

FIRST APTEROUS ARADIDAE FROM AFRICA (HEMIPTERA).

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Whereas the knowledge of the apterous *Aradidae* of the Western Hemisphere has much increased during recent years, only two genera with nine species are hitherto known from Old World, from Malaya and Australia. In the following paper I describe a new genus of the apterous *Aradidae*, with two species, which are the first representatives of this group found in Africa.

Euchelonocoris gen. n.

Apterous, elongate in form, nearly parallelsided (♂) or elongate-oval, distinctly widened posteriorly (♀), tapering anteriorly, more or less flattened, with a complicated pattern of pits and elevations above, and irregularly clothed with some accumulations of subappressed hairs. Head more or less longer than broad, more or less parallelsided, narrowed basally, without postocular spines; antenniferous tubercles short, subacute or obtuse, the outer sides nearly parallel or convergent; anteocular portion of head slightly longer than postocular, occupying nearly one half of total head length; jugae shortly projecting over tylus and contiguous beyond it, or forming at apice a little cleft. Eyes longer than broad, only slightly protruding. Antennae nearly twice as long as head, the first segment thickest and projecting strongly over apical process of head, distinctly longer than second, second and third segments more slender, third segment longest, fourth segment pyriform, on its apical half with numerous long bristles. Pronotum nearly twice as wide as the head across the eyes, gradually narrowed to a depressed collar anteriorly, elevated at sides. Mesonotum very short, partly fused with metanotum, sides elevated. Metanotum partly fused with first abdominal segment. Trochanters distinctly fused with femora. Legs long. Tergum medially more or less convex, disc of fourth to sixth tergites strongly arched. Connexivum plain (♂) or suberected (♀). Spiracles of second to sixth segments ventrally located from lateral margins, more or less at middle of their respective segments, spiracles of the seventh segment located laterally, those of eighth segment terminally.

Rostral groove very wide, triangular, closed posteriorly, rostrum stout, reaching nearly to its posterior border.

Genotype: *Euchelonocoris intactus* sp. n.

Closely allied to *Chelonocoris* MILLER 1938, differs in the characters included in the following comparison:

Chelonocoris MILLER

Large; length 15 mm or longer.
Head longer than broad across eyes; nearly parallel sided; beyond eyes slightly narrowed.
Jugae shortly projecting over tylus, forming a small cleft.
Antenniferous tubercles short, not exerted laterally, rather convergent.
Antennae more than twice as long as length of head. First antennal joint longest, as long or longer than head.

Eyes longer than broad, only slightly protruding.
Pronotum short, tapering anteriorly.
Metanotum fused with first abdominal tergite.
Trochanters fused with femora.
Seventh segment produced into long posterolateral lobes.
Spiracles of second to eighth segment ventral.

Euchelonocoris gen. n.

Small; length less than 7 mm.
Head longer than broad across eyes; nearly parallelsided; beyond eyes slightly narrowed.
Jugae slightly projecting over tylus, convergent or forming a small cleft.
Antenniferous tubercles on outer sides nearly parallel or convergent.
Antennae less than twice as long as length of head. First antennal joint shorter than length of head, third antennal joint longest.
Eyes longer than broad, only slightly protruding.
Pronotum short, tapering anteriorly.
Metanotum fused with first abdominal tergite.
Trochanters fused with femora.
Seventh abdominal segment not produced into lobes.
Spiracles of second to sixth segments ventral, of seventh segment lateral, those of eighth segment terminal.

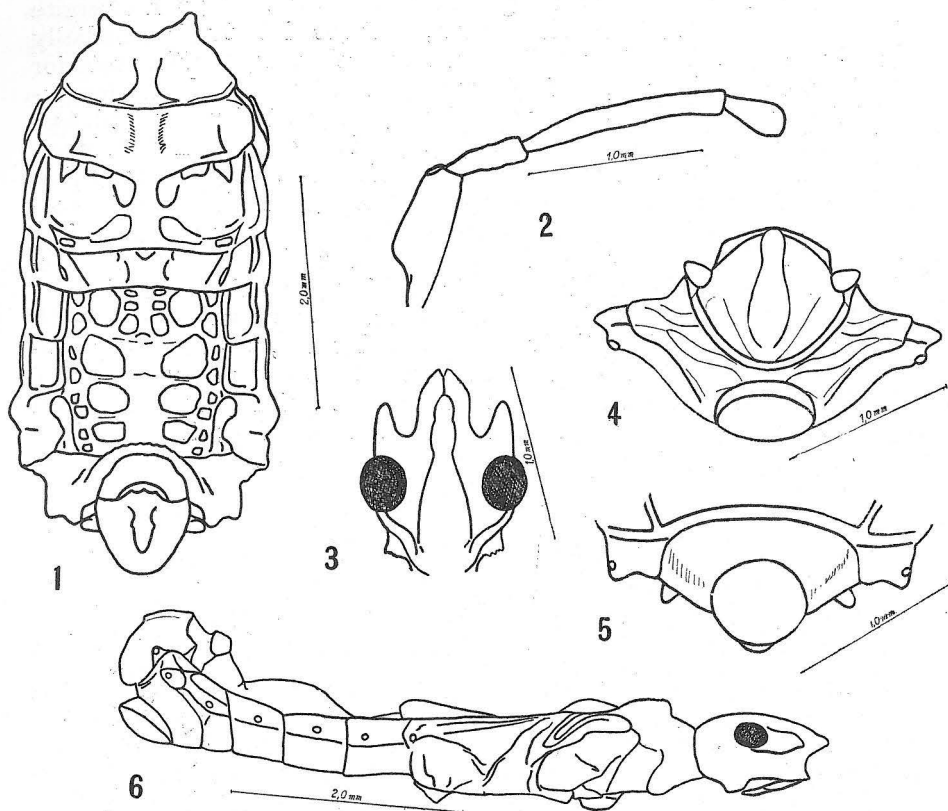
Euchelonocoris intactus sp. n.

(Fig. 15, 16)

Male: Length (from tip of jugae to apex of hypopygidium) 6,0 mm; maximum width of body (across metanotum) 2,24 mm. General outline (fig. 1, 6) elongate, parallelsided, tapering anteriorly and posteriorly, broadest across mesonotum, body flattened. General colour reddish brown; pubescence testaceous, sparse and short, here and there accumulated in small clumps of bristles on sides of thorax, on connexivum and on genital segments.

Head (fig. 3) nearly one and a half times longer than broad across eyes (33 : 24); jugae relatively short, slightly projecting over tylus and contiguous beyond it, at apice not forming a cleft; head with nearly parallel sides, at base constricted and marginally depressed, basally terminating in a short, obtuse process. Eyes big, rather less convex, longer than wide, slightly exerted; antenniferous tubercles short and subacute, projecting beyond the middle of jugae, their length from anterior margin of eye to apex as long as length of eye; head above slightly convex, passing in front into a carinate tylus and in basal part longitudinally sulcated; along the inner margin of eyes longitudinal callosity. Relative length of antennal joints (fig. 2) as I : II : III : IV :: 20 : 11 : 30 : 11; first segment stoutest subbasally thickest, projecting over jugae by $\frac{2}{3}$ of its length; second and third joints slender, apically slightly dilated, third slightly curved; fourth subpyriform; first to third joints with subapressed

pubescence, those on first joint longest and more numerous; fourth joint on its apical half with numerous long bristles. Rostral groove very wide, rostrum stout, reaching nearly to its posterior border; head distinctly sculptured, on basal and distal part with subappressed ferruginous pubescence.

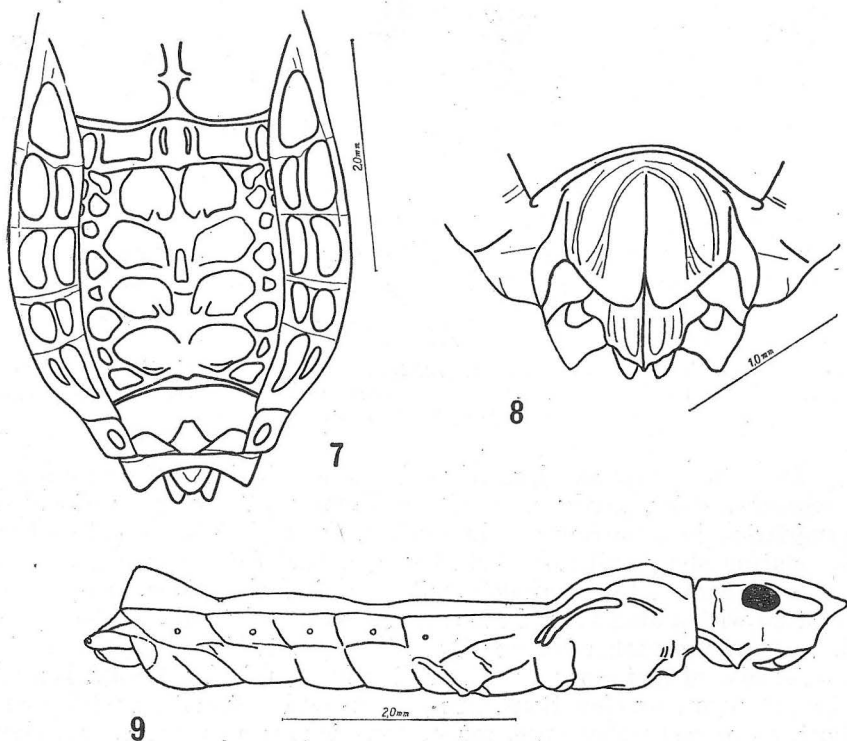


Eichelonocoris intactus sp. n. — male (holotype). Fig. 1: body, dorsal aspect; fig. 2: antenna; fig. 3: head; fig. 4: genital region, seen from behind; fig. 5: genital region, ventral view; fig. 6: body, lateral aspect.

Pronotum transversal, nearly one and a half times wider than head across eyes, short, partly fused with mesonotum, tapering anteriorly and terminating in a narrow rugulose collar, where it is as broad as head. Mesonotum short and not distinctly separated from metanotum. Pro-, meso- and metanotum granulose, with marginal elevations, pro- and mesonotum with a longitudinal groove and some sublateral elevated callosities; metanotum rather flat, not distinctly separated from basal abdominal tergite; disc of metanotum with median longitudinal callosity, laterally with great convex elevations. Pro-, meso- and metanotum with sparse, short, appressed pubescence, rather conspicuous on margins and elevations. Sternum convex, its disc flat, more or less punctulate-sculptured, on disc distinct punctulation; metathoracic gland ostioles visible from abo-

ve. Acetabula arched; legs rather long and slender, femur and trochanter fused; femora towards the apex incrassate, femur and tibiae with short subappressed pale pubescence.

Abdomen above in basal part flat, below convex; above separated into connexical and tergal areas; transversal margins of respective tergites elevated, laterally with irregular elevations and pits; third tergite with a medial longitudinal callose carine, fourth to sixth tergites medially strongly arched, seventh tergite strongly arched and with posterior margin strongly elevated, divided by a median transversal pseudosuturum into anterior area, strongly sculptured, and posterior area with two sublateral elevations; ninth segment (fig. 4) apically with a median longitudinal strong carine. Tergum practically without a pubescence; genital segment and adjoining areas strongly sculptured and clothed with subappressed pale hairs. Connexivum wide, border of anterior connexival segments nearly straight; the first two segments fused, extending forwards as a slender tip reaching ostiolar openings, posterior part of these fused segments with short, dense, pale pubescence; fifth to seventh connexival segments irregularly strongly sculptured, their margins prolonged into fine subtriangular lobes, those of the seventh segment more salient; eighth abdominal segment produced on either side of genital segment in to lobes reaching the middle of ninth segment; fifth and sixth



Eichelonocoris intactus sp. n. — female (allotype). Fig. 7: body, dorsal aspect; fig. 8: genital region, ventral view; fig. 9: body, lateral aspect.

segment clothed with short, pale hairs. Venter convex, strongly sculptured, with callose posterior margins and medial longitudinal carine; seventh ventrite (fig. 5) in posterior part with a big, bare and shining callosity, spiracles of second to sixth segments ventrally located remote from lateral margins, at middle of their respective segments, those of seventh ventrite situated laterally, of eighth segment on apex of posterior projection.

Female. Length 6,95 mm, maximum width of abdomen 3,04 mm. General aspect (fig. 7, 9) as in male, however abdomen relatively wider and towards the apex dilated and more rounded. Connexivum rather erected and lateral projections of fifth to seventh segments somewhat less prominent; body above strongly rugulose, but medial area of fourth to seventh segments not so strongly arched; seventh ventrite without a bare shining callosity. Genital segments as in figure 8.

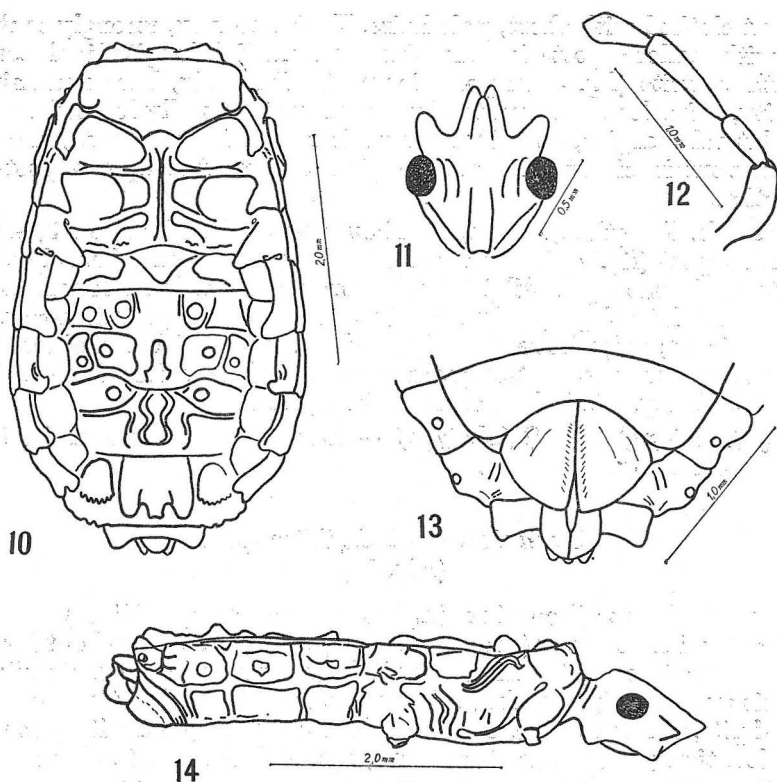
♂ (*holotype*) and ♀ (*allotype*) — Douala, Cameroun fr. 1. II. 1930 collected by A. David.

***Euchelonocoris infidus* sp. n.**
(Fig. 17)

Female. Length (from tip of jugae to apex of hypopygidium) 5,36 mm; maximum width of body (across abdomen) 2,43 mm. General outline (fig. 10, 14) elongate-oval, tapering anteriorly and towards the apex dilated, posteriorly rounded; body above flattened with strong elevations and pattern of pits, below convex. General colour grayish brown with some reddish elevations; pubescence testaceous, accumulated on lateral areas.

Head (fig. 11) subquadrate, slightly longer than width across eyes (26 : 23), jugae short, slightly projecting over tylus, very slightly diverging; head nearly parallelsided, postocular region roundly convergent; eyes big and convex, longer than wide, slightly exserted; antenniferous tubercles stout, terminating broadly and reaching nearly the apex of tylus; head above convex, tylus distinctly carinated, disc posteriorly with a longitudinal furrow; along the inner margin of eyes a longitudinal callosity. Relative length of antennal joints as I : II : III : IV :: 15 : 8 : 17 : 10 (fig. 12); first joint distally thick and slightly outwardly curved, projecting over the apex of jugae by $\frac{2}{3}$ of its length; second and third joints slender and straight, apically slightly dilated; fourth joint subpyriform; mainly first joint with pale suberected pubescence, fourth joint only on its apical half with numerous long bristles. Rostral groove very wide, rostrum stout, reaching the posterior border of the rostral groove. Head strongly sculptured with suberected ferruginous hairs, mainly basally and laterally.

Pronotum distinct, transversal, distinctly shorter than head (19 : 26), gradually narrowed anteriorly and with an apical narrow collar; anterior margin of pronotum distinctly excavated; pronotum strongly rugulose, lateral margins in the middle with one marginal and two submarginal hairy tubercles. Mesonotum laterally elevated and with one marginal hairy tubercle, a slight medial longitudinal groove prolongs itself into metanotum as a distinct smooth reddish longitudinal carine, with which



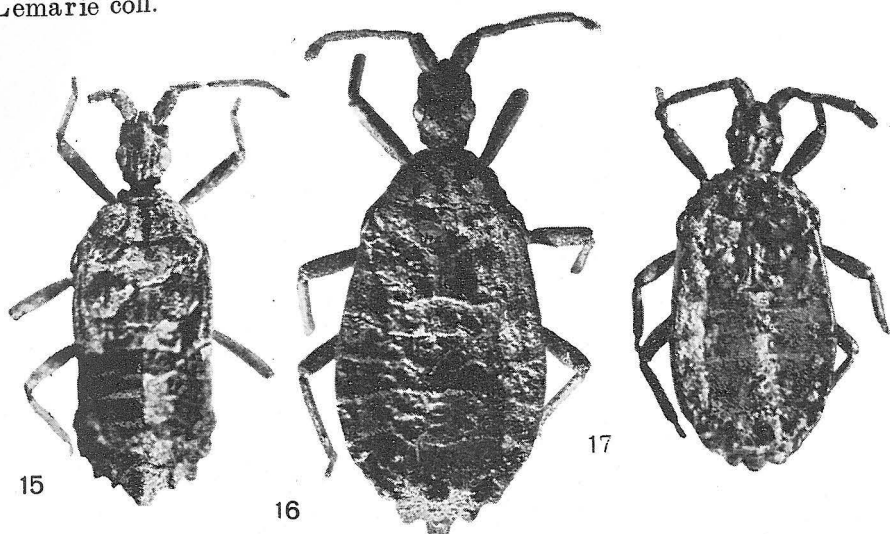
Eruchelonocoris infidus sp. n. — female (holotype). Fig. 10: body, dorsal aspect; fig. 11: head; fig. 12: antenna; fig. 13: genital region, ventral view; fig. 14: body, lateral aspect.

also metanotum is fused together with first abdominal tergite; metanotum with one elevation laterally from the medial carine and with one submarginal hairy tubercle. Sternum convex; coxae arched, trochanter and femur fused; legs rather long, femora and tibiae towards the apex distinctly incrassate.

Abdomen above separated into the connexival and tergal areas; tergum in the middle slightly longitudinally elevated, especially on the second and fourth to sixth tergites; sixth tergite in the middle with numerous hairy tubercles, seventh tergite with three hairy strongly prominent tubercles; tergum otherwise practically without pubescence, posterior margins of respective tergites callosity-like elevated; connexivum broad, suberected, its lateral border rounded; the first two segments of connexivum fused; posterior parts in the middle of respective connexival segments with distinctly prominent hairy tubercles. Posterior margin of eighth segment excavated, lateral lobes distinctly prolonged; genital segments as figured (fig. 13). Venter convex, with strong elevations; posterior margins of respective ventrites strongly and broadly callosity-like elevated and with medial elevations; spiracles of segments second to sixth ventrally located remote from lateral margins, at middle of their respective segments, those

of seventh segment situated laterally, of eighth segment on apex of lateral projection.

1♀ (*holotype*) — Lac Zonanghé, Gabon; Afrique E. Fr., F. Lemarie coll.



Euchelonocoris intactus sp. n. — fig. 15: male (*holotype*); fig. 16: female (*allotype*).
Euchelonocoris infidus sp. n. — fig. 17: female (*holotype*).

The position of both above mentioned African species is included in the following comparison:

Euchelonocoris intactus sp. n.

Length: 6 (♂) — 6,95 mm (♀)
 Jugae slightly projecting over tylus and contiguous beyond it.
 Antenniferous tubercles subacute.

Thorax and connexivum without any conspicuous hairy tubercles.

Tubercles on seventh tergite obsolete.

Euchelonocoris infidus sp. n.

Length: 5,36 mm (♀)
 Jugae slightly projecting tylus and forming a cleft beyond it.
 Antenniferous tubercles stout, broadly terminated.

Thorax and connexivum with conspicuous tubercles, clothed by accumulated hairs.

Tubercles on seventh tergite strongly prominent.

Bibliography:

- DRAKE, C. J. 1942. A new apterous Aradid from Australia (Hemiptera). The Pan-Pacific Entomologist, XVIII (4): 190—191.
 MILLER, N. C. E. 1938. A new subfamily of Malaysian Dysodiidae (Rhynchotha). Annals and Magazine of Natural History, 11, I: 498—510 (figs. 1—7).
 USINGER, R. L. 1941. Three new genera of apterous Aradidae (Hemiptera). The Pan-Pacific Entomologist, XVII (4): 169—181 (figs. 1—3).

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