

A NEW FERN MITE FROM TRINIDAD, WEST INDIES
(ACARINA: TARSONEMIDAE)

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Unlike the Spermatophyta which are attacked by several hundred species of mites, the Pteridophyta are known to be attacked only by these seven species:

Tenuipalpus guamensis Baker, on *Asplenium nidus* (Guam—Baker, 1945, as *Neottopteris nidus*).

Tenuipalpus frondosus Cromroy, on tree fern (Puerto Rico—Cromroy, 1958), *Cyathea nigrescens* (Jamaica—De Leon, 1965a), and *Alsophila borinquensis* (Puerto Rico—De Leon, 1965b).

Tenuipalpus meekeri De Leon, on *Polypodium?* (Nayarit, Mexico—De Leon, 1957), *Blechnum serrulatum* (Everglades, south of Florida City, Florida—De Leon, 1961), and *Blechnum serrulatum* (Trinidad—De Leon, unpublished identification).

Tenuipalpus lygodii De Leon, on *Lygodium volubile* (Jamaica—De Leon, 1965a).

Brevipalpus trinidadensis-californicus-lilium complex, on *Nephrolepis biserrata* (Puerto Rico—De Leon, 1965b) and *Polypodium pectinatum* X *plumulum* (Jamaica—De Leon, 1965a).

Hemitarsonemus tepidariorum (Warburton), on *Pteris* spp., *Asplenium bulbiferum*, and *Polystichum* sp. (In greenhouses England, Minnesota, California—Beer, 1954).

Eotarsonemus rugosus n. sp., on *Polypodium* sp. (Trinidad).

Eotarsonemus, new genus

Tarsonemids with gnathosoma wider than long, palpi scarcely projecting beyond end of gnathosoma, dorsal pair of gnathosomal setae greatly enlarged, male with dorsal body setae very coarse, female with dorsal body setae very short. Claws of legs I-III of both sexes minute; leg I with tibia and tarsus distinct and in female tarsus wider than long. Larva with dorsal body setae short, the outer caudal pair spine-like.

Type of genus: *Eotarsonemus rugosus*, new species.

The genus resembles *Steneotarsonemus* Beer, 1954, in having the gnathosoma wider than long, and the larva with the outer caudal setae spine-like, but differs in having in the adult the dorsal pair of setae of the gnathosoma greatly enlarged, the palpi somewhat longer, the claws minute, tarsus I of the female wider than long, and in other characters.

Eotarsonemus rugosus, new species
(Fig. 1-5)

MALE: Body glassy, whitish; gnathosoma 20 μ long, 24 μ wide; idiosoma including genital papilla 126 μ long with setae, apodemes and markings as

in Fig. 1 (the smaller circles and dots represent what appear to be pits; the anterior median apodeme of 2 males as in drawing, the anterior median apodeme of the third male bifurcates posteriorially, each fork curving gradually laterad and ending near the sides of the body). Dorsal pair of setae of the gnathosoma 18μ long, first pair of dorsal propodosomal setae 20μ long. Legs with chaetotaxy as in Fig. 4; tarsus I, excluding pulvillus 12μ long; femora I and II each with only 1 seta; seta of tibia IV about 20μ long.

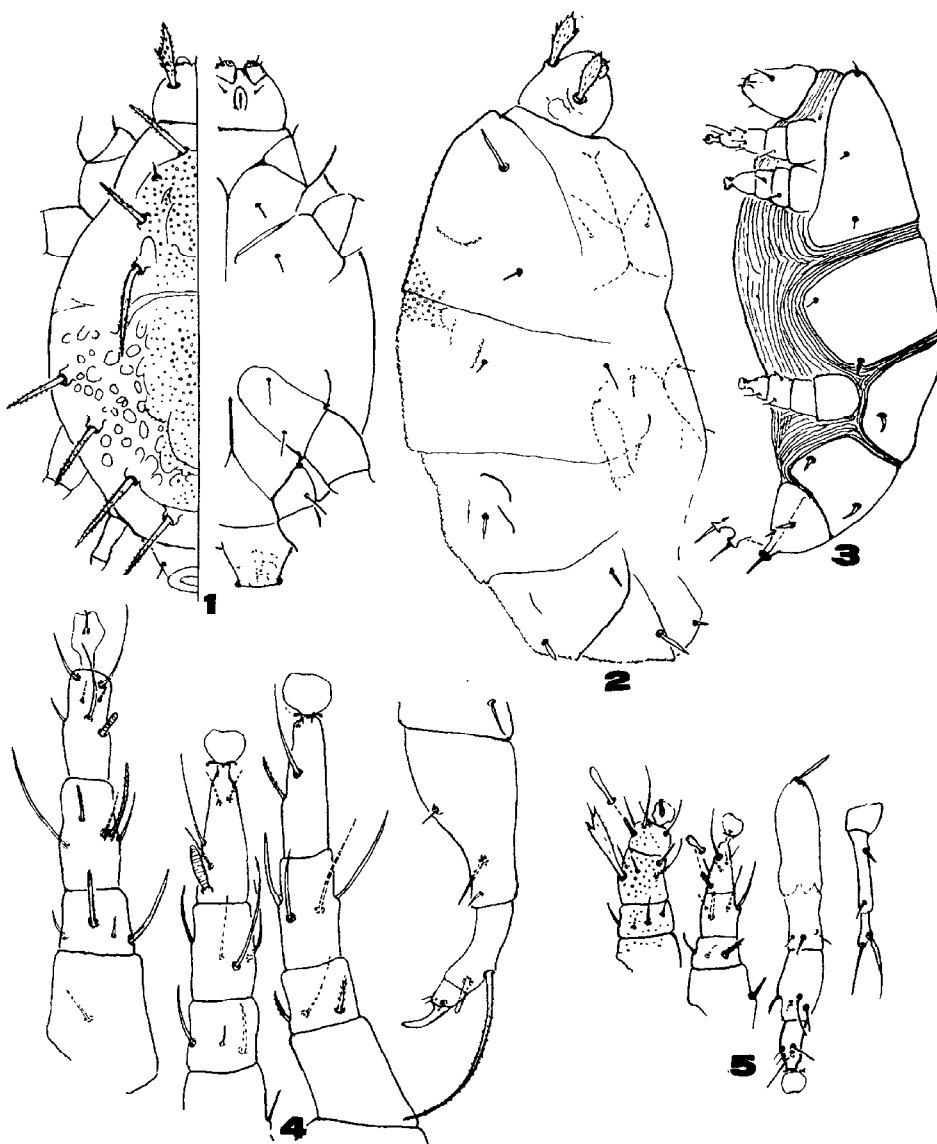


Fig. 1-5. *Eotarsonemus rugosus*, new species. Fig. 1. Male, dorsal and ventral views. Fig. 2. Female, three-quarter view. Fig. 3. Larva, lateral view and dorsal view of caudal end. Fig. 4. Male, legs I-III (from left to right) dorsal view, leg IV ventral view. Fig. 5. Female, legs I-IV (from left to right) dorsal view.

FEMALE: Length including gnathosoma 192μ long with setae and markings as in Fig. 2 (the only female at hand is badly oriented on slide and coxae and trochanters of all legs are concealed by body); pseudostigmatic organ if present, not found. Dorsum pitted as in male, but pitting covers all of dorsum; dorsal pair of setae of gnathosoma 17μ long. Legs I and II pitted, III and IV not clear as to pitting. Tarsus I about 7.7μ long, 10μ wide.

LARVA: Length including gnathosoma 150μ long, with setae and markings as in Fig. 3; dorsum apparently smooth.

Holotype: Male, Upper Aripo Valley, Trinidad, 6 October 1963 (D. De Leon), on *Polypodium* sp. **Paratypes:** 2 males, 1 female, 1 larva collected with holotype. Females were feeding on the lower surface of the fronds and appeared to be causing no injury; several were observed, but I was able to collect only 1. The types are in the author's collection.

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