

**ADDITIONAL NOTES ON ARADIDAE (HETEROPTERA)
FROM MADAGASCAR AND ADJACENT ISLANDS**

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Since 1957, when a paper was published by the present author on the family Aradidae of Madagascar and adjacent islands, there has been accumulated further material of this family from this area and on a basis of its study has been compiled the present knowledge of the fauna of the family Aradidae in Madagascar as well as corrections in the conception of some species. The examination of types of some species I carried out in the Department of Entomology of the British Museum (Nat. Hist.) in London and in the Zoological Institute of the Academy of Sciences in Leningrad.

Whilst the fauna of the family Aradidae of Madagascar has been worked up by Hoberlandt in "Aradoidea (Heteroptera) of Madagascar and Adjacent Islands", (1957) it has at the same time been partly covered in the basic comprehensive work by Usinger and Matsuda: "Classification of the Aradidae (Hemiptera-Heteroptera)", (1959). There have also been published some further papers, which bring forward the descriptions of new taxa in species and genus group. The first of these papers is by Kiritshenko (1955) with the description of *Aradus apicicornis* Kirit., 1955 (= *Aradus noctivagus* Hober., 1957), the second one by Drake (1957) with the description of *Tananarivea tiptoni* Drake, 1957 (= *Hoberlandtiessa convexa* Usinger and Matsuda, 1959). A further paper by Mamet (1957) registered from Mauritius records of *Neuroctenus caffer* (Stål), *Neuroctenus* sp., *Mezira mauricii* Hoberlandt, 1957 (= *Mezira membranacea* Mamet, 1957 not Fabricius, 1803) and *Aneurus angustus* Bergroth, 1914 (= *Aneurus mauritianus* Mamet, 1957). The last paper by Kiritshenko (1959) records several further species from Madagascar, *Mezira madagascariensis* Hoberlandt, 1957 (= *Mezira patruelis* Kiritshenko, 1959), *Chlorocoris multispinosus* Usinger and Matsuda, 1959 (January) [= *Pandinocoris milleri* Kiritshenko, 1959 (April)], *Cimicomanes usingeri* Kiritshenko, 1959 and *Cimicomanes alter* Kiritshenko, 1959, *Jarmilaia aeterna* Hoberlandt, 1957 (= *Evaldius annulipes* Kiritshenko, 1959), *Bergrothista villiersi* Kiritshenko, 1959 and *Bergrothista mollis* (Hoberlandt, 1956) (= *Bergrothista nigricornis* Kiritshenko, 1959), *Carventus usingeri* Hoberlandt, 1957 (= ♀ *Coloborhinomorpha chinai* Kiritshenko, 1959), *Carventus madagascariensis* Hoberlandt, 1957 (= ♂ *Coloborhinomorpha chinai* Kiritshenko, 1959) and *Carventus parvus* (Kiritshenko, 1959) (= *Coloborhinomorpha parva* Kiritshenko, 1959). The present report includes a further 9 new species and 3 new genera from Madagascar.

The bulk of the material examined has been supplied by Institut Scientifique de Madagascar and a part by the Zoological Institute of the Academy of Sciences in Leningrad and by Mauritius Institute, Mauritius. I wish to express my sincere gratitude to Dr. R. Paulian (formerly Tananarive), Mr. I. M. Kerzhner (Leningrad) and Mr. R. Mamet (Mauritius), who very kindly handed over to me this material for examination.

Thanks are due to Dr. W. E. China (London) and Prof. A. N. Kiritschenko (Leningrad) for their assistance in my study of types during my stay in the Department of Entomology of the British Museum (Nat. Hist.), in London (1958) and in the Zoological Institute of the Academy of Sciences in Leningrad (1961). To Mr. Eric W. Classey I wish to express my sincere thanks for kindly correcting the English text.

Subfamily ARADINAE Amyont and Serville

Aradus marani Hoberlandt, 1957

Aradus mařani Hoberlandt, 1957 Acta entomologica Mus. Nat. Pragae, Supp. 4: 6, 7—9, figs. 1—3.

Further material examined:

2 ♂♂ — Comores: Moheli, Kangani A. R. (Institut Sc., Madagascar).

1 ♀ — Comores: Moheli, Fombani A. R. (Institut Sc., Madagascar).

Distribution: Madagascar (Namoroka, Vilandro, Pays Androy Imanombo).

Aradus apicicornis Kiritschenko, 1955

Aradus apicirnis Kiritschenko, 1955, Trudy zool. Int. Akademii nauk SSSR, 21: 258—259. (Type in Zool. Institute Ac. Sc., Leningrad.)

Aradus noctivagus Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 7, 11—13, figs 7—9. (Type in the National Museum, Praha.) **New synonymy.**

Holotype of *apicicornis* as well as of *noctivagus* examined and compared.

Further material examined:

1 ♂ — Madagascar: Tananarive, XI. 1955 R. P. (Institut Sc., Madagascar).

Distribution: Madagascar (Mahamasina, Tananarive, Tsimbazaza, Andohahelo).

Subfamily ANEURINAE Douglas and Scott

Aneurus mjoebergi Bergroth, 1914

(Fig. 1)

Aneurus Mjoebergi Bergroth, 1914, Ann. Hist. Nat. Mus. Nat. Hung., 12: 94—95, 97.

Aneurus mjoebergi; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 99, 100.

Material examined:

1 ♂ — Madagascar: Analamazotra, Périnet, XI. 1930 Olsufeva coll. (Zool. Institute Ac. Sc., Leningrad).

2 ♀♀ — Madagascar: Périnet, 26. XII. 1933 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

The description of this species is based on the female and I am completing it with the male characters.

Male ninth abdominal segment as long as broad, cylindrical, apically broadly rounded, the apex being slightly directed downwards. Upper surface of the segment up to the extreme top smooth, shining, sharply separated from the granulate parts of the segment.

Lateral lobes of 8th abdominal segment, broad, rounded not reaching the level of apex of 9th abdominal segment.

Distribution: Madagascar (Diego Suarez, Bergroth 1914).

***Aneurus grandiusculus* Bergroth, 1914**

Aneurus grandiusculus Bergroth, 1914, Ann. Hist. Nat. Mus. Nat. Hung., 12: 95—96, 97.
Aneurus grandiusculus; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 99, 100—102, figs 116—118.

Further material examined:

2 ♂♂ — Madagascar: Antananarive, coll. S. Sikora (National Museum, Praha).

Distribution: Madagascar (Diego Suarez).

***Aneurus breviscutatus* Bergroth, 1894**

Aneurus breviscutatus Bergroth, 1894, Ent. Tidskrift, 15: 116.
Aneurus breviscutatus; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 99, 104—106, figs 121—123.

Further material examined:

3 ♂♂ and 1 ♀ — Madagascar: Antananarive, coll. S. Sikora (National Museum, Praha).

Distribution: Madagascar (Andragoloaka, Ambanja, Angovokely) and Portuguese East Africa (Delagoa, Vallé du Pongoné, Guéngere).

***Aneurus angustus* Bergroth, 1914**

Aneurus angustus Bergroth, 1914, Ann. Hist. Nat. Mus. Hung., 12: 96—97, 98. (Type in Nat. Mus. Nat. Hist., Paris.)
Aneurus angustus; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 100, 106—107, figs 124—125.
Aneurus mauritianus Mamet, 1957, The Mauritius Inst. Bull. 5: 47—48. (Type in coll. Mamet, Maurice Institute, Mauritius.) **New synonymy.**

I have examined one paratype, male, of *Aneurus mauritianus* Mamet labeled: Mauritius, Pétrin, III. 1952 coll. Mamet.

Distribution: La Réunion (Bergroth 1914, Hoberlandt 1957) and Mauritius (Mamet 1957).

Subfamily CARVENTINAE Usinger

Genus **Jarmilaia** Hoberlandt 1957, n. stat.

Jarmilaia Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 14, 15.
Evaldius Kiritshenko, 1959, Entom. obozrenie, 38: 190—191, 194. **New synonymy.**

Genus *Jarmilaia* Hoberlandt has been erected for two species *J. aeterna* Hoberlandt and *J. mollis* Hoberlandt, the first being the type-species of the genus. The second species *J. mollis* Hoberlandt is different from it by proportionally shorter antennal segments, by shape of the first antennal segment and by rather different shape of the body; being more elongate and more parallel. Kiritshenko (1959) described genus *Evaldius* with the type species *Evaldius annulipes* Kiritshenko. This species when compared must be taken as identical with *Jarmilaia aeterna* Hoberlandt. Further Kiritshenko (1959) described the genus *Bergrothista* allied to *Jarmilaia* Hoberlandt. This genus has been erected on the basis of two species *B. villersi* Kiritshenko and *B. nigricornis* Kiritshenko, the first being the type species of the genus. The genus *Jarmilaia* is characterized by long antennae (their first segment being slender, distinctly longer than head and slightly bent) by long third antennal segment (4.1 times as long as second one) by strongly narrowed lateral margins of pronotum, by the body being strongly widened posteriorly and by lateral margins of all connexival plates produced in distinct more or less rounded lobes. Genus *Bergrothista* Kiritshenko differs in shorter antennae with first segment very thick, and distinctly shorter than the length of head, by third antennal segment being 3.2—3.8 times as long as second segment, by lateral margins of pronotum being only moderately convergent anteriorly and by the general shape of the body being more elongate with abdomen posteriorly not strikingly widened and with margins of first five connexival plates nearly straight or only slightly regularly rounded.

Jarmilaia mollis Hoberlandt described as the second species of the genus *Jarmilaia* now shows its relationship with the genus *Bergrothista* Kiritshenko and must be transferred to this genus, however, *Bergrothista nigricornis* Kiritshenko is identical with *Jarmilaia mollis* Hoberlandt.

Jarmilaia aeterna Hoberlandt, 1957

Jarmilaia aeterna Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 16—19, figs. 10—12. (Type in the National Museum, Praha.)
Evaldius annulipes Kiritshenko, 1959, Entom. obozrenie, 38: 191, fig. 9. (Type in Zool. Institute of Ac. Sc., Leningrad.) **New synonymy.**

Holotypes examined.

Distribution: Madagascar (Ambanja, Analamasotra, Périnet).

Genus ***Bergrothista*** Kiritshenko, 1959

Bergrothista Kiritshenko, 1959, Entom. obozrenie, 38: 191—192, 194.

This genus is closely allied to *Jarmilaia* Hoberlandt. Two species are known, both from Madagascar. A key to species then known is given below.

Bergrothista villiersi Kiritshenko, 1959

Bergrothista villiersi Kiritshenko, 1959, Entom. obozrenie, 38: 192, fig. 10. (Type in Zool. Institute of Ac. Sc., Leningrad.)

Holotype examined.

Distribution: Madagascar (Périnet).

Bergrothista mollis (Hoberlandt, 1957), n. comb.

Jarmilaia mollis Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 16, 21—22, fig. 13. (Type in Institut Sc., Madagascar.)

Bergrothista nigricornis Kiritshenko, 1959, Entom. obozrenie, 38: 192. (Type in Zool. Institute of Ac. Sc., Leningrad.) **New synonymy.**

Holotypes examined.

Further material examined:

1 ♂ — Madagascar: Périnet, III. 1954 (R. A.). (Institut Sc., Madagascar).

Distribution: Madagascar (Périnet, Ambohipanja).

Key to the species of Bergrothista Kiritshenko.

1. First antennal segment very thick nearly subcylindrical. Antennae dark brown and legs blaskish. Posterior femora linear, covered with small tubercles as on anterior and middle femora. Shape of the abdomen in posterior direction gradually slightly widened. *B. mollis* (Hoberlandt)
2. First antennal segment moderately thickened, basally and apically distinctly narrowed. Antennae and legs brown. Posterior femora subapically slightly widened and on interior margin with two rows of differing tubercles. Shape of the abdomen regularly oval. *B. villiersi* Kiritshenko

Genus Carventus Stål, 1865

Carventus Stål, 1865, Hemiptera Africana, 3: 32.

Coloborhinomorpha Kiritshenko, 1959, Entom. obozrenie, 38: 192—193, 194. **New synonymy.**

Genus *Carventus* Stål is at present in Madagascar represented by four species: *C. usingeri* Hoberlandt, *C. madagascariensis* Hoberlandt, *C. parvus* (Kiritshenko) and *C. kormilevi*, n. sp. described below. A key to the known Madagascan species is given below.

Carventus usingeri Hoberlandt, 1957

Carventus (Burgeonia) usingeri Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 22, 23—24, figs 14—15. (Type in Institut Sc., Madagascar.)

♀ — *Coloborhinomorpha chinai* Kiritshenko, 1959, Entom. obozrenie, 38: 193, fig. 11. (Type in Zool. Institute Ac. Sc., Leningrad.) **New synonymy.**

Holotype of *C. usingeri* Hober. and allotype female of *C. chinai* Kirit. examined.

Distribution: Madagascar (Manjabe foret, Périnet).

Carventus madagascariensis Hoberlandt, 1957

(Figs 2, 3)

Carventus (Burgeonia) madagascariensis Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 22, 25—26, figs 16—17. [Type in Institut Sc., Madagascar.]

♂ — *Coloborhinomorpha chinai* Kiritshenko, 1959, Entom. obozrenie, 38: 193. [Type in Zool. Institute Ac. Sc., Leningrad.] **New synonymy.**

Holotypes examined.

Distribution: Madagascar (Tampolo, Périnet).

The species has been based on one female and I am completing here-with the description by giving the characters of the male.

Male ninth abdominal segment 1.3 times as long as broad, globular slightly narrowed towards the apex, but the apex directed downwards. Top basally with a flattened process covering uppermost surface of the segment, however not reaching the posterior level of the segment. Surface of the posterior globular part of the segment as well as the process granulated, basal part of the segment on each side of process star-like rastrated.

Lobes of 8th abdominal segment S-shaped, posterior angles of 7th connexial plate rectangular.

Carventus parvus (Kiritshenko, 1959), n. comb.

(Figs 4, 5)

Coloborhinomorpha parva Kiritshenko, 1959, Entom. obozrenie, 38: 193. [Type in Zool. Institute Ac. Sc., Leningrad.]

Holotype examined.

Further material examined:

1 ♀ — Madagascar: Nosivola RN. (Institut Sc., Madagascar).

To facilitate the identification of this species I am adding some characters of it, chiefly those of the male.

Male. Relative lengths of antennal segments 8:6:10:6. Spiracle of second abdominal segment distinctly ventral, spiracles of 3rd to 7th segments marginal and that of 8th terminal. Lateral margins of connexival plates shortly produced. Male ninth abdominal segment 1.6 times as broad as long, basally folded down to each side, upper surface then medially prolonged in a long tubercle slightly pointed downwards and distinctly overtopping the lower globular portion of the segment. Lobes of 8th abdominal segment rhomboidal, nearly reaching the apex of 9th segment.

Female. Lobes of female 8th abdominal segment long, in front of tip constricted, apically obtuse.

Distribution: Madagascar (Périnet).

Carventus kormilevi, n. sp.

(Figs 6, 7, 8)

Male, macropterous. Length 4.45 mm, maximum width across abdomen 2 mm. Head: mediane 0.68 mm, diatone 0.72 mm, synthipsis 0.53 mm.

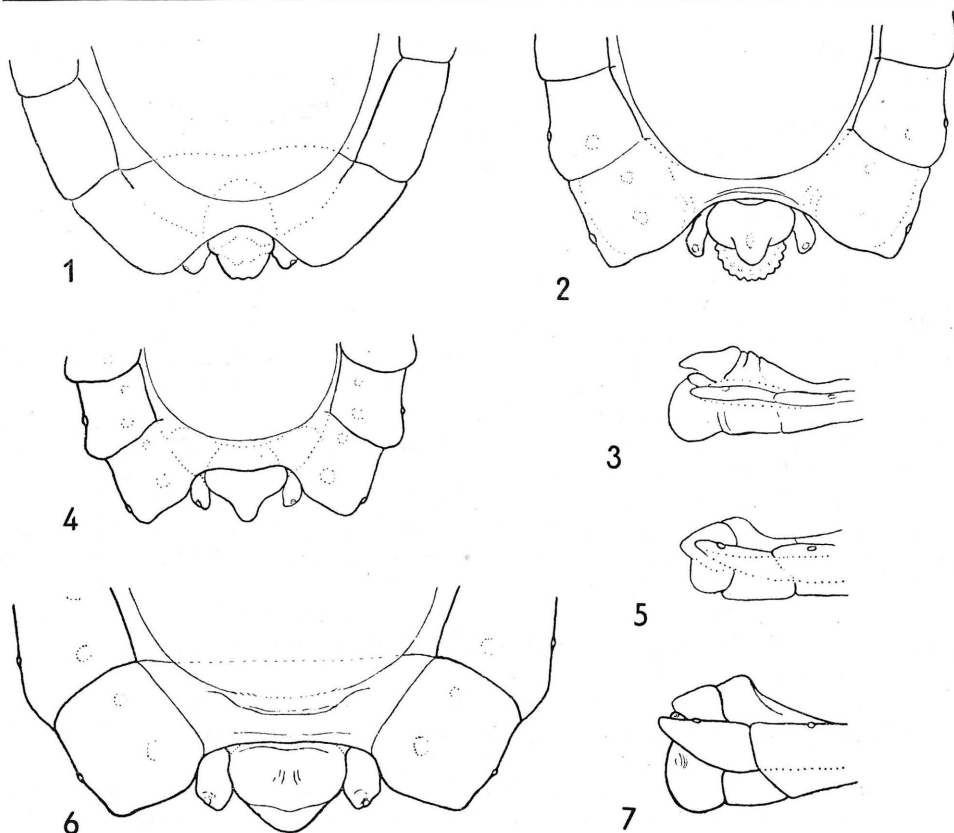


Fig. 1. *Aneururus mjoebergi* Bergr., male — apex of abdomen seen from above. Fig. 2. *Carventus madagascariensis* Hober., male — apex of abdomen seen from above. Fig. 3. *Carventus madagascariensis* Hober., male — apex of abdomen seen from side. Fig. 4. *Carventus parvus* (Kirit.), male — apex of abdomen seen from above. Fig. 5. *Carventus parvus* (Kirit.), male — apex of abdomen seen from side. Fig. 6. *Carventus kormilevi*, n. sp., male — apex of abdomen seen from above. Fig. 7. *Carventus kormilevi*, n. sp., male — apex of abdomen seen from side.

Antennae: length of segment I, 0.34 mm; II, 0.23 mm; third and fourth segment missing. Pronotum: length 0.9 mm, width 1.52 mm. Scutellum: length 0.42 mm, width 0.76 mm.

General shape of the body broadly oval, 2.2 times as long as broad, abdomen slightly broader than width across pronotum. Body plain.

Head in general nearly as long as broad (18:19). Ocular index 5.6. Clypeus short obtuse, genae very shortly extending beyond apex of clypeus, blunt at tip and forming a broad notch in front of clypeus. Antenniferous tubercles short, bent inwardly, subacute and their lateral margins rounded. Eyes inserted between the antenniferous tubercles and postocular tubercles. Postocular lateral margins posteriorly triangularly widened forming subacute triangular tubercles distinctly extending beyond

the exterior level of eyes. Disc of head longitudinally elevated. Head near the inner margin of eyes with one longitudinal smooth area. First two antennal segments stout, first clubshaped, second widened posteriorly. Relative lengths of first two antennal segments 9:6. Third and fourth segments missing. Rostral groove short, well defined, apically open by a narrow slit. Upper surface with the exception of central disc covered with compact incrustation, lower surface so with the exception of lower part of antenniferous tubercles and rostral groove.

Pronotum nearly quadriangular, 1.6 times as broad as long, anterior margin slightly shorter than posterior one, anterior pronotal angles flattened, lobate, broadly irregularly rounded, slightly produced anteriorly beyond the pronotal collar, which is very narrow. Humeral angles of pronotum slightly elevated, subangular and then produced posteriorly over base of hemelytra, posterior lobes extending in a long triangular process on either side of basal angles of scutellum. Lateral margins of the pronotum in front of middle constricted and with a small tubercle. Anterior disc of pronotum in the middle longitudinally furrowed, on either side with one irregular area separated from anterior lobulate angles. Posterior disc of the pronotum transversally elevated, separated by a middle transverse impression. Most part of pronotal surface covered with incrustation. Scutellum subtriangular, disc elevated, lateral margins erected, apical half with a longitudinal carina. Surface of scutellum with the exception of carina covered with incrustation.

Sternum with sparse incrustation. Legs long and slender, femora and tibiae bent. Hemelytra complete, corial area reaching to the level on the apex of scutellum.

Abdomen only very slightly widened posteriorly, connexivum broad, slightly elevated. Connexival segments near the anterior and posterior margin with one rounded smooth area and the whole surface with numerous smaller similar areolas projecting from incrustation. Lateral margins of respective connexival plates nearly straight, eighth connexival plate triangularly projecting far beyond the apex of ninth male abdominal segment. Lateral lobes of 8th abdominal segment in general pentagonal, reaching to the level of apex of ninth abdominal segment. Ventral surface with roundish pattern of incrustation. Spiracles of second abdominal segment distinctly ventral, third to seventh marginal, that of eighth segment terminal.

9th male abdominal segment on upper portion short, transversely roof-shaped and by a posterior swollen margin distinctly separated from the lower globular portion of the segment, which is rather longer when seen from side.

Female, macropterous. Length 5.3 mm, maximum width across abdomen 2.4 mm. Head: mediane 0.84 mm, diatone 0.84 mm, synthipsis 0.61 mm. Pronotum: length 1.03 mm, width 1.7 mm. Scutellum: length 0.57 mm, width 0.95 mm. Antennae: length of segment I, 0.38 mm; II, 0.27 mm; III, 0.53 mm; IV, 0.27 mm.

Additional characters: first antennal segment clubshaped, second segment distinctly widened posteriorly, third segment widened only mo-

derately, pedunculate at base, fourth segment enlarged towards the apex, apically pilose. Relative lengths of antennal segments 10:7:14:7.

Eighth female abdominal segment very short but distinct, lateral lobes triangular, reaching to $\frac{2}{3}$ of length of ninth abdominal segment.

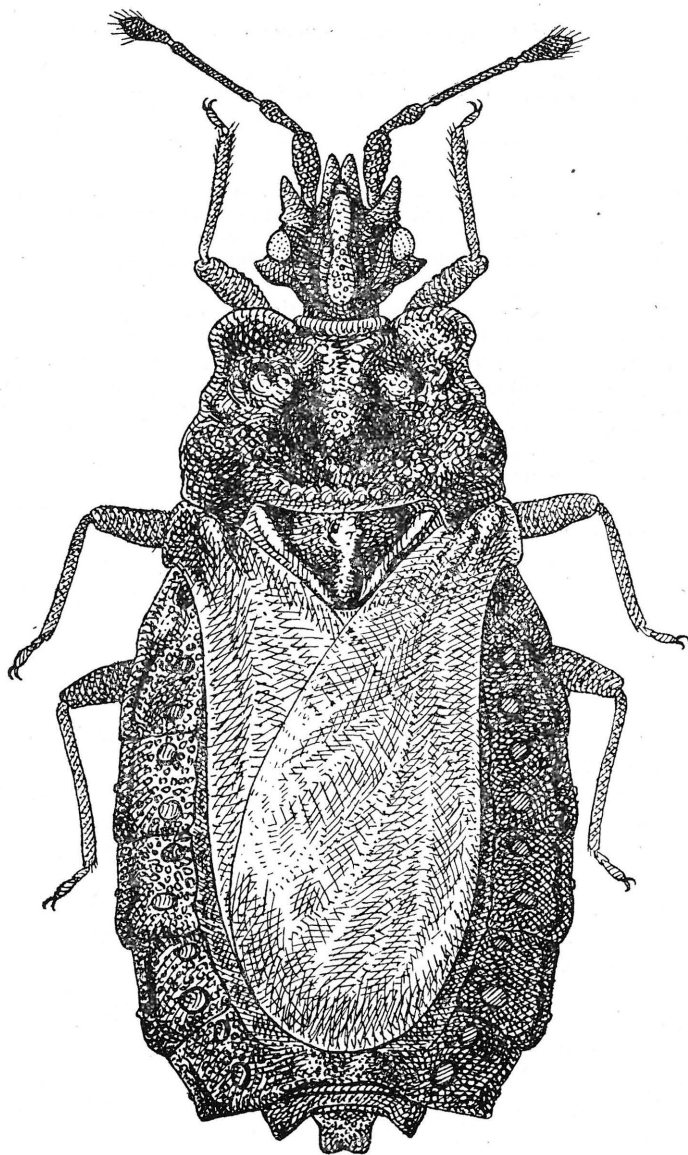


Fig. 8. *Carventus kormilevi*, n. sp., female — allotype.

Colour of the body reddish brown, on legs and antennae nearly blackish brown. Most part of the body coated with paler incrustation. Membrane of hemelytra transparent, shining.

Holotype — male: Madagascar, Périnet (Institut Sc., Madagascar).

Allotype — female: Madagascar, Schaufuss coll. (National Museum, Praha).

Key to the Madagascan species of *Carventus* Stål

1. Spiracle of 2nd abdominal segment ventral, spiracles of 3rd—6th abdominal segment distinctly dorsal, that of 7th marginal and of 8th terminal *C. usingeri* Hoberlandt
- Spiracle of 2nd abdominal segment ventral, spiracles of 3rd—6th abdominal segments marginal, that of 8th terminal 2.
2. Anterior portion of the pronotum equally as broad as the posterior portion. Male 9th abdominal segment globular, but the apex directed downwards, upper top basally with a flattened process covering uppermost surface of the segment, however not reaching the posterior level of segment. *C. madagascariensis* Hoberlandt
- Anterior portion of the pronotum distinctly narrower than the posterior portion. Male 9th abdominal segment without the above mentioned character, 3.
3. Third antennal segment twice as long as second. Antenniferous tubercles turned inwardly. Lateral margins of respective connexival plates regularly slightly rounded. Male 9th abdominal segment on upper portion short, transversely roof-shaped and by a posterior swollen margin distinctly separated from the lower globular portion of the segment, which is rather longer when seen from side. Lobes of female 8th abdominal segment shortly triangular. *C. kormilevi*, n. sp.
- Third antennal segment 1.7 times as long as second. Antenniferous tubercles divergent. Lateral margin of respective connexival plates posteriorly shortly produced. Male 9th abdominal segment on upper surface with a long tubercle slightly pointed downwards and distinctly overtopping the lower globular portion of the segment. Lobes of female 8th abdominal segment in front of tip constricted. *C. parvus* (Kiritshenko)

Genus *Andobocoris*, n. gen.

Apterous.

Body posteriorly widened, with margins regularly rounded, above more or less plain, below moderately convex.

Head longer than broad, genae shortly extending beyond apex of clypeus blunt at tip. Antenniferous tubercles slightly divergent, blunt their lateral margins straight. Eyes small, inserted in the lateral margin of head. Postocular lateral margins of head narrowed posteriorly and sinuate, base of head shortly neckshaped. Antennae slender with the exception of the first antennal segment, which is in contrast very robust, third segment longest, slightly longer than the first. Rostral atrium closed, the rostrum emerging from a longitudinal slit, rostral groove elongate with parallel sides, deep, distinctly delimited by a granulate elevation all around, ending far before the base of head. Rostrum much shorter than head.

Pronotum short, anterior angles lobate and strongly produced anteriorly and inwardly towards collar. Anterior pronotal margin with a very distinct broad collar, posterior margin angulate. Mesonotum plain, short, well separated from metanotum. Central area of mesonotum and meta-

notum longitudinally traversed by a narrow triangular elevation which widens in posterior direction and goes on through the first two completely-fused tergal segments and vanishes near the posterior suture. Metanotum completely fused with first two tergal segments.

Pro-, meso- and metasternum distinct from each other only laterally and fused in middle, where it forms a plate. Metasternum well defined posteriorly from first visible ventral abdominal segment. Mesothoracic acetabular cleft distinct, without visible scent gland.

Legs short, trochantera completely fused with femora, claws without arolia.

Third to fifth tergal segments completely fused and forming tergal plate. Tergal plate nearly plain, only medially slightly arched. Connexivum broad, first two basal connexival segments fused.

All visible ventral abdominal segments distinct from each other. Spiracles of first visible ventral abdominal segment submarginal, the remaining spiracles (i. e. 3rd to 8th) lateral, more or less visible from above.

Surface of the body more or less compactly incrustate.

Type-species: *Andobocoris eximius*, n. sp.

New genus bears a superficial resemblance to the genus *Dundocoris* Hoberlandt from Africa and *Apteraradus* Drake from Java, Malaya and Sumatra (?). However it is distinctly separated by the metanotum completely fused with first two tergal segments, by a narrow triangular elevation traversing central area of meso- and metanotum and posteriorly reaching the transversal suture of first two basal tergal segments, from *Apteraradus* Drake by absence of central traversing area through meso-, metanotum and first two fused tergal segments and by short postocular neck-shaped portion of head. From both genera differs by different position of spiracles.

***Andobocoris eximius*, n. sp.**

(Fig. 9)

Female. Length 5.5 mm, maximum width across abdomen 2.85 mm. Head: mediane 0.99 mm, diatone 0.84 mm, synthlipsis 0.53 mm. Antennae: length of segment I, 0.53 mm; II, 0.34 mm; III, 0.61 mm; IV, 0.3 mm. Pronotum: length 0.65 mm, width 1.71 mm.

Body posteriorly strongly widened, 1.9 times as long as broad, above more or less plain, below moderately convex. Lateral margins of the body regularly rounded. Head 1.18 times as long as broad (26:22), ocular index 3.5. Clypeus short and obtuse, genae slightly extending beyond apex of clypeus, blunt at tip and forming a broad notch in front of clypeus. Antenniferous tubercles slightly divergent, blunt, their lateral margins straight. Eyes small, inserted in the lateral margin of head. Postocular lateral margins narrowed posteriorly and sinuate, base of head shortly neck-shaped. Disc of head with two longitudinal furrows anteriorly and posteriorly divergent and on each side near lateral margin of eye with a longitudinal tubercle. Antenniferous tubercles and clypeus with small

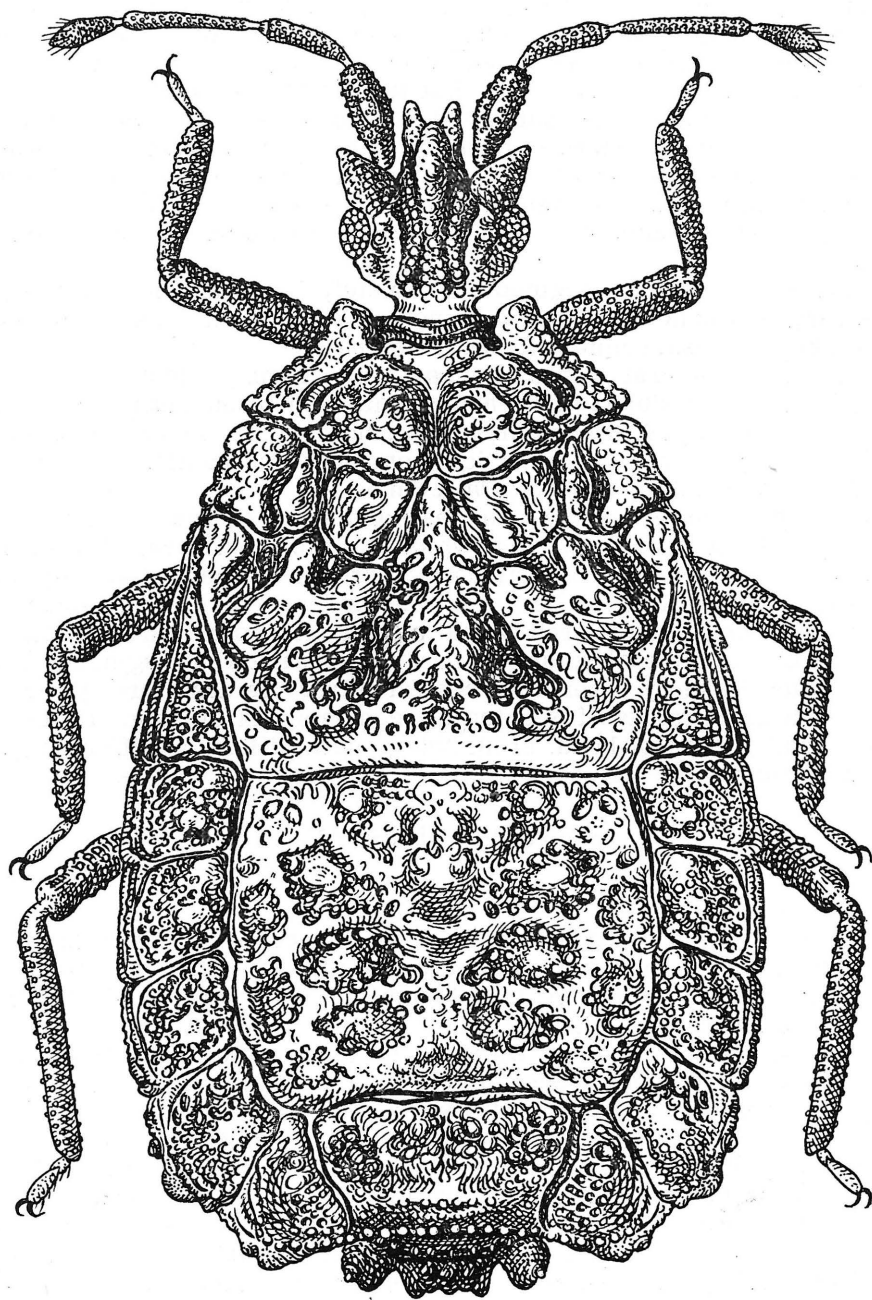


Fig. 9. *Andobocoris eximius*, n. gen. and sp., female — holotype.

granules. Antennae slender with the exception of first antennal segment which is very robust and slightly bent, second segment sublinear, third segment slightly widened apically, pedunculate at base, fourth segment enlarged subapically, narrowed and pilose apically. Surface of antennae with granules more coarse on first segment. Relative lengths of respective antennal segments 14:9:16:8. Rostral atrium closed, the rostrum emerging from a longitudinal slit, much shorter than head. Rostral groove elongate with parallel sides, deep, distinctly delimited by granulate elevation all around, ending far in front to the base of head.

Pronotum 2.6 times as broad as long, lateral margins deeply bent, anterior angles lobate and strongly produced anteriorly and inwardly towards collar. Anterior margin with very distinct broad collar, posterior margin angulate. Disc of pronotum medially with a longitudinal deep furrow and on each side with two longitudinally oval plain areas. Submarginal area separated by a suture and distinctly granulated. Mesonotum short, plain, lateral area granulate, separated by a longitudinal suture, disc on each side with two plain areas, the exterior one narrow and more longitudinal. Central area of meso- and metanotum longitudinally traversed by a narrow triangular elevation which is widening in posterior direction and goes on through the first two fused tergal segments and vanishes near the suture. Metanotum completely fused with first two tergal segments, metanotal area on each side distinctly lobulately elevated and separated by a deep impression from longitudinal traversing elevation. Posterior margin of fused second tergal segment callose.

Pro-, meso- and metasternum distinct from each other only laterally, fused in middle and there forming a plate. Metasternum well defined posteriorly from first visible ventral abdominal segment. Mesothoracic acetabular cleft distinct, without visible scent gland. Legs short, trochanters completely fusing with femora, femora nearly straight, claws without arolia.

Suture separating tergal plate straight, third to fifth tergal segments completely fused. Tergal plate nearly plain, only medially slightly arched, laterally with paired depressed pattern corresponding to respective tergal segments. Connexivum broad, folded down, granulate, marginally longitudinally sulcate. First two basal connexival segments fused, exterior margins of respective tergal plates moderately rounded, that of sixth and seventh subapically with a distinct tubercle. Seventh tergal segment on disc arched, its posterior margin straight, granulate, Eighth abdominal segment short, produced in short lateral nearly rounded lobes, that do not nearly reach apex of median process. Venter slightly arched, all visible ventral abdominal segments distinct from each other. Spiracles of first visible ventral abdominal segment submarginal, the remaining spiracles, 3rd to 8th, lateral more or less visible from above.

Surface of the body more or less compactly incrustate, reddish brown shining and here and there granular beneath the incrustation.

Holotype — female: Madagascar, Andobo, 190 m, forêt Antsingy, dct. Antsalova, II. 1957, P. Griveaud coll. (National Museum, Praha).

Subfamily MEZIRINAE Oshanin

Genus **Chlonocoris** Usinger and Matsuda, 1959

Chlonocoris Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera). British Museum (Nat. Hist.), London, pp. 196, 209—211.

Pandinocoris Kiritshenko, 1959, Entom. obozrenie, 38: 188—189. **New synonymy.**

Chlonocoris multispinosus Usinger and Matsuda, 1959

Chlonocoris multispinosus Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera). British Museum (Nat. Hist.), London, pp. 211—212, fig. 60. [Type in Nat. Museum Hist. Nat., Paris.]

Pandinocoris milleri Kiritshenko, 1959, Entom. obozrenie, 38: 189, fig. 7. [Type in Zool. Institute Ac. Sc., Leningrad.] **New Synonymy.**

Further material examined:

1 ♀ — Madagascar, Andrakambe, Sandrakaba, Mananara (Institut Sc., Madagascar).

Distribution: Madagascar (I. Sainte Marie, Tanovana).

Genus **Cimicomanes** Kiritshenko, 1959

Cimicomanes Kiritshenko, 1959, Entom. obozrenie, 38: 189—190.

Genus very allied to *Chlonocoris* Usinger and Matsuda erected on base of two species from Madagascar: *C. usingeri* Kiritshenko and *C. alter* Kiritshenko.

Cimicomanes usingeri Kiritshenko, 1959

Cimicomanes usingeri Kiritshenko, 1959, Entom. obozrenie, 38: 190, fig. 8.

Further material examined:

1 ♂ and 1 ♀ — E. Madagascar, Ankasoka, 1,130 m, dct. Moramanga, 21. X. 1957 P. Griveaud coll. (Institut Sc., Madagascar).

Distribution: Madagascar (Analamasotra).

Genus **Tananarivea** Drake, 1957

Tananarivea Drake, 1957, Proc. Biol. Soc. Washington, 70: 37.

Hoberlandtiessa Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera). British Museum (Nat. Hist.), London, pp. 196, 235—236, fig. 65. **New synonymy.**

Both genera had been described as monobasic from N. Madagascar. Further two species are described herewith.

Tananarivea tiptoni Drake, 1957

Tananarivea tiptoni Drake, 1957, Proc. Biol. Soc. Washington, 70: 37—38. [Type in U. S. National Museum, Washington.]

Hoberlandtiessa convexa Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera). British Museum (Nat. Hist.), London, pp. 226—228, fig. 65. [Type in British Museum (Nat. Hist.), London]. **New synonymy.**

Holotypes examined.

Further material examined:

1 ♂ and 1 ♀ — Madagascar: Ankaratra, Manjakatomp (Institut Sc., Madagascar).

***Tananarivea madagascariensis*, n. sp.**

(Fig. 10)

Female. Length 8.85 mm, maximum width across abdomen 4.48 mm. Head: mediane 1.9 mm, diatone 1.6 mm, synthlipsis 1.03 mm. Antennae: Length of segment I, 0.95 mm; II, 0.84 mm; III, 0.91 mm; fourth missing.

Body oval, in posterior direction broadened, twice as long as broad. Head nearly 1.2 times as long as broad (50:42) ocular index 3.77, genae distinctly extending beyond apex of clypeus, blunt at tip, forming a distinct notch in front of clypeus, extending to the basal two thirds of first antennal segment. Antenniferous tubercles divergent, prominent, long, subacute, their lateral margins straight. Postocular lateral margins narrowed posteriorly and sinuate. Eyes small, globular. Genae, antenniferous tubercles and discal area along the central longitudinal furrow with some tubercles and hairs, on either side of base of clypeus a longitudinal impression. Antennae slender, relative lengths of first to third segments 25:22:24 (fourth missing); first antennal segment slightly bent at base, gradually thickened anteriorly, second and third linear pedunculate at base, distinctly pubescent. Rostral groove with lateral margins rounded, confluent posteriorly. Rostrum reaching to the base of head.

Pronotum strongly angularly widened posteriorly, on either side of collar and lateral margins straight, posterior margin bisinuate; upper surface convex with a median longitudinal carina which reaches posterior margin, lateral areas on either side of carina with longitudinal elevations. Mesonotum nearly as long as pronotum, upper surface on either side of middle with irregular pattern of tubercles, central area of mesonotum callose elevated where it is continuous with metanotum. Metanotum fused with first abdominal segment and forming a broad smooth plate, elevated medially with an inverted broad "Y"-shaped elevation, with prominent sublateral lobes and some rounded tubercles on depressed areas near lateral and posterior margin. Thoracic pleura obliquely rugose and tuberculate, with short hairs. Legs short, femora distinctly swollen, tuberculate and with adpressed hairs.

Second to sixth abdominal dorsal segments fused and forming tergal plate, widest anteriorly and gradually narrowed posteriorly. Tergal plate levigate, on the disc with three prominent tubercles on longitudinal axis, the largest behind anterior margin, the rest biggest one behind the middle and the third and smallest contiguous to it. Pattern on tergal disc obliterated, more distinctly marked only on sides near connexivum. Seventh tergite distinctly separated, disc elevated, centrally roundly depressed. Connexivum plain, longitudinally sulcate. Connexival margins scarcely lobulate at hind angles, more distinctly so on 5th to 7th segments. 8th tergite short, lobes rounded not reaching the apex of abdomen, posterior margin straight.

Venter rather convex, with pattern of smooth transverse and longitudinal elevations, surface of venter with short sparse twisted pubescence. Spiracles 2nd—6th ventral, that of 7th and 8th segments marginal.

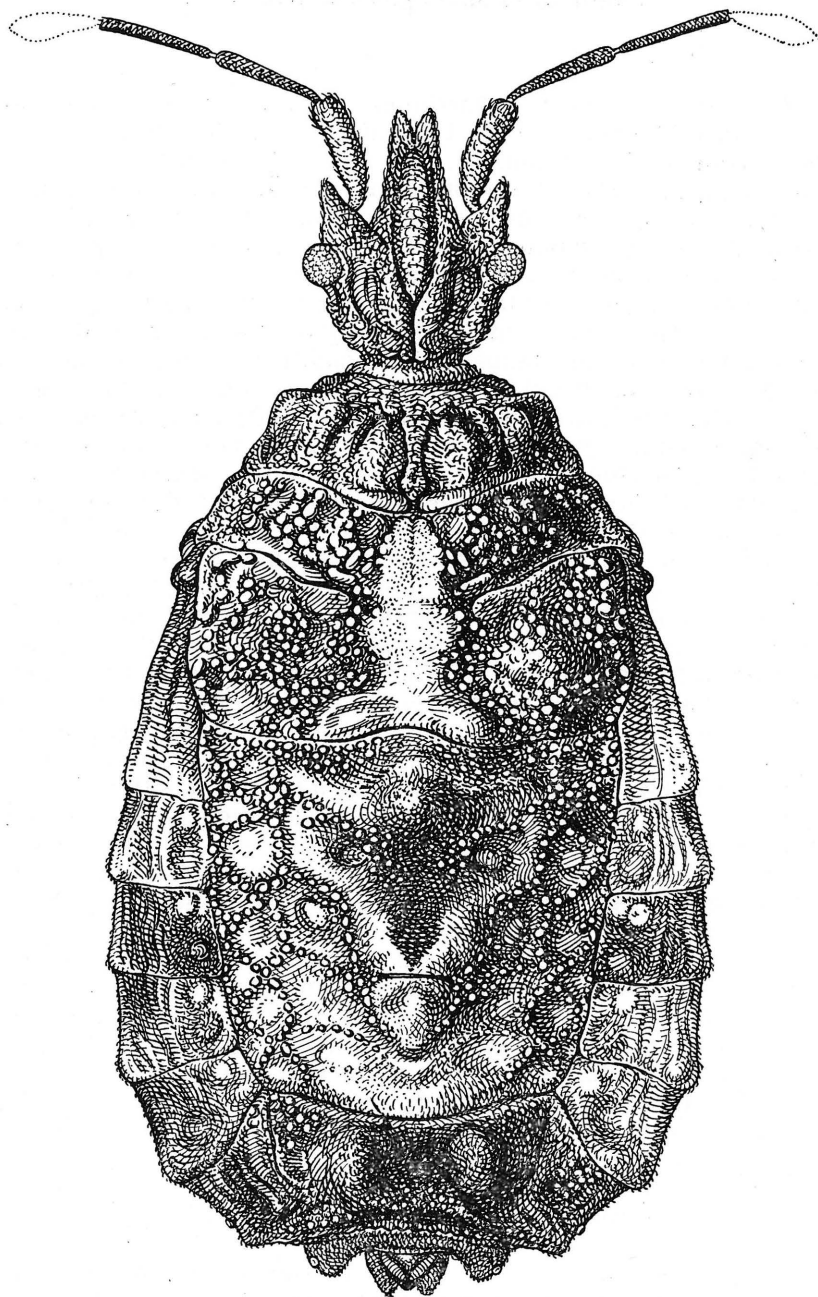


Fig. 10. *Tananarivea madagascariensis*, n. sp., female — holotype.

Bicolorous reddish brown (indian red) and dull golden yellow. Head and antennae reddish brown, rostrum yellowish, notum reddish brown, inverted "Y"-shaped elevation dull golden yellow. Tergum dull golden yellow, disc and lateral pattern reddish brown, 7th, 8th and 9th segments reddish brown. Second connexival plate reddish brown, posterior margin golden yellow, third connexival plate golden yellow, two spots near inner margin and exterior margin brownish, fourth connexival plate reddish brown, anterior inner angle with yellowish spot, fifth and sixth connexival plate golden-yellow, anterior exterior angle and lateral margin darkened, seventh connexival plate reddish brown, anterior margin yellowish. Venter golden yellow, disc and a longitudinal strip over spiracles dark reddish brown. Femora unicolourous reddish brown, anterior tibiae with one broad subbasal annulus, middle and posterior tibiae with two golden yellow annula, one subbasal the second subapical. Tarsi yellowish. Pubescence of the body golden yellowish.

Holotype — female: Madagascar, Antongil B., Mocquerys (National Museum, Praha).

***Tananarivea insularis*, n. sp.**

(Fig. 11)

Male. Length 7.2 mm, maximum width across abdomen 3.3 mm. Head: mediane 1.52 mm, diatone 1.41 mm, synthlipsis 0.95 mm. Antennae: length of segment I, 0.68 mm; II, 0.49 mm; III, 0.76 mm; IV, 0.53 mm.

Body in posterior direction broadened, 2.18 times as long as broad. Head 1.1 times as long as broad (40:37). Ocular index 4.17. Genae distinctly extending beyond apex of clypeus, blunt at tip with twisted hairs, reaching to $\frac{5}{6}$ of first antennal segment and forming a notch in front of clypeus. Antenniferous tubercles divergent, short, blunt their lateral margins bent. Postocular lateral margins narrowed posteriorly, with a small tubercle covered with twisted hairs. Eyes small, globular. Disc with central longitudinally furrowed elevation. Antennae slender and long, relative lengths of first to fourth antennal segment 18:13:20:14. First antennal segment bent, gradually thickened anteriorly, with twisted hairs, second and third antennal segments linear, pedunculate at base with short pubescence and some longer suberected hairs, fourth enlarged subapically, narrowed and pilose apically. Rostral groove with lateral margins straight, confluent posteriorly. Rostrum reaching to the base of head.

Pronotum short, laterally rounded, posterior margin strongly bisinuate, disc with four tubercles, centrally with two smooth triangular patterns marked by small tubercles. Anterior collar very narrow. Mesonotum on either side of middle with one tubercle, lateral margin elevated. Central area of mesonotum smooth depressed, when it is continuous with metanotum. Metanotum fused with first abdominal segment, in the middle forming a smooth depressed plate and with one large tubercle on either side of it. Notum on tubercles and in depression between them with twisted hairs. Thoracic pleura tuberculate with short hairs.

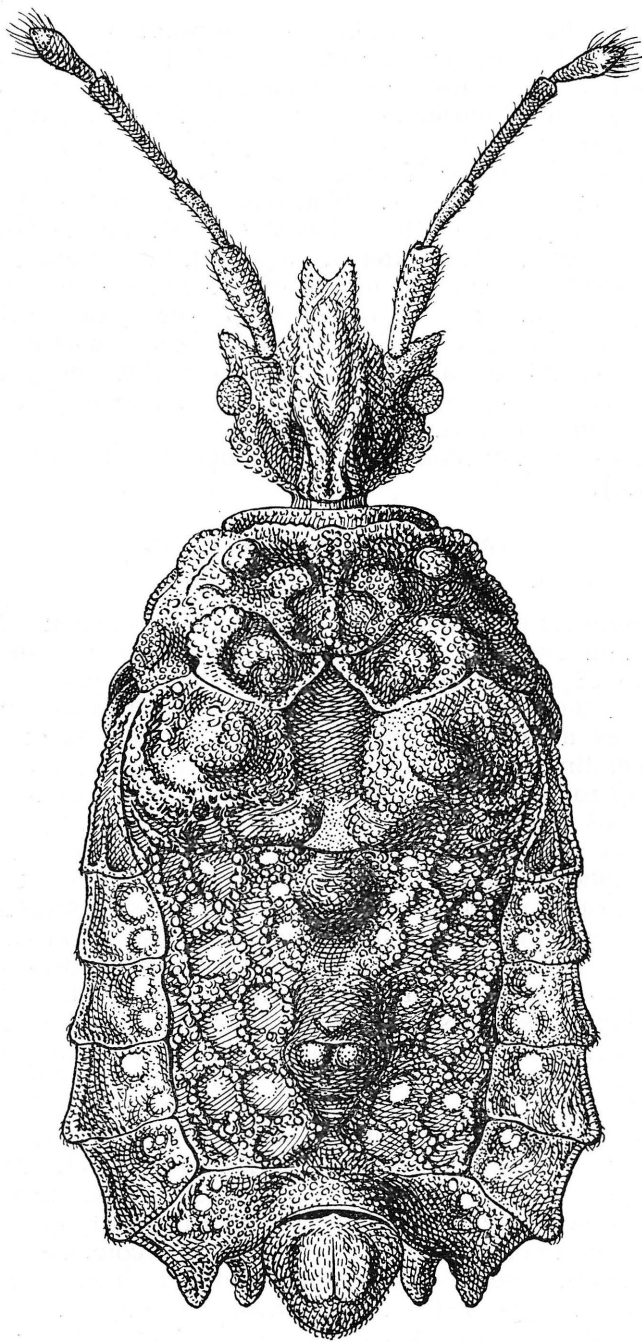


Fig. 11. *Tananarivea insularis*, n. sp., male — holotype.

Legs stout, femora swollen, tuberculate, tibiae straight, apically widened; legs with hairs on tibiae rather longer.

Second to sixth abdominal dorsal segment fused and forming tergal plate widest anteriorly and only slightly narrowed posteriorly, with levigate pattern marked by small haired tubercles, on disc with two equal tubercles on lateral axis and with two rather laterally situated smaller tubercles on first tergite. Seventh tergite short, distinctly separated, disc regularly elevated. Connexival plates plain, longitudinally sulcate and interiorly with two pits. Connexival margins distinctly lobulate at hind angles. Lateral margins of 3rd—7th connexival plates more or less distinctly bent. Connexivum with short hairs rather longer on hind angles. 8th tergite short, lobes subtriangular with exterior margin straight, reaching slightly over the middle of the length of ninth abdominal segment.

Venter smooth, shining, only posterior portion of 7th ventrite and 8th ventrite tuberculate. Each of 2nd—6th ventrite laterally with four callosity-like small rounded areas. Venter with sparse short hairs. Spiracles 2nd—6th ventral, 7th and 8th marginal.

Male ninth abdominal segment globular, 1.5 times as broad as long, towards the apex narrowed, above with nearly straight margins, below with impressed sides, discal surface of segment with circular impression sharply separating the discal area, which is longitudinally furrowed. Surface of segment with small granules and distinct twisted golden hairs.

Unicolourous dark rusty, dorsum and venter with purplish tinge, shining, dorsal pattern with yellowish tinge, trochantera yellowish, femora apically more or less darkened, tibiae subbasally with narrow paler annulus. Hairs golden, shining.

Holotype — male: Madagascar, Madagaka, Schaufuss (National Museum, Praha).

Key to the species of the genus *Tananarivea* Drake

1. Body bicolourous reddish brown and dull golden yellow, Second and third antennal segment of subequal length. Discs of meso- and metanotum without any conspicuous tuberculate elevations, metanotum fused with first abdominal segment by medial callose smooth plate forming an inverted broad "Y"-shaped elevation. Antenniferous tubercles long and prominent, subacute. Tergal plate on disc with three prominent tubercles on longitudinal axis *T. madagascariensis*, n. sp.
- Body in general unicolourous blackish or dark brown or rusty. Second antennal segment distinctly shorter than third. Pro-, meso- and metanotum or pro- and metanotum with distinctly prominent tubercles on discs. Metanotum fused with first abdominal segment by a smooth depressed plate. Antenniferous tubercles short obtuse. Tergal plate on disc with two equal tubercles on lateral axis 2.
2. Genae distinctly extending beyond the apex of clypeus, rostral groove with lateral margins straight. Postocular lateral margins of head with a small haired tubercle. Antennae besides short pubescence with some longer suberected hairs. Lateral discs of mesonotum either with one distinct elevated tubercle. Tubercles on tergal disc rather prominent. Lateral margins of 3rd—7th connexival plates bent *T. insularis*, n. sp.
- Genae only shortly extending beyond the apex of clypeus. Rostral groove with lateral margins rounded. Postocular lateral margins regularly narrowed posteriorly. Antennae only sparsely pubescent. Mesonotum without any distinct tubercle. Tubercles on tergal disc rather less prominent. Lateral margins of 2nd—5th connexival plates straight, that of 6th and 7th bent *T. tiptoni* Drake

Genus **Robertiessa**, n. gen.

Apterous.

Body posteriorly widened with nearly straight margins of abdomen, below rather convex, above more or less plain.

Head slightly longer than broad, genae very long, parallel, extending far beyond the apex of clypeus, continuous in front of clypeus and apically subacute. Antenniferous tubercles long and divergent. Eyes small, globular. Postocular portion of head without spines or tubercles, regularly narrowed to constricted neck region. Antennae very long, first and third segment as well as second and fourth of subequal length, first antennal segment slightly bent, clubshaped, second segment apically distinctly widened, third nearly linear and both pedunculate at base, fourth segment slightly enlarged subapically and narrowed apically. Rostral atrium closed with only a longitudinal slit-like opening in front, rostral groove with lateral margins straight, convergent and apically closed, rostrum arising from atrium and not longer than the rostral groove.

Pronotum short, anteriorly slightly narrowed with a narrow almost indistinct collar, anterior angles broadly rounded and flattened, disc with a longitudinal medial furrow and on either side of it two longitudinal elevations. Mesonotum narrow, well separated from pronotum and metanotum, posterior margin irregularly sinuate. Metanotum and basal abdominal segment completely fused and forming a small plain plate.

Sternum flattened, tuberculate, acetabular and pleural areas tuberculate and obliquely rugose. Prosternum short, meso- and metasternum separated. Scent gland canals very prominent laterally, distinctly sinuate, narrowed mesad and forming only a suture behind middle acetabula. Legs with trochanters distinctly separated. Tarsi large with prominent claws and small arolia.

Tergal plate nearly plain, widest at anterior margin, gradually narrowed posteriorly. Tergum posteriorly on disc with small keel-shaped and another triangular elevation. Connexivum plain, 1st—2nd segments completely fused, connexival plates posteriorly widened, lateral margins of connexival plates straight, that of 6th rounded, of 7th sinuate. Lobes of 8th abdominal segment rhombous. 9th male abdominal segment in general irregularly globular.

Venter rather convex, 8th abdominal segment ring like, visible from below. Spiracles 2nd—6th ventral, well mesad of lateral margin, those of 7th and 8th segments lateral, visible from above.

The whole body on head, antennae, legs, notum, tergum and genital segment with very long erect pale hairs and bristles. Colour in general dark brown.

Type-species: *Robertiessa ciliata*, n. sp.

This new genus is very closely related to Madagascanian genus *Tanarnivea* Drake, however it differs from it in general shape being distinctly divergent in posterior direction with straight lateral margins of the abdomen, in distinctly sinuate scent gland canals, in rather plain tergum and in long erect bristles and hairs regularly dispersed on the whole surface of the body antennae and legs.

Robertiessa ciliata, n. sp.

(Fig. 12)

Male, apterous. Length 7.2 mm, maximum width across abdomen 3.3 mm. Head: mediane 1.71 mm, diatone 1.6 mm, synthlipsis 1.1 mm. Antennae: length of segment I, 0.95 mm; II, 0.72 mm; III, 0.91 mm; IV, 0.65 mm.

Head slightly longer than broad (45:42), ocular index 4.46. Genae very long parallel, greatly exceeding the apex of clypeus, reaching to the $\frac{2}{3}$ of the length of first antennal segment, continuous in front of clypeus and apically subacute. Antenniferous tubercles long, divergent, apically subacute. Eyes small, globular, nearly substalked. Postocular portion of the head without spines or tubercles, regularly narrowed to constricted neck region. Disc of head with a longitudinal central furrow. Surface of head with dense fine tubercles with the exception of longitudinal smooth areas between either eye and base of clypeus and with numerous regularly dispersed long erect hairs which are twice as long as eye diameter. Disc of head regularly arched. Rostral atrium closed with only a longitudinal slit-like opening in front, rostral groove with lateral margins straight convergent and apically confluent, rostrum arising from atrium and exceeding not rostral groove. Antennae very long, first antennal segment slightly bent, clubshaped with small tubercles, second segment apically distinctly widened, third nearly linear and both pedunculate at base, fourth segment slightly enlarged subapically, narrowed apically. Relative lengths of first to fourth antennal segment 25:19:24:17. Antennae with very long erected dispersed bristles.

Pronotum short, anteriorly slightly narrowed, anterior angles broadly rounded and flattened anterior margin with a narrow collar, disc with a longitudinal medial furrow and on either side of it with two longitudinal elevations. Mesonotum narrow, well separated from pronotum and metanotum, posterior margin irregularly sinuate. Disc of mesonotum in the middle rather plain and on either side separated by a longitudinal furrow. Metanotum and basal abdominal segment completely fused and forming a small plain plate on either side separated by a longitudinal furrow from oval elevation. Notum with dense small tubercles on whole surface and numerous pale erect bristles like those on head.

Sternum flattened, tuberculate, pleural and acetabular areas tuberculate obliquely rugose. Prosternum short, meso- and metanotum separated. Scent gland canals very prominent laterally, distinctly sinuate, narrowed, mesad and forming only a suture behind middle acetabula. Legs with trochanters distinctly separated, femora moderately incrassate, slightly narrowed and curved apically, tibiae straight, only posterior ones slightly sinuate; tuberculate with long erect bristles.

Tergal plate nearly plain, widest at anterior margin, gradually narrowed posteriorly, with dense small fine tubercles with the exception of small rounded paired pattern on either side of tergum and a small triangular elevation near the posterior margin of 6th tergite. Erect bristles on tergum rather sparser than on notum. Tergum on disc at the level of

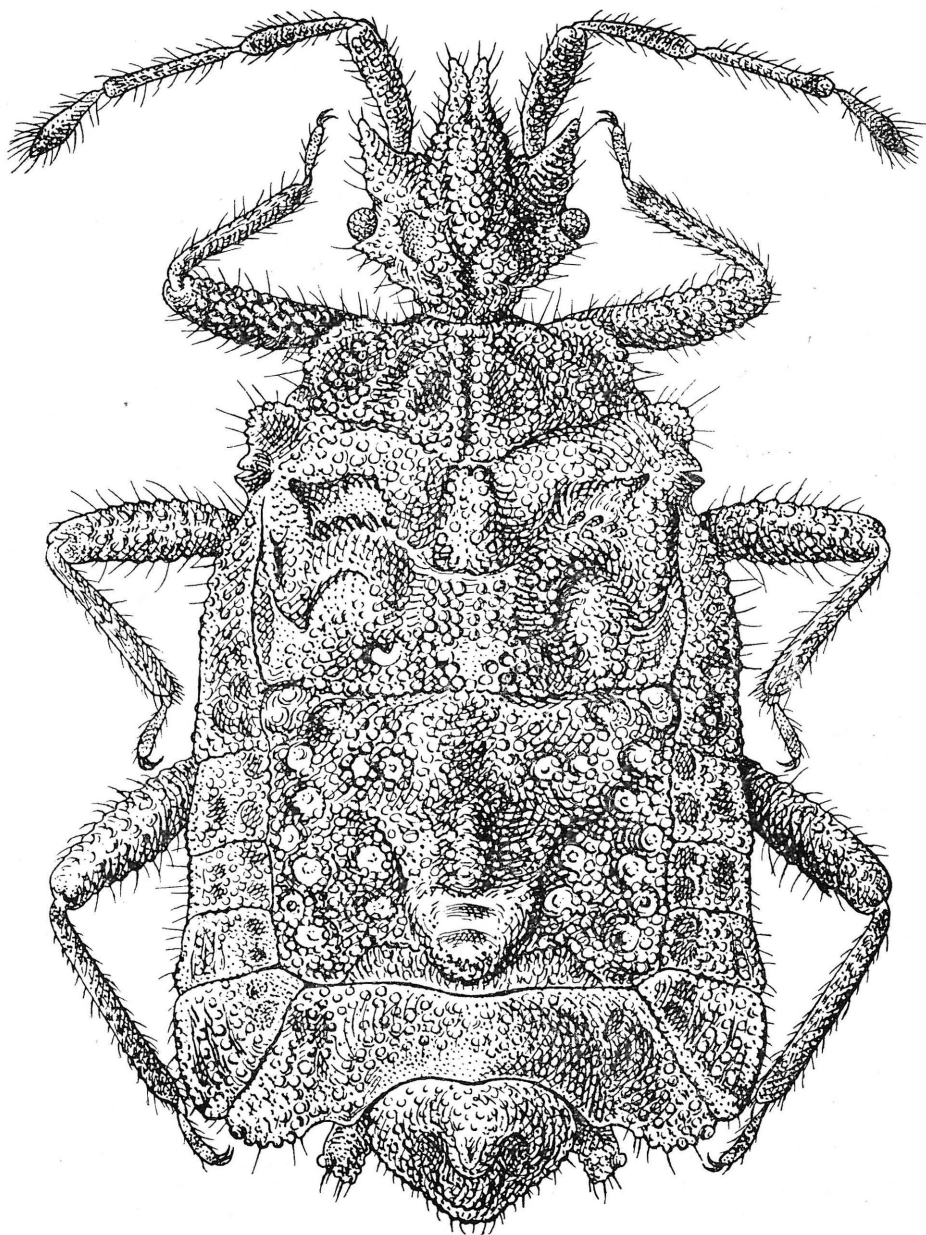


Fig. 12. *Robertiessa ciliata*, n. gen. and sp., male — holotype.

5th tergite with small keel-shaped elevation and at level of 6th tergite with low triangular elevation depressed in the middle. 7th tergite elevated, tuberculate, posterior margin broadly sinuate. Connexivum plain, 1st—2nd segments completely fused, connexival plates posteriorly widened, lateral margins of connexival plates straight, that of 6th segment rounded, margin of 7th segment distinctly sinuate. Connexivum tuberculate, near inner margin with some small smooth rounded areas. Connexivum chiefly on margins with long erect bristles. Lobes of 8th abdominal segment rhombous, with long erect bristles.

9th abdominal segment with lateral margins sinuate, apically narrowly rounded, discal portion longitudinally elevated, anteriorly and on either side longitudinally separated by a distinct deep depression. Surface of the segment densely tuberculate and with erect long stout bristles.

Venter rather convex, finely tuberculate, without bristles and with smooth rounded areas on disc and sides. Spiracles 2nd—6th ventral, well mesad of lateral margins, those of 7th and 8th segments lateral, visible from above, that of 7th segment shifted rather to anterior portion.

Colour dark brown with paler eyes, bases and apices of antennal segments, yellowish brown central plate of meso- and metanotum and apical elevation on tergum, rostrum and tarsi. Bristles and hairs pale golden shining.

Holotype — male: Madagascar, Rogez, March, 1957 A. R. (Institut Scientifique, Madagascar).

Genus *Classeyana*, n. gen.

Apterous.

Body in posterior direction strongly widened, widest across 5th abdominal segment, with regularly rounded margins of abdomen, below moderately convex, above rather plain.

Head nearly quadrangular, clypeus very short, genae, in front of clypeus touching and forming short blunt apices. Antenniferous tubercles short, slightly divergent, blunt. Eyes small, globular sessile. Postocular lateral margins straight, parallelsided, terminated by a slightly prominent angle and then strongly narrowed interoposteriorly. Antennae very long and rather slender, third antennal segment longest, second and third of subequal length, second and third segment widened apically. Rostrum arising from atrium, rostral atrium closed with only a longitudinal slit-like opening in front, rostral groove narrow, closed, with slightly sinuated margins. Rostrum reaching nearly to apex of rostral groove.

Pronotum 2.5 times as broad as long, in anterior direction narrowed, lateral margins slightly rounded and broadly flattened, anterior angles subangulate, anterior margin with narrow distinct collar. Middle of pronotal disc with two longitudinal convergent rows of small granules, posterior margin broadly curved. Mesonotum very short, distinctly separated from metanotum by transversal suture, only in the middle by a triangular narrow smooth plate fused with the metanotum. Metanotum fused completely with first abdominal segment.

Sternum rather flattened, scent gland opening short, broadly oval, arched on the lateral margin, with short indistinct canal disappearing in the pleural suture. Legs with trochanters distinctly separated, tarsi large with prominent claws and very small arolia.

Second to sixth abdominal segment fused and forming tergal plate, widest anteriorly and slightly narrowed posteriorly. Tergal plate levigate, very slightly convex, central area of disc longitudinally elevated. Lateral areas with pattern of haired granules. Disc of 7th tergite plain. Connexivum slightly erected, first and second connexival plate completely fused. Exterior margin of second to sixth connexival plates more or less straight, that of seventh sinuate, posterior angles only slightly prominent.

Venter slightly convex. 2nd to 6th spiracles ventral, well mesad of lateral margin, that of 7th ventrite submarginal, elevated, slightly visible from above, that of 8th segment lateral. Surface of the body with numerous short adpressed twisted hairs.

Body in general pale coloured, strongly shining, ground colour of the body being pale yellowish brown, marbled with brown on tergum and connexivum and with ringed legs. Pubescence of the body pale golden, shining.

Type-species: *Classeyana marmorata*, n. sp.

This new genus is rather closely related to *Tananarivea* Drake and *Robertiessa*, n. gen., but differs in the shorter and rather broadly oval scent gland opening with only short indistinct canal, in short quadrangular head with short jugae and in position of 6th spiracle. The colour of the new genus is in general pale with darker marbling. To the group of these genera belongs genus *Paulianium* Hoberlandt, also described from Madagascar.

***Classeyana marmorata*, n. sp.**

(Fig. 13)

Female, apterous. Length 5.9 mm, maximum width across abdomen 2.96 mm. Head: mediane 1.14 mm, diatone 1.1 mm, synthipsis 0.76 mm. Antennae: length of segment I, 0.76 mm; II, 0.49 mm; III, 0.91 mm; IV, 0.46 mm. Pronotum: length 0.68 mm, width 1.7 mm. Mesonotum: length 0.34 mm, width 1.71 mm.

Body twice as long as broad, in posterior direction strongly widened, widest across 5th abdominal segment, with regularly rounded margins of abdomen, below slightly convex, above more or less plain.

Head nearly quadrangular, clypeus very short, reaching only to the base of first antennal segment, genae short, reaching to the half of length of first antennal segment, in front of clypeus touching and forming short blunt apices. Antenniferous tubercles short, only slightly divergent, blunt at tip, their lateral margins feebly rounded. Eyes small, globular, sessile. Postocular lateral margins of the head straight, parallel-sided, terminated by a slightly prominent angle and then strongly narrowed interoposteriorly. Upper surface of the head convex, gradually elevated medially, granulate throughout and with short twisted pale hairs, on disc with an obscure

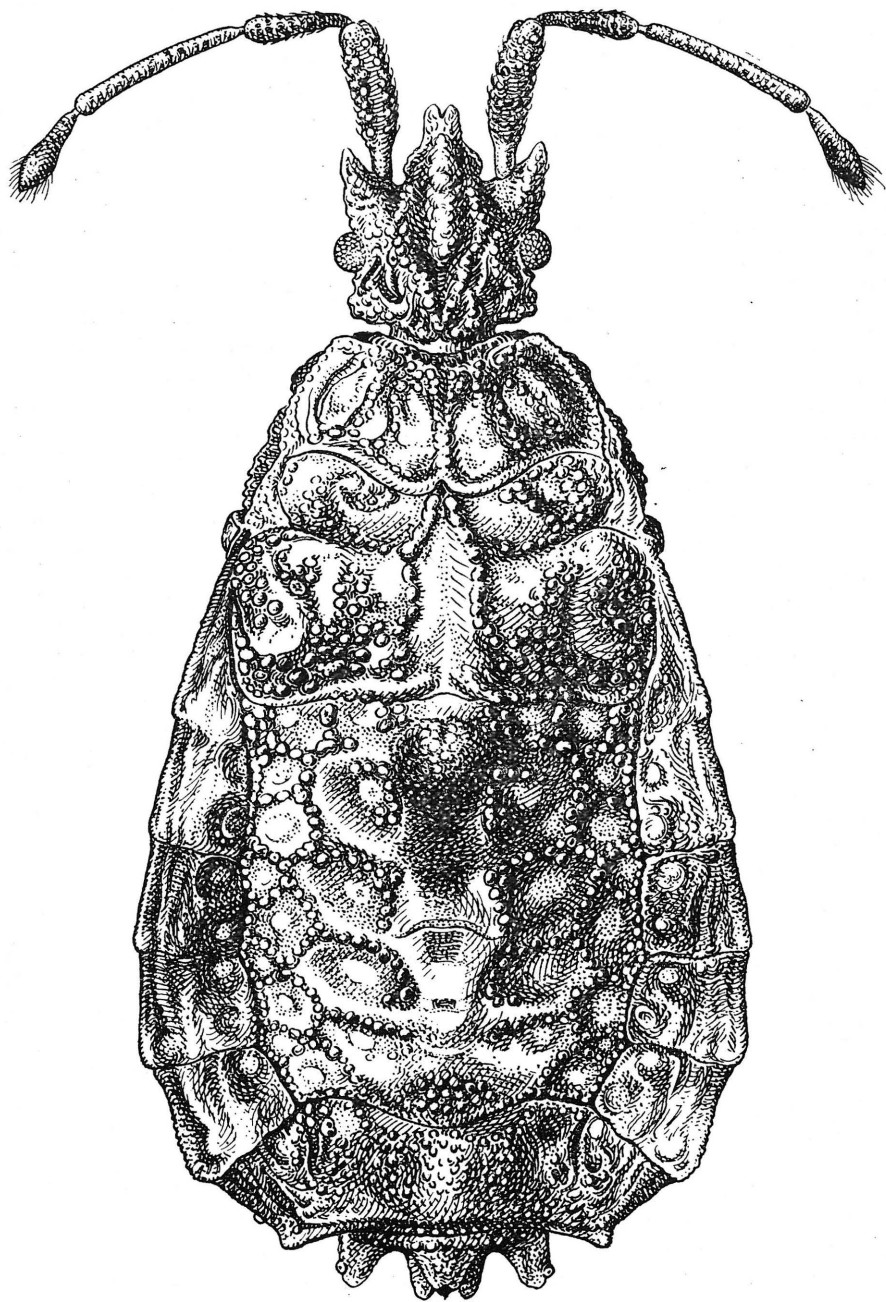


Fig. 13. *Classeyana marmorata*, n. gen. and sp., female — halotype.

longitudinal impression behind clypeus and on either side of this impression with irregularly rounded smooth area. Rostrum arising from a closed atrium, rostral groove narrow, with slightly sinuate margins apically closed. Rostral atrium has only a longitudinal slit-like opening in front. Rostrum reaching nearly to apex of rostral groove. Lower part of antenniferous tubercles with truncate tubercle. Antennae very long and slender, first antennal segment moderately club-shaped, slightly bent, tuberculate, with short twisted hairs. Second and third antennal segments apically widened, second more distinctly, tuberculate with very short pubescence, fourth segment enlarged subapically narrowed and pilose apically. Relative lengths of 1st to 4th antennal segments 20:13:24:12.

Pronotum 2.5 times as broad as long, in anterior direction narrowed, lateral margins tuberculate, slightly rounded and broadly flattened, anterior angles subacute, anterior margin with narrow distinct collar, disc of the pronotum centrally with two plain smooth elevations bordered with dense small haired granules and laterally on either side with a longitudinal oval elevation with tubercles. Middle of disc with two convergent rows of small granules. Posterior margin broadly curved. Mesonotum very short, 6.1 times as broad as long, distinctly separated from metanotum by transverse suture, only in the middle fused with the metanotum by a triangular narrow smooth plate margined with small granules. Mesonotum only feebly convex, smooth, only laterally and on either side of disc with small area of haired granules. Metanotum fused completely with first abdominal segment, on either side slightly elevated with irregular rows of granules.

Sternum rather flattened, pleural area tuberculate, acetabula obliquely rastrate. Scent gland openings short and broadly oval, arched on the lateral margin, visible from above, with short indistinct canal disappearing in the pleural suture. Legs with trochanters distinctly separated, femora moderately incrassate, slightly bent, tibiae short, rather straight. Tarsi large with prominent claws and very small arolia. Femora and tibiae tuberculate with short adpressed pubescence.

Second to sixth abdominal dorsal segment fused and forming tergal plate, widest anteriorly and slightly narrowed posteriorly. Tergal plate levigate, very slightly convex, central area of disc longitudinally elevated, in the level of second tergite with a large tubercle, posterior margin of 6th tergite centrally elevated, granuled. Lateral areas of tergum with pattern of haired granules. 7th tergite with irregularly dispersed haired granules, disc plain, posterior margin slightly sinuate. 8th abdominal segment short with great tongue-shaped lobes. Connexivum slightly erected, first and second connexival plate fused completely, exterior parts of respective connexival plates longitudinally sulcate, interiorly each one with two rounded smooth areas. Exterior margins of second to sixth connexival plates more or less straight, that of seventh sinuate, posterior angles only shortly prominent.

Venter only slightly convex, dispersely granulate, with short adpressed sparse pubescence and some rounded smooth areas on either side of respective ventrites. 2nd to 6th spiracles ventral, well mesad of lateral

margin, that of 7th ventrite submarginal, elevated, slightly visible from above, that of 8th lateral.

Body in general pale coloured, strongly shining, ground colour of the body being pale yellow brown, rather shaded on head, antennae, pronotum, on lateral lobes of mesonotum and metanotal plate, on anterior part of tergal disc as well as on discal part of posterior margin of 6th tergite. Some of lateral pattern on tergum more or less shaded. 7th tergite brownish. 4th connexival plate brownish with its posteroexterior angle yellowish, 2nd, 3rd, 5th and 6th connexival plates yellowish with shaded anterior and exterior margins, however leaving the posteroexterior angles yellowish. Tergum and connexivum appear as though marbled. Eighth and ninth abdominal segment brownish. Eyes reddish. Body below reddish brown, some rounded pale spots present on sides of each ventrite and area of spiracles pale. Trochanters yellowish, femora pale yellowish brown, basally and apically darkened, tibiae brownish, subbasally and subapically with a narrow transversal paler ring. Tarsi yellowish brown. All the pubescence of the body pale golden, shining.

Holotype — female: Madagascar, Périnet (National Museum, Praha).

***Strigocoris antakotakoensis* Hoberlandt, 1957**

(Figs 14, 15)

Strigocoris antakotakoensis Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Suppl. 4: 75, 76—78, figs 79—83.

Further material examined:

2 ♀♀ — Madagascar: Fénérive, XII. 1955 R. F. Laurence coll. (Institut Sc., Madagascar).

1 ♂ and 1 ♀ — S. Madagascar: Foret d'Isaka, 15. X. 1934 Catala coll. (Zool. Institute Ac. Sc., Leningrad).

The description of this species has been based on three females only and I am completing the description with the characters of the male (length 8.4 mm, width 3.6 mm).

Male ninth abdominal segment 1.4 times as broad as long, towards the apex narrowed with nearly straight sides, lower part of the segment subglobular, upper surface separated in a discal portion. Disc of the segment in the middle with a longitudinal elevation apically widened in a rounded obtuse processus reaching to the level of the apex of lower globular portion of the segment. The central elevation longitudinally furrowed and on each side separated by a very deep longitudinal excavation which is exteriorly yet separated by a furrow from the other surface of the segment. Discal portion of the segment obliquely rastrate, globular lower part granulate. Lobes of eighth abdominal segment very reduced, small.

Distribution: Madagascar (Maroantsetva).

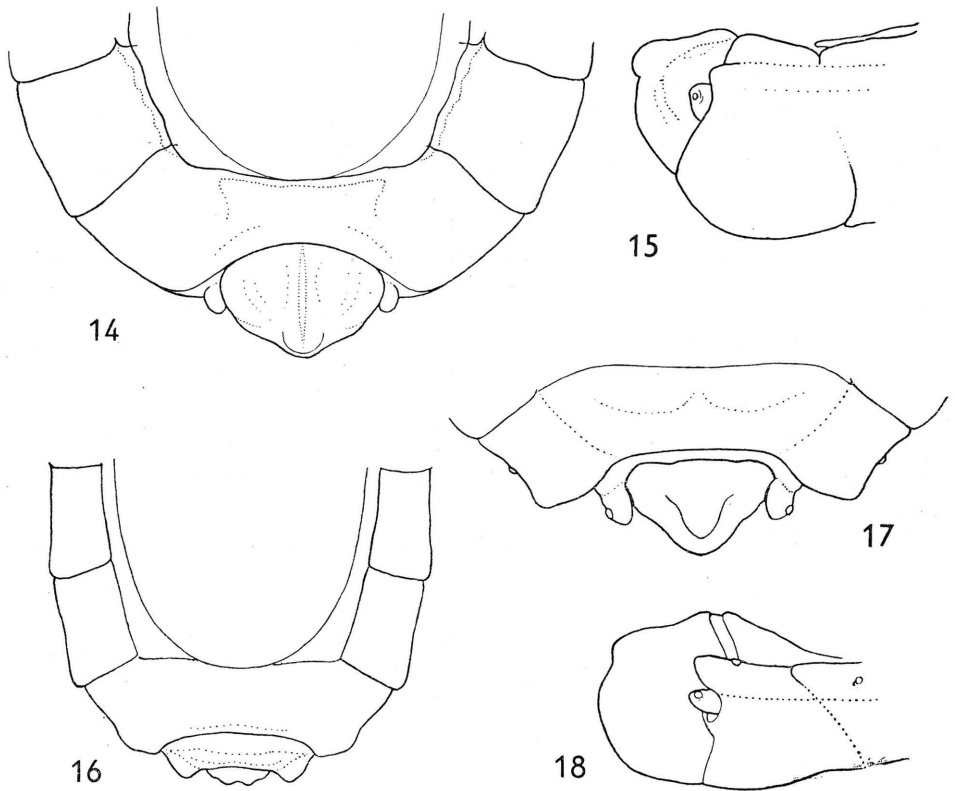


Fig. 14. *Strigocoris antakotakoensis* Hober., male — apex of abdomen seen from above.
 Fig. 15. *Strigocoris antakotakoensis* Hober., male — apex of abdomen seen from side.
 Fig. 16. *Ctenonerus insularis*, n. sp., female — apex of abdomen seen from above.
 Fig. 17. *Schoutedeniessa poissoni* (Hober.), male — apex of abdomen seen from above.
 Fig. 18. *Schoutedeniessa poissoni* (Hober.), male — apex of abdomen seen from side.

***Strigocoris crassicornis* [Signoret, 1860]**

Mezira crassicornis Signoret, 1860, Ann. Soc. ent. Fr., 8: 957—958.

Strigocoris crassicornis; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 75, 78—80, figs 84—88.

Further material examined:

1 ♀ — Madagascar; Périnet 950 m, XII. 1932 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

Distribution: Madagascar.

***Dysodiellus beieri* Hoberlandt, 1957**

Dysodiellus beieri Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 27, 28, figs 18—20.

Further material examined:

3 ♂♂ and 5 ♀♀ — Madagascar: Piste d'Ambodimanga, Anivoranokely, r. Ivoay, Brickaville, IX. 1954 A. R. (Institut Sc., Madagascar).

Distribution: Madagascar (Fort Dauphin).

Ctenoneurus insularis, n. sp.

(Figs 16, 19)

Male. Length 5.24 mm, maximum width across abdomen 1.94 mm. Head: mediane 0.84 mm, diatone 0.8 mm, synthlipsis 0.57 mm. Antennae: length of segment I, 0.34 mm; II, 0.30 mm; III, 0.34 mm; IV, 0.46 mm. Pronotum: length 0.76 mm, width 1.63 mm. Scutellum: length 0.84 mm, width 0.99 mm.

General shape of the body elongate, 2.7 times as long as broad, towards the apex slightly widened, upper surface plain, below only slightly convex.

Head nearly as long as broad (22:21), ocular index 5. Genae strongly reduced, closed to clypeus, not overtopping it conspicuously, clypeus stout, broad and long, reaching the apex of first antennal segment and apically blunt. Antenniferous tubercles reduced, very small, triangular, slightly divergent and subacute. Eyes small, rounded, inserted in lateral margin of head. Postocular portion of the head short with very small reduced shortly pointed postocular tubercles not projecting beyond the level of exterior margin of eyes. Antennae very stout, 1.9 times as long as the length of pronotum. First antennal segment curved, second and third strongly widened towards the apex, fourth enlarged subapically and pilose apically. All segments of nearly equal stoutness, however the first and fourth ones rather wider; with small granules. Relative lengths of antennal segments 9:8:9:12. Rostral groove distinctly widened and then narrowed again, but open behind. Rostrum exceeds limits of rostral groove, extending to base of head. Surface of the head finely granulate, disc on each side near the inner margin of eyes with a short oblique furrow.

Pronotum 2.1 times as broad as long, sides strongly convergent anteriorly and sinuate, in the middle and anteriorly narrowly flattened. Anterior angles regularly rounded and slightly elevated, anterior margin slightly concave with a brief but distinct collar, posterior angles slightly elevated sub-right angled, posterior margin slightly concave. Disc of pronotum nearly plain, surface densely granular. Scutellum little longer than pronotum, triangular, 1.2 times as broad as long, sides in front to apex slightly constricted. Disc of scutellum with a sign of middle longitudinal carine. Surface irregularly granulate. Sternum slightly convex with sparse granules. Legs short and stout, femora swollen, tibiae slightly bent. Hemelytra reaching onto sixth abdominal tergite.

Venter slightly convex, spiracles ventral, remote from lateral margins. Connexivum narrow, plain, lateral margins of connexival plates 2nd—6th nearly straight, that of 7th sinuate and posterior angle slightly lobate. Lobes of 8th abdominal segment small, obliquely oval.

Male ninth abdominal segment 1.4 times as broad as long, subglobular, on upper surface flattened, apically regularly rounded. Upper surface basally and laterally sharply bordered, disc near to the base with a semicircular transverse well defined impression. Upper surface of the segment strongly granulate, below transversally rastrate.

Female: Length 5.7—6.3 mm, maximum width across abdomen 2.1—2.3 mm. Head: mediane 0.87 mm, diatone 0.87 mm, synthlipsis 0.65 mm. Antennae: length of segment I, 0.34 mm; II, 0.30 mm; III, 0.38 mm; IV,

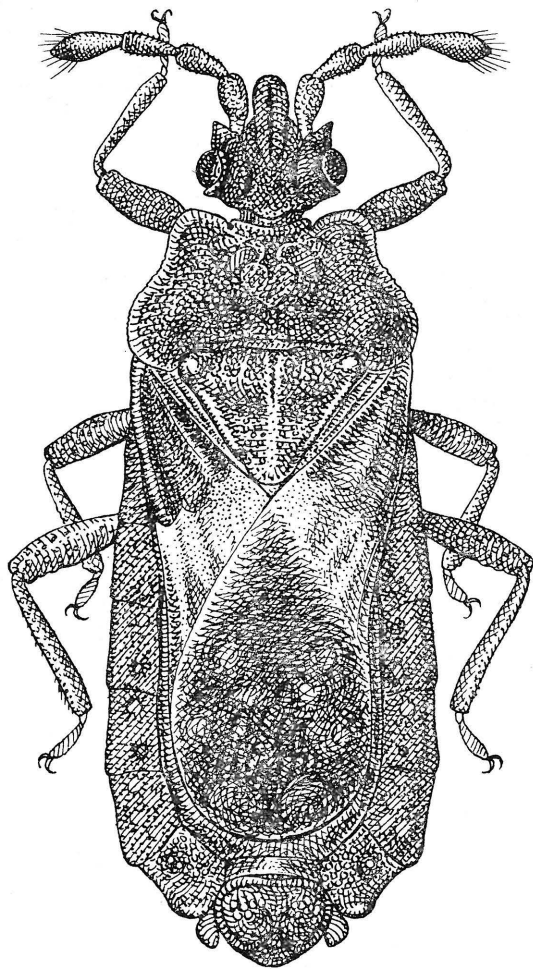


Fig. 19. *Ctenoneurus insularis*, n. sp., male — holotype.

0.46 mm. Pronotum: length 0.87 mm, width 1.75 mm. Scutellum: length 0.91 mm, width 1.1 mm.

In general shape similar to that of male. Sides of abdomen rather parallel. Relative length of antennal segments 9:8:10:12.

Sixth ventral segment of female distinctly trisinate behind. Lobes of 8th abdominal segment broad, triangular, slightly exceeding the level of apex of median process.

Holotype — male: Madagascar, Niangarakely, Moramanga, XII. 1955 R. F. Laurence coll. (Institut Sc., Madagascar).

Allotype — female: same data as for holotype.

Paratypes — 3 females: same data as for holotype and allotype.

Paratype — 1 female: Madagascar, Lakato, XI. 1952 L. Molet coll. (Institut Sc., Madagascar).

Paratype — 1 female: Madagascar, Périnet, III. 1954 A. R. (Institut Sc., Madagascar).

New species is closely related to African species of the genus *Ctenoneurus*, i. e. *C. necopinatus* Bergroth, *C. drakei* Hoberlandt and *C. secretus* Bergroth. The new species differs from *Ctenoneurus drakei* Hoberlandt in distinctly shorter antennal segments and in its more conspicuous widening towards the apex and in the shape and formation of 9th male abdominal segment. From *Ctenoneurus necopinatus* Bergroth differs in distinctly sinuate sides of pronotum, in relatively shorter scutellum and in different formation of 9th male abdominal segment.

***Neuroctenus chinai* Hoberlandt, 1957**

Neuroctenus chinai Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 82, 83—86, figs 94—97.

Further material examined:

1 ♀ — Madagascar, Fanovana 630 m, 10. III. 1934 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

Distribution: Madagascar (Mt. d'Ambre).

***Neuroctenus bilobus* (Signoret, 1860)**

Aneurus bilobus Signoret, 1860, Ann. Soc. ent. Fr., 8: 958.

Neuroctenus bilobus; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 82, 86—88, figs 98—100.

Further material examined:

1 ♀ — Madagascar, Forêt de l'Ankarafantsika (Institut Sc., Madagascar).

Distribution: Madagascar (Diego Suarez).

***Neuroctenus caffer* (Stål, 1855)**

Brachyrhynchus caffer Stål, 1855, Ofv. Vet. Akad. fört., 12: 38.

Neuroctenus caffer; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 83, 88—91., figs 101—104.

Further material examined:

1 ♂ and 2 ♀♀ — N. W. Madagascar: Nosy Komba, Flanc Nord, V. 1956 (Institut Sc., Madagascar).

1 ♀ — Madagascar: Laleato, XI. 1952 (Institut Sc., Madagascar).

2 ♂♂ — Madagascar: Maroantsetra, Nampanambo, R. P. (Institut Sc., Madagascar).

1 ♂ and 1 ♀ — Madagascar: Périnet (Institut Sc., Madagascar).

3 ♂♂ and 2 ♀♀ — Madagascar: Périnet 950 m, XII. 1932 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

2 ♂♂ and 2 ♀♀ — Madagascar: Fanovana 630 m, III. 1934 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

6 ♂♂ and 3 ♀♀ — Comores: Grande Comore, Nioumbadjou 505 m, VIII. 1958 Raharizonina coll. (Institut Sc., Madagascar).

2 ♂♂ — Comores: Grande Comore, Convalescence, 1700 m, IX. 1958 Raharizonina coll. (Institut Sc., Madagascar).

12 ♂♂ and 6 ♀♀ — Comores: Moheli, Kangani A. R. (Institut Sc., Madagascar).

4 ♂♂ — Comores: Moheli, Fomboni, A. R. (Institut Sc., Madagascar).

1 ♂ and 1 ♀ — Mauritius: Reduit, 2. IV. 1948 P. R. Hermelin coll. (Mauritius Institute, Mauritius).

1 ♂ — Mauritius: Rose Hill, V. 1948 R. Mamet coll. (Mauritius Institute, Mauritius).

1 ♀ — Mauritius: Powder Hill, 6. I. 1949 P. R. Hermelin coll. (Mauritius Institute, Mauritius).

Distribution: South Africa (type locality), Madagascar, Comores, Mauritius and East Africa.

***Neuroctenus tenuicornis* (Signoret, 1860)**

Aneurus tenuicornis Signoret, 1860, Ann. Soc. ent. Fr., 8: 958.

Neuroctenus tenuicornis; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 83, 94—97, figs 109—112.

Further material examined:

1 ♀ — Madagascar: Périnet, 16. XII. 1955 E. McC Callan coll. (Institut Sc., Madagascar).

1 ♀ — N. W. Madagascar: Nosy Komba, Sommet, V. 1956 A. R. (Institut Sc., Madagascar).

1 ♂ — E. Madagascar: Ankalampona 130 m, Navana-Marantsetra, III. 1958 Soga-Raharizonina coll. (Institut Sc., Madagascar).

24 ♂♂ and 34 ♀♀ — Madagascar: Sandrangato (Institut Sc., Madagascar).

19 ♂♂ and 6 ♀♀ — Madagascar: Périnet (Institut Sc., Madagascar).

1 ♂ — Madagascar: Marantsetra, Fampanambo R. P. (Institut Sc., Madagascar).

1 ♀ — Madagascar: Marantsetra, Ambodivangy (Institut Sc., Madagascar).

3 ♂♂ and 1 ♀ — Comores: Grande Comore, IX. 1954 (Institut Sc., Madagascar).

4 ♂♂ and 2 ♀♀ — Comores: Grande Comore, Nioumbadjou, 505 m, VIII. 1958 Raharizonina coll. (Institut Sc., Madagascar).

1 ♂ and 1 ♀ — Comores: Grande Comore, Convalescence, 1700 m, IX. 1958 Raharizonina coll. (Institut Sc., Madagascar).

1 ♀ — Comores: Mayotte, Combani II. 1956 A. R. (Institut Sc., Madagascar).

1 ♀ — Comores: Moheli, Fomboni, 10 m, IX. 1958 Raharizonina coll. (Institut Sc., Madagascar).

1 ♂ and 5 ♀♀ — Comores: Moheli, Kangani A. R. (Institut Sc., Madagascar).

Schoutedeniessa madagascariensis (Hoberlandt, 1957)

Maynéa madagascariensis Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 37—40, figs 28—33.

Schoutedeniessa madagascariensis; Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera), British Museum (Nat. Hist.), London, p. 287.

Further material examined:

4 ♂♂ and 8 ♀♀ — Madagascar: Périnet (Institut Sc., Madagascar).

1 ♂ and 1 ♀ — Madagascar: Analamasotra (Périnet), XI. 1930 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

1 ♂ and 2 ♀♀ — Madagascar: Périnet, 950 m, XII. 1932 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

Distribution: Madagascar (Périnet, Anosibe).

Schoutedeniessa pauliani (Hoberlandt, 1957)

Maynéa pauliani Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 37, 40—42, figs 34—39.

Schoutedeniessa pauliani; Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera), British Museum (Nat. Hist.), London, p. 287.

Further material examined:

1 ♂ — Madagascar: Périnet (Institut Sc., Madagascar).

1 ♂ — Madagascar: Périnet 950 m, XI. 1930 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

Distribution: Madagascar (Angavokely).

Schoutedeniessa poissoni (Hoberlandt, 1957)

(Figs 17, 18)

Maynéa poissoni Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 37, 43—44, figs 40—42.

Schoutedeniessa poissoni; Usinger and Matsuda, 1959, Classification of the Aradidae (Hemiptera-Heteroptera), British Museum (Nat. Hist.), London, p. 287.

Further material examined:

1 ♂ — Madagascar: Périnet, 18. XII. 1955 E. McC. Callan coll. (Institut Sc., Madagascar).

1 ♀ — Madagascar: Périnet (Institut Sc., Madagascar).

Description of *Schoutedeniessa poissoni* (Hoberlandt) based on one female is completed below with the characters of male (length 4.4 mm).

Male ninth abdominal segment 1.5 times as broad as long, lower portion of the segment sub-globular towards the apex narrowed, sub-apically with nearly straight sides and narrowly rounded at apex. Upper portion of segment with a small process arising from the whole width at base of segment but apically narrowly rounded and not reaching the

level of the extreme apex of segment. Process basally well separated on each side from the disc of segment by a shallow furrow and then by an impressed pit which continues, downwards. Whole surface of the segment granulate.

Distribution: Madagascar (Vallée d'Ambolo).

***Mezira insularis* Hoberlandt, 1957**

Mezira insularis Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 49, 53—56, figs 49—52.

Further material examined:

1 ♂ — E. Madagascar: Ambohitsitondroina 600 m, dct. Maroantsetra,

III. 1956 Soga-Raharizonina coll. (Institut Sc., Madagascar).

Distribution: Madagascar (Ambanja, Ambodivoangy).

***Mezira kiritshenkoi*, n. sp.**

(Fig. 20)

Male. Length 5.1 mm, maximum width across abdomen 2.2 mm. Head: mediane 0.9 mm, diatone 0.9 mm, synthlipsis 0.65 mm. Antennae: length of segment I, 0.42 mm; II, 0.34 mm; III, 0.34 mm; IV, 0.38 mm. Pronotum: length 0.72 mm, width 1.7 mm. Scutellum: length 0.84 mm, width 1.14 mm.

General shape of the body oval, 2.3 times as long as broad, abdomen towards the apex slightly broadened.

Head as long as broad, ocular index 4.85, clypeus long and apically narrowed, jugae broad apically widened and slightly exceeding the apex of clypeus. Antenniferous tubercles short, divergent, subacute. Eyes globular sessile, postocular part of the head short with small but acute postocular tubercles reaching to the level of exterior margin of head. Antennae short, rather slender, first antennal segment bent, apically widened and slightly exceeding the apex of jugae, second antennal segment towards the apex distinctly widened, third segment more slender than second, widened towards the apex, fourth segment only slightly enlarged subapically. Relative lengths of antennal segments 11:9:9:10. Surface of first three antennal segments roughly granulate and with rather long suberect hairs, fourth segment apically haired. Rostral groove distinctly delimited. Surface of the head granulate, base of clypeus separated by impressed furrow, inner margin of eyes carinate and adjacent part of head smooth.

Pronotum 2.4 times as broad as long, behind the middle with a transversely arched impression; sides of pronotum in the middle constricted, anterior angles flattened, slightly lobulately expanded outwards. Anterior margin nearly straight with a very narrow collar, posterior margin slightly sinuate, sides with distinctly projecting tubercles. Anterior disc of pronotum with four flattened elevations separated from each other, posterior disc nearly plain. Surface of the pronotum with the exception of anterior elevations granulate. Scutellum triangular, 1.3 times as long as broad, sides distinctly sinuate and slightly elevated, apex narrowly rounded.

Surface of scutellum finely granulate, in the middle longitudinally elevated nearly smooth, basal angles impressed. Sternum granulate, legs short and stout, femora incrassate with rough granules and suberect rather long hairs, tibiae sinuate with suberect hairs. Hemelytra reaching

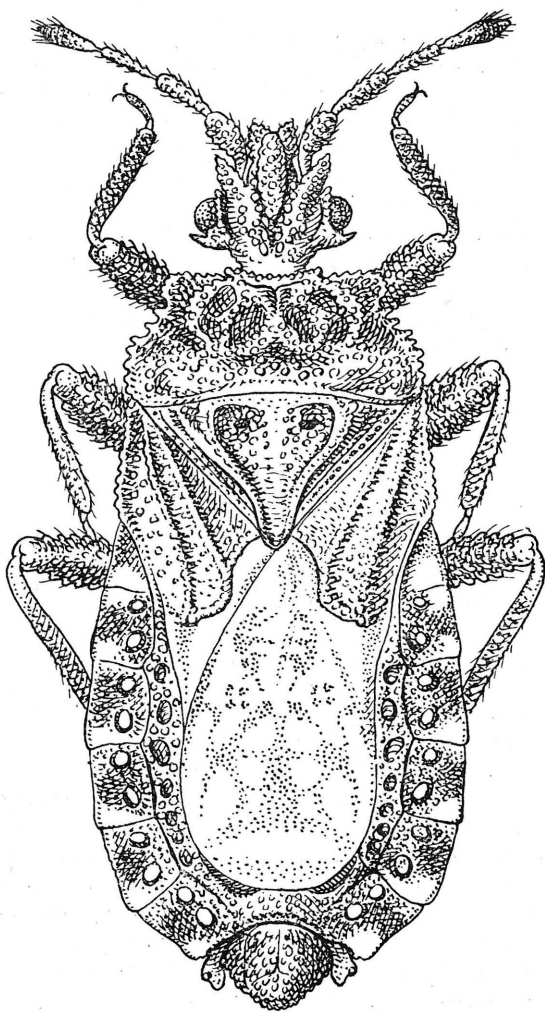


Fig. 20. *Mezira kiritshenkoi*, n. sp., male — holotype.

onto 6th abdominal tergite, corium exceeding by less than half of its length the apex of scutellum, lateral margins of corium basally straight parallel and then convergent. Granules on corium sparse and fine.

Abdomen below slightly convex, connexivum narrow, plain, exterior margins of connexival plates finely serrate, that of connexival plates 3rd

to 6th straight, margin of 7th connexival plate slightly sinuate. Surface of connexivum with sparse and fine granules, each plate near the inner margin with two smooth elevated rounded areas. Subconnexival area with twisted hairs. Spiracles 3rd to 6th distinctly ventral, spiracle 7th rather approaching the margin, 8th spiracle marginal. Lobes of 8th abdominal segment subtriangular, with rounded angles.

Ninth male abdominal segment 1.3 times as broad as long, globular disc of the segment with shallow impression posteriorly with bisinuate margin and not reaching to the extreme apex of segment, in the middle with a longitudinal suture. Globular part of the segment with irregular large granules and twisted short pubescence, impressed upper part on each side of longitudinal suture with obliquely situated granules.

Bicoloured, general colour dark reddish brown, tarsi brownish, posterior margins of third and seventh connexival plates yellowish brown, exterior posterior angles of connexival plates fourth to sixth with triangular yellowish brown spot. Pubescence and hairs pale shining. Membrane golden shining with brownish veins.

Holotype — male: Madagascar, Ambatofitorahana, km. 303, Dtc. de Mananjary (Institut Sc., Madagascar).

***Mezira bicolor*, n. sp.**

(Fig. 21)

Male. Length 5.5—6.1 mm, maximum width across abdomen 2.3—2.7 mm. Head: mediane 0.84 mm, diatone 0.9 mm, synthlipsis 0.5 mm. Antennae: length of segment I, 0.42 mm; II, 0.38 mm; III, 0.38 mm; IV, 0.34 mm. Pronotum: length 0.8 mm, width 1.9 mm. Scutellum: length 0.87 mm, width 0.95 mm.

General shape of the body elongate oval, 2.2—2.3 times as long as broad, margins of abdomen regularly rounded.

Head nearly as long as broad, ocular index 2.8. Clypeus strongly protruding, apically slightly narrowed, jugae narrow closed to clypeus and only shortly exceeding the apex of clypeus. Antenniferous tubercles reaching to the middle of the length of clypeus, narrow, divergent and apically subacute. Eyes globular sessile, postocular portion of the head very short, postocular tubercles small but acute and reaching the level of exterior margin of eyes. Antennae long and in general slender, first antennal segment stout, curved, apically clavate, distinctly exceeding the apex of clypeus, second antennal segment towards the apex gradually widened and apically thickened, third segment distinctly slender than second, towards the apex gradually widened, fourth segment enlarged subapically and narrowed apically. Relative lengths of antennal segments 11:10:10:9. Surface of antennal segments with fine granules and sparse short pubescence, fourth segment apically haired. Rostral groove distinctly delimited. Rostrum exceeding limits of rostral groove, extending to the base of head. Surface of head finely granulate and with short pubescence, base of clypeus delimited on each side with an oblique furrow, disc of head

on each side near inner margin of eyes with a longitudinal smooth impression.

Pronotum 2.4 times as broad as long, in the middle with a deep transverse arched impression, anterior lobe strongly constricted, strikingly

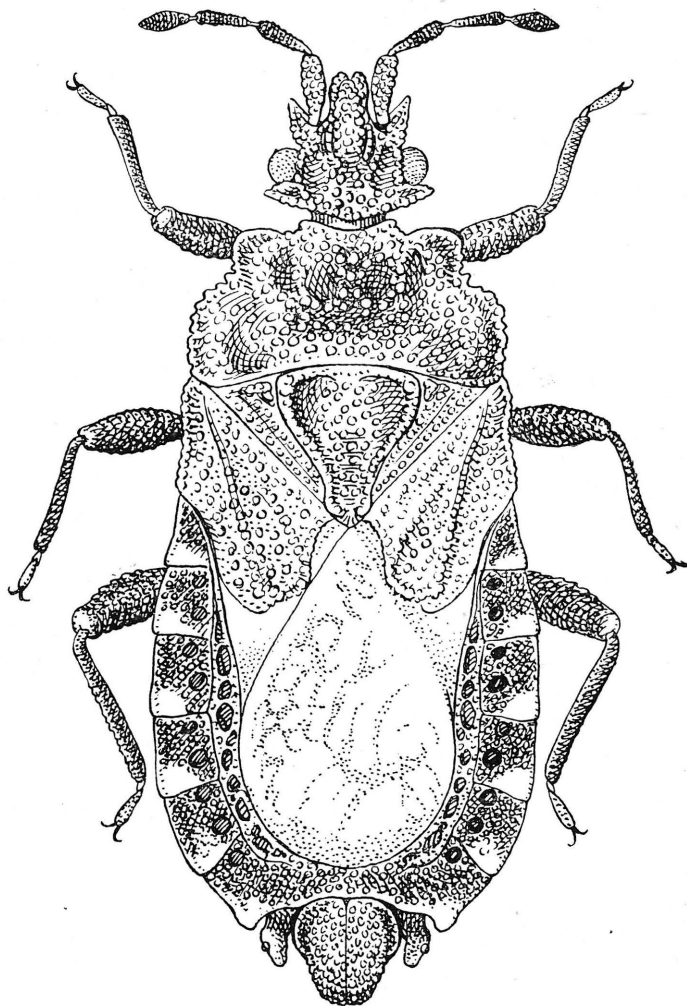


Fig. 21. *Meztra bicolor*, n. sp., male — holotype.

narrower than the posterior lobe. Anterior angles of pronotum narrowly rounded, flattened, not protruding, anterior margin with narrow but distinct collar, anterior disc with four high elongate elevations distinctly separated from each other. Posterior angles of pronotum rectangular, basal margin bent, basal disc declivous towards the middle transverse

impression. Pronotal surface with small granules with the exception of anterior elevations, sides with small granules. Scutellum nearly as long as broad, triangular, sides sinuate, elevated, apex narrowly rounded. Disc of scutellum granulated in the middle longitudinally slightly elevated, in basal angles with rounded smooth impression. Sternum granulated, legs short, femora in apical third incrassate, tibiae straight. Legs with small granules and sparse short pubescence. Hemelytra reaching not even to posterior margin of 7th abdominal tergite. Corium very long by nearly half its length exceeding the apex of scutellum, sides of corium in basal half straight and parallel then convergent and sinuate, the apices of coria rounded. Corium with sparse irregular granules. Abdomen below slightly convex, connexivum narrow, plain, exterior margins of connexival plates up to 6th straight, that of 7th slightly sinuate. Connexival plates with rough granulation, inner anterior and posterior angles of each plate with rounded depressions. Spiracles 2nd to 6th distinctly ventral, that of 7th and 8th marginal. Lateral lobes of 8th abdominal segment narrow prolonged, reaching to the middle of length of 9th abdominal segment.

Ninth male abdominal segment as long as broad, seen from above towards the apex slightly narrowed, apex broadly rounded, lower portion of the segment globular. Upper part of the segment over the whole surface with oval impression extending up to the apex of the segment, in the middle with a longitudinal suture. Ninth segment roughly granulate and with sparse short twisted pubescence.

Bicoloured, the whole body, antennae and legs dark brown to blackish brown, with brownish apices of femora and brownish tarsi only. Exterior posterior angles of connexival plates with sharply delimited yellowish brown rectangular spots reaching to $\frac{2}{3}$ of the width of respective connexival plates, apical part of the lobes of 8th abdominal segment brownish. Membrane brownish, shining, on base paler.

Holotype — male: Madagascar, Mt. Tsaratanava 2000 m, forêt de bambou à la limite de la forêt de mousses, X. 1949 R. P. (Institut Sc., Madagascar).

Paratype — male: Madagascar: Mt. Tsaratanava 1300 m, forêt de mousses, X. 1949 R. P. (Institut Sc., Madagascar).

Mezira kiritshenkoi, n. sp. and *M. bicolor*, n. sp. are apparently related to bicoloured Madagascan species *Mezira singularis* Hoberlandt, *M. insularis* Hoberlandt and *M. parva* Hoberlandt and can be distinguished in the following key.

Key to the Madagascan bicoloured species (males) of *Mezira* Amyot and Serville

1. Male ninth abdominal segment as broad as long, the larger part of disc of the segment with distinct impression 2
- Male ninth abdominal segment 1.3—1.5 times as broad as long, globular 3
2. Male ninth abdominal segment seen from above in the basal two thirds regularly and then in the apical third abruptly narrowed, subparallel and broadly rounded at the end. Discal impression occupying the broader discal part of the segment only *M. singularis* Hoberlandt

- Male ninth abdominal segment seen from above slightly gradually narrowed up to the apex, apex broadly rounded. Discal impression extending up to the apex of the segment *M. bicolor*, n. sp.
- 3. Male ninth abdominal segment 1.3 times as broad as long, globular, disc of the segment with shallow impression, posteriorly with bisinuate margin and not reaching to the extreme apex of segment. First three antennal segments and femora with rough granules and rather long suberect hairs *M. kiritshenkoi*, n. sp.
- Male ninth abdominal segment 1.5 times as broad as long, globular. Antennal segments and femora with fine granules and short scarcely visible pubescence . . . 4
- 4. Male ninth abdominal segment somewhat narrowed towards the apex, on the discal part with a broad very fine depression rounded at the end . . . *M. parva* Hoberlandt
- Male ninth abdominal segment regularly rounded, basally on the disc with a high conical tubercle delimited on all sides by a deep depression *M. insularis* Hoberlandt

Mezira monedula (Stål, 1865)

Brachyrhynchus Monedula Stål, 1865, Hemiptera Africana 3: 34.

Mezira monedula, Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 50, 63—66, figs 63—66.

Further material examined:

1 ♂ — Madagascar: Fénérive, XII. 1955 R. F. Laurence coll. (Institut Sc., Madagascar).

5 ♀♀ — Madagascar: Morondava, forêt sud de Befasy, I. 1956 R. O. (Institut Sc., Madagascar).

7 ♂♂ and 8 ♀♀ — S. W. Madagascar: Lambomakandro 500 m, Tulear, VII. 1957 R. Andria coll. (Institut Sc., Madagascar).

2 ♀♀ — Madagascar: Station Agric., Bas Mangoky (Institut Sc., Madagascar).

1 ♂ — Madagascar: Ambodimanga, Majunga (Institut Sc., Madagascar).

1 ♀ — Madagascar: Analamazotra, Périnet, XI. 1930 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

1 ♂ — S. Madagascar: Ambanja, III. 1934 Olsufev coll. (Zool. Institute Ac. Sc., Leningrad).

2 ♂♂ and 1 ♀ — S. Madagascar: Fort Dauphin, 20—25. VI. 1899 Sikora coll. (Zool. Institute Ac. Sc., Leningrad).

Distribution: Madagascar (Diego Suarez, Vallée d'Ambolo, Vohibory, Isalo, Bevazaha).

Mezira madagascariensis Hoberlandt, 1957

Mezira madagascariensis Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 50, 66—69, figs 67—70.

Mezira patruelis Kiritshenko, 1959, Entom. obozrenie, 38: 181—182, fig. 2. (Type in Zool. Institute Ac. Sc., Leningrad.) **New synonymy.**

Further material examined:

8 ♂♂ and 1 ♀ — E. Madagascar, Sakavondro 40 m, Fort Dauphin, VI. 1957 R. Andria coll. (Institut Sc., Madagascar).

5 ♂♂ and 8 ♀♀ — Madagascar: Sakaraha, Lambomakandro; P. Griveaud coll. (Institut Sc., Madagascar).

1 ♂ and 2 ♀♀ — Madagascar: Périnet (Institut Sc., Madagascar).

Distribution: Madagascar (Rogez, Ampasimena, Antongil, Fort Dauphin, Bezanozano, Maevatanana, Ankavandra).

Mezira mauricii Hoberlandt, 1957

Mezira mauricii Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 50, 69—72, figs 71—74. (Type in National Museum, Praha.)

Mezira membranacea; Mamet, 1957 (not Fabricius, 1803), The Mauritius Inst. Bull., 5: 47. **New synonymy.**

Further material examined:

1 ♂ — Mauritius: Zucaluptu S., VIII. 1948 C. Belt. coll.

1 ♂ — Mauritius: Réduit, 6. IV. 1943 P. R. Hermelin coll.

2 ♀♀ — Mauritius: Desjardius (Mauritius Institute, Mauritius).

Distribution: Mauritius.

Mezira sulcicornis Signoret, 1860

Mezira sulcicornis Signoret, 1860, Ann. Soc. ent. Fr., 8: 956—957.

Mezira sulcicornis; Hoberlandt, 1957, Acta entomologica Mus. Nat. Pragae, Supp. 4: 50, 72—75, figs 75—78.

Further material examined:

1 ♂ — Madagascar: Périnet, 15. XII. 1955 E. McC. Callan coll. (Institut Sc., Madagascar).

11 ♂♂ and 8 ♀♀ — Madagascar: Morondava, forêt sud de Befasy, I. 1956 R. P. (Institut Sc., Madagascar).

1 ♀ — Madagascar: Ampijoroa 170 m, Ankarafantsika, I. 1957 R. E. (Institut Sc., Madagascar).

11 ♂♂ and 6 ♀♀ — Madagascar: Andobo 190 m forêt Ansingy, dct. Antsalova, II. 1957 P. Griveaud coll. (Institut Sc., Madagascar).

2 ♂♂ — Madagascar: forêt de l'Ankarafantsika (Institut Sc., Madagascar).

3 ♂♂ and 3 ♀♀ — Madagascar: Maroantsetra (Institut Sc., Madagascar).

4 ♂♂ and 3 ♀♀ — Madagascar: Périnet (Institut Sc., Madagascar).

1 ♀ — Madagascar: Ampijoroa 170 m, Ankarafantsika, I. 1957 R. E. (Institut Sc., Madagascar).

1 ♀ — Madagascar: Mt. Amber, H. Rolle coll. (Zool. Museum, Berlin).

1 ♂ and 2 ♀♀ — Madagascar: Nosy-Bé, Helville, I. 1900 Tschitscherine coll. (Zool. Institute Ac. Sc., Leningrad).

Distribution: Madagascar (Tamatave, Vallée du Fanajanhira Ibaka, Vallée du Haut Onilahy Imahabo, Vohémar, Ambodivoniha, Ankarafantsika, Lokobe, Sandrangato), East Africa.

Distribution

Until 1957 (Hoberlandt) there have been recorded from the territory of Madagascar and some adjacent islands (Comoro Islands, Mauritius, Reunion) 38 species of 11 genera of the family Aradidae. After the publication of further papers (Kiritshenko 1955, 1959, Drake 1957, Mamet 1957 and Usinger and Matsuda 1959) the number of known species increased to 45 belonging to 15 genera. The present reports includes a further 9 new species and 3 genera and the total number of species at present known increased to 54 species of 18 genera.

Of the 18 genera represented in Madagascar *Aradus*, *Aneurus*, *Neuroctenus* and *Mezira* are found in all of the major Zoogeographic Realms. In Madagascar and adjacent islands *Aradus* occurs with 3 species, *Aneurus* with 5 species, *Neuroctenus* with 5 species and *Mezira* with 12 species. Genus *Carventus* is found in both the Old and New World tropics and in Madagascar in 4 species and in Africa in 4 species also. Genus *Ctenoneurus* occurs in Fiji, New Caledonia, New Zealand and in Africa (Congo and Island St. Thomas) where there occur 3 species, in Madagascar there is one species. In Africa and Madagascar only occurs *Strigocoris* (in Africa two species, in Madagascar three species), *Schoutedeniessa* (in Africa one species, in Madagascar three species) and *Usingeria* (in Africa and Madagascar one species). Eleven genera are endemic in distribution on Madagascar, 7 of which being monotypic and 4 polytypic. Of the total number of species found in Madagascar 46 occur on Madagascar only and only 3 species occur on Madagascar as well as on some of the adjacent islands and only 3 species occur both on the islands and on the African continent. On the other hand only 3 species occurring on Mauritius and Reunion are missing from Madagascar. Distribution of Aradidae within the territory of Madagascar is summarized in the following table.

Systematic arrangement	Madagascar	Comoro Islands	Mauritius	Reunion	Africa
<i>Aradus mañani</i> Hoberlandt	+	+			
<i>Aradus pauliani</i> Hoberlandt	+				
<i>Aradus apicicornis</i> Kiritshenko	+				
<i>Aneurus mjoeborgi</i> Bergroth	+				
<i>Aneurus grandiusculus</i> Bergroth	+				
<i>Aneurus madagascariensis</i> Hoberlandt	+				
<i>Aneurus breviscutatus</i> Bergroth	+				+
<i>Aneurus angustus</i> Bergroth			+	+	
<i>Jarmilaia aeterna</i> Hoberlandt	+				
<i>Bergrothista villiersi</i> Kiritshenko	+				
<i>Bergrothista mollis</i> (Hoberlandt)	+				
<i>Carventus madagascariensis</i> Hoberlandt	+				
<i>Carventus usingeri</i> Hoberlandt	+				
<i>Carventus kormilevi</i> , n. sp.	+				
<i>Carventus parvus</i> (Kiritshenko)	+				
<i>Andobocoris eximius</i> , n. gen. and sp.	+				
<i>Chlonocoris multispinosus</i> Usinger and Matsuda	+				
<i>Cimicomanes usingeri</i> Kiritshenko	+				
<i>Cimicomanes alter</i> Kiritshenko	+				
<i>Tananarivea tiptoni</i> Drake	+				
<i>Tananarivea madagascariensis</i> , n. sp.	+				
<i>Tananarivea insularis</i> , n. sp.	+				
<i>Robertiessa ciliata</i> , n. gen. and sp.	+				

Systematic arrangement	Madagascar	Comoro Islands	Mauritius	Reunion	Africa
<i>Classeyana marmorata</i> , n. gen. and sp.	+				
<i>Paulianium delectum</i> Hoberlandt	+				
<i>Strigocoris antakotakoensis</i> Hoberlandt	+				
<i>Strigocoris crassicornis</i> (Signoret)	+				
<i>Strigocoris usingeri</i> Hoberlandt	+				
<i>Dysodiellus beieri</i> Hoberlandt	+				
<i>Dysodiellus madagascariensis</i> Hoberlandt	+				
<i>Ctenoneurus insularis</i> , n. sp.	+				
<i>Neuroctenus chinai</i> Hoberlandt	+				
<i>Neuroctenus bilobus</i> (Signoret)	+				
<i>Neuroctenus caffer</i> (Stål)	+	+	+		+
<i>Neuroctenus madagascariensis</i> Hoberlandt	+				
<i>Neuroctenus tenuicornis</i> (Signoret)	+	+			
<i>Neuroctenus mauricii</i> Hoberlandt			+		
<i>Schoutedeniessa madagascariensis</i> (Hoberlandt)	+				
<i>Schoutedeniessa pauliani</i> (Hoberlandt)	+				
<i>Schoutedeniessa poissoni</i> (Hoberlandt)	+				
<i>Usingeria séguyi</i> Hoberlandt	+				
<i>Psectrocoris dilatus</i> Usinger and Matsuda	+				
<i>Mezira drakei</i> Hoberlandt	+				
<i>Mezira insularis</i> Hoberlandt	+				
<i>Mezira kiritshenkoi</i> , n. sp.	+				
<i>Mezira bicolor</i> , n. sp.	+				

Systematic arrangement	Madagascar	Comoro Islands	Mauritius	Reunion	Africa
<i>Mezira singularis</i> Hoberlandt	+				
<i>Mezira parva</i> Hoberlandt	+				
<i>Mezira monedula</i> (Stål)	+				
<i>Mezira intermedia</i> Hoberlandt	+				
<i>Mezira monedula</i> (Stål)	+				
<i>Mezira madagascariensis</i> Hoberlandt	+				
<i>Mezira mauricii</i> Hoberlandt			+		
<i>Mezira sulcicornis</i> Signoret	+				+

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