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# ARADOIDEA (HETEROPTERA) OF MADAGASCAR 

 AND ADJACENT ISLANDSBy<br>ludvík hoberlandt<br>(Národní museum, Praha)

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## INTRODUCTION

Very few species of the superfamily Aradoidea are known from Madagascar, especially as compared with other families of Heteroptera. Only 6 species of the family Meziridae are known as yet from this island: Mezira sulcicornis Signoret, Mezira monedula Stål, Neuroctenus caffer (S tål), Neuroctenus tenuicornis (S ig noret), Neuroctenus bilobus (S ignoret); all these species are unique for Madagascar with the exception of the species Neuroctenus caffer ( St à 1 ), which has penetrated even into Central Africa, and which is distributed throughout the whole of the South African region (type locality Cape Land). From Madagascar has further been described Mezira crassicornis Signoret, belonging to the genus Strigocoris Usinger of afro-madagascan distribution. Three species of the family Aneuridae are known from Madagascar and one from the island of Réunion: Aneurus mjöbergi Bergroth, Aneurus grandiusculus Bergroth , Aneurus breviscutatus Bergroth and Aneurus angustus Ber. groth. A newly ascertained genus in Madagascar with an afro-madagascan distribution is Usingeria Schouteden. The other known genera, Aradus Fabricius, Carventus Stål, Mezira Amyot and Serville, Neuroctenus Fieber and Aneurus Curtis, ascertained in Madagascar have a very wide or cosmopolitan distribution. Three genera described as new, Jarmilaia gen. n., Dysodiellus gen. n. and Paulianium gen. n. are known till now only from localities in Madagascar. The total number of the known species of Aradoidea in Madagascar and adjacent islands is 37 belonging to 11 genera.

In the course of my study of the Madagascan species of Aradoidea I had the possibility to examine the types of the following species: Mezira sulcicornis Signoret, Mezira monedula Stål, Neuroctenus caffer (Stal), Neuroctenus bilobus (Signoret) and Strigocoris crassicornis (Signoret). The species Aneurus mjöbergi Bergroth remains unknown to me. The basis of this study was the material from the collections of Institut Scientifique de Madagascar in Tananarive, which Dr. R. Paulian gave me on loan, the material from the collections of Naturhistorisches Museum in Vienna, lent me by Dr. M. Beier and the material from the collections of Muséum National d'Histoire Naturelle in Paris lent me by Professor E. Séguy. I had also quite a numerous material from the collections of the National Museum in Prague. I take this opportunity to express my most sincere thanks to Dr. R. Paulian, Dr. M. Beier and Professor E. Séguy for their great kindness in putting this material at my disposal and for their courteous cooperation. To Dr. M. Beier, Vienna, Professor O. Lundblad and R. Malaise, Stockholm I wish to express my thanks for lending me Signoret's and Stål's types.

Professor R. L. Usinger, University of California, Berkeley, very kindly allowed me to use his own unpublished notes, chiefly of the genera Carventus Stål, Burgeonia Schouteden, Pictinus Stål, Maynéa Schouteden, Ctenoneurus Bergroth and Neuroctenus Fieber, and I am greatly indebted to him for his never-failing cooperation.

Family ARADIDAE Costa 1843 Aradini Costa, Cimic. Neap. Cent. II: 15, 1843.

Family Aradidae is distributed throughout the whole world with its centre of distribution in the Holarctic region. This family is very poorely represented in species in tropical areas-in tropical Africa and Madagascar only 8 species belonging to one genus are known up till now. This family is characterized by the postocular portion of the head which is as broad as the head in front of eyes, bucculae very short, eyes strongly globular, more or less stylate. Rostrum mostly reaching to the anterior part of prosternum or longer. First antennal segment shortest, broad, in basal direction stemlike narrowed. Trochantera very short, fusing with femora, very difficult to distinguish. Spiracula from the lateral margins of venter very remote and located near to the anterior margin of respective ventrites. $9^{\text {th }}$ abdominal segment of male globular, inserted into the $8^{\text {th }}$ abdominal segment.

## Genus Aradus Fabricius 1803

## Aradus Fabricius, Systema Rhyngotorum: 119, 1803.

Type of the genus Aradus betulae (Linnaeus 1758) from Sweden. All Madagascan and African species of the genus Aradus Fabricius belong to the group flavicornis. ${ }^{1}$ ) The species are Aradus marani n. sp., A. pauliani n. sp., A. noctivagus n. sp. (Madagascar), Aradus melaenus Germar (S. Africa), A. basilewskyi Schouteden (Belgian Congo), A. zavattarii Mancini (E. Africa), A. katangae Schouteden (Belgian Congo) and A. flavicornis Dalman (Africa). The genus has the same chief characters as that of the family, which has only three genera till now.

Key to the Madagascan species of the genus Aradus Fabricius.

1. First antennal segment blackish brown, basal 0.4 of the total length of second antennal segment black, base of the third segment and the apical third of fourth segment black, rest of antennae whitish yellow. Second antennal segment in basal direction strongly narrowed, in basal black-coloured part constricted. Posterior part of connexival segments and the posterior margins of paratergites of the $8^{\text {th }}$ abdominal segment with a transversal whitish yellow stripe reaching nearly to the inner margin. Outer margins of paratergites of $8^{\text {th }}$ abdominal segment regularly rounded. . . . . A. mařani n. sp.

- First two antennal segments entirely black, third and fourth whitish yellow with the apex of fourth segment darkened. Second antennal segment in basal half regularly conically narrowed. Connexivum entirely black or posterior angles of $2^{\text {nd }}-7^{\text {th }}$ connexival segments with small roundish spots. Paratergites of $8^{\text {th }}$ abdominal segment entirely

[^0]black. Exterior margins of paratergites of $8^{\text {th }}$ abdominal segment geniculately bent.
2. Connexivum unicoloured black. Basal margin of the pronotum in the width of scutellum bisinuately emarginated. Marginal length between the apex of antennal tubercles and anterior margin of eye 1.7 times longer than the length of one eye. Basal half of the pronotal lateral margins parallel.
A. pauliani n. sp.

- Postero-exterior angles of $2^{\text {nd }} 7^{\text {th }}$ connexival segments with small roundish whitish yellow spot. Basal margin of the pronotum in the whole width straight. Marginal length between the apex of antennal tubercle and the anterior margin of eye as long as the length of one eye. Pronotum in the basal part broadly rounded. A. noctivagus n. sp.


## Aradus mařani n . sp.

(Fig. 1-3)
Female. Length $5.2-5.3 \mathrm{~mm}$, maximum width 2-2.1 mm. Head: length 0.95 mm , width 0.99 mm , interocular space 0.57 mm . Antennae: length of segment I, 0.17 mm ; II, 0.49 mm ; III. 0.34 mm ; IV, 0.3 mm . Pronotum: length 0.84 mm , width 1.6 mm . Scutellum: length 1.1 mm , width 0.57 mm .

General colour black; first antennal segment blackish brown, basal 0.4 of the total length of the second antennal segment black, base of the third antennal segment narrowly and apical third of fourth antennal segment black, the rest of antennae whitish yellow. Eyes, acetabula, coxae, trochantera, tibiae and tarsi blackish brown. Each connexival segment on the posterior margin with a narrow whitish yellow stripe, narrowing in an interior direction and reaching nearly the inner margin of connexivum, separated, however, by a very narrow ground black margin. Interspaces between the corial veins whitish grey, semitransparent, with irregular small blackish spots. Membrane whitish, strongly shining, transparent, with whitish veins and between them with some square fuscous spots.

General shape of the body elongate oval, 2.6 times as long as broad, apically broadly rounded. Head nearly as broad as long (26:25), interocular space 2.7 times wider than the width of one eye. Eyes obliquely rounded, globular, strongly tuberculate, substylate. Frontal processus broad, parallel, reaching to the middle of second antennal segment, apically broadly rounded. Antenniferous tubercles strongly divergent, in the apical half slightly constricted and pointed, reaching to the apical third of first antennal segment. Postocular margin of head abruptly narrowed. Surface of the head regularly tuberculated with the exception of a deep impression in the form of a broad V on the base of head. Antennae slender, 1.4 times longer than the length of head; first antennal segment cylindrical, slightly wider than the second segment on the base, second antennal segment in an apical direction strongly widened, on the black coloured basal part slightly constricted, third antennal segment broader than the second one on the apex, basally narrowed; fourth antennal segment somewhat narrower than the third segment, spindle-like. Surface of the antennae with fine tubercles and
very short and fine pale pubescence. Relative lengths of antennal segment I : II : III : IV :: $4.5: 13: 9: 8$.


Aradus mařani n. sp. - female (holotype). 1: head, pronotum and scutellum, 2: apex of abdomen, 3: gonocoxites.

Pronotum 1.9 times as broad as long, lateral margins of pronotum in basal half with humeral angles regularly rounded and then in anterior half moderately narrowed and nearly straight. Anterolateral angles angular, anterior margin slightly sinuated. Disc of the pronotum sloping in an anterior direction, in the anterior third separated by a deep transversal impression. Anterior lobe of the pronotum on each side with one large transversal elevation from which four distinct longitudinal carinae run through the basal lobe, reaching the basal pronotal margin; the two inner carinae are slightly convergent and the two outer ones slightly divergent. Anterior margin of the pronotum in the middle with two tubercles. Basal lobe of the pronotum regularly arched, inside the humeral angles with a small longitudinal elevation. Lateral parts of the pronotum narrowly flattened, proper margin slightly raised. Surface of the pronotum in anterior half and on sides tuberculated, basal disc deeply transversally rastrate.

Scutellum triangular, 1.9 times as long as broad, margins straight, strongly raised, apex very narrowly rounded. Surface of the scutellum in basal half arched and tuberculated, posterior half of the scutellum plain, transversally deeply rastrate. Sternum tuberculate, on pleura somewhat rastrate. Legs slender, long and straight with small tubercles and short pubescence. Hemelytra reach to the base of $8^{\text {th }}$ tergite. Emboliar margin on the base of corium slightly divergent and rounded, somewhat wider than the width of pronotum. Corial veins strongly elevated, interspaces semitransparent; membrane tuberculate, shining, veins of membrane distinct. Abdomen flat, margins regularly rounded; connexivum broad, plain, outer margins of all connexival segments nearly straight. Surface of connexivum minutely tuberculate and with short adpressed pubescence. Margins and posterior angles of paratergites of $8^{\text {th }}$ abdominal segment rounded. Venter with minute tubercles and short pubescence. Spiracula located typically for the genus Aradus. Gonocoxites as in fig. 3.

Material examined : 1 ( 9 (holotype)-Madagascar: Namoroka, IX. 1952 R. Paulian (Institut Sc. de Madagascar, Tananarive).

1 ㅇ (paratype)-Madagascar: Reserve naturelle no 8 Vilanandro, IX, 1952 R. Paulian (Národní museum, Praha).

1 ㅇ (paratype)-Madagascar: Région du Sud, Pays Androy Imanombo, 1901 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).

Distribution: Madagascar (type locality: Namoroka).
Aradus pauliani n. sp.
(Fig. 4-6)
Female. Length 5.6 mm , maximum width 2.3 mm . Head: length 0.99 mm , width 1.1 mm , interocular space 0.72 mm . Antennae: length of segment I, 0.17 mm ; II, 0.65 mm ; III, 0.42 mm ; IV, 0.34 mm . Pronotum: length 0.95 mm , width 1.7 mm . Scutellum: length 1.1 mm , width 0.72 mm .

General colour of the body blackish brown, dise of basal lobe of pronotum with rather brownish tinge. Only third and fourth antennal segment pale yellow, very apex of the fourth segment slightly infuscated; membranal veins pale brownish, paler than the colour of membrane. Sparse pubescence of the body pale.

General shape of the body narrowly oval, 2.45 times as long as broad, in a posterior direction rather wider. Head across the eyes slightly wider than in the middle long ( $30: 26$ ), interocular space 3.4 times wider than width of one eye. Anterior processus of head reaches to the basal third of second antennal segment, apically broadly rounded. Antenniferous tubercles reach to the apical third of first antennal segment, narrow pointed and divergent. Base of the antenniferous tubercles with one conical tubercle near the margin of eye. Eyes transversally oval, substylate, directed slightly backwards. Disc of the head plain, in the basal part on each side with one oblique oval deep smooth impression. Surface of the head regularly tuberculated. Rostrum, slender, reaching between the anterior coxae. Antennae 1.4 times as long as width of the head, second antennal segment slightly shorter than the interocular space (17:19). First antennal segment short, cylindrical,
second antennal segment towards the base slightly narrowed, on the very base rather more so; third and fourth segment thickest, both basally and apically narrowed. Surface of antennae tuberculate, mainly on the first two segments. Pubescence of the antennae only barely visible. Relative lengths of antennal segments I : II : III : IV :: $4.5: 17: 11: 9$.

Pronotum 1.8 times as wide as long, lateral margins in the basal half nearly parallel, in the anterior half narrowed in an anterior direction, and slightly curved, in the whole length flattened and strongly raised; anterolateral angles narrowly rounded and slightly extended forwards. Anterior margin of the pronotum deeply convex, basal margin of the pronotum in


Aradus pautiani n. sp. - female (holotype). 4: head, pronotum and scutellum, 5: apex of abdomen, 6: gonocoxites.
the width of scutellum sinuately emarginated, humeral angles broadly rounded, inside with a longitudinal tubercle-like elevation. Dise of the pronotum in the middle with a transversal impression, more visible on sides. Basal lobe of the pronotum rather arched, anterior lobe rather flattened. Dise of the pronotum with four longitudinal carinae, of which the two median ones are parallel and run from the basal margin, where they are terminated by an erected tubercle, lateral carinae are curved and reach only to the anterior third, where they fuse with an oblique shallow elevation. Surface of the pronotum tuberculated chiefly anteriorly and laterally. Scutellum triangular, 1.5 times as long as wide, lateral margins slightly rounded and highly raised, apex narrowly rounded. Surface of the scutellum plain, anteriorly slightly arched and tuberculated. Sternum with dense minute tubercles. Legs very slender and long, straight with tubercles. Hemelytra reach to the anterior third of the $7^{\text {th }}$ tergite. Emboliar margin of the corium in the basal part regularly rounded, only slightly wider than the width of the pronotum across humeral angles. Corial veins strongly elevated, membranal veins distinct. Abdomen flattened, connexivum plain, broad, exterior margin regularly rounded; interior posterior angles and posterior margins of respective connexival segments elevated. Exterior margins of paratergites of $8^{\text {th }}$ abdominal segment broken, posterior interior angle broadly rounded. Venter tuberculated like sternum, spiracula located typically for the genus Aradus. Gonocoxites as in fig. 6.

Material examined: 1 와 (holotype)-Madagascar: Makaraingo, 1898 Escoffre (Muséum Nat. d’Hist. Naturelle, Paris).

Distribution: Madagascar (type locality: Makaraingo).

Aradus noctivagus n. sp.
(Fig. 7-9)
Female. Length $4.14-4.56 \mathrm{~mm}$, maximum width $1.7-1.86 \mathrm{~mm}$. Head length 0.84 mm , width 0.9 mm , interocular space 0.53 mm . Antennae: length of segment I, 0.17 mm ; II, 0.49 mm ; III, 0.36 mm ; IV, 0.3 mm . Pronotum : length 0.76 mm , width 1.48 mm . Scutellum : length 0.95 mm , width 0.61 mm .

General colour of the body black shining. First and second antennal segment entirely black, third and fourth antennal segment whitish yellow, very apex of the fourth segment blackish. Apices of femora and bases of tibiae very narrowly and whole tarsi brownish. Posterolateral angles of the $2^{\text {nd }}-7^{\text {th }}$ connexival segment with small rounded sharply delimited whitish yellow spots, which do not reach the middle part of the respective connexival segments.

General shape of the body elongate oval, 2.4 times as long as broad. Head slightly wider than long ( $24: 22$ ), interocular space 2.8 times as broad as the width of one eye. Frontal processus broad, parallel, apically broadly rounded, reaching nearly to the middle of second antennal segment. Antenniferous tubercles slender, distinctly divergent, reaching to the middle of first antennal segment, apically pointed and somewhat bent inside. Postocular margins of the head abruptly narrowed. Surface of the head regularly tuberculate, dise somewhat flattened and on the base with a deep impression
in the shape of a V. Antennae moderately stout, 1.6 times as long as the length of head. First antennal segment the most slender, cylindrical, second antennal segment broader, in the basal half slightly conically narrowed, in distal half nearly cylindrical. Third and fourth antennal segments nearly of equal width, as wide as the width of second segment on the apex, fourth antennal segment spindle-like. Surface of antennae with small regular tubercles and sparse pubescence, which is somewhat more visible on apical part of fourth antennal segment. Relative lengths of antennal segments I : II : III : IV :: $4.5: 13: 9.5: 8$.

Pronotum 1.95 times as broad as long, lateral margins in basal half slightly rounded nearly parallel, then in anterior half distinctly narrowed and the margin is slightly rounded or nearly straight. Anterolateral angles of pronotum narrowly rounded, slightly lengthened anteriorly, anterior pronotal margin distinctly concave, in the middle with two tubercles on the end of central carinae. Humeral angles nearly rectangular, basal margin straight. Disc of pronotum in anterior third separated by a transversal deep impression; anterior lobe slightly elevated, basal lobe arched and distinctly sloping in an anterior direction. Pronotal longitudinal carinae strongly elevated, the two central ones run the whole length of the pronotum, near the base slightly convergent, the lateral ones distinct only on the basal lobe, reaching, however, the basal margin. Lateral margin of the pronotum along the whole length flattened and the marginal edge slightly raised. Surface of the pronotum distinctly regularly tuberculate, basal lobe between the longitudinal carinae transversally rastrate. Scutellum triangular, 1.6 times


Aradus noctivagus n. sp. - female (holotype). 7: head, pronotum and scutellum,
8: apex of abdomen, 9: gonocoxites.
as long as wide, lateral margins nearly straight, strongly raised, apex narrowly rounded. Surface of the scutellum in the basal third elevated and tuberculate, the rest of scutellar surface plain and transversally rastrate. Sternum finely tuberculate. Hemelytra reaching to the end of the body; emboliar margin on the base of corium regularly rounded and slightly wider than the width of pronotum. Corial veins strongly elevated, tuberculate, interspaces of veins semitransparent. Membrane transparent, tubercular, veins of membrane distinct. Abdomen flattened, abdominal margins regularly rounded, in the level of $7^{\text {th }}$ abdominal segment slightly sinuated. Connexivum broad, outer margins of $2^{\text {nd }}-6^{\text {th }}$ connexival segments straight, that of $7^{\text {th }}$ segment slightly sinuated. Paratergites of $8^{\text {th }}$ abdominal segment large, posterior angles broadly rounded, outer margins geniculately bent. Venter with minute tubercles and very short pubescence. Spiracula located typically as in the genus Aradus. Gonocoxites as in fig. 9.

Material examined : 1 아 (holotype)-Madagascar: Andohahelo, 1800 m R. Paulian (Institut Sc. de Madagascar, Tananarive).

1 ㅇ. (paratype)-Madagascar: Tananarive, Tsimbazaza, 31/1. II. 1950 R. Paulian (light trap). (Národní museum, Praha.)

Distribution: Madagascar (type locality: Andohahelo).

## Family MEZIRIDAE O s hanin, 1908

## Meziridae Oshanin, Verzeichnis der pal. Hemipteren, I: 478, 1908.

Family distributed throughout the whole world with the majority of the known species concentrated in the tropical areas and with the distributional centre in the Neotropical region. In Africa and Madagascar are known up till now not numerous species belonging to 13 genera. This family is characterized by the postocular portion of the head being more or less wider than the anteocular portion in front of the eyes, close to the posterior margin of the eyes or with more or less distinct postocular tubercles. Rostrum short, rarely reaching as far as the base of head. Spiracula variously situated, remote from the anterior margin of respective ventrites. $9^{\text {th }}$ abdominal segment visible. Scutellum triangular or pentagonal. Membrane with more or less visible veins.

Key to the Madagascan genera of the family Meziridae Oshanin.

1. Scent gland opening located behind the middle coxae. Surface of the body covered with more or less interrupted incrustation (Carventini)

- Scent gland opening located laterally on the mesopleura, and partly visible from above. Surface of the body without any large consistent surface of incrustation, however with numerous tubercles or globular tubercles (Mezirini)

2. Tylus and jugae very short, reaching nearly to the basal fifth of first antennal segment. Pronotum strongly narrowed in an anterior direction, twice as broad at the base as in front. Incrustation sparse. $2^{\text {nd }}-4^{\text {th }}$ spiracula ventrally, $5^{\text {th }}-8^{\text {th }}$ spiracula marginally. General
shape of the body narrow and in the posterior direction distinctly widened.

Jarmilaia gen. n.

- Tylus and jugae long, reaching byond the middle of the length of first antennal segment Pronotum nearly square, in an anterior direction not or only slightly narrowed, base of the pronotum as broad or only slightly broader than the anterior margin. The whole body covered with more consistent incrustation. $2^{\text {nd }}$ spiraculum ventrally, $3^{\text {rd }}-7^{\text {th }}$ spiracula marginally or dorsally. General shape of the body regularly elongate oval. . . . . . . Carventus Stå 1 .

3. Anterolateral angles of pronotum prolongated into broad, flat shovelshaped lobes, which are deeply serrate. Antennae very slender, $2^{\text {nd }}$ and $3^{\text {rd }}$ antennal segment linear. Jugae, antenniferous and postocular tubercles conspicuously finger-like prolongated, divergent.

Dysodiellus gen. n.

- Anterolateral angles of the pronotum rounded or angular, but not prolongated and particularly flattened into large shovelshaped lobes. Lateral margins of pronotum not serrate. Antennae thick. Jugae, antennal tubercles, even though prolongated, not so conspicuously finger-like.

4. Abdomen ventrally strongly flattened, posterior margin of $4^{\text {th }}-6^{\text {th }}$ ventrite with more or less visible callosity-like elevations. Posterior margin of $6^{\text {th }}$ ventrite of female in the middle bisinuate.

Neuroctenus Fieber.

- Abdomen thickened, posterior margins of ventrites not elevated. Posterior margin of $6^{\text {th }}$ ventrite of female with one deep sinuation. 5.

5. Third antennal segment distinctly longer than the second and fourth segments together. Tylus very short, shorter than the antenniferous tubercles, which are leaf-like flattened. Basal margin of the pronotum broadly regularly concave. . Usingeria Schouteden.

- Third antennal segment not longer than the second and fourth antennal segment together. Tylus and jugae distinctly projecting, beyond the level of the apex of antenniferous tubercles. Antenniferous tubercles conical.

6. Apterous. Eyes globular, sessile, located in the middle of the total length of head. Pro-, meso- and metanotum distinctly separated from each other. Tergites $2^{\text {th }}-6^{\text {th }}$ fuse completely. . Paulianium n. gen.

- Alate. Eyes more or less elongate, at least by one half of their circumference inserted in the margin of head and located more or less behind the middle of the total length of the head.

7. 
8. Membrane without distinct longitudinal veins. Basal margin of the pronotum straight. Connexivum onecoloured. Maynéa Schouteden

- Membrane with very distinct longitudinal veins. Basal margin of the pronotum more or less arcuate or deeply angularly cut out in front to the base of scutellum. Connexivum either onecoloured or with pale drawings on posterior margins of respective segments.

8. 
9. Ventrites without a stridulatory mechanism and hind femora simple, without any thickening. . . Mezira Amyot and Serville.

- Hind margin of third visible ventrite with a row of prominent setigerous spines on either side. Hind femora with a sharp-edged thickening subappically on inner face in a position to scrape across the abdominal comb. .

Strigocoris Usinger.

## Tribe Carventini Us inger 1951

Carventini Usinger, Eighth International Congress of Entomology, p. 176, 1951, Stockholm.

Macropterous species of this tribe are characterized by the more or less pentagonal or subtriangular form of scutellum; by the incrustation more or less covering the surface of the body, by the scent gland openings being located behind the middle coxae. In Africa and Madacascar only three genera known up till now.

Genus Jarmilaia n. gen.
Surface of the body covered by an irregularly accumulated yellowish brown incrustation. Head very small, tylus and jugae very short. Antennae very long, slender, third segment thinnest and longest, second segment shortest. Pronotum trapezoidal, strikingly narrowed in an anterior direction, anterior margin with a broad collar, margins of the pronotum leaf-like flattened and somewhat raised, anterolateral angles extended forwards. Mesothoracic scent-glands placed behind the middle coxae. Corial part of the hemelytra very short, separated only by a membranal commissure, hyaline, semitransparent. Membrane large with dense anastomosing veins. Connexivum broad, flat, posterior angles of the individual connexival segments extended, especially on the $5^{\text {th }}-7^{\text {th }}$ segments, $2^{\text {nd }}-4^{\text {th }}$ spiracula in the middle of the individual ventrites, remote from the margin of the abdomen, $5^{\text {th }}-8^{\text {th }}$ spiracula marginally or submarginally, always visible from above. Legs very long and slender, femora narrowed anterior to the end. Trochantera distinctly separated from the femora. General shape of the body longitudinally oval, in the direction towards the end very strikingly widened.

Type of the genus: Jarmilaia aeterna n. sp.
The new genus is close to the genus Carventus Stan , from which it is distinguished by the somewhat narrower, posteriorly broadening shape of the body, the very short tylus and jugae, the long and slender antennae and legs, the marked venation on the membrane and specially by the different position of the spiracula.

Key to the species of the genus Jarmilaia n. gen.

1. First antennal segment 2.4 times as long as the second segment, third segment 4.1 times as long as the second segment. General shape of the body in a posterior direction strongly expanded, 2.2 times as long as wide. Posterior angles of the individual connexival segments
strongly projecting, angles of the $7^{\text {th }}$ segment narrow and longly extended. Legs brown with paler bands. . . . . J. aeterna n. sp.

- First antennal segment 1.6 times as long as second segment, third segment 2.9 times as long as the second segment. General shape of the body moderately expanded in a posterior direction, 2.6 times as long as wide. Posterior angles of the individual connexival segments not projecting, angles of the $7^{\text {th }}$ segment bluntly briefly extended. Legs unicolour black. . . . . . . J. mollis n. sp.

Jarmilaia aeterna n. sp.
(Fig. 10-12)
Male. Length 6.7 mm , maximum width 3.1 mm . Head: length 0.8 mm , width 0.84 mm , interocular space 0.6 mm . Antennae: length of segment I, 0.84 mm ; II, 0.34 mm ; III, 1.4 mm ; IV, 0.57 mm . Pronotum: length 1.14 mm , width $2 . \mathrm{mm}$. Scutellum : length 0.84 mm , width $1 . \mathrm{mm}$.

General colour ochreous brown with paler and darker shades and yellowish brown incrustation. Antennae ochreous brown, base of the first segment yellowish, end of the third and the whole fourth segment darker, brownish; pubescence of the antennae yellowish. Head and pronotum ochreous brown, base of the pronotum and flattened margins of the pronotum yellowish, prosternum ochreous brown, meso- and metasternum dark brown. Scutellum ochreous brown, basal angles and extreme apex dark, longitudinal median carina yellowish. Corium subhyaline, ochreous brown, somewhat lighter and darker marbled, membrane silvery brown with a brownish venation. Tergum yellow, $2^{\text {nd }}-6$ tergite on each side with a large, darker ochreous, transversally oval spot which is yellow in the middle similarly as the remaining part of the tergun : $7^{\text {th }}$ tergite on each side at the base with a small transversal ochreous spot. Connexivum ochreous brown, outer and posterior margins of the individual segments and two spots, a smaller one in the anterior and a larger one in the posterior part of the connexival segments yellow; posterior half of the $7^{\text {th }}$ connexival segment yellow. Anterior half of the $8^{\text {th }}$ tergite yellow, posterior half and $9^{\text {th }}$ Segment ochreous brown. Venter dark ochreous brown, on the sides on each ventrite with two, on the connexivum with two further yellowish spots. Subconnexival area yellow, alternatingly spotted"dark. Legs ochreous brown, femora in the distal half with a broad transversal yellow band with a darker border on both sides; tibiae in the basal third yellow, also delimited by a darker interarea. Incrustation and pubescence yellowish and brown.

General shape of the body longitudinally oval, in a posterior direction very strikingly broadened, 2.2 times as long as broad. Head almost fourcornered, almost, as long as broad across the eyes. Tylus very short, equally broad in its whole length, broadly rounded at the end. Jugae very narrow, narrowed in the direction towards the end, slightly reaching beyond the end of the tylus. Antenniferous tubercles very short, flattened, at the end rather sharp, somewhat divergent. Interocular space 5.3 times as broad as the width of one eye. Eyes very small, longitudinally oval, sunk to one half into the margin of the head; postocular part of the head gradually arcuately
narrowed, with small, postocular tubercles which project only slightly beyond the outher margin of the eyes. Disc of the head very slightly arched. Rostral groove very narrow and deep, narrowing in a posterior direction, closed at the end. The rostrum is situated in the rostral groove and reaches to the base of the head. Incrustation scattered on the antenniferous tubercles, jugae, along the outer and posterior margin of the head, on the postocular


10: Jarmilaia aeterna n. gen. and sp. - general shape of female (allotype).
tubercles, and in the middle of the head between the base of the tylus and the base of the head. The whole inferior part of the head with the exception of the antenniferous tubercles with incrustation. Antennae very long, 4 times as long as the length of the head, relatively slender. First antennal segment thickest, somewhat bent in an outward direction, and somewhat narrowed towards the end, covered with short, subadpressed hairs; second antennal segment strikingly thinner, broadened in the direction towards the end, only at the base somewhat narrowed, at the end thumb-like broadened, slightly bent outwards; $4^{\text {th }}$ segment pear-shaped, very thin at the base, in the distal half with long, erect hairs. Second and third segment finely sculptured. Relative lengths of antennal segment I: II: III: IV:: 22 : 9: 37: 15.

Pronotum trapezoidal, 1.8 times as broad at the base as long in the middle, strongly narrowed in an anterior direction, twice as broad at the base as in front. Margins of the pronotum slightly double-bent, dentate and ciliated. Basal margin slightly double bent, in front to the base of the scutellum indented, the humeral angles from an obtuse angle and are regularly rounded. Anterior margin of the pronotum straight, with a broad collar which is extended on the sides into short, forward directed lobes. Anterolateral angles of the pronotum extended into blunt tips which project beyond the level of the anterior collar. Disc of the pronotum flat, in an anterior direction only slightly inclined, in the middle with a fine transversal depression which is most distinct in the middle; sides of the pronotum broadened leaf-like and slightly raised upwards. Surface of the pronotum opalescent; a yellowish incrustation is crowded on the anterior collar, along the outer margins of the pronotum, especially on the humeral angles, somewhat sparser and more irregular on the transversal depression and lengthwise in the middle of the pronotum. Scutellum subtriangular, 1.2 times as broad as long, margins of the scutellum in the basal $2 / 3$ straight, in the apical third the scutellum is strongly narrowed, and the apex broadly rounded. Margins of the scutellum strongly raised, dise of the scutellum moderately arched, longitudinal median carina well visible throughout the whole length, anterior to the end of the darkened part higher. Surface of



Jarmilaia aeterna n. gen. and sp. 11: gonocoxites, 12: margin of $5^{\text {th_ }} 7^{\text {th }}$ connexival segments of male (holotype).
the scutellum transversally coarsely rastrated, incrustation crowded in the basal angles and in the apical angles, on the raised margins, and scattered on the surface. Sternum rastrated, only the pleural part with an irregular incrustation. Mesothoracic scent-glands placed behind the middle coxae. Legs very long and thin, trochantera separated from the femora. The femora are not strikingly thickened, narrowed anterior to the end on the dark coloured part. Tibiae thin, at the base and at the end somewhat broadened, bent in the middle. The whole legs are finely tubercular, with a very short and sparse erect pubescence. Hemelytra reach to the end of $7^{\text {th }}$ tergite, the basal half of the corial part broadly enlarged, somewhat broader than the width of the pronotum; corium hyaline, semitranslucent, corial veins and membranal commissure distinct. Inner angle of the corium anterior to the end of the apex of the scutellum. Membrane large, 2.5 times as long as the corial part, very shining, with dense anastomosing veins. Yellow part of the tergum smooth and shining, ochreous coloured part densely, rather coarselly, regularly, deeply dotted. Connexivum broad, flat, outer margins of $2^{\text {nd }}-4^{\text {th }}$ segments rounded, posterior angles projecting, margins of $5^{\text {th }}-6^{\text {th }}$ segments almost straight, posterior angles strikingly extended and projecting; margin of the $7^{\text {th }}$ connexival segment concave, posterior angle lengthened into a narrow, blunt, long lobe which reaches the level of the end of the paratergite of the $8^{\text {th }}$ segment. Surface of the connexivum very finely sculptured, $7^{\text {th }}$ tergite somewhat raised in the middle. Subconnexial area very narrow. Paratergites of the $8^{\text {th }}$ segment long, pointed at the end, outer margin straight, inner margin somewhat rounded : they reach to the middle of the $9^{\text {th }}$ abdominal segment (which in the type is somewhat damaged). Surface of the connexivum very finely sculptured. $7^{\text {th }}$ tergite in the middle somewhat raised. Venter very slightly arched, surface very finely sculptured, posterior margins of the individual ventrites slightly raised, in the middle with a round depression. $2^{\text {nd }}-6^{\text {th }}$ ventrites on each side with three, in connexival part with further two smooth callous-like spots. $6^{\text {th }}$ ventrite in the middle angularly indented. $2^{\text {nd }}-4^{\text {th }}$ spiracula in the middle of the individual ventrites equally distant from the margins. $5^{\text {th }}-7^{\text {th }}$ spiracula somewhat shifted beyond the middle of the individual ventrites and lying marginally. $8^{\text {th }}$ spiraculum in the middle and marginally. Incrustation at the margin of the venter and on the genital segments.

Female. Length 6.8 mm , maximum width 3.5 mm . Agrees in general colour and shape completely with the male. Paratergites of the $8^{\text {th }}$ abdominal segment triangular, blunt at the end, projecting only beyond half the length of the lengthened posterior angles of the $7^{\text {th }}$ connexival segment. $9^{\text {th }}$ abdominal segment pentagonal, sharp at the end, reaching to $2 / 3$ of the length of the paratergites of the $8^{\text {th }}$ connexival segment. $8^{\text {th }}$ spiraculum somewhat stylate. $5^{\text {th }}-7^{\text {th }}$ spiracula somewhat submarginal, but well visible from above, substylate. $6^{\text {th }}$ ventrite slightly bent in the middle. Gonocoxites as in the fig. 11.

Material examined: $10^{\pi}$ and 1 io (holotype and allotype) - Madagascar: Ambanja, 1937 F. Lamberton (Národní museum, Praha).

Distribution: Madagascar (type locality: Ambanja).

Jarmilaia mollis n. sp.
(Fig. 13)
Male. Length 5.1 mm , maximum width $2 . \mathrm{mm}$. Head: length 0.68 mm , width 0.68 mm , interocular space 0.46 mm . Antennae: length of segment I, 0.5 mm ; II, 0.3 mm ; III, $0,87 \mathrm{~mm}$; IV. 0.38 mm . Pronotum: length 0.87 mm , width 1.44 mm . Scutellum: length 0.72 mm , width 0.9 mm .

General colour yellowish brown, shining, with dark brown to blackish shades and drawings. Antennae dark reddish brown, last segment almost blackish, head dark yellowish brown, end of the antenniferous tubercles yellowish, head and tylus at the base, eyes and lower part of the head brownish black. Pronotum yellowish brown, darkened in the middle at the base. Scutellum yellowish brown, margins and base dark spotted, end of the scutellum black. Sternum except the outer part of the pleural area and coxae blackish. Hemelytra yellowish brown with a bronze tinge. Tergum yellowish brown, in the middle darker with a reddish tinge, middle of the $7^{\text {th }}$ tergite blackish. Connexivum yellowish brown, on the inner side lighter spotted, at the base of the individual segments with a yellowish callous elevation; basal and posterior outer angles of the individual segments of the connexivum as well as the subconnexival area blackish spotted. Venter dark reddish brown, in the middle darkened, at the nargins of the individual ventrites with 5 round callous lighter spots. Genital segment reddish brown with the exception of a triangular brown spot at the base on the dorsal side. Legs blackish. Incrustated tubercles light yellowish brown; pubescence light, very short and sparse.

General shape of the body very narrowly oval, 2.6 times as long as wide, in a posterior direction regularly moderately expanded. Head square, as long as wide across the eyes; interocular space 6 times as wide as the width of one eye; the eyes are small, longitudinal, inserted into the margin of the head. Tylus very short, reaching to the basal fourth of the first antennal segment, broad, bluntly rounded at the apex. Jugae very small, not reaching the end of the tylus. Antenniferous tubercles flat, triangular, shorter than the tylus, postocular tubercles small, reaching the level of the outer margin of the eyes. Surface of the head moderately vaulted, between the base of the head and the tylus with a band of incrustated tubercles, which are also on the antenniferous tubercles, on the jugae, in the postocular part of the head and below the head. Rostral groove long, parallel, reaching the base of the head, closed at the end; the rostrum does not reach the end of the groove. Antennae 3 times as long as the length of the head; first antennal segment thickest in the basal third, then in the direction towards the end somewhat narrowed and moderately bent outwards; second antennal segment in the direction towards the end moderately expanded; third segment longest, at the base distincly narrowed, at the end finely clavately expanded; fourth segment pear-shaped. Antennae with tiny tubercles and scarcely perceptible pubescence; distal half of the fourth segment with long, light erect hairs. Relative lengths of antennal segments I : II : III : IV :: 13:8:23:10.

Pronotum 1.6 times as wide as long, moderately narrowed in the anterior direction, at the base 1.9 times as wide as in front; sides of the pronotum
strongly flattened, in the middle moderately bent, in the anterior third truncately narrowed, the anterior angles prolonged in triangular lobes, which are separated from the anterior collar by a deep incision on the inner side. Anterior margin of the pronotum deeply sinuate, with a narrow collar. Basal margin of the pronotum in its whole width moderately sinuate, at the base of the scutellum straight. Disc of the pronotum almost straight, on the anterior half in the middle with two flat low elevations, posterior half in the middle and on each side with one low longitudinal elevation. Surface of the pronotum irregularly finely sculptured with the exception of the two anterior elevations, which are smooth; surface with sporadic incrusted tubercles, somewhat more closely crowded on the flattened sides. Scutellum triangular, 1.3 times as wide as long, base and margins of the scutellum elevated, margins anterior to the apex constricted. Scutellum in the middle with a longitudinal smooth carina, along the carina with some incrusted tubercles. Sternum very little vaulted, finely sculptured, on the pleura with sporadic incrusted tubercles. Mesothoracic scent glands behind the middle coxae. Legs very slender and long. Hemelytra extending to the middle of the $7^{\text {th }}$ tergite, convex at the base, somewhat expanded in leaf-shape and elevated, a little wider than the base of the pronotum. Corium short, subhyaline, unsharply delimited against the membrane, veins distinct; membrane 1.5 times as long as the corium, parallel, at the end broadly rounded, veins reticular. Abdomen moderately vaulted, in a posterior direction gradually expanded, widest across the $5^{\text {th }}$ abdominal segment. Connexivum broad, subparallel, flat, outer margins of the $3^{\text {rd }}-5^{\text {th }}$ segments only slightly rounded, margin of the $5^{\text {th }}$ connexival segment moderately sinuate, and the posterior angle prolonged in a short rounded lobe; margin of the $7^{\text {th }}$ segment deeply sinuate, posterior angle prolonged in a long, rounded, projecting lobe. $7^{\text {th }}$ tergite in the middle elevated to the same hight as the $9^{\text {th }}$ abdominal segment, transversally coarsely rastrated. Surface of the connexivum very finely sculptured with a very short sparse


13: Jarmilaia mollis n. gen. and sp. - general shape of male (holotype).
pubescence, at the anterior margin of the individual segments with a low, round, callous elevation, at the outer margin with some longitudinal furrows. Subconnexival area very narrow. Tergum flat, the individual tergites deeply pitted with the exception of the sides and of the median longitudinal carina. Venter very flat finely sculptured, the individual ventrites on each side with 5 round small callous elevations, inside with some longitudinal furrows. $2^{\text {nd }}-4^{\text {th }}$ spiracula ventrally, remote from the margin and in the middle of the individual ventrites; $5^{\text {th }}-8^{\text {th }}$ spiracula in the middle of the individual segments marginally. Paratergites of the $8^{\text {th }}$ abdominal segment broadly tongue-shaped, coarsely tubercular, somewhat bent inwards, extending to $2 / 3$ of the length of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment 1.6 times as wide as long, lower half globular, dorsal part regularly narrowed, imbricately lengthened, at the end narrowly rounded, not exceeding the level of the lower part of the segment. Surface of the segment finely tuberculate, on the sides and on the ventral part with incrustated tubercles.

Material examined: 1 o (holotype)—Madagascar: Perinet, R. Paulian (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality: Perinet).

## Genus Carventus Stål 1865

Carventus S t a 1 , Hemiptera Africana, 3 : 32, 1865.
Burgeonia Schouteden, Rev. Zool Africaine, $6: 134,1918$.
Type of the genus: Carventus denticollis Stå 1873 from Island of Mysol.

The genus Carventus St a 1 is distributed in southernmost Asia, New Guinea, Mexico, Africa and Madagascar. All African and Madagascan species (6) belong to the subgenus Burgeonia Schouteden, established originally as a genus. This subgenus (type of the subgenus Burgeonia burgeoni Schouteden) is characterized by having a single very large platelike lobe at the anterior angle of the pronotum. On the other hand the Oriental species (type of the genus Carventus denticollis Sta 1 ) of the genus Carventus Stal has three lateral lobes on each side of the pronotum anteriorly.

Key to the Madagascan species of the genus Carventus St a 1 (subgen. Burgeonia Schouteden).

1. Jugae, antenniferous tubercles and postocular tubercles blunt. Jugae converging anteriorly to the tylus and not forming a distinct split. Pronotum across the anterolateral angles distinctly narrower than the width of the pronotum at the base. Female $7^{\text {th }}$ connexival segment lengthened into a long, acute at the end bent tip. C. usingeri n. sp.

- Jugae, antenniferous tubercles and postocular tubercles acute. Jugae approaching each other anteriorly to the tylus, but the apices themselves strongly diverge and form a distinct split. Pronotum across the anterolateral angles almost as broad as the width of the pronotum at the base. Female $7^{\text {th }}$ connexival segment lengthened into a long blunt tip.
C. madagascariensis $\mathrm{n} . \mathrm{sp}$.


## Carventus (Burgeonia) usingeri n . sp.

(Fig. 14-15)
Female. Length 5.9 mm , maximum width 2.7 mm . Head: length 0.87 mm , width 0.95 mm , interocular space 0.65 mm . Antennae: length of segment I, 0.42 mm ; II, 0.27 mm ; III, 0.68 mm ; IV, 0.3 mm . Pronotum: length 1.14 mm , width 1.82 mm . Scutellum : length 0.57 mm , width 0.95 mm .

General colour pale brown on the major part of the body with pale yellowish brown incrustation. Hemelytra yellowish brown, in the corial part darker, membrane grayish brown, shining.

General shape of the body broadly oval, 2.2 times as long as broad. Head slightly broader than long (25:23), widest on the base of head; interocular space 5.7 times as wide as width of one eye. Tylus very narrow, arched, reaching to the middle of first antennal segment; jugae broad, roundish, apically narrowly rounded, convergent, in front of the tylus touching. Antenniferous tubercles reaching to $2 / 5$ of the length of first antennal segment, narrow, slightly divergent, apically obtuse, bent inside. Eyes small, elongate and deeply inserted in the margin of head. Postocular portion of the head strikingly widened, forming on each side obtuse angle, which longly extend the level of the exterior margin of eyes. Surface of head with strong incrustation, leaving base of the tylus and a V -shaped impression on each side near the inner margin of eyes. Antennae by $1 / 5$ shorter than length of head and pronotum together, very slender; first antennal segment stoutest slightly curved, second antennal segment strikingly thinner, in an apical direction slightly widened, apically club-shaped, third antennal segment longest and thinnest, on the base constricted, at the very apex pestle-like widened, fourth segment pear-shaped, apically with long pale erect hairs. First antennal segment with obsolete tubercles and scarcely perceptible pubescence. Relative length of antennal segment I : II : III : IV :: $11: 7: 18: 8$. Pronotum nearly rectangular, 1.6 times as wide as long, across the anterolateral angles distinctly narrower than the width of the pronotum


14: Carventus (Burgeonia) usingeri n. sp. - general shape of female (holotype).
across the humeral angles. Basal margin of the pronotum convex, on the sides of the base of scutellum prolonged into triangular lobes, exteriorly fused with humeral angles which are nearly rectangular. Lateral margins of the pronotum anterior to the middle slightly sinuate, in the middle with a small obsolete tubercle. Anterolateral angles of the pronotum broadly rounded, widened, spatuliform, in the inner area free and separated from the anterior pronotal collar by a deep/notch. Anterior collar of the pronotum broad; disc of the pronotum slightly declivous in an anterior direction, in basal part rather arched, in the anterior part flat, near the anterior collar roof-shaped. Surface incrustated, particularly in the basal part and only in the anterior part there remain some minute areolas without incrustation. Sternum slightly arched and completely incrustated. Legs slender and long, tibiae slightly sinuate. Scutellum triangular, 1.7 times as wide as long, lateral margins concave, elevated, apex of the scutellum broadly rounded. Anterior part of the scutellum incrustated, posterior part without incrustation, in the middle with a longitudinal carina. Hemelytra reaching beyond middle of $7^{\text {th }}$ tergite. Emboliar margin of the corium strongly widened, in the part passing into the membrane suddenly narrowed and notchedly constricted. Corial part very short, slightly shorter than the scutellum, indistinctly passing into membrane, which is 5 times longer than the corial part. Membrane with 6 oblique more or less distinct veins. Abdomen flattened, venter entirely incrustated. Connexivum flat, broad, incrustated with the exception of small spots and two rounded areolas on the inner part of each connexival segment. Exterior margin of $2^{\text {nd }}-6^{\text {th }}$ connexival segments rounded, chiefly that of $6^{\text {th }}$ segment; $7^{\text {th }}$ connexival segment elongated into a long acute at the end bent tip. $2^{\text {nd }}$ spiraculum ventral, $3^{\text {rd }}-6^{\text {th }}$ spiracula dorsally near the margin, in the middle of respective connexival segments, $7^{\text {th }}$ spiraculum marginally, $8^{\text {th }}$ spiraculum terminally. Paratergites of the $8^{\text {th }}$ abdominal segment triangular, narrow, pointed, reaching to $2 / 3$ of the length of $9^{\text {th }}$ abdominal segment, sinuate. $9^{\text {th }}$ abdominal segment triangular, very narrow, apically pointed. Gonocoxites as in fig. 15.

1 오 (holotype)—Madagascar: Manjabe foret, VIII. 1949 (J. M.) (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality: Manjabe foret).



15: Carventus (Burgeonia) usingeri n. sp. - gonocoxites. 16: Carventus (Burgeonia) madagascariensis n . sp. - gonogoxites.

Carventus (Burgeonia) madagascariensis $\mathrm{n} . \mathrm{sp}$.
(Fig. 16-17)
Female. Length 5.9 mm , maximum width 2.7 mm . Head: length 0.84 mm , width 1.1 mm , interocular space 0.7 mm . Antennae: length of segment I, 0.46 mm ; II, 0.3 mm ; III, 0.76 mm ; IV, 0.34 mm . Pronotum: length 1.22 mm , width 1.7 mm . Scutellum : length 0.53 mm , width 0.9 mm .

General colour dark reddish brown with paler shades and the major part of the body covered with pale grayish brown incrustation. $2^{\text {nd }}-4^{\text {th }}$ antennal segments, tibiae, exterior margin of connexivum and paratergites of the $8^{\text {th }}$ female abdominal segment rather paler, reddish. Corial part of hemelytra reddish brown, membrane grayish brown, shining.

General shape of the body broadly oval, 2.2 times as long as broad. Head 1.3 times wider than long, widest on the base of the head; interocular space 6 times as wide as width of one eye. Tylus very narrow, arched, reaching not to the middle of the length of first antennal segment; jugae long, longly extending the apex of tylus and reaching to the second third of the length of first antennal segment; jugae in front of the tylus touching, apically divergent and raised. Antenniferous tubercles long and acute, convergent, reaching to the middle of the first antennal segment, directed slightly inside. Eyes, small, elongate and deeply inserted in the margin of the head. Postocular portion of the head strikingly widened, forming on each side an angle, which longly extend the exterior margin of eye. Surface of the head, jugae and antenniferous tubercles strongly pale brown incrustated, with the exception of the tylus, two short longitudinal grooves on the base of head and an impression of Vshape on each side between the eye and the base of tylus. Antennae slightly shorter than the length of head and pronotum together, slender; first antennal segment rather widened, slightly curved, second antennal segment strikingly thinner, in apical direction slightly widened, third segment longest and thinnest, on the base constricted and on the very apex pestle-like widened. Fourth segment pear-shaped, in distal half with long pale hairs, other segments with scarcely perceptible pubescence. Relative lengths of antennal segment I: II : III : IV :: 12:8:20:9.


17: Carventus (Burgeonia) madagascariensis n . sp. - general shape of female (holotype).

Pronotum nearly rectangular, 1.4 times as wide as long, in the anterior portion almost as broad as the width of the pronotum across the humeral angles. Basal margin of the pronotum convex, on the sides of the base of scutellum running out into triangular tips, anteriorly fused with humeral angles. Lateral margins of the pronotum slightly sinuate, in the middle with a tubercle, appearing as it bisinuated. Anterolateral angles of the pronotum broadly rounded, widened, spatuliform, in the inner area open, separated from the anterior collar by a deep notch. Disc of the pronotum in the basal portion rather arched and in anterior part behind the marginal collar roofshaped. Pronotum inclined in an anterior direction, surface incrustated particularly in the anterior and basal parts; without incrustation remain only some minute areolas in the anterior part and inside of anterolateral angles of pronotum. Scutellum subtriangular, 1.7 times as wide as long, lateral margins concave, elevated, apex of the scutellum rounded. Anterior part of the scutellum strongly incrustated, posterior one without incrustation; in the middle with a longitudinal carina. Legs very slender, proportionately long. Hemelytra reach to the middle of $7^{\text {th }}$ tergite. Margins of the corium strongly widened, in the part passing into the membrane suddenly narrowed and notchedly constricted. Corial part very short, by little shorter than the scutellum, indistinctly passing into membrane, which is 6 times longer than the corial part. Membrane with 6 oblique more or less indistinct veins. Connexivum flat, partly incrustated, margins of connexival segments rounded, $7^{\text {th }}$ connexival segment running out into long triangular blunt tip. $2^{\text {nd }}$ spiraculum ventral, behind the middle of ventrite, $3^{\text {rd }}-7^{\text {th }}$ spiracula marginally and rather in front of the middle of respective ventrites, $8^{\text {th }}$ spiraculum in front of the apex itself, nearly dorsally. $8^{\text {th }}$ abdominal segment very short, paratergites hook-like apically pointed, incrustated, reaching to the $2 / 3$ of the $9^{\text {th }}$ abdominal segment. Gonocoxites as in fig. 17 .

1 if (holotype)-Madagascar: Tampolo foret, 31. VII. 1949 (I. M.) (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (Tampolo foret type locality).

## Tribe Mezirini Van Duzee, 1916


#### Abstract

Mezirini Van Duzee, Check list of the Hemiptera (excepting the Aphididae. Aleurodidae and Coccidae) of America, North of Mexico (N. Y. Ent. Soc.), p. 16, 1916.

This tribe occupying the majority of the winged and apterous genera of Meziridae, is characterized by the triangular scutellum of the winged forms and by scent-gland openings located laterally on the mesopleura and partly visible from above. In Africa and Madagascar known up till now in 11 genera.


## Genus Dysodiellus n. gen.

Shape of the body very broadly oval, abdomen oval, broader than the base of the hemelytra. Head distinctly broader than long, eyes very small, interocular space very broad. Jugae very broad, flattened; postocular tubercles small, which do not project beyond the level of the outer margin of eyes. Antenniferous tubercles strong, long, divergent, sharp at the apex. Antennae twice as long and more than the length of the head, the first three
antennal segments more or less equally long. Pronotum transversal, 2.5-2.9 times as wide as long, only very slightly arched, almost flat. Anterolateral angles of the pronotum extended into broad, flat, shovel-shaped lobes, anterior margin with a broad flat collar. Scutellum triangular, constricted anterior to the apex. Base of the corium very much enlarged, broader than the base of the pronotum. Membrane large, with a distinct anastomosing venation. Abdomen strongly flattened, connexivum broad, outer margins of the individual segments regularly rounded, with two rows of tubercles. Subconnexival area broad. $2^{\text {nd }}$ - $^{\text {th }}$ spiracula very remote from the margin of the abdomen, in the middle of the individual ventrites. $8^{\text {th }}$ spiraculum marginal. Paratergites of the $8^{\text {th }}$ abdominal segment of the male large, flat and broad, widened in the direction towards the end, broadly rounded at the end. $9^{\text {th }}$ abdominal segment of the male broad, about twice as wide as long, irregularly rounded. Paratergites of the $8^{\text {th }}$ abdominal segment of the female likewise broadly shovel-shaped, directed somewhat inwards. $9^{\text {th }}$ abdominal segment of the female very short, 5 times shorter than the paratergites of the $8^{\text {th }}$ abdominal segment. Legs relatively long and slender. Claws without pad-like arolia, distinctly hair-like. Colour as the whole dark brown.

Type of the genus: Dysodiellus beieri n. sp.
The new genus is very close to the genus Dysodius Lep., but is distinguished from it by the strikingly broader head, the longer and more slender, antennae, especially the second segment of the antennae is not so strikingly widened towards the apex, and by the strikingly shorter rostrum. The abdomen is in the new genus strongly flattened and the paratergites of the $8^{\text {th }}$ abdominal segment are very broad and long, 5 times as long as the $9^{\text {th }}$ abdominal segment. $8^{\text {th }}$ spiraculum is in the new genus almost marginal. The size of the body in the new genus is not strikingly smaller, than in Dysodius Lep. however, generally the body appears more slender.

Key to the species of the genus Dysodiellus n. gen.

1. Antennal segments stronger and shorter, antennae twice as long as the length of the head. Antenniferous tubercles short, the ends reach only to the level of the outer margin of the eye. Anterolateral lobes of the pronotum at the base as broad as anterior to the end. Paratergites of the $8^{\text {th }}$ abdominal segment of male shovel-shaped, at the base only slightly narrower than anterior to the end. Paratergites of the $8^{\text {th }}$ abdominal segment of female on the inner side arcuately enlarged, shovel-shaped.
D. beieri $\mathrm{n} . \mathrm{sp}$.

- Antennal segments thinner and longer, antennae 2.3 times as long as the length of the head; antenniferous tubercles long, the end distinctly projecting beyond the level of the outer margin of the eye. Anterolateral lobes of the pronotum narrowed at the base, distinctly narrower than anterior to the end. Paratergites of the $8^{\text {th }}$ abdominal segment of male at the end strongly broadened inwards, distinctly narrower at the base than anterior to the end. Paratergites of the $8^{\text {th }}$ abdominal segment of female, rather elongated.
D. madagascariensis n. sp.

Dysodiellus beieri n . sp .
(Fig. 18-20)
Male. Length 10.3 mm , maximum width 5.5 mm , Head : length 1.6 mm , width 1.8 mm , interocular space 1.3 mm . Antennae: length of segment: I, 0.9 mm ; II, 0.9 mm ; III, 0.84 mm ; IV, 0.68 mm . Pronotum : length 1.2 mm , width 3.4 mm . Scutellum : length 1.6 mm , width 2 mm .

General colour dark brown, on the connexivum and anterolateral angles of the pronotum with a reddish brown shade.

Shape of the body broadly oval, 1.8 times as long as broad, abdomen oval, broader than the base of the hemelytra. Head across the eyes distinctly broader than long ( $47: 43$ ), interocular space 5.8 times as wide as the width of one eye. Tylus narrow, distinctly arched, in the apical third conically narrowed, extending into the basal fifth of the length of the first antennal segment. Jugae broad, somewhat narrowing in the direction towards the end, flat, exceeding $3 / 5$ of the length of the first antennal segment, divergend anterior to the end of the tylus and have a deep space anterior to the tylus; jugae with high tubercles, which on the sides distinctly project beyond the margin. Antenniferous tubercles strong, strongly divergend, extending into the basal fourth of the length of the first antennal segment, but to the sides they do not reach the level of the outer margin of the eyes. Eyes very small, transversal, narrowing conically distinctly in an outward direction. Postocular part of the head somewhat broadened, elongated into irregular dented postocular tubercles which do not project beyond the outer margin of the eyes. Surface of the head very slightly arched, covered with numerous large tubercles, which especially at the inner edge of the eyes are large and form in the anterior part of the eye a sharp point. Rostrum very short, thin, narrowed strikingly towards the end, hidden in the rostral groove, which narrows strongly in the direction towards the end and is open at the end. Antennae proportionately strong, twice as long as the length of the head; first antennal segment strongest, in the direction towards the end regularly widened, bent somewhat outwards; the second segment is rather strikingly thinner, only slightly widened in the direction towards the end, narrowest at the base; the third segment is the thinnest, cylindrical, narrowed only at the base; fourth segment slender, fusiform. The first three segment with regular tubercles, the whole antennae with a rather long, semi-erect pale pubescence. Relative lengths of antennal segment I : II : III : IV :: 24 : $24: 22: 18$.

Pronotum transversal, 2.9 times as broad as long, flattened, in the middle with a deep transversal impression bent arcuately backwards; basal lobe of the pronotum more arched than the anterior lobe which fuse mutually, and only the outer ones are on the outer side strikingly separated from the extended anterolateral angles. Basal margin of the pronotum in its whole width moderately bent, humeral angles broadly rounded, margins of the pronotum in the middle deeply bent, anterolateral angles lengthened into broad, shovel-shaped lobes which are at the base as broad as anterior to the rounded end. Anterior margin of the pronotum deeply bent, with a broad, flat collar. Surface of the pronotum with irregular large tubercles, which are sparser and more irregular on the inner elevations of the anterior lobe
and much longer on the lateral and anterior margins of the pronotum, on the margins of the anterolateral lobes these tubercles pass into long tongueshaped processes. Scutellum triangular, 1.3 times as broad as long, flat, the margins raised, almost straight, constricted anterior to the apex; apex broadly rounded. Middle of the scutellum with a longitudinal, finely indicated carina; surface irregularly tubercular. Surface of the pronotum and of the scutellum with a sparse, very short, pale pubescence. Sternum flattened, pro-, meso- and metasternum in the middle constricted, with very irregular


18: Dysodiellus beieri n . gen. and sp . - general shape of male (holotype).
and sparse tubercles, acetabula smooth, only here and there rastrate; pleura with crowded tubercles. Legs relatively long, femora thickened, tibiae slightly bent; the whole legs tubercular, with a longer erect pubescence. Hemelytra reach to the posterior third of the $6^{\text {th }}$ abdominal tergite, corium in its basal part strongly arcuately broadened, strikingly broader than the base of the pronotum, membranal commissure slightly S-bent, outer corial angle rounded, placed in $2 / 3$ of the length of the $3^{\text {rd }}$ connexival segment, inner corial angle at the end of the scutellum. Veins of the corium distinctly visible; surface with small irregularly scattered tubercles and with a sparse, very short pubescence; the broadened basal margin of corium with long processes. Membrane long, 1.5 times as long as the corium, narrow, at the end narrowly rounded, with a distinct, dense and anastomosing venation. Abdomen broad, connexivum broad, flat, outer margins of the individual connexival segments regularly rounded, $6^{\text {th }}$ and $7^{\text {th }}$ segment more, edge on the lower and upper side with a row of large tubercles directed backwards, which carry a brush at the end. Surface of the connexivum with scattered small tubercles, on the inner third of each segment with two four-sided areolae bordered by tubercles. Subconnexival area broad, each segment in the anterior part with a larger, in the posterior part with a smaller trapezoidal areola bordered by tubercles. $7^{\text {th }}$ tergite in the direction towards the back a little raised, with crowded, irregular tubercles. Venter very flat, with sparse and fine tubercles, which are at the margin closer and coarser, and with a short pubescence; posterior margins of the individual ventrites moderately raised. $2^{\text {nd }}-7^{\text {th }}$ spiracula very remote from the margin of the abdomen, in the middle of the individual ventrites. $8^{\text {th }}$ spiraculum marginal. Paratergites of the $8^{\text {th }}$ abdominal segment flat and broad, shovel-shaped, gradually broadened, broadly rounded at the end, only slightly narrower at the base than at the end, as long as the end of the $7^{\text {th }}$ connexival segment and with $2 / 3$ of its length projecting beyond the $9^{\text {th }}$ abdominal segment which is short. $9^{\text {th }}$ abdominal segment 1.9 times as broad as long, irregularly rounded, somewhat pointed towards the end, the end of the segment delimited on both lateral sides and on the dorsal side by a distinct impression. $8^{\text {th }}$ and $9^{\text {th }}$ segments irregularly tubercular, with a short pubescence.


Dysodiellus beieri n . gen. and sp . - female. 19: apex of the abdomen, 20: gonocoxites.

Female. Length 11-11.9 mm, maximum width $6.4-6.8 \mathrm{~mm}$. Agrees in general colour and shape with the male. The body is somewhat broader (only 1.7 times as long as broad). The $7^{\text {th }}$ tergite is in the distal half somewhat constricted. Paratergites of the $8^{\text {th }}$ abdominal segment shovelshaped, broadly rounded at the end, directed somewhat inwards; the outer margins are rounded, the inner margins almost straight, they project beyond the end of the $7^{\text {th }}$ connexival angle and are 5 times as long as the $9^{\text {th }}$ segment, which is very short, blunt at the end. Gonocoxites as in fig. 20.

Material examined: 1 of (holotype)-Madagascar: Fort Dauphin, Sikora; Coll. Nickerl (Národní museum, Praha).

3 오여: (allotype and paratypes)-Madagascar: Fort Dauphin, Sikora (Naturhistorisches Museum, Wien and Národní museum, Praha).

Distribution Madagascar (type locality : Fort Dauphin).

## Dysodiellus madagascariensis n . sp .

(Fig. 21-24)
Male. Length 10.3 mm , maximum width 5.5 mm . Head : length 1.6 mm , width 1.9 mm , interocular space 1.4 mm . Antennae: length of segment I, 0.95 mm ; II, 1.1 mm ; III, I mm ; IV. 0.8 mm . Pronotum: length 1.3 mm , width 3.4 mm . Scutellum : length 1.5 mm , width 1.9 mm .

General colour of the body dark reddish brown, connexivum redder, underside with a blackish, longitudinal, broad band. Basal. $2 / 3$ of the fourth antennal segment blackish.

General shape of the body broadly oval, 1.8 times as broad as long, abdomen oval, broader than the base of the hemelytra. Head across the eyes distinctly broader than long ( $47: 43$ ), interocular space 7.4 times as wide as the width of one eye. Tylus narrow, blunt at the apex, distinctly arched, reaching to the basal fifth of the length of the first antennal segment. Jugae broad, flat, almost parallel, at the end broadly rounded, reaching to $2 / 3$ of the length of the first antennal segment, divergend and leaving anterior to the apex of the tylus a deep and broad split. Jugae with small tubercles and a short, erect pubescence. Antenniferous tubercles very long, strongly divergend, sharp at the apex, reaching to the middle of the first antennal segment, projecting on the sides distinctly beyond the level of the outer margin of the eyes. Eyes very small, subspherical, only slightly narrowed in an outer direction. Postocular part of the head broadened, postocular tubercles separated from the eye, narrow, reaching the outer margin of the eye. Only dise of the head somewhat more distinctly arched, the irregular tubercles are largest on the basal part of the head and on the postocular tubercles; on the jugae they are very sparse and small. Rostral groove short, narrowing in the direction towards the end and open at the end. Rostrum very short, strikingly narrowed towards the end. Antennae rather slender, 2.3 times as long as the length of the head; first antennal segment strongest, in the direction towards the end regularly widened, somewhat bent outwards; second antennal segment strikingly slender, the third slenderest, both in the direction towards the end only slightly gradually widened, narrowed at the base; fourth segment fusiform. First three segments with small tubercles, which
are only on the first segment somewhat larger; the whole antennae with a longer, semi-erect, pale pubescence. Relative lengths of antennal segments I :II : III : IV :: $25: 28: 27: 21$.

Pronotum transversal, 2.5 times as wide as long in the middle, flattened, in the middle with a transversal impression bent arcuately backwards, basal lobe somewhat arched, slanting forwards, anterior lobe lower, with four fusing elevations of which the two inner ones are very low, almost imperceptible; the outer ones are more strikingly delimited and with an oblique comb of large tubercles. Basal margin of the pronotum in its whole width moderately concave, humeral angles broadly rounded, margins of the pronotum in the middle deeply bent, anterolateral angles of the pronotum extended into broad, shovel-shaped lobes which are at the base distinctly narrower than anterior to the rounded end. Anterior margin of the pronotum


Dysodiellus madagascariensis n. gen. and sp. 21: head, pronotum and scutellum, 22: apex of the abdomen of male, 23: apex of the abdomen of female, 24: gonocoxites.
in the middle slightly bent, with a flat collar. Surface of the pronotum with irregular large tubercles, which are much sparser and more irregular on the anterior lobe; margins of the pronotum and especially the anterolateral broadened angles of the pronotum with very long processes. Scutellum triangular, 1.3 times as broad as long, flat, margins raised, almost straight, constricted anterior to the apex, apex narrowly rounded. Middle of the scutellum with a longitudinal, finely indicated carina, surface irregularly tubercular. Sternum flattened, acetabula smooth, only here and there rastrated, pleura with dense tubercles. Hemelytra reaching almost to the end of the $6^{\text {th }}$ tergite, corium in the basal part strongly arcuately enlarged, strikingly broader than the base of the pronotum; membranal commissure slightly S-bent, exterior corial angle rounded. Veins of the corium distinct, surface of the corium with small, irregularly scattered tubercles; emboliar margins of the enlarged basal part of the corium with long processes. Membrane 1.5 times as long as the corium, with a distinct, dense anastomosing venation. Abdomen broad, connexivum broad, flat, outer margins of the individual connexival segments regularly rounded, edge on the lower and upper side with a row of large tubercles directed backwards, which have a brush at the end. Surface of the connexivum with some insignificant tubercles, on the inner half with two four-sided areolas delimited by tubercles. Subconnexival area broad, each segment in the anterior part with a larger, in the posterior part with a smaller trapezoidal areola delimited by tubercles. $7^{\text {th }}$ tergite slightly raised in a posterior direction, with small irregular tubercles. Venter very flat, with sparse and fine tubercles, which are denser at the margins, and with a very fine pubescence; posterior margins of the individual ventrites moderately raised. $2^{\text {nd }}-7^{\text {th }}$ spiracula very far from the margin of the abdomen, in the middle of the individual segments. $8^{\text {th }}$ spiraculum marginal. Paratergites of the $8^{\text {th }}$ abdominal segment flat, reaching to the end of the $7^{\text {th }}$ connexival segment, bent inwards, anterior to the end on the inner side enlarged and much broader than at the base, inner margin concave, outer margin convex, end broadly rounded, dentate. $9^{\text {th }}$ abdominal segment short, twice as broad as long, irregularly rounded, somewhat pointed towards the end, end of the segment on the sides on the dorsal side delimited by a distinct depression. $9^{\text {th }}$ and $8^{\text {th }}$ segment with small tubercles and with a short pubescence.

Female: Length $11.7-12.5 \mathrm{~mm}$, maximum width $7-7.4 \mathrm{~mm}$. Body distinctly larger, but in general colour and shape conformable to the male, 1.7 times as long as broad. Relative lengths of antennal segment I : II :: $28: 30$ ( $3^{\text {rd }}$ and $4^{\text {th }}$ segments missing). The $7^{\text {th }}$ tergite with patterns of tubercles and the posterior half with a broad depression. Paratergites of the $8^{\text {th }}$ abdominal segment broad, bent inwards, outer margin somewhat, raised, as long as the $7^{\text {th }}$ connexival segment. $9^{\text {th }}$ segment very short, gonocoxites as in fig. 24.

Material examined: 1 o (holotype)-Madagascar: Diego Suarez, VII. 1893 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).

2 우우 (allotype and paratype)-Madagascar, coll. Nickerl (Národní musem, Praha).

Distribution: Madagascar (type locality: Diego Suarez).
3 - Sbornik entomologicky

Genus Usingeria Schouteden 1952
Usingeria Schouteden, Rev. Zool. Bot. Afr. 46 : 216-217, 1952.
Head subquadratic, tylus very short, slightly shorter than the antenniferous tubercles which themselves are very short and enlarged in shovelshape. Postocular part of the head broadened, as wide as the outer margin of the eyes. Antennae long, distinctly longer than the length of the head and pronotum together, first and fourth antennal segments equally long, the third segment is the longest one. First segment strikingly thick, second and third thin. First three antennal segments with striking curved hairs, which are especially long on he first segment. Pronotum transversal, narrowing strongly in an anterior direction and sloping. Anterior margin of the pronotum with a distingt collar, margins of the pronotum strikingly ridged, in the anterior half enlarged in shovel-shape and the anterior angles of the pronotum stretched forward. Pronotum, especially at the margins, and head with more or less long, curved hairs. Abdomen convex, regularly broadening in a posterior direction. Spiraculum of the second segment situated at the very margin of the connexivum well visible when seen from above, spiracula of segments $3^{\text {rd }}-4^{\text {th }}$ on the ventral side unfar the margin, somewhat shifted behind the middle of the respective ventrites, spiraculum of segment $7^{\text {th }}$ placed in the middle and considerably approached to the margin, spiraculum of $8^{\text {th }}$ segment placed at the end of the lengthened lobe. Hemelytra long, reaching the end of the $7^{\text {th }}$ tergite, membrane very large, with a scarcely perceptible irregularly anastomosing venation. Legs long and very thin. Shape elongated oval, somewhat broadening in a posterior direction. General coloration dark brown with darker shades.

Type of the genus: Usingeria mirabilis Sch outeden 1952.
The genus belongs to the group of the genera Pictinus S tål, Maynéa Schouteden, Aphleboderrhis Stål and Chiastoplonia China, of which it is reminiscent by the sparse and irregularly anastomosing venation of the membrane. It is distinguished from the genus Pictinus S t a 1 by the remarcably short tylus and the striking hairs of the antennae, head and pronotum, the unicoloured connexivum, and the position of the abdominal spiracula. From the genus Aphleboderrhis Sta 1 it is distinguished by the reduced tylus and the different position of the spiracula and the less long hairs on the antennae, head and pronotum. From Chiastoplonia Chin a it is distinguished by the said hairs and the different position of the spiracula. The position of the spiracula of the genus is more or less reminiscent of the genus Pictinus Stål and Maynéa Schouteden.

## Usingeria séguyi n . sp.

(Fig. 25-27)
Female. Length 4 mm , maximum width 1.5 mm . Head : length 0.53 mm , width 0.61 mm , interocular space 0.38 mm . Antennae: length of segment I, 0.38 mm ; II, 0.23 mm ; III, 0.65 mm ; IV, 0.38 mm . Pronotum: length 0.68 mm , width 1.4 mm .

General colour dark brown, passing on the dise of the head and pronotum into an almost blackish tint, while the base of the pronotum is some-
what lighter. The eyes silver-gray. Tergum and sternum with a somewhat more reddish tint than the other parts of the body. Anterior half of the $2^{\text {nd }}-6^{\text {th }}$ ventrite somewhat darker. Membrane grayish brown, somewhat lighter at the base, the whole opalescent.

Shape of the body elongate oval 2.6 times as long as broad, broadened regularly in a posterior direction, truncated at the end. Head almost square, only slightly broader than long ( $10: 14$ ), disc of the head flat. Interocular space 3 times as broad as the width of one eye. Eyes very small, slightly elongated, sessile, bordered in the posterior part by the postocular part of the head. Tylus reduced, blunt, shorter than the antenniferous tubercles, which are very short, leaf-like flattened, and somewhat elongated upwards; the outer margins of the antenniferous tubercles diverge slightly in an anterior direction and are pointed at the very end. Postocular part of the head broadened, as broad as the outer margin of the eyes. Surface and the lower part of the head with irregular tubercles, dise of the head with two central furrows which diverge in an anterior direction and are directed towards the anterior margin of the eyes. A submarginal ridge with long, curved, yellowish bristles runs on each side from the posterior margin of the eye to the base of the head. The whole surface of the head is covered with short curved yellowish bristles, which are a little longer at the very base of the head and on the sides of the posterior part of the head. Antennae very long, distinctly longer than head and pronotum together. First antennal segment thickest, somewhat narrowed at the very base and only slightly bent, the whole segment with long, dense, curved yellowish bristles, second and third segment thin, only at the base slightly narrowed and at the very end slightly widened, with minute tubercles and short curved bristles, fourth segment pear-shaped, in the distal half with long erect hairs. Relative lenghts of antennal segments I: II: III: IV:: 10: 6: 17: 10. Rostral groove


Usingeria séguryi n. sp. - female (holotype). 25: head and pronotum, 26: apex of the body, 27: gonocoxites.
very narrow, parallel, open at the end, and reaches the very base of the head. Rostrum as long as the rostral groove.

Pronotum twice as wide as long, strongly narrowing in an anterior direction, margins of the pronotum strongly bent in the middle, basal margin broadly regularly concave, anterior margin with a narrow collar. Basal fifth of the pronotum flat, separated by a transversal, backwards bent ridge, with dense short, curved bristles; the other part of the pronotum strongly sloping in an anterior direction and divided in the middle by a transversal impression into an anterior and posterior lobe, the anterior lobe in the middle with two low but well defined elevations which border on the middle transversal impression, the posterior lobe in the middle with one less distinctly defined elevation. Humeral angles blunt, angular, the lateral margins of the pronotum distinctly bordered, in the anterior half broadened in shovelshape and the anterior angles of the pronotum strongly extended anteriorly. Margins of the pronotum to the anterior collar with close, long, curved yellowish bristles. Surface of the pronotum irregularly tubercular and irregularly covered with curved ciliae. Scutellum of the described specimen damaged. Sternum irregularly rastrated; legs very slender and long, with a light coloured pubescence. Hemelytra reaching to the posterior margin of the $7^{\text {th }}$ tergite, at the base as broad as the pronotum, costal margin of the hemelytra bent and hemelytra narrowing only slightly in a posterior direction. Corial part of the hemelytra very small, reaching the base of the $3^{\text {rd }}$ connexival segment, with distinct corial veins. Membrane very large, with indistinct, irregularly anastomosing venation. Corial commissure more or less indistinct. Abdomen considerably convex. Posterolateral angles of the $2^{\text {nd }}-6^{\text {th }}$ connexival segments with a small tubercle, margin of the $7^{\text {th }}$ segment deeply bent, posterolateral angles then extended into a short lobe, posterior margin of the $7^{\text {th }}$ tergite raised in a narrow rounded ridge with accumulated ciliae. Connexivum with dense hairs, especially visible at the outer margin. Paratergites of the $8^{\text {th }}$ abdominal segment narrow, tongueshaped, as long as the $9^{\text {th }}$ segment. Venter irregularly sculptured, with a short light pubescence, posterior margin of the $2^{\text {nd }}$ ventrite broadly callo-sity-like bordered, especially in the middle. $2^{\text {nd }}$ spiraculum placed at the very margin of the connexivum, well visible from above, $3^{\text {rd }}-6^{\text {th }}$ spiracula on the ventral side near the margin, shifted somewhat posterior to the middle of the respective ventrites, $7^{\text {th }}$ spiraculum in the middle somewhat more approached to the margin, $8^{\text {th }}$ spiraculum terminally. The posterior margin of the $6^{\text {th }}$ ventrite is in the middle regularly concave. Gonocoxites as in fig. 27.

Material examined : 1 if (holotype) - Madagascar : région du Sud-Est vallée d'Ambolo Col. de Sakalavana. 1. I. 1901 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).

The new species is closely related to the species Usingeria mirabilis Schouteden, but it is distinguished from it by the shorter $3^{\text {rd }}$ antennal segment, which in $U$. mirabilis Schouteden is strikingly longer than the $2^{\text {nd }}$ and $4^{\text {th }}$ together and as long as the $1^{\text {st }}$ and $4^{\text {th }}$, whereas in the new species the $3^{\text {rd }}$ antennal segment is almost as long as the $2^{\text {nd }}$ and $4^{\text {th }}$ together and distinctly shorter than the $1^{\text {st }}$ and $4^{\text {th }}$.

## Genus Maynéa Schouteden 1918 Maynéa Schouteden, Rev. Zool. Africaine, 6: 135-136, 1918.

Type of the genus Maynéa maynéi Schouteden 1918.
This genus is very near to the American genus Pictinus St tal, but is separated from the later by having distinct veins in the membrane, a concolorous connexivum, and the last two pairs of abdominal spiracula lateral. On the other hand Pictinus St al 1 , has no distinct veins in the membrane and has an alternated connexivum. The spiracula of the $6^{\text {th }}$ visible abdominal segment is lateral. Maynéa Schouteden is an African genus and is represented in Africa and Madagascar by 4 species.

Key to the Madagascan species of the genus Maynéa Schouteden

1. Second antennal segment very short, shorter by one half than the third segment, very strong. Fourth antennal segment only by $1 / 5$ shorter than the third. Body of the female elongated, margins of the abdomen subparallel. . . . . . . . . . . M. poissoni n. sp.

- Second antennal segment elongated, towards the end gradually widened, longer than half the third segment, fourth segment approximately by $1 / 3$ shorter than the third. Body of the females and males oval, distinctly widened towards the end.

2. Abdomen of the females regularly oval, broadest across the $5^{\text {th }}$ abdominal segment and again regularly narrowing in a posterior direction. Abdomen of the males of the same shape as that of the females. $9^{\text {th }}$ abdominal segments of the male elongated, seen from above as broad as long or only 1.1 times broader than long, in dorsal part lengthened into a horizontal process which is as long as the segment itself.
M. pauliani n . sp .

- Abdomen of the females in the direction towards the end strikingly expanding and from the sixth abdominal segment strongly narrowed. Abdomen of the males still more strikingly expanded and as if truncated at the end. $9^{\text {th }}$ male abdominal segment very short, seen from above 1.7 times as broad as long, in the dorsal part lengthened into a horizontal process which is distinctly shorter than the segment itself. . . . . . . . . . . . . M. madagascariensis n. sp.

> Maynéa madagascariensis n. sp.
> (Fig. 28-33)

Male. Length 4.6 mm , maximum width 1.94 mm . Head: length 0.72 mm , width 0.72 mm , interocular space 0.46 mm . Antennae: length of segment I, 0.38 mm ; II, $0,27 \mathrm{~mm}$; III, 0.49 mm ; IV, 0.31 mm . Pronotum: length 0.72 mm , width 1.52 mm . Scutellum: length 0.53 mm , width 0.76 mm .

General colour dark reddish brown with a slight lustre. Somewhat paler shade on the $3^{\text {rd }}$ and $4^{\text {th }}$ antennal segments, on the sides of the pronotum, humeral angles of the pronotum, inner parts of the connexivum, on the tibiae and tarsi. Membrane bronze brown, shining, pale at the base.

The general shape of the body oval, 2.4 times as long as broad, strikingly widened in a backwards direction, broadest across the $6^{\text {th }}$ abdominal segment. Head as broad across the eyes as it is long. Interocular space of the head 4 times broader than the width of one eye. Eyes very small. Antenniferous tubercles small, sharp, reaching to the $1^{\text {st }}$ antennal segment. Postocular tubercles small, pointed, as long as the level of the outer margin of the eyes. Tylus long, narrow, reaching to the middle of the $1^{\text {st }}$ antennal segment, jugae very narrow, anteriorly pointed, enclosing the tylus. Disc of the head slightly arched, upper and lower part of the head finely tubercular. Rostral groove very narrow, lanceolate, deep, closed at the end. Rostrum short, hidden in the rostral groove and not reaching the basal margin of the head. Antennae as long as the length of the head and pronotum together. First antennal segment very strong, second segment slender, distinctly widened towards the end, third segment longest and thinnest, gradually widened, fourth segment fusiform. Relative lengths of antennal segment I: II: III: IV:: 10:7:13:8. Antennae finely tubercular with a very short pale pubescence, somewhat longer on the $4^{\text {th }}$ segment.

Pronotum trapezoidal, twice as broad as long, gradually narrowed in an anterior direction. Lateral margins finely denticulated, in the middle very finely bent, in the anterior half somewhat flattened. Anterior angles rounded, slightly elongated anteriorly. Anterior margin with a very fine collar. Humeral angles truncated, slightly raised, basal margin of the pronotum straight. Dise of the pronotum slightly inclined forwards, in the middle with a slight transversal impression. Anterior lobe with four small elevations of which the two inner ones are somewhat more marked. Surface very finely regularly tubercular. Sternum in the pleural part tubercular, acetabula rastrate, lower part of the meso- and metanotum and centre of the $2^{\text {nd }}$ ventrite with an irregular depression. Scutellum triangular, 1.4 times as broad as long, margins constricted before the apex, apex broadly rounded. Margins, middle longitudinal and transversal basal ridge raised. The rest of the scutellum tubercular. Hemelytra reaching almost to the end of the $7^{\text {th }}$ tergite. The corial margins in the basal part are straight, subparallel, corial veins raised and tubercular. Membranal commissure slightly bent, raised and tubercular. Membrane very large, with several scarcely perceptible anastomosing veins in the basal part. Abdomen strikingly widened in the direction towards the end, it is broadest at the base of the $6^{\text {th }}$ abdominal segment, end of the abdomen as if truncated. Connexivum flat, its outer margin regularly rounded; margins of the $7^{\text {th }}$ tergite bisinuate and elongated into a short lobe. Paratergites of the $8^{\text {th }}$ abdominal segment very short, rounded. Venter regularly convex, very finely sculptured. Posterior margin of the $3^{\text {rd }}-5^{\text {th }}$ ventrite in the middle with a broad callosity-like elevation. Posterior margin of the $6^{\text {th }}$ ventrite deeply bisinuate. $2^{\text {nd }}-5^{\text {th }}$ spiracula in the middle of the respective ventrites, equally far from the margin of the abdomen, $6^{\text {th }}$ spiraculum shifted somewhat anterior to the middle of the ventrite and approached to the margin of the abdomen. $7^{\text {th }}$ spiraculum shifted posterior to the middle of the ventrite and placed almost marginally, $8^{\text {th }}$ spiraculum terminally. $9^{\text {th }}$ abdominal segment short, seen from above 1.7 times as broad as long, somewhat pointed at the end, in the dorsal


Maynéa madagascariensis n. sp. 28: head, pronotum and scutellum of male, 29: apex of the body of male, 30 : apex of the abdomen of male seen from below, 31: apex of the abdomen of male seen from side, 32: apex of the abdomen of female, 33: gonocoxites.
part with a very short horizontal tubercle which is distinctly shorter than the end of the genital segment proper; on both sides of the terminal tubercle a scarcely perceptible longitudinal depression. Surface of the $9^{\text {th }}$ segment with very fine tubercles.

Female. Length $4.65-4.7 \mathrm{~mm}$, maximum width $1.94-1.98 \mathrm{~mm}$. Very similar to the male in general colour and shape; abdomen strikingly widened in a posterior direction, but its broadest part is at the level of the $5^{\text {th }}$ abdominal segment, farther towards the end it narrows again. Relative lengths of antennal segments I: II: III: IV :: $9: 6: 13: 8$. Margins of the individual connexival segments straight, outer margin of the $7^{\text {th }}$ connexival segment bent, posterolateral angles truncate, not lengthened. Paratergites of the $8^{\text {th }}$ abdominal segment lengthened into blunt, short, but rather triangular lobes which reach to $2 / 3$ of the length of the $9^{\text {th }}$ abdominal segment. Posterior margin of $6^{\text {tn }}$ ventrite in the middle deeply indented. Gonocoxites as in fig. 33 .

Material examined : 1 o', 1 ㅇ (holotype and allotype) - Madagascar: Perinet (Sahamaloto), 17. I. 1949 P. C. (Institut Sc. de Madagascar, Tananarive).

1 워 (paratype) - Madagascar : Forêt Nord d'Anosibe, I. 1951 R. Paulian (Národní museum, Praha).

## Maynéa pauliani n . sp. (Fig. 34-39)

Male. Length $4.3-4.74 \mathrm{~mm}$, maximum width $1.6-1.9 \mathrm{~mm}$. Head: length $0,72 \mathrm{~mm}$, width 0.68 mm , interocular space 0.46 mm . Antennae: length of segment I, 0.38 mm ; II, 0.26 mm ; III, 0.49 mm ; IV, 0.34 mm . Pronotum: length 0.76 mm , width 1.48 mm . Scutellum: length 0.53 mm , width 0.65 mm .

General colour reddish brown, rostrum, base of the first three antennal segments and apical part of the fourth segment of a somewhat paler shade. Eyes of a silvery lustre. Somewhat paler are further the margins of the pronotum, the connexivum, coxae, trochantera and tarsi. Sternum and venter in the middle of the anterior 4 ventrites dark to blackish. Hemelytra bronze brown, shining, posterior part of the membrane very dark, wheraes the base is paler, somewhat paler than the corial part.

Shape of the body regularly oval, 2.5 times as long as broad. Head almost as long as broad, interocular space 4 times as broad as the width of the eye. The eyes are distinctly longer than broad (5:3). Jugae very narrow, closely adpressed to the tylus and reaching to its end. Tylus very narrow, reaching to the middle of the length of the first antennal segment. Antenniferous tubercles small, sharp, somewhat divergent. Postocular part of the head somewhat broadened into a blunt tubercle which, however, does not reach beyond the outer margin of the eyes. Surface of the head with minute tubercles and a short sparse pubescence. Rostral groove oval, narrow, closed at the end. The rostrum does not reach to the base of the head. Antennae relatively strong, first segment strongest, somewhat bent and in the direction towards the end strikingly broadened, second and third
segments almost equally strong, in the direction towards the end somewhat broadened, fourth segment pear-shaped. Antennae studded with minute tubercles and a short silvery pubescence, apical part of the fourth segment with long hairs. Relative lengths of antennal segments I: II : III: IV :: 10: 7: 13:9.


Maynéa pauliani n. sp. 34: head, pronotum and scutellum of male, 35: apex of the abdomen of male, 36: apex of the abdomen of male seen from below, 37: apex of the abdomen: of male seen from side, 38 : apex of the abdomen of female, 39 : gonocoxites.

Pronotum approximately twice as broad as long. Humeral angles almost forming right angles, margins of the pronotum in the anterior $2 / 3$ regularly narrowed in an anterior direction, straight or only insignificantly bent, edges somewhat raised and very finely denticulate; anterior margin of the pronotum very finely bent, with a very narrow collar, basal margin of the pronotum finely bent. Disc of the pronotum inclined forwards; in the anterior part with two low elevations, which are posteriorly and in the middle well delimited. Surface of the pronotum except the humeral angles and the elevated lateral margins, with dense minute tubercles. Scutellum at the base slightly broader than long (17:14), triangular, margins slightly bent, apex broadly rounded, margins of the scutellum distinctly raised with the exception of the end itself of the scutellum. Base of the scutellum slightly convex, in the middle distinctly longitudinally ridged in the whole length of the scutellum. Surface of the scutellum with similar tubercles as the pronotum. Sternum in the pleural part with irregular minute tubercles, acetabula and lower part irregularly rastrated. Legs relatively thin, especially the femora with tubercles and a short pubescence. Hemelytra reach almost to the end of the $7^{\text {th }}$ tergite; basal part of emboliar margin parallel; entirely semi-transparent, in the corial part with tubercular veins and with a tubercular membranal commissure. Membrane near the base with crowded, irregular, anastomosing veins. Margins of the connexivum up to the fourth segment subparallel, margin of the $7^{\text {th }}$ connexival segment finely bent, posterior angle of the $6^{\text {th }}$ connexival segment somewhat more strikingly lengthened, the angle of the $7^{\text {th }}$ connexival segment reaching to about the middle of the paratergites of the $8^{\text {th }}$ abdominal segment. Venter moderately vaulted, second to sixth ventrites very finely sculptured, $7^{\text {th }}$ ventrite coarsely tubercular with a more distinct light pubescence; posterior margin of the $6^{\text {th }}$ ventrite broadly and deeply indented. $2^{\text {nd }}-6^{\text {th }}$ spiracula situated in the middle of each ventrite unfar the margin, $7^{\text {th }}$ spiraculum in the middle at the very margin, well visible when seen from above, $8^{\text {th }}$ spiraculum terminal. Paratergites of the $8^{\text {th }}$ abdominal segment small, tongueshaped. $9^{\text {th }}$ abdominal segment elongated, seen from above $1-1,1$ times as broad as long, pointed towards the end, in the dorsal part elongated into a horizontal tooth-shaped process as long as the segment itself, and delimited on each side by a longitudinal oval depression. $9^{\text {th }}$ segment sculptured as is also the $7^{\text {th }}$ segment.

Female. Length $4.7-5.1 \mathrm{~mm}$, maximum width $1.9-2.1 \mathrm{~mm}$. The female agrees in general colour and shape with the male, pronotal elevations somewhat more striking. Relative lengths of antennal segments I: II: III: IV:: 10:8: 15: 11. Abdomen regularly oval, outer margins of the connexival segments straight, margins of the $7^{\text {th }}$ connexival segment bent, posterolateral angles elongated into a short obtuse tip. Paratergites of the $8^{\text {th }}$ abdominal segment triangular, sharp, reaching to $2 / 3$ of the length of $9^{\text {th }}$ segment. $6^{\text {th }}$ ventrite in the middle narrowly indented. Gonocoxites as in fig. 39.

Material examined: $100^{7} \sigma^{\circ}$ and 15 우 (holotype, allotype and paratypes) - Madagascar: Angavokely, IV, VII. 1947 R. A. (Institut Sc. de Madagascar, Tananarive and Národní museum, Praha).

## Maynéa poissoni n. sp.

(Fig. 40-42)
Female. Lenght 4.3 mm , maximum width 1.5 mm . Head: length $0,66 \mathrm{~mm}$, width 0.66 interocular space 0.38 mm . Antennae: length of segment I, 0.3 mm ; II, 0.19 mm ; III, 0.38 mm ; IV, 0.3 mm . Pronotum: length 0.68 mm , width 1.33 mm . Scutellum : length 0.57 mm , width 0.72 mm .

General colour pitch brown, of a somewhat darker shade in the anterior part of the pronotum, on the head and tibiae; antennae with the exception of the end of the fourth segment and the whole femora almost black. The margins of the pronotum, the humeral angles and the connexivum are on the contrary somewhat lighter. Lower part of the sternum with a reddish tinge. Eyes grayish.

Body narrow, 2.8 times as long as broad. Margins of the abdomen parallel. Head as long as it is broad across the eyes, sligthly convex, interocular space 3 times as broad as the width of one eye. Eyes oblong, sessile. Tylus narrow, exceeding slightly the middle of the first antennal segment; jugae very narrow, only very slightly exceeding the end of the tylus forming only slight cleft anterior to the tylus. Antenniferous tubercles very short, scarcely exceeding the base of the antennae, outer margins slightly divergent. Postocular part of the head surrounding the posterior margins of the eyes and reaching their outer margins, and regularly narrowed to the base of the head. The whole head with the exception of the basal part regilarly covered


Maynéa poissoni n. sp. - female (holotype). 40: head, pronotum and scutellum, 41: apex of the abdomen, 42: gonocoxites.
with tiny tubercles. Rostral groove lanceolate, distinctly closed at the end, and extending to the base. Antennae a little longer than the length of head and pronotum together, first and second antennal segment short and strong, only at the base somewhat narrowed, third and fourth segments strikingly widened in the direction towards the end, fourth almost as thick as first, with long hairs in the distal part. Antennae covered with regular tiny tubercles and on the $1^{\text {st }}-33^{\text {rd }}$ segments with a very short light pubescence. Relative lenghts of antennal segments I: II: III: IV:: 8: 5: $10: 8$.

Pronotum twice as broad as long, regularly narrowed in an anterior direction, basal margin of the pronotum only very slightly bent, humeral angles broadly rounded, slightly raised, lateral margins almost straight, only distinctly bent, narrowly flattened and somewhat raised, very finely tubercular, anterior angles slightly lengthened forwards, anterior margin of the pronotum with a fine collar. Disc of the pronotum almost flat, only slightly inclined forwards, in the middle with a transversal, almost imperceptible impression, on the anterior lobe with two obsolete elevations. Surface of the pronotum covered with regular tubercles which are completely lacking on the humeral angles and in the submarginal part of the pronotum, and are considerably irregular on the two elevations on the anterior lobe. Scutellum triangular, distinctly broader than long (19:15), in the middle longitudinally ridged and with elevated margins which are strongly bent in the apical third; the apex of the scutellum broadly rounded. Disc of the scutellum in the apical part with irregular tubercles. Pro- and mesopleura tuberculated; metasternum, middle and posterior acetabula, as well as the middie of the prosternum rastrated. Legs thin, femora somewhat swollen, with tiny tubercles and a short light pubescence. Hemelytra reaching almost to the end of the $7^{\text {th }}$ tergite, at the base as broad as the pronotum. Corial part reaching to the beginning of the $3^{\text {rd }}$ tergite. The corial veins well visible and carry tiny tubercles. Membranal commissure only very insignificantly bent. Membrane with some perceptible veins. Abdomen regularly oval, connexivum narrow, only the posterolateral angles of the $6^{\text {th }}$ and $7^{\text {th }}$ connexival segments slightly project. Venter finely rastrate, with the exception of the posterior margins of the individual ventrites. Posterior margin of the $8^{\text {th }}$ tergite regularly bent, paratergites obtuse, slightly shorter than the $9^{\text {th }}$ abdominal segment. Gonocoxites as in fig. 42.

Material examined: 1 ㅇ (holotype)-Madagascar, région du Sud-Est; Vallée d'Ambolo, Col de Sakavalana, 1901 Ch. Alluaud (Muséum National d'Hist. Naturelle, Paris).

## Genus Paulianium n. gen.

Apterous. Head square, slightly longer than wide across the eyes; antenniferous tubercles long and narrow, strongly divergent; eyes small, globular, sessile, located in the middle of the head length. Postocular portion of the head prolonged into divergent spines. Tylus long, jugae projecting far beyond the tylus and strongly divergent at the end. Antennae long and slender, 1.6 times as long as the length of the head, third antennal segment longest. Thorax in an anterior direction strongly narrowed, anterior area
1.4 times as wide as the width of the head across the eyes. Pro-, meso- and metanotum transversal, distinctly separated from each other by distinct sutures. Pro- and metanotum almost equally long, mesonotum shortest. Scent gland openings located laterally on the mesopleura and visible from above. Abdomen distinctly separated from the thorax, but tergites $2^{\text {nd }}-6^{\text {th }}$ fuse completely and are not indicated even at the margins. Tergum for the largest part smooth, slightly shining, with patterns of minute tubercles and with moderate elevations in the middle. Connexivum flat. Venter moderately vaulted, the individual ventrites distinctly separated from each other. Genital segment of male somewhat wider than long, narrowed in the direction towards the end, at the end narrowly rounded, in the dorsal part with a sharply delimited impression. $2^{\text {nd }}-^{6} 6^{\text {th }}$ spiracula remote from the margin in the middle of each ventrite. $7^{\text {th }}-8^{\text {th }}$ spiracula in the middle and marginally. Trochantera separated; legs very short and strong. General shape of the body broadly oval, expanding in a posterior direction, widest across the fifth abdominal segment, with tiny tubercles and a short adpressed pubescence. Colour predominantly black with brown drawings.

Type of the genus: Paulianium delectum n. sp.
The new genus is very close to the genus Emydocoris Usinger, but is distinguished from it by the thoracal segments and the basal tergite being distinctly separated and by the $2^{\text {nd }}-6^{\text {th }}$ tergite being completely fused together.

## Paulianium delectum n. sp.

(Fig. 43-44)
Male. Length 6.5 mm , maximum width 3.4 mm . Head : length 1.4 mm , width 1.25 mm , interocular space 0.95 mm . Antennae: length of segment I, 0.61 mm ; II, 0.53 mm ; III, 0.65 mm ; IV, 0.46 mm . Pronotum: length 0.76 mm , width 2.1 mm . Mesonotum: length 0.46 mm , width 3 mm . Metanotum: length 0.68 mm , width 3.1 mm .

General colour black, very slightly shining, base of the first antennal segment and apex of the second segment brownish, connexivum in the middle of the individual segments with brownish drawings, posterior outer angles of the $2^{\text {nd }}-6^{\text {th }}$ connexival segments yellowish brown. Coxae and trochantera yellowish brown, femora in the apical third on the inner side with a large longitudinal brownish spot, tibiae in the basal fourth with a yellowish brown ring.

General shape of the body broadly oval, 1.9 times as long as wide, very strongly expanded in a posterior direction, widest across the $5^{\text {th }}$ abdominal segment. Head square, 1.1 times as long as wide across the eyes; antennal tubercles very long, reaching to the middle of the length of the first antennal segment, narrow, divergent, blunt at the apex. Interocular space 6.25 times as wide as the width of one eye; eyes very small, globular sessile, in the middle of head length. Postocular portion of the head prolonged in long, divergent tips. Tylus long, reaching the middle of the first antennal segment, narrow. Jugae narrow, projecting far beyond the apex of the tylus, strongly divergent at the end. Disc of the head moderately vaulted, in the middle
anterior to the base of the tylus with a deep longitudinal impression. Surface of the head closely tubercular, with short twisted hairs; posterior part of the head on each side with a longitudinal smooth area. Rostral groove lanceolate, reaching to the base of the head, closed at the end. Antennae slender, 1.6 times as long as the length of the head; first antennal segment strongest, in the direction towards the end strongly widened and bent outwards; second and third segments straight, in the direction towards the end moderately widened, third segment thinnest, narrowed at the base, fourth segment pear-shaped; first and second segments tubercular. Antennae with a dense adpressed, curved pubescence, fourth segment in the distal half with long erect hairs. Relative lengths of antennal segments I : II : III : IV :: $16: 14: 17: 12$.

Thorax 1.6 times as wide as long, in an anterior direction strongly narrowed, anterior area 1.4 times as wide as the vidth of the head with the eyes; thorax between pro- and mesonotum moderately bent. Pro-, meso- and metanotum distinctly separated; anterolateral angles of the pronotum regularly rounded. Pronotum 2.75 times as wide as long, anterior margin of the pronotum strongly bent with a very narrow, well separated collar, basal margin angularly prolonged. Surface of the pronotum with four elevations of which the two inner ones are larger and shifted to the basal margin, in the middle separated from each other by a deep furrow with a row of minute tubercles. Surface of the pronotum irregularly tubercular with the exception of the narrow interareas between the individual elevations and of the inner turned-down part of the two middle elevations, and with the exception of the basal margin. Mesonotum short, 6.6 times as wide as long, basal margin moderately concave, mesonotum in the middle with a low longitudinal carina and on each side of it with an oblique deep impression; surface of the mesonotum irregularly tubercular with the exception of the median carina, basal margin and margins around the transversal impression. Metanotum 4.5 times as wide as long, basal margin straight, distinctly separating the thorax from the abdomen; metanotum in the middle with a low longitudinal carina, which expands in the basal half into a smooth triangular elevation; remaining part of the metanotum irregularly tubercular. Sternum moderately vaulted, tubercular, scent gland openings visible from above. The legs short and strong, tubercular, trochantera long, distinctly separated; tibiae in the direction towards the end somewhat expanded. Abdomen broad, widened in a posterior direction, slightly wider than long. Tergum for the most part smooth; $2^{\text {nd }}-6^{\text {th }}$ tergites fuse and the individual sutures are not visible even at the margin; tergum in the middle moderately vaulted, in the middle in the level of the third abdominal segment with a small conical tubercle and between the abdominal segments $5^{\text {th }}$ and $6^{\text {th }}$ with a longitudinal, in the middle depressed elevation; on each side of the elevations with oval impressions. Tergum smooth with minute tubercles, which form at the margins against the $3^{\text {rd }}-6^{\text {th }}$ connexival segments circular patterns with always one tubercle in the middle, and along the median elevations with an irregular accumulation of numerous tubercles. Connexivum flat and wide, outer margins of the $3^{\text {rd }}-6^{\text {th }}$ connexival segments straight, posterolateral angles moderately projecting, margin of the $7^{\text {th }}$ segment


Paulianium delectum n. gen, and sp. - male (holotype). 43: general shape,
44: apex of the abdomen seen from side.
moderately bent, posterior angles broadly rounded, somewhat more lengthened. The individual connexival segments with two round impression bordered by minute tubercles and along the outer margin with two parallel furrows. $7^{\text {th }}$ tergite in the middle vaulted to the hight of the $9^{\text {th }}$ abdominal segment. Venter moderately vaulted, in the posterior part somewhat more, crowdedly tubercular. $2^{\text {nd }}-6^{\text {th }}$ spiracula far from the margin in the middle of the individual ventrites, $7^{\text {th }}$ and $8^{\text {th }}$ spiraculum in the middle marginally. The whole surface of the body covered with a short, adpressed, pale, curved pubescence, which is more closely crowded on the head, thorax, venter, genital segments and legs. The legs are short and strong, tubercular, the trochantera long, distinctly separated; tibiae in the direction towards the end somewhat expanded. Paratergites of the $8^{\text {th }}$ abdominal segment narrow, tongue-shaped, at the end broadly rounded. $9^{\text {th }}$ abdominal segment 1.25 times as wide as long, in a posterior direction in the dorsal part strongly but regularly narrowed, end narrowly rounded; on the ventral side in the basal half moderately narrowed, at the end abruptly narrowed, constricted from the sides; on the dorsal side with a sharply delimited horseshoe-shaped impression. Surface of the whole segment densely tubercular.
$1 \mathrm{o}^{7}$ (holotype)-Madagascar: Andohahelo, 1.500 m R. Paulian (Institute Sc. de Madagascar, Tananarive).

Genus Mezira Amyot and Serville 1843
Mezira Amyot and Serville, Histoire naturelle des insectes. Hémiptères, p. 305, 1843.

Type of the genus: Mezira membranacea (Fabricius 1803) from East India.

The genus of very numerous species with the majority of them in Americas. Africa with Madagascar and Europe are the continents with the smallest number of known species. Most of the Madagascan species of the genus Mezira belong to the typical African groups. Mezira drakei n. sp. belongs on the other hand to the groups of the Philippine-Pacific species Mezira tagalicus St å $1, M$. marianensis Usinger, M. nanamaraki Esaki and Matsuda and M. angularis Esaki. All these species are characterized by a light brown one-coloured colour and by dense, large, remarkable globulars. It seems to be most closely related to the species M. nanamaraki Esaki and Matsuda, especially by the position of the spiracula. The other species of the Philippine-Pacific group have the $7^{\text {th }}$ spiraculum more or less at the margin of the abdomen, well visible from above.

Key to the species of the genus Mezira Amyot and Serville of Madagascar and adjacent islands.

1. General colour of the body one-coloured light rust brown, whole surface of the body densely covered with large globulars, scutellum broad, almost pentagonal, its margins convex. M. drakei n. sp.

- General colour of the body one coloured dark brown to black, or of a lighter shade but then with light yellow drawings on the con-
nexivum. Tubercles of the body more or less regular, but not too dense and not globular, rather tiny. Scutellum triangular with straight margins or margins sinuate, constricted anterior to the apex. . 2 .

2. General brown colour of the body of a lighter shade, and posterior margins or angles of the individual connexival segments distinctly yellow. Scutellum relatively narrow, margins sinuate, anterior to the apex strongly constricted. Antennae relatively long and slender, especially $2^{\text {nd }}-3^{\text {rd }}$ antennal segments slender and strikingly expanded in the direction towards the apex. Basal margins of the pronotum not lengthened at the base of scutellum into triangular tips, its is moderately sinuate or bisinuate.

- General colour of the body one-coloured dark brown to blackish. Scutellum relatively broad, triangular, margins straight or only slightly sinuate in the middle. Antennae relatively short and strong, all antennal segments almost equally strong. Basal margin of the pronotum at the base of the scutellum lengthened on each side into triangular, more or less perceptible tips, in front of scutellum emarginated.

3. Genital segment of male 1.5 times as broad as long, broadly rounded at the end. Paratergites of the $8^{\text {th }}$ abdominal segment of female short, triangular, reaching to the middle of the length of the $9^{\text {th }}$ abdominal segment. Posterolateral angles of the connexival segments $2^{\text {nd }}-7^{\text {th }}$ distinctly lengthened and projecting.
4. 

- Genital segment of male as broad as long, in the basal two thirds regularly and in the apical third abruptly narrowing, subparallel, broadly rounded at the end. Posterolateral angles of the connexival segments more strikingly lengthened only in $6^{\text {th }}-7^{\text {th }}$ segments.
M. singularis $\mathrm{n} . \mathrm{sp}$.

4. Genital segment of male globular, regularly rounded, in the dorsal part of the base with a high conical tubercle delimited on all sides by a deep depression. Antenniferous tubercles and postocular tubercles sharp. Paratergites of the $8^{\text {th }}$ abdominal segment of female on the outer margin sinuate and at the end bluntly rounded. $2^{\text {nd }}-3^{\text {rd }}$ antennal segments strikingly longer than the first segment. Size $5.9-6.7 \mathrm{~mm}$. . . . . . . . . . . . . M. insularis n. sp.

- Genital segment of male globular, somewhat narrowed in the direction towards the end, on the dorsal part with a broad, very fine depression rounded at the end and compared with the remaining part of the segment very finely tuberculate. Antenniferous tubercles and postocular tubercles blunt. Paratergites of the $8^{\text {th }}$ abdominal segment of female on the outer side concave, at the end narrowly rounded. First three antennal segments almost equally long. Size $4.4-4.9 \mathrm{~mm}$.
M. parva n . sp.

5. Margins of the pronotum straight or almost straight. . . . 6 .

- Margins of the pronotum in the anterior third distinctly sinuate. 7.

6. First three antennal segments equally long and short. Postocular tubercles angularly lengthened backwards. Base of the hemelytra as broad as the pronotum at the base. Paratergites of the $8^{\text {th }}$ abdominal segment of female very small and short, very narrowly rounded, reaching to the basal third of the $9^{\text {th }}$ abdominal segment. Paratergites of the $8^{\text {th }}$ abdominal segment of male at the end expanded in pestle-shape, inner area longer than the outer one, reaching to $4 / 5$ of the length of the $9^{\text {th }}$ abdominal segment. Genital segment of male 1.5 times as broad as long, at the end narrowly rounded, in the dorsal part in its whole length with a narrow ridge separated on each side by a deep depression. . . . . M. intermedia $\mathrm{n} . \mathrm{sp}$.

- First three antennal segments gradually longer, second and third longer than the first and fourth, third segment longest. Postocular tubercles rounded. Base of the hemelytra distinctly broader than the pronotum at the base. Paratergites of the $8^{\text {th }}$ abdominal segment of female very large and broadly rounded, reaching to the middle of the $9^{\text {th }}$ abdominal segment. . . . . M. monedula ( $\mathrm{Stå} \mathrm{l}$ ).

7. Anterolateral angles of the pronotum distinctly lengthened forwards in arcuate flattened lobes. Base of the corium arcuately expanded, strikingly broader than the base of the pronotum. Margins of the scutellum in the middle slightly sinuate, apex of the scutellum broadly rounded. Shape of the body broadly oval, only 2.- 2.3 times as long as broad. . . . . . . . M. sulcicornis Signoret.

- Anterolateral angles of the pronotum bluntly rounded, neither lengthened nor flattened. Base of the corium as broad as the pronotum at the base, or only slightly broader than the base of the pronotum, and not arcuately expanded. Margins of the scutellum completely straight, apex of the scutellum narrowly rounded. Margins of the connexivum straight, shape of the body narrowly oval, 2.5-2.6 times as long as broad.

8. Postocular tubercles flattened, broad, rounded at the end, strikingly projecting beyond the level of the outer margin of the eyes. $9^{\text {th }}$ abdominal segment of male globular, 1.7 times as broad as long, at the end broadly regularly rounded. Paratergites of the $8^{\text {th }}$ abdominal segment of female broadly rounded, directed somewhat inwards, reaching to beyond the middle of the $9^{\text {th }}$ abdominal segment. Sides of the abdomen somewhat expanding in the direction towards the end.
M. madagascariensis n . sp .

- Postocular tubercles tuberculate, bluntly triangular and not projecting beyond the level of the outer margin of the eyes. $9^{\text {th }}$ abdominal segment of male only 1.2 times as broad as long, regularly narrowed in a posterior direction, narrowly rounded at the end. Paratergites of the $8^{\text {th }}$ abdominal segment of female briefly and narrowly rounded, reaching to the basal third of the $9^{\text {th }}$ abdominal segment. Sides of the abdomen subparallel.
M. mauricii n . sp.


# Mezira drakei n . sp. 

(Fig. 45-48)
Male. Length $8.6-8.86 \mathrm{~mm}$, maximum width 3.9 mm . Head: length 1.5 mm , width 1.4 mm interocular space 1.1 mm . Antennae: length of segment I, 0.68 mm ; II, 0.49 mm ; III, 0.64 mm ; IV, 0.42 mm . Pronotum: length 1.44 mm , width 2.93 mm . Scutellum : length 1.22 mm , width 1.6 mm .

General colour pale rusty brown, somewhat darker on the depressed areas of head, pronotum and scutellum. Globulars on the whole body of a somewhat lighter shade. Membrane light bronze brown with a darker venation. Posterior half of the sides and posterior margin of the individual connexival segments lighter.

General shape of the body broadly oval, 2.3 times as long as broad, very flat, abdomen broadly oval, expanding posteriorly. Head 1.1 times as long as broad across the eyes. Tylus broad, long, reaching to $2 / 3$ of the length of the first antennal segment, jugae broad, at the end expanded and flat, reaching almost to the end of the first antennal segment, forming a distinct space anterior to the end of the tylus. Interocular space 6.2 times as broad as the width of one eye. Eyes very small, irregularly rounded, with one half inserted into the margin of the head. Antenniferous tubercles thin, long, reaching to the middle of the first antennal segment, divergent and apically pointed. Postocular tubercles small, composed of several acute tubercles and reaching to the level of the exterior margin of the eye. Surface of the head with numerous very large globulars arranged in irregular rows, which are the most numerous on the disc of the head, on the antenniferous tubercles, on the jugae and along the eyes; surface of the head with a very sparse short pubescence. Rostral groove very shallow, subparallel, reaching to the base of the head just as the rostrum. Antennae short and slender, 1.5 times as long as the length of the head; first antennal segment widened, club-shaped, second antennal segment cylindrical, narrowed at the base; third segment somewhat more slender than the second, in the direction towards the end regularly moderately widened; fourth segment shortest, pear-shaped. Relative lengths of the antennal segments I: II: III: IV:: 18: 13: 17: 11. Antennae with very fine dense globulars and with very short adpressed pubescence.

Pronotum strongly transversal, 2.1 times as broad as long, narrowed in an anterior direction, margins in the middle strongly sinuate, anterior angles of the pronotum lengthened into a short, triangular, somewhat flattened lobe, anterior margin of the pronotum in its whole width deeply concave, in the middle with a very narrow collar; basal margin of the pronotum very finely regularly sinuate, humeral angles broadly rounded. Surface of the pronotum almost flat, in the middle divided by a deep transversal impression; anterior lobe with four flat longitudinal elevations very well separated from each other, posterior lobe of the pronotum with very fine, here and there hardly perceptible tubercles and besides with irregularly scattered large globulars. Margins of the pronotum, elevations on the anterior lobe and transversal depression with large globulars and with a short pubescence as on the head. Scutellum broad nearly subpentagonal, 1.3 times as
broad as long, narrowly rounded at the apex. Margins of the scutellum as well as transversal basal and longitudinal median ridge distinctly raised. Surface of the scutellum with scattered large globulars. Sternum tubercularly rastrated. Connexivum broad, flat, finely sculptured, with a dense, short, adpressed pubescence, very dense at the very margin, and with numerous globulars arranged in irregular longitudinal patterns, posterior angles of the individual connexival segments protruding. Subconnexival area with round patterns of large globulars. $7^{\text {th }}$ tergite in the posterior part somewhat convex. Hemelytra reaching to the base of the $7^{\text {th }}$ tergite, corium at the base as broad as the pronotum, basal part somewhat expanding in a poste-


Mezira drakei n. sp. 45: head, pronotum and scutellum of male (holotype), 46: apex of the abdomen of male, 47: apex of the abdomen of female, 48: gonocoxites.
rior direction. Corium short, membranal commissure concave, inner posterior corial angle in the middle of the posterolateral edge of the scutellum, outer posterior corial angle in the first third of the third tergite. Veins and membranal commissure finely raised, with sparse tubercles, corium with a sparse pubescence. Membrane with a dense venation. Venter very flat, very finely sculptured. Legs very short, anterior and middle tibiae somewhat inflected, posterior tibiae finely bisinuate.
$2^{\text {nd }}-8^{\text {th }}$ spiracula in the middle of the individual ventrites, far removed from the margin. Paratergites of the $8^{\text {th }}$ abdominal segment club-shaped, reaching to $4 / 5$ of the length of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ segment globular, 1.5 times as broad as long, posterior part broadly rounded, in the dorsal part strikingly flattened. Surface of the $9^{\text {th }}$ segment with minute regular tubercles, in the dorsal part with a deep horseshoe-shaped impression, which in the posterior part of the segment forms at the very margin a sharp edge; in the middle of the depression a fine groove runs in its whole length.

Female. Length $9.3-10.3 \mathrm{~mm}$, maximum width $4.1-4.6 \mathrm{~mm}$. General colour and shape as in the male. The body is somewhat broader, 2.2 times as long as broad. $7^{\text {th }}$ tergite somewhat raised, with a round depression in the middle; posterior margin of the $7^{\text {th }}$ tergite regularly bisinuate. Paratergites of the $8^{\text {th }}$ abdominal segment angularly lengthened, obtusely rounded at the end, reaching to $2 / 3$ of the length of the $9^{\text {th }}$ abdominal segment, which is strongly narrowed in the direction towards the end, its margins are raised. Gonocoxites as in figure 48.

Material examined: $1 \sigma^{\prime}$ (holotype) and 2 우 아 (allotype and paratype) - Madagascar: Ambovombe, R. Decary 1926 (Muséum Nat. d'Hist. Naturelle, Paris).
$1 \sigma^{7}$ and 1 io (paratypes) - Madagascar: Region du Sud, Andrahomana, août 1907, Ch. Alluaud (Národní museum, Praha).

Distribution: Madagascar (type locality: Ambovombe).
Mezira insularis n. sp.
(Fig. 49-52)
Male. Length 5.9 mm , maximum width 2.5 mm . Head: length 1.1 mm , width 0.9 mm , interocular space 0.61 mm . Antennae: length of segment I, $0,42 \mathrm{~mm}$; II, 0.49 mm ; third and fourth segment missing. Pronotum: length 0.95 mm , width 1.9 mm . Scutellum : length 0.95 mm , width 1.14 mm .

General colour pale reddish brown, sternum, abdomen, $9^{\text {th }}$ abdominal segment and outer margin of each connexival segment distinctly darker. Postero-lateral angles of each connexival segment broadly yellowish, tibiae brownish yellow. Membrane brownish bronze, at the base yellowish.

General shape of the body broadly oval, strikingly expanded in a posterior direction, 2.3 times as long as broad. Head 1.2 times as long as broad, interocular space 4 times as broad as the width of one eye. Tylus very vaulted, only slightly narrowed in the direction towards the end, obtuse at the end. Jugae narrow, anteriorly expanded in pestle-shape, reaching far beyond the apex of the tylus, reaching almost to the end of the first antennal
segment, leaving a broad space anterior to the tylus. Antenniferous tubercles short, strong, obtuse at the end, distinctly divergent, and not reaching beyond the basal third of the first antennal segment. Eyes small, longitudinal, with one half inserted into the margin of the head, a longitudinal ridge along the inner margin of the eye which forms a projecting point at the anterior margin. Head behind the eyes shortly narrowed, with small, sharp, straight postocular tubercles, which are remote from the posterior margin of the eye by the length of its thickness and which scarcely reache the level of the outer margin of the eye. Rostral groove rather broad, parallel open at the end, shorter than the rostrum, which reaches to the base of the head. Surface of the head slightly arched, with regular rather large tubercles and with a sparse appressed curved yellowish pubescence. Antennae


Mezira insularis n. sp. 49: head, pronotum and scutellum of female (allotype), 50: apex of the abdomen of male, 51 : apex of the abdomen of female, 52 : gonocoxites.
rather slender, with fine tubercles and with a short appressed pubescence. First antennal segment in the distal $2 / 3$ strongly club-shaped, distinctly inflected outwards, second antennal segment straight, regularly and strikingly expanded in the direction towards the end, the end itself globular. Relative length of antennal segment I: II:: 11: 13 ( $3^{\text {rd }}-4^{\text {th }}$ lacking).

Pronotum transversal, twice as broad as long, in the anterior half bisinuately strikingly narrowed, anterior angles of the pronotum almost right-angled, only narrowly flattened, humeral angles right-angled, slightly raised; basal margin of the pronotum in the width of the scutellum regularly moderately concave, anterior margin of the pronotum almost straight, with a very narrow collar. Disc of the pronotum flat, in the middle with a deep transversal impression, which bends arcuately to the basal margin of the pronotum. Anterior lobe of the pronotum with 4 longitudinal oval elevations, well separated from each other, the inner two more flat and for the larger part without tubercles and pubescence. The remaining surface of the pronotum densely covered with tubercles and with a sparse appressed, curved yellowish pubescence. Scutellum triangular, 1.2 times as broad as long, margins posterior to the middle strongly bisinuate, apex narrowly rounded. Base and margins of the scutellum with the exception of the very apex distinctly raised. Disc of the scutellum longitudinally ridged; ridge as well as apical $2 / 3$ of the scutellum are tubercular, the basal angles of the scutellum are smooth. Sternum with irregular tubercles, with the exception of the depressions in the middle of pro- and mesosternum. Legs short and strong, femora thickened, anterior and posterior tibiae sinuate, middle ones bisinuate. Hemelytra reaching to the end of the $6^{\text {th }}$ tergite, in the basal half of the corium in the direction towards the end somewhat expanded. Corial veins distinct, membranal commissure bent in S-shape, outer corial angle broadly rounded, reaching to the level of the middle of the $3^{\text {rd }}$ connexival segment, inner corial angle at the apex of the scutellum. Corium with sparse tubercles and with a sparse appressed curved pubescence. Membrane 1.5 times as long as the corium, with a dense, more or less distinct, anastomosing venation. Connexivum broad, flat, very finely sculptured. Exterior margin of the individual connexival segments slightly concave, posterolateral angles projecting, especially on the $4^{\text {th }}-6^{\text {th }}$ segments, posterior angle of the $7^{\text {th }}$ connexival segment rounded, $7^{\text {th }}$ tergite in the middle strongly elevated, as high as the $9^{\text {th }}$ segment, in the middle at the posterior margin with two tubercles. Paratergites of the $8^{\text {th }}$ abdominal segment tongue-shaped, in the basal half parallel, the tip directed towards the inner side; they reach to a little beyond the middle of the length of the $9^{\text {th }}$ abdominal segment. Venter moderately vaulted, irregularly rastrated, at the sides tubercular, $3^{\text {rd }}-6^{\text {th }}$ ventrites with a transversal impression. Posterior margin of the $6^{\text {th }}$ ventrite in its whole width regularly deeply bisinuate. $2^{\text {nd }}-6^{\text {th }}$ spiracula in the middle of the individual ventrites, remote from the margin of the abdomen, $7^{\text {th }}$ spiraculum approached to the margin of the abdomen, $8^{\text {th }}$ spiraculum marginal. $9^{\text {th }}$ abdominal segment globular, somewhat elongated in the direction towards the end, seen from above 1.5 times as broad as long, in the dorsal part at the base with a high conical tubercle delimited on all sides by a deep depression. Surface of the $9^{\text {th }}$ ab-
dominal segment in the dorsal part and at the base of the conical tubercle coarsely tubercular, on the ventral side with fine tubercles.

Female. Length 6.7 mm , maximum width 2.9 mm . Like the male in general colour and shape. The colour of the female is somewhat reddish brown, the abdomen is regularly oval, the posterolateral angles of the individual connexival segments do not project so strikingly. Antennae slender, 1.7 times as long as the length of the head; first antennal segment in the distal $2 / 3$ strongly expanded, distinctly bent outwards, second antennal segment straight, in the direction towards the end regularly and strikingly expanded, the apex itself somewhat globular; third antennal segment thinnest, in the direction towards the end gradually expanding, fourth segment fusiform, in the distal part with long erect hairs. Relative lengths of the antennal segments I: II: III: IV:: 11: 13: 14: 12. Disc of the $7^{\text {th }}$ tergite raised, in the middle with a deep round depression, posterior margin of the $7^{\text {th }}$ tergite finely concave. Posterior margin of the $8^{\text {th }}$ tergite straight, paratergites shortly triangular, reaching to the middle of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment triangular, end sharp, margins raised. Gonocoxites as in fig. 52.

Material examined: 1 ot (holotype) - Madagascar: Ambanja 1937 F. Lamberton (Národní museum, Praha).

1 \& (allotype) - Madagascar: Ambodivoangy (Maroantsetra), 15. II. 1949 (P. C.) (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality: Ambanja).

## Mezira singularis n . sp .

(Fig. 53-54)
Male. Length 6.3-7.1 mm, maximum width $2.5-2.7 \mathrm{~mm}$. Head : length 1.1 mm , width 0.98 mm , interocular space 0.68 mm . Antennae: length of segment I, 0.46 mm ; II, 0.46 mm ; III, 0.49 mm ; IV, $0,38 \mathrm{~mm}$. Pronotum: length 0.95 mm , width 2.1 mm . Scutellum: length 0.99 mm , width 1.2 mm .

General colour of the body dark brown to blackish brown, with somewhat paler shades on the humeral angles, on the sides of the pronotum and on the tylus. Posterolateral angles of the connexival segments $2^{\text {nd }}-7^{\text {th }}$ more or less broadly yellowish. Membrane dark gray brown, lighter at the base.

General shape elongated oval, 2.6 times as long as broad, abdomen regularly oval, broadest in the middle of the $5^{\text {th }}$ connexival segment. Head 1.1 times as long as broad across the eyes, interocular space 4.5 times as broad as the width of one eye. Tylus strongly vaulted, in the direction towards the end imperceptibly narrowed, obtuse at the end, jugae very narrow, expanded at the end, moderately obtusely pointed, and only slightly projecting beyond the tylus, reaching to $2 / 3$ of the length of the first antennal segment and leaving anterior to the tylus a shallow space. Antenniferous tubercles short, strong, at the end obtuse, distinctly divergent, not reaching beyond the basal third of the first antennal segment. Eyes small, elongate with almost one half inserted into the margin of the head, longitudinally ridged along the inner margin of the eye, with the ridge forming at the anterior margin of the eye a projecting tubercle. Head posterior to the
eyes shortly narrowed, with a small, sharp, straight postocular tubercle which is somewhat remote from the eye and reaches the level of the outer margin of the eye. Rostral groove broad, parallel, open at the end, shorter than the rostrum, which reaches to the base of the head. Surface of the head very little arched, with regular, rather crowded tubercles and with a scanty appressed pubescence. Antennae slender, 1.6 times as long as the head. First antennal segment regularly expanded in the direction towards the apex, second segment expanding in the whole length and at the apex globularly enlarged, third segment thinnest, in the direction towards the apex only moderately expanded, fourth segment fusiform, in the distal half with long erect hairs. Surface of the antennae with very fine tubercles. Relative lengths of antennal segments I: II: III: IV :: $12: 12: 13: 10$.

Pronotum transversal, 2.2 times broader than long in the middle, in the anterior half narrowed in an anterior direction, anterior angles enclosing an acute angle, narrowly flattened and somewhat expanded to the sides. Humeral angles broadly rounded, somewhat raised. Basal margin of the pronotum in the whole width very finely sinuate, anterior margin of the


Mezira singularis n. sp. - male (holotype). 53: head, pronotum and scutellum. 54: apex of the abdomen.
pronotum moderately concave, with a very narrow collar. Disc of the pronotum flat, in the middle with a deep impression which bends arcuately towards the base of the pronotum. Anterior lobe with four longitudinal oval elevations separated from each other on all sides; the inner two are flatter and for the larger part without tubercles and pubescence. The remaining surface of the pronotum is covered with tubercles and with a sparse appressed pubescence. Scutellum triangular, 1.2 times as broad as long, margins anterior to the apex strongly constricted, apex narrowly rounded. Margins and the base of the scutellum with the exception of the apex itself distinctly raised. Dise of the scutellum longitudinally ridged; ridge as well as the apical $2 / 3$ of the scutellum tubercular. Basal angles of the scutellum smooth. Pleura densely tubercular. Legs short, femora thickened, tibiae slightly sinuate; legs with very fine tubercles and with a fine pubescence. The hemelytra reach to the end of the $6^{\text {th }}$ tergite; basal part of the corium is parallel, as broad as the base of the pronotum. Corial veins distinct, membranal commissure bent in S-shape, outer corial angle broadly rounded, reaching beyond the middle of the $3^{\text {rd }}$ connexival segment, inner corial angle at the apex of the scutellum. Corium with sparse tubercles and with a sparse appressed pubescence. Membrane 1.5 times as long as the corium, with a dense well visible anastomosing venation. Connexivum broad, flat, very finely sculptured. Outer margins of the $2^{\text {nd }}-6^{\text {th }}$ connexival segments straight, posterolateral angles projecting, margin of the $7^{\text {th }}$ connexival segment slightly convex, posterolateral angles more markedly lengthened. Subconnexival area narrow, uniformly broad. Abdomen regularly moderately vaulted. $2^{\text {nd }}-6^{\text {th }}$ spiracula remote from the margin of the abdomen, in the middle of the individual ventrites, $7^{\text {th }}$ spiraculum approached to the margin of the abdomen, $8^{\text {th }}$ spiraculum marginal. Paratergites of the $8^{\text {th }}$ abdominal segment long, narrow, in the whole length almost equally broad, at the base angularly bent, at the end sharpened on the outer side, reaching to beyond the middle of the length of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment seen from above almost as long as broad, in the basal $2 / 3$ in the direction towards the end regularly narrowed, apical third subparallel, at the end narrowly rounded. Surface of the $9^{\text {th }}$ abdominal segment in the basal $2 / 3$ on the dorsal side with an oval, posteriorly expanding depression, in the middle with a narrow longitudinal groove.

Material examined: $20^{\pi} 0^{\pi}$ (holotype and paratype) - Madagascar: Ampana, 1937 F. Lamberton (Národní museum, Praha).

Distribution: Madagascar (type locality: Ampana).
Mezira parva n. sp.
(Fig. 55-58)
Male: Length: $4.3-4.4 \mathrm{~mm}$, maximum width $1.4-1.56 \mathrm{~mm}$. Head: length 0.8 mm , width $0,76 \mathrm{~mm}$, interocular space 0.53 mm . Antennae: length of segment I, 0.34 mm ; II, 0.3 mm ; III, 0.3 mm ; IV, 0.27 mm . Pronotum : length 0.61 mm , width 1.37 mm . Scutellum : length 0.68 mm , width 0.8 mm .

General colour reddish brown, with lighter shades at the base of the individual antennal segments, on the median ridge and basal angles of the
scutellum, on the tibiae and connexivum; posterior margins of the connexival segments yellowish. Membrane brown, slightly lighter at the base.

General shape of the body narrowly oval, 2.7 times as long as broad, somewhat expanded in a posterior direction. Head almost as long as broad across the eyes (21:20), interocular space 4-5 times as broad as the width of one eye; eyes sessile. Jugae distinctly longer than the tylus, at the end somewhat expanded, and forming anterior to the tylus a broad space, reaching to $2 / 3$ of the first antennal segment. Tylus strongly convex, at the base distinctly delimited. Postocular tubercles sharp, reaching to the


Mezira parva n. sp. 55: head, pronotum and scutellum of male (holotype), 56: apex of the abdomen of male, 57: apex of the abdomen of female, 58: gonocoxites.
level of the outer margin of the eyes, head at the base narrowed to a short collar. Antenniferous tubercles narrow, very pointed and slightly divergent, not reaching to the middle of the first antennal segment. Surface of the head with numerous irregular tubercles. Rostral groove parallel, at the end open, shorter than the rostrum, which does not reach to the base of the head. Antennae slender, 1.5 times as long as the head; first antennal segment strongest, somewhat inflected, $1^{\text {st }}-3^{\text {rd }}$ segment in the direction towards the end distinctly expanded, third segment thinnest, fourth segment pearshaped. Antennae with irregular tubercles and with a scarcely perceptible light pubescence, which is somewhat longer on the fourth segment. Relative lenghts of antennal segment I: II: III: IV:: 9:8:8:7.

Pronotum transversal, twice as broad as long. Lateral margins anterior to the middle strongly sinuate, anterolateral angles enclosing an acute angle, somewhat projecting, flattened at the margins; basal margin of the pronotum slightly sinuate in the whole width; humeral angles broadly rounded; anterior margin of the pronotum slightly sinuate, with a very narrow collar. Disc of the pronotum sloping imperceptibly forwards, divided by a transversal arcuate impression into an anterior and a posterior lobe; anterior lobe with four longitudinal on all sides well delimited elevations, inner two flat, lateral ones higher and more markedly vaulted. Surface of the pronotum coarsely sculptured, with dense and irregular tubercles and with a light short scarcely perceptible pubescence. Scutellum triangular, 1.2 times as broad as long, margins strongly sinuate, tip broadly rounded. All margins of the scutellum distinctly raised, in the middle with a longitudinal broad but low elevation. Scutellum sculptured just as the pronotum, on the median elevation somewhat more finely. Sternum irregularly tubercular, pro- and mesosternum in the middle with an irregular longitudinal smooth depression. The hemelytra reach to the base of the $7^{\text {th }}$ tergite, emboliar margin of the hemelytra at the base slightly sinuate, somewhat divergent. Membranal commissure strongly sinuate, posterior outer angle of the corium broadly rounded. Corium sculptured just as the pronotum, corial veins distinct. Membrane with distinct venation. Margins of connexivum symmetrically rounded, outer posterior angles of the individual connexival segments lengthened, projecting, somewhat more strikingly in the $6^{\text {th }}$ and $7^{\text {th }}$ segments. Connexivum more finely sculptured than the pronotum. $7^{\text {th }}$ tergite with two tubercles of small hight but distinct. Venter moderately vaulted, irregularly rastrated, with a slight depression on each ventrite. $2^{\text {nd }}-5^{\text {th }}$ spiracula in the middle of the ventrite not too remote from the margin of the abdomen, $6^{\text {th }}$ spiraculum considerably approached to the margin, $7^{\text {th }}$ spiraculum at the very margin, $8^{\text {th }}$ spiraculum terminal. Paratergites of the $8^{\text {th }}$ abdominal segment narrowly shovel-shaped, at the end obliquely truncated, inner side longer than the outer one, reaching to $2 / 3$ of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment spherical, 1.5 times as broad as long, in the direction towards the end roundedly narrowed, in the dorsal part with a broad, at the end rounded, very fine depression which is very finely tubercular; the remaining part of the segment with large regular tubercles.

Female. Length 4.8-4.9 mm, maximum width 1.9 mm . In the general
colour and shape similar to the male, somewhat broader, only 2.6 times as long as broad. Paratergites of the $8^{\text {th }}$ abdominal segment shortly triangular, bluntly terminating, reaching to the middle of the $9^{\text {th }}$ segment. $9^{\text {th }}$ abdominal segment triangular, at the end narrowly rounded, its sides raised. Gonocoxites as in fig. 58.

Material examined: 2 毎 $0^{\circ} 0^{7}$ and 1 오 (holotype, paratype and allotype) Madagascar: Ampanafena, 1937 F. Lamberton (Národní museum, Praha).

1 ㅇ (paratype) - Madagascar: Antolabe, 1937 F. Lamberton (Národní museum, Praha).

Distribution: Madagascar (type locality: Ampanafena).

## Mezira intermedia n. sp.

> (Fig. 59—62)

Male. Length 7.9 mm , maximum width 3 . mm. Head: length 1.2 mm , width 1.3 mm , interocular space 0.9 mm . Antennae: length of segment I, 0.49 mm ; II, 0.49 mm ; III, 0.49 mm ; IV. 0.57 mm . Pronotum: length 1.3 mm , width 2.6 mm . Scutellum: length $1,7 \mathrm{~mm}$, width 1.5 mm .

General colour dark reddish with the exception of the margins of the pronotum. Head and antennae black.

General shape of the body elongated oval, 2.6 times as long as broad, sides of the abdomen subparallel. Head almost as broad as long (1.1 times as broad as long), tylus narrow, reaching to the middle of the $1^{\text {st }}$ antennal segment, jugae very narrow, exceeding the tylus, at the end insignificantly expanded, and anterior to the tylus forming a shallow space. Interocular space 4.6 times as broad as the width of one eye. Disc of the head with coarse tubercles arranged in longitudinal rows, inner margin of the eye longitudinally ridged. Antenniferous tubercles very short, reaching to the basal third of the first antennal segment, somewhat divergent, obtuse at the end, finely tubercular. Eyes small, inserted into the margin of the head. Postocular tubercles flat, at the end pointed, angularly protracted backwards, finely tubercular, only slightly projecting beyond the level of the outer margin of the eyes. Surface of the head with a short appressed pubescence. Rostral groove very shallow, at the end open and somewhat narrowed, shorter than the rostrum which reaches almost to the base of the head. Antennae strong, 1.7 times as long as the length of the head; first three antennal segments in the direction towards the end strikingly expanded, short, equally long; fourth antennal segment longest, pear-shaped. Relative lengths of the antennal segments I: II: III: IV:: $13: 13: 13: 15$. Antennae irregularly tubercular, with a short appressed curved pubescence, fourth segment in the distal half with longer hairs.

Pronotum transversal, twice as broad as long, strongly narrowing in an anterior direction, margins of the pronotum in the anterior part slightly sinuately narrowed, basal margin of the pronotum deeply concave, at the sides of the base of scutellum protracted into short angular tips; humeral angles obtuse, anterior angles of the pronotum slightly flattened, enclosing an obtuse angle, broadly rounded, and not lengthened in front; anterior margin of the pronotum slightly sinuate, with a narrow collar. Surface
of the pronotum almost plain, somewhat forwards inclined, in the middle divided by a transversal impression into a posterior and anterior lobe; anterior lobe with 4 elongated elevations well separated from each other. Surface of the pronotum and margins with minute irregular tubercles and with a short very sparse appressed pubescence. Scutellum triangular, 1.1 times as broad as long, margins straight; base of the scutellum and margins faintly raised, posterior half of the scutellum finelly longitudinally ridged, surface of the scutellum sculptured just as the pronotum. Sternum irregularly tubercularly rastrated. Legs short and strong, anterior and posterior


Mezira intermedia n. sp. 59: head, pronotum and scutellum of male (holotype). 60: apex of the abdomen of male, 61: apex of the abdomen of female, 62: gonocoxites.
femora somewhat stronger, anterior tibiae expanding in the direction towards the end, middle and posterior tibiae broadest before the end. Hemelytra at the base as broad as the pronotum, and from the very base the margins of the corium gradually narrow; membranal commissure straight, inner corial angle placed close before the end of the scutellum, outer corial angle in the level of the $3^{\text {rd }}$ abdominal segment; corium very finely sculptured, corial angles and membranal commissure faintly raised. Membrane large, reaching to the basal third of the $7^{\text {th }}$ tergite, with a dense fusing venation. Connexivum broad, flat, only insignificantly expanding in a posterior direction, very finely sculptured. Margins of the connexivum straight. $7^{\text {th }}$ tergite in the distal half somewhat raised. Venter very little vaulted, very finely regularly sculptured. $2^{\text {nd }}-8^{\text {th }}$ spiracula in the middle of the respective ventrites, far from the margnis. Paratergites of the $8^{\text {th }}$ abdominal segment at the end expanded in pestle-shape, inner margins longer than outer ones, reaching to $2 / 3$ of the length of $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment transversally oval, 1.5 times as broad as long, at the end narrowly rounded, entirely finely tubercular, in the dorsal part in its whole length very narrowly ridged, the ridge separated on both sides by a broad deep depression which is deepest and somewhat expanded in the anterior part.

Female. Length 8.5 mm , maximum width $3.2-3.3 \mathrm{~mm}$. The general colour and shape agree completely with those of the male. Hemelytra reaching to the end of the $7^{\text {th }}$ tergite. Paratergites of the $8^{\text {th }}$ abdominal segment very small, shortly triangular, very narrowly rounded, outer margins rounded, reaching to the middle of the $9^{\text {th }}$ abdominal segment, which is rounded at the end. Gonocoxites as in fig. 62.

Material examined: $10^{7}$ (holotype) and 2 ㅇㅇ (allotype and paratype) - Madagascar: Diego Suarez, VII. 1893 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris and National Museum, Praha).

Distribution: Madagascar (type locality: Diego Suarez).
Mezira monedula (S tål 1865)
(Fig. 63-66)
Brachyrhynchus Monedula Stå 1, Hemiptera Africana 3: 34, 1865.
Brachyrhynchus monedula Lethierxy et Severin, Catalogue général des Hémiptères, 3: 43, 1896.

Mezira rugosa Signoret, Ann. Soc.ent. Fr., 8: 957, 1860 (not Signoret 1858).

Female. Length 8.8 mm , maximum width 4.1 mm . Head: length 1.4 mm , width 1.41 mm , interocular space 1. mm . Antennae: length of segment I, 0.53 mm ; II, 0.61 mm ; III, 0.8 mm ; IV, 0.57 mm . Pronotum: length 1.7 mm , width $3 . \mathrm{mm}$. Scutellum : length 1.4 mm , width 1.7 mm .

General colour reddish brown to black, especially on the head and in the anterior part of the pronotum, margins of the pronotum and connexivum reddish.

General shape of the body broadly oval, backwards regularly ovally expanded, body 2.2 times as long as broad. Head as broad as long, tylus
narrow, reaching to $2 / 3$ of the length of the first antennal segment, jugae narrow, narrower than the width of the tylus, projecting considerably beyond the apex of the tylus, at the end somewhat expanded and forming a distinct space before the apex of tylus. Interocular space 5.4 times as broad as the width of the eye, disc of the head little vaulted, with a longitudinally arranged tuberculation. Antenniferous tubercles long, reaching beyond $2 / 3$ of the first antennal segment, outwards inflected, sharp at the end. Eyes small, inserted with $2 / 3$ into the margin of the head, delimited along the inner margin by a distinct ridge. Postocular tubercles long, flat, as broad as half the width of the eye, slightly forwards inflected, at the end bluntly


Mezira monedula (S tå 1 ) - 63: head, pronotum and scutellum of female (holotype), 64: apex of the abdomen of female, 65: gonocoxites, 66 : apex of the abdomen of male.
pointed; with their length distinctly exceeding the outer margin of the eyes. Surface of the head with a short sparse appressed pubescence. Rostral groove narrow, somewhat narrowing in a posterior direction, reaching to the base of the head, open at the end; the rostrum reaches to the base of the head. Antennae short, 1.6 times as long as the length of the head, $1^{\text {st_ }} 3^{\text {rd }}$ antennal segments regularly expanding in the direction towards the end, second segment somewhat stronger than the third; first segment strongly inflected in an outward direction, fourth pear-shaped. Antennae tubercular, with a short curved appressed pubescence. Relative lengths of the antennal segments I: II: III: IV:: 14: 16:21:15.

Pronotum transversal, 1.8 times as broad as long in the middle, only slightly narrowing anteriorly; surface of the pronotum scarcely perceptible vaulted; lateral margins almost straight, basal margin of the pronotum in the middle sligthly concave, on the sides of the base of the scutellum protracted into short triangular tips. Humeral angles blunt, faintly separated by a depression; anterior angles somewhat flattened, broadly rounded and very slightly protracted forwards, anterior margin of the pronotum faintly sinuate, with a very narrow collar. Surface of the pronotum divided by a transversal impression into an anterior and a posterior lobe, anterior lobe with four low flat elevations which fuse mutually. Surface of the pronotum and margins irregularly coarsely tuberculated, with a short curved pubescence. Scutellum triangular, 1.2 times as broad as long, margins straight, at the end narrowly rounded; anterior half of the scutellum and margins with the exception of the very apex raised, posterior half of the scutellum distinctly longitudinally ridged. Surface of the scutellum like that of the pronotum. Sternum coarsely tubercularly wrinkled, with a short and sparse pubescence, acetabula coarsely rastrated. Legs short, strong; anterior and middle femora somewhat thickened. Tibiae expanded in a posterior direction, posterior tibiae sinuate. Hemelytra at the base of the corium broader than the width of the pronotum, somewhat expanding in a posterior direction. Membranal commissure straight, inner corial angle placed close before the end of the scutellum, outer corial angle at the level of the end of the $3^{\text {rd }}$ abdominal segment. Corium sculptured like the pronotum, with distinctly raised veins. Membrane narrow and long, reaching to the end of the $6^{\text {th }}$ tergite. Connexivum flat, very broad, outer margin of the connexivum regularly rounded. Surface of the connexivum somewhat more finely sculptured and with a shorter pubescense than on the pronotum. $7^{\text {th }}$ tergite faintly elevated, in the middle with a round depression, posterior margin of the tergite faintly sinuate. Venter slightly vaulted, more finely sculptured than the connexivum. $2^{\text {nd }}-8^{\text {th }}$ spiracula in the middle of the respective ventrites, far remote from the margin of the abdomen. Paratergites of the $8^{\text {th }}$ abdominal segment very large and broadly rounded, reaching to beyond the middle of the $9^{\text {th }}$ abdominal segment, which is likewise broadly rounded. Gonocoxites as in fig. 65.

Male. General shape of the body less oval, elongate, 2.3 times as long as broad. $9^{\text {th }}$ abdominal segment, globular, 1.3 times as broad as long, apically broadly rounded. Surface of the $9^{\text {th }}$ abdominal segment finely tuberculate and with adpressed short pubescence. In the dorsal part in its whole length

[^1]with a distinct broad ridge which is on both sides separated by a deep depression expanding distinctly in the anterior direction. Paratergites of the $8^{\text {th }}$ abdominal segment at the end pestle-shaped, reaching to the apex of the $9^{\text {th }}$ abdominal segment.

Material examined: 1 !우 (type) - Madagascar; coll. Signoret (Naturhistorisches Museum, Wien).

1 ㅇ - Madagascar: Diego Suarez, 1893 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).
$10^{\prime \prime}$ - Madagascar, Sud: Vallée d'Ambolo, 1900 Ch . Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).

1 ㅇ. Madagascar: Vohibory, 20. V. 1941 M. Abadie (Národní museum, Praha).

2 우 - Madagascar: Isalo, VIII. 1948 R. Paulian (Institut Sc. de Madagascar, Tananarive).

1 ㅇ Madagascar. Bevazaha, Ankarafantsika, 20. I. 1950 (A. R.) (Národní museum, Praha).

Distribution: Madagascar (type locality).

## Mezira madagascariensis n . sp.

(Fig. 67-70)
Male. Length $8.7-11 \mathrm{~mm}$, maximum width $3.4-4.4 \mathrm{~mm}$. Head : length 1.5 mm , width 1.6 mm , interocular space 1.2 mm . Antennae: length of segment I, 0.61 mm ; II, 0.76 mm ; III, 0.76 mm ; IV, 0.8 mm . Pronotum: length 1.7 mm , width 3.3 mm . Scutellum : length 1.8 mm , width 1.9 mm .

General colour blackish brown, with a somewhat lighter shade at the base of the first antennal segment, distal half of the fourth antennal segment, at the end of the antenniferous tubercles, postocular tubercles and tylus. Femora and tibiae are somewhat lighter, especially at the end. Tarsi light brown. Flattened margins of the anterior part of the pronotum, tergum and connexivum reddish brown, genital segment and venter brownish.

Shape of the body elongate oval, 2.5 times as long as broad, regularly expanded in a posterior direction. Head across the eyes 1.1 times as broad as long. Interocular space 4.7 times as broad as the width of one eye. Tylus narrow, very long, jugae slightly exceeding the tylus, expanded at the end, as broad as the tylus at the base, forming a shallow space at the apex of the tylus and reaching almost to the end of the first antennal segment. Antenniferous tubercles large, slightly exceeding the basal third of the first antennal segment, divergend, sharp at the end. Postocular tubercles broad, as broad as the length of the eye, flattened, at the end roundedly narrowed, margins serrate, directed forwards, strikingly projecting beyond the level of the outer margin of the eye. Disc of the head and tylus considerably vaulted, covered with irregular large tubercles, which are denser on the tylus and form a ridge around the inner margin of the eyes. Rostral groove lanceolate, open; rostrum reaching to the base of the head. Antennae strong, 1.9 times as long as the length of the head. First antennal segment strongly expanded and inflected outwards. Second and third segment straight, strongly expanded in the direction towards the end. Fourth segment fusiform.

Antennae with a short adpressed pubescence which is somewhat longer in the distal half of the fourth segment. Relative lengths of antennal segments I : II : III : IV :: $16: 20: 20: 21$.

Pronotum 1.9 times as broad as long, faintly narrowed anteriorly, margins of the pronotum in the anterior third slightly sinuate, anterolateral angles regularly rounded, humeral angles blunt; basal margin of the pronotum in the width of the scutellum deeply concave, at the sides of the scutellum extended into rounded lobes, anterior margin of the pronotum with a broad collar; sides of the pronotum with regular tubercles, margins of the pronotum in the anterior half flattened. Disc of the pronotum somewhat inclined forwards, in the middle divided by a transversal impression into an anterior and a posterior lobe; the later is higher and more distinctly vaulted; anterior lobe with four low elevations of which only the inner two


Mezira madagascariensis n. sp. 67: head, pronotum and scutellum of male (holotype), 68: apex of the abdomen of male, 69: apex of the abdomen of female (allotype), 70: gonocoxites.
are in the middle more distinctly separated from each other by a median longitudinal groove. Surface of the pronotum covered with low tubercles which are closer on the posterior lobe. Sternum with minute tubercles, acetabula wrinkled. Legs short, femora, especially the anterior one, thickened, tibiae faintly sinuate. Scutellum triangular almost as long as broad (48:50), margins straight; at the base faintly elevated, in the discal two thirds perceptibly longitudinally ridged. Surface of the scutellum with similar tubercles as on the pronotum. The hemelytra reach to the middle of the $7^{\text {th }}$ tergite. Hemelytra in the basal seventh of the emboliar margin somewhat broader than the base of the pronotum, emboliar margin faintly vaulted, remaining part of the hemelytra strongly narrowed. Corium with visible corial veins and sparse tubercles. Membranal commissure very slightly sinuate, outer posterior angle of the corium narrowly rounded. Membrane large, with well visible longitudinal veins and tubercles. Subconnexival area narrow, connexivum flat, its margins to the end of the $6^{\text {th }}$ segment straight, in a posterior direction expanded; connexival margin of the $7^{\text {th }}$ segment rounded; $7^{\text {th }}$ tergite raised in the middle, coarsely tuberculate, as high as the $9^{\text {th }}$ segment. Surface of the connexivum finely rugose. Paratergites of the $8^{\text {th }}$ segment tongueshaped, narrow, inflected, reaching to $2 / 3$ of the $9^{\text {th }}$ abdominal segment. Venter faintly convex, regularly tuberculate-rugose. $2^{\text {nd }}-7^{\text {th }}$ spiracula on the ventral side very far remote from the lateral margin, placed in the middle of the respective ventrites, only $7^{\text {th }}$ spiraculum placed somewhat anterior to the middle of the segment, $8^{\text {th }}$ spiraculum on the ventral side at the base of the lobe. $9^{\text {th }}$ abdominal segment spherical, seen from above 1.7 times as broad as long, on the dorsal side with two deep, backwards converging depressions which are broader at the base and reach to the end of the segment. Surface of the $9^{\text {th }}$ abdominal segment tuberculated.

Female. Length $9.7-11.9 \mathrm{~mm}$, maximum width $3.9-4.6 \mathrm{~mm}$. It agrees with the male in general colour and sculpture. The shape of the body is more oval, 2.6 times as long as broad, regularly narrowed towards the end. The margins of the connexivum are regularly rounded, and the surface of the connexivum is somewhat more coarsely sculptured. Posterior margin of the $7^{\text {th }}$ tergite faintly sinuated. Paratergites of the $8^{\text {th }}$ abdominal segment broadly rounded, directed somewhat inwards, and reaching to the middle of the length of the $9^{\text {th }}$ segment. Gonocoxites as in fig. 70.
 type and paratypes)-Madagascar: Rogez, 1937 F. Lamberton (Národní museum, Praha).
$3 \mathrm{on}^{\boldsymbol{0}} \mathrm{on}^{\text {( }}$ (paratypes)-Madagascar: Vohemar, 1937 F. Lamberton (National Museum, Praha).
$100^{7} \sigma^{3}$ and 4 우 (paratypes)-Madagascar, 1896 Sikora (Naturhistorisches Museum, Wien).
$30^{\prime \prime} \sigma^{\prime \prime}$ and 1 ㅇ (paratypes)-Madagascar: Ampasimena, Sikora (Naturhistorisches Museum, Wien).

3 아우 (paratypes)-Madagascar, Sikora, coll. Nickerl (National Museum, Praha).
$5 \delta^{\prime \prime} \sigma^{7}$ and 2 ㅇㅇ (paratypes)-Madagascar, 1898, coll. Noualhier (Musêum Nat. d'Hist. Naturelle, Paris).
$10^{7}$ (paratype)-Madagascar: Baie d'Antogil, 1898 A. Mocquerys, coll. Noualhier (Muséum Nat. d'Hist. Naturelle, Paris).

1 : (paratype)-Madagascar : Côte East, 1899 G. Grandidier (Muséum Nat. d’Hist. Naturelle, Paris).

1 ㅇ. (paratype)-Madagascar : Région du Sud-Est, Fort Dauphin, 1901 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).
$10^{7 \prime}$ (paratype)-Madagascar: Bezanozano (Muséum Nat. d'Hist. Naturelle, Paris).

2 우 (paratypes)-Madagascar: Maevatanana, VIII. 1941 M. Abadie (Institut Sc. de Madagascar, Tananarive).
$1 \sigma^{7}$ (paratype)-Madagascar: piste Tsiroanomandidy, Ankavandra, XI. 1943 M. Abadie (Institut Sc. de Madagascar, Tananarive).

4 nymphs-Madagascar: Fort Dauphin, Forêt d'Isaka, IV. 1953 R. Paulian (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality Rogez).
Note: The new species is closely related to the species Mezira furcata (Germar). Mezira mudagascariensis n . sp. is much larger, the body relatively broader. The antennae of the new species are longer and more slender, antennal segments $2^{\text {nd }}-4^{\text {th }}$ almost equally long, whereas in Mezira furcata (Germar) segment $1^{\text {st }}, 2^{\text {nd }}$ and $4^{\text {th }}$ are almost equally long and segment $3^{\text {rd }}$ is longest. The postocular tubercles are in the new species much larger, strikingly expanded in leaf-shape, and far exceed the outer margin of the eyes. The four elevations on the anterior lobe of the pronotum are in Mezira furcata (Germar) striking and are well separated from each other by longitudinal depressions, whereas in Mezira madagascariensis n . sp . the elevations on the anterior lobe are very low and are not separated from each other.

In the collection of the Naturhistorisches Museum in Vienna are two specimens labelled in the hand-writing of E. Bergroth Mezira auriculata Bergroth, which are identical with the species described. The description of this species has never been published and the name Mezira auriculata must be considered a nomen nudum.

## Mezira mauricii n . sp . (Fig. 71-74)

Male: Length $9.2-10.5 \mathrm{~mm}$, maximum width $3.4-4 \mathrm{~mm}$. Head: length 1.5 mm , width 1.6 mm , interocular space 1.2 mm . Antennae: length of segment I, 0.61 mm ; II, 0.8 mm ; III, 0.72 mm ; IV, 0.68 mm . Pronotum: length 1.7 mm , width 3.4 mm . Scutellum: length 1.7 mm , width 1.6 mm .

General colour grayish brown, distal half of the fourth antennal segment lighter. Venter, acetabula and legs reddish brown. Membrane reddish brown.

General shape of the body, oval, 2.6 times as long as broad, somewhat expanded in a posterior direction. Head across the eyes slightly broader than long ( $43: 40$ ), interocular space 6 times as broad as the width of one eye. Disc of the head faintly convex. The tylus slightly exceeds half the length of the first antennal segment; jugae very short, a little longer than the tylus, somewhat expanded at the end, as broad as $2 / 3$ of the broadest part of the
tylus, forming a very shallow cleft. Antenniferous tubercles short, somewhat divergent, blunt at the end. Postocular part of the head short, postocular tubercles simple, triangular, sharp, exceeding only very slightly the level of the outer margin of the eyes. Rostral groove narrow and deep, in the distal part parallel, not closed at the end. Rostrum a little longer than the rostral


Mezira mauricii n. sp. 71: head, pronotum and scutellum of male (holotype), 72: apex of the abdomen of male, 73: apex of the abdomen of female, 74: gonocoxites.
groove. Antennae thick, first antennal segment strongest, faintly inflected, $2^{\text {nd }}-4^{\text {th }}$ segments almost equally thick, $2^{\text {nd }}-3^{\text {rd }}$ in the direction towards the end regularly expanding, fourth segment pear-shaped. Antennae with a short, dense appressed, yellowish pubescence, which is longer and erect in the distal half of the $4^{\text {th }}$ segment. Relative length of the antennal segments I : II : III : IV :: $16: 21: 19: 18$.

Pronotum transversal, twice as broad as long, divided in the middle by a transversal impression into an anterior and a posterior lobe which are only very slightly vaulted. Anterior lobe with 4 only slightly perceptible elevations. Basal margin of the pronotum in the middle deeply concave, on the sides of the base of the scutellum lengthened into short tips, lateral margins of the pronotum finely tuberculate, in the basal third sinuate, anterior third of the margin of the pronotum very narrowly lamellar, humeral angles broadly rounded, anterolateral angles rounded, slightly expanded. Anterior margin of the pronotum almost straight, with a very narrow collar. Dise of the pronotum and head covered with sparse, irregularly placed, very insignificant tubercles and with a short appressed yellowish pubescence growing from the individual tubercles. Scutellum triangular a little longer than broad ( $46: 42$ ), longitudinal ridge and margins except the very apex distinctly raised. Surface similar as in the pronotum. Sternum in the pleural part tuberculate. The hemelytra reach to the middle of the $7^{\text {th }}$ tergite, are at the base as broad as the pronotum, basal part of the emboliar margin straight, parallel; membranal commissure only slightly sinuate. Corium with tiny tubercles and with a short pubescence which is closer on the veins and on the membranal commissure. Membrane with well perceptible venation, covered with short curved yellow hairs. Connexivum flat, regularly expanding backwards, broadest across the $6^{\text {th }}$ abdominal segment; surface of the connexivum finely sculptured, with an adpressed yellowish pubescence. Paratergites of the $8^{\text {th }}$ abdominal segment narrowly tongue-shaped, broadly rounded at the end, not reaching to the middle of the $9^{\text {th }}$ segment. The whole surface of the body tuberculate and covered with a yellowish, adpressed curved pubescence. Venter very little vaulted, seen from the side only the $7^{\text {th }}-9^{\text {th }}$ segments are strongly vaulted on the ventral and dorsal side. $2^{\text {nd }}-8^{\text {th }}$ spiracula on the ventral side very far remote from the margin of the abdomen and placed in the middle of the individual ventrites with the exception of the $6^{\text {th }}-7^{\text {th }}$ spiracula which are rather anterior to the middle of these ventrites. Larger part of the surface of the venter smooth and shiny, only the spiracular area and the small transversal dises in the middle of the anterior margin of each ventrite distinctly sculptured, $7^{\text {th }}$ ventrite with tubercles. $9^{\text {th }}$ abdominal segment seen from above only 1.2 times as broad as long, in the basal half in the middle with a broad elevation delimited on both sides by a shallow longitudinal pit.

Female. Length $9.9-11 \mathrm{~mm}$, maximum width $3.7-4 \mathrm{~mm}$. General colour and sculpture as in the male. The shape of the body is oval, does not expand in a posterior direction so strikingly as in the male, and narrows strongly from the $6^{\text {th }}$ abdominal segment. $8^{\text {th }}$ tergite long, its paratergites short, broadly rounded, reaching to $1 / 4$ of the $9^{\text {th }}$ segment. $8^{\text {th }}$ spiraculum very remote from the margin of the abdomen and shifted forwards on the ventrite.

Venter with a coarsely sculpture than in the male. Gonocoxites as in fig. 74.
Material examined: $20^{\prime \prime} 0^{*}$ (holotype and paratype)-Ile Maurice, Desjardius (2-901-40), (Muséum Nat. d'Hist. Naturelle, Paris, paratype in Národní museum, Praha).

2 웅 (allotype and paratype)-Ile Mauricius, Desjardius (2-901-40), (Muséum Nat. d'Hist. Naturelle, Paris, paratype in Národní museum, Praha).
$1 \delta^{\prime \prime}$ and 1 iq (paratypes)-Ile Maurice, 1897 Ch. Alluaud (Muséum National d'Hist. Naturelle, Paris).

1 우 (paratype)-Ile Maurice, Leschenault (Muséum Nat. d’Hist. Naturelle, Paris).

## Mezira sulcicornis Signoret 1860 <br> (Fig. 75-78)

Mezira sulcicornis Signoret, Ann. Soc. ent. Fr. 8:956-957, 1860.
Brachyrhynchus sulcicornis St å 1, Hemiptera Africana, 3: 33, 1865
Brachyrhynchus sulcicornis Lethierry et Severin, Catalogue général des Hémiptères, 3: 43, 1896.

Male: Length $10.1-12.5 \mathrm{~mm}$, maximum width $4.5-5.7 \mathrm{~mm}$. Head: length 1.8 mm , width 2.2 mm , interocular space 1.7 mm . Antennae: length of segment I, 0.84 mm ; II, 0.95 mm ; III, 1.18 mm ; IV, 0.84 mm . Pronotum: length 2.1 mm , width 4.4 mm . Scutellum: length: 2.1 mm , width 2.4 mm .

General colour dark grayish brown to blackish brown, connexivum, rostrum and trochantera brownish. Membrane dark bronze brown, shiny.

Shape of the body broadly oval, expanded in a posterior direction, 2-2.3 times as long as broad. Head across the eyes 1.2 times as broad as long. The tylus reaches to $2 / 3$ of the length of the first antennal segment, the jugae shortly exceed beyond the end of the tylus, at the end distinctly expanded and flattenned, touch in front of the tylus. Antenniferous tubercles big, blunt reaching to the middle of the first antennal segment, somewhat divergent. Eyes small, to a large part inserted into the margin of the head. Interocular space 6.7 times as broad as the width of one eye. Postocular tubercles strong, flat distinctly exceeding the level of the outer margin of the eyes, broadly rounded. Rostral grove broad, subparallel, only in front slightly expanded, open at the end; rostrum reaching almost to the base of the head. Surface of the head almost flat, more strikingly tuberculate only at the base of the tylus, on the antenniferous and postocular tubercles, with a sparse curved yellowish pubescence. Antennae strong, 2.1 times as long as the length of the head, first to third segments in the direction towards the end strongly expanded, first segment inflected outwards, second at the end somewhat pestle-shaped, fourth pear-shaped. Antennae irregularly tuberculate, with a curved yellow pubescence. Relative length of the antennal segment I : II : III : IV :: 22:25:23:22.

Pronotum 2.1 times as broad as long, basal margin in the middle deeply triangularly indented, on the sides of the base of the scutellum lengthened into rounded lobes which attach directly to the broadly, irregularly rounded humeral angles. Anterior margin of the pronotum with a broad collar. Margins of the pronotum not narrowing in an anterior direction, but sinuate
anterior to the middle, anterior angles of the pronotum already from the median depression flattened and distinctly lengthened forwards, broadly rounded, and terminated on the inner side by a differentiated tubercle. Disc of the pronotum divided by a transversal impression into a shorter anterior and a longer posterior lobe; anterior lobe with four irregular elevations of which the two inner ones are higher and only in the middle distinctly separated from each other; posterior lobe regularly convex, humeral angles separated. Scutellum triangular, 1.1 times as broad as long, at the apex broadly rounded, margins of the scutellum anterior to the apex slightly sinuated or almost straight; margins of the scutellum raised except the apex proper, in the middle in the whole length and at the base transversally distinctly ridged. Surface of the pronotum and scutellum irregularly tubercu-


Mezira sulcicornis Signoret. 75: head, pronotum and scutellum of male (holotype), 76: apex of the abdomen of male, 77: apex of the abdomen of female, 78: gonocoxites.
lately rugous, with a sparse adpressed yellowish pubescence. Sternum almost smooth, only acetabula more strikingly rugous. Legs relatively long and thin, femora and tibiae towards the end somewhat expanded, posterior tibiae somewhat sinuate. Hemelytra reaching to the anterior margin of the $77^{\text {th }}$ tergite, membrane 1.5 times as long as the length of the corium; emboliar margin of the corium at the base distinctly arcuately expanded, a little broader than the base of the pronotum. Membranal commissure slightly sinuate, inner posterior angle of the corium located before the end of the scutellum, outer posterior angle of the corium reaching to the middle of the $3^{\text {rd }}$ tergite. Membrane with distinct venation. Abdomen on the ventral side only very little convex; $7^{\text {th }}$ tergite in the middle tuberculate, raised to the same height as the $9^{\text {th }}$ abdominal segment. Connexivum broad and flat, margins of the connexival segments $2^{\text {nd }}-4^{\text {th }}$ very finely rounded, margins of segments $5^{\text {th }}-7^{\text {th }}$ strongly rounded. Sides of the $5^{\text {th }}-7^{\text {th }}$ connexival segments with 3-4 parallel grooves. Paratergites of the $8^{\text {th }}$ abdominal segment flat, tongue-shaped, narrow, at the end broadly rounded, reaching to the middle of the length of the $9^{\text {th }}$ abdominal segment. Subconnexival area narrow, at the end of each segment with a round pattern of dense ciliation. Connexivum and $9^{\text {th }}$ segment with a short adpressed pubescence which is somewhat more closely crowded at the inner margins of the connexivum. Venter smooth, with a sparse pubescence, only at the margin with longitudinal, more or less perceptible grooves. $7^{\text {th }}$ ventrite in the middle in the posterior half transversally grooved. $2^{\text {nd }}-8^{\text {th }}$ spiracula somewhat behind the middle of the individual ventrites remote from the lateral margin. $9^{\text {th }}$ abdominal segment spherical, 1.5 times as broad as long, posterior margin somewhat compressed, surface of the segment somewhat sloping backwards; disc of the segment coarsely tuberculate, which two deep longitudinal parallel grooves which meet at the base by a shallow transversal depression, petering out at the end.

Female: Length 12-14.4 mm, maximum width $5.6-7 \mathrm{~mm}$. Colour the same as in the male. Body more robust, oval, regularly expanding in the direction towards the end, margins of the individual connexival segments moderately rounded. $7^{\text {th }}$ tergite in the middle raised and basin-like, posterior margin of the tergite slightly sinuate. Paratergites of the $8^{\text {th }}$ abdominal segment short, broadly rounded, reaching to half the length of the $9^{\text {th }}$ abdominal segment, which is very short and very broadly rounded. Gonocoxites as in the fig. 78.

Material examined: $10^{7}$ (type)-Madagascar, coll. Signoret (Naturhistorisches Museum, Wien).

2 ㅇ.\& Madagascar: Tamatave et forêts d'Alahakato, ${ }^{\text {er }}$ semestre 1888 Eduard Perrot, Col. R. Oberthür (Muséum Nat. d'Hist. Naturelle, Paris). 1 d" - Madagascar: Région du Sud-Est Vallée du Fanajanhira Ibaka, Dec. 1901 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).

1 ㅇ․ Madagascar: Région du Centre-Sud, vallée du Haut Onilahy Imahabo, 1901 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).
$10^{\prime \prime}$ and 4 우 - Madagascar: coll. Nickerl (National museum, Praha). $5 \delta^{\prime \prime} 0^{\prime \prime}$ and 8 ㅇㅇ - Madagascar: Vohémar, 1937 F. Lamberton (National Museum, Praha).

2 ¢ ㅇ Madagascar: Ambodivoniho, 1937 F. Lamberton (Národní museum, Praha).

2 우 오 Madagascar: Forêt de l'Ankarafantsika, 4. VIII. 1947 R. A. (Institut Sc. de Madagascar, Tananarive).
$10^{\text {n }}$ - Madagascar: Lokobe, 4. X. 1947 (Institut Sc. de Madagascar, Tananarive).
$60^{\prime \prime} \sigma^{7}$ and 1 우 Madagascar: Sandrangato, III. 1953 A. R. (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality), East Africa.
Genus Strigocoris Usinger 1954
Strigocoris Usinger, Ann. Mus. Congo Tervuren, in-40, Zool. 1:540, 1954.
Type of the genus: Strigocoris schoutedeni Usinger 1954 from Belgian Congo.

The genus described for the Strigicoris schoutedeni Usinger from the Belgian Congo is characterized by hind margin of third visible ventrite with a row of prominent setigerous spines on either side and by hind femora having a sharp-edged thickening subapically on inner face in a position to scrape across the abdominal comb.

Key to the Madagascan species of the genus Strigocoris Usinger.

1. Postocular tubercles not developed, no striking longitudinal ridge around the inner margin of the eye. Ends of the raised margins of the scutellum not strikingly lengthened upwards. Stridulation comb formed of hairy tubercles, whose number on each side of $4^{\text {th }}$ ventrite does not exceed 50 (45-48). . . . . S. antakotakoensis n. sp.

- Postocular tubercles distinct, obtuse and reaching to the level of the outer margin of the eyes; along the inner margin of the eye is a longitudinal ridge which is higher than the eye. The ends of the raised margins of the scutellum are strikingly turned upwards. The stridulation comb is composed of hairy bristles and their number on each side of the $4^{\text {th }}$ ventrite exceed $50(57-62)$.

2. Surface of head, antennae and pronotum with less distinct tubercles. Anterior angles of the pronotum obtusely rounded; base of the scutellum on both sides of the ridge with a callosity-like elevation. The raised ends of the margins of the scutellum are directed inwards. Stridulation comb composed of 57 hairy bristles. Scraper-like sharpedged thickening on the posterior femora broad
S. crassicornis (Signoret)
-- Surface of the head, antennae and pronotum with strikingly developed tubercles, anterior angles of the pronotum angular. Base of the scutellum on both sides of the ridge with a smooth depression. Raised ends of the margins of the scutellum directed outwards. Stridulation comb composed of 62 hairy bristles. Scraper-like sharp-edged thickenings on the posterior femora narrow. . . . S. usingeri n. sp.

## Strigocoris antakotakoensis n. sp.

> (Fig. 79—83)

Female. Length 8.- 8.1 mm , maximum width $3.3-3.5 \mathrm{~mm}$. Head: length 1.1 mm , width 1.3 mm , interocular space 0.87 mm . Antennae: length of segment I, 0.49 mm ; II, $0,57 \mathrm{~mm}$; III, 0.57 mm ; IV. 0.61 mm . Pronotum: length 1.7 mm , width 2.8 mm . Scutellum: length 1.1 mm , width 1.5 mm .

General colour more or less dark reddish brown. Tibiae and tarsi, connexivum, medium ridge and base of the scutellum and eyes somewhat lighter; the distal half of the fourth antennal segment strikingly light. The membrane is almost black with a somewhat lighter venation.

Body broadly oval, 2.4 times as long as broad, abdomen expanding only slightly and regularly in a posterior direction. Head only very slightly broader across the eyes than it is long in the middle. The tylus distinctly extends beyond the middle of the first antennal segment, at the base it is distinctly delimited, the jugae extend to beyond $2 / 3$ of the first antennal segment, somewhat expanded at the end. Antenniferous tubercles large, reaching to the middle of the first antennal segment, obtuse at the end, and the outer margins diverge only very little in an anterior direction. Eyes relatively small, sessile; interocular space 4.4 times as broad as the width of one eye. Posterior part of the head gradually narrowing, without any trace of postocular tubercles. Rostral groove broadest in the anterior third, narrowing in a posterior direction, open at the end. The rostrum reach almost to the base of the head. The whole head very finely sculptured and with very short sparse pubescence, Antennae 2 times as long as the head, strong, $1^{\text {th }}-3^{\text {th }}$ segments gradually expanding towards the end, fourth strongest, pear-shaped. Antennae with scarcely perceptible tubercles and with a short light pubescence, $4^{\text {th }}$ segment with long erect hairs. Relative lengths of antennal segments I: II: III: IV :: $13: 15: 15: 16$.

Pronotum 1.6 times as broad as long in the middle, strongly narrowed in an anterior direction, lateral margins in the anterior third finely sinuate and flattened, humeral and anterior angles of the pronotum regularly rounded. Pronotum in the middle with a transversal impression; anterior lobe with two large, spiral tubercles deeply separated and touching in the middle; posterior lobe moderately convex. Basal margin of the pronotum moderately sinute, anterior margin with a broad collar. Surface of the pronotum except the anterior collar minutely irregularly tubercularly wrinkled, margins of the pronotum smooth. Pronotum with a very fine and short pubescence. Scutellum triangular, margins straight, only anterior to the end very finely sinuate, base and lateral margins of the scutellum raised, in the anterior part somewhat more strikingly, disc of the scutellum in the middle longitudinally ridged. Scutellum with a similar sculpture as the pronotum. Legs finely tubercular with a very short pubescence, femora somewhat thickened, tibiae expanding in the direction towards the end. Scraper-like sharp-edged thickening anterior to the end of the inner edge of the posterior femora broad, anterior longer margin of thickening rounded, posterior one shorter and more or less dentated. Hemelytra reaching to the
base of the $7^{\text {th }}$ tergite. Basal fifth of the emboliar margin of the corium as broad as the base of the pronotum, subparallel and only in the middle slightly sinuate. Corium smooth, only with sparse tubercles, especially on corial veins. Membranal commissure very strongly sinuate. Venation of the mebrane very distinct. Abdomen gradually expanding in a posterior direction. Tergum at the same height as the connexivum, only $7^{\text {th }}$ tergite in the middle somewhat raised. Connexivum more finely sculptured than the pronotum, the individual connexival segments at the outer margin with a longitudinal groove. Posterior margin of the $7^{\text {th }}$ tergite slightly concave. Paratergites of the $8^{\text {th }}$ abdominal segment very short and broadly rounded. $2^{\text {nd }}-8^{\text {th }}$ spiracula ventrally, equally distant from the margin of the abdomen as from the anterior and posterior margin of the individual ventrites, only $7^{\text {th }}$ spiraculum shifted somewhat behind the middle of the ventrite. Venter strongly vaulted, fourth ventrite (third visible) on each side along the posterior margin with a stridulation comb deviating in an outward direction, composed of 45-48 densely studded hairy tubercles. Gonocoxites as in fig. 81.


Strigocoris antakotakoensis n. sp. - female (holotype). 79: head, pronotum and scutellum, 80: apex of the abdomen, 81: gonocoxites, 82: stridulation comb of the $4^{\text {th }}$ ventrite, 83: scrape-like thickening of posterior femora.

3 ㅇ․ (holotype and paratypes) - Madagascar: Maroantsetva, Anta. kotako, V. 1949 Michel (Institut Sc. de Madagascar, Tananarive and Národnı museum, Praha).

Distribution: Madagascar (type locality: Maroantsetva).
Strigocoris crassicornis (Signoret 1860), n. comb.
(Fig. 84-88)
Mezira crassicornis Signoret, Ann. Soc. ent. Fr. 8: 957-958, 1860.
Brachyrhunchus crassicornis Lethierry et Severin, Catalogue Général des Hémiptères, 3: 42, 1896.

Female. Length 7.3 mm , maximum width 3 mm . Head: Length $1,21 \mathrm{~mm}$, width 1.17 mm , interocular space 0.87 mm . Antennae: length of segment I, 0.46 mm ; II, 0.46 mm ; III, 0.53 mm ; IV, 0.49 mm . Pronotum: length 1.4 mm , width 2.5 mm . Scutellum: length $1 . \mathrm{mm}$, width 1.4 mm .

General colour dark brown, head, antennae, anterior collar of the pronotum and humeral angles, as well as the impression between the anterior elevations of the pronotum, exterior part of the connexivum, margins of ventrites and legs somewhat lighter with a reddish tinge. Membrane dark brown, base especially on the inner part light brown.

Shape of the body broadly oval, 2.4 times as long as broad, below considerably convex. Head almost as long as broad across the eyes (32: 31). Tylus reaching to beyond $2 / 3$ of the first antennal segment. Jugae only a little longer than tylus, at the apex somewhat expanded and bent sideways. Antenniferous tubercles large and obtuse, slightly divergent in an anterior direction, but not even reaching to the middle of the length of the first antennal segment. Eyes very small, interocular space 6 times as broad as the width of one eye. Postocular part of the head narrowing very shortly and strongly, margin sharp and forming immediately behind the eye a slight tubercle. An obliquely placed ridge runs from the inner margin of the eye in a posterior direction. Rostral groove very broad and deep, broadest in the anterior part, narrowing in a posterior direction, with straight sides, and open at the end. Antennae strong, 1.9 times as long as the head, first to third segments at the base strongly narrowed. First segment strongly bent, last segment pear-shaped. Antennae with regular tubercles, the whole antennae covered with long, curved, golden hairs. Relative length of antennal segment I: II: III: IV:: 13: 12: 14: 13.

Pronotum 1.7 times as broad as long, strongly narrowing in an anterior direction, lateral margins in the anterior third strongly sinuated and flattened, humeral angles broadly rounded, slightly raised, basal margin slightly sinuated. Anterior angles rounded, anterior collar smooth, very broad, narrowed in the middle. Pronotum divided by a transversal impression into a shorter anterior and longer posterior lobe; anterior lobe with two high, spiral, irregular, deeply separated, in the middle touching elevations; posterior dise of the pronotum slightly roof-shaped convex, irregularly covered with minute tubercles. Pronotum, except the anterior collar, and head covered with long, golden, curved bristles. Scutellum 1.3 times as broad as long, triangular, in the middle with a longitudinal ridge, at the base on
each side with a transversal callosity-like smooth elevation; lateral margins of the scutellum raised, but not reaching the end itself of the scutellum, anterior to the end they bent inwards and fuse with the ridge. Scutellum except the anterior lateral callosity-like elevations transversally coarsely rastrated and covered with similar bristles as are on the pronotum. Sternum in the pleural part tubercular, on the underside irregularly rastrated. Femora and tibiae in the direction towards the end somewhat expanded, with a very short pubescence. Scrape-like sharp-edged thickening anterior to the end of the inner edge of the posterior femora narrow, in the shape of a triangle. Hemelytra reaching to the base of the seventh tergite, basal sixth of the emboliar margin of corium as broad as the humeral angles, subparallel. Corial veins and bisinuous membranal commissure distinctly raised; corium irregularly covered with minute tubercles and bristles as on the other parts of the body. Membrane with a dense irregular venation. Connexivum slightly raised, in a posterior direction slightly regularly expanding $7^{\text {th }}$ tergite with two irregular elevations, posterior margin with a regular groove. Venter considerably vaulted; fourth ventrite (third visible)


Strigocoris crassicornis (Signoret) - female (holotype). 84: head, pronotum and scutellum, 85: apex of the abdomen, 86: gonocoxites, 87: stridulation comb of the $4^{\text {th }}$ ventrite, 88: scrape-like thickening of posterior femora.
along the posterior margin of each side with a stridulation comb; each comb is composed of 57 closely studded hairy spines. $6^{\text {th }}$ ventrite in the middle deeply irregularly indented. $2^{\text {nd }}-7^{\text {th }}$ spiracula very remote from the margin of the abdomen and shifted somewhat behind the middle of the individual ventrites. $8^{\text {th }}$ spiraculum approached to the very margin. Paratergites of the $8^{\text {th }}$ abdominal segment almost imperceptible. Gonocoxites as in fig. 86.

Material examined: 1 ㅇ (type) - Madagascar, coll. Signoret (Naturhistorisches Museum, Wien).

Distribution: Madagascar (type locality).
Strigocoris usingeri $\mathrm{n} . \mathrm{sp}$.
(Fig. 89-93)
Female: Length 8.2 mm , maximum width 3.5 mm . Head: length $1,25 \mathrm{~mm}$, width 1.33 mm , interocular space $1 . \mathrm{mm}$. Antennae: length of segment I, 0.46 mm ; II, 0.46 mm ; III, 0.53 mm ; IV, 0.53 mm . Pronotum: length $1.7 \mathrm{~mm}, 2.9 \mathrm{~mm}$. Scutellum: length 1.2 mm , width 1.6 mm .

General colour pitch black; antenniferous tubercles, antennae and tibiae dark brown, eyes sparkling brown, membrane bronze brown.

Shape of the body broadly oval, 2.4 times as long as broad, abdomen in a posterior direction somewhat expanded. Head across the eyes slightly broader than long in the middle $(35: 33)$. The tylus reaches to $2 / 3$ of the length of the first antennal segment, the jugae slightly exceed the tylus and apically expanded in shovel-shape. Antenniferous tubercles short, reaching to the middle of the first antennal segment, obtuse at the end and only slightly divergent. Eyes small, for the large part inserted into the margin of the head; interocular space 5.7 times as broad as the width of one eye. Inner margin of the eye delimited by a high ridge which reaches from the base of the antenniferous tubercles almost to the base of the head. Surface of the head with the exception of the longitudinal area on the inner side of the eye ridge with coarse tuberccles and a short curved pubescence. Postocular tubercles obtuse, reaching to the level of the outer margin of the eye. Rostral grove deep, with subparellel sides, only in front somewhat expanded, open at the end. Rostrum not reaching to the end of the groove. Antennae 1.6 times as long as the length of the head, strong. $1^{\text {st }}-3^{\text {rd }}$ segments towards the end strikingly expanded, first segment bent outwards, fourth segment pear-shaped. The whole antennae with large tubercles and curved subappressed hairs, fourth segment with long erect bristles. Relative lengths of antennal segment I : II : III : IV :: 12: 12: 14:14.

Pronotum 1.7 times as wide as long, narrowed in an anterior direction, in the anterior third somewhat bent and the margins flattened. Basal margin of the pronotum slightly bent, humeral angles broadly rounded, anterior margin of the pronotum straight with a broad shining collar, anterolateral angles angular. Pronotum with a deep transversal impression. Anterior lobe with two spiral, deeply separated elevations which touch in the middle; posterior lobe moderately vaulted. Surface of the pronotum with dense tubercles and with short appressed, yellow curved pubescence. Scutellum triangular, 1.3 times as broad as long, margins of the scutellum raised, bent
anterior to the apex and at the end directed outwards; scutellum in the middle with a distinct longitudinal ridge. Surface of the scutellum tubercularly rastrated with the exception of the smooth rounded basal depressions on each side of the ridge. Femora somewhat thickened, tibiae expanded at the end, whole legs with large tubercles and with a short curved pubescence. Scrape-like sharp-edged thickening anterior to the end of the inner edge of the posterior femora very narrow, only rim-like expanded, in the anterior part rounded. Hemelytra reaching to the end of the $7^{\text {th }}$ tergite; basal sixth of the emboliar margin of the corium as broad as the base of the pronotum, parallel; corium with tiny tubercles, especially on the veins; membranal commissure bent in S-shape. Membrane with distinct veins. Connexivum flat, anterior and posterior part of the individual connexival segments raised, surface of the connexivum more finely sculptured than the pronotum. $7^{\text {th }}$ tergite with two elevations sloping backwards,

posterior margin of the $7^{\text {th }}$ tergite straight. Paratergites of the $8^{\text {th }}$ abdominal segment very short, broadly rounded. $2^{\text {nd }}-8^{\text {th }}$ spiracula ventrally, almost equally remote from the margin of the ventrite as from its anterior margin. Only $7^{\text {th }}$ spiraculum shifted somewhat behind the middle. Venter strongly vaulted, $4^{\text {th }}$ ventrite ( $3^{\text {rd }}$ visible) on each side with a stridulation comb composed of about 62 closely studded hairy bristles. Gonocoxites as in fig. 91.

Material examined: 1 우 (holotype) - Madagascar: Perinet (Sahamaloto), 13-17. I. 1949 P. C. (Národní museum, Praha).

## Genus Neuroctenus Fieber 1861

Neuroctenus Fieber, Die europäischen Hemiptera, p. 34, 1861, Wien.
Type of the genus: Neuroctenus caffer (S tå 1855) from Cape Province.
Genus with distribution throughout the whole world with the exception of Europe. In Africa and Madagascar only few species are known up till now; at present the majority of the known species is distributed in S. Asia and Americas.

The genus Neuroctenus Fieber is characterized by the very flattened body and bisinuated posterior margin of $6^{\text {th }}$ ventrite of female.

> Key to the species of the genus Neuroctenus Fieber of Madagascar and adjacent islands.

1. General shape of the body narrowly oval, 3.2 times as long as wide; abdominal margins parallel . . . . . . . . N. chinai n. sp.

- General shape of the body broadly oval, 2.5 times or less as long as wide, abdominal margins more or less rounded. . . . . . 2.

2. All antennal segments very short, globular and nearly equally long. Antennae very short, only 1.2 times as long as length of the head.
$N$. madagascariensis n . sp.

- All antennal segments more or less elongate, antennae long, at least 1.4 times as long as length of head. . . . . . . . . . . 3.

3. Antennae very slender, interocular space 2.3 times as wide as length of second segment. Third antennal segment straight, in apical direction gradually widening. . . . . N. bilobus (Signoret).

- Antennae more or less thickened, interocular space only 1.5-2 times as wide as the length of the second antennal segment. $1^{\text {st }}-3^{\text {rd }}$ antennal segments in an apical direction strongly widened, third segment apically more or less clubshaped.

4. Second and fourth antennal segments of equal length and distinctly longer than the first and fourth ones; antennae less thickened. Interocular space 1.5 times as wide as length of second antennal segment. Jugae distinctly extending beyond apex of first antennal segment. N. mauricii n. sp.

- All antennal segments nearly of equal length; antennae more thickened Interocular space 1.9-2 times as wide as length of second
antennal segment. Jugae do not reach the apex of the first antennal segment.

5. Abdomen in a posterior direction slightly widened, posterolateral angles of connexival segments not or very slightly projecting, lateral margin of $7^{\text {th }}$ connexival segment slightly sinuate or straight, posterolateral angles shortly lobate.
N. caffer (Stål).

- Abdomen in a posterior direction strongly widened, posterolateral angles of connexival segments distinctly lobately projecting, lateral margin of $7^{\text {th }}$ connexival segment strongly sinuate, posterolateral angles longly lobate and broadly rounded.
N. tenuicornis (Signoret).

Neuroctenus chinai n. sp.
(Fig. 94-97)
Male. Length 6.7 mm , maximum width 2.1 mm . Head: length $1 . \mathrm{mm}$, width 1. mm , interocular space 0.68 mm . Antennae: length of segment I, 0.42 mm ; II, 0.34 mm ; III, 0.38 mm ; IV, 0.38 mm . Pronotum: length 0.95 mm , width $2 . \mathrm{mm}$. Scutellum : length $1 . \mathrm{mm}$, width 1.1 mm .

General colour blackish brown, somewhat lighter at the base and ends of the individual antennal segments, on the sternum and venter, at the outer margin of the connexivum, on the trochanters, at the end of the femora, tibiae and tarsi. Membrane at the base bright yellowish.

General shape of the body longitudinally oval, 3.2 times as long as wide, margins of the abdomen parallel. Head as long as it is wide across the eyes, interocular space 4.5 times as wide as the width of one eye. Tylus very strong, 1.5 times as long as the length of the head, all segments almost to the end of the first antennal segment. Jugae narrow, widened at the end, broadly rounded, leaving a very shallow split anterior to the tylus. Antennal tubercles very short, reaching to the basal fifth of the first antennal segment, their outer margins subparallel, blunt at the end. Eyes small, vaulted, with one half inserted into the margin of the head, postocular tubercles very small, closely appressed to the posterior margin of the eye, not exceeding the level of the outer margin of the eye. Rostral groove narrowly oval, widened in the direction towards the end, closed at the end. Disc of the head moderately vaulted, with crowded, large, regular tubercles. Antennae very strong, 1.5 times as long as the length of the head, all segments almost equally strong, globular, strikingly widening in the direction towards the end, especially the second segment; fourth segment pear-shaped. Antennae tubercular, with short, semi-adpressed pubescence, which is longer in the distal part of the fourth segment. Relative lengths of antennal segments I : II : III: IV : : 11: 9: 10:10.

Pronotum 2.1 times as wide as long, moderately narrowing in an anterior direction, lateral margins in the middle slightly bent, anterolateral and humeral angles broadly rounded, humeral angles enclosing an acute angle; margins of the pronotum from the humeral angles to the anterior margin of the pronotum narrowly elevated; anterior margin of the pronotum against the base of the head shallowly bent, with a narrow collar, base of the
pronotum in its whole width regularly bent. Disc of the pronotum almost even, only the humeral angles somewhat elevated, with a distinct transversal impression in the middle, occupying on each side only the one third of the width of the pronotum; pronotum in the anterior half on each side with a low semicircular elevation; these elevations are in the middle separated from each other by a deep furrow reaching only to half the length of the pronotum. The entire surface of the pronotum with regular


Neuroctenus chinai n. sp. 94: head, pronotum and scutellum of male (holotype), 95: apex of the abdomen of male, 96: apex of the abdomen of female, 97: gonocoxites.
distinct tubercles. Scutellum triangular, 1.2 times as wide as long, its margins in the anterior $3 / 4$ moderately bent, just before the end sharply narrowed, sharp at the end. Disc of the scutellum slightly vaulted, in the middle with a low longitudinal carina, which is more striking in the posterior half of the scutellum. Surface of the scitellum sculptured in the same way as the pronotum. Sternum distinctly vaulted, on the pleural parts more coarsely tubercular than in the midle, acetabula rastrate. Legs relatively long, femora, especially the anterior ones, thickened, tibiae straight; with minute tubercles. Abdomen narrow, venter distinctly vaulted; connexivum even, narrow, widening in a posterior direction, outer margin of the connexivum parallel, margins of the individual connexival segments as far as the $7^{\text {th }}$ segment straight. Surface of the connexivum with minute tubercles arranged into irregular longitudinal rows, each connexival segment with two oval callous areas. Subconnexival area very narrow. Hemelytra narrow, reaching to the basal third of the $7^{\text {th }}$ tergite; emboliar margin at the base of the corium parallel; corium short, the outer posterior angles of the corium reach the end of the $2^{\text {nd }}$ tergite. Membrane long, 2.3 times as long as the corium, with a distinct venation. Venter minute with tubercles which are more crowded on the sides. Posterior margins of the individual ventrites smooth, elevated. $2^{\text {nd }}-7^{\text {th }}$ spiracula far from the margin of the ventre, in the middle of the individual ventrites, $8^{\text {th }}$ spiraculum marginally at the base of the segment. Paratergites of the $8^{\text {th }}$ abdominal segment large, triangular, flat, the longest margin on the inner side reaches to $2 / 3$ of the length of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment 1.6 times as wide as long, globular, at the end regularly rounded, dorsal part of the segment strongly flattened, in the middle with a longitudinal wide and deep impression which ends at the base in a rounded pit. Basal margin of the $9^{\text {th }}$ abdominal segment elevated, surface with regular tubercles.

Female. Length 6.9- 7.4 mm , maximum width $2.1 \mathrm{~mm}-2.2 \mathrm{~mm}$. In colour and general shape of the body it agrees completely with the male. Relative lengths of antennal segments I: II: III: IV::11:9:10:12. Posterior margin of the $8^{\text {th }}$ tergite moderately bent and its paratergites short, broadly rounded, reaching to the end of the $9^{\text {th }}$ abdominal segment, which is very short and broadly rounded, posterior margin elevated. Gonocoxites as in fig. 96.

Material examined : $1 \sigma^{7}$ (holotype), - Madagascar, Sikora, coll. Nicker] (Národní museum, Praha).

1 if (allotype) - Madagascar, Sikora (Naturhistorisches Museum, Wien).
$20^{\prime} 0^{\prime}$ and 2 i 9 (paratypes) - Madagascar, Sikora (Naturhistorisches Museum, Wien, and Národní museum, Praha).
$1 \delta^{\prime \prime}$ and 1 (paratypes) - Madagascar: Mt. d'Ambre, 1.140 m, XII. 1948 R. Paulian (Institut Sc. de Madacascar, Tananarive).

Distribution: Madagascar (type locality).
Note: The new species is very close to the species Neuroctenus gulliveri (C h in a 1926), of the island of Rodriguez, but is distinguished from it by the more longitudinal shape of the body, 3.2 times as long as wide, the completely parallel sides of the abdomen, whereas in $N$. gulliveri (China) the
body is only 2.5 times as long as wide, somewhat widened in a posterior direction, further it is distinguished by much stronger antennae whose individual segments are strikingly widened in the direction towards the end, and which are almost equally long; the surface of the body of the new species is entirely much more coarsely tubercular, the paratergites of the $8^{\text {th }}$ abdominal segment are much larger, the genital segment of the male is 1.6 times as wide as long, regularly rounded at the end, whereas in N. gulliveri (China) it is only 1.4 times as wide as long and distinctly narrowed in the direction towards the end, narrowly rounded at the end. The posterior margin of the $7^{\text {th }}$ tergite in female of the new species is less bent than in $N$. gulliveri (China) ; the paratergites of the $8^{\text {th }}$ abdominal segment of females of both species are similar.

## Neuroctenus bilobus (Signoret 1860)

(Fig. 98-100)

$$
\text { Aneumts bilobus Signoret, Ann. Soc. ent. Fr., 8: 958, } 1860 .
$$

Mezira biloba Stål, Hemiptera Africana, 3: 36, 1865.
Neuroctenus bilobus Bergroth, Öfv. Finska Vetensk. Soc. Förh., 19: 176, 1887.
Neuroctenus bilobus Lethierry et Severin, Catalogue général des Hémiptères, 3: 44, 1896.

Female: Length $4.5-5.3 \mathrm{~mm}$, maximum width $1.9-2.2 \mathrm{~mm}$. Head: length 0.84 mm , width 0.8 mm , interocular space 0.53 mm . Antennae: length of segment I, 0.3 mm ; II, 0.23 mm ; III, 0.27 mm ; IV, 0.34 mm . Pronotum length 0.61 mm , width 1.5 mm . Scutellum : length 0.68 mm , width $1 . \mathrm{mm}$

General colour reddish brown, of a somewhat darker shade in the basal half of the head, on the pronotum, scutellum and corium. Membrane dark brown, at the base yellowish brown.

General shape of the body oval, 2.4 times as long as wide, abdomen regularly broadly oval. Head slightly longer than wide across the eyes, interocular space 4 times as wide as the width of one eye. Tylus narrowed in the direction towards the end, reaching the end of the first antennal segment; jugae a little longer than the tylus, somewhat expanded at the end. Postocular tubercles very short, blunt. Disc of the head slightly vaulted, very coarsely transversaly rastrated. Antenniferous tubercles very short, pointed and somewhat divergent. Rostral groove very short ending far before the base of the head, lanceolately narrowed in the direction towards the end and completely closed at the end; rostrum hidden in the groove. Antennae relatively thin, 1.4 times as long, as the head, twice as long as the interocular space. First antennal segment almost straight, narrowed at the base, second antennal segment thinner, cylindrical, narrowed at the base. Third segment thinnest, conically expanding in the direction towards the end, fourth segment fusiform. Antennae finely tuberculate with a very fine pubescence, which is longer in the distal half of the fourth segment. Relative lengths of antennal segments I : II : III : IV :: $8: 6: 7: 9$.

Pronotum 2.5 times as wide as long, in an anterior direction in its whole length strongly narrowed, margins of the pronotum very finely bent. Anterior margin of the pronotum finely concave with a very narrow collar,
anterior angles of the pronotum blunt. Basal margin of the pronotum slightly sinuate, humeral angles broad, enclosing an acute angle, slightly elevated. Pronotum in the middle transversally very finely impressed. Pronotum flat, irregularly tubercular with the exception of the humeral angles and of the basal margin of the pronotum, which are transversally furrowed. Scutellum triangular, 1.4 times as wide as long, broadly rounded at the end, basal and lateral margins elevated, in the basal $2 / 3$ straight, in the last third before the end bent. Scutellum with scarcely perceptible median carina. Surface of the scutellum sculptured as on the pronotum, longitudinal carina transversally rastrated. Legs short and strong, femora thickened, tibiae and femora coarsely tuberculate. The hemelytra reach to the base of the $7^{\text {th }}$ tergite. Corium at the base very little expanded, as wide as the humeral angles, subparallel, and narrowing only very little in the direction towards the membrane. Inner corial angles ending anterior to the apex of the scutellum, outer corial angles slightly beyond the level of the end of the scutellum and enclosing an acute angle. Commissure of the membrane very slightly oblique. Veins of the corium well perceptible. Membrane with a dense reticulation of veins. Connexivum wide, flat, margins of the individual connexival segments moderately regularly rounded, posterolateral angles of the $3^{\text {rd }}-8^{\text {th }}$ segment slightly projecting. Each connexival segment along the inner margin with two small callous elevations placed far from each other.


Neuroctenus bilobus (Signoret) - female (holotype). 98: head, pronotum and scutellum, 99: apex of the abdomen, 100 gonocoxites.
$7^{\text {th }}$ tergite flat, in a posterior direction somewhat raised, its posterior margin deeply concave. Paratergites of the $8^{\text {th }}$ abdominal segment long, wide, truncate at the end and projecting a little beyond the $9^{\text {th }}$ segment. Venter very finely sculptured. $2^{\text {nd }}-7^{\text {th }}$ spiracula in the middle of the individual ventrites, considerably distant from the margin of the abdomen. $8^{\text {th }}$ spiraculum anterior to the middle of the segment and marginal. Gonocoxites as in fig. 99.

Material examined: 2 우 (both glued to one sheet, the first of them considered as type)-Madagascar, coll. Signoret (Naturhistorisches Museum, Wien).

1 ㅇ. - Madagascar, coll. Stål (Naturhistoriska Riksmuseum, Stockholm).

2 아우 - Madagascar: Diego Suarez, VII. 1913, Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris and Národní museum, Praha).

Distribution: Madagascar (type locality).

## Neuroctenus caffer ( S t å 1855 )

(Fig. 101-104)


#### Abstract

Brachyrhynchus caffer Stå 1, öfv. Vet. Akad. förh, 12: 38, 1855. Mezira caffra Sta 1 , Hemiptera Africana, 3: 35-36, 1865. Neuroctenus caffer Stål, Enumeratio Hemipterorum, 3:145, 1873. Neuroctenus caffer Bergroth, Öfv. Finska Vetensk. Soc. Förh., 19: 175-176, Neuroctenus caffer Lethierry et Severin, Catalogue général des Hémiptères, 3: 44, 1896.


 1887.Female. Length $5.7-6.7 \mathrm{~mm}$, maximum width $2.4-2.75 \mathrm{~mm}$. Head: length 1.03 mm , width 1.03 mm , interocular space 0.72 mm . Antennae: length of segment I, 0.30 mm ; II, 0.38 mm ; III, 0.38 mm ; IV. 0.46 mm . Pronotum: length 0.77 mm , width 2. mm . Scutellum: length $1 . \mathrm{mm}$, width 1.19 mm .

General colour dark reddish brown with a somewhat darker shade on the head, anterior part of the pronotum, scutellum and corium.

General shape of the body broadly oval, 2.3 times as long as wide. Head as long as broad across the eyes, interocular space 4.8 times wider than the width of one eye. Tylus long, equally wide in its whole length and reaching to the end of the first antennal segment. Jugae narrow, slightly expanded at the end. Antennal tubercles short, sharp at the end, somewhat divergent. Eyes strongly vaulted, inserted into the margin of the head. Postocular part of the head expanded, wider than anterior to the eyes, with distinct postocular tubercles which reach into the level of the outer margin of the eyes. Disc of the head very little vaulted, with coarse tubercles especially on the jugae, on the vertex and along the eyes. Tubercles on the underside of the head somewhat finer. Rostral groove oval, converging towards the end and closed at the end. The rostrum reaches to the end of the rostral furrow. Antennae strong, 1.6 times as long as the length of the head, the individual antennal segments clavately expanded in the direction towards the end, second segment thickest, somewhat more oval, fourth segment fusiform. Antennae finely tubercular with a short appressed pubescence, which is
longer on the fourth segment, especially in its distal half. Relative lengths of antennal segment I :II : III : IV :: 10: 10: $10: 12$ (third and fourth antennal segment in the $S t$ å l's type missing).

Pronotum 2.3 times as wide as long, very strongly narrowing in an anterior direction, lateral margins almost straight, humeral angles broadly rounded and distinctly elevated, basal margin of the pronotum in front of scutellum shallowly bent, anterior angles blunt, anterior margin of the pronotum straight with a narrow collar in the middle. Surface of the pronotum flat, in the middle with a transverse impression well perceptible only at sides.


Neuroctenus caffer (Stål). 101: head, pronotum and scutellum of female (holotype), 102: apex of the abdomen of female, 103: gonocoxites, 104: apex of the abdomen of male.

Anterior lobe with four flat elevations which are connected in their anterior part. Surface of the pronotum with irregular minute tubercles, which are somewhat more closely crowded in the anterolateral angles, along the posterior margins of the elevations on the anterior lobe and on the impression at the lateral parts. Scutellum somewhat wider than long (31:27), triangular, margins almost straight, tip narrowly rounded. Scutellum flat, in the middle somewhat elevated, with a longitudinal, very finely perceptible carina. Scutellum with irregular minute tubercles, which are somewhat more closely crowded together in the anterior part. Legs short, femora strikingly thickened, tibiae narrowed at the base and apex; with strong tubercles on the femora and especially on the outer side of the tibiae. The hemelytra reach to the end of the $6^{\text {th }}$ tergite; corium at the base as wide as the pronotum, parallel in the basal eighth. Membranal commissure well perceptible, slightly bisinuate, inner posterior angle of the corium situated in the last sixth of the length of the scutellum, posterior inner angles of the corium distinctly situated beyond the apex of the scutellum. Corial veins distinct. Membrane with dense anastomosing veins. Connexivum broad, flat, outer margins of the individual segment regularly rounded, posterior angles sligthly projecting. Subconnexival area very narrow. Surface of the connexivum with minute sparse tubercles. Posterior margin of the $6^{\text {th }}$ tergite regularly bent. Sternum and venter closely and regularly covered with minute tubercles. $2^{\text {nd }}-7^{\text {th }}$ spiracula in the middle of the individual ventrites, considerably far from the margin. $8^{\text {th }}$ spiraculum in the anterior part and marginal. Paratergites of the $8^{\text {th }}$ abdominal segment broad, rounded, somewhat projecting beyond the end of the $9^{\text {th }}$ segment. Gonocoxites as in fig. 102.

Male. Length $5.3-6.3 \mathrm{~mm}$, maximum width $2.3-2.5 \mathrm{~mm}$. In general colour and shape similar to the female. $7^{\text {th }}$ tergite in the middle deeply concave, posterolateral angles of the $7^{\text {th }}$ connexival segment reaching to $2 / 3$ of the length of the $9^{\text {th }}$ segment. Paratergites of the $8^{\text {th }}$ abdominal segment long, expanded at the end and broadly rounded, reaching almost to the end of the length of the $9^{\text {th }}$ segment. $9^{\text {th }}$ abdominal segment seen from above 1.6 times as wide as long, towards the end regularly rounded, flat in the dorsal part and in the middle at the base with a shallow transversal depression. Ventral part of the segment regularly convex. Surface of the $9^{\text {th }}$ segment with minute tubercles, somewhat more closely crowded together on the dorsal and lateral sides.

Material examined: 1 if (type)-Cap Bonae Spei, Victorin, coll. Stål (Naturhistoriska Riksmuseum, Stockholm).

1 ㅇ - Madagascar, Grandidier 1870-87 (Muséum Nat. d'Hist. Naturelle, Paris).

1 ㅇ - Madagascar, Grandidier 1875 (Muséum Nat. d'Hist. Naturelle, Paris).

9 d $^{\text {o }}$ and 9 ㅇ․․․ Madagascar: Diego Suarez, Ch. Alluaud 1893 (Muséum Nat. d'Hist. Naturelle, Paris).
$4 \delta^{\prime \pi} \sigma^{7}$ and 1 iq - Madagascar: Baie d'Antongil, A. Mocanerys 1898; coll. Noualhier (Muséum Nat. d'Hist. Naturelle; Paris).

2 우 - Madagascar: Tamatave, A. Mathiaux 1898 (Muséum Nat. d'Hist. Naturelle, Paris).

1 ㅇ - Madagascar: Andevoranto, A. Mathiaux 1899 (Muséum Nat. d'Hist. Naturelle, Paris).
 museum, Praha).
 museum, Praha).
$4 \delta^{\prime \prime} 0^{\prime \prime}$ and 4 우 우 - Madagascar: Ambanja, 1937 F. Lamberton (Národní museum, Praha).

1 ㅇ - Madagascar: Majakatompo, Capuson (Institut Sc. de Madagascar, Tananarive).
$60^{0} 0^{\pi}$ - Madagascar: Maevatanana, VIII. 1941 Abadie (Institut Sc. de Madagascar, Tananarive).

1.     - Madagascar: Tamatave (Fanandiana), IX. 1943 (Institut Sc. de Madagascar, Tananarive).

1 б" - Madagascar: Ambila, III. 1951 (A. R.) (Institut Sc. de Madagascar, Tananarive).

Further examined very numerous material of $N$. caffer ( $\mathrm{Stål}$ ) from all parts of South Africa.

Distribution: South Africa (type locality Cap Bonae Spei), Madagascar and East Africa.

Neuroctenus madagascariensis n . sp .
(Fig. 105-108)
Male. Length 4.8-5.1 mm, maximum width 1.9-2 mm. Head: length 0.84 mm , width 0.87 mm , interocular space 0.58 mm . Antennae: length of segment I; 0.23 mm ; II, 0.21 mm ; III, $0.27 \mathrm{~mm} ; 0.3 \mathrm{~mm}$. Pronotum : length 0.68 mm , width 1.5 mm . Scutellum: length 0.72 mm , width 0.95 mm .

General colour light to dark reddish brown, connexivum and sides of abdomen yellowish. Membrane at the base light yellowish brown.

General shape of the body elongate oval, 2.5 times as broad as wide, only slightly expanded in a posterior direction. Head almost as wide across the eyes as it is long (23:22), interocular space 4.1 times as wide as the width of one eye. Tylus narrow, at the end bluntly rounded, reaching to $2 / 3$ of the first antennal segment; jugae very narrow, projecting beyond the tylus, somewhat expanded at the end and then pointed, divergent, leaving anterior to the tylus a wide and deep split. Antennal tubercles long, reaching to the middle of the first antennal segment, strongly bent outwards, at the end very sharp. Eyes large, inserted with one half into the margin of the head, postocular tubercles small, pointed, adpressed to the posterior margin of eye. Dise of the head almost flat with crowded, large tubercles which are lacking at the ends of jugae and tylus. Rostral groove shallow, oval narrowing in a posterior direction, reaching the base of the head, closed at the end. Antennae 1.2 times as long as the length of the head, very strong, the individual segments almost all equally long, globular. Antennae with large tubercles, distal half of the $4^{\text {th }}$ segment with long, suberect hairs. Relative lengths of antennal segment I : II : III : IV :: $6: 5.5: 7: 8$.

Pronotum 2.2 times as wide as long, moderately narrowing in an anterior direction, margins of the pronotum in the anterior third moderately bent, somewhat elevated, anterior angles broadly rounded, humeral angles broadly rounded, enclosing an acute angle, basal margin of the pronotum in its whole width moderately bent, anterior margin of the pronotum bent in the middle,


105


107


108


106
Neuroctenus madagascariensis n. sp. 105: head, pronotum and scutellum of male (holotype), 106: apex of the abdomen of male, 107: apex of the abdomen of female, 108: gonocoxites.
with a narrow collar. Surface of the pronotum almost flat, in the middle with a transversal irregular impression, which is at the margins more distinct and broader; the anterior half of the pronotum with two low elevations, which fuse more or less in the middle. Humeral angles elevated. Surface of the pronotum with large tubercles which are somewhat more crowded together in the anterior part of the pronotum, especially on the anterior elevations; they lack almost completely on the humeral angles and along the basal margin of the pronotum. Scutellum triangular, 1.3 times as wide as long, margins straight, elevated, apex broadly rounded; surface of the scutellum flat with irregularly scattered tubercles, in the middle with a longitudinal carina transversally rastrated. Sternum flat, coarsely tuberculate, acetabula rastrated. Legs very short, femora strongly thickened, tibiae straight, somewhat flattened; the whole legs with large sharp tubercles. Hemelytra reaching to the end of the $5^{\text {th }}$ tergite, at the base as wide as the pronotum, emboliar margins of the corium in the basal half straight, parallel. Membrane long, 2.3 times as long as the length of the corium, venation very distinct. Abdomen much flattened, gradually expanding in a posterior direction. Connexivum broad, flat, the outer margins of the individual segments moderately rounded. Subconnexival area narrow, parallel. Surface of the connexivum and venter with tiny regularly arranged tubercles. Basal margins of the individual ventrites smooth, extremely raised. $2^{\text {nd }}-7^{\text {th }}$ spiracula remote from the margin of the ventre, in the middle of the individual ventrites. Paratergites of the $8^{\text {th }}$ abdominal segment very broad, flattened, broadly rounded at the end, occupying the area between the margin of the connexivum and the $9^{\text {th }}$ abdominal segment, reaching the level of the end of the $9^{\text {th }}$ abdominal segment, on the surface with tiny tubercles. $9^{\text {th }}$ abdominal segment 1.5 times as wide as long, considerably globular, in the dorsal part flattened, at the base with a fine transverse impression, basal region elevated; in a posterior direction narrowly rounded, surface as tubercular as the pronotum.

Female. Length 4.9-5.6 mm, maximum width $1.9-2.2 \mathrm{~mm}$. In the general colour and shape it agrees completely with the male. Posterior margin of the $7^{\text {th }}$ tergite regularly moderately bent, paratergites of the $8^{\text {th }}$ abdominal segment flat, broad, regularly rounded, somewhat longer than the length of the $9^{\text {th }}$ abdominal segment, posterior margin of the $8^{\text {th }}$ tergite straigth. $9^{\text {th }}$ abdominal segment short, regularly broadly rounded. Gonocoxites as in fig. 107.

Material examined: $60^{\prime \prime} \sigma^{\prime}$ (holotype and paratypes)-Madagascar: Ambanja, 1937 F. Lamberton (Národní museum, Praha).

5 여 (allotype and paratypes) - Madagascar : Ambanja, 1937 F. Lamberton (Národní museum, Praha).
$10^{3}$ (paratype)-Madagascar: Rogez, 1937 F. Lamberton (Národní museum, Praha).

Distribution: Madagascar (type locality: Ambanja).

# Neuroctenus tenuicornis '(Signoret 1860) 

(Fig. 109-112)
Aneurus tenuicornis Signoret, Ann. Soc. ent. Fr., 8: 958, 1860.
Mezira tenuicornis Stål, Hemiptera Africana, 3: 36, 1865.
Neuroctenus tenuicornis B ergroth, Öfv. Finska Vetensk. Soc. Förh., 19: 181—182, 1887.

Neuroctenus tenuicornis Lethierry et Severin, Catalogue général des Hémiptères, 3: 45, 1896.

Male. Length $6.1-6.8 \mathrm{~mm}$, maximum width $2.4-2.9 \mathrm{~mm}$. Head : length 1.1 mm , width 1. mm, interocular space 0.76 mm . Antennae: length of segment I, 0.34 mm ; II, 0.38 mm ; III, 0.46 mm ; IV, 0.46 mm . Pronotum: length 0.87 mm , width 2.1 mm . Scutellum: length $1.2 \mathrm{~mm}, 1.4 \mathrm{~mm}$.

General colour dark reddish brown to brownish black, in some specimens the base of the individual antennal segments, femora, humeral angles and connexivum lighter; membrane bronze brown, shining, at the base yellowish brown.

General shape of the body oval, 2.5 times as long as wide, strikingly expanded in a posterior direction, truncate at the end. Head almost as long as wide across the eyes (28:27), interocular space 5.7 times as wide as the width of one eye. Tylus reaching to $2 / 3$ of the length of the first antennal segment, somewhat narrowing in the direction towards the end, ending bluntly; jugae very narrow, sharp at the end, and projecting only very slightly over the end of the tylus. Antenniferous tubercles reaching to the basal third of the first antennal segment, inflected in an outward direction, sharp at the apex. Eyes longitudinally oval, moderately vaulted, postocular tubercles narrow, sharp at the apex, reaching the level of the outer margin of the eyes. Surface of the head moderately vaulted, finely irregularly tubercular, with a distinct carina along the inner margin of the eyes. Rostral groove very short, lamellar, closed at the end. Antennae 1.6 times as long as the length of the head, relatively thick; first two antennal segment thickest, the first three segments in the direction towards the end cuneiformly expanded, fourth segment fusiform. The antennae are very finely sculptured with a short pubescence; in the distal half of the fourth antennal segment with rather long, erect hairs. Relative lengths of the antennal segments I : II : III : IV :: $10: 10: 11: 12$.

Pronotum at the base 2.4 times as wide as long in the middle, strongly narrowed in an anterior direction, margins in the middle moderately bent, narrowly flattened with the exception of the humeral angles; basal and anterior margins moderately bent in the whole width, anterior with a narrow collar. Humeral and anterior angles broadly rounded, somewhat elevated. Disc of the pronotum flat, in the middle with a transversal impression more marked only at the margins; anterior lobe of the pronotum with 4 longitudinal, very finely inidicated elevations which fuse more or less together. Surface of the pronotum irregularly finely tuberculate, at the base transversally rastrate. Scutellum triangular, 1.2 times as wide as long, flat in the middle with a longitudinal low carina, margins of the scutellum finely bent, elevated, end blunt. Surface of the scutellum irregularly finely tubercular, somewhat coarser in the anterior part. Sternum flat, irregularly finely, in
the pleural part more coarsely tubercular, acetabula rastrate. Legs short, strong, especially the femora thickened. The hemelytra reach to the end of the $6^{\text {ih }}$ tergite, at the base as wide as the pronotum, emboliar margins of the corium at the base subparallel, in the direction towards the end narrowing regularly. The outer corial angle reaches the level of the end of the $2^{\text {nd }}$ connexival segment. Membrane 2.5 times as long as the length of the corium with a dense reticulation of veins. Abdomen strongly flattened, connexivum broad, expanded in the direction towards the end, outer margins of the $2^{\text {nd }}-6^{\text {th }}$ connexival segments almost straight; posterior angles of the individual segments projecting, especially in the $6^{\text {th }}$ segment. Margin of the $7^{\text {th }}$


109


111


110

Neuroctenus tenuicornis (Signoret). 109: head, pronotum and scutellum of male, 110: apex of the abdomen of male, 111: apex of the abdomen of female, 112: gonocoxites.
segment bent in S-shape, posterior angle broadly rounded. Venter very flat, with minute tubercles, $2^{\text {nd }}-7^{\text {th }}$ spiracula remote from the margin, in the middle of the individual ventrites, $8^{\text {th }}$ spiraculum marginally. Paratergites of the $8^{\text {th }}$ segment flat, broad, at the end broadly rounded, reaching almost the level of the end of the $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment 1.7 times as wide as long, at the end regularly broadly rounded, in the dorsal part flattened, at the base with a deep transversal impression; surface of the whole segment with minute irregular tubercles.

Female. Length $7.1-7.9 \mathrm{~mm}$, width $3 .-3.4 \mathrm{~mm}$. In the general colour and shape it agrees with the male, the shape of the abdomen is more oval, expanding in the direction towards the end. Relative lengths of the antennal segments I : II : III : IV :: $10: 11: 13: 14$. Posterior margin of the $7^{\text {th }}$ tergite moderately bent. Paratergites of the $8^{\text {th }}$ abdominal segment flat, broadly rounded, slightly projecting beyond the end of the $9^{\text {th }}$ abdominal segment, which is relatively short and broadly rounded. Gonocoxites as in fig. 112.

Material examined: $10^{7}$ - Madagascar : Diego-Suarez, 1893 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).

22 ơ' $^{\prime \prime}, 15$ 우우. Madagascar, 1896 Sikora (Naturhistorisches Museum, Wien).

1 ot, $^{5}$ 우 - Madagascar: Andrangoloaka, Sikora (Naturhistorisches Museum, Wien).
 Praha).

1 ő, 9 우 우 - Madagascar, coll. Noualhier 1898 (Muséum Nat. d'Hist. Naturelle, Paris).
$10^{\mathbf{A}}, 2$ ㅇㅇㅇ. Madagascar : Ivohibe, $1.500 \mathrm{~m}, 1926$, R. Degary (Muséum Nat. d'Hist. Naturelle, Paris).

20 o' $^{7 \prime} 0^{\prime \prime}, 25$ 오.․․ Madagascar, coll. Sicard 1930 (Muséum Nat. d'Hist. Naturelle, Paris).

10 ơ $^{\prime \prime} 0^{\prime \prime}, 11$ 웅․ - Madagascar: Rogez, 1937 F. Lamberton (Národní museum, Praha).

2 on $^{\prime \prime}, 4$ 우. - Madagascar: Ambanja, 1937 F. Lamberton (Národní museum, Praha).

1 우 - Madagascar: La Mandraka, 1937 F. Lamberton (Národní museum, Praha).

1 of - Madagascar: Antanamalaza, Tananarive-Bauliene, Ecole officielle, VI. 1943 (Institut Sc. de Madagascar, Tananarive).

1 ㅇ - Madagascar: piste Tsircanomandidy, Ankavandra, XI. 1943 Abadie (Institut Sc. de Madagascar, Tananarive).

1 o' $^{\prime \prime}$ Madagascar: Angavokely, VII. 1947 R. A. (Institut Sc. de Madagascar, Tananarive).

2 우우 - Madagascar: Manjakatompo, 1. XI. 1948 P. C. (Institut Sc. de Madagascar, Tananarive).

6 ón' $^{\prime \prime}, 9$ 우 우. - Madagascar: Mt. d'Ambre, 1.140 m, XII. 1948 R. Paulian (Institut Sc. de Madagascar, Tananarive).
$4 \delta^{\prime \prime} 0^{\prime \prime}, 6$ 우. - Madagascar: Perinet, IV. 1948 R. F. (Institut Sc. de Madagascar).

2 우 우 Madagascar: Maroantsetra, Ambohitsitondroinz, III. 1949 Vadon (Institut Sc. de Madagascar, Tananarive).

23 ơ' $^{\text {J }}$, 19 우오 - Madagascar : forêt Nord d'Anosibe, I. 1951 R. Paulian (Institut Sc. de Madagascar, Tananarive).

1 ㅇ - Madagascar: Rogez, Abadie (Institut Sc. de Madagascar, Tananarive).

1 아 Comores: forêt de M’Remani, Anjouan, X. 1953, A. R. (Institut Cc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality), Comores.

## Neuroctenus mauricii n . sp.

(Fig. 113—115)

Female. Length 7.8-8.55 mm, maximum width $3.5-3.65 \mathrm{~mm}$. Head: length 1.33 mm , width 1.2 mm , interocular space 0.84 mm . Antennae: length of segment I, 0.46 mm ; II, 0.57 mm ; III, $0.46 \mathrm{~mm} ;$ IV, 0.55 mm . Pronotum: length $1 . \mathrm{mm}$, width 2.4 mm . Scutellum: length 1.33 mm , width 1.8 mm .

General colour dark brown, opaque; humeral angles, tergum, connexivum and venter reddish, base of the hemelytra yellowish brown.

General shape broadly oval, 2.2 times as long as wide, abdomen 1.5 times as wide as the pronotum. Head 1.13 times as long as wide across the eyes, interocular space 4.9 times as wide as the width of one eye. Tylus long, reaching to $2 / 3$ of the first antennal segment, narrow, subparallel, blunt at apex. Jugae narrow, projecting far beyond the base of the $2^{\text {nd }}$ antennal segment, at the end strongly narrowed and touching each other in front to the tylus. Antenniferous tubercles reaching to the middle of the first antennal segment, sharp, divergent. Eyes small, longitudinal. Postocular tubercles conical, sharp, reaching the level of the outer margin of the eye. Rostral groove lanceolate, reaching to the base of the head, closed at the end. Head irregularly rugose. Antennae 1.5 times as long as the length of the head, the individual segments long and slender, towards the end clavately expanded, third segment thinnest, fourth fusiform. Antennae regularly tubercular with a very short pubescence, in the distal half of the fourth segment with long hairs. Relative lengths of the antennal segments I : II : III : IV :: 12 : $15: 12: 14.5$.

Pronotum 2.3 times as wide as long, in an anterior direction very strongly narrowed, margins of the pronotum strongly bent, with the exception of the humeral angles distinctly lamellar; basal margin of the pronotum in its whole width moderately bent, anterior margin with a narrow collar. The humeral angles form an almost right angle and are narrowly rounded; anterolateral angles broadly rounded, forming a blunt angle. Surface of the pronotum with a fine transversal impression, posterior lobe almost flat, anterior lobe with four flat, oval fusing elevations. Surface of the pronotum irregularly rugose, only at the areas on the transversal impression with some disperse tubercles. Scutellum triangular, 1.4 times as wide as long, flat, margins elevated, in the middle moderately constricted, surface of the scutellum tubercularly rastrate. Sternum very flat, tubercular, acetabula rastrate. Hemelytra reaching almost to the end of the $6^{\text {th }}$ tergite, emboliar

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margins of the corium in the basal third straight, divergent, then narrowed towards the end. Outer angle of the corium reaching slightly to beyond the suture of the $2^{\text {nd }}$ connexival segment, inner angle of the corium close behind the constriction of the scutellum. Membrane long, more than twice as long as the length of the corium with a dense reticulation of veins. Abdomen very flat, regularly broadly oval; connexivum very wide, flat, posterior angles of the individual connexival segments slightly projecting, surface of the connexivum minutely sculptured, connexival segments $2^{\text {nd }}-7^{\text {th }}$ along the outer margin with a narrow parallel carina, and with two oval sharply delimited smooth areas; subconnexival area narrow, outer margin of the individual segments high and concave, each segment with two small oval smooth areas. Posterior margin of the $7^{\text {th }}$ tergite regularly moderately bent. Paratergites of the $8^{\text {th }}$ abdominal segment flat, broadly regularly rounded, as long as $9^{\text {th }}$ abdominal segment, which is broadly rounded. Venter very finely sculptured, $2^{\text {nd }}-7^{\text {th }}$ spiracula in the middle of the individual ventrites, remote from the margin of the venter, $8^{\text {th }}$ spiraculum marginally. Gonocoxites as in the fig. 114.

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Neuroctenus mauricii n. sp. - female (holotype). 113: head, pronotum and scutellum, 114: apex of the abdomen, 115: gonocoxites.

Material examined : 2 우 (holotype and paratype) - Ile Maurice, (Muséum Nat. d’Hist. Naturelle, Paris and Národní museum, Praha).

Distribution: Ile Maurice (type locality).

## Family ANEURIDAE Douglas and Scott 1865

Aneuridae Douglas and Scott, Brit. Hemiptera, pp. 26 and 267, 1865.
Family with only few genera characterized by very flattened and strongly shining body, by whole hemelytra transparent with very small corium or without distinct separation of corium, clavus and membrane. Hemelytral portion corresponding to membrane without venation.

From Madagascar and Africa only two genera are known, Aneurus Curtis and Overlatiella Schouteden, the second occurring only in the Belgian Congo.

## Genus Aneurus Curtis 1825

Aneurus Curtis, Brit. Ent. : 86, 1825.
Type of the genus Aneurus laevis (Fabricius 1775).
Genus Aneurus is distributed throughout the whole world. 4 species are known from Madagascar but only 3 species from Africa.

In addition to the family characters the genus is recognized by the flat broadly rounded scutellum.

Key to the species of the genus Aneurus Curtis of Madagascar and island of Réunion.

1. Scutellum 1.2-1.3 times wider than long, posterior margin narrowly rounded and scutellar margin basally only slightly rounded. Scutellum slightly longer than length of the pronotum. $9^{\text {th }}$ abdominal segment of male small, twice as wide as long, regularly rounded . . . . 2 .

- Scutellum 2.1-3.3 times wider than long and the scutellar margin in the whole width regularly rounded. Scutellum distinctly shorter than length of the pronotum

3. 
4. Head slightly longer than wide. Two last segments of antennae in a basal direction narrowed. Hemelytra slightly narrower than tergum, membrane not hyaline. Light coloured. Length 4.7 mm .
A. mjoebergi Bergroth.

- Head slightly wider than long. Two last segments of antennae linear. Hemelytra very much narrower than tergum, membrane hyaline. Dark coloured. Length $4.6-5.5 \mathrm{~mm}$. . A. grandiusculus Bergroth.

3. Antennae thick, scutellum 3.3 times wider than long.
. . . . . . . . . . . . . . . A. madagascariensis n. sp.

- Antennae very slender, scutellum 2.1-3 times wider than long. . 4 .

4. Scutellum 3 times wider than long. $9^{\text {th }}$ abdominal segment of male 1.3 times wider than long, in the middle of its length sinuately narrower and apex narrowly rounded. A. breviscutatus Bergroth.

- Scutellum 2.1 times wider than long. $9^{\text {th }}$ abdominal segment of male cylindrical, 1.4 times longer than wide, apically broadly rounded. A. angustus Bergroth.


## Aneurus mjoebergi Bergroth 1914

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

I do not know the species Aneurus mjoebergi Bergroth in natura and have given the distinguishing characters of the species in the key on the basis of Bergroth's original description.

## Aneurus grandiusculus Bergroth 1914

(Fig. 116-117)

## 97, 1914.

Male. Length $4.6-5 \mathrm{~mm}$, maximum width $2.4-2.65 \mathrm{~mm}$. Head : length 0.65 mm , width 0.68 mm , interocular space 0.53 mm . Antennae: length of segment I, 0.19 mm ; II, 0.23 mm ; III, 0.27 mm ; IV, 0.46 mm . Pronotum: length 0.5 mm , width 1.33 mm . Scutellum : length 0.61 mm , width 0.76 mm .

General colour pale reddish brown, somewhat darkened on the base of the head and pronotum and on the apex of scutellum, shining. Membrane brownish, on the base yellowish, hyaline, shining.

General shape of the body oval, 1.9 times to twice as long as wide. Head only slightly wider across the eyes than long (1.1 times), interocular space 5.2-7 times as wide as the width of one eye. Eyes longitudinally oval, shallowly inserted in the margin of head. Tylus in an apical direction distinctly widened, apically narrowly rounded; surface of the tylus transversally rastrated. Jugae tuberculate rastrate. Antenniferous tubercles small, slightly pointed, divergent, tuberculate. Postocular tubercles distinct, tuberculated, separated from the posterior margin of eyes, reaching the level of the outer margin of eyes. Disc of the head transversally rastrated, on each side near the inner margin of eyes with one obliquely oval smooth sulcus running to the base of jugae. Antennae slender 1.5-1.6 times as long as the width of head. First antennal segment broadest, oval, $2^{\text {nd }}-4^{\text {th }}$ antennal segment progressively somewhat wider, on the base slightly narrowed. Antennae finely tuberculate and with short pubescence, in the distal part of fourth segment with some long erect bristles. Relative lengths of antennal segments I : II : III : IV :: 5:6:7:12.

Pronotum 2.5 times wider than long, in the middle sinuately strongly narrowed and with a transversal, arcuate, very shallow impression separated into an anterior and posterior lobe. Anterior margin of the pronotum in the middle deeply concave with a very narrow collar, anterolateral angles broadly rounded. Basal margin of the pronotum in the whole width nearly straight, humeral angles broadly rounded, forming nearly a right angle. Basal lobe on each side near the basal margin slightly elevated, anterior lobe flat with four separated, very obsolete, smooth, irregularly rounded areas.

Surface of the pronotum on lateral areas, especially on anterolateral angles irregularly tuberculate, on transversal impression transversally rastrate. The rest of the pronotal surface with irregular sculpture, here and there transversally rastrate, especially near the basal margin, or smooth. Scutellum 1.2-1.3 times as wide as long, margins of the scutellum basally only slightly rounded, apex narrowly rounded. Surface of the scutellum on the base and in the middle moderately elevated, circularly rastrate with the exception of the exact middle which is smooth. Sternum nearly smooth, acetabula rastrate. Legs short, femora swollen with small tubercles, tibiae sinuate with some tubercles. Hemelytra reach to the middle of $7^{\text {th }}$ tergite. Corial area distinctly separated, reaching to the basal third of scutellar length; hemelytra on the base as wide as pronotum across humeral angles, emboliar margin slightly tuberculate, parallel. Membrane large, about 12 times longer than the corial area, highly shining. Abdomen broadly oval, 1.5-1.6 times as long as wide and 1,7-1.8 times wider than the width of pronotum. Connexivum broad, subconnexival area very narrow. Outer margins of connexival segments regularly rounded, surface of connexivum smooth, shining, only near the margins with some disperse obsolete tubercles. Venter very smooth. Paratergites of $7^{\text {th }}$ abdominal segment large, winglet-like, longly extending beyond the apex of $9^{\text {th }}$ abdominal segment and only by $1 / 6$ narrower than the width of $9^{\text {th }}$ abdominal segment at base. $9^{\text {th }}$ abdominal segment small, twice as broad as long, regularly rounded,


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dise of the $9^{\text {th }}$ abdominal segment sloping down in a posterior direction, slightly arched, smooth and shining, on margins bordered. $2^{\text {nd }}$ spiraculum marginally, $3^{\text {rd }}-6^{\text {th }}$ spiracula in the middle of ventrite and remote from abdominal margin, $7^{\text {th }}$ spiraculum marginally, $8^{\text {th }}$ spiraculum terminally.

Female, Length 5.1-5.6 mm. In general shape and colour similar to the male, stouter however.

Material examined: $30^{\pi}$ or and 7 ㅇㅇ - Madagascar: Diego Suarez, 1893 Ch. Alluaud (Muséum Nat. d'Hist. Naturelle, Paris).
$10^{7}$ - Madagascar: 1930 Sicard (Muséum Nat. d'Hist. Naturelle, Paris).

Distribution: Madagascar (type locality).

## Aneurus madagascariensis n. sp.

(Fig. 119-120)
Female. Length 4.9 mm , maximum width 2.2 mm . Head: length 0.72 mm , width 0.72 mm , interocular space 0.5 mm . Antennae: length of segment I, 0.15 mm ; II, 0.27 mm ; III, 0.27 mm ; IV, 0.49 mm Pronotum: length 0.68 mm , width 1.5 mm . Scutellum : length 0.32 mm , width 1.1 mm .

General colour reddish brown, on the pronotal elevations, base of femora and tergum of paler shade, shining.

General shape of the body, 2.3 times as long as wide. Head as wide as long, interocular space 4.3 times as wide as width of one eye. Eyes longitudinally oval, shallowly inserted in the margin of head. Tylus narrow, with parallel margins and apically broadly rounded, surface of the tylus transversally rastrate. Jugae narrowing, reaching nearly to the end of tylus, tuberculate. Antenniferous tubercles almost imperceptible. Postocular margin of head only slightly triangularly widened, tuberculate. Dise of head between base of head and inner margin of eyes with horse-shoe-shaped impression, which is in basal part transversally rastrate with the exception of a rounded smooth area on each side near the inner margin of eyes. Margin of head between eyes and antennae tuberculate. Antennae thick, 1.6 times as long as the width of head. First antennal segment very short, reaching not to the apex of head, nearly globular, strongly tuberculate. Second and third antennal segment straight, towards the apex strongly widened, with obsolete tubercles. Antennae with distingt, long, suberected pubescence, which is rather longer on fourth segment. Relative length of antennal segment I: II: III: IV :: 4:7:7:13.

Pronotum 2.2 times as wide as long, in an anterior direction strongly narrowed, in anterior third moderately sinuate, anterolateral angles broadly rounded, anterior margin of pronotum in the width of head deeply concave with a narrow collar. Humeral angles rectangular, basal margin of pronotum deeply bisinuate in front of the scutellum. Dise of pronotum in the middle with a transverse arcuate impression. Anterior lobe with four irregular shining elevations, two inner ones obliquely oval, flat, one exterior nearly pentagonal, uneven, partly tuberculate, partly smooth, highly shining. Transversal impression and anterolateral angles of pronotum tuberculate, basal lobe in the middle tuberculate, other parts longitudinally rastrate, the
transversal elevation on each side near to the humeral angles nearly smooth, highiy shining. Scutellum 3.3 times as wide as long, broadly rounded. Disc of scutellum rather elevated, and longitudinally rugose, lateral areas parallel to the lateral margins tuberculate rugose. Sternum here and there nearly smooth. Legs short, femora swollen, tuberculate, tibiae slightly sinuate and tuberculate. Hemelytra reaching to the posterior margin of $7^{\text {th }}$ tergite. Corium very small, triangular, reaching to the basal third of the scutellum, tuberculate. Hemelytra on the base as wide as the width of pronotum across humeral angles, emboliar margin parallel, slightly sinuate, membrane large, 16 times larger than the corium. Abdomen broadly oval, 1.7 times as long as wide and 1.4 times wider than pronotum. Connexivum broad, flat, exterior margin of connexival segments with the exception of that of $7^{\text {th }} \mathrm{seg}$ ment, exterior and posterior margins of respective segments elevated; each segment in the inner part anteriorly and posteriorly with rounded callositylike, smooth, shining elevations. Venter nearly entirely smooth, $2^{\text {nd }}$ spiraculum marginal, $3^{\text {rd }}-6^{\text {th }}$ spiracula in the middle of ventrites and remote from the abdominal margin, $7^{\text {th }}$ and $8^{\text {th }}$ spiraculum marginal. Genital segment as in fig. 119.

Material examined: 1 of (holotype) - Madagascar; coll. G. Fallou 259-95 (Muséum Nat. d'Hist. Naturelle, Paris).


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Aneurus madagascariensis n. sp. - female (holotype). 119: head, pronotum and scutellum, 120: apex of the abdomen.

## Aneurus breviscutatus Bergroth 1894

(Fig. 121-123)
Aneurus breviscutatus Bergroth, Ent. Tidskrift 15: 116, 1894.
Aneurus breviscutatus Lethierry et Severin, Catalogue des Hémiptères, 3: 46, 1896.

Aneurus breviscutatus Bergroth, Ann. Hist. Nat. Mus. Nat. Hung., 12: 96, 98, 1914.

Male. Length $3.6-3.9 \mathrm{~mm}$, maximum width $1.6-1.7 \mathrm{~mm}$. Head : length 0.6 mm , width 0.53 mm , interocular space 0.4 mm . Antennae: length of segment I, 0.15 mm ; II, 0.23 mm ; III, 0.23 mm ; IV, 0.42 mm . Pronotum: length 0.53 mm , width 1.14 mm . Scutellum : length 0.3 mm , width 0.91 mm .

General colour pale ferrugineous, slightly darkened on the base of head, on the pronotum with the exception of pronotal elevations and scutellum; membrane hyaline and shining.

General shape of the body oval, 2.3 times as long as wide. Head slightly longer than wide ( $15: 14$ ), interocular space 5 times as wide as width of one eye. Eyes small, longitudinally oval, shallowly inserted in the margin of head. Tylus narrow, in an anterior direction widened and apically narrowly rounded, jugae short and narrow. Antenniferous tubercles very small, angular and slightly divergent. Postocular margin of the head shortly triangular, not closed to the posterior margin of eye. Rostral groove only slightly indicated, rostrum very short. Upper surface of the head in the basal part transversally rastrated, disc of head near to the inner margin of eyes on each side with a small longitudinally oval callosity-like


Aneurus breviscutatus Bergroth. 121: head, pronotum and scutellum of male, 122: apex of the abdomen of male, 123: apex of the abdomen of female.
elevation. Other parts of head rather tuberculate than rastrate. Antennae slender, nearly twice as long as width of head across the eyes. First antennal segment nearly globular, stoutest, second and third antennal segment slender, in apical direction distinctly widened, fourth antennal segment spindle-like, in subapical part broadest. Antennae with sparse pubescence and apical part of fourth segment with some long erect bristles. Relative lengths of antennal segment I: II: III: IV::4:6:6:11.

Pronotum transversal, only 2.1 times as wide as long, in an anterior direction sinuately narrowed. Anterolateral and humeral angles broadly rounded; anterior pronotal margin slightly sinuate and with narrow callose collar, basal margin in the middle only slightly sinuate. Surface of the pronotum flat, tuberculate and transversally rastrate with the exception of four longitudinally oval callosity-like smooth and snining elevations. Pronotum within the humeral angle with a transversal, smooth and shining elevation. Scutellum short, 3 times as wide as long, broadly rounded, disc of the scutellum near the base slightly arched and longitudinally rastrated, marginal parts rastrated parallel to the margins. Sternum tuberculate, acetabula rastrate. Legs, femora strongly swollen with tubercles, tibiae sinuate. Hemelytra reach to the posterior margin of the $7^{\text {th }}$ tergite, emboliar margin in the basal sixth of the hemelytral length parallel, as broad as the pronotum across the humeral angles; corial area short, as long as one third of scutellar length. Membrane large, nearly 12 times as long as corium. Abdomen strongly flattened, 1.6 times as long as wide and 1.5 times wider than pronotum. Connexivum flat, finely tuberculate, in the inner posterior part of each segment with a rounded callosity-like elevation, in an anterior inner angle with another one, rather less distinct. Margins of connexival segments nearly straight, that of $7^{\text {th }}$ segment slightly rounded. Venter nearly smooth, shining, posterior margins of $7^{\text {th }}$ ventrite strongly transversally rastrate; $2^{\text {nd }}-6^{\text {th }}$ spiracula in the middle of respective ventrites remote from the lateral margin, $7^{\text {th }}$ spiraculum marginally, $8^{\text {th }}$ spiraculum terminally. Paratergites of $8^{\text {th }}$ abdominal segment small, rounded, reaching to $2 / 3$ of the length of $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment 1.3 times wider than long, in the middle of its length sinuately narrowed and the apex narrowly rounded. Discal surface af the segment somewhat flattened and with disperse tubercles, along the whole circumference sharply bordered, especially on base and sides.

Female. Length 3.9-4.9 mm, maximum width 1.8-2. mm. General colour and shape similar to that of the male, rather broader. $9^{\text {th }}$ abdominal segment as in fig. 122.

Material examined: 1 on $^{n}$ - Madagascar (National Museum, Budapest).
$10^{\pi}$ - Delagoa, coll. Bergroth (National Museum, Budapest).
1 ơ - Madagascar: Andragoloaka, Sikora (Naturhistorisches Museum, Wien).

1 ㅇ - Madagascar: 1899 H. Perrier; coll. L. Farmaire (Muséum Nat. d'Hist. Naturelle, Paris).

1 ㅇ - Mocabique: Vallée du Pongoné, Guéngere, 1906 G. Vasse (Muséum Nat. d'Hist. Naturelle, Paris).
$1 \sigma^{7}$ and 우 - Madagascar: Ambanja 1937 Lamberton (Národní museum, Praha).

1 f - Madagascar: Angovokely, VII. 1947 A. A. (Institut Sc. de Madagascar, Tananarive).

Distribution: Madagascar (type locality) and Portuguese East Africa.

## Aneurus angustus Bergroth 1914

(Fig. 124-125)
Aneurus angustus Bergroth, Ann. Hist. Nat. Mus. Nat. Hung., 12:96-97, 98; 1914.

Male. Length 4.3-4.4 mm, maximum width $1.8-1.9 \mathrm{~mm}$. Head : length 0.59 mm , width 0.61 mm , interocular space 0.38 mm . Antennae: length of segment I, 0.19 mm ; II, 0.27 mm ; III, 0.29 mm ; IV, 0.49 mm . Pronotum: length 0.49 mm , width 1.33 mm . Scutellum: length 0.42 mm , width 0.87 mm .

General colour pale ferrugineous, eyes brownish, $9^{\text {th }}$ abdominal segment and legs somewhat darkened with reddish shade, membrane brownish shining.

General shape of the body elongate oval, 2.3 times as long as wide. Head nearly as wide as long ( $16: 15.5$ ), interocular space 3.6 times as wide as width of one eye. Eyes longitudinally oval, inserted in the margin of head. Tylus parallel, apically narrowly rounded, reaching as far as the apex of


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Aneurus angustus Bergioth - male. 124: head, pronotum and scutellum, 125: apex of the abdomen.
the first antennal segment, jugae very narrow and short. Antenniferous tubercles very small, angular, divergent. Postocular tubercles small pointed, separated from the posterior margin of eyes and not reaching the level of the outer margin of eyes. Rostral groove only triangularly indicated, rostrum reaching to the basal fifth of the total length of head. Head below transversally rastrated. Upper surface of the head in the basal third transversally rastrated, disc on each side near the inner margin of eyes with a longitudinally oval smooth bordered area, vertex in the middle of these areas transversally rastrated, base of jugae longitudinally so; other parts of head finely tuberculated, postocular tubercles rather coarse. Antennae slender, twice as long as the width of head. First antennal segment elongate oval, broadest; $2^{\text {nd }}-4^{\text {th }}$ antennal segment of equal width, nearly cylindrical at the base slightly narrowed. Antennae very finely tuberculate and with short subappressed pubescence. Relative lengths of antennal segment I: II: III: IV :: 5:7: 17.5: 13.

Pronotum transversal, 2.7 times as wide as long, in front to the middle sinuately strongly narrowed, anterolateral angles broadly rounded forming an obtuse angle. Anterior margin nearly straight, in the middle slightly emarginated and with very narrow collar. Humeral angles broadly rounded, forming a right angle, basal margin in the middle regularly sinuated. Disc of the pronotum flat with a transverse arcuate very shallow impression; basal lobe longitudinally rastrate on each side within the humeral angles with an oblique elevation; anterior lobe with four longitudinally oval from each other separated, callosity-like nearly smooth elevations. Scutellum broadly rounded, 2.1 times wider than long, flat; dise on base slightly arched and longitudinally rastrated, marginal parts of scutellum rastrated parallel to the margin. Sternum flat, very finely tuberculated. Legs slender, straight. Hemelytra reaching nearly to the base of $9^{\text {th }}$ abdominal segment. Corium very small, triangular, nearly reaching to the middle of length of scutellum. Emboliar margin moderately rounded, slightly expanded beyond the level of humeral angles. Membrane large, 10 times longer than the corium, hyaline, shining, tuberculate. Abdomen strongly flattened, regularly oval, 1.7 times longer than wide and 1.3 times wider than pronotum. Connexivum flat, outer margin of $2^{\text {nd }}-5^{\text {th }}$ segments nearly straight, margin of $6^{\text {th }}$ segment slightly bisinuated, margins of $7^{\text {th }}$ segment on the anterior angle rounded and then slightly sinuated. Venter and connexivum finely tuberculate, respective connexival segments near the inner margin in anterior part with larger elongate one. $2^{\text {nd }}$ spiraculum marginal, $3^{\text {rd }}-6^{\text {th }}$ spiracula remote from abdominal margin, $7^{\text {th }}$ spiraculum marginal, $8^{\text {th }}$ one terminal. Posterolateral angles of connexival segments tubercle-like. Paratergites of $8^{\text {th }}$ abdominal segment narrow, parallel, apically rounded, reaching to the middle of the length of $9^{\text {th }}$ abdominal segment. $9^{\text {th }}$ abdominal segment cylindrical, 1.4 times longer than wide, margins parallel, apically broadly rounded. Surface of the $9^{\text {th }}$ abdominal segment tuberculate and transversally rastrate.

Material examined: 4 ơ $\sigma^{\text {® }}$ - La Réunion, Bréon 1412-33 (Muséum Nat, d'Hist. Naturelle, Paris).

Distribution: La Réunion (type locality).

## List of Genera and Species of Aradoidea from Madagascar and Adjacent Islands.

Family Aradidae Costa 1843
Genus Aradus Fabricius 1803
Aradus mařani n. sp. - Madagascar
Aradus pauliani n. sp. - Madagascar
Aradus noctivagus n. sp. - Madagascar
( $\dagger$ Aradus madagascariensis Bervoets 1909)
Family Meziridae Oshanin 1908
Tribe Carventini Usinger 1951
Genus Jarmilaia n. gen.
Jarmilaia aeterna $n . \mathrm{sp}$. - Madagascar
Jarmilaia mollis n. sp. - Madagascar
Genus Carventus Stå 1865
Subgenus Burgeonia Schouteden 1918
Carventus (Burgeonia) usingeri n. sp. - Madagascar
Carventus (Burgeonia) madagascariensis n. sp. - Madagascar
Tribe Mezirini Van Duzee 1916.
Genus Dysodiellus n. gen.
Dysodiellus beieri n. sp. - Madayascar
Dysodiellus madagascariensis n. sp. - Madagascar
Genus Usingeria Schouteden 1952
Usingeria séguyi n. sp. - Madagascar
Genus Maynéa Schouteden 1918
Maynéa madagascariensis n. sp. - Madagascar
Maynéa pauliani n. sp. - Madagascar
Maynéa poissoni n. sp. - Madagascar
Genus Paulianium n. gen.
Paulianium delectum n. sp. - Madagascar
Genus Mezira Amyot and Serville 1843
Mezira drakei n. sp. - Madagascar
Mezira insularis n. sp. - Madagascar
Mezira singularis n . sp . - Madagascar
Mezira parva n. sp. - Madagascar
Mezira intermedia n. sp. - Madagascar
Mezira monedula (Stål 1865) - Madagascar
Mezira madagascariensis n. sp. - Madagascar
Mezira mauricii n. sp. - Ile Maurice
Mezira sulcicornis Signoret 1860 - Madagascar
Genus Strigocoris Usinger 1954
Strigocoris antakotakoensis n. sp. - Madagascar
Strigocoris crassicornis (Signoret 1860) n. comb. - Madagascar
Strigocoris usingeri n. sp. - Madagascar
Genus Neuroctenus Fieber 1861
Neuroctenus chinai n. sp. - Madagascar
Neuroctenus bilobus (Signoret 1860) - Madagascar

Neuroctenus caffer (Stå l 1855) - South Africa, Madagascar, East Africa
Neuroctenus madagascariensis n. sp.
Neuroctenus tenuicornis (S ignoret 1860) - Madagascar
Neuroctenus mauricii n. sp. - Ile Maurice
Family Aneuridae Douglas and Scott 1865
Genus Aneurus Curtis 1825
Aneurus mjoebergi Bergroth 1914 - Madagascar
Aneurus grandiusculus Bergroth 1914 - Madagascar
Aneurus madagascariensis n. sp. - Madagascar
Aneurus beviscutatus Bergroth 1894 - Madagascar, East Africa Aneurus angustus Bergroth 1914 - La Réunion

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[^0]:    ${ }^{1}$ ) I have examined a strongly teneral specimen (with missing left antenna and abdomen and damaged scutellum) from La Réunion (Bréon, 4113-33 Muséum Nat. d'Hist. Nat., Paris) belonging to the West palaearctic species Aradus annulicornis F ab. This single damaged specimen, however, can not be considered a real document for the distribution of the above-mentioned species in the Island of Réunion.

[^1]:    5 - Sbornik entomologický

