

**Studies on African Aradidae III.  
Two new species of Aneurinae from Zaire and Aldabra Islands  
(Heteroptera, Aradidae)**

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**Abstract**

*Aneurillus zairenus* n.sp. from North-East-Zaire and *Breviscutaneurus micromorphus* n.sp. from Aldabra Islands are described and figured and their systematic relationships are discussed.

Key words: Heteroptera, Aradidae, *Aneurillus*, *Breviscutaneurus*, new species, Ethiopian region.

The subsaharan species of the subfamily Aneurinae have been recently studied by JACOBS (1986) including nine species and two subspecies placed in three subgenera (*Aneurillus*, *Breviscutaneurus*, *Paraneurus*). These subgenera have been given the rank of distinct genera by KORMILEV & FROESCHNER (1987). New material, now available for study has revealed, that there are two new species to be described. For measurements 40 units = 1 mm.

*Aneurillus zairenus* n. sp.

Figs. 1a, b, 2 d, e, 3 a, b.

Material examined: Holotype male and 6 ♂♂, 13 ♀♀ paratypes from NE-Zaire, Env. Watsa, I-82, Leger in coll. Heiss, British Museum, Hoberlandt and Jacobs.

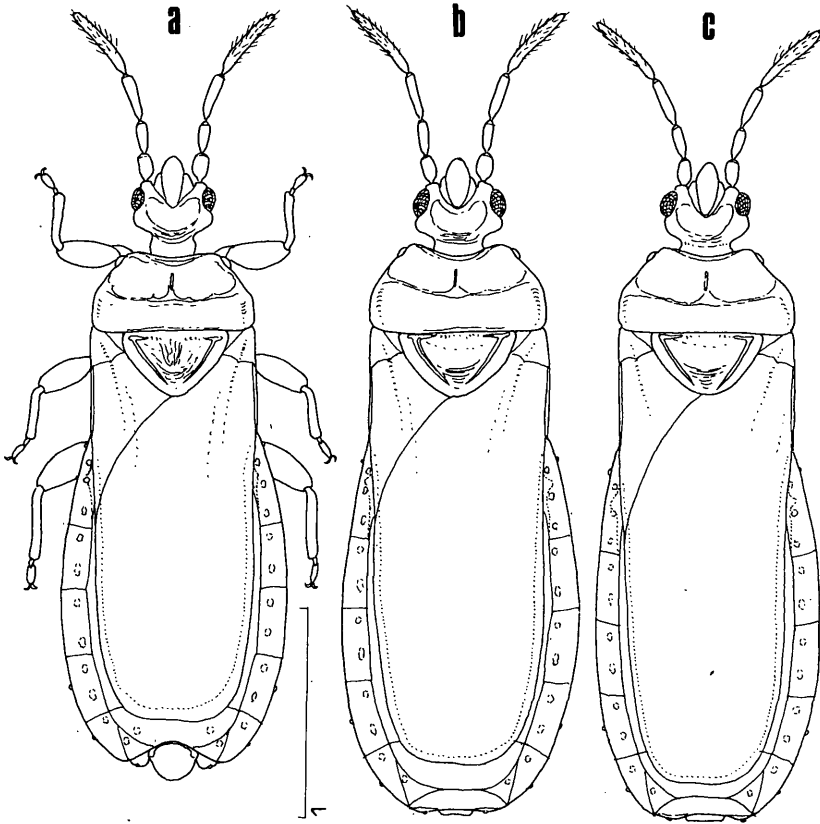
**Male** (Holotype), macropterous; small, elongate, body and appendages smooth and shiny. General color reddish-brown.

**Head**: Slightly wider across eyes than its length (to neck) (16.5/16). Clypeus tapering towards rounded apex, not reaching apex of antennal segment I. Antenniferous lobes very small, rounded; vertex flattened with transverse striation. Antennae 2.15 times as long as width of head; relative length of segments I: II: III: IV = 5/6/9.5/15.

**Pronotum**: Subtrapezoidal, 2.38 times as wide as long at midline; anterior margin slightly sinuate, posterior margin nearly straight; lateral margins parallel at humeri, then straight and converging anteriorly; anterolateral angles rounded. Supracoxal lobes visible. Anterior disk with indistinct callosities, separated by a thin longitudinal sulcus.

**Scutellum**: Distinctly wider than long at midline (19/12,5); lateral margins convex, apex rounded; sublateral sulci distinct, straight and converging to apex. Disk with faint longitudinal striation at base, transversely rugose between sulci.

**Wings**: Corium very short, sclerotized only at base; clavus minute, triangular. Membrane reaching basal 1/4 of tergite VII, transparent and finely irregularly wrinkled.



Figs. 1a-b: *Aneurillus zairenus* n. sp.; a, holotype male, dorsal view; b, Paratype female, dorsal view. – Fig. 1c: *Aneurillus pumilus*, paratype female, dorsal view.

**Abdomen:** 1.44 times as long as wide across tergite IV. Dorsum (fig. 2e) with fused external laterotergites II + III. Contergite marked as elevated smooth plate but is not separated by a sulcus. Tergal plate glabrous with 2 (1+1) submedian rugulose areas. Additional tergite VII present. Venter (fig. 2d) with sublateral fold delimiting the ventral hem. Spiracles II, VI and VII lateral and visible from above, III to V ventral, placed close to sublateral fold, VIII terminal.

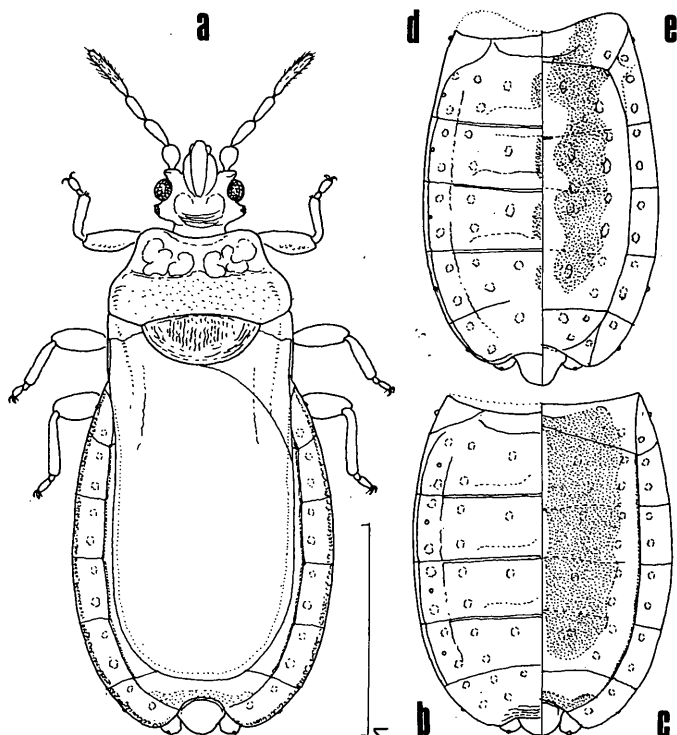
**Legs:** Femora swollen; tibiae thickening towards base, preapical comb of foretibia distinct. Claws with long, thin pseudopulvilli.

**Genital structures:** Pygophore pyriform (fig. 3a), about 1.2 times as wide as long; parameres forming rounded lobes with erect bristles (fig. 3b). Paratergites VIII with rounded apex, distinctly shorter than pygophore.

**Measurements:** Holotype, total length 2.95 mm; width across tergite IV 1.075 mm.

**Female:** Generally as male but larger size; tergite VIII about 6 times as wide as long, posterior margin only slightly sinuate; tergite IX wide, projecting over tergite VIII posteriorly.

**Variation of size:** ♂♂ 2.90-2.95 mm; ♀♀ 3.12-3.35 mm.



Figs. 2a-c: *Breviscutaneurus micromorphus* n. sp., holotype male; a, dorsal view; b, abdomen ventral; c, abdomen dorsal. – Figs. 2d-e: *Aneurillus zairenus* n. sp., male; d, abdomen ventral; e, abdomen dorsal.

**Discussion:** To date only two species of *Aneurillus* are known from Africa (*foliaceus* JAC., 1986 and *pumilus* JAC., 1986): The new species is closely related to *A. pumilus* which is of the same size and color, but differs by its wider and more stout abdomen (see figs. 1b and 1c), by the more elongate pygophore which is only 1.2 times as wide as long (1.5 in *pumilus*), by relatively longer antennae and by the less sinuate, nearly straight posterior margin of tergite VIII in female.

### *Breviscutaneurus micromorphus* n. sp.

Figs. 2a-c

**Material examined:** Holotype male, 1 ♂ paratype (pygophore missing, right antenna and legs damaged) from Aldabra, South Island, March 1974, Riggs, in coll. Heiss. Another specimen without abdomen from the same locality is not included as paratype.

**Male (Holotype),** macropterous, small; body and appendages with very fine granulation; general color light ochreous.

**Head:** About 1.16 times (18/15.5) as wide as long (to neck). Clypeus subparallel, apex rounded, slightly reaching beyond apex of antennal segment I. Genae projecting over juga but not reaching apex of clypeus, visible from above. Antenniferous lobes truncate anteriorly, enlarged anterolaterally. Postocular lobes subacute with conspicuous granulation on

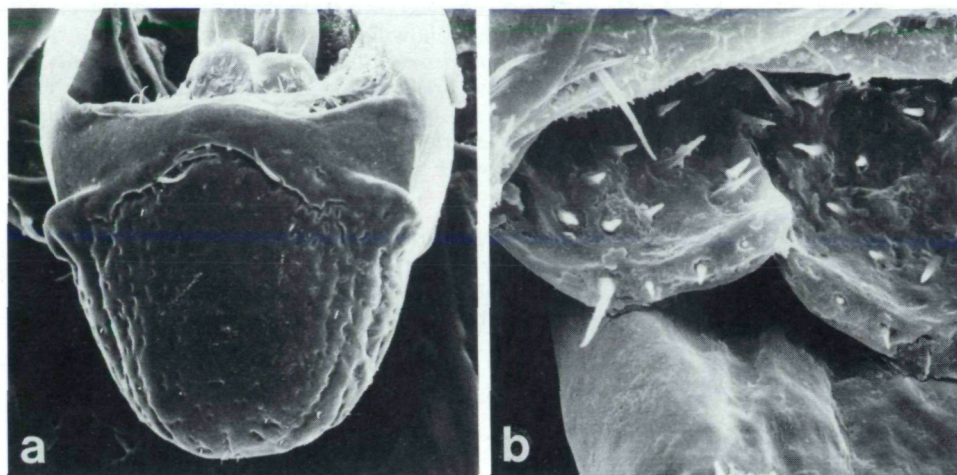


Fig. 3: *Aneurillus zairenus* n.sp.; a, pygophore, dorsal view; b, parameres.

its apices, which reach lateral margin of eyes. Vertex flattened, transversely striate posteriorly. Antennae about 1.52 times as long as width of head across eyes (1.77 times as long as length of head), relative length of antennal segments I:II:III:IV = 4.5/6/6/11.

**Pronotum:** Trapezoidal, about 2.43 times as wide as long at midline (34/14); anterior and posterior margin sinuate medially, lateral margins granulate, parallel at humeri, then slightly sinuate and converging anteriorly; anterolateral angles produced anteriorly, angularly rounded. Anterior disk with clusters of smooth callosities of different size.

**Scutellum:** About 2.4 times as wide as long (22/9), evenly rounded posteriorly; disk with longitudinal striation medially, transversely rugose elsewhere.

**Wings:** Corium very short, triangular, clavus indistinct. Membrane reaching about 1/3 of tergite VII, transparent but finely wrinkled except a small smooth margin.

**Abdomen:** Oval, 1.53 times as long as wide (65/49); dorsum (fig. 2c) with external laterotergites II+III separated; tergal plate with 2 (1+1) wide submedian rugulose areas, separated only by a thin glabrous strip medially, lateral margins formed by granulate carinae. Mediotergite VII rugulose on posterior 1/3. Dorsal external laterotergites (connexivum) evenly rounded, its lateral margins granulate; posterior glabrous apodemes slightly elevated on each laterotergite. Venter (fig. 2b) with a sublateral fold on sternites III to VI delimiting the ventral hem. Anterior lateral triangular sclerite present. Sternite VII transversely striate posteriorly. Spiracles II and VII lateral, III to VI ventral, far from sublateral fold, VIII terminal.

**Legs:** Stout, femora swollen; preapical comb present on foretibiae; claws with thin pseudopulvilli.

**Genital structures:** Pygophore subglobular, about 1.2 times as long as wide (8/7.5), disk transversely rugose, anterior margin with a transverse carina. Paratergites VIII triangular, rounded posteriorly, reaching rounded apex of pygophore. The only male has not been dissected for the study of the parameres which are relatively uniform within the genus.

**Measurements:** Holotype, total length 2.80 mm; width across tergite IV 1.22 mm.

**Discussion:** The genus *Breviscutaneurus* is only known from the African continent and its adjacent islands. JACOBS (1986) included the following species: *breviscutatus* (BERGR.), *helenae* (JAC.), *madagascariensis* (HOB.) and *medioscutatus* (JAC.), *B. micromorphus* n. sp. is the smallest species and seems to be related to *breviscutatus*, showing similar proportions of scutellum. But it differs from the latter by a wider head, ratio width/length = 1.16 (1.05 in *breviscutatus*), by shorter antennae, ratio length of antenna/length of head = 1.77 (1.9), by a more elongate abdomen, ratio length/width = 1.53 (1.3) and by a more globular pygophore, ratio width/length = 1.2 (1.4).

**Note:** JACOBS (1986:24) was not sure if *Aneurus angustus* BERGR., 1914, belongs to *Breviscutaneurus* and is listed as *Aneurus* by KORM. & FROESCHN. 1987:24. Specimens of *angustus* from La Reunion, the type locality, in my collection show all characters of *Breviscutaneurus*, therefore that species is to be transferred to this genus: *Breviscutaneurus angustus* (BERGR., 1914) comb. nov.

### Zusammenfassung

Es werden von Nordost-Zaire *Aneurillus zairenus* n. sp. und von den der afrikanischen Ostküste vorgelegerten Aldabra Inseln *Breviscutaneurus micromorphus* n. sp. beschrieben und abgebildet, sowie deren systematische Stellung diskutiert.

### REFERENCES

- BERGROTH, E., 1914: Zur Kenntnis der Gattung *Aneurus* Curtis (Hemiptera: Aradidae). – Ann. Mus. Nat. Hung. 12:89:108.
- JACOBS, D. H., 1986: Morphology and taxonomy of sub-saharan *Aneurus* species with notes on their phylogeny, biology and cytogenetics (Heteroptera: Aradidae: Aneurinae). – Ent. Mem. Dep. Agric. Wat. Supply S. Afr. 64:1-45.
- KORMILEV, N. A. & FROESCHNER, R. C., 1987: Flat Bugs of the World. A Synonymic List (Heteroptera: Aradidae). – Entomography 5:1-246.

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