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A NEW TYROGLYPHID MITE FROM PUERTO RICO

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The mite described here was first observed in 1946, when it appeared in Petri dishes containing ~~various~~ arthropods, which had been combed from rats in the course of an ectoparasite survey. For some time it was believed to be associated with rats. Later on, however, when light trap collections were under study, the mite was again noted, this time feeding voraciously on dead mosquitoes and other insects. It is therefore a feeder on dead insects, and a museum pest of no mean proportions, at least in Puerto Rico, where it can quickly destroy an insect collection not adequately protected with paradichlorobenzene.

SUBFAMILY SUIDASINAE HUGHES

Suidasia insectorum, new species

Male.—Length of idiosoma of holotype, .358 mm., greatest width, .232 mm.; length of idiosoma of three paratypes, .316 mm., .319 mm., and .336 mm. The shape of the body and the texture of the cuticle is very much as described for *S. nesbitti* Hughes, except that certain specimens give a more broad-shouldered effect when alive, and the dorsal surface has distinct longitudinal grooves; the opisthosoma, too, seems to have on each side a more or less oval hyaline area (Fig. 1). After mounting on a slide in Berlese mixture, the body shape is broadly oval and the texture of the skin as when alive cannot be made out. Chelicera armed with prominent teeth as shown in Fig. 2. The internal vertical setae (Fig. 3) arise from conspicuous tubercles; the external verticals are very faint and located well anterior to the pseudostigmatic organs. External scapular setae large and robust; the internal scapulars very small as indeed are the other dorsal setae. Pseudostigmatic organ (Fig. 5) large and plumose. External posterior setae stout, about one-half as long as the idiosoma; internal posteriors very small. On each side of the anus is a large oval area about which are three small setae, near the most anterior of these is an unidentified structure which is somewhat larger than a setal pit (Fig. 7). Genital area with a pair of suckers on each side (Fig. 9); the penis in its undisturbed position appears to be concave at the middle, but in some mounted specimens it is bent to one side or the other (Figs. 9A and 9B). Legs I are longer and wider than the others; the average lengths of all legs (legs I, II, III

and IV) of four specimens when measured from the base of the trochanter to the end of the tarsus exclusive of the claws were in the following proportion, 49: 39: 43:40. Chaetotaxy of tarsus I as shown in Fig. 10; the microsense seta does not appear to be present but there is a circumscribed area which may be its rudiments, the macrosense seta extends well beyond the dorsal median seta and the distal edge of the tarsus bears two spine-like seta. In tarsus II the macrosense seta is shorter and broader and does not extend beyond the dorsal median seta. Tarsus IV has two suckers of which the basal is located about equidistant from base to apex and the distal is located in the apical third as shown in Fig. 4. Tibiae I, II and III each with a long distal seta which is much shorter than its corresponding leg, being about three-fifths as long on the first leg and about one-half as long on the other legs; tibia IV does not have such a seta but instead a stout spine (Fig. 4).

Female.—Length of idiosoma of female allotype, .350 mm., greatest width, .218 mm.; length of idiosoma of three other specimens, .358 mm., .364 mm., and .372 mm. In general the structure is as in the male. Anal region as shown in Fig. 8; the setal pit-like structures are more faint in the female than in the male. Legs as in the male with the first pair longer and broader than the others. Tibiae IV with long setae but they are shorter than those on the other tibiae. Tarsus I is very much as in the male.

Immature stages.—Nymphs have the general structure of the adults, but the genital suckers are not on the same level as in the male or female, the pair on one side being more anterior to the pair on the other side. Tibiae IV with long setae as in the female. In the larvae legs I are longer and wider than the others and the larval sense organ is bottle-shaped, as shown in Fig. 6. Length of the idiosoma of a late stage nymph paratype, .294 mm., greatest width, .176 mm. Length of idiosoma of a larval paratype, .182 mm.

Type material.—Male holotype and three male paratypes taken August, 1950, feeding upon dead mosquitoes which had been collected by means of a light trap and stored in the School of Tropical Medicine building at San Juan, Puerto Rico; female allotype, one paratype late stage nymph and one paratype larva taken under the same circumstances August 15, 1950, and September 8, 1950. The types are in the entomological collection of the Department of Microbiology, School of Medicine, School of Tropical Medicine, San Juan, Puerto Rico.

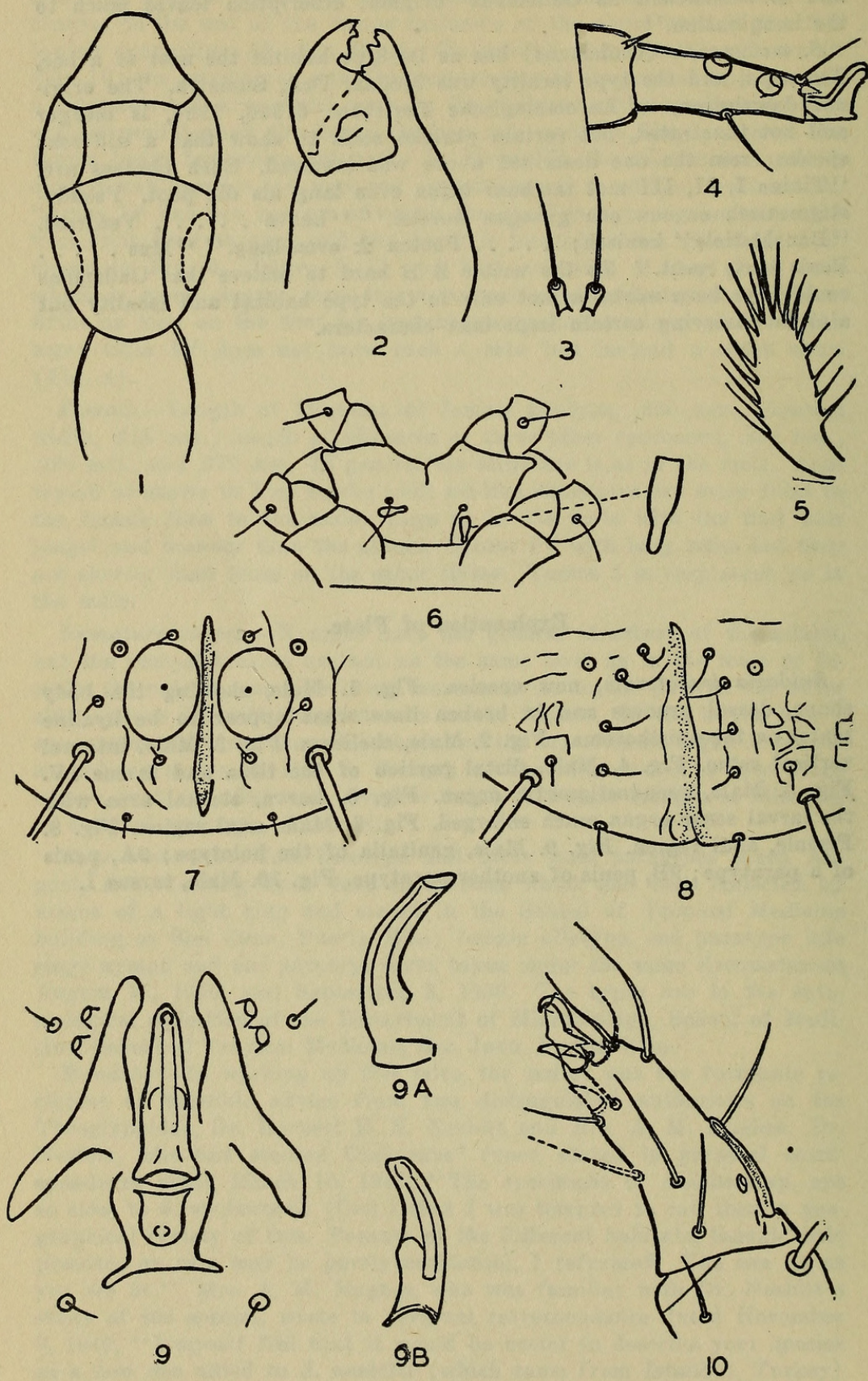
Remarks.—In working up this mite, the writer was the fortunate recipient of valuable advice from two distinguished authorities on the Tyroglyphidae, Dr. Herbert H. S. Nesbitt and Mrs. A. M. Hughes. Dr. Nesbitt, who had studied Oudemans' types, stated in personal correspondence dated March 16, 1949, "The specimens of *Suidasia* sp. are so close to *S. medanensis* (Oud.) that I was tempted to call them a geographical variety of this. Because of the different habitats, though their presence on rats may be purely accidental, I refrained. You can do as you see fit." Mrs. A. M. Hughes, who was familiar with Dr. Nesbitt's study of the species, wrote in personal correspondence dated November 8, 1949, "I myself feel that it would be better to describe your species as a new one allied to *S. nesbitti* (which came from Istanbul, Turkey)

and *S. medanensis* as Oudemans' original description leaves much to the imagination."

S. medanensis (Oudemans) has as its type habitat the nest of a bee, *Xylocopa*, and the type locality was Medan, Deli, Sumatra. The original description, in *Entomologische Berichten* 6:320, 1924, is meager and not illustrated, but certain phrases seem to show that a different species from the one described above was involved. Such phrases are, "Tibiae I, II, III met tasthaar bijna even lang als die poot. Pseudostigmatisch orgaan een gebogen borstel." "Larva Ventraal. "Bauchtstiele" konisch; Pooten \pm even lang." "Mas Penis kort, recht." To the writer it is hard to believe that Oudemans could have been mistaken not only in the type habitat and locality but also in observing certain important characters.

Explanation of Plate.

Suidasia insectorum, new species. Fig. 1. Male, showing the body shape, dorsal grooves and in broken lines what appear to be hyaline plates on the opisthosoma. Fig. 2. Male, chelicera. Fig. 3. Male, internal vertical setae. Fig. 4. Male, distal portion of the tibia and tarsus IV. Fig. 5. Male, pseudostigmatic organ. Fig. 6. Larva, sternal area with the larval sense organ much enlarged. Fig. 7. Male, anal region. Fig. 8. Female, anal region. Fig. 9. Male, genitalia of the holotype; 9A, penis of a paratype; 9B, penis of another paratype. Fig. 10. Male, tarsus I.





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