A collection of Heteroptera from Katanga, with remarks on some species from other parts of the Ethiopian Region

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The article contains a list of Heteropterous species found in Katanga,Zaire, and notes on several little known or new species from other parts of Africa. The following 27 new species are described: Veliidae: *Microvelia kipopoella* sp.n. (Katanga). Hebridae: *Hebrus ifellus* sp.n. (Nigeria). Miridae: *Deraeocoris lamia* sp.n. (Republic of Central Africa), *Cranocapsus pilosicollis* sp.n., *C.tuberculifer* sp.n., *C.acuticeps* sp.n. and *Glossopeltis laevicollis* sp.n. (Nigeria), *Phytocoris psole* sp.n., *P.ion* sp.n. and *Taylorilygus olivaceus* sp.n. (Katanga), *Lygus modestus* sp.n. (Kenya), *L.unguicularis* sp.n. (Ethiopia), *L.brevicornis* sp.n. (Kenya), *Nanniella pallidiceps* sp.n. (Katanga), *Laurinia bathyllus* sp.n. (Nigeria), *Zanchius bilineatus* sp.n., *Mecomma angusticollis* sp.n. and *Aloea iadmon* sp.n. (Katanga), *Trichophorella vicaria* sp.n., *Glaphyrocoris nigeriensis* sp.n. and *G.rufiventris* sp.n. (Nigeria), *Plagiorhamma stami* sp.n. and *P.katangana* sp.n. (Katanga), *P.maxima* sp.n. (East Africa), *Ellenia scutellaris* sp.n. and *E.viridula* sp.n. (Katanga). Pentatomidae: *Carbula citheris* sp.n. (Katanga).

Prof. A. B. STAM of the Hague has sent me an interesting collection of Heteroptera captured by him, mainly with a light trap, from the Lubumbashi area in Katanga. A list of the finds, consisting of thirteen species new to science, is published below. The species listed belong to the savannah fauna of the Sudanese Subregion; the Guinean rain forest element, in contrast, is not represented. This is not surprising, since, according to a letter from Prof. Stam, the material was collected from savannah biotopes, and true rain forests do

not exist in the area studied. An interesting point was the presence of some species in the material that had been described by me from the Sudan. These species thus have a wider range than previously assumed within the East African savannah belt.

The article also contains descriptions of some new species from Nigeria, Kenya and Ethiopia.

I wish to express my cordial thanks to Prof. A. B. Stam, The Hague, Netherlands, Prof. J. T. Medler, Ile-Ife, Nigeria, and Mr. P. Knudsen, Eldoret, Kenya, for the opportunity to study this interesting collection of African Heteroptera.

List of species

Corixidae

Micronecta scutellaris (St.) — Kipopo, 2 exx., 28. IX – 15. XI. 1970.

Sigara sexlineata Rt. — Kipopo, several exx., 15. XI – 14. XII. 1970.

Belostomatidae

Sphaerodema stappersi Mtd. — Kipopo, several exx., 7 – 14. XII. 1970.

Veliidae

Microvelia gracillima Rt. — Kipopo, 2 exx., 7. XII. 1970; Lubumbashi, 4 exx., 2 – 25. III. 1971.

M.arabica praetermissa Lv. — Kipopo, 1 ex., 14. XII. 1970; Lubumbashi, 1 ex., 13 – 14. III. 1971. Previously known from Ethiopia and the Sudan.

M.kipopoella sp.n. — Kipopo, several exx., 7 – 8. XII. 1970; Lubumbashi, 1 ex., 10 – 11. III. 1971.

Mesoveliidae

Mesovelia vittigera Hv. — Kipopo, 3 exx., 20. IX – 17. XII. 1970; Lubumbashi, 1 ex., 13 – 14. III. 1971.

Hebridae

Hebrus adriennae-brasili Ps. — Lubumbashi, 1 ex., 25 – 26. IV. 1971.

Hydrometridae

Hydrometra albolineolata Rt. — Kipopo, 1 ex., 27. XI. 1970.

Miridae

Duducoris incisus Odh. — Lubumbashi, 1 ex., 4 – 5. I. 1971.

Helopeltis schoutedeni Rt. — Lubumbashi, 1 ex., 3. V. 1971.

Termatophylum insigne Rt. — Lubumbashi, 1 ex., 28. II – 1. III. 1971. Known from the Eremian subregion and the Sudan.

Deraeocoris ostentans (St.) — Lubumbashi, 1 ex., 17 – 18. IV. 1971.

Cyrtopeltis callani Odh. — Lubumbashi, 3 exx., 24. III – 1. V. 1971. Recorded from Uganda and South Africa.

Dolichomiris breviceps (Odh.) — Kipopo, 1 ex., 6. V. 1971; Lubumbashi, 1 ex., 15 – 16. II. 1971. Known from Uganda and the Sudan.

Trigonotylus pallidicornis Rt. — Numerous exx. from Kipopo, 1. XII. 1970 and Lubumbashi, 1. XII. 1970 – 2. V. 1971.

Nabidomiris longipennis Odh. — Kipopo, 1 ex., 14. XII. 1970; Lubumbashi, 2 exx., 15. IV – 8. V. 1971. Previously known from Uganda.

Creontiades tellinii (Rt.) — Lubumbashi, 1 ex., 13 – 14. IV. 1971.

Miridius rubrolineatus (Pop.) — Kipopo, 1 ex., 24. II. 1971.

Phytocoris psole sp.n. — Lubumbashi, 1 ex., 26 – 27. III. 1971.

P.ion sp.n. — Lubumbashi, 5 exx., 15. IV – 6. V. 1971.

Stenotus pylaon (Kk.) — Lubumbashi, 4 exx., 7. III – 23. IV. 1971.

S.rufescens Pop. — Lubumbashi, 1 ex., 2 – 3. V. 1971.

S.pulcher Pop. — Lubumbashi, 2 exx., 15. II – 6. III. 1971.

S.transvaalensis (Dist.) — Lubumbashi, 2 exx., 4 – 29. IV. 1971.

Taylorilygus pallidulus (Blch.) — Lubumbashi, many exx., 2. I – 26. IV. 1971.

T.indistinctus Tayl. — Lubumbashi, 1 ex., 28. II – 1. III. 1971.

T.olivaceus sp.n. — Lubumbashi, 1 ex., 30. IV – 1. V. 1971.

T.simonyi Rt. — Lubumbashi, several exx., 3 – 4. IX. 1970, 4. I – 19. IV. 1971.

Lygus alpicola Pop. Apparently this species, previously known only in the female sex from Meru in East Africa. Spiculum and left stylus in Fig. 9 a-b. Other genitalia as in *L.incertus* Pop. — Kipopo, 1 ex. 15. XI. 1970.

Charagochilus vittatus (Rt.) (= *punctigerus* Odh.) — Lubumbashi, 1 ex., 22 – 23. IV. 1971.

Proboscidocoris fulvosignatus Odh. — Lubumbashi, 3 exx., 7. III – 6. V. 1971. Known from East Africa.

P.intermedius Pop. — Lubumbashi, 1 ex., 24 – 25. III. 1971.

P.villosus Odh. — Lubumbashi, 1 damaged ♀ of either this or a new, closely related species, 24 – 25. III. 1971. Known from Uganda.

Eurystylus schoutedeni Pop. — Lubumbashi, 3 exx., 3 – 4. IX. 1970.

Nanniella chalybaea Rt. — Kipopo, 1 ex., 15. XI. 1970; Lubumbashi, 6 exx., 28. II – 4. V. 1971.

N.palustris Lv. — Lubumbashi, 1 ex., 17 – 18. IV. 1971. Previously known from the Sudan.

N.pallidiceps sp.n. — Lubumbashi, 1 ex., 17 – 18. IV. 1971.

Zanchius bilineatus sp.n. — Lubumbashi, 1 ex., 27 – 28. II. 1971.

Cyrtorhinus viridis Lv. — Lubumbashi, 2 exx., 25. II – 11. III. 1971. Previously known from the Sudan.

Mecomma angusticollis sp.n. — Lubumbashi, 2 exx., 2 – 3. V. 1971.

Pilophorus pilosus Odh. ssp. *brevicollis* Lv. — Lubumbashi, 1 ex., 30. IV – 1. V. 1971. Known from the Sudan and Ethiopia, the nominate form from East Africa.

Aloea iadmon sp.n. — Lubumbashi, 1 ex., 22 – 23. X. 1970.

Plagiorrhamma stami sp.n. — Kipopo, 1 ex., 6. XII. 1970; Lubumbashi, 6 exx., 7. I – 6. III. 1971.

P.katangana sp.n. — Lubumbashi, 1 ex., 5 – 6. II.1971.

P.poseidon (Kk.) — Lubumbashi, 3 exx., 22 – 23. X. 1970.

P.punctatula Lv. — Kipopo, 1 ex., 17. XII. 1970; Lubumbashi, 2 exx., 7 – 23. IV. 1971. Known from Nigeria, the Ivory Coast and the Sudan.

Ellenia scutellaris sp.n. — Lubumbashi, 1 ex., 27 – 28. IV. 1971.

E.viridula sp.n. — Lubumbashi, 4 exx., 17. II – 3. V. 1971.

Paramixia suturalis Rt. — Several exx. from Kipopo, 6. V. 1971 and Lubumbashi, 25. II – 14. IV. 1971.

Tytthus parviceps (Rt.) — Lubumbashi, 3 exx., 10. IV – 26. IV. 1971.

Compsidolon impictum Odh. Apparently this species. Male genitalia in Fig. 20 d – g. Penis with a dentate membranous lobe, not mentioned in the original description (Odhiambo 1959, p. 523—526). Several exx. from Lubumbashi, 20. II – 30. III. 1971. Known from Uganda.

Stenocapsus guineensis (Pop.) — Lubumbashi, 4 exx., 23 – 24. X. 1970, 18 – 23. IV. 1971. Known from West Africa, the Sudan and Uganda.

S.leucochilus (Rt.) (= *sordidus* Odh.) — Lubumbashi, 1 ex., 18 – 19. IV. 1971.

Cryptostemmatidae

Ceratocombus enderleini Pop. — Lubumbashi, numerous exx., 28. II – 27. IV. 1971.

Leptonannus biguttulus Rt. — Kipopo, 1 ex., 7. XII. 1970, 1 ex., 24. II. 1971; Lubumbashi, 2 exx., 26 – 28. IV. 1971.

Muatianvuaia vilhenai Wyg. — Kipopo, 1 ex., 8. XI. 1970. Previously known from Angola.

Reduviidae

Barrosia minuscula (Vill.) — Lubumbashi, 1 ex., 28 – 29. IV. 1971.

Rhinocoris segmentarius (Gm.) — Lubumbashi, 2 exx., 5. III. 1961, Bonvy.

R.rapax (St.) — Lubumbashi, 1 ex., 2. III. 1971, Bonvy.

R.albopunctatus (St.) — Lubumbashi, 1 ex., 24. II. 1971.

Peprius bukamensis Scht. — Lubumbashi, 1 ex., 16.III. 1971, Bonvy.

Rhaphidosoma kindae Scht.? — Lubumbashi, 1 ex., 1. IV. 1971.

Pirates collarti Scht. — Kipopo, 1 ex., 14. XII. 1970.

Plynoides collarti Scht. — Lubumbashi, 1 ex., 11 – 12. I. 1971.

Baebius katanganus Scht. — Kipopo, 2 exx., 7 – 25.XI. 1970.

Oncocephalus annulipes St. — Kipopo, 1 ex., 4. XII. 1970.

Nabidae

Nabis capsiformis Gm. — Lubumbashi, 1 ex., 28 – 29. IV. 1971.

Tingidae

Cantacader tenuipes St. — Kipopo, 1 ex., 8. XI. 1970.

Belenus thomasi Dr. — Kipopo, 1 ex., 14. XII. 1970. Previously known from Kenya.

Berytidae

Metacanthus mollis Stk. — Lubumbashi, 3 exx., 10. III – 2. V. 1971.

Lygaeidae

Nysius albidus Dl. — Lubumbashi, 1 ex., 11 – 12. I. 1971.

N.stâli Ev. — Kipopo, 1 ex., 6. V. 1971; Lubumbashi, several exx., 29. X. 1970 – 3. III. 1971.

Cymodema angustiformis Lv. — Kipopo, 2 exx., 6. V. 1971. Known from the Sudan and West Africa.

Ischnodemus obversus Slt. & Harr. — Kipopo, 1 ex., 17. XII. 1970.

Pachygrontha bipunctata (Gm.) — Kipopo, 2 exx., 6. V. 1971.

Dinomachellus maculatus Scd. — Kipopo, 1 ♀, probably of this species, 27. XI. 1970.

Lamproceps indicus (Dl.) — Lubumbashi, 1 ex., 2 – 3. III. 1971.

Lophoraglius guttulatus (St.) — Lubumbashi, 1 ex., 7 – 8. I. 1971.

Parastilbocoris pilosus (Scht.) — Kipopo, 3 exx., 9 – 17. XI. 1970.

Lethaeus hortensis Ldb. — Lubumbashi, 1 ex., 11 – 12. I. 1971.

Stilbocoris distinctus Scd. — Lubumbashi, 1 ex., 17 –18. II. 1971.

S.natalensis (Dist.) — Lubumbashi, 1 ex., 4 – 5. I. 1971.

Scolopostethus silvicolus Lv. — Kipopo, 5 exx., 8. XI. 1970. Known from Ethiopia.

Stigmatonotum carinatum Lv. — Kipopo, 1 ex., 28. IX – 3. X. 1970. Known from the Sudan.

Afrovertanus elongatus Scd. — Lubumbashi, 1 ex., 7 – 8. III. 1971.

Remaudiereana nigra Scd. — Kipopo, 1 ex., 8. XI. 1970.

Pachybrachius nysias Lv. — Kipopo, 1 ex., 8. XI. 1970. Known from the Sudan.

P.spinicrus (Rt.) — Kipopo, 3 exx., 8. XI – 5. XII. 1970; Lubumbashi, several exx., 4. I – 15. III. 1971.
P.perlongus Scd. — Lubumbashi, 3 exx., 2. I – 8. V. 1971.
Paromius paraclypeatus Scd. — Kipopo, 1 ex., 17. XII. 1970; Lubumbashi, 6 exx., 13 – 14. IV. 1971.
Graphoraglius novitius (Dist.) — Kipopo, 1 ex., 8. XI. 1970.
Naphius apicalis (Dist.) — Lubumbashi, 1 ex., 21. II. 1971.
Elasmolomus transversus (Sgn.) — Kipopo, 2 exx., 8. XI. 1970; Lubumbashi, 5 exx., 3. IX. 1970, 7 – 8. III. 1971.
Dieuches armatipes (Wk.) — Lubumbashi, 1 ex., 2 – 3. I. 1971.
D.expandens Eyl. — Kipopo, 1 ex., 8. XI. 1970.
Nocellochromus distinctus Scd. — Kipopo, 1 ex., 8. XI. 1970.
Poeantius gracilicornis Rt. (= *variegatus* Dist.) — Kipopo, several exx., 8 – 15. XI. 1970.

Pyrrhocoridae
Dysdercus superstitiosus (F.) — Lubumbashi, 6 exx., 20. II – 22. IV. 1971.

Coreidae
Anoplocnemis survipes (F.) — Lubumbashi, 1 ex., 24. II. 1971.
A.montandoni Dist. — Lubumbashi, 1 ex., 15. IV. 1971, Bonvy.
A.apicalis (Gm.) — Lubumbashi, 1 ex., 24. II. 1971.
Homoeocerus overlaeti Scht. — Lubumbashi, 1 ex., 24. II. 1971.
Cletus ochraceus perturbatus Hesse. — Lubumbashi, numerous exx., 3. V. 1971.

Alydidae
Stenocoris distinguenda (Blt.) — Lubumbashi, 2. exx., 5. I – 8. III. 1971.
Mirperus jaculus (Thb.) — Lubumbashi, 2 exx., 2 III – 3. V. 1971.

Rhopalidae
Serinetha amicta (Gm.) — Lubumbashi, 1 ex., 31. III. 1971.
S.mutilata (Gst.) — Lubumbashi, 2 exx., 11 – 22. IV. 1971, Biendonné and Bonvy.
S.orodemnias Lv. in press — Katanga près Minga, 1 ♀ probably of this species, 11. IV. 1971, Bonvy. Known from the Sudan, East Africa and Angola.

Pentatomidae
Cyclopelta funebris (F.) — Lubumbashi, 1 ex., 19 – 22. IV. 1971, Bonvy.
Aspongopus nubilus Wk. — Lubumbashi, 2 exx., 10 – 31. III. 1971.
A.binotatus Dist. — Lubumbashi, 1 ex., 24. IV. 1971, Bonvy.
Scotinophara fibulata (Gm.) — Kipopo, 2 exx., 8. XI – 14. XII. 1970.
Phricodes hystrix (Gm.) — Kipopo, 1 ex., 8. XI. 1970.
Amaxosana punctata Dist. — Kipopo, 1 ex., 8 .XI. 1970.
Caystrus basalis (Scht.) — Kipopo, 1 ex., 9. XI. 1970.
Aeliomorpha griseoflava (St.) — Lubumbashi, 1 ex., Bonvy.
Eysarcoris inconspicuus (H.-S.) — Kipopo, 1 ex., 15. XI. 1970.
Aspavia albidomaculata St. — Kipopo, 3 exx., 6. V. 1970.
Carbula usambarica Scht. — Lubumbashi, 1 ex., 20. III. 1971.
C.citheris sp.n. — Lubumbashi, 3 exx., 24 – 26. II. 1971, Bonvy and Stam.
C.limpoponis limpoponis St. — Lubumbashi, 1 ex., 5 – 6. I. 1971.
C.limpoponis pedalis Bgr. — Lubumbashi, 1 ex., 11 – 12. I. 1971.
C.signitenens Scht. — Lubumbashi, 1 ex., 1. V. 1971.
Halyomorpha viridescens (Wk.) — Lubumbashi, 1 ex., 24. II. 1971.
Veterna sanguineirostris (Thb.) — Lubumbashi, 1 ex., 5. III. 1971, Bonvy.
Agonoscelis versicolor (F.) — Lubumbashi, 1 ex., 25. II. 1971. On *Rosa* hybr.
Caura rufiventris (Gm.) — Lubumbashi, 1 ex., 5. IV. 1971, Bonvy.
Antestia rikatlensis (Scht.) — Lubumbashi, 1 ex., 1. III. 1971, Bonvy.
Parentestia propinqua Lv. in press — Lubumbashi, 1 ex., 5. II. 1939, collector unknown, 1 ex., 19 – 22. IV. 1971, Bonvy, 1 ex., 3 V. 1971, Stam. Also known from the Sudan.

Cydnidae
Geotomus difficilis St. — Kipopo, 1 ex., 25. IX – 3. X. 1970; Lubumbashi, 4 exx., 11 – 12. I. 1971.
Geocnethus castaneus Hv. — Kipopo, 1 ex., 28. IX – 3. X. 1970. Known from East Africa.

Notes on some new or little known Heteroptera

Holotypes of the new species in the I.N.E.P.A. material will be deposited in the Helsinki Museum, paratypes in Professor Stam's collection and in my collection.

Veliidae

Microvelia kipopoella sp.n.

Length $2.5 - 2.75$ mm. Black. Antennae dark

yellow-brown. Anterior margin of pronotum with a transverse band of silvery tomentum, broken at the middle. Elytra (Fig. 1 a) blackish brown, veins blackish, white pattern well developed, the outer longitudinal band of corium broad and contrasted. Connexivum dark yellow-brown. Legs yellow-brown.

Body robust, about 2.2 × as long as broad at base of pronotum. Upper surface with fine brownish pubescence. Hair covering of head, and especially of under surface silvery. Antennae with semi-erect longish hairs, proportions between joints 12:12:16:28 (diatone 35 units), 1st joint unusually short, shallowly curved and moderately incrassate, other joints slender, 4th 2.3 × as long as 1st. Pronotum strongly broadening caudad, lateral margins slightly insinuated, humeral angles prominent. Legs with dense and ± adpressed hair covering, femora also with long erect hairs. Anterior tibiae in ♂ straight, with apical comb very short (Fig. 1 b). Measurements of legs:

	femur	tibia	tarsus 1	tarsus 2
fore	35	31	18	—
middle	43	39	13	15
hind	50	53	12	15

1 unit = 0.015 mm.

Male genitalia in Fig. 1 c – g. 8th abdominal segment 1.7 × as long as broad.

Material studied: Zaire: Kipopo, 1 ♂, type, 7. XII. 1970, some paratypes, 7 – 8. XII. 1970, Stam; Lubumbashi, 1 paratype, 10 – 11. III. 1971, Stam.

Of the *waelbrocki* group. Readily distinguished by the short 1st antennal joint, the very short comb in the fore tibiae of the male and the claw-like styli. *M. silvestris* Hob. (Angola), which also has falcate styli, differs in the smaller size, length 1.89 mm, the long comb on the fore tibiae (♂), etc.

Hebridae

Hebrus ifellus sp.n.

Length ♂ 1.5 mm, ♀ 1.75 – 2 mm. Black. Head, pronotum and scutellum with distinct metallic green or bluish lustre. Antennae yellow-brown, apical joints sometimes infumed. Clavus (Fig. 2 a) with a relatively small milky spot, extending at most to middle of scutellum; membrane opaque, dark smoky, with faint pale spots; the lateral spot transverse and almost straight, the apical spot narrow and longitudinal, the median spot very indistinct. Legs yellow-brown.

Hair covering of upper surface golden. Head as in Fig. 2 b. Vertex with a faint median sulcus, moderately convex, in profile slightly raised above anterior margin of pronotum. Proportions between antennal joints ♂ 17:11:(1):14:(1):10:(1):15, ♀ 10.5:8:(1.5):11:(1):8:(1):11, 1st joint 1.55 (♂) or 1.31 (♀) × as long as 2nd, in ♂ slightly curved (Fig. 2 c). Pronotum (Fig. 2 d) with humeral angles bluntly prominent; anterior margin with three distinct depressions, the median one continuing caudad as a shallow sulcus; hind margin with a sublateral depression on either side; puncturing faint. Scutellum broad, apex with a slight median notch, base swollen, apical part with a distinct depression on either side of median carina. Hair covering of elytra longish and dense. Under surface with greyish hair covering. Hind femora and tibiae in both sexes straight. Measurements of legs:

	femur	tibia	tarsus
fore	27	30	2.5+9
middle	28	30	2.5+9
hind	36	39	3+12

1 units = 0.015 mm.

Male genitalia: Stylus (Fig. 2 e – i) characteristic, slender; basal part with three very long setae.

Material studied: Nigeria: Ile-Ife, 1 ♂, type 5. V. 1969, 1 paratype, 5. V. 1969, 1 paratype, 3. II. 1970 and Badeggi, 1 paratype, 22. XII. 1968, Medler. Types in my collection.

Of the species in which only the male sex is known, *H. saxatilis* Lv. (an alpine species from SE Sudan) resembles *H. ifellus* in the shape of the styli, but differs in the dark hair covering of the upper surface, the narrow scutellum and the broader styli. *H. perplexus* Ps. and *H. baigomi* Ps. from West Africa are known in the female

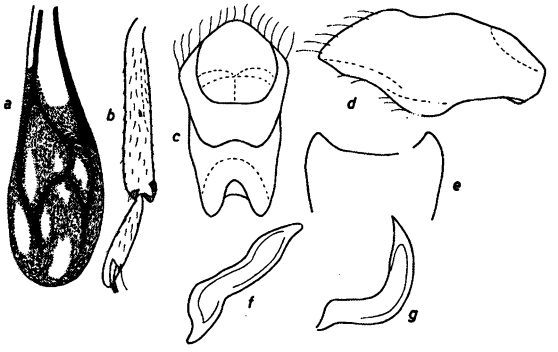

Fig. 1. *Microvelia kipopoella* sp.n.: a elytron; b fore leg (♂); c 8th abdominal segment (♂) in ventral aspect; d same from side; e genital capsule; f – g stylus.

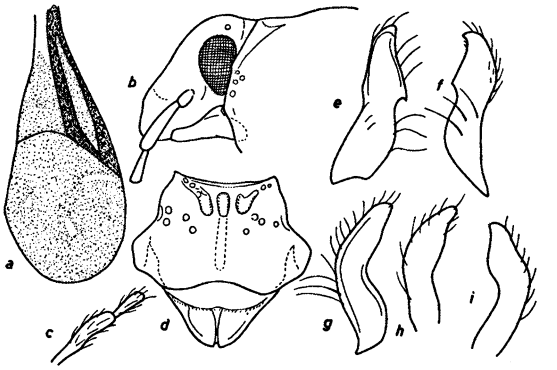

Fig. 2. *Hebrus ifensis* sp.n.: a elytron; b head from side; c lst and 2nd antennal joints (♂); d pronotum and scutellum; e – i stylus in different aspects.

sex only. In *H. perplexus* the metallic lustre is absent, the humeral angles of the pronotum are somewhat more rounded, the disk of the pronotum is provided only with a median sulcus, the membrane has distinct pale spots, etc. *H. baigomi* is larger, length 2.3 mm, without metallic lustre; the humeral lobes of the pronotum are very broad and the structure of the disk is different, the scutellum is narrow, etc.

Miridae

Deraeocorinae

Deraeocoris (*Phaeocapsus*) *lamia* sp.n.

Length 5.5 mm. Strongly shiny. Head and callal area of pronotum orangish. Apex of tylus dark brown. Eyes grey. lst antennal joint and basal half of 2nd yellow-brown, apical half of the latter black, 3rd and 4th joints dark brown, base of 3rd narrowly pale. Disk of pronotum, scutellum and elytra bright red; membrane orangish hyaline, veins red. Dorsum of abdomen red. Under surface orangish, ostiolar peritremes pale orangish. Venter largely reddish. Legs yellow-brown, femora with a faint subapical dark ring.

Body robust, broadly ovate, glabrous. Head 0.45 × as broad as pronotum, in apical view 1.34 × as broad as high, base of vertex only ainftly carinate, eyes small, ocular index 2.13. Antennae long and gracile; proportions between joints 17:50:18:20; lst joint glabrous, nearly 0.7 × as long as diatone; 2nd slightly broadening apicad, with short semidecumbent hairs, 1.96 × as long as diatone, 0.88 × as long as basal width of pronotum; 3rd and 4th joints with short smooth hairs and a few longish erect bristles. Rostrum extending to middle coxae. Pronotum broadening strongly caudad, 1.7 × as broad as long at middle (including collar); collar narrow, shiny; callal area well raised, impunctate; disk moderately convex, uniformly and rather finely punctate, distance between punctures longer than diameter of a single puncture. Scutellum convex, impunctate. Clavus and corium finely punctate, puncturing finer than on pronotum; cuneus also finely punctate. Propleurae densely punctate. Legs gracile, tibial spines short and delicate.

Material studies: Republic of Central Africa: Salo, 1 ♀, type, 9. VIII. 1966, M. Boulard, in my collection.

Of the *martini* group. Easily recognized by the large size, the bright red colouring and the absence of a dark pattern on the upper surface.

Cranocapsus (*Chiloxis*) *pilosicollis* sp.n.

Length 4.75 mm. Shiny. Yellow-brown with only scanty dark pattern. Antennae yellow-

brown, 2nd joint slightly infuscate apically. Puncturing of pronotum blackish, disk otherwise with only indistinct infuscations. Impressed transverse line at base of scutellum dark, disk with two large dark triangular spots. Elytra with indistinct embrowning in apical part of corium, puncturing dark brown, costal margin pale; membrane brownish hyaline, veins brown. Under surface yellow-brown, propleurae with dark puncturing, ostiolar peritremes whitish ochraceous. Legs yellow-brown, hind femora with two indistinct subapical dark rings, other femora almost unicoloured.

Body (Fig. 3 a) rather parallel-sided. Head 0.6 × as broad as pronotum, in apical view 1.42 × as broad as high, in profile slightly longer than high (19:18), eyes very large, ocular index 0.45 – 0.54; frons and vertex shiny, not microsculptured, vertex with a very indistinct median impression. Antennae with short semidecumbent hairs, proportions between joints 15:50:16:11, lst and 2nd joints rather incrassate, the former 0.53 × as long as diatone, the latter about 1.7 × as long as diatone, 1.06 – 1.07 × as long as basal width of pronotum, other joints short, thinner than 2nd. Rostrum extending to middle coxae. Pronotum with longish erect dense pale hair covering, 1.47 × as broad as long at middle (incl. collar), lateral margins shallowly insinuated, carinate, a dense row of punctures row bordering the carinae; collar broadish, shiny; callal area medially constricted, two deep pits at base of the constriction, calli sparsely and finely punctate; puncturing of disk and of proplurae dense and coarse, istance between punctures about as long as diameter of a puncture, basal margin narrowly pale and impunctate. Scutellum swollen, impunctate. Elytra with costal margin broad, impunctate, clavus and corium rather coarsely and densely punctate, puncturing somewhat finer and more irregular than on pronotum; cuneus only finely punctate. Hair covering of under surface longish, pale. Tibial spines delicate, pale. Prosternal xyphus slightly swollen. Male genitaliai n Fig. 3 b - f.

Material studied: Nigeria: Ibadan, 1 ♂ type and 1 ♂ paratype, 15. III. 1969 and Ile-Ife, 1 ♂ paratype, 5. IV. 1969, J. Medler, in my collection.

Odhiambo (1960 b, p. 257 – 271) has treated the African species of *Chiloxis* Odh. The new species is closely related to *C.setiger* Odh. (Uganda), but that species is smaller, length ♂ 3.8 – 4.1 mm, the frons is shagreened, the 2nd antennal joint is broadly fuscous apically, the elytra are much darker, the ocular index is in ♂ 0.59 – 0.69 etc.

C. (Chiloxis) tuberculifer sp.n.

Length 4.25 mm. Shiny. Yellow-brown, with abundant dark pattern. Puncturing of upper surface dark brown. Head with inverted Y-shaped dark brown figure. Eyes dark brown. Antennae yellow-brown, apical quarter of 2nd joint slightly darkened. Collar and calli of pronotum yellowish, the latter with two longitudinal dark stripes at middle; disk moderately embrowned, with 5 indistinct pale longitudinal stripes, basal margin narrowly pale. Scutellum dark brown, with a narrow midline and a basal spot in lateral margins pale ochraceous. Elytra dark brown; clavus with obliquely transverse band in apical part, sutural margin and a narrow stripe along suture, apically joined to the transverse band, whitish; costal margin in basal two-thirds, corium with a largish spot in basal part, about 3 small subapical spots and 2 small dots in apical margin, whitish ochraceous; cuneus dark brown, with extreme tip dark red and a pale transverse basal fascia as in the following species; membrane smoky, veins brown. Under surface mainly dark brown; propleurae pale, puncturing dark. Scent gland orifices pale. Femora yellow-brown, apex and a subapical ring dark brown; tibiae dark brown, with two pale rings; tarsi dark yellowish brown.

Almost parallel-sided. Glabrous. Head 0.61 × as broad as pronotum, in apical view 1.4 × as broad as high, in profile slightly longer than

Fig. 3. *Cranocapsus pilosicollis* sp.n.: a head and pronotum; b left stylus; c sensory lobe and d hypophysis of same in broad aspect; e right stylus; f spiculum. — *C.acuticeps* sp.n.: g right stylus.

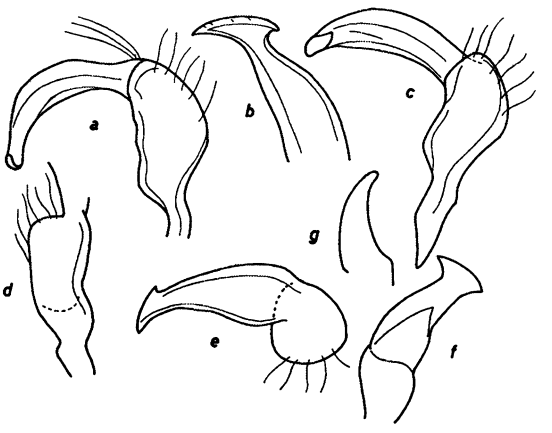

Fig. 4. *Cranocapsus acuticeps* sp.n.: a left stylus; b hypophysis of same in broad aspect. — *C.tuberculifer* sp.n.: c left stylus; d sensory lobe and e hypophysis of same in broad aspect; f right stylus; g spiculum.

high (16:15), eyes large, ocular index 0.76; frons and vertex flattish, densely shagreened, vertex within distinct longitudinal depression. Antennae with short semi-erect hairs, proportions between joints 9:35:?:?, lst joint 0.38 × as long as diatone, 2nd straight, rather thick, 1.4 × as long as diatone, 0.83 × as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum 1.4 × as broad as long at middle; collar broadish, microsculptured; lateral margins shallowly insinuated, carinate, a row of dense punctures bordering the carinae; callal area low, medially constricted, shagreened, indistinctly punctate; puncturing of disk as in the preceding species. Scutellum swollen, with fine transverse wrinkles. Elytra as in the preceding species but puncturing finer, surface shagreened and costal margin narrower. Prosternal xyphus swollen, knob-like. Tibial spines short. Male genitalia in Fig. 4 c – g.

Material studied: Nigeria: Ile-Ife, 1 ♂ type, 25. III. 1969, J. Medler, in my collection.

Distinguished from the other species of the subgenus, except *C.setiger* and *C.pilosicollis*, in which the pronotum is hairy, by the presence of the aedeagal spiculum. Otherwise apparently related to *C.minacis* Odh. (Uganda), but differing from this species in several respects, e.g. in the much darker colouring.

C. (Chiloxis) acuticeps sp.n.

Length 4.25 mm. Shiny. Blackish brown. Antennae dark brown, 2nd joint with a faint pale subbasal ring, basal half of 3rd joint whitish. Basal margin of pronotum narrowly whitish. Elytra dark brown; clavus with suture, a stripe parallel to the suture and a longitudinal spot in basal third, whitish; basal two-thirds of costal margin, corium with a basal spot, 2 or 3 very small spots in apical part and 2 very small dashes in apical margin, whitish; cuneus (Fig. 15 e) with a broad transverse whitish fascia; membrane dark smoky, veins brown. Under surface dark brown, scent gland orifices whitish. Legs dark brown, tibiae with a subapical pale ring, tarsi yellowish brown.

Resembling the preceding species. Glabrous. Head more acute than in the other species, 0.53 × as broad as pronotum, in apical view 1.16 × as broad as high, in profile longer than high (17:15), eyes large, ocular index 0.7; frons

and vertex flattish, shagreened, the former with faint transverse striae, the latter with a distinct longitudinal sulcus. Hairs of antennae longish, semi-erect, proportions between joints 7.5:37:15:13; lst joint 0.36 × as long as diatone, 2nd nearly 1.8 × as long as diatone, slightly shorter than basal width of pronotum (37:39), slightly curvate basally, 3rd and 4th joints much thinner than 2nd. Rostrum extending to middle coxae. Pronotum 1.3 × as broad as long at middle, anterior part with erect hairs, lateral margins straight, otherwise carinate as in the preceding species; collar broadish, microsculptured; callal area of the common shape, shiny, only indistinctly shagreened, finely punctate; puncturing of disk dense and coarse as in *C.pilosicollis*. Scutellum swollen, indistinctly microsculptured. Puncturing of elytra as in *C.pilosicollis*, surface not shagreened. Propleurae densely punctate. Prosternal xyphus faintly convex. Tibial spines short, delicate. Male genitalia in Figs. 3 g and 4 a – b. Spiculum absent.

Material studied: Nigeria: Ile-Ife, 1 ♂ type, 5. I. 1970, J. Medler, in my collection.

The basally curvate 2nd antennal joint distinguishes the species from all other representatives of the subgenus except *C.ancylus* Odh. (Uganda), but this species is much bigger (length 4.75 – 6.2 mm), and different in colour, the prosternal xyphus is prominent and knob-like, etc.

On the genus *Glossopeltis* Rt. (= *Tylopeltis* Rt.)

The genus *Glossopeltis* has been regarded as a member of the subfamily Hallodapinae by various authors (e.g. POPPIUS 1914, p. 39 – 42). The following features, however, differentiate it from Hallodapinae: 1) the coarse puncturing (the puncturing is usually absent in Hallodapinae, or , if present, then always superficial), 2) the structure of the claws (Fig. 5 b) (claw with a strong basal tooth, pseudarolia absent, arolia absent, and replaced by a pair of straight hairs) and 3) the male genitalia (which are of the Mirinae type). The genus has therefore to be removed from Hallodapinae to Deraeocorinae. The myrmecomorphic appearance is an adaptative character that has evolved independently in different mirid groups as well as in various other Heteropterous families.

G.laevicollis sp.n.

Length 3.75 mm. Shiny. Dark brown. Base of 3rd antennal joint pale. Elytra (Fig. 14 a) dark brown, with a transverse, not contrasted whitish band at tip of scutellum, this band with scattered brown punctures; base of cuneus with a narrow transverse white band; membrane smoky. Legs dark brown, base of middle and hind femora and the corresponding coxae pale, tibiae apically with a reddish tinge.

Body as in *G.albosignatus* (Rt.). Hair covering short, adpressed. Head nearly 0.7 × as broad as pronotum, finely microsculptured; eyes large, ocular index 0.89. Antennae incrassate, proportions between joints 6:37:22:?, 2nd joint 1.23 × as long as basal width of pronotum. Rostrum extending to middle coxae. Basal part of pronotum (Fig. 5 c) strongly convex; anterior part strongly, base weakly microsculptured; puncturing indistinct. Apical part of scutellum strongly humped. Clavus and corium distinctly and relatively sparsely punctate. Male genitalia in Fig. 5 d – g.

Material studied: Nigeria: Ile-Ife, 1♂ type, 29. XII. 1970, J. Medler, in my collection.

Easily distinguished from the other species of the genus by the almost impunctate pronotum.

Dicyphinae

Cyrtopeltis callani Odh.

The specimens from Lubumbashi are slightly longer and have somewhat larger eyes than in the populations from Uganda: length (♂♀) 4.5 mm (in Uganda ♂ 3.35 – 4.4 mm, ♀ 3.5 – 4.0 mm), ocular index 0.64 – 0.81 (♂) or 0.86 (♀) (in Uganda 0.80 – 1.0 in ♂ and 0.89 – 1.06 in ♂). Male genitalia as in Fig. 6. Length of hypophysis of left stylus 0.66 – 0.72 mm.

Mirinae

Phytocoris psole sp.n.

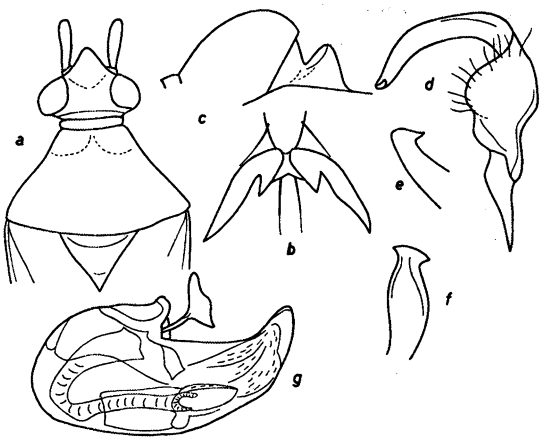

Fig. 5. *Glossopeltis ornatulus* Lv.: a head and pronotum; b claws. — *G.laevicollis* sp.n.: c pronotum and scutellum in profile; d left stylus; e hypophysis of same in broad aspect; f right stylus; g penis.

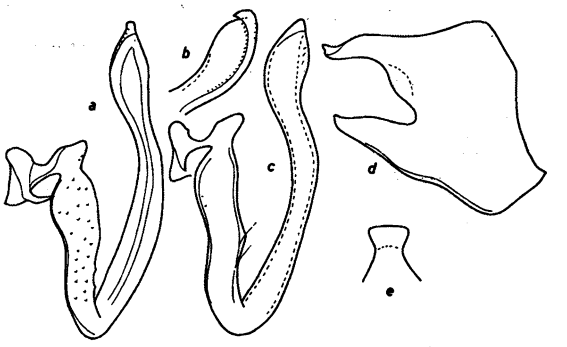

Fig. 6. *Cyrtopeltis callani* Odh. (from Katanga): a left stylus; b apex of same; c same of another specimen; d pygophore, lateral aspect; b apex of same, dorsal aspect.

Length 5.25 mm. Greyish ochraceous with abundant fuscous pattern. Tylus with inverted Y-shaped spot, frons with several lateral arcs and vertex with two irregular transverse bands, broken at middle, brown. Eyes greyish. lst antennal joint whitish ochraceous, under surface with a longitudinal blackish stripe, other parts with dark brown mottling, pale colouring dominating; 2nd joint almost uniformly yellowish (apex only slightly darker, a very indistinct trace of a dark subbasal ring). Collar with 4 brown spots; callal area slightly embrowned; disk of pronotum dark brown, basal margin pale, bordered with a transverse row of 6 blackish spots. Scutellum tinged with reddish brown, apex with a dark spot on either side. Elytra with abundant dark brown irroration and spotting, apical part of corium with largish dark oblique spot in inner area, lateral parts of corium rather pale; cuneus with apex and a longitudinal dash in inner basal angle dark brown; membrane smoky, with dark irroration, veins pale reddish. Under surface largely infuscate. Fore and middle femora with dense dark brown or purplish irroration; hind femora blackish, with sparse pale dots, basal quarter pale. Fore and middle tibiae with apex and two rings blackish, the rings slightly narrower than the alternating pale areas. Hind tibiae pale, with a narrow dark subbasal ring. Tarsi yellowish brown.

Parallel-sided, relatively robust. Hair covering of upper surface dense, pale, longish; short smooth silvery hairs also present. Head 0.55 × as broad as pronotum, in apical view broader than high (21.5:20), lorae rounded; in profile higher than long (19:14), frons convex, tylus strongly bent ventrad, a shallow notch between frons and tylus; eyes small, ocular index 2.15. Proportions between antennal joints 28:56:?:?, lst joint with erect pale bristles and smooth dense hairs, 1.26 × as long as diatone, 2ns joint 1.41 × as long as basal width of pronotum. Rostrum slightly surpassing hind coxae. Pronotum about twice as broad as long, hind margin straight. lst and 2nd joints of hind tarsi of equal length. Male genitalia in Fig. 7 a – f. Pygophore with a small tubercle on left side.

Material studied: Zaire: Lubumbashi, 1 ♂, 26 – 27. III. 1971, A. B. Stam.

Of the *discrepans* group. Closely related to *P.exilis* Odh. (Uganda), but in that species the 2nd antennal joint is broadly brownish apically, the spiculum is much broader and the dentate apical process of the penis is absent. *P.parvoculus* Odh. (Uganda), which also has small

eyes, differs in the colouring (basal angles of scutellum fuscous, dark markings, on 1st antennal joint more scanty etc.) and in the male genitalia (the spiculum is long, straight and very robust, etc.). The other species of the group have much larger eyes (ocular index > 1.0. (ODHIAMBO 1960 a).

P.ion sp.n.

Length 4.5 – 5.25 mm. Opaque. Head greenish, midline on tylus and lateral arcs on frons red. Eyes brownish. Antennae yellowish, 1st joint with dense brownish irroration on inner surface. Collar greenish with two red median spots; pronotum otherwise dark brown, calli slightly paler, basal margin narrowly pale. Scutellum dark brown, with a faint pale midline, apical part also with a faint pale longitudinal dash on either side. Elytra pale ochraceous, with faint longitudinal pink stripes, the most distinct running in middle of clavus and along claval suture; extreme tip of clavus dark, corium with a brown spot near apex of clavus; apex of cuneus dark, inner margin red; membrane brownish smoky, with faint fuscous irroration, veins pale, apically red. Under surface with irregular pink markings, propleurae brown. Femora with abundant dark brown and reddish irroration, dark colouring dominant, base of hind femora pale. Fore tibiae with indistinct and narrow brown rings, other tibiae pale; hind tibiae with a narrow reddish subbasal ring. Tarsi pale.

Small and slender. Hair covering yellowish, dense, longish and rather smooth. Head about 0.6 × as broad as basal width of pronotum, in apical view slightly broader than high (19:18), lorae rounded; in profile higher than long (14:12), frons convex, a shallow insinuation between it and the strongly bent tylus; ocular index 1.17 – 1.33 (♂) or 2.0 (♀). Antennae gracile, proportions between joints 30:54:34:?, 1st joint with erect bristles, slightly longer than diatone (46:45), 2nd joint about 1.7 × as long as basal width of pronotum. Rostrum surpassing hind coxae. Pronotum about twice as broad as long, lateral margins straight or slightly insinuated, basal margin slightly curved. Elytra longer than abdomen in both sexes. Tibial spines delicate, pale. 1st and 2nd joints of hind tarsi of equal length. Male genitalia in Fig. 7 f – j. Pygophore simple.

Material studied: Zaire: Lubumbashi, 1 ♂ type, 15 – 16. IV. 1971, 2 paratypes, 17 – 28. IV. 1971, 2 paratypes, 2 – 6. V. 1971. A. B. Stam.

Near *P.dulcis* Lv. (Sudan) but the eyes much larger, the male genitalia differently shaped, etc.

Stenctus pylaon (Kk.)

Koraciocapsus pylaon KIRKALDY 1902, p. 261.
Stenotus kiritschenkoi POPPIUS 1914, p. 112, syn.n.

S.kiritschenkoi Pop. is undoubtedly a synonym of *S.pylaon* (Kk.). The differences mentioned by POPPIUS are vague and variable even within a single population.

Material studied: Besides the material from Lubumbashi, a male from Bukoba, Victoria Nyanza, Troitzkij leg., belonging to the series of specimens upon which *S.kiritschenkoi* was described, was also studied.

Taylorilygus olivaceus sp.n.

Length 4.25 mm. Rather shiny. Olivaceous brown. Head olivaceous, lorae red, eyes dark brown. Antennae yellow-brown, apical third of 2nd joint dark brown, 3rd joint darkened in apical half, 4th totally dark. Callal area of pronotum greenish, rest of disk, scutellum, clavus and corium olivaceous brown, costal margin, including a faint triangular expansion into mesocorium at middle, slightly paler; cuneus dilute greenish, apex and a spot on inner basal angle dark; membrane darkly infuscate with pale areas. Mesopleurae and lateral parts of metapleurae, laterad of scent gland orifices, blackish; venter irregularly darkened. Coxae greenish. Legs olivaceous, hind femora in apical two-thirds dark brown.

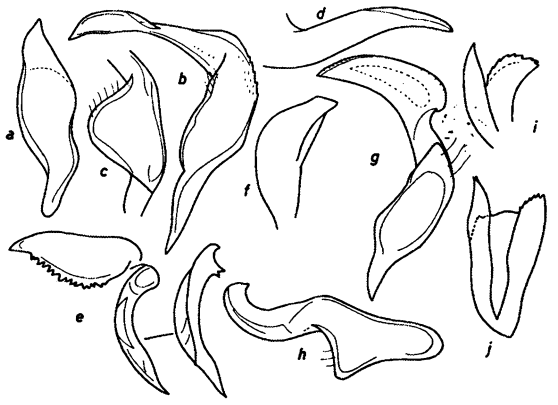

Fig. 7. *Phytocoris psole* sp.n.: a right stylus; b left stylus; c sensory lobe of same in broad aspect; e spiculum. — *P.ion* sp.n.: f right stylus; g left stylus; h same from above; i – j spiculum.

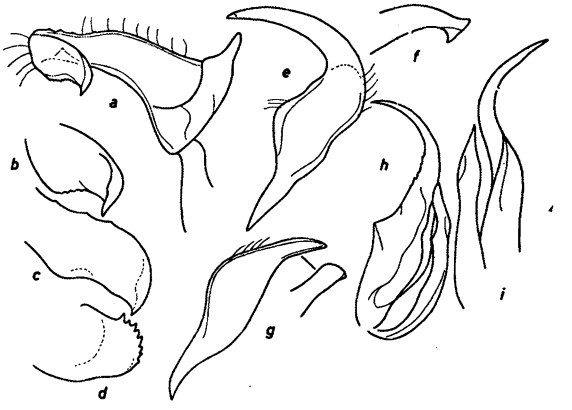

Fig. 8. *Taylorilygus olivaceus* sp.n.: a left stylus; b – c hypophysis and d lamellate process of sensory lobe of same. — *Lygus modestus* sp.n.: a left stylus; f hypophysis of same in broad aspect; g right stylus; h – i spiculum.

Body relatively small and narrow. Hair covering of upper surface dense, adpressed, concolorous. Head 0.68 × as broad as pronotum, eyrs prominent, ocular index 0.84. Antennae long, proportions between joints 12:44:24:18, lst joint 0.5 × as long as diatone, 2nd 1.83 × as long as diatone, 1.3 × as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum densely and rather strongly microsculptured. Left stylus in Fig. 8 a – d.

Material studied: Zaire, Lubumbashi, 1 ♂, type, 30. IV – 1. V. 1971, A. B. Stam.

The new species is characterized by the small and narrowish body, the uniform dark olivaceous colouring without any contrasted pattern and the shape of the left stylus. The closest relative is *T. figuratus* Lv. from Ethiopia, in which the left stylus is very similar. But *T. figuratus* is somewhat bigger (length 4.2 – 4.5 mm) and much broader, the elytral pattern is more differentiated, the eyes are larger, ocular index 0.63 – 0.67 (♂) or 0.9 (♀), and the 2nd antennal joint is shorter, 1.1 – 1.2 × as long as the basal width of the pronotum.

Lygus (*Orthops*) *modestus* sp.n.

Length ♂ 4.0 – 4.25 mm, ♀ 4.5 – 5.0 mm. Shiny. Pale ochraceous, probably green in life. Frons sometimes with a reddish tinge. Antennae unicoloured, yellowish. Clavus and corium with indistinct brownish irroration, cuneus pale, membrane slightly smoky, veins yellowish. Under surface and legs unicoloured, pale ochraceous. Tibial spines pale.

♂ elongate, ♀ ovate. Hair covering of upper surface pale, adpressed. Head short, about 0.68 (♂) or 0.6 (♀) × as broad as pronotum, vertex distinctly margined, eyes large, ocular index 0.61 – 0.66 (♀) or 0.97 (♀). Antennae long, proportions between joints 9:40:20:14 (♂) or 9:38:23:15 (♀), lst joint 0.35 – 0.4 × as long as diatone, 2nd about 1.67 (♂) or 1.46 (♀) × as long as diatone, 1.11 – 1.14 (♂) or 0.86 (♀) × as long as basal width of pronotum. Rostrum short, extending to middle coxae. Pronotum densely punctate and rugose. Scutellum and elytra finely microsculptured. Male genitalia in Fig. 8 e – i.

Material studied: Kenya; Eldoret, 1 ♂, type and 6 paratypes, P. Knudsen, in my collection.

L. (*Orthops*) *unguicularis* sp.n.

Length 5 mm. Shiny. Green. Head yellowish brown, frons with greenish midline, genae greenish. Eyes pale greyish. lst antennal joint pale greenish, with a faint longitudinal brownish

stripe on upper and under surface; 2nd joint yellow-brown, apical half blackish (ratio of black to pale parts =18:21), extreme base indistinctly infumed; other joints absent. Calli and a spot on either basal angle of pronotum black, disk in basal part with a slight brownish tinge. Scutellum (Fig. 9 h) black, apex and lateral stripes whitish yellow. Elytra green; scutellar, commissural and sutural margins of clavus blackish, dark band of commissural margin expanded at middle; endocorium in apical part largely dark brown, the dark patch interrupted at the middle by a brownish longitudinal band, exocorium with a roundish dark subapical spot, extreme costal margin black; cuneus pale; membrane dark brown. Thorax largely brownish; venter pale ochraceous, with broken longitudinal dark bands. Legs green, femora with two dark broken subapical rings.

Resembling *L.meruensis* Pop. Hair covering short, brownish. Head 0.54 × as broad as pronotum; eyes large, ocular index 0.98; frons with traces of transverse lateral striae; basal margin of vertex distinctly carinate. Proportions between two basal antennal joints 15:39, lst joint 0.6 × as long as diatone, 2nd 1.56 × as long as diatone, 0.85 × as long as basal width of pronotum. Pronotum 1.8 × as broad as long; disk, except callal area, densely and distinctly punctate. Scutellum sparsely and finely punctate. Puncturing on elytra as on pronotum, cuneus only indistinctly punctate. Male genitalia as in *L.suturellus* Pop. and *L.meruensis* Pop. but spiculum (Fig. 9 e) strongly tapering apicad, ending in a claw-like apex. Hypophysis of left stylus (Fig. 9 g) thicker than in *L. suturellus*. Right stylus in Fig. 9 f.

Material studied: Ethiopia: Mt. Maigudo, 1 ♂, type, 16 – 17. VI. 1963, Linnavuori, in my collection.

L. (Orthops) brevicornis sp.n.

Resembling *L.suturellus* Pop., differing as follows:

brevicornis

1. smaller, length 4.6 mm, more broadly ovate.
2. tylus apically black.
3. lst antennal joint totally pale; 2nd yellow-brown, with only apex black (ratio of dark and pale parts = 7:22).
4. scutellum with two black triangles (Fig. 9i).
5. eyes smaller, ocular index (♀) 1.8.
6. antennae appearing short, proportions between joints 10:29:18:?, lst joint 0.46 × as long as diatone, 2nd 1.31 × diatone, 0.64 × as long as basal width of pronotum.
7. puncturing somewhat more superficial.
8. spiculum (Fig. 9 j – l) broad, with a prominent basal tooth.

suturellus

1. longer, length 4.7 – 5.0 mm, more elongate.
2. tylus completely pale.
3. lst antennal joint with a dark longitudinal stripe; 2nd black, with a pale subbasal ring, rarely totally black; in palest specimens base only indistinctly darkened.
4. scutellum always pale.
5. eyes larger, ocular index 0.94 – 1.28 (♂) or 1.33 – 1.37 (♀).
6. antennae longer, 1st joint about 0.5 – 0.54 × as long as diatone, 2nd 1.33 – 1.5 × as long as diatone, 0.69 – 0.8 × as long as basal width of pronotum.
7. puncturing coarser.
8. spiculum (Fig. 9 c) narrow and straight.

Material studied: Kenya: Eldoret, 1 ♀, type, 1 ♂ (head and pronotum missing) paratype, P. Knudsen, in my collection.

This and the preceding species belong to the *suturellus* group, recognized by the short and dentate spiculum and the triangular subapical lobe of the hypophysis of the left stylus. The species of the group can be distinguished with the aid of the following key:

1 (4) Basal margin of vertex distinctly carinate 2
2 (3) Apex of cuneus black. Eyes in ♂ very large, ocular index 0.57. Spiculum without a claw-like apical process ..... *meruensis* Pop. (Eastern Africa)
3 (2) Cuneus immaculate. Ocular index in ♂ 0.98. Spiculum (Fig. 9 e) with a claw-like apical process ..... *unguicularis* sp.n.
4 (1) Base of vertex medially indistinctly carinate .. 5
5 (6) Tylus and scutellum pale. Spiculum (Fig. 9 c) straight and narrow ..... *suturellus* Pop. (East. Africa, Ethiopia, Eritrea)
6 (5) Apex of tylus black. Scutellum with two large black triangles. Spiculum (Fig. 9 j – l) broad, tapering apicad ..... *brevicornis* sp.n

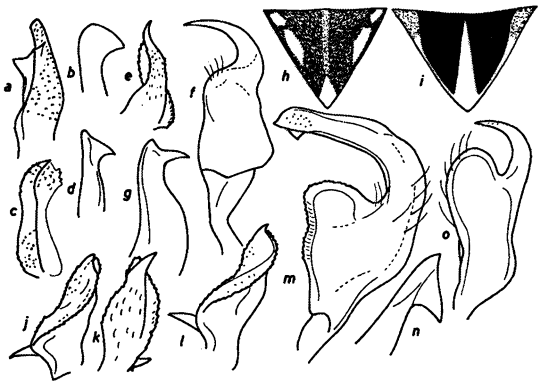

Fig. 9. *Lygus alpicola* Pop. (from Kipopo): a spiculum; b apex of hypophysis of left stylus in broad aspect. — *L.suturellus* Pop.: c – d same. — *L.unguicularis* sp.n.: e spiculum; f right stylus; g apex of hypophysis of left stylus in broad aspect; h scutellum. — *L.brevicornis* sp.n.: i scutellum; j – l spiculum; m left stylus; n apex of hypophysis of same in broad aspect; o right stylus.

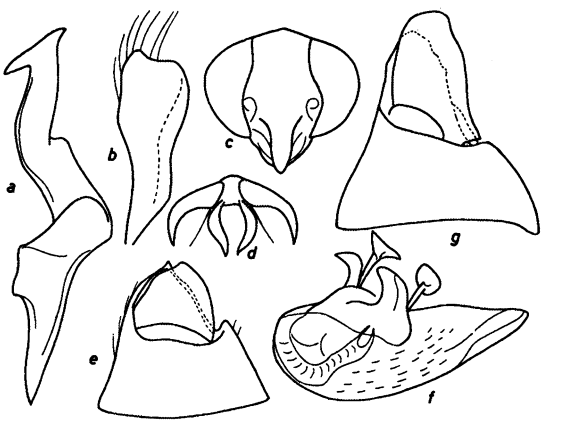

Fig. 10. *Nanniella flaviceps* sp.n.: a left stylus; b right stylus. — *Laurinia bathyllus* sp.n.: c head, apical view; d claws; e pygophore; f penis. — *L.fugax* Rt.: g pygophore.

Orthotylinae

Nanniella pallidiceps sp.n.

Length 3.25 mm. Shiny black. Vertex and upper part of frons largely dark yellowish brown. Eyes dark brown. lst antennal joint (others absent) yellow. Cuneus, excluding basal margin, pale. Membrane brownish smoky, laterally pale. Legs yellow-brown. Hind femora with a longitudinal dark brown stripe on inner surface. Tibiae apically and 3rd tarsal joint black.

Body remarkably gracile, nearly 4 × as long as broad. Upper surface with dense, semierect longish pale grey hair covering. Head 0.74 × as broad as pronotum, in apical view 1.14 × as broad as high, base of vertex margined, eyes small, ocular index 2.0. Rostrum extending to hind coxae. Pronotum remarkably elongate. 1.43 × as broad as long (total length), lateral margins distinctly insinuated; collar distinct, broadish; disk convex, coarsely punctate, puncturing distinctly coarser than in *N.chalybaea*. Puncturing of scutellum and elytra also dense and coarse, mesocorium with impunctate apical patch, cuneus apically impunctate. Legs as in *N.chalybaea*. Male genitalia in Fig. 10 a – b. Right stylus without apical tooth.

Material studied: Zaire: Lubumbashi, 1 ♂ type, 12 – 19. IV. 1971, A. B. Stam.

The very gracile body distinguishes *N.pallidiceps* from all other species of the genus (body 3 – 3.5 × as long as broad, pronotum at least 1.5 × as broad as long) except from *N.gracilis* Lv. (the Sudan). The last-named is considerably bigger, length 3.5 – 3.75 mm, and has much longer legs with completely black tibiae. Of *N.reuteri* Pop. only the female sex is known. The females of this species are smaller, length 2.8 mm, and robuster than *N.pallidiceps*, the head and cuneus are blackish, the femora and tibiae pale are yellow, and the pronotal collar is indistinct. In *N. chalybaea* Rt. and *N. palustris* Lv. the lateral margins of the pronotum are straight etc.

Laurinia bathyllus sp.n.

Figs. 10 c and 13 f – g. Length 4.0 – 4.25 mm. Shiny reddish brown. Eyes dark brown. Antennae yellow-brown, 4th joint and basal parts of 3rd and 2nd joints darkened. Elytra with the same pattern as in *L.fugax*, clavus and corium reddish or reddish brown, costal margin and claval commissure narrowly dark; basal third of corium with oblique white band ex-

tending slightly to the adjacent part of clavus, a faint pale spot in costal margin at the level of tip of clavus, commissural margin of clavus with a small white spot; cuneus strongly shiny, dark purplish, base white; white spots and base of corium also shiny, rest of elytra opaque; membrane dark smoky. Legs yellowish brown, tarsi and apical third of tibiae slightly paler.

Small. Hair covering of upper surface short, sparse and smooth. Head about 0.85 × as broad as basal width of pronotum, in apical view distinctly broader than high (58:50), microsculptured, eyes large, ocular index 0.97 – 1.11. Antennae with dense semidecumbent hairs, proportions between joints 4:23:19:15 (diatone 23, basal width of pronotum 27 units). Rostrum not extending to middle coxae. Pronotum strongly constricted at middle; apical lobe small, sloping caudad; basal lobe large, globose; the two lobes separated by a transverse impression. Basal part of scutellum strongly raised, with a deep transverse sulcus; upper margin of the raised apical part shallowly insinuated in caudal view. Costal margin of elytra distinctly insinuated; commissural margin of clavus strongly raised, forming a sharply triangular hump in lateral view. Legs as in *L.fugax*. Claws in Fig. 10 d. Male genitalia in Figs. 10 e – f and 11 b.

Material studied: Nigeria: Ile-Ife, 1 ♂, type, 13. VII. 1970, 1 ♂ paratype 5. VIII. 1969, 1 ♂ paratype 29. XII. 1970, J. Medler, in my collection.

L.fugax Rt. (North Africa) is much larger, the costal margin of the elytra is only slightly insinuated, the claval commissure is not humped, the pygophore is longer, the left stylus much longer, and the penis is narrower and provided with a distinct falcate spiculum. The male genitalia are shown in Figs. 10 g and 11 a and c.

Zanchius bilineatus sp.n.

Length 3.5 mm. Shiny green. Head pale ochraceous, base of vertex greenish with a largish, slightly callose, whitish median spot. Eyes brownish. Antennae whitish (only two basal joints present), lst joint with 3, 2nd joint (Fig. 11 e) with 5 ± incomplete red rings. Pronotum (Fig. 11 d) with two callose white bands, diverging caudad, on posterior part of disk; lateral margins also callose and white. Scutellum with slightly callose white basal triangles; apex also pale. Elytra green, with costal margin, claval suture, an oblique transverse band in corium at middle, a roundish apical spot in mesocorium and a spot in inner basal angle of cuneus, white; clavus and corium with a longitudinal pale orangish band, the latter band broken by the white areas; membrane pale brownish, cells green. Under surface whitish green. Legs pale ochraceous, femora with slight greenish tinge, tarsi a little darkened apically.

Gracile, resembling the other species of the genus in general form. Hair covering pale and longish. Head 0.8 × as broad as pronotum, eyes remarkably large, ocular index 0.92. Proportions between two basal antennal joints 8:30, 2nd joint 1.58 × as long as basal width of pronotum, lst joint with longish brownish hairs, those of 2nd joint shorter and whitish. Rostrum extending beyond hind coxae. Pronotum 2.1 × as broad as long (total length), lateral margins straight, basal margin insinuated, disk distinctly divided into two portions; anterior part collar-shaped, medially flattish, calli fused, indistinct; basal portion convex, sloping apicad. Styli in Figs. 11 f and 12 a – b.

Material studied: Zaire: Lubumbashi, 1 ♂, type, 27 – 28. II. 1971.

Easily recognized by the white callosities, the large eyes, etc.

Mecomma angusticollis sp.n.

Length 4 mm. Shiny. Head black, vertex with indistinct brown spot near either eye. Eyes dark brown. lst and 2nd antennal joints (others absent) black. Pronotum and scutellum black. Elytra yellowish brown, apical part of clavus and endocorium slightly darkened; membrane dark brown. Under surface black or blackish brown. Legs reddish, coxae and bases

of femora yellowish, tibiae slightly darkened basally, lst and 2nd tarsal joints yellowish brown, 3rd joint dark.

Elongate, about 4 × as long as broad at base of pronotum. Hair covering brownish and smooth. Head about 0.83 × as broad as pronotum, eyes large, ocular index 1.13 – 1.20. Antennae relatively incrassate, proportions between basal joints 11:33, lst joint with a few erect dark bristles, hair covering otherwise black and adpressed, 2nd joint 1.65 × as long as diatone, 1.33 × as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum (Fig. 12 c) 1.5 × as broad as long (total length), anterior part unusually narrow, with lateral margins only slightly diverging caudad, basal part strongly widened, collar narrow, calli unusually strongly raised, roundish. Elytra much longer than abdomen, cuneus 1.67 × as long as broad. Male genitalia in Fig. 12 d – h.

Material studied: Zaire: Lubumbashi, 1 ♂, type and 2 ♂ paratypes 2 – 3. V. 1971, A. B. Stam.

Easily recognized from *M.fumida* Lv. (Ethiopia) and *M.grandis* Carv. & Sw. (Sudan, Ethiopia) by the red legs, the large eyes, the narrowish pronotum with strongly raised calli and the male genitalia. *M.ruwenzoriense* Ghauri is known only in the female sex (brachypterous). A full comparison between .it and *M.angusticollis* is therefore not possible. The legs in *M.ruwenzoriense* are differently coloured (femora on their ventral surface and tarsi fumed, tibiae pale fuscous) and the lateral margins of the pronotum are straight. Moreover the species lives at high altitudes (12900 ft.) in Ruwenzori. Consequently *M.angusticollis* can hardly be identical with that species.

Aloea iadmon sp.n.

Length 3 mm. Fairly shiny. Head pale yellowish green, slightly darkened medially. Eyes brown. Antennae (only lst and 2nd joints present) yellowish-brown, lst joint with indistinct brown basal ring, 2nd joint a little embrowned apically, with extreme base whitish. Pronotum, scutellum and elytra olivaceous brown; membrane brownish smoky, veins pale. Under surface and legs yellowish brown, tibial spines pale.

Elongate, almost parallel-sided. Head and pronotum with dense adpressed silvery pubescence. Hair covering otherwise longish, concolorous and smooth. Head large, flattish, 0.86 × as broad as pronotum in apical view 1.38 × as broad as high, ocular index 1.92. Antennae appearing shortish, proportions between two basal joints 7:20, 2nd joint slightly shorter than diatone (20:22), nearly 0.8 × as long as basal width of pronotum. Rostrum extending near to middle coxae. Pronotum 2.1 × as broad as long at middle, lateral margins straight, rather strongly diverging caudad; basal margin distinctly insinuated; callal humps moderate; disk faintly convex, densely and minutely punctate. Scutellum flattish, finely microsculptured. Elytra shagreened and finely punctate.

Material studied: Zaire: Lubumbashi, 1 ♀, type, 22 – 23. X. 1970, A. B. Stam.

The genus consists of the following species: *A. cunealis* Lv. (Somalia), *A. cunealis persimilis* Lv. (Sudan, Eritrea), *A. nigritula* Lv. (Yemen), *A. planiceps* Lv. (Sudan, Somalia) and *A. callosa* Lv. (Sudan). *A. iadmon* resembles *A. planiceps* in the straight lateral margins of the pronotum (insinuated in the pthers). *A. planiceps* is broader, ovate, opaque and considerably darker (general colouring brown, femora dark reddish brown), the silvery hairs on the upper surface are scanty, the head is smaller, about 0.76 × as broad as the pronotum, the pronotum is broader (2.23 × as broad as long at middle), the puncturing of the pronotum and the elytra is very indistinct, the scutellum is more convex and the 2nd antennal joint is nearly as long as the diatone (21:22). The species of this peculiar genus live on *Aloe*.

Hallodapinae

Trichophorella vicaria sp.n.

Length 4.75 mm. Fairly shiny. Yellow-brown. Eyes dark brown. Antennae yellow-brown, lst joint blackish, with extreme apex and a stripe

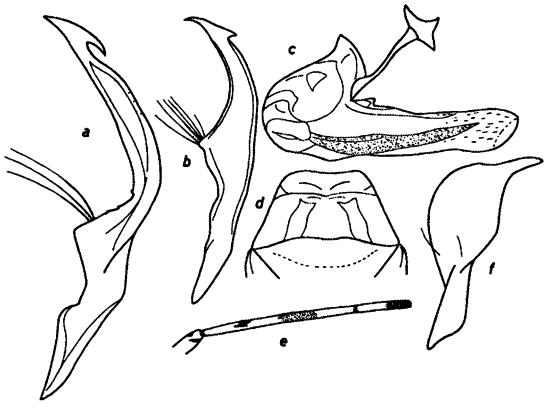

Fig. 11. *Laurinia fugax* Rt.: a left stylus; c penis. — *L.bathyllus* sp.n.: b left stylus. — *Zanchius bilineatus* sp.n.: d pronotum; e lst and 2nd antennal joints; f right stylus.

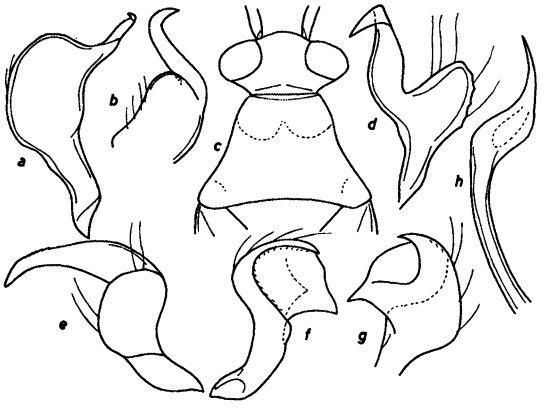

Fig. 12. *Zanchius bilineatus* sp.n.: a – b left stylus. — *Mecomma angusticollis* sp.n.: c head and pronotum; d – e left stylus; f – g right stylus; h spiculum.

on ventral surface pale; extreme base of 2nd joint with a red longitudinal stripe; basal third of 4th joint dark brown. Medio-apical angle of corium infuscate, cuneus purplish, membrane dark grey with a pale spot at tip of cuneus. Under surface of thorax largely dark reddish brown. Femora basally dark brown.

Narrow, parallel-sided. With long erect pale hairs, elytra also with smooth short yellowish hairs. Ocular index 1.23. Proportions between antennal joints 18:48:34:23, lst joint 0.8 × as long as diatone, 2nd 1.5 × as long as basal width of pronotum. Rostrum extending slightly beyond hind coxae. Pronotum distinctly broadening caudad. Male genitalia as in *T. palustris* Lv. but left stylus (Fig. 13 a – b) differently shaped. Theca in Fig. 13 c.

Material studied: Nigeria; Ile-Ife, 1 ♂, type, 29. XII. 1970, J. Medler, in my collection.

T.palustris Lv. (Sudan, East Africa) is very similar, but has larger eyes (ocular index 1.0 (♂) or 2.0 (♀), the 2nd antennal joint is 1.34 (♂) or 1.6 (♀) × as long as the basal width of the pronotum and the left stylus is dissimilar.

Glaphyrocoris nigeriensis sp.n.

Length 4 mm. Strongly shiny. Antennae yellowish brown, basal half of 2nd and 3rd joints and entire 4th joint dark brown. Elytra (Fig. 14 b) dark brown, costal margin and base of clavus golden brown, the white middle band broadish, broken at claval suture. Under surface dark yellowish brown. Legs golden brown, tibiae somewhat embrowned.

Robust. With sparse erect longish pale hairs. Eyes large, ocular index 1.18. Antennae incrassate, proportions between joints 6:19:14:13, 2nd joint nearly 0.7 × as long as basal width of pronotum. Rostrum extending to middle coxae. Microsculpturing of pronotum indistinct. Scutellar hump relatively small. Male genitalia in Fig. 13 d – h.

Material studied: Nigeria: Ile-Ife, 1 ♂, type, 29. XII. 1970, J. Medler, in my collection.

G.antennalis Lv., from the Sudan, is a closely related species differing in the uniformly pale 2nd antennal joint, the narrower white band on the elytra and the male genitalia (vesica thicker and provided with a shorter falcate apical part, the subbasal process of theca longer and right stylus shorter and broader). In *G. varians* Lv. (Sudan) the antennae are thinner and the male genitalia are dissimilar; the vesica, for instance, is much shorter and thicker.

G.rufiventris sp.n.

Length 4 mm. Opaquely shiny. Dark brown. lst antennal joint and apex of 3rd yellow-brown. Base of elytra (Fig. 14 c) dark brown and opaque, only the very basal angle shiny, a white transverse band, broken at claval suture, at middle of elytra; apical half of elytra oran-

Fig. 13. *Trichophorella vicaria* sp.n.: a left stylus; b same from above; c theca. — *Glaphyrocoris nigeriensis* sp.n.: d left stylus; e right stylus; f – g theca; h apex of vesica.

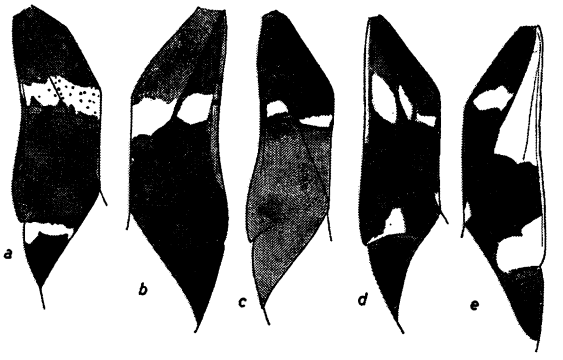

Fig. 14. Elytron of *Glossopeltis laevicollis* sp.n. a, *Glaphyrocoris nigeriensis* sp.n. b, *G.rufiventris* sp.n. c, *Plagiorrhamma maxima* sp.n. d and *P.katangana* sp.n. e.

gish, apex of clavus and adjacent parts of corium opaque, other parts shiny; membrane smoky. Under surface dark brown. Abdomen brightly orange. Legs dark brown.

Elongate. Hair covering smooth and concolorous, also sparse erect longish hairs present. Head large, nearly 0.9 × as broad as basal width of pronotum; vertex and frons flat, base of vertex even slightly concave, strongly microsculptured; eyes large, ocular index 0.77. Antennae longish and moderately thick, proportions between joints 6:27:17:14, 2nd joint slightly longer than diatone (27:24), nearly as long as basal width of pronotum (27:28). Rostrum extending to middle coxae. Pronotum narrowish, 1.27 × as broad as long, lateral margins distinctly insinuated, disk moderately convex, densely and distinctly microsculptured. Scutellar hump (Fig. 16 a) prominent. Elytra narrow. Hair covering of tibiae short and smooth. Male genitalia in Fig. 16 b – e.

Material studied: Nigeria: Ile-Ife, 1 ♂, type, 20. VIII. 1969, J. Medler, in my collection.

Easily distinguished by the unique colouring; the apically orange elytra and the reddish abdomen are striking.

On the *pilosus* group of the genus *Plagiorrhamma* Fb.

Key to the species

1 (2) Hair covering of upper surface short and adpressed ..... *costai* Rt. (Eremian Subregion, Cape Verde Is., Northern Sudan, Eritrea)

2 (1) Upper surface, at least elytra, with long erect hairs 3

3 (6) 2nd antennal joint at least 1.2, in ♂ 1.5 – 1.6 × as long as basal width of pronotum, lst and 2nd joints with erect long hair covering 4

4 (5) Clavus blackish, with base and a triangular middle spot white (Fig. 15 a) ..... *stami* sp.n.

5 (4) Clavus blackish, with a whitish transverse band at middle (Fig. 14 e) ..... *katangana* sp.n.

6 (3) 2nd antennal joint much shorter, in both sexes only a little longer than basal width of pronotum, hair covering of antennae short and smooth .. 7

7 (8) Only elytra with long erect hairs. Pattern of elytra as in Fig. 15 b .... *poseidon* (Kk.) (the Sudanese Subregion)

8 (7) Entire upper surface with long erect hairs .. 9

9 (10) Transverse black band in apical part of corium broad, extending to costal margin (Fig. 15 c). Male genitalia in Fig. 18 g – i. Pygophore not tuberculate ..... *sororcula* Lv. (Sudan)

10 (9) Transverse black band in apical part of elytra (Fig. 15 d) narrowing laterad, not extending to costal margin. Male genitalia in Fig. 18 b – f. Left side of pygophore with a strong tubercle (absent in other species) ..... *pilosa* Pop. (widespread in the Ethiopian Region)

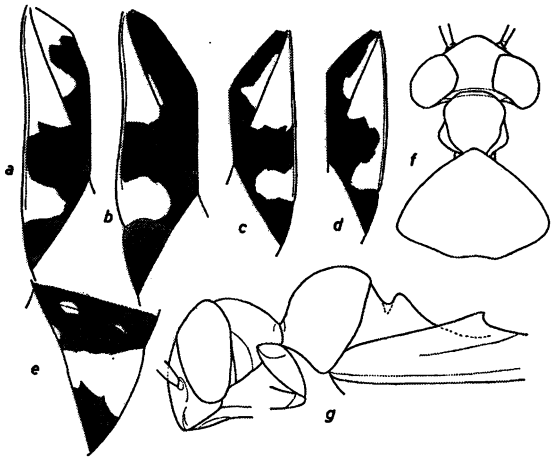

Fig. 15. Elytron of *Plagiorrhamma stami* sp.n. a, *P.poseidon* (Kk.) (from Katanga) b, *P.sororcula* Lv. c and *P.pilosa* Pop. d. — *Cranocapsus acuticeps* sp.n.: e cuneus. — *Laurinia bathyllus* sp.n.: f head and pronotum; g head, pronotum and scutellum in profile.

Fig. 16. *Glaphyrocoris rufiventris* sp.n.: a pronotum and scutellum in profile; b left stylus; c right stylus; d theca; e vesica. — *Plagiorrhamma maxima* sp.n.: f pronotum. — *P.stami* sp.n.: g right stylus; h vesica; i – j theca.

P.poseidon (Kk.) (= *aethiopicus* Rt.)

Length 3.5 – 3.75 mm. Opaque. Black. Eyes brown. Antennae pale ochraceous, base of lst joint black, extreme apex reddish. Elytra (Fig. 15 b) blackish brown with white pattern, clavus often completely black; cuneus dark red; membrane uniformly dark. Femora dark brown, legs otherwise pale.

Upper surface with smooth fine pale hairs, elytra also with longish semi-erect pale hairs. Ocular index (♂) 1.36 – 1.45. Antennae with short, smooth hair covering, 2nd joint about as long as basal width of pronotum. Rostrum extending to hind coxae. Pronotum strongly broadening caudad, lateral margins slightly insinuated. Elytra longer than abdomen. Male genitalia in Fig. 17 f – i and 18 a.

Besides the material from Lubumbashi the following specimens were studied: Guinea: Addah, 1 ♂ cotype of *P.poseidon*, designated here as the lectotype, Reitter, Mus. Helsinki. Ins. Pemba, Funda, 1 ♂, type of *P.aethiopicus* Rt., Mus. Helsinki. Br. East Africa, Kibwezi, 1 ♂, 12. III. 1906, Scheffler, Mus. Helsinki.

P.stami sp.n.

Length 3.5 – 3.75 mm. Opaque. Black. Eyes brown. Antennae pale ochraceous, extreme base of lst joint dark, extreme tip orangish, 3rd and 4th joints dark yellow-brown. Elytra dark brown, with whitish pattern as in Fig. 15 a; cuneus dark red, apex pale; membrane dark smoky, base and a spot at apex of cuneus pale. Legs pale ochraceous, femora apically darkened, tibiae with a faint subbasal dark ring.

Gracile. Upper surface with long erect yellowish hairs. Ocular index 1.13 – 1.36 (♂) or (♀). Antennae long, 1st and 2nd joints with long semi-erect pale hairs, proportions between joints 12:35:30:11, 2nd joint 1.6 (♂) or 1.2 (♀) × as long as basal width of pronotum. Rostrum extending to base of venter. Pronotum strongly broadening caudad, lateral margins behind collar straight. Elytra in both sexes narrow, much longer than abdomen. Legs with long erect pale hairs. Male genitalia in Fig. 16 g – j.

Material studied: Zaire: Kipopo, 1 paratype, 6. XII. 1970; Lubumbashi, 1 ♂, type, 25 – 26. II. 1971, 5 paratypes 7. I – 19. II. 1971, A. B. Stam.

Fig. 17. *Plagiorrhamma stami* sp.n.: a left stylus. — *P.katangana* sp.n.: b same; c – d theca; e vesica. — *P.poseidon* (Kk.): f left stylus; g right stylus; h – i theca.

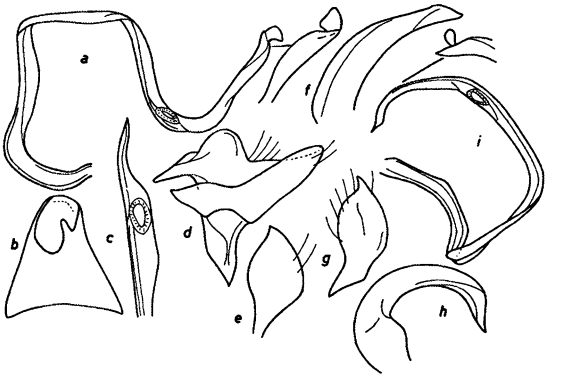

Fig. 18. *Plagiorrhamma poseidon* (Kk.): a vesica. — *P.pilosa* Pop.: b pygophore; c apex of vesica; d left stylus; e right stylus; f theca. — *P.sororcula* Lv.: g right stylus; h theca; i vesica.

The species is dedicated to its collector, Prof. A. B. Stam, of the Hague.

P.katangana sp.n.

Length 3.5 mm. As the preceding but eyes much larger, ocular index 1.04. Lateral margins of pronotum slightly insinuated. Pattern of elytra as in Fig. 14 e. Cuneus totally dark red. Legs pale, only extreme apex of femora reddish. Male genitalia as in Fig. 17 b – e.

Material studied: Zaire: Lubumbashi, 1 ♂, type, 5 – 6. III. 1971, A. B. Stam.

Plagiorrhamma maxima sp.n.

Length 6 mm. Opaque. Blackish brown. lst antennal joint blackish, 2nd dark yellow-brown. Elytra dark brown, with whitish ochraceous, not contrasted spots as in Fig. 14 d, also costal margin in basal half pale, cuneus dark red, membrane brownish smoky. Legs dark reddish brown, fore and middle coxae pale.

Robust, elongately pear-shaped in outline. Hair covering of upper surface short, smooth and yellow. Head shagreened, eyes rather small, ocular index 1.4. Proportions between the two basal antennal joints 18:55, these joints with smooth hair covering, 2nd joint nearly 1.4 × as long as basal width of pronotum. Rostrum extending to middle coxae. Pronotum (Fig. 16 f) twice as broad as long at middle, strongly broadening caudad; lateral margins distinctly insinuated, humeral angles prominent; disk convex, densely shagreened. Scutellum longish, basally rather tumid, densely shagreened. Elytra a little longer than abdomen. Legs relatively incrassate; tibiae with short, delicate pale spines.

Material studied: East Africa, Madji, Madzuru, 1 ♀, type, 20. XII. 1911, Svatosh, in Mus. Leningrad.

Easily recognized by the large size.

Phylinae

On the genus *Ellenia* Rt. (=*Marshalliella* Pop., *Melanotrichiella* Pop.)

Species of this peculiar genus may easily be mistaken for certain representatives of the genus *Psallus* Fb. They differ strikingly from *Psallus*, however, in the curious structure of the claws (Fig. 19 b – e): the arolia are well developed and converge apicad, while in *Psallus* they are hair-like and parallel. Owing to this, the genus has generally been placed in the subfamily Orthotylinae. But the structure of the male genitalia is of the Phylinae type and clearly points to membership of this subfamily. Besides *Ellenia* the following genera of Phylinae have this type of claw structure: *Paramixia* Rt. (=

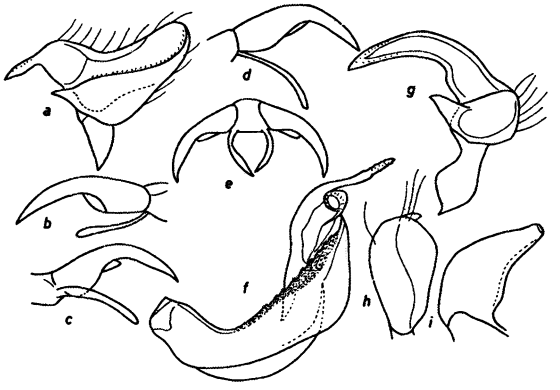

Fig. 19. *Plagiorrhamma sororcula* Lv.: g left stylus. — *Ellenia obscura* (Pop.): b claw from side. — *E.obscuricornis* (Pop.): c same. — *E.anuak* Lv.: d same. — *E.viridula* sp.n.: e claws. — *E.scutellaris* sp.n.: f vesica; g left stylus; h right stylus; i theca.

Troitskiella Pop.), *Schroederiella* Pop., *Stibaromma* Odh., *Cephalocapsus* Pop., *Chinacapsus* Wgn. and *Lindbergocapsus* Wgn. They form a natural group that originated in Africa apparently from *Psallus*-like ancestors. Radiation into the adjacent parts of the Palaearctic Region (the Macronesian islands and the Mediterranean Subregion) has taken place. *Ellenia* has a curious tropicopolitan range (two species are known from Madagascar, one from Formosa and one from South America).

Key to the African species

1 (2) Antennae totally black ..... *kilimana* (Pop.) (= *Psallus tenebrosus* ODHIAMBO 1959, p. 516 – 518, syn. n.) (East Africa, Ethiopia, Senegal, Nigeria)

2 (1) Antennae partly or totally pale 3

3 (8) Upper surface completely pale, immaculate 4

4 (5) lst antennal joint pale, with base and two middle spots dark, other joints dark, 2nd sometimes apically pale. Ocular index 1.74 (♂) or 2.1 (♀). 2nd antennal joint nearly as long as basal width of pronotum .... *pallida* (Pop.) (East Africa)

5 (4) Antennae pale, at most with indistinct dark spots.....6

6 (7) Length 4 mm. Antennae whitish yellow. Fore and middle legs immaculate, hind femora with a few black spots in apical half, black dots of hind tibiae very small. Ocular index 3.0 (♀). 2nd antennal joint 0.9 × as long as basal width of pronotum ..... *hyal inipennis* Lv. (Sudan)

7 (6) Length 3 mm. Antennae pale yellow, 3rd joint yellow-brown. Legs with black spots. Ocular index about 2.5 (♂) ..... *unicolor* (Pop.) (East Africa, unknown to me)

8 (3) Upper surface with dark markings 9

9 (14) lst antennal joint black, with extreme apex pale (see also *guttata*), distinguished from the following species by the larger eyes, ocular index 1.82) 10

10 (11) Prevailing colour black. Cuneus black, with only basal margin pale. Ocular index (♂♀) about 2.42 – 2.54. 2nd antennal joint about 0.67 – 0.7 × as long as basal width of pronotum ..... *obscura* (Pop.) (East Africa)

11 (10) Ground colour yellowish, with black spotting. Cuneus pale, at most with a few small dark dots in median margin 2

12 (13) Apico-lateral angle of corium with a conspicuous black spot, dark spots of elytra × confluent. 2nd antennal joint 0.83 × as long as basal width of pronotum. Ocular index (♀) 2.18 .. .. *simile* (Pop.) (East Africa)

13 (12) Apico-lateral angle of corium immaculate; elytra otherwise with sparse small dark dots. 2nd antennal joint 0.6 – 0.71 × as long as basal width of pronotum. Ocular index 2.0 – 2.35 (♂) or 2.0 – 2.62 (♀) .... *obscuricornis* (Pop.) (=*Psallus labeculus* ODHIAMBO 1959, p. 518 – 521, syn.n.) (South and East Africa, Ethiopia)

14 (9) lst antennal joint pale, with dark spots .. 15

15 (20) Pronotum and scutellum completely pale, yellowish or greenish 16

16 (17) Large species, length 4.75 mm. 2nd antennal joint with about 6 black spots, 1.2 × as long as basal width of pronotum. Ocular index (♂) 1.57 ..... *picticornis* Lv. (Sudan)

17 (16) Small species, length < 4 mm. 2nd antennal joint shorter than basal width of pronotum, with at most extreme base and apex darkened 18

18 (19) Eyes relatively large, ocular index 1.82 – 2.0 (♂) or 2.44 (♀). 2nd antennal joint 0.6 – 0.7 × as long as basal width of pronotum. Body broader. Colouring yellowish .... *anuak* Lv. (Sudan)

19 (18) Eyes small, ocular index 2.28 – 2.3 (♂) or 2.74 (♀). 2nd antennal joint 0.9 × as long as basal width of pronotum. Body narrower. Colouring green ..... *viridula* sp.n.

20 (15) Pronotum and scutellum with dark markings 21
21 (22) Elytra hyaline, almost immaculate (at most median margin of corium with very small dark dots, clavus with a few indistinct dark spots, extreme apex of clavus slightly darkened), membrane also pale, vitreous. Extreme base of tibiae with a conspicuous black spot. Ocular index (♂♀) 2.10 – 2.33. 2nd antennal joint 0.8 × as long as basal width of pronotum ..... *immaculipennis* (Pop.) (=*Psallus prolixus* ODHIAMBO 1959, p. 521 – 523, syn.n.) (East Africa)
22 (21) Elytra with distinct dark spots; if sometimes with scanty dotting (*scutellaris*), than membrane with distinct infumations. Extreme base of tibiae pale 23
23 (24) Small species, length 3 mm. Black hair covering of upper surface erect and long. Apico-lateral angle of corium black. 2nd antennal joint with base and a subapical ring blackish. Ocular index nearly 3.0 ..... *annulicornis* (Pop.) (East Africa, Madagascar, unknown to me)
24 (23) Larger species. Black hair covering of upper surface moderately long, semidecumbent. 2nd antennal joint (unknown in *scutellaris*) without subapical dark ring 25
25 (26) Length 3.5 mm. Ground colouring green. Scutellum, excluding 3 small pale basal dots, black. Elytra almost immaculate, only extreme apex of clavus and a row of small dots in inner margin of cuneus dark .. *scutellaris* sp.n.
26 (25) Larger species. Ground colouring ochraceous or yellowish. Elytra with distinct dark spotting. 2nd antennal joint nearly as long as basal width of pronotum 27
27 (28) Head, pronotum and scutellum immaculate (at most a few very indistinct small brownish dots on pronotum). Eyes remarkably small, ocular index 2.5 – 2.93 (♂) or 3.0 (♀). Length 3.5 – 4 mm ..... *mollis* Lv. (Ethiopia)
28 (27) Also head, pronotum and scutellum with dark spots. Eyes much larger. Length at least 4 mm 29
29 (30) Upper surface with evenly spread, rather dense, small fuscous dots, also present on cuneus. Ocular index 1.67 (♂) or 1.8 (♀) .... *nigropunctata* (Pop.) (East Africa, Ethiopia)
30 (29) Upper surface with sparse largish dark spots. Basal part of pronotum and scutellum often largely black. Dark spotting of elytra sparse, cuneus immaculate. 1st antennal joint sometimes black, with base and apex pale. Ocular index (♀) 1.82 ..... *guttata* Lv. (Ethiopia)

E.pallidicornis (Pop.) is omitted from the key. It differs from the other species of the genus in the much smaller, narrower and longer head and is hardly congeneric with them. Since in the holotype studied, a female from Cameroon, the legs have been lost, the precise generic position of the species remains obscure.

E.scutellaris sp.n.

Length 3.5 mm. Shiny. Head greenish yellow. Eyes brownish. 1st antennal joint greenish, extreme base and incomplete subapical ring, formed of 3 setigerous spots, black. Pronotum pale green, base medially dark, interrupted at middle by a narrow pale line; a few small fuscous spots also present. Scutellum blackish, basal margin with 3 small yellowish spots. Elytra pale green, extreme tip of clavus, a row of small spots in apical margin of corium and in median margin of cuneus blackish, other parts of elytra immaculate; membrane hyaline, apical margin and a curved transverse band in basal part brownish smoky. Under surface green. Legs pale greenish, femora with numerous black spots in apical part, tibiae with distinct setigerous black spots, tip of tarsi dark. Tibial spines long and black.

Small, elongate. Black hairs on upper surface long, on head and anterior part of pronotum erect, otherwise semidecumbent; pale adpressed hairs also present. Head 0.7 × as broad as pronotum, eyes fairly large, ocular index 1.95. Rostrum extending to middle coxae. Pronotum 2.2 × as broad as long (total length), lateral margins straight, distinctly diverging caudad. Claws as in the following species, with small pseudarolia. Male genitalia in Fig. 19 f – i. Pygophore not keeled.

Material studied: Zaire: Lubumbashi, 1 ♂, type, 27 – 28. IV. 1971, A. B. Stam.

Closely related to the following species, but differing in the colour pattern and the larger eyes.

E.viridula sp.n.

Length 3.0 – 3.25 mm. Pale green. Eyes brown. 1st antennal joint with extreme base and incom-

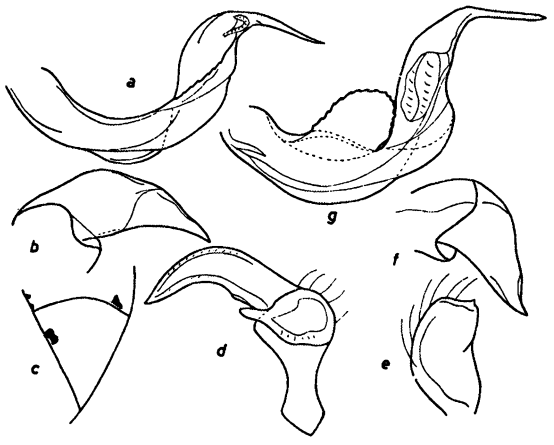

Fig. 20. *Ellenia viridula* sp.n.: a vesica; b theca; c cuneus. — *Compsidolon impictum* Odh. (from Katanga): d left stylus; e right stylus; f theca; g vesica.

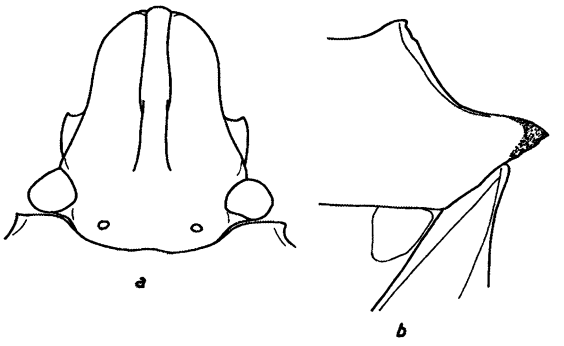

Fig. 21. *Carbula citheris* sp.n.: a head; b pronotum.

plete subapical ring black; 2nd joint yellowish, base and subapical ring dark brown, extreme apex whitish (other joints absent). Extreme tip of clavus, a few spots on apical margin of corium and on median margin of cuneus (Fig. 20 c) and a spot on apico-lateral angle of corium blackish; membrane hyaline, with faint infuscations. Under surface uniformly green. Legs whitish ochraceous, femora with numerous black spots on apical part, tibiae with distinct setigerous black spots, tarsi apically embrowned. Tibial spines black, longish.

Small, elongately ovate. Black hair covering on upper surface long, semidecumbent, pale hairs adpressed. Head about 0.86 × as broad as pronotum, eyes small, ocular index 2.28 – 2.3 (♂) or 2.74 (♀). 2nd antennal joint 0.9 × as long as basal width of pronotum, 3.1 × as long as 1st. Rostrum extending to middle coxae. Pronotum about 2.1 × as broad as long (total length), lateral margins slightly curved, strongly diverging caudad. Claws (Fig. 19 e) with small pseudarolia. Male genitalia (Fig. 20 a – b) much as in the preceding species.

Material studied: Zaire: Lubumbashi, 1 ♂, type, 2 – 3. V. 1971, 3 paratypes 17. II – 5. IV. 1971, A. B. Stam.

Very near *E.anuak* Lv. (Sudan) but slightly smaller and narrower, eyes considerably smaller (ocular index in *E.anuak* 1.92 – 2.0 (♂) or 2.44 (♀)), and 2nd antennal joint a little shorter.

Pentatomidae

Carbula citheris sp.n.

Fig. 21 a – b. Yellowish brown, with a reddish tinge. Puncturing blackish. Antennae yellow. Eyes dark reddish brown, ocelli red. Lateral margins of pronotum narrowly pale ochraceous and callose, humeral angles black. Scutellum with large whitish yellow basal callosities, median parts and apex of disk appearing paler. Membrane with veins pale, hyaline. Dorsum black. Connexivum yellow, transverse segmental margins black. Under surface yellow-brown, with black puncturing. Venter medio-basally ± embrowned, a faint longitudinal dark band with coarse black puncturing on either side; parasternites pale, with black apical spots. Fore legs with dark dotting. Middle and hind femora with a black subapical spot.

Robust. Puncturing of upper surface coarse. Head slightly shorter than broad (48:52 in ♂, 50:51 in ♀); lateral margins only shallowly insinuated in front of eyes, genae therefore broadish; surface flattish, only tylus slightly convex; entire head densely and coarsely punctate, only vertex medially somewhat more remotely punctate; ocular index 3.1 – 3.3. An-

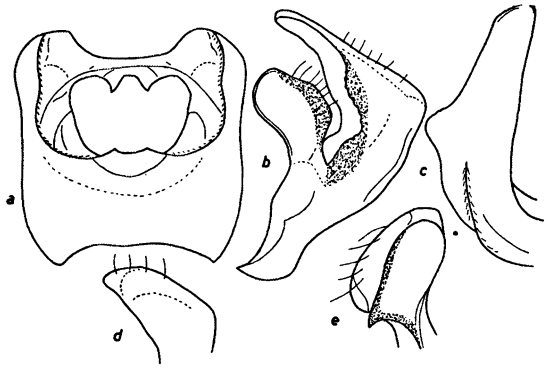

Fig. 22. *Carbula citheris* sp.n.: a pygophore, dorsal aspect; b stylus; c longer branch of same in broad aspect; d – e shorter branch of stylus in different aspects.

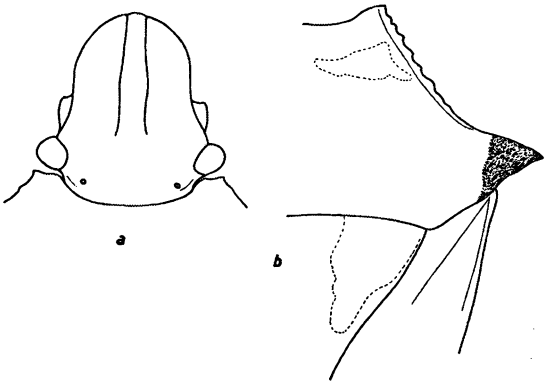

Fig. 23. *Carbula zoutpansbergensis* Scht.: a head; b pronotum.

tennae long, proportions between joints 12:20: 22:30:33 (diatone 51) in ♂, 12:21:22:28:35 (diatone 51 units) in ♀. Rostrum extending beyond hind coxae. Pronotum with humeral angles ± horn-shaped, slightly recurved caudad apically; lateral margins narrowly callose, a little crenulate; disk coarsely and densely punctate, puncturing most dense in anterior margin, least dense in a largish, somewhat callose spot, starting between calli and extending to anterior half of posterior lobe; calli with a ring of punctures in the middle. Scutellum as broad as long, basal callosities very large, disk laterally densely punctate, puncturing of median and apical parts sparse. Puncturing on elytra finer than on pronotum, dense; median parts of corium with impunctate patches, membrane extending beyond tip of abdomen. Puncturing on under surface of head and thorax coarse and dense. Venter with coarse puncturing in the dark areas, other parts superficially punctate. Male genitalia in Fig. 22.

Material studied: Zaire: Lubumbashi, ♂ 1, type and 1 ♀ paratype, 26. II. 1971, Bonvy, 1 ♂ paratype, 24. II. 1971, A. B. Stam.

One of the group of species in which the inner branch of the stylus is short and roundish (the *carbula* group). The main differences between *C.citheris* and the other species are mentioned below. *C.sjöstedti* Scht. (Kilimanjaro) lacks the large basal scutellar callosities. In *C.carbula* (Dist.) (widespread) and *C.tristis* Lv. (Ethiopia, Sudan) the humeral angles of the pronotum are blunt, the scutellar callosities small, the general shape of the body is more elongate, etc. In *C.usambarica* Scht. (Zaire, East Africa) and *C.bicolor* Dist. (Zaire, East Africa) the apical part of the head is narrower owing to a stronger constriction in front of the eyes and distinctly convex, the lateral margins of the pronotum are broadly and contrastedly callose and white. In *C.trisignata* (Gm.) (Southern Africa, East Africa) the lateral margins of the pronotum are broadly whitish, the apex of the scutellum is broadly whitish yellow, impunctate, the other parts of the scutellum (excl. the basal callosities) are densely and uniformly punctate, and the eyes are larger (ocular index about 2.8. All these species also differ in the male genitalia, illustrations of which will be published in a forthcoming paper on the Hemiptera of the Sudan.

C.litigatrix Kk. (Southern Africa, East Africa) and *C.jipensis* Gst. (East Africa) resemble *C.citheris* e.g. in the large scutellar callosities, but belong to another group of species in which the inner branch of the stylus is long and narrow.

C.zoutpansbergensis Scht.

Fig. 23. The following additions are made to the original description (SCHOUTEDEN 1912, p. 103 – 104): Apparently a member of the *carbula* group. Easily recognized by the orangish colouring, with scanty dark pattern: humeral angles of pronotum black; dorsum embrowned (connexivum uniformly pale); spiracles dark, a longitudinal band of dark puncturing on either side of venter, also median parts of sternites with scattered dark punctures; femora with two dark subapical spots on ventral surface. Puncturing of upper surface only slightly darker than ground colouring. Head as broad as long, lateral margins of genae only shallowly insinuated, puncturing uniform and very dense, ocular index 3.9. Proportions between antennal joints 13:24:21:?:?. Puncturing on anterior margin of pronotum fine and very dense, on posterior part of disk coarser and sparser. Scutellum broadish, slightly longer than broad (85:81), basal callosities large, lateral margins densely punctate, puncturing of median parts sparse. Elytra densely and uniformly punctate.

Material studied: South Africa: Transvaal, Zoutpansberg, 1 ♀, type, in coll. Schouteden, Mus. Tervuren.

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