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Cave Collembola of New Guinea collected by the Explorer's Club of the Nanzan University

Riozo YOSII

During their successful tour throughout East New Guinea in 1970 members of the Nanzan University in Nagoya with the leader Mr. Akira Ohta have collected the collembolan examples in caves of Chuave near Goroka. The material is of great interest since nothing is known about the cavernicolous collembola of New Guinea, where the existence of many gigantic caves is recently found. The material sorted out by Mr. Ryokichi Ito and submitted to me for investigation includes three species, but none of them seems to be a true troglobiont in nature.

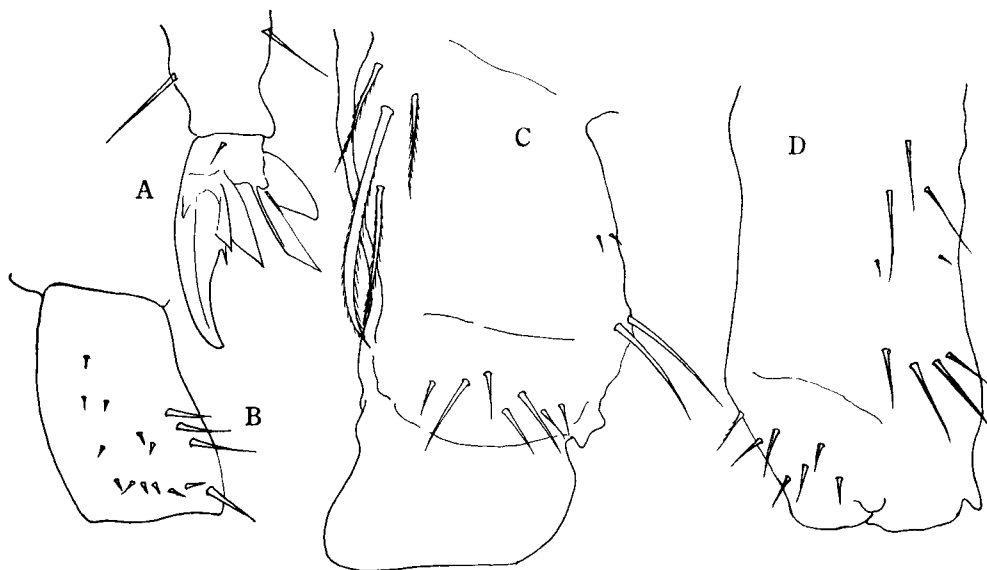
My hearty thanks are due to those who has furnished me the nice opportunity of investigating them.

Sinella (Coecobrya) papuana sp. n.

Fig. A, B, C

Chuave Cave (34 ex. 1. VIII 1970), ditto (20 ex. 1. VIII 1970), Van Mendela Cave between Gembame and Komboko (2 ex. 18. VI 1970)

Body length up to 1.7 mm, totally white. ant.: head as 20:8, ant. segm. ratio as 25:45:45:80. Ant. IV without apical swelling and without annulation. Ant. III-organ is two short, blunt rods and not to form a racket shape. Ant. II bears one rod of the same form subapical in position. Eyes absent. Labral setae 4/5, 5, 4, all smooth and labral margin has no structures. Labial setae all smooth. Tenent hair is pointed apically. Unguis bears a pair of inner proximal teeth, the outer one of which is strongly developed to form a wing-tooth and much larger than the opposite inner tooth. A small inner distal tooth is at the same level with them. A pair of lateral teeth are distinctly present. Unguiculus is lightly truncate distally and with a large wing-like outer tooth. Tibiotarsus of hind leg bears a large p-seta, but without a row of smooth setae in contrast to *Sinella* (s. str.) spp. or *Sinella (Coecobrya) tibiotalis* Yosii, 1964 of Japan. Trochanteral organ is composed of ca. 20 spiny setae, those of the posterior margin are elongate and large, but others are small or minute. Ventral tube elongate, with a large and three feeble ciliate setae anteriorly to one side. Posterior face bears 1+1 terminal smooth setae and 1+1 very minute setulae proximally. Lateral flap bears 7 smooth setae. The facies of posterior face is constant in all examples examined. Furca with man.: d. as 6:10. Dorsally the manubrium is hirsute and with a row of some 9 smooth setae to each side as characteristic to the subgenus *Coecobrya*. Basal part of dentes also bears 2 such smooth setae. Mucro is falciform and with a besal spine as usual. Integument is smooth and chaetal arrangement of large setae are not different from other species of the genus.



Sinella (Coeobrya) papuana sp. n.
 A: hind-claw, B: trochanteral organ, C: ventral tube (lateral view)
Sinella (Coeobrya) arcuata Yosii
 D: ventral tube (posterior view)

This Papuan species is near *Sinella (Coeobrya) dubiosa* Yosii, 1956 of Japan, but winged teeth are broader and posterior face of ventral tube has quite a different chaetal arrangement. In this occasion I have investigated the posterior face of Japanese *S. dubiosa* once again and affirmed the fixed pattern of it as shown in Yosii 1964, p. 29, Fig. 3, H. Meanwhile the specimens of *S. dubiosa arcuata* Yosii, 1955 from Tokara, Ryukyu Archipelago were investigated. The result is that it has quite a different pattern of chaetal arrangement (Fig. D), so that it must be regarded an independent species.

***Pseudosinella yosii* Salmon, 1964**

syn.: *Pseudosinella truncata*: Yosii 1959

Chuave Cave (7 ex. 1. VIII 1970)

The examples coincide well with my previous description. As the material is lightly macerated commentary notes are retained.

Distribution: Singapore and New Guinea (nov.)

***Pseudoparonella* sp.**

Guruma, Membiki, Komboko (1 ex. 23. VI 1970)

The species is near *Ps. dorsanota* SALMON, 1941 of New Zealand in the pattern.

But the mucronal structure is quite different. As the material is restricted the full description of the species is retained.

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