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A NEW SPECIES OF THE GENUS NEOSCOTOLEMON FROM ECUADOR (ARACHNIDA, OPILIONES LANIATORES, PHALANGODIDAE)

BY

Maria RAMBLA

(With 4 figures in the text)

The present paper is the second by the author, dealing about the Opilionids from Ecuador Continental.

Dr. N. LELEUP of the « Musée Royal de l'Afrique Centrale, Tervuren », collected this interesting material of Opiliones, during the Belgian Expedition to the islands Galapagos and Ecuador. The author wishes to thank Dr. LELEUP for making these Opilionids available for study.

The new species described here, was found in the remains and moist vegetable detritus of the neotropical forest. General observations of the habitats of this region, have been recorded in the publications of the « Mission Zoologique belge aux îles Galapagos et Ecuador, Volume I ».

Types are deposited in the collection of the « Institut royal des Sciences naturelles de Belgique », and paratypes in the collection of « Instituto de Biología Aplicada », University of Barcelona, Spain.

The new species is a Laniatorid belonging to the family *Phalangodidae*, and to the genus *Neoscotolemon*. This genus was erected by ROEWER in 1912, to accomodate the species *spinifera* PACKARD 1888 from Florida and the species *pictipes* BANKS 1908 from Cuba, previously described in the genera *Phalangodes* and *Scotolemon*, respectively.

GOODNIGHT in 1942, described the third species, *lutzi*, from Dominica. But the same author in 1951, detached the species *spinifera*, from the

genus *Neoscotolemon*, to accomodate it in the genus *Stygnomma*. With this present description there are now, three described species in the genus *Neoscotolemon* : *pictipes*, *lutzi* and *caheni n. sp.*

The species *pictipes* seems to be a form of transition between the species of the genus *Neoscotolemon* and the genus *Stygnomma*. Although there exists in *pictipes* an eye tubercle, these eyes are widely separated, and placed in the cephalothorax, almost out of the eye tubercle. *Neoscotolemon pictipes* appears to be related to *Stygnomma maya* and they agree strongly with one another.

On the other hand, and keeping in mind the type species of the genus *Neoscotolemon* was *spinifera*, and which was later placed in the genus *Stygnomma* by GOODNIGHT 1951, this shows that there exists a strong relationship between some of these species of these two genera. To the contrary, the new species *caheni*, appears to be more related with the genus *Pachylicus* than with the genus *Stygnomma*.

It must be noted that, some ROEWER's genera, have not been correctly delineated, so that, the status of these genera is not assured. Owing to this, the use for us of ROEWER's genus *Neoscotolemon*, does not imply acceptance, but only recognition of it, until generic revision be completed, by the revisors of these genera.

Actual diagnosis of the genus *Neoscotolemon* is as follow.

Neoscotolemon ROEWER, 1912

Type species. — *Scotolemon pictipes* BANKS, 1908.

Phalangodids with eye tubercle usually slightly removed from the anterior margin of the cephalothorax. Eye tubercle tipped by a characteristic spine. Dorsal scute with five areas, the boundaries of which are parallel to one another. First area without a median line. Abdominal scute and free tergites unarmed. Spiracles visible or partially obscured. Chelicera normal. Palpus armed ventrally and laterally with the characteristic spine-bearing tubercles. Tarsal articulations as follow : first tarsus with four articles, second tarsus with more than six articles, and third and fourth tarsi, with four or five articles. Distitarsus of first tarsus with two articles, of second with three. Secondary sexual characters of the male sometimes present, but not very pronounced.

This genus differs from others related in the subfamily, in having the eye tubercle tipped by a characteristic spine, in the number of tarsal joins and in lacking dorsal spination.

The three species within the genus, are separated mainly on the basis of the different size and color, the different spination of the palpus, the differences in the shape of the eye tubercle and in the spine above it. According to these differences we have made a key to separate this three species.

Key to species of *Neoscotolemon*

1a. — Eye tubercle very expanded and boundaries wide-spread. Eyes widely separated and spine between them as a prominent cone . . . . . *N. pictipes.*

1b. — Eye tubercle rounded and boundaries easy discernible. Eyes close together and spine between them slender and not as a cone . . . . . 2.

2a. — Femora of legs with big hair-tipped tubercles. Size about 3 mm in length . . . . . *N. caheni* n.sp

2b. — Femora of legs without such tubercles. Size about 2 mm in length . . . . . *N. lutzi.*

Neoscotolemon caheni n.sp.

Types. — Male holotype and female paratype deposited in the collection of the « Institut royal des Sciences naturelles de Belgique ». Paratypes deposited in the collection of the « Instituto de Biologia Aplicada », University of Barcelona, Barcelona, Spain.

Messurements. Male. — Total body length 3.16 mm. Greatest body width 1.62 mm. Proximal chelicera article 0.75 mm; distal article 0.98 mm. Palpus : trochanter 0.25 mm; femur 0.70 mm; patella 0.35 mm; tibia 0.53 mm; tarsus 0.43 mm; total length 2.26 mm. Femur of first leg 1.53 mm; total leg length 4.85 mm. Second femur 2.53 mm; total length 10.62 mm. Third femur 1.51 mm; total length 5.41 mm. Fourth femur 3.28 mm; total length 12.19 mm.

Description. Male holotype. — Body pearshaped. Anterior margin of cephalothorax with one lateral small projection on each side and one in the middle. Slightly curved at the level of the insertion of the chelicera. Dorsal scute with five distinct areas. Free tergites and dorsal areas without median paired tubercles or spines. Each dorsal area with hair-tipped tubercles arranged in rows. Bigger tubercles along the lateral margin of the dorsal scute and in the dorsum of first and fourth coxae. Anal operculum tuberculate. Eye tubercle placed near to the anterior margin of the cephalothorax, but slightly separated from it, rounded and tipped by the characteristic spine which extends forward above the eye tubercle. Eyes present and surrounded by some tiny granulations. On the median posterior line of the cephalothorax, there are two rows of three small hair-tipped tubercles, (Fig. 1).

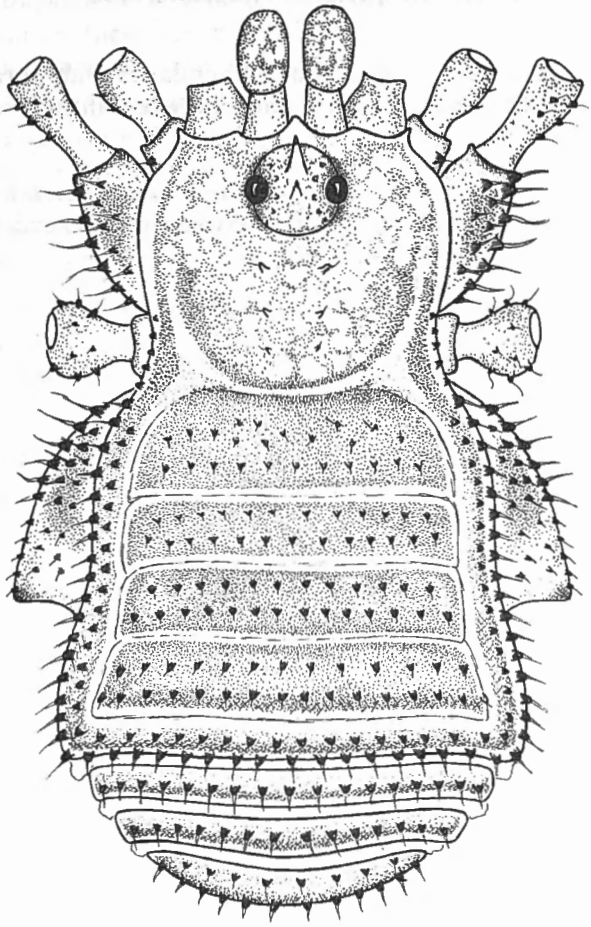

Fig. 1. — *Neoscotolemon caheni n. sp.*
Dorsal view of male holotype.

Ventral surface with a transverse row of these tubercles on all sternites. Coxae with scattered hair-tipped tubercles. Fourth coxa and trochanter with a distal ventral tubercle, bigger than the others. Spiracles, though visible, appear more or less obscured by these distal tubercles. Behind the genital operculum and between the fourth coxae, is present a dense mass of low and whitish tubercles not tipped by hairs, (Fig. 2 a).

Chelicera normal, rather small; smooth except for a few hairs on the frontal margin of the distal article. Proximal article slender at the base, but enlarged dorsally and distally, (Fig. 2 b).

Palpus somewhat shorter than the body, unarmed dorsally except some hairs. Ventrally and laterally armed with the characteristic spine-bearing

tubercles as follow : femur with one apical, two medial and two basal spines; patella with only a very rudimentary spine; tibia with two lateral pairs of spines, and tarsus with three lateral pairs, the last one is shorter than the others. Tarsal claw not heavy, and shorter than the tarsus, (Fig. 2 c).

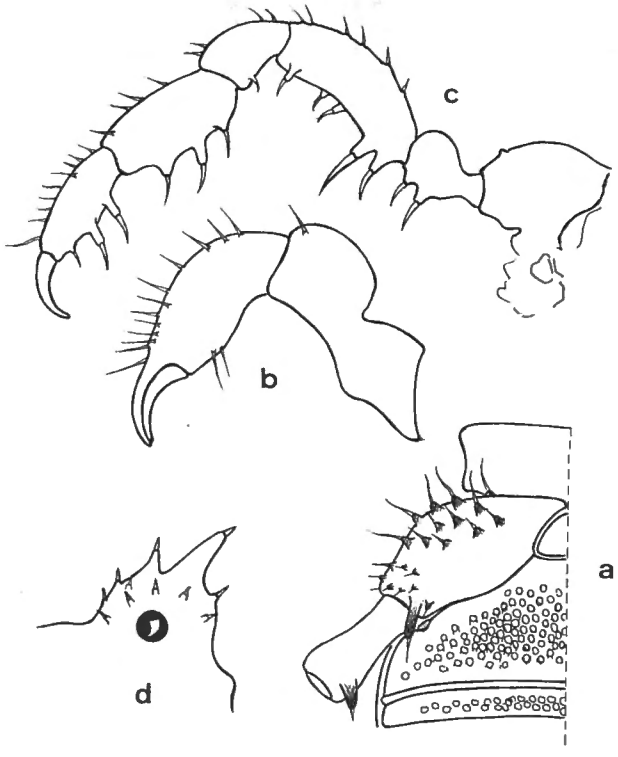

Fig. 2. — *Neoscotolemon caheni. n. sp.*, male holotype. a) part of ventral face showing the dense mass of whitish tubercules, between the fourth caxae and the fourth trochanters; b) lateral view of right chelicera; c) lateral view of right palpus; d) lateral view of eye tubercle.

Legs moderately long, clothed with thin hairs and tubercles. These tubercles are particularly robust and prominent on the first and fourth femora. Metatarsi not divided into astragali and clacanea. Tarsal formula 4(2) : 8(3) : 5 : 4. Distitarsus of first tarsus with two articles, of second with three, (Fig. 3). Fourth leg longer than the second.

Color of dorsal body reddish brown, with some darker brown spots mottling the cephalothorax. Areas and free tergites darker reddish brown in the center, but outlined lighter. Venter and coxae somewhat lighter than the dorsum. Appendages the same color as the body, but lighter yellowish.

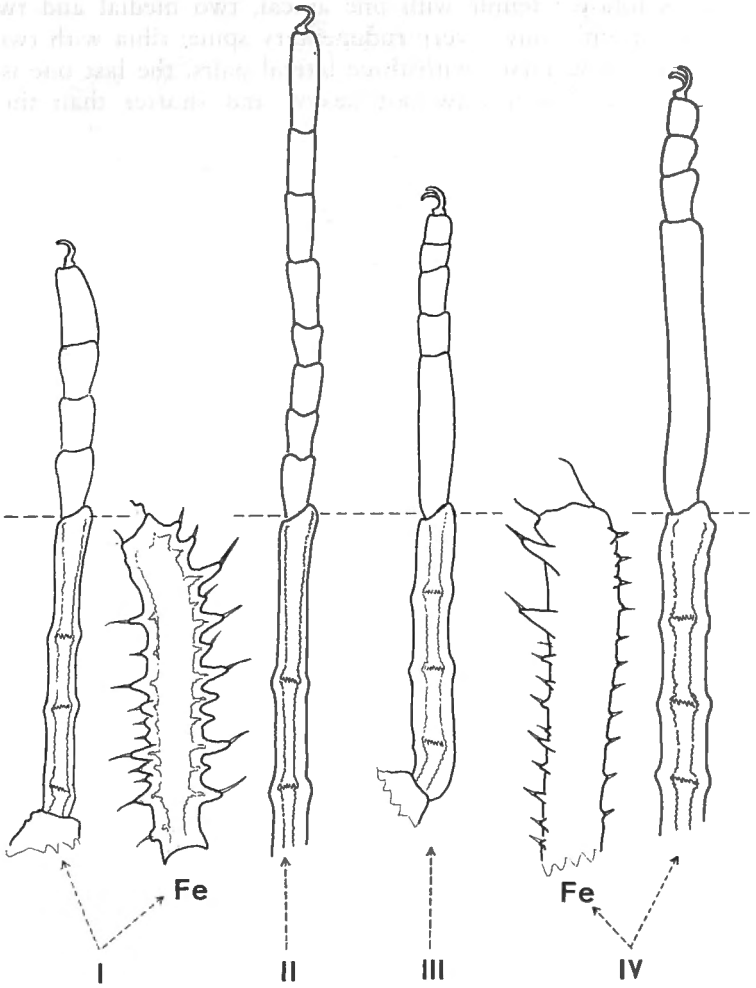

Fig. 3. — *Neoscotolemon caheni n. sp.*, male holotype.
Tarsi and distal portion of metatarsi. First femur and distal part of fourth femur.

Penis long and slender. Total length 0.55 mm. The tip more enlarged and showing its different parts. (Fig. 4 a and b).

F e m a l e. — Total length 3.8 mm, widest portion of abdomen 2.3 mm. Legs of the female somewhat shorter than the male, and the body larger in size and lighter in color. Tarsal formula 4(2) : 8(3) : 5 : 5. Similar in appearance to male, but lacking the dense mass of whitish tubercles in the ventral surface.

Ovipositor short and enlarged. Distal portion with the four characteristic lobes, and every one provided with three rigid setae, and so total

number of setae: 12. Lateral view as in Fig. 4 d. Apex in a frontal view shows a geometric drawing as in Fig. 4 c.

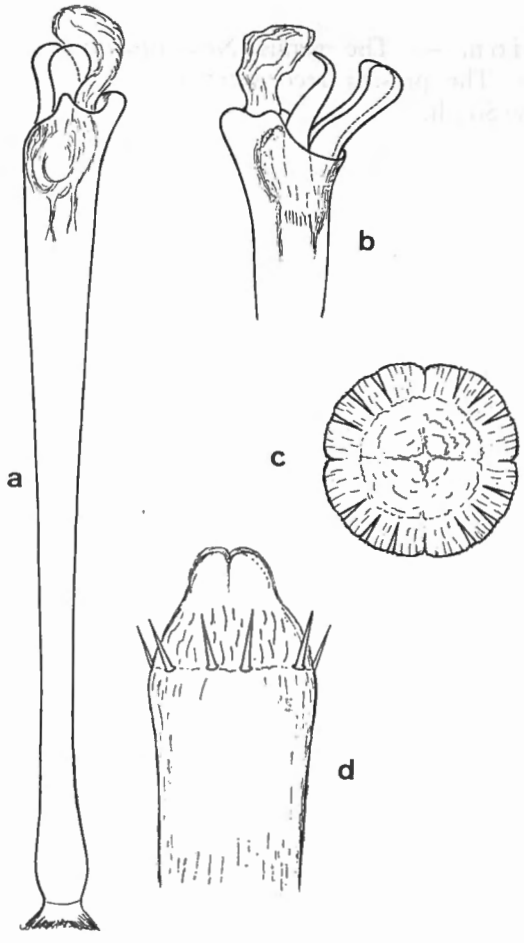

Fig. 4. — *Neoscotolemon caheni n. sp.*

a) whole penis of male holotype in lateral view; b) the tip a bit more enlarged; c) frontal view of ovipositor of female paratype; d) lateral view.

Variations. — It is found that the tarsal formula, it is not of specific importance, since that, there is some variation among the four specimens studied. In this case the tarsal formula may be : 4 : 8 : 5 : 4 or 4 : 9 : 5 : 5 or 4 : 8 : 5 : 5 or 4 : 6 : 5 : 5.

There is some variation also in the armature of the eye tubercle, Male holotype has two spines instead of one, but this second is smaller than the characteristic one.

Habitat. — According to personal communication of Dr. LELEUP, these specimens were collected in the humus on flood debris under fallen wood, in the tropical forest toward Archidona, and about 750 m of altitude.

Distribution. — The genus *Neoscotolemon* is distributed in Central America. The present record from Ecuador extend the limite-distribution to the South.

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