

A NEW *SCAPHEREMAEUS*
(ORIBATEI: CYMBAEREMAEIDAE)
FROM CENTRAL AMERICA.

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RESUMEN

Se describe e ilustra una nueva especie de ácaro oribátido, del género *Scapheremaeus*, habitante de ambientes epífitos de selvas de Nicaragua y México.

ABSTRACT

A new species of Oribatei, from the genus *Scapheremaeus*, living in epiphytic environments in tropical forests from Nicaragua and Mexico is described and illustrated.

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INTRODUCCION

Thanks to the agreement of collaboration between Universidad de Nicaragua and Universidad Nacional Autónoma de México, several expeditions were realized to collect microarthropods to Nicaragua. Some of the results were given by Maes, Palacios-Vargas & Jiménez (1989) who cited the presence of the genus *Scapheremaeus* in epiphytic plants. The same species was collected by Vázquez, at Sian Ka'an Biosphere Reserve (Quintana Roo, México) and very recently by Alvarez at the "Los Tuxtlas" Tropical Biology Station (IBUNAM, Veracruz, México).

The genus was represented by 18 known species in the Neotropical Region (Balogh & Balogh, 1992; Rios, 1996), but recently Palacios & Rios (in press) have prepared the description of several Mexican species.

This genus *Scapheremaeus* is known to prefer epiphytic environments, such as mosses and lichens, but can also be occasionally found in other biotopes as litter and soil.

***Scapheremaeus flamiferus* sp. nov.** (Figs. 1-4).

ADULT. Measurements. Mean length ($n = 8$) 414 μm , range: 374-433 μm . Mean notogastral width: 225 μm .

Integument. Integument sculptured, small oval sculptures on notogaster, bigger sculptures on prodorsum, ventrally some ovals with a clear centrum. Cerotegument with very fine granules (Fig. 1).

Prodorsum. Rostrum broadly rounded (Fig. 1). Rostral setae (*ro*) 15 μm long, smooth, setiform. Without lamellae, cuspides not well developed. Lamellar setae (*le*) very short, 15 μm , in the shape of a flame, similar to that of notogaster. Without interlamellar and exobothridial setae. Sensillus 55 μm long, head clavate dark and surface moruliform, stalk smooth.

Notogaster. Irregular in shape and showing a posterior concavity, with a clear separate marginal zone, length to width ratio about 1.75, dorsointernal part well defined and with three carinas, the median straight lateral carinae curved and less conspicuous. Dorsosejugal suture complete. Scapular process indistinct. Ten notogastral setae are present, all flame shaped and of about the same length (6 μ m) (Fig. 4). In the inner part of notogaster only two pairs of setae (*dm*, *dp*). Lyrifissures and the opisthosomal gland opening difficult to distinguish (Fig. 1).

Ventral region. Apodemes partially obscured by heavy sculpturing on coxisterna. All ventral setae smooth and short. Coxisternal setation: 3, 1, 2, 2 (Fig. 2). Genital plate with six setae, each two of them (*g5* and *g6*) on the anterior margin. One pair of aggenital setae. Anal plate with two setae. Three pairs of adanal setae. One pair of well developed lyrifissures *iad* located at the anterior corner of the anal opening.

Legs. Monodactylous.

Material examined. Holotype: Adult female and 8 paratypes from NICARAGUA: León, "Las Delicias" ex *Tillandsia* sp. on *Crescentia alata*. One specimen from *Epidendrum alatum* on *C. alata*. Holotype and two paratypes will be kept at Museo Entomológico, S.E.A., León, Nicaragua, the other paratypes will be kept at autor's institution. Other material studied: NICARAGUA: Matagalpa, "Selva Negra", 1,600 m alt., ex trunk and bark of trees, J.G. Palacios Col. (2 specimens). MÉXICO: Quintana Roo, Sian Ka'an Biosphere Reserve, ex soil, 5-VII-95, M. Vázquez Coll. (2 specimens). Guerrero, Xolapa, 17-X-1982, ex mosses, J.G. Palacios Col. (4 specimens). Veracruz, "Los Tuxtles" Tropical Biology Station, 20-X-1996, ex litter of *Poulsenia armata* (1 specimen) and *Nectandra ambigens* (1 specimen) from the canopy of *Astrocarium mexicanum*, J. Alvarez Col.

Type locality: NICARAGUA: León.

Etimology: The name refers to the notogastral setae in the shape of a flame.

Variation. One specimen presents all genital setae in a longitudinal line. One specimen from "Las Tuxtles" Tropical Biology Station shows bacilliform notogastral setae.

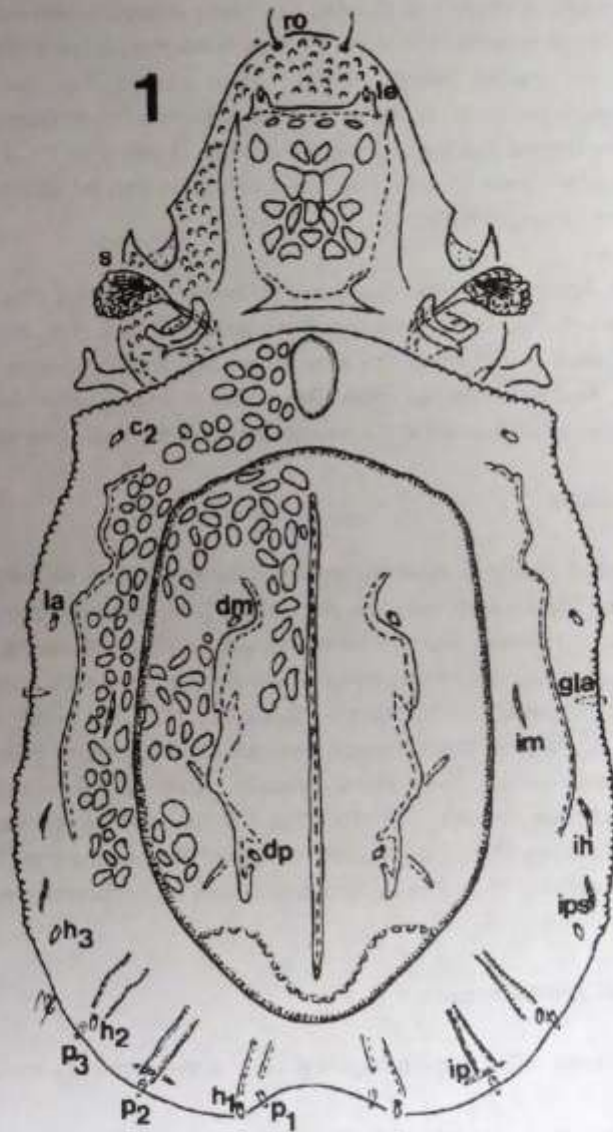


Fig. 1 : *Scapheremaeus flamiferus* sp. nov., dorsal aspect.

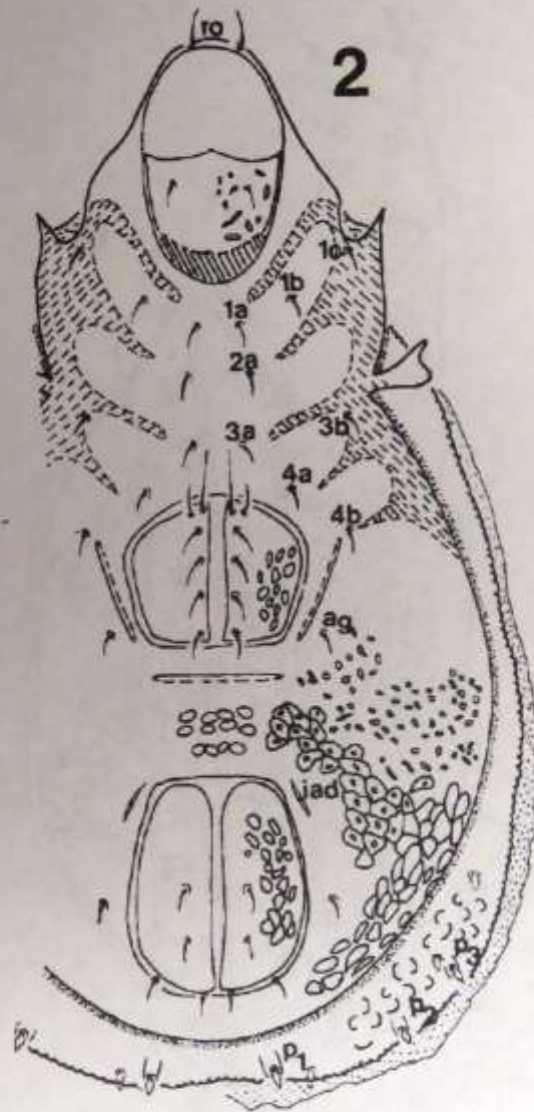


Fig. 2 : *Scapheremaeus flamiferus* sp. nov., ventral aspect.

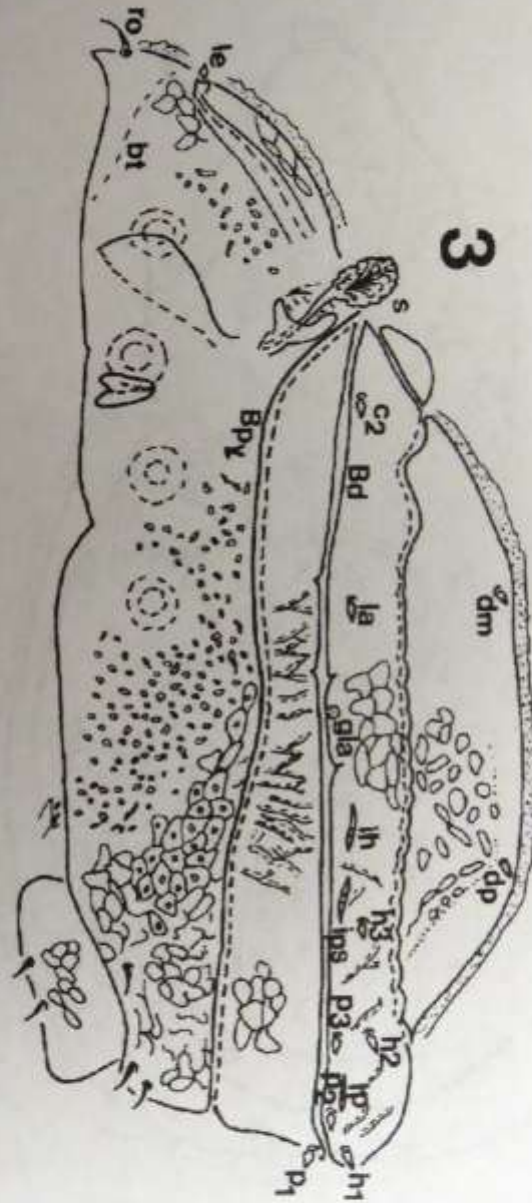


Fig. 3 : *Scapheremaeus flamiferus* sp. nov., lateral view.

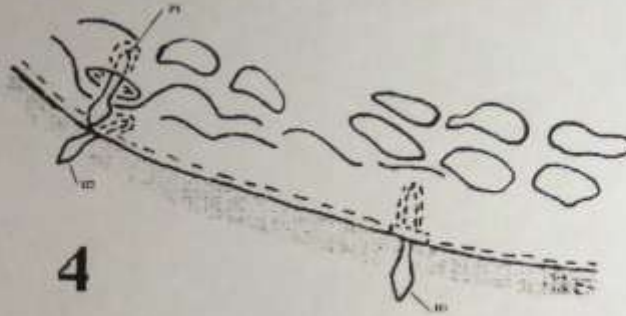


Fig. 4 : *Scapheremaeus flamiferus* sp. nov.,
detail of notogastral setae *h1*, *h2* and *p1* in ventral view.

Discussion: *S. flamiferus* sp. nov. resembles *S. palustris* Sellnick, 1924, known from several localities from Europe and the Soviet Union, with a concavity at the posterior margin of the notogaster, but the new species presents three carinas at the central part. This species also is similar to *S. foveolatus* Mahunka, 1987 from Vietnam, but the sculpture of the integument is different and the setae are bacilliform, while in *S. flamiferus* sp. nov. they are flame-shaped.

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