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en collaboration avec

W. ADAM, A. JANSSENS, L. VAN MEEL et R. VERHEYEN (1946-1949)

Fascicule 70 (2)

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ARADIDAE  
(HEMIPTERA HETEROPTERA)

BY

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Through the kindness of authorities of the Institut des Parcs Nationaux du Congo and the late M. V. VAN STRAELLEN I have been able to examine *Aradidae* collected in the Parc National de l'Upemba in the Congo. The material contains 126 specimens belonging to 7 species of which two are new to science.

Subfamily ARADINAE

***Aradus flavicornis*** DALMAN, 1823.

*Aradus flavicornis* DALMAN, 1823, *Analecta Ent.*, p. 88.

1 ♀: Congo, Parc National de l'Upemba, riv. Lukawe, affl. dr. Lufira, 700 m, 30.IX.1947, (795a); 3 ♀♀: Kaswabilenga, rive dr. Lufira, 700 m, 6-9.X.1947, (805a).

**Distribution.** — Africa (type locality: W. Africa) and Mediterranean.

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(\*) National Museum, Praha.

## Subfamily MĒZIRINAE

Genus **NEOCHELENODERUS** gen. n.

Apterous. Body elongate oval, slightly widened posteriorly. Head large, nearly equal in length and width, genae large, greatly expanding the apex of clypeus, contiguous in front to clypeus. Antenniferous tubercles large, prominent, projecting anterolaterally. Eyes relatively small, located beyond the middle of head, distinctly stylate. Postocular portion of head long with only vestige of a tubercle close to the hind margin of eyes and then strongly concavely narrowed to neck region. Antennae distinctly longer than the width of head across eyes, second and third segment more slender, third segment longest, nearly twice as long as second. Rostrum not exceeding the rostral groove narrow, ovate, elevated at sides and closed posteriorly. Atrium closed.

Pronotum short, the front margin with distinct collar, posteriorly sharply defined, disc of pronotum deeply longitudinally impressed posteriorly, with elevation on either side of this, and with tubercular ridge and conical, vertically directed, tubercles, basal pronotal margin swollen, straight. Mesonotum and metanotum ill defined, fused throughout the central elevated area with first abdominal segment. Second tergite well defined. Metanotal scent gland canal short, scent gland opening large, roundish, near to the mesonotal margin. Tergal plate in the middle with a longitudinal elevation. Pattern of glabrous tergal areas clearly defined by deep depressions and laterally mesad of connexival sutures with contiguous midlateral glabrous areas. 7th tergite elevated, in female impressed posteriorly with tubercles. Connexivum plain or suberect, all connexival plates distinctly separated, second connexival plate extending forward to mesonotum. Spiracles all ventral except those of eighth segment. Legs with trochanters, femora slightly incrassate. Tarsi large, claws and arolia distinct.

Processus of male 8th abdominal segment short, tuberculoid. Female eighth and ninth abdominal segments each situated ventrally at the same level below the posterior margin of 7th tergite.

General contour of male abdomen posteriorly widened with sides slightly sinuate, that of female roundish.

Type-species: *Chelenoderus basilewskyi* HOBERLANDT, 1956, from Congo, Burundi.

New genus has close relative in *Chelenoderus* USINGER and *Drakiessa* USINGER and MATSUDA. Type-species *Neochelenoderus basilewskyi* (HOBERLANDT) have been described originally in *Chelenoderus*, however the additional species, from Congo also, may prove the opinion of USINGER and

MATSUDA (1959), that the African species of *Chelenoderus* belong to another genus. Characters of the new genus alternatively correspond with those of both mentioned relative genera.

***Neochelenoderus basilewskyi* (HOBERLANDT, 1956) n. comb.**

*Chelenoderus Basilewskyi* HOBERLANDT, 1956, Ann. Mus. Congo, Tervuren, in-8°, Zool. 51 : 586-588, 589, fig. 9.

Distribution : Congo, Burundi (type locality).

***Neochelenoderus straeleni* n. sp.**

(Fig. 1.)

Female : Length 6,8 mm, width 2,9 mm. Head : length 1,52 mm, width 1,53 mm, synthlipsis 1 mm. Antennae : length of segment I, 0,5 mm; II, 0,34 mm; III, 0,64 mm; IV, 0,34 mm. Pronotum : length 0,72 mm, width 1,78 mm.

Apterous. Shape of the body posteriorly slightly widened, 2,3 times as long as broad before the apex.

Head 1,1 times as long as wide across eyes, ocular index 6,75. Clypeus very narrow with a longitudinal row of globulars. Reaching to the basal third of first antennal segment, basally separated from the elevated disc. Genae very long reaching to  $\frac{4}{5}$  from the length of first antennal segment, subparallel, only apically moderately widened, roundish, contiguous in front to clypeus, with small globulars. Antenniferous tubercles large, conical, prominent, divergent, subacute. Eyes relatively small, located beyond the middle of head, distinctly stylate, directed forward. Post-ocular portion of the head long with only vestige of a tubercle close to the hind margin of eye and then strongly concavely narrowed to neck region, margin with large globulars and short twisted hairs. Basal disc of head elevated with two longitudinal rows of globulars, area between elevated portion of head and inner margin of eyes smooth, base of head on either side with one large tubercle. Antennae rather long, 1,4 times as long as the width of head across eyes. First antennal segment curved, club-shaped, second and third towards apex widened, third slenderest, basally constricted, fourth segment pear-shaped with erect hairs on apex. Relative length of antennal segment 13,5 : 9 : 17 : 9.

Pronotum 2,5 times as broad as long, lateral margins with anterior angles irregularly rounded, with rough tubercles and globulars. Anterior margin with broad inserted collar posteriorly sharply defined from pronotal disc. Basal margin of the pronotum straight, swollen, on either side laterally with one conical tubercle situated vertically. Disc of pronotum deeply longitudinally impressed posteriorly and with transversally sinuate

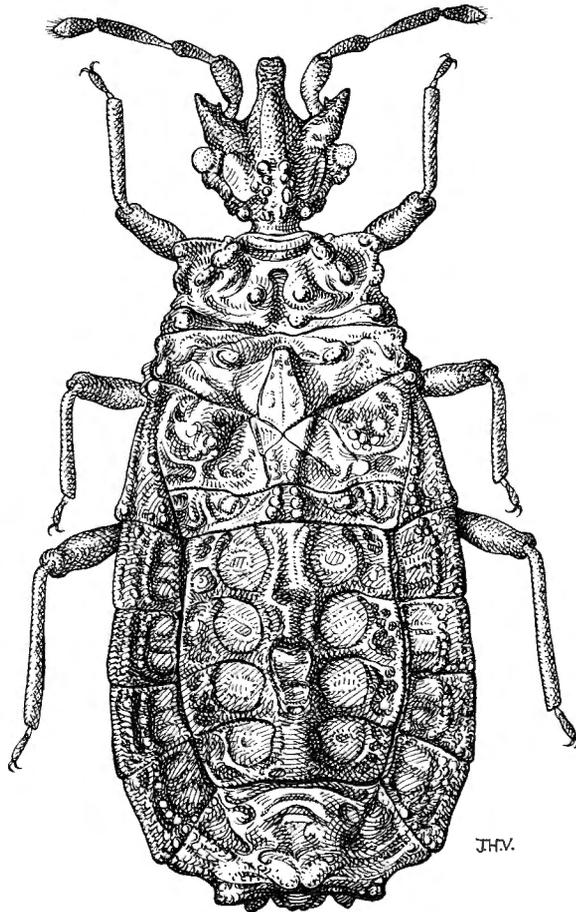


FIG. 1. — *Neochelenoderus straeleni* n. sp., female (holotype).

elevation on either side, submarginally with an oblique tubercular carine directed to the pronotal collar, the middle of pronotal disc with two pointed vertical tubercles. Limit between meso- and metanotum ill defined, fused throughout the central elevated longitudinal area with first abdominal segment. Mesonotal area on either side of triangular central elevation with one tubercle; lateral margin of mesonotum short. Metanotal area on either side elevated and with some small tubercles. Second tergite well defined, in the middle longitudinally elevated and with two tubercles, laterally with pattern of impressed areas. Sternum convex, rastrate and with some tubercles. Mesonotal scent gland carine short, scent gland opening large,

roundish, elevated, near to the lateral margin. Legs short, femora subapically constricted, legs with small tubercles and very short subadpressed hairs; tarsi large, claws and arolia distinct.

General contour of abdomen arcuate with widest point before the apex of abdomen. Tergal plate in the middle with a longitudinal elevation, basally with some pits and apically terminated with two small tubercles. Tergal pattern of glabrous areas clearly defined, deep depressions laterally mesad of connexival sutures with contiguous midlateral glabrous areas. 7th tergite large, posteriorly strongly narrowed, tergal disc elevated, in the middle with a longitudinal deep impression, posterior margin with two projecting tubercles. Connexivum suberect, second connexival plate extending forward to mesonotum; sutures and exterior margins of respective plates swollen, exterior margins of respective plates straight, bordered with small tubercles; connexival plates exteriorly longitudinally sulcate and with distinct lateral glabrous areas, in the middle of each suture with one tubercle; margin of 7th segment sinuate with very small triangular lobe.

Venter convex, sculptured; spiracles ventral, mesad from lateral margin, in the middle of respective ventrites, that of second near to the posterior suture, that of 8th segment terminal.

Eighth and ninth abdominal segment each situated vertically at the same level below the posterior margin of 7th tergite. 8th abdominal segment strongly reduced, visible only as narrow border with two lateral conical tubercles. Ninth female abdominal segment small, reduced.

General colour dark reddish brown with rather darkened margins and elevated ridges and tubercles.

*Holotype*. — Female: Congo, Parc National de l'Upemba: Kaswabilenga, 700 m, 29-30.X.1947, (899a).

#### KEY TO THE SPECIES OF *NEOCHELENODERUS* GEN. N.

- Genae flat, broadly widened, spatuliform, apically broadly rounded, antenniferous tubercles very broad, subhorizontal, on the whole pentagonal, antennae 1,2 times as long as width of head across eyes, pronotum rather rectangular with a deep excision laterally, basal margin of pronotum elevated but without a distinct conical tubercle on either side. Second spiracula in the middle of ventrite ..... **N. basilewskyi** (HOBERLANDT).
- Genae subparallel, only apically moderately widened, antenniferous tubercles conical, divergent, subacute, antennae 1,4 times as long as width of head across eyes; lateral margins with anterior angles of pronotum irregularly rounded, basal margin of pronotum swollen, on either side laterally with one conical tubercle situated vertically. Second spiracula shifted posteriorly ..... **N. straeleni** n. sp.

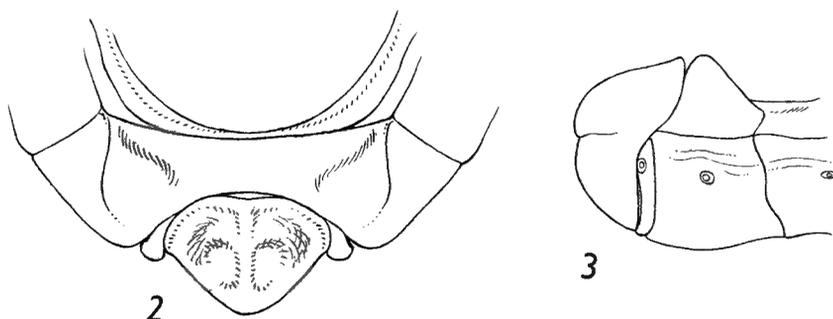
**Strigocoris pubescens** USINGER and MATSUDA, 1959.

(Figs. 2 and 3.)

*Strigocoris pubescens* USINGER and MATSUDA, 1959, Classification of the Aradidae (Hemiptera-Heteroptera). Brit. Mus. : 246-248, fig. 71.

Congo, Parc National de l'Upemba. — 1 ♂ : Kilwezi, affl. dr. Lufira, 750 m, 9-14.VIII.1948, (1785a); 1 ♀ : Mabwe (lac Upemba), 585 m, 1-8.IX.1947. (733a); 2 ♂♂ : Kaswabilenga, rive dr. Lufira, 700 m, 1-9.X.1947, (800a).

Further material examined — Ethiopia : 3 ♂♂ and 1 ♀ : Lake Dembel (Lac Dembel), 1912 Kovács collected; 1 ♀ : Lake Shala (Lac Shalo), 1912 Kovács collected (Hungarian Nat. Hist. Museum, Budapest).

FIGS. 2-3. — *Strigocoris pubescens* USINGER and MATSUDA, male.

2 : 9th abdominal segment, seen from above; 3 : 9th abdominal segment, seen from side.

**Distribution** — Cameroons (type locality), Congo and Ethiopia (new records).

This species was described from one female (holotype) and I am completing herewith the description by giving the characters of the male.

Ninth male abdominal segment 1,5 times as broad as long, globular, towards the apex strongly narrowed, with straight lateral sides; basal margin of segment elevated, sinuate; upper surface of the segment with a longitudinal fine carine, basally on either side of this carine with a fine semicircular impression; terminal border vertical, upper part of the segment separated from the lower part by a fine incision, visible from side only. Surface of the segment rastrate, with tubercles and short twisted hairs.

Eighth male abdominal segment ring-shaped, strongly reduced, with reduced, only tubercle-like lateral processes.

**Mezira rugosa** (SIGNORET, 1858).

*Crimia rugosa* SIGNORET, 1858, THOMSON, Archiv Ent., 2 : 309.

Congo, Parc National de l'Upemba. — 5 ♂♂ and 3 ♀♀ : Lusinga, 1.760 m, 4.VI-12.VII.1947, (535a); 1 ♂ : Mabwe, lac Upemba, 585 m, 1-12.VIII.1947, (650a); 7 ♂♂ and 2 ♀♀ : Mabwe, lac Upemba, 585 m, 18-27.VIII.1947, (714a); 1 ♂ and 2 ♀♀ : Mabwe, lac Upemba, 585 m, 21-23.VIII.1947, (716a); 4 ♂♂ and 8 ♀♀ : Mabwe, lac Upemba, 585 m, 21-28.VIII.1947, (717a and 719a); 1 ♀ : Mabwe, lac Upemba, 585 m, 1-8.IX.1947, (733a); 2 ♀♀ : Kaswabilenga, 700 m, 13-24.IX.1947, (769a); 1 ♀ : Kaswabilenga, 700 m, 24.IX.1947, (771a); 8 ♂♂ and 8 ♀♀ : Kaswabilenga, rive dr. Lufira, 700 m, 1-9.X.1947, (800a); 1 ♂ : Kaswabilenga, rive dr. Lufira, 700 m, 6-9.X.1947, (806a); 4 ♂♂ and 3 ♀♀ : Kaswabilenga, 700 m, 13.X.1947, (825a); 1 ♂ : Mukana, 1.810 m, 15-19.I.1948 (1234a); 2 ♀♀ : Munoi, bif. Lupiala, 890 m, 12-14.VI.1948 (1740a); 2 ♀♀ : Mabwe, 585 m, 19.XI.1948, (1956a); 3 ♀♀ : Mabwe, 585 m, 26.XI.1948, (1976a); 2 ♂♂ and 1 ♀ : Mabwe, 585 m, 17-27.XII.1948, (2133a); 4 ♂♂ and 2 ♀♀ : Mabwe, 585 m, 24-31.XII.1948, (2133a); 7 ♂♂, 7 ♀♀ and 2 nymphs : Kanonga, 700 m, 16-23.II.1949, (2366a); 1 nymph : Mabwe, 585 m, 12-21.I.1949, (2222a); 7 nymphs : Mabwe, 585 m, 13-20.I.1949, (2221a).

Distribution — W. Africa, Guinea (type locality), Congo.

**Mezira bergrothi** SCHOUTEDEN, 1919.

*Mezira Bergrothi* SCHOUTEDEN, 1919, Rev. Zool. Africaine, 6 : 130-131.

Congo, Parc National de l'Upemba. — 1 ♀. Gorges de la Pelenge, 1.150 m, 30.V.1947, (443a); 1 ♀ : Lusinga, 1.760 m, 16-17.VII.1947, (580a); 2 ♀♀ : Mabwe, lac Upemba, 585 m, 1-8.IX.1947 (733a); 2 ♂♂ and 3 ♀♀ : Kaswabilenga, rive dr. Lufira, 700 m, 6-9.X.1947 (805a and 806a).

Distribution — Congo, Kikondja (type locality).

**Mezira furcatula** n. sp.

(Fig. 4.)

Female : Length 7,4 mm, width 2,9 mm. Head : length 1,1 mm, width 1,25 mm, synthlipsis 0,91 mm. Antennae : length of segment I, 0,45 mm; II, 0,42 mm; III, 0,45 mm; IV, 0,57 mm. Pronotum : length 1,2 mm, width 2,35 mm. Scutellum : length 1,25 mm, width 1,37 mm.

General shape of the body elongate, 2,6 times as long as broad, posteriorly slightly widened with sides slightly arcuate.

Head across eyes 1,1 times wider than long, ocular index 6,8 clypeus narrow, apically subacute, basally distinctly separated, genae slightly expanding the apex of clypeus, slightly dilated at apex and forming a small notch in front of clypeus. Antenniferous tubercles short, subacute with exterior sides nearly parallel. Eyes located beyond the middle of head; postocular lobes rather flattened, distinctly expanding beyond the level

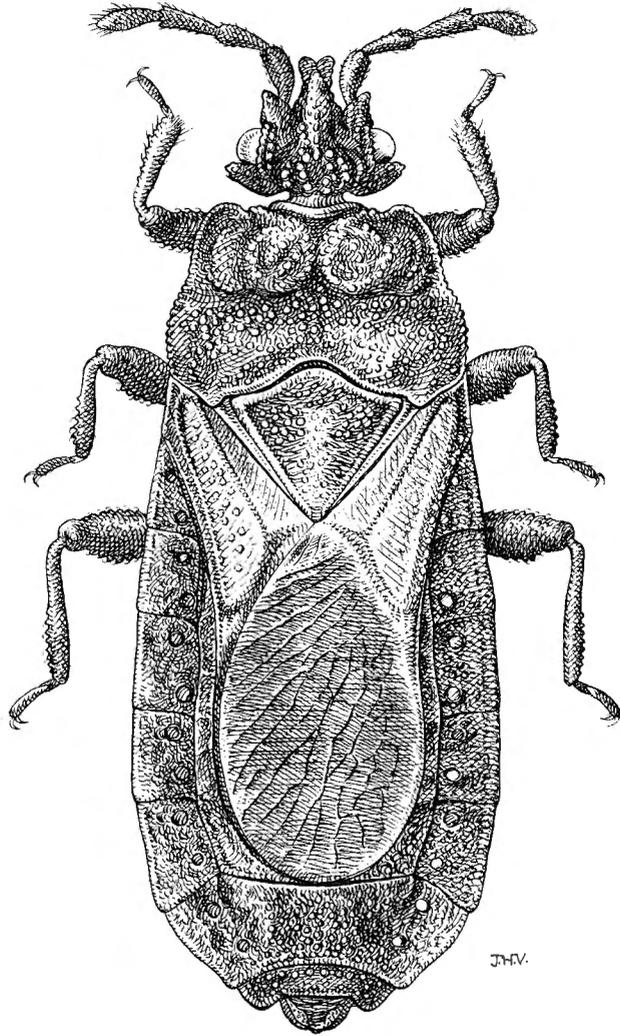


FIG. 4. — *Mezira furcatula* n. sp., female (holotype).

of exterior margin of eyes, granulate. Disc of head with granules, along the inner margin of eyes with a ridge of globulars and short twisted hairs. Antennae long 1.7 times as long as width of head across eyes, fourth segment longest, all others of subequal length; first antennal segment bent outward, second and third segment posteriorly widened, fourth segment fusiform. Relative length of antennal segments 12:11:12:15. Antennae with fine globulars and short adpressed hairs.

Pronotum twice as broad as long, sinuately narrowed anteriorly, basal sides with nearly straight margins and subangular basal angles, anterior angles rounded, anterior margin with distinct collar, basal margin strongly concave and with small triangular lobes near base scutellum. Disc of pronotum rather plain, beyond the middle with a transverse impression, anterior disc with four plain elevations, either both lateral more or less fusing together; lateral margin in front to transverse impression and on anterior angles narrowly flattened. Surface of the pronotum with very small globulars and short twisted hairs. Scutellum triangular, slightly wider than long, with straight margins and sharp apex; central area of scutellum longitudinally elevated, surface with tubercles and hairs similar to these on pronotum. Legs rather short with femora strongly incrassate, tibiae straight, posteriorly widened; femora and tibiae with small tubercles and short adpressed hairs. Hemelytra reaching to the posterior margin of 6th tergite, basal margin of corium divergent.

Abdomen in general contour elongate oval, slightly widened posteriorly, broadest across base of 6th abdominal segment and then only moderately narrowed. Venter only moderately convex, all spiracles ventral. Connexivum plain, narrow, exterior margins of respective connexival plates straight, surface with fine granules and short twisted hairs. 7th tergite slightly elevated, 8th abdominal segment impressed in the middle, short with very short roundish lateral lobes.

General colour dark reddish brown, with pale reddish eyes and yellowish pubescence, membrane blackish.

Holotype. — Female: Congo, Parc National de l'Upemba : Kaswabilenga, 700 m, 13.X.1947 (825a).

The new species is closely allied to *Mezira furcata* GERM. however it differs by this rather smaller size, by the general contour of female abdomen being rather broader in apical portion, by finer globulars and hairs on surface of body, by different relative lengths of antennal segments with fourth segment longest.

***Mezira abyssinica* (BERGROTH, 1895).**

*Brachyrhynchus abyssinicus* BERGROTH, 1895, Wien. Ent. Zeit., 14 : 168-169.

1 ♀: Congo, Parc National de l'Upemba : Gorges de la Pelenge, 1.150 m, 21-31.V.1947, (428).

Distribution — Ethiopia (type locality), Tanganyika, Congo.

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