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A NEW SPECIES OF SAXIDROMUS
(ENDEOSTIGMATA: ADAMYSTIDAE) FROM CUBA

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SAXIDROMUS TAXONOMY
LITTER AND SOIL

ABSTRACT: A new species of Saxidromus from Cuba is described and illustrated. Drawings of the body and leg chaetotaxy are included. Specimens were found in litter and soil of sugar cane experimental plots of the Faculty of Biology, University of La Habana.

SAXIDROMUS TAXONOMIE
LITIÈRE ET SOL

RéSUMÉ: Une nouvelle espèce du genre Saxidromus de Cuba est décrite et figurée. La chéiotaxie du corps et des pattes est donnée. Les exemplaires ont été trouvés dans la litière et le sol des champs expérimentaux de la canne à sucre de la Faculté de Biologie, Université de La Habana.

INTRODUCTION


This group is of interest biologically in retaining an active prelarval instar, a primitive condition otherwise unknown in Acariformes (COINEAU, 1977). The leg chaetotaxy, as shown in this paper, is poorly differentiated, which can be considered as a plesiomorphy among the Endeostigmata.

The feeding habits of Adamystidae are unknown, but LINQUIST (1979), because of their cheliceral form, considers them to be predacious.

The new species described here is often found in the soil and litter of sugar cane, as well as in earthworm cultures (Eudrilus eugeniae Kinberg, 1867) in the Biological Station of the University of La Habana, City of La Habana, Cuba. The setal nomenclature follows COINEAU (1974).

Saxidromus caribeus sp. nov.
(Fig. 1-15)

Diagnosis: Saxidromus caribeus sp. nov. is characterized by the combination of the ornamen-
FIG. 1-7: Saxidromus caribeus sp. nov., adult female.

1. — Lateral view of chelicera. 2. — Body dorsum. 3. — Enlarged view of naso, trichobothria bn and reticulation. 4. — Enlarged view of trichobothria bp and detail of reticulation. 5. — Body venter. 6. — Seta e2. 7. — Seta cl.
tation of the cuticle, reticulate on the naso and striate on the body; the presence of 6 simple cheliceral setae, long setae of lateral lips, two pairs of well developed eyes; and the thick, barbulate setation.

Description: Color in alcohol yellowish, with small, darker, brownish, irregular marks. Length of idiosoma 564 µm (range 542-581 µm). Maximum width 303 µm (range 276-335 µm). Body easily distorted when mounted.

Gnathosoma (Fig. 1, 15). Chelicerae enlarged, length 93 µm, maximum width 56 µm. Movable digit 25 µm long, with three teeth; fixed digit 31 µm, with a row of four small denticles and about seven minute serrations. Six slender and pointed setae, five of which are about the same length (17-25 µm) and one distal setae longer (31 µm) (Fig. 1). The mouth is formed by one inferior, thick and short lip, and two lateral lips with four setae each. Setae are 24 µm long and setae or 2 and or 4 bifid, shorter branch about 12 µm. Lateral lips with many lamellar expansions in the inner side. Superior lip conical.

Pedipalp linear, long (136 µm), simple, 4-segmented (Fig. 15). Pedipalpal setal formula, from trochanter to tibio-tarsus: 0-2-3-22. Ratio of pedipalp segments is about: 1 : 3 : 2 : 5. One seta from the palp tibiotarsus is elongated and thickened as an eupathidium; other setae, with a thick end, are difficult to define.

Prodorsum (Fig. 2). A well developed naso with polygonal reticulation, and a pair of long trichobothria bn 49 µm (Fig. 3); presence of the vestige of anteromedian eye indicated by a small differentiated area. Two pairs of well defined lateral eyes, with dark pigment. Setae pa 44 µm, trichobothria hp 48 µm (Fig. 4), setae po 20 µm, setae a1 and a2 both 20 µm. The two pairs of trichobothria and the setae pa are smooth. Setae po, a1 and a2 are slightly serrated with an internal vein. Lyrifissure ly behind the eyes, lyrifissure ia behind seta a2. Reticulation of dorsum striated. Sejugal furrow formed by a wide band of more densely striate cuticle.

Opisthosomal dorsum and anal region (Fig. 2, 5). Opisthosa with setal rows b, c, d and e. Two pairs in each row, except for row d. Setae, from b to d are about the same length (19-21 µm), slightly serrated, as setae a (Fig. 6). Setae e are longer (26 µm) thicker and barbulated (Fig. 7). Setae el somewhat displaced behind and close to the group ps. Lyrifissures im and ip evident. Setae ps and ad about 29 µm long and similar in appearance to setae e. Two other subdivisions of the body are observed, less conspicuous than the first.

Podosoma and genital region. (Fig. 5). All setae simple, weakly tapered. Coxisternal plates from 1 to 4 with the formula: 4,4,5,5; sternal region with 4 pairs of setae (34-36 µm). Genital opening long and large, each valve with two rows of setae, outer row with 9 setae (24 µm) and the inner with 11 shorter and slightly thicker setae (Fig. 5). Anal and adanal setae similar to setae e and ps. Three pairs of aggenital setae (25-32 µm). Genital valves close to the anal plates. Anal plates with 4 setae each, about 26 µm long. Four pairs of adanal setae. One pair of lyrifissures ih between the genital and anal plates.

Legs (Fig. 8-14). Leg. I (length about 407 µm) about 0.7 as long as idiosoma, slightly longer than leg IV (about 400 µm), leg II 381 µm and III 368 µm. All legs similarly developed, with clawlike empodium and symmetrically paired claws; empodium shorter and slightly thicker than claws, latter with setules. Number of setae (famulus e indicated parenthetically) and solenidia (indicated parenthetically) on legs I-II-III-IV, respectively: trochanters 3,6,4,3; femora, 26, 22, 13, 10; genua, 9 (1+e), 10 (1), 7, 6; tibiae, 21 (1+e), 20 (1); 15 (1), 14 (1); tarsi 39 (1+1), 37 (1+e), 31. — Most setae similar in appearance, long, slender, and pointed, except for the solenidia; other setae not well defined, particularly those distally on tarsi.

Variation. The following variations in the numbers of setae on the anal valves were observed (frequency in parenthesis): 4 + 4 (2), 4 + 5 (2) 5 + 5 (1). Also the epimeral plates can vary the number of setae. The holotype specimen shows asymmetric setation of the genital valves, 9 external and 11 internal setae on left side and 10 external and 13 internal on the right side (Fig. 5); other specimens had 9 and 11, respectively, on both sides.

Type material and Locality. Holotype: adult female; paratypes: 5 adult females (slide mounted) and 20 paratypes preserved in alcohol. CUBA: Ciudad de La Habana, Santiago de las Vegas,
FIG. 8-11: *Saxidromus caribeus* sp. nov.
8. — Leg I, from trochanter to tibia. 9. — Leg I, tarsus. 10. — Leg II, from trochanter to tibia. 11. — Leg II, tarsus.

FIG. 12-15: *Saxidromus caribeus* sp. nov.

Holotype and 4 paratypes on slides and 10 paratypes in alcohol are deposited in the laboratory of the senior author, 10 alcoholic paratypes in the collection of the junior author and one slide in the Laboratoire de Zoologie (Arthropodes) of the Muséum National d’Histoire Naturelle (Paris).

Etymology: From the region of the type material.

**DISCUSSION**

*Saxidromus caribeus* sp. nov. differs from other species in the combination of the form of the ornamentation of cuticule, reticulate on the naso and striate on the body. This new species differs from *S. delamarei* in having six simple and longer chericeral setae, while in *S. delamarei* there are eight, shorter setae, of which one distal is bifid (after figures of COINEAU, 1974). The lateral lips of *S. delamarei* have short setae, while those of *S. caribeus* are longer. *S. caribeus* has two pairs of well developed eyes (as in *S. knopfiferi*) while *S. delamarei* shows only one pair. The constriction of the body in *S. caribeus* is at the level of setal row *a* and in *delamarei* it is at the level of row *b*. The setae in *S. caribeus* are thicker and barbulated. Setae *d2* and *e3* which are present in *S. knopfiferi*, are absent in *S. caribeus* and *S. delamarei*. There is one extra setae on the epimeral plates I, III and IV of *S. caribeus*. There are four aggenital setae in *S. delamarei*, but only three in *S. caribeus*.

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**REFERENCES**


