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A NEW SPECIES OF OTOPHEIDOMENIS (ACARINA : PHYTOSEIIDAE) FROM INDIA

BY

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The members of the genus Otopheidomenis are ectoparasitic on lepidopterous insects, particularly of the families Noctuidae and Sphingidae. Six new species have been described from the sphingid moths in the recent years (PRASAD 1970 a, 1970 b, 1972). While examining moths in India for the mites, the author discovered a species which is described here as new. This report for the first time shows the distribution of Otopheidomenis mites extended up to India in the Asian continent.

Otopheidomenis indicus n. sp. (Figs. 1-7).

DIAGNOSIS: Female and male with one dorsal shield, with 13 pairs of setae on idiosoma, setae 13 present. Female without genital setae, with all sternal setae on shield, sternal shield slightly longer than wide; tarsi of legs II-IV with two heavy ventral setae at the anterior tips. Male with four pairs of sternal setae on sternogenital shield of which anterior three pairs much larger than posterior pair, a thick seta present on a large protuberance on femur of leg II.

FEMALE: One dorsal shield, incised mediolaterally, 435 µ long and 255 µ wide, (one specimen, measured at longest and widest points) reticulated over entire surface (Fig. 1). Body dorsum with 13 pairs of minute setae (except Z5 which are comparatively long) of which 12 pair are on shield and one pair (r5) are on lateral membranous integument; Z5 20 µ long, r5 17 µ long, and remaining setae on dorsal shield measure 5-10 µ long; all setae on idiosoma smooth except Z5 which are finely serrated.

Tritosternal laciniae and basal selerite absent. Sternal shield 98 µ long and 85 µ wide, reticulated over entire surface (Fig. 2); three pairs of sternal setae on shield measuring (anterior to posterior) 30 µ, 32 µ, and 35 µ long; metasternal setae absent. Genital shield rounded posteriorly, 93 µ wide posteriorly, pair of genital setae absent. Anal shield 80 µ in width, with three anal setae. On pair of small ventral setae, 8 µ long, on integument between genital and anal shield. Metapodal plates absent. Spermatheca in form of a long tube. Peritremes measure 140 µ long.

Fixed digit of chelicera reduced to small protuberance; movable digit long, with 8-9 teeth.
FIGS. 1-7: *Otopheidomenis indicus* n. sp. 1-4 female: 1) dorsal plate; 2) ventral plates; 3) chelicera; 4) tarsus IV. 5-7 male: 5) sternogenital shield; 6) spermatodactyl and chelicera; 7) femur II.
(Fig. 3). Venter of gnathosoma with three pairs of hypostomal setae. Corniculi long, slender. Tectum with smooth, round anterior margin. Number of setae on palp (trochanter to genu) as follows: 0, 4, 5. Number of setae on legs (coxa to tibia): I. 2, 5, 12, 9, 8; II. 2, 5, 9, 9, 7; III. 2, 5, 7, 8, 7; IV. 1, 5, 6, 8, 7; tarsus of legs II-IV with two heavy ventral setae at anterior tips (Fig. 4).

**MALE:** Idiosoma $610 \mu$ long and $500 \mu$ wide (one specimen). One dorsal shield, incised mediolaterally, $480 \mu$ and $300 \mu$ wide, covering almost entire idiosoma, with reticulation and dorsal chaetotaxy like that in female; $Z5$ $33 \mu$ long, $r5$ $20 \mu$ long, and remaining setae on dorsal shield $4-7 \mu$ long. Tritosternal lacinae and basal selerite absent. Sterngenital shield $212 \mu$ long, and posteriorily $70 \mu$ wide, with 4 pairs of setae (an addition seta present on right side of sterngenital shield in allotype specimen) measuring (anterior or posterior) $26 \mu, 30 \mu, 31 \mu, 33 \mu$ long, and with genital opening located anteriorly (Fig. 5). Peritremes large, measure $112 \mu$ long. Movable digit of chelicera with spermatodactyl as in Fig. 6 (spermatodactyl probably in folded condition). The number of setae on palp and legs as in female but ventral setae of legs are comparatively short and thick in male. Femur of leg II with three thickened spinose setae of which one is born on a large tubercle (Fig. 7).

**COLLECTION DATA:** Holotype, female, Tamilnadu Agricultural University, Coimbatore, from *Nephele* sp. (Lepidoptera: Sphingidae), moth collected in 1971, collector? (VP 72-193). Other types: 1 male allotype and 10 paratype slides with immature stages, with same collection data as for holotype. All mites were recovered on 20 September 1972 by the Author from a preserved museum specimen. The mites were found on right side in the tympanic area.

The holotype is deposited in U.S. National Museum, Washington, D.C. The allotype and paratypes are in the author's collection.

**REMARKS:** *O. indicus* n. sp. in close to *O. cocytes* Prasad and *O. aprodes* Prasad and could easily be separated from the latter two in a combination of following characteristics. Setae $i3$ in *O. indicus* present; sternum shield in female slightly longer than wide, posterior two pairs of sternal setae on each side located very close to each other; genital setae absent; sternogenital shield in male with four pairs of setae of which most posterior pair setae very short; a heavy spinose seta present on a large protuberance on femur of leg II.

**ABSTRACT.**

A new species, *Otopheidomenis indicus* (Acarina: Phytoseiidae) is described from *Nephele* sp. (Lepidoptera: Sphingidae) from Coimbatore, India. The mites were found on the right side in the tympanic area. Illustrations are also given.

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REFERENCES

