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## PROTOMYOBIA NEPALENSIS N.SP. (ACARI: MYOBIIDAE) FROM SORICULUS NIGRESCENS IN NEPAL

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----- ABSTRACT-Protomyobia nepalensis n. sp. (Acarina: Myobiidae) in described from Soriculus nigrescens in Nepal. -----

Dusbabék and Daniel (1975) described *Protomyobia kounickyi* from *Soriculus caudatus*, Phematan, Great Himalaya Mts, Nepal. We have found, on a related host *Soriculus nigrescens*, also from Nepal a new species of *Protomyobia* that we describe here.

## Protomyobia nepalensis n. sp.

This species is distinguished from *P. kounickyi* Dusbabék and Daniel. 1975, by the following characters: In female setae ic 4 very small (in *P. kounickyi* these setae are long), ic l to ic 3 longer, sc i, dl, d2, l2, d3, d4 longer and stronger; internal seta of coxa I situated more anteriorly; claws of leg III-IV shorter, thicker, with a basal process and with ventral surface striated (as in genus *Nectogalobia*). In male it is distinguished by normal shape, without thickenings, of setae v e, sc e and ll, by presence of a thick and long sheath for aedeagus, and very small size of ic 4.

This species is distinguished from P.nodosa Jameson, 1970, in female mainly by very small length of ic 4, smaller length of coxal setae, presence of only one pair of setae behind ic 4. Male is distinguished by presence of a thick and long sheath for aedeagus.

FEMALE (Figs. 1-2)—Holotype 411 $\mu$ m long (gnathosoma included, until tip of palps) and 302 $\mu$ m wide. A paratype measures 420 $\mu$ m x 296 $\mu$ m. Setae v e, sc e and l 1 normal, regularly attenuated apically, without ventral inflation. Setae v i very small. Setae sc i, d 1, d 2, l 2, d 3, d 4 with a ventral inflation in their median part (not in their basal part as in P. kounickyi), measure 48 $\mu$ m (d 4) to 55-63 $\mu$ m (sc i, d 1, d 2, d 3, l 2); behind these setae are 3 very thin and short (12 $\mu$ m) setae (d 5, l 3 and l 4). <u>Ventrally-ic</u> 1 to ic3 relatively long and very finely attenuated apically (approximately 90 $\mu$ m long). Setae ic 4 very small. Coxae I-IV with 2-3-0-0 setae. A distinct orifice visible immediately in front of g 1 setae, it leads into a membranous tube becoming sclerotized proximally. It represents probably a copulatory tube. Legs short. Claws I small, claws II unequal, claws III-IV very strong and striated ventrally. Gnathosoma as in P. kounickyi. Chaetotaxy of legs II-IV (number of setae) trochanters 2-3-3, femora 5-3-3, genua 7-6-6, tibiae 6-6-6, and tarsi 6-6-6.

MALE (Figs. 3-4)—Allotype 336 $\mu$ m x 230 $\mu$ m. General shape as in *P. kounic kyi*.

DORSUM-Shape of setae v e, sc e and l 1 as in female, measure  $105\mu$ m,  $108\mu$ m and  $150\mu$ m long respectively. Setae v i and sc i very thin and short. Genital orifice with 3 pairs of very small anterior paramedian genital setae, immediately behind orifice is one pair of very small paramedian spines. Sheath of aedeagus long  $(110\mu$ m) and thick  $(8\mu$ m). Aedeagus excessively attenuated, its total length measures  $150-170\mu$ m, attenuated flagelliform part about  $80-90\mu$ m long. Setae d 1 measure  $18\mu$ m and not inflated, behind these setae are 3 pairs of setae with a ventral inflation in their median part, their length is  $32-40 \mu$ m. Legs and gnathosoma are as in female.

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Fig. 1: Protomyobia nepalensis sp. n. (female holotype)-ventral view.

TRITONYMPH (containing a female)—Length  $370\mu$ m, width  $270\mu$ m. All dorsal and ventral setae very thin and short. Ventral striation replaced by transverse series of very small cuticular thickenings wider than long. Legs l symmetrical. Legs II with 2 very unequal claws. Legs III-IV with a very thick and short claw provided with a small and thick basal tooth.

LARVA-Length  $140\mu$ m, width  $118\mu$ m. Dorsum with 8 pairs of setae. The first pair very small and not toothed while followings are longer and toothed. Legs II with 2 claws, one long and strong curved and another very thin, short, and almost straight. Leg III with only long claw.



Fig . 2-4: *Protomyobia nepalensis* n. sp. -2, (holotype female)-dorsal view; 3,4, (allotype male)-3, dorsal view; 4, and genital area enlarged.

EGG AND PRELARVA—The larva was contained in an envelope completely striated transversely (= prelarva) and presenting apically a pair of sclerotized rods with apex slightly inflated resembling head of an arrow. This prelarva was, in turn, enclosed in egg shell.

HOST AND LOCALITY—On Soriculus nigrescens, Dhar Khola, West Nepal, 3. XII. 1975. Holotype and 2 paratype females, allotype male, 2 paratype males, 2 nymphs and 1 paratype larva. Holotype in U.S. National Museum, Washington, D.C.; paratypes in the collection of the authors.

REMARKS—By the thick and striated aspect of claws III-IV. *Protomyobia nepalensis* resembles *Nectogalobia sinensis* Fain & Lukoschus, 1976 described from China, however, in this species the legs and claws III-IV are much more developed and apparently serve for the fixation to the hairs of the host. These very large claws are also present on legs III-IV of the nymphs and on legs III of larva of *N. sinensis*.

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We attribute to this species 1 female, 1 male and embryonated eggs containing larvae, found on *Soriculus caudatus*, the typical host of *P. kounickyi*, in Lunsum, Dhar Khola, West Bengal, West Nepal, 1. XII. 1975.

These specimens agree with the description of *P. kounickyi* except that in the female the sclerotized part of the ventral ''copulatory tube'' is distinctly longer.

## REFERENCES

Dusbabék, F. and M. Daniel. (1975). Two new mites (Myobiidae: Trombidiformes) from the Great Himalaya Mountains). Folia Parasit. (Praha) 22: 361-375.

Fain, A. and F. S. Lukoschus. (1976). Observations sur les Myobiidae parasites d'insectivores avec description de taxa nouveaux. Acta Zool. Path. Antverp., 66: 121-188.

Jameson, E. W. (1970). Notes on some Myobiid mites (Acarina: Myobiidae) from the Old World insectivores (Mammalia: Soricidae and Talpidae). J. Med. Ent., 7: 79-84.

CORRIGENDA-The 3 pairs of setae d5, l3 and l4 have been omitted on Fig. 2.