 4 : 15 : 9 : 7. Pronotum distinctly microsculptured. Rostrum extending to apex of hind coxae. Genitalia much as in *leucochilus*. Apex of vesica (Fig. 70 f - g) sharp-tipped and provided with a short claw-like process.

Ethiopia, Bellela forest, 1 δ , type and several paratypes, 13 - 14. VI. 1963; 116, several paratypes; near 115, 1 paratype. On *Croton macrostachys*.

Easily recognized by the dark legs etc.

✓ *S. guineensis* (Pop.), comb. n.

Sthenarus guineensis POPPIUS 1914: 96.

63 - 62, 1 ex. W. Africa, Uganda.

✓ *S. elongatus* (Pop.)

Colouring rather variable. Ocular index 1.08 - 1.25 (δ) or 1.8 (\varnothing). Proportions between antennal joints 6 : 20 : 9 : 6, 2nd joint nearly 0.9 \times as long as basal width of pronotum. Claw as in Fig. 70 j. Proportions between hind tarsal joints 10 : 20 : 14. Male genitalia as in Fig. 70 k - p.

Types studied: E. Africa, Nairobi, 1 δ , type and 1 δ paratype, Alluaud, Mus. Helsinki. I have specimens from Ethiopia, 116.

✓ *S. minutus* sp. n.

Length 1.5 - 2.0 mm. Black. Eyes reddish brown. Antennae yellow-brown, apex of 2nd joint and the apical joints \pm embrowned. Elytra dark brown, costal margin and cuneus blackish. Membrane dark brown, veins nearly concolorous. Femora dark brown, extreme apex paler. Tibiae and tarsi pale ochraceous, the former with black bristles, those of hind tibiae arising from dark dots.

A small, ovate species, body about twice as long as broad. Upper surface with longer brownish hairs and silvery adpressed pubescence, the latter well visible, especially in elytra. Head short and broad, ocular index 1.1 - 1.5 (δ) or 1.64 - 1.75 (\varnothing). Proportions between antennal joints 2.5 : 10.5 : 5.5 : 5 (δ) or 3 : 10.5 : 7 : 5 (\varnothing), 2nd joint 0.67 - 0.80 \times as long as diatone. Rostrum extending to hind coxae. Male genitalia as in Fig. 70 q - w.

70 - 72, 3 paratypes; Kapoeta - Boma, 1 δ , type and 4 paratypes, 26 - 27. III. 1963. Somalia, 125, 4 paratypes. At lamp.

Easily recognized by the small size.

✓ *S. discoidalis* (Pop.), comb. n.

Sthenarus discoidalis POPPIUS 1914: 95 - 96.

Material studied: E. Africa, Escarpment, Wa-Kikouyou, 1 \varnothing , type Alluaud, Mus. Helsinki.

✓ *S. admittens* sp. n.

Length 2 mm. Head black, base of vertex broadly yellow. 1st and 2nd antennal joints black, others pale. Pronotum totally black (δ) or anteriorly broadly yellow (\varnothing). Scutellum black, with 2 yellow basal spots. Elytra (Fig. 71 a) greyish brown, commissural margin of clavus, a longitudinal central band on corium, costal margin and cuneus (excl. basal margin) infuscate; membrane dark smoky, veins paler. Under surface dark brown. Legs yellow, fore and middle femora with some dark apical spots, sometimes also somewhat infuscate apically, hind femora mostly embrowned and provided with black spots, tibiae with black spines arising from distinct dark spots, tarsi apically embrowned.

Small and ovate, body nearly 3 \times as long as broad. Upper surface with yellowish and darker longer hairs and shorter silvery transverse pubescence. Head short and broad, ocular index 0.88 (δ) or 1.6 - 1.8 (in *discoidalis* 2.0). Eyes (δ) very large. Proportions between antennal joints 3 : 13 : 9 : 6, 2nd joint distinctly shorter than diatone. Pronotum distinctly microsculptured. Rostrum extending to middle coxae. Legs rather short. Male genitalia in Fig. 72 a - f.

23, 1 \varnothing paratype; Equatoria: Juba - Terakeka, 1 \varnothing , type, 2 - 6. III. 1963; 66 - 64, 1 δ paratype; 107, 1 \varnothing paratype.

Resembling *discoidalis* in the bicoloured pronotum, but differing in the smaller and broader body, the black 1st antennal joint, the dissimilarly coloured elytra, the shorter legs etc.

✓ *Psallomimus* Wgn.

Psallomimus WAGNER 1951: 149 - 151. Type: *P. bicoloripes* Wgn.

Pseudosthenarus ODHIAMBO 1958 b: 241 - 246 nec POPPIUS 1914: 98.

Odhiamboella SCHUH 1974: 175. Type: *Pseudosthenarus solani* Odg., syn. n.

The genus differs from *Sthenarus* and *Pseudo-sthenarus* Pop. in the structure of the male geni-

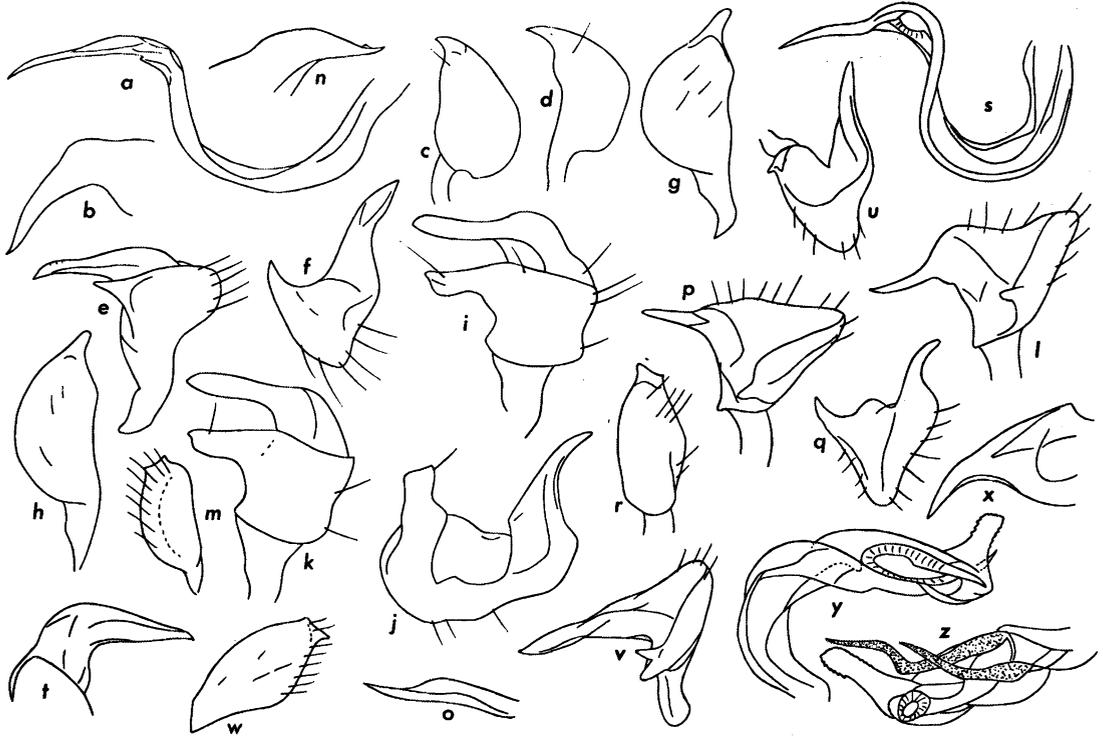


Fig. 72. *Stenocapsus admittens* sp. n.: a vesica; b theca, c - d right, e - f left stylus. - *Plsalomimus bicoloripes* Wgn.: g right, i - j left stylus. - *P. bicoloripes* ssp. *plagiatus* ssp. n.: h right, k left stylus. - *Auchenocrepis gracilis* sp. n.: l left, m right stylus; n theca; o apex of vesica. - *Tuponia adenica* sp. n.: p - q left, r right stylus; s vesica; t theca. - *T. platycranoides* sp. n.: u - v left, w right stylus; x theca; y - z vesica.

talia: Vesica unusually long and slender, strongly twisted, with the apical part long, falcate and usually simple (exception *P. ornatus*); theca long and curvate. Moreover the third hind tarsal joint has a tendency to be shortened, often being shorter than the 2nd joint or sometimes equal in length.

The following differences separate the genus from *Stenocapsus*: 1) head longer, 2) base of vertex distinctly upturned, 3) pronotum narrower and usually less strongly microsculptured, 4) claws (Fig. 71 e) with larger pseudarolia and 5) the structure of the male genitalia.

A similar strongly coiled vesica is found in two South African genera too: *Coatonocapsus* Schuh and *Capecapsus* Schuh. Both have a double hair covering on the dorsum consisting of erect dark hairs and decumbent, wooly, sericeous hairs. The former genus also differs in the larger and more elongate body and the dark mottling or spotting on the upper surface, the

latter in the fleshy convergent arolia of the claws.

✓ *P. ornatus* sp. n.

Fig. 65. Length 3 mm. Shiny black. Base of vertex medially pale. Antennae black. Elytra yellow-brown, corium with a large triangular black area, apex of cuneus also broadly black. Membrane and veins dark brown. Legs black, apical half of fore femora, base of fore tibiae, apex of middle femora and apex and base of middle tibiae yellow-brown, tibial spines black.

Ovate, about $2.1 \times$ as long as broad. Hair covering yellowish in the pale areas, otherwise brownish. Head $0.85 \times$ as broad as pronotum; tylus distinctly visible in lateral view, frons rather swollen, base of vertex distinctly upturned, ocular index 1.45 (δ) or 2.12 (\varnothing). Antennae gracile, proportions between antennal joints 4 : 20 : 15 : ?, 2nd joint slightly thickening apicad, 0.74 (δ) or 0.67 (\varnothing) \times as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum twice as broad as long, finely punctate and shagreened, with 2 faint median depressions. 3rd joint of hind tarsi distinctly shorter than 2nd, proportions between joints 8 : 17 : 14. Claws as in *P. solani* Odh. Male genitalia as in *solani*, but vesica (Fig. 71 c - d) shorter and dissimilarly curvate, with a bifid apex.

21, 1 ♂ paratype; Kordofan: Tendelti - Umm Ruwaba, 1 ♀, type, 25. I. 1963.

Resembling *P. solani* (Odh.) (Uganda), but smaller, with differently coloured elytra and legs, etc.

✓ *P. insignitus* sp. n.

Length 3 mm. Shiny black. Basal margin of vertex narrowly pale yellow. Antennae black, 3rd and 4th joints yellow. Scutellum with 2 yellowish basal spots. Elytra (Fig. 71 b) with clavus pale greyish ochraceous, corium and cuneus, excl. a pale roundish subapical lateral spot, dark fuscous, membrane dark. Legs pale yellow, apical two-thirds of hind femora black, tibiae immaculate, spines black.

Relatively robust, narrowly ovate. Upper surface with long yellowish hairs and in elytra also with silvery adpressed pubescence. Head $0.74 \times$ as broad as pronotum, base of vertex sharp, less upturned than in the other species, ocular index 2.0. Proportions between antennal joints 5.5 : 21 : 16 : 7, 2nd joint $0.78 \times$ as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum twice as broad as long, with rather distinct microsculpturing, 3rd joint of hind tarsi distinctly shorter than 2nd.

Equatoria: Kateri - Gilo, 1 ♀, type and 1 ♀ paratype, 18. III. 1963.

Resembling *P. solani*, but much smaller, dissimilarly coloured etc.

✓ *P. tibialis* sp. n.

Length 3.5 mm. Shiny black. Base of vertex and 3rd and 4th antennal joints pale. Membrane and veins blackish. Coxae and femora pale yellow, fore and middle femora dorso-apically and hind femora more broadly darkened. Tibiae and spines black. Tarsi pale, apically darker.

Ovate, slightly more than twice as long as broad. Hair covering longish, brownish. Upper surface distinctly microsculptured as in the preceding genus. Anteclypeus relatively weakly prominent, base of vertex sharp, ocular index 1.08 (♂) or 1.55 (♀). Proportions between antennal joints 6 : 20 : 9 : 6 (♂) or 5 : 17 : 8 : 6 (♀), 2nd joint rather incrassate, as long as diatone (♂) or thickening apicad and slightly shorter than diatone (♀). Rostrum extending to middle coxae. Pronotum distinctly transversely wrinkled and microsculptured, convex. 2nd and 3rd joints of hind tarsi of equal length. Claws as in Fig. 71 e. Male genitalia as in Fig. 71 f - i.

Equatoria: Yei-Maridi, 1 ♂, type and numerous paratypes, 13 - 15. IV. 1963.

Easily recognized, e.g. by the colouring of the legs.

✓ *P. lateralis* (Pop.), comb. n.

Sthenarus lateralis POPPIUS 1914: 95.

3rd and 2nd hind tarsal joints of equal length. Male genitalia as in Fig. 71 j - m, hypophysis of left stylus with a subapical expansion, apical part of vesica straight in lateral aspect.

Material studied: Somalia, Hargeisa, 1 ♂, 23 - 28. VI. 1963. Endemic to Somalia.

✓ *P. bicoloripes* Wgn.

Psallomimus bicoloripes WAGNER 1951: 150 - 151.

Styli as in Fig. 72 g, i - j. Penis as in the following subspecies.

17, 1 ex.; Jebel Elba, Wadi Kansisrob (WAGNER 1951: 150 - 151). Endemic.

✓ *P. bicoloripes* (Wgn.) ssp. *plagiatus* ssp. n.

Smaller than the nominate form, length 2.5 mm. Paler. Only basal quarter of 2nd antennal joint black (basal half

in the nominate form). General colouring blackish brown. Base of vertex paler. Elytra \pm dark greyish brown, claval suture and tip and lateral margin of cuneus paler; membrane brownish smoky, with an irregular, hyaline transverse area. Genitalia (Figs. 71 n - p, 72 h, k as in the nominate form, but right stylus slightly narrower.

Measurements: Ocular index ($\delta\delta$) 1.78 - 2.0. Proportions between antennal joints 3 : 15 : 11 : 8, 2nd joint $0.64 - 0.77 \times$ as long as basal width of pronotum.

Equatoria: Kapoeta - Boma, 1 ♂, type and 4 paratypes, 26 - 27. III. 1963.

Resembling *P. lateralis* (Pop.), but base of vertex with a distinct transverse depression, hind tibiae with only small dark dots, male genitalia different, etc.

Auchenocrepis Fb.

✓ *A. alboscutellata* Pt. - 1, several exx.; 2, several exx.; 7, several exx.; 9, many exx.; 19, 2 exx. On *Tamarix*. Also at lamp. Eremian (N. Africa, Israel, Cyprus, Iran, Eritrea).

✓ *A. gracilis* sp. n.

Length 2.7 mm. Like *A. similis* Wgn. (Canary Is.), but 1) ocular index 1.17 - 1.27 (♂) or 1.78 (♀) (in *similis* 1.9 (♂) or 2.0 - 2.1 (♀)), 2) 2nd antennal joint 1.3 - 1.4 (♂) or 1.7 (♀) \times as long as 3rd (in *similis* 1.9 (♂) or 1.58 (♀) \times) and 3) pronotum considerably narrower, $1.57 \times$ as broad as long, basally $1.2 \times$ as broad as diatone (in *similis* $1.35 \times$) and lateral margins more strongly insinuated.

Proportions between antennal joints 5 : 21 : 15 : 10. Male genitalia as in Fig. 72 l - o, curvature of vesica as in *A. minutissima* (Rb.).

South Yemen, near Lahej, Wadi Kebir, 1 ♂, type and 1 ♀ paratype, 9 - 15. VII. 1963. Al Husaini, near Lahej, several paratypes, 26. II. 1937, Scott and Britton, British Museum. On *Tamarix*.

Tuponia Rt.

✓ *T. (s. str.) tamaricicola* Ldb. - 2, many exx.; 19, 1 ex. On *Tamarix*. Eremian (Egypt, Israel, Eritrea, Arabia).

✓ *T. (s.str.) adenica* sp. n.

Length 2.5 - 2.75 mm. Whitish yellow, sometimes with a fulvous tinge. Eyes dark brown. Antennae yellowish. Base of scutellum yellow, medially \pm infumed. A broad, faint reddish or fulvous band along claval suture, a distinct oblique band from apex of clavus to apical lateral angle of corium, the latter band medially fuscous but turning red laterally, cuneus pale, membrane smoky, veins pale. Legs pale, immaculate, tibial spines pale.

Relatively robust. Hair covering whitish. Eyes large, head about $0.8 \times$ as broad as pronotum, ocular index 0.82 - 0.86 (♂). Antennae long, proportions between joints 4 : 25 : 20 : 11, 2nd joint as long as basal width of pronotum. Rostrum extending beyond hind coxae. Calli of pronotum indistinct. Male genitalia as in Fig. 72 p - t.

South Yemen: Lahej - Dhala road, 1 ♂, type and 7 ♂ paratypes, 9 - 15. VII. 1963. On *Tamarix*.

Easily recognized by the small size, the large eyes and the genitalia. Most resembling *T. persica* Wgn., but eyes much larger and vesica thicker.

✓ *T. (s.str.) lethierryi* Rt. ssp. *vulnerata* Lv.

WAGNER (1963d:17) regarded *vulnerata* as a mere colour

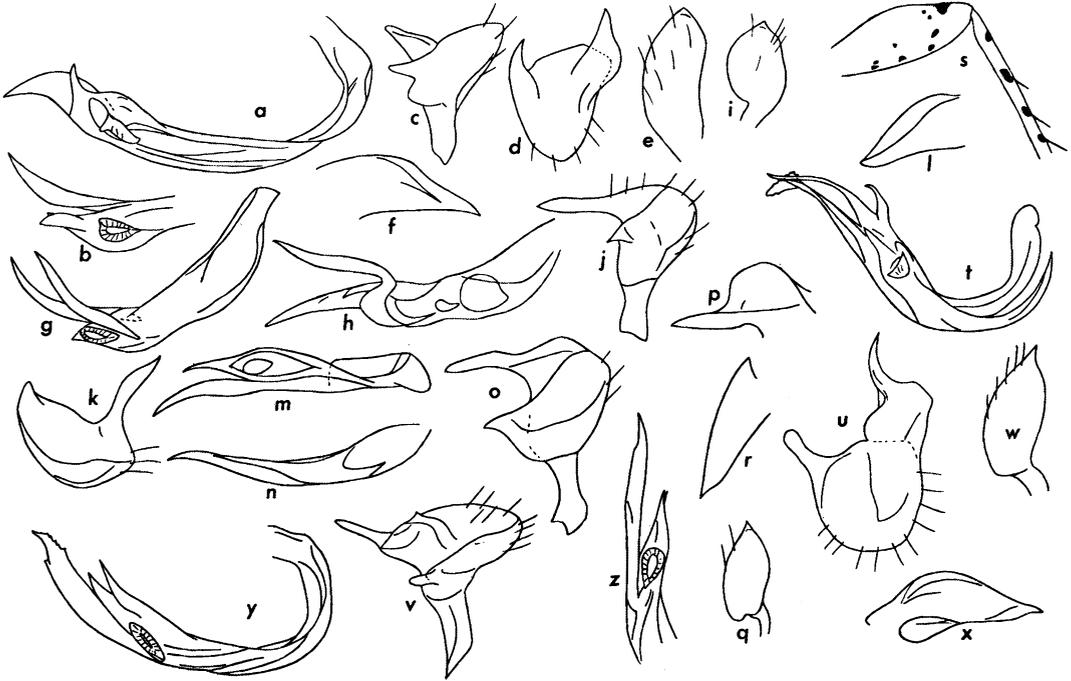


Fig. 73. *Tuponia somalica* sp. n.: a - b vesica; c - d left, e right stylus; f theca. - *T. diversa* sp. n.: g - h vesica; i right, j - k left stylus; l theca. - *T. ornatipes* sp. n.: m - n vesica; o left stylus; p hypophysis of same from above; q right stylus; r theca; s hind leg. - *Aphaenophyes juniperinus* sp. n.: t vesica; u - v left, w right stylus; x theca. - *Eurycranella nubica* sp. n.: y - z vesica.

variety of *lethierryi*. It is, however, a separate subspecies, which differs as follows: 1) somewhat bigger, 2) head $0.75 - 0.85$ (δ) or $0.71 - 0.76$ (φ) \times as broad as pronotum (in the other subspecies about $0.7 \times$), 3) eyes much larger (see the table) and 4) cuneus and membranal veins pale and, especially in δ an oblique transverse fuscous band present in apical part of clavus and corium (as in ssp. *carayoni* Wgn.).

The following table gives the ocular indices of the different forms of the *lethierryi* complex:

<i>lethierryi</i> Rt.	1.40 - 1.52 (δ), 1.73 - 1.89 (φ).
<i>colorata</i> Pop.	1.60 - 1.70 (δ), 2.00 - 2.10 (φ).
<i>carayoni</i> Wgn.	1.25 - 1.47 (δ), 1.60 - 1.73 (φ).
<i>vulnerata</i> Lv.: Turkey (1 δ)	1.33
Israel	1.17 - 1.30 (δ), 1.60 - 1.90 (φ).
Egypt	1.11 - 1.25 (δ), 1.50 - 1.80 (φ).
Sudan	0.93 - 1.25 (δ), 1.41 - 1.63 (φ).

The Sudanese populations of *vulnerata* have the largest eyes and most distinct fuscous band on the elytra.

1, many exx.; 2, many exx.; 7, several exx.; 35, 3 exx. On *Tamarix* and at lamp. Ereman.

✓ *T. (Chlorotuponia* Wgn.) *longipennis* Hv. ssp. *guttata* Wgn.

The *longipennis* complex was treated by me previously (1961:28 - 30). Later WAGNER (1964:192 - 220) raised the forms treated by me as geographical subspecies to species rank. The problem can be solved finally only by studying a sufficiently large material from the areas lying between the distribution centres of *longipennis* (the Canary Is.),

guttata (Israel, Egypt) and *viridisparis* Ldb. (the Cape Verde Is.) and, maybe, also by breeding experiments. The following comments may be made on the differences between *longipennis* and *guttata* mentioned by WAGNER:

1) Hair covering (*longipennis* with black and pale hairs, *guttata* with only pale hairs): The hair covering of *guttata* may be totally pale, but there are also specimens with distinct dark hairs, especially in the apical part of the corium and in the cuneus. Even in *longipennis* and *viridisparis* the dark hairs are not black and there is no sharp difference in the type of the hair covering in the different forms.

2) Colouring: Variability is also found in the colouring. In *longipennis* the costal margin of the elytra may exceptionally be pale, while I have seen a *guttata* male from the Sudan with uniformly green elytra, as is usual in *longipennis*.

Variability of ocular index in *guttata*:

Egypt and Israel	1.30 - 1.33 (δ), 2.35 (φ).
Sudan	1.22 - 1.27 (δ), 2.37 (φ).
Ocular index in <i>longipennis</i>	1.20 - 1.23 (δ), 2.22 (φ).
- - - <i>viridisparis</i>	1.13 - 1.17 (δ), 2.40 (φ).

1, 3 exx.; 9, 1 ex.; 23, 1 ex.; 21, 1 ex.; 35, 1 ex. On *Tamarix* and at lamp. Ereman (Egypt, Israel, Arabia, Eritrea).

✓ *T. (Chlorotuponia) platycranoides* sp. n.

Length δ 3.25 - 4.2 mm. Green. Head and anterior margin of pronotum yellowish. Antennae yellowish. Scutellum and costal margin sometimes with yellowish tinge. Legs yellowish, tibiae immaculate, spines black.

Long and slender, about $4.7 \times$ as long as broad at base of pronotum. Hair covering pale. Head short and broad, $0.8 - 0.9 \times$ as broad as basal width of pronotum. Eyes prominent, vertex strongly decliving apical, ocular index $1.40 - 1.67$. Proportions between antennal joints $5 : 28 : 15 : 10$, 2nd joint about $1.12 \times$ as long as basal width of pronotum. Rostrum extending to near hind coxae. Elytra long and slender, extending far beyond abdomen. Proportions between hind tarsal joints $7 : 14 : 15$. Male genitalia as in Fig. 72 u - z. Vesica much as in *longipennis*, but the outer margin of the dentate apical lobe completely rounded basally (forming a blunter or sharper angle in the *longipennis* complex), the apical falcate process straight basally, then abruptly bent subapically and the subapical falcate appendage somewhat longer.

Yemen, San'a, Bir-el-Azab, 1 ♂, type and many ♂ paratypes, 12. I. 1938, Scott and Britton, British Museum. Paratypes also in my collection.

Related to *longipennis*, but easily distinguished by the large size, the gracile body (superficially somewhat resembling the genus *Platyeranus* Fb.) and by the shape of the vesica.

T. (Chlorotuponia) kermanensis Wgn. - 6, numerous exx. On *Salsola* sp. Eremian (Iran).

✓ *T. (Chlorotuponia) concinnoides* Lv. - Eritrea, 12, many exx. On *Tamarix*. Eremian (Israel, Egypt), certainly to be found also on the Red Sea Coast of the Sudan.

✓ *T. (Chlorotuponia) somalica* sp. n.

Length $1.7 - 1.9$ mm. A small green species. Eyes dark brown. Antennae yellowish. Elytra with two faint fulvous transverse bands or uniformly green. Legs yellowish brown, hind femora with small brownish spots on under surface. Tibiae with distinct black spots, spines also black.

Elongately ovate or nearly parallel-sided. Hair covering pale. Head $0.7 - 0.8 \times$ as broad as pronotum. Ocular index $1.8 - 2.0$ (♂) or 2.77 (♀). Proportions between antennal joints $3.5 : 18 : 11 : ?$, 2nd joint $0.88 \times$ as long as basal width of pronotum. Rostrum extending to middle coxae. Male genitalia as in Fig. 73 a - f.

Somalia, Daragodleh, 1 ♂, type and several paratypes, 25 - 27. VI. 1963. On *Tamarix*.

Near *T. concinnoides* Lv., but smaller and vesica considerably longer with the thinner apical branch shorter and dissimilarly curved.

✓ *T. (Chlorotuponia) concinna* Rt.

The Sudanese specimens resemble Egyptian ones in the ocular index (see LINNAVUORI 1964: 333).

1, several exx.; 6, 1 ex.; 2, many exx.; 9, several exx. On *Tamarix*. Eremian (N.Africa).

✓ *T. (Chlorotuponia) diversa* sp. n.

Length $1.5 - 1.9$ mm. Pale greenish. Head with yellowish lateral arcs and a median basal spot on vertex. Antennae yellowish. Elytra with traces of 2 fulvous transverse bands. Legs greenish. Hind femora nearly immaculate. Tibiae with dark spots, spines pale.

Very small, parallel-sided. Hair covering pale. Head $0.80 - 0.84 \times$ as broad as pronotum, ocular index 1.38 (♂) or 2.17 (♀). Proportions between antennal joints $3 : 12 : 8 : 6$ 2nd joint $0.70 - 0.75 \times$ as long as basal width of pronotum. Rostrum extending to middle coxae. Male genitalia as in Fig. 73 g - l.

Eritrea, Dogali, 1 ♂, type and many paratypes, 27 - 30. V. 1963. On *Tamarix*.

As *T. minutissima* Lv., but eyes larger and vesica dissimilarly shaped.

✓ *T. (Chlorotuponia) ornatipes* sp. n.

Length $1.4 - 1.7$ mm. Green. Head whitish, frons with yellowish lateral arcs, vertex with a large yellowish median basal spot and a small triangular spot of the same colour near either eye. Antennae pale yellowish. Elytra green, sometimes with more intensely green roundish spots, membrane smoky. Femora whitish green, hind femora (Fig. 73 s) with apex fulvous and provided with some smaller fulvous spots and a larger subapical spot bearing a black seta; tibiae white, with large black spots, spines black, tarsi whitish.

Small, elongately ovate, Hair covering pale. Head about $0.8 \times$ as broad as pronotum. Ocular index 1.57 (♂) or 2.8 (♀). Proportions between antennal joints $3 : 14 : 8 : 5$, 2nd joint 0.75 (♂) or 0.87 (♀) \times as long as basal width of pronotum. Rostrum extending to hind coxae. Male genitalia as in Fig. 73 m - r.

Eritrea, Dogali, 1 ♂, type and 4 paratypes, 27 - 30. V. 1963. Egypt, Cairo, 1 paratype, 3. IX. 1962. On *Tamarix*.

Near *T. minutissima*, but easily distinguished by the colouring of the hind femora.

Aphaenophyes Rt.

✓ *A. richteri* (Wgn.) - 1, many exx.; 2, many exx.; 19, 2 exx. On *Tamarix*. Eremian (N.Africa - Iran).

✓ *A. richteri* (Wgn.) ssp. *elongatus* ssp. n.

Differs from the nominate form as follows: 1) bigger, length ♂ 3.5 mm., ♀ 3 mm., 2) antennae longer in ♂, proportions between joints $5 : 23 : 17 : 10$, 2nd joint $0.96 - 1.04 \times$ as long as basal width of pronotum ($0.88 - 0.88 \times$ in the nominate form; in ♀ $0.82 - 0.88 \times$ as long, in both forms) 3) eyes somewhat smaller, 4) elytra considerably longer, in ♂ 5.3 , in ♀ $4.57 \times$ as long as broad (total length: breadth at middle of clavus-corium) (in the nominate form $3.9 - 4.3 \times$ (♂) or $3.5 - 3.9 \times$ (♀)); cuneus $1.78 - 1.80$ (♂) or $1.5 - 1.75$ (♀) \times as broad (in the nominate form 1.57 (♂) or $1.33 - 1.57$ (♀) \times).

Yemen, 1 ♂, type and 3 paratypes, in my collection.

✓ *A. juniperinus* sp. n.

Length $2.5 - 2.75$ mm. Uniformly green, rarely (♀) pale rose. Antennae yellow-brown. Legs greenish yellow, tibiae immaculate, spines black.

Parallel-sided (♂) or elongately ovate (♀), about $2.5 \times$ as long as broad. Hair covering dark. Head about $0.76 \times$ as broad as pronotum, ocular index $2.00 - 2.37$ (♂) or $2.50 - 2.57$ (♀). Proportions between antennal joints $4 : 21 : 12 : 9$, 2nd joint 0.76 (♂) or 0.9 (♀) \times as long as basal width of pronotum. Rostrum extending beyond hind coxae. Proportions between hind tarsal joints $6 : 12 : 14$. Male genitalia as in Fig. 73 t - x, vesica readily distinguished from those of other species of the genus.

Eritrea, Addi Caleh, 1 ♂, type and many paratypes, 31. V. 1963. Ethiopia 101, 1 paratype. On *Juniperus procera*.

Euryceranella Rt.

✓ *E. geocorceps* Rt. - 1 several 1 exx.; 2, 1 ex.; 19, 2 exx. Eremian (N. Africa, Israel, Arabia, Eritrea).

✓ *E. nubica* sp. n.

Length $2.1 - 2.25$ mm. Head pale yellow or greenish. Eyes greyish brown. Antennae yellowish. Pronotum pale green or \pm fulvous with pale lateral margins. Scutellum fulvous with a pale triangular apical spot on either side. Elytra

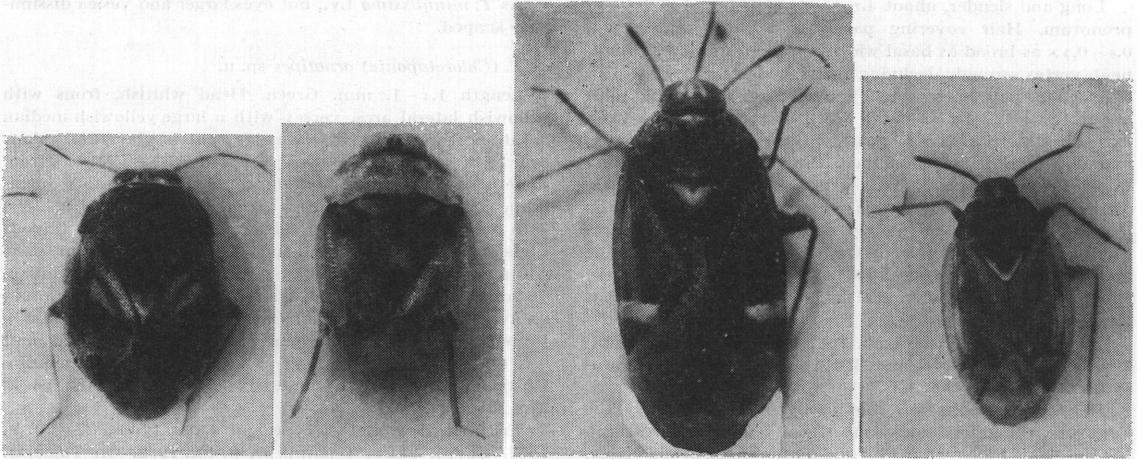


Fig. 74. From left: *Isometopus lunaris* sp. n., *Magnocellus scutellaris* sp. n., *Myiomma juniperina* sp. n. and *M. montana* sp. n.

whitish, clavus and inner part of corium with round green spots and with faint traces of 2 fulvous transverse bands; cuneus whitish with a large fulvous apical spot; membrane whitish, apex and some basal spots smoky, veins white. The green spotting of elytra sometimes absent, and the fulvous bands then more distinct. Under surface greenish. Legs whitish, hind femora with very obscure brownish spots, tibiae with small black spots and black spines.

Resembling *E. nupta* (Lv.). Hair covering pale. Head about $0.9 \times$ as broad as pronotum. Ocular index $1.33 - 1.34$ (δ). 2nd antennal joint nearly $0.8 \times$ as broad as basal width of pronotum. Rostrum extending to hind coxae. Vesica as in Fig. 73 y-z, apical branches of unequal length. Other genitalia much as in *nupta*.

Northern Province: Debeira, 1 δ , type and 1 δ paratype, 7-13. X. 1962; 2, 1 δ paratype. On *Tamarix*.

II. Isometopidae

The taxonomy of *Isometopidae* of Africa has recently been treated by CARVALHO (1951), HOBERLANDT (1952, 1959), SMITH (1967) and SLATER & SCHUH (1969). These authors have described several species from Ghana and Southern Africa, one from the Congo and one from Uganda. The descriptions are complete and since the formerly known species differ much from the following new Ethiopian and Sudanese forms e.g. in the colour pattern, a closer comparison between them is unnecessary.

Isometopus Fb.

In the following new species the ocelli touch the eyes. SMITH (1967:41) distinguishes the genus *Letaba* Hesse from *Isometopus* on the base of the location of the ocelli:

Ocelli touching eyes *Letaba*
Ocelli not touching eyes *Isometopus*

But in some Palearctic species of *Isometopus*, e.g. in *I. heterocephalus* Pt., the ocelli touch the

eyes too. Consequently the generic status of *Letaba* seems to me dubious and I prefer to regard it as a synonym of *Isometopus*, as CARVALHO (1951:391) has done.

✓ *I. pictus* sp. n.

Length 2.75 mm., breadth 1.65 mm. Shiny. Yellow-brown. Pronotum with a faint brownish longitudinal median stripe. Base and a broad median band of scutellum dark fuscous forming a dark T-shaped figure. Elytra with a small roundish basal spot and a large irregular spot in medioapical area of corium dark fuscous, cuneus pale, membrane dark brown. Dorsum pale with dark segmental margins. Under surface mainly dark brown.

Broadly ovate, $1.54 \times$ as long as broad. Hair covering short and dark. Head $0.45 \times$ as broad as pronotum, flat and densely punctate, in apical view $1.33 \times$ as broad as high, structure otherwise as in Fig. 75 a; ocular index 1.27, ocelli small. Pronotum (Fig. 75 e) $2.7 \times$ as broad as long, lateral margins strongly rounded and converging in apical half, nearly parallel basally; basal margin strongly insinuated medially; disk convex, coarsely and densely punctate, callal area only sparsely punctate. Scutellum as broad as long, rather tumid, densely punctate. Elytra as long as abdomen, clavus, corium and cuneus coarsely and densely punctate. (Antennae, legs and rostrum absent in the specimen studied).

Ethiopia, near Nazareth, 1 η , type, 20-21. VI. 1963.

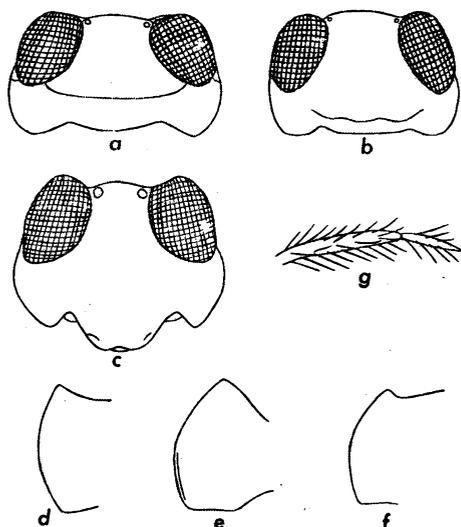


Fig. 75. *Isometopus pictus* sp. n.: a head, apical view; e pronotum. — *I. lunaris* sp. n.: c head, apical view. — *I. niger* sp. n.: b same; d pronotum (♀); f same (♂); g antenna (♂).

✓ *I. lunaris* sp. n.

Fig. 74. Length 2.75 mm., breadth 1.4 mm. Shiny. Head black, upper part of frons and vertex ochraceous, extreme lateral margins of genae whitish. Antennae dark yellowish brown, 2nd joint somewhat paler with extreme tip whitish. Pronotum black, extreme lateral margins slightly paler. Scutellum black, apex white. Elytra dark brown, a large whitish spot in the middle of the clavus and the adjacent corium forming a whitish semi-lunar figure together with the scutellar spot, costal margin whitish ochraceous, membrane dark brown. Dorsum and under surface black. Coxae and femora dark brown or blackish, the latter paler apically, tibiae whitish, tarsi brown.

Ovate, 1.5 × as long as broad. Hair covering long, semi-erect, brownish. Head 0.55 × as broad as pronotum, flat, especially ventrally densely punctate and rugose, partly transversely wrinkled, in apical view 1.2 × as broad as high, structure otherwise as in Fig. 75 c; ocular index (at ocelli) 0.7, ocelli well developed. Antennae gracile, proportions between the joints 3:15:11:6, 2nd joint 0.4 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.6 × as broad as long, lateral margins strongly rounded and converging apicad, basal margin strongly insinuated medially; disk densely punctate; callal area indistinct, only medially more sparsely punctate. Scutellum slightly longer than broad, densely punctate. Elytra densely and distinctly punctate, only slightly longer than abdomen. Legs gracile, hind femora incrassate.

Ethiopia, near Harrar, 1 ♀, type, 22–23. VI. 1963. Swept from macchia on a dry hill.

✓ *I. niger* sp. n.

Length 2.0 mm., breadth 1.35 mm. Rather shiny. Black. Extreme basal margin of vertex whitish. Antennae whitish, as also tip of scutellum. Membrane dark brown. Femora dark brown, tibiae and tarsi yellow-brown.

Broadly ovate, 1.44 × as long as broad. Hair covering

long, grey, dense. Head 0.5 × as broad as pronotum, flat and densely punctate, in apical view 1.4 × as broad as high, structure as in Fig. 75 b. Ocelli small. Antennae thin, proportions between the joints 2:10:8:?, 2nd joint 0.3 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum (Fig. 75 d) 2.3 × as broad as long, convex, lateral margins rounded and converging apicad right from base, hind margin moderately insinuated, disk densely punctate throughout. Scutellum concave, slightly broader than long, densely punctate. Elytra convex, densely punctate, slightly longer than abdomen.

Equatoria: Torit – Kapoeta, 1 ♀, type, 26. III. 1963. On *Commiphora erythraea*.

The following specimens probably also belong to the species:

Bigger, length ♂ 2.6 mm., ♀ 2.75 mm. In ♂ 2nd antennal joint (Fig. 75 g) incrassate, 0.7 × as long as basal width of pronotum; both 2nd and 3rd joint; with long erect hairs, much longer than the cross-section of the joints; pronotum (Fig. 75 f) considerably shorter, 2.6 × as broad as long; costal margin and cuneus yellowish brown.

Chad, Bas-Chari, near Fort Lamy, 1 ♂ and 1 ♀, Péricard Mus. Paris. On *Acacia nilotica*.

Magnocellus Smith

✓ *M. scutellaris* sp. n.

Fig. 74. Length ♂ 2.5–2.75 mm., breadth 1.35 mm., ♀ length 2.6 mm., breadth 1.5 mm. Whitish ochraceous. Frons unicoloured or with two light brown transverse bands, the lower one broken at middle and with brown punctures. Antennae yellow-brown, 2nd joint sometimes darker with pale apex and base, 3rd and 4th joints dark. Pronotum nearly opaque, anterior part usually with 4 irregular large faint brownish spots, humeral angles with 2 minute brownish spots. Scutellum and elytra shiny; basal margin of the former narrowly dark brown, a small median spot also present, apex with a larger roundish black spot, in front of this the disk usually ± whitish. Corium with a faint whitish spot at the level of the corresponding scutellar spot, basal median angle of cuneus somewhat embrowned, membrane and veins light brownish. Legs yellow-brown; hind femora slightly darker, upper anterior margin with two whitish callose spots, one apical and the other subapical.

Ovate, about 1.7 × as long as broad. Hair covering yellow-brown. Head large (♂), 0.51 × as broad as pronotum or relatively small (♀), 0.4 × as broad as pronotum, finely punctate; eyes large, ocular index 0.36–0.41 (♂) or 0.62 (♀). Proportions between antennal joints 2:16:6:4, 2nd joint in ♂ incrassate, in ♀ somewhat thinner, 0.6 (♂) or 0.4 (♀) × as long as basal width of pronotum, apical joints thin and short. Rostrum long extending to base of apical half of abdomen. Pronotum 2.3 (♂) or 2.55 (♀) × as broad as long, lateral margins curvate, basal margin medially distinctly insinuated; entire disk densely punctate, each puncture bearing a seta directed caudad. Scutellum as long as broad, base densely, apex more sparsely punctate. Puncturation dense on clavus, on corium considerably sparser and more obsolete than on pronotum.

Equatoria: Nimule, 1 ♂, type and 1 ♂ paratype, 11–13. III. 1963; Juba-Nimule, 1 ♂ paratype, 10–11. III. 1963. In addition 1 ♀ paratype in Mus. Paris from Chad, Bas-Chari, near Fort Lamy, Péricard. On *Acacia nilotica*.

Resembling *M. ghanaiensis* Smith, but apex of scutellum black and puncturation of scutellum and of elytra sparser and finer, the upper surface therefore more shiny.

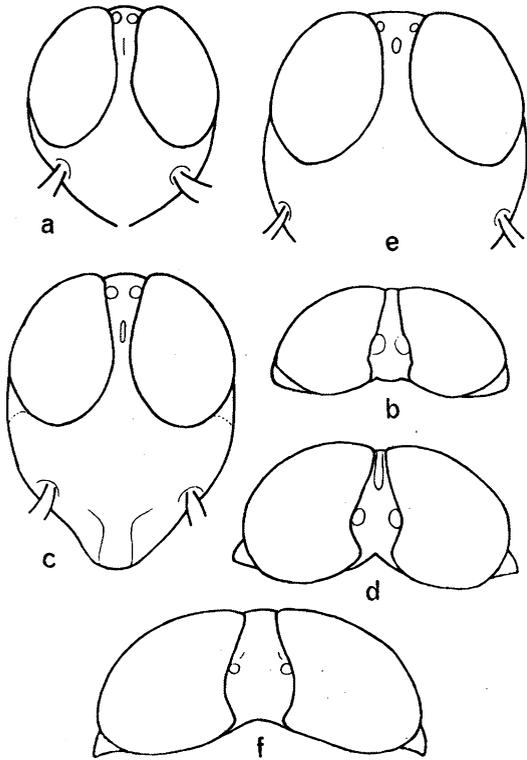


Fig. 76. *Mytomma zandeanana* sp. n.: a head, frontal view; y same, dorsal view. — *M. montana* sp. n.: c-d same. — *M. juniperina* sp. n.: e-f same.

Mytomma Fb. (= *Paramyiomma* Cv.)

M. montana sp. n.

Fig. 74. Length 2.9–3.0 mm., breadth 1.2 mm. Subpaque, pronotum and scutellum shiny. Face black, lateral margins behind eyes and vertex ochraceous. Antennae dark brown. Pronotum black, humeral angles and basal margins narrowly yellow-brown. Scutellum blackish, apex with a V-shaped whitish ochraceous figure. Elytra ochraceous, basal half of corium with 2 longitudinal triangular fuscous spots, also 2 more irregular and apically fused longitudinal fuscous spots in apical area; sutural margin of clavus faintly embrowned; inner basal angle of cuneus fuscous, apical area faintly embrowned, basal median area faintly whitish; membrane brownish, veins infuscate. Under surface black. Legs yellow-brown, femora medially ± broadly blackish or dark brown, base of femora and coxae whitish.

Ovate, about 2.1 × as long as broad. With dense yellow-brown and longish hair covering. Head (Fig. 76 a–b) 0.44 × as broad as pronotum; frons rugose and punctate; eyes large, in ventral surface distinctly approaching but not touching each other, ocular index 0.4; lateral margins of head behind eyes with a fringe of bristles. Proportions between antennal joints 3 : 19 : 6 : 5, 2nd joint 0.7 × as long as basal width of pronotum, hair covering rather smooth. Rostrum reaching the 3rd visible sternite. Pronotum 2.25 × as broad as long, lateral margins straight and carinate, basal margin undately insinuated medially, humeral angles rather sharp; disk coarsely and densely punctate save in the slightly elevated callal

area. Scutellum 1.3 × as broad as long, densely punctate save in the callose whitish apical figure. Elytra distinctly and densely punctate, puncturation coarsest in clavus (although finer than on pronotum), cuneus only very obsoletely punctate.

Ethiopia, Agheresalam, 1 ♀, type and 4 ♀♀ paratypes, 8. VI. 1963. On an unidentified tree on a high mountain (alt. about 2 900 m).

Resembling *M. milleri* (Hob.), but differing in the colouring, the larger size and the sharper humeral angles of the pronotum.

✓ *M. zandeanana* sp. n.

Length 2.0 mm, breadth 0.9 mm. Shiny. Head ochraceous, lower part below eyes dark brown. Antennae yellow-brown, apical third of 2nd joint embrowned. Pronotum and scutellum dark brown, the latter with a callose white apex. Elytra ochraceous; clavus, especially apically, the medio-apical area of corium, the inner basal angle (narrowly) and apex (broadly) of cuneus brown (contrast between colours not sharp), medio-basal area of cuneus whitish, cubitus red, membrane pale brownish. Under surface dark brown. Legs yellow-brown, coxae and base of femora whitish.

A small ovate species, 1.83 × as long as broad. Hair covering long, semi-erect and brownish. Head (Fig. 76 c–d) 0.6 × as broad as pronotum, frons smooth; eyes large, in ventral surface distinctly approaching but not touching each other, ocular index (at ocelli) 0.5; lateral margin of head behind eyes with a fringe of bristles. Proportions between antennal joints 2.5 : 15 : ? : ?, 2nd joint incrassate, 0.75 × as long as basal width of pronotum, with longish semi-erect hairs. Rostrum extending to 3rd visible sternite. Pronotum 2.6 × as broad as long, lateral margins slightly curvate, carinate, basal margin only slightly insinuated, humeral angles rather rounded; disk convex, rather finely punctate, the elevated callal area also punctate. Scutellum only slightly broader than long, only very obsoletely punctate. Elytra obsoletely and rather sparsely punctate, puncturation most distinct in clavus.

Equatoria: Yambio, 1 ♂, type 18–25. IV. 1963.

Easily recognized by the small size, the colouring, the shape of the pronotum and the fine puncturation.

✓ *M. juniperina* sp. n.

Fig. 74. Length 2.5 mm., breadth 1.05 mm. Rather shiny. Dark coffee brown. Vertex somewhat paler. Antennae yellowish brown, apical third of 2nd joint dark brown. Apex of scutellum white. Base of cuneus with a broad callose transverse white fascia. Membrane brownish. Legs dark brown, apical third of tibiae somewhat paler.

Elongately ovate, rather parallel-sided, 2.1 × as long as broad. Hair covering brown, dense. Head (Fig. 76 e–f) 0.5 × as broad as pronotum, in apical view 1.17 × as high as broad; ventral part below eyes rather convex, smooth, finely shagreened; median margins of eyes on ventral surface parallel, ocular index (at ocelli) 0.62. Proportions between antennal joints 2 : 14 : 5 : 4.5, 2nd joint thin, 0.6 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum 2.6 × as broad as long, lateral margins shallowly curvate, hind margin moderately insinuated; disk finely transversely rugose, only obsoletely punctate, callal area only faintly elevated. Scutellum 1.25 × as broad as long, shagreened. Elytra finely and densely punctate. Legs gracile, hind femora incrassate.

Eritrea, Addi Caieh (alt. 2 500 m), 1 ♀, type, 31. V. 1963. On *Juniperus procera*.

Closely resembling *M. feberi* Pt. (Mediterranean), but much smaller, tip of scutellum white, etc.

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Diocoris	67	<i>Notochila</i>	10	<i>Troitskiella</i>	89
Dolichomiris	17	Nubaia	90	Tuponia	111
Druthmarus	55	Nycticapsus	59	<i>Tylopeltis</i>	70
Ectagela	83	<i>Odhiamboella</i>	109	Tyttthus	86
Ellenia	87	Odoniella	5	Verdeius	43
Ethatractus	96	Ommatomiris	18	Waupsallus	91
Eurycranella	113	Oreocapsus	99	Yambio	25
Eurystylus	28	Oreolygus	37	Yngveella	44
Felisacodes	57	Orthops	41	Yotvata	93
Fingulus	11	Orthotylinae	48	Zanchius	57
Fulvius	5	Orthotylius	49	Zinjolopus	80
Formicopsella	61	Oxacicoris	27		
Gediocoris	103	Pangania	69		

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