

## A new genus of *Calisiinae* from Kameroun (Hem. Aradidae)

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By the kind offices of Dr. P. Wygodzinsky, Acting Chairman, Department of Entomology, American Museum of Natural History, New York, N. Y., I have had a privilege to study a very interesting specimen of *Calisiinae* from Kameroun, belonging to a new genus, for what I am expressing to him my sincere thanks.

*Calisiinae* still have some primitive characters, like connexivum I, or chytinous tergum VIII in the males, which are absent in other subfamilies of *Aradidae*. Some genera of *Calisiinae*, i. e. *Aradacanthia* Costa, 1864, *Calisiopsis* Champion, 1898, and *Paracalisiopsis* Kormilev, 1963, have developed highly modified antennae: segments I-III are moniliform, and IV much larger and longer, covered with spaced dots. Similar antennae has the new genus, described elsewhere in this paper. *Calisiinae* generally have a very developed scutellum, covering most of abdomen, with exception of connexivum and terga VII and VIII, only in some South Pacific and Australian species of *Calisius* Stål, 1860, scutellum is somewhat abbreviated. Body, with rare exception, is more or less covered with granules, or spicules. Hemelytra are also modified: corium is reduced to a narrow strip, visible laterad of scutellum; rest of hemelytron is membraneous and with reduced venation.

The new genus, which I propose to name *Paracalisius*, is intermediary between *Calisius* Stål, 1860, and *Paracalisiopsis* Kormilev, 1963. From *Calisius* it differs by antennae with segments I-III moniliform, and IV almost as long as the first three together, covered with spaced dots, and by connexivum I superimposed on the upper edge of metapleuron in front of connexivum II, as in *Paracalisiopsis*. From the latter it differs by head similar to that in *Calisius*, not

widening inferiorly and flattened from below, and by exterior borders of connexiva with a double row of granules, also as in *Calisius*.

In the ratios the first figure indicates the length, and the second the width of measured portion; 25 units equal 1 mm. The length of abdomen was taken from the fore border of connexivum I to tip of segment IX.

### CALISIINAE.

#### *Paracalisius* nov. gen.

Type species: *granulatus* nov. sp.

Ovate; very coarsely granulate on head, and particularly on pronotum and scutellum, granules mostly arranged in rows; coarsely punctured between granules on pronotum, scutellum and discs of connexiva.

Head similar to that in *Calisius*, with obovate anterior process. Antennae short, half as long as head wide across eyes; segments I to III moniliform, IV much larger, almost as long as the first three together, and covered with spaced, round dots, as in *Calisiopsis*. Connexivum similar to that of *Calisius*, with a double row of granules on exterior margin, but connexivum I is triangular, superimposed on upper edge of metapleuron, and placed in front of connexivum II, as in *Paracalisiopsis*. Other characters as in *Calisius*.

#### *Paracalisius granulatus* nov. sp.

Figs. 1-2.

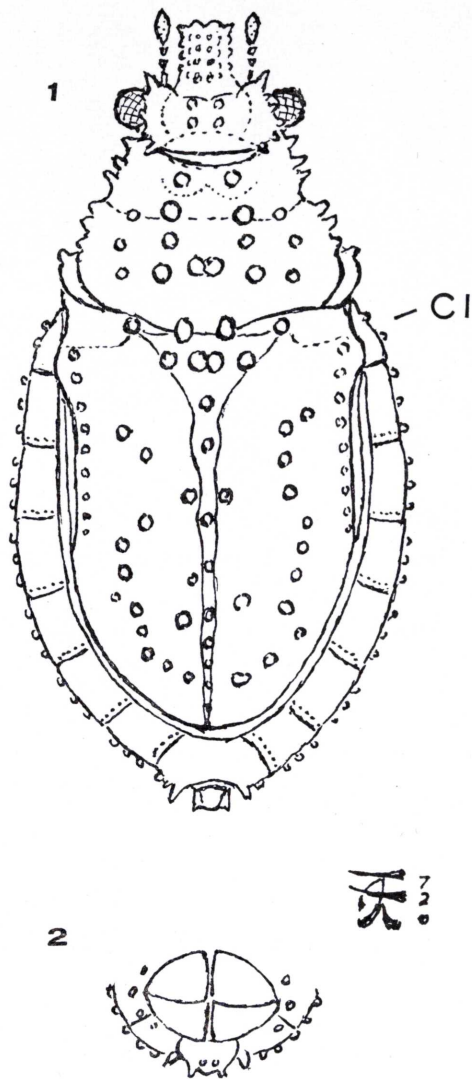
Holotype ♀, from Lolodorf, Kameroun (G. Sabwah coll.) (American Museum of Natural History, New York, N. Y.).

*Head*, pronotum, scutellum, connexivum, prosternum, propleura, mesosternum laterally, and venter posteriorly, covered with a thin layer of white incrustation.

*Head* shorter than its width across eyes (16:23); anterior process obovate, finely granulate, separated from vertex by a deep, transverse sulcus; antenniferous tubercles dentiform, acute, divaricating and declivous; eyes large, semiglobose, protruding; postocular tubercles



small, blunt, not reaching outer borders of eyes; vertex depressed, with 4 (2 + 2) round granules; infraocular carinae consisting of a row of round tubercles of various size; space between infraocular



Figs. 1-2.—*Paracalisius granulatus* nov. gen., nov. sp., ♀: 1) dorsal aspect (CI — connexivum I); 2) same, tip of abdomen, ventral aspect. (× 17).

carinae and vertex is wide, finely punctured, and declivous inward. Antennae with segment I cylindrical; II subcylindrical, narrowed at base; III almost spherical, narrowed at base; IV fusiform, covered with spaced, round dots; relative length of antennal segments I to IV

are: 2:2:1.5:5. Labium arising from an open atrium far from the tip of head, reaching hind border of labial groove, which is deep, narrow, open posteriorly; bucculae thin.

*Pronotum* almost half as long as its maximum width (20:38), truncate anteriorly. Collar flattened, without granulation, or punctures, separated from fore disc by a fine sulcus. Antero-lateral angles dentiform, directed outward; lateral borders carinate, with a row of high, blunt spicules on fore lobe, and with a double row of round granules on humeri; hind border convex medially, sinuate laterally. Fore disc with 2 (1 + 1) round granules placed on a transverse carinae; interlobal sulcus deep; hind disc transversely raised, declivous forward and less so backward, with 4 (2 + 2) rows of round granules, 3 granules in each row; granules in inner row are larger than in outer rows; in the middle of hind disc is placed a large, double granule.

*Scutellum* longer than its maximum width (48:35); basal triangular elevation produced posteriorly into median carina of scutellum; on basal border of the triangular elevation are placed 4 (2 + 2) large, round granules, and behind two inner ones one double granule, flanked by 2 (1 + 1) equally large granules. Median carina with spaced, round granules; lateral borders on basal half with a row of somewhat smaller granules; disc laterad of median carina with 2 (1 + 1) S-shaped rows of round granules, and along hind border extends a curved, transverse row of 6 granules (3 + 3).

*Hemelytra* seen only as a narrow strip laterad of scutellum; without granulation.

*Abdomen* ovate, longer than its maximum width (55:46); connexivum moderately wide, raised externally, and with a double row of granules on exterior border, 3 granules on each segment from II to VII, 2 granules on segment I; upper row has smaller granules, sometimes semiobliterated. Hind border of connexiva with a row of small granules, discs punctured. Tergum VIII trapezoidal, without granulation. Paratergites dentiform, small; segment IX tricuspidate. Spiracles II to V ventral, placed far from border; VI and VII lateral, placed on a spicule; VIII terminal.

*Propleura* and mesopleura with a row of spicules along lower border; metapleura with a row of very small granules on upper border. Connexivum II on ventral side with a thin, oblique carina on limit with connexivum III.

*Color*: uniformly yellow, eyes black; antennal segment IV yellow brown with pale yellow, round dots. Incrustation white.

Total length 3.68 mm; width of pronotum 1.52 mm; width of abdomen 1.84 mm.

Holotype ♀, (American Museum of Natural History, New York, N. Y.); Kameroun, Lolodorf; G. Sabwah coll.

To the new genus, *Paracalisius*, probably belongs also *Calisius verruciger* Horvath, 1913, but I was not able to locate the type of the latter. In accordance with Horvath (1913: 361), the type should be at the Paris Museum, but it is neither in Paris, nor in Budapest.

#### RESUMEN.

El autor describe un género y especie nuevos de la subfamilia *Calisiinae* (*Hemiptera*, *Aradidae*) del Camerún. Aquel que se denomina *Paracalisius* es afín a *Calisius* Stål, 1860, del cual se distingue por el conexivo I, sobrepuesto al margen superior de la metapleura en vez del conexivo II, por los antenitos I-III monoliformes y el IV más largo y más ancho, con puntos dispersos.

El nuevo género se diferencia del *Paracaliopsis* Kormilev, 1963, por su cabeza, de tipo *Calisius*, y por los bordes exteriores del conexivo, adornado de dos líneas de gránulos, lo mismo que en *Calisius*.

Establece *Paracalisius granulatus* nov. gen., nov. sp. como tipo del género.

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