

DESCRIPTION OF *HYPOASPIS LEEAE*, N. SP. FROM TAIWAN (ACARINA: LAELAPIDAE)

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ABSTRACT

Yi-Hsiung Tseng (1977). *Description of* *Hypoaspis leeeae*, n. sp. from Taiwan (Acarina: Laelapidae). Bull. Inst. Zool., Academia Sinica 16(1): 49-55. Female of *Hypoaspis leeeae*, n. sp., is described from Taiwan, which was collected by the author from debris. Prior to this paper, the species belonging to the genus *Hypoaspis* are not known in this island. The female of the member of this genus have the movable digit bidentate, fixed digit multidentate; anal shield free, large and pear-shaped; the fourth pair of sternal setae off the sternal shield, arising on the membrane; genital shield with a pair genital setae. This group of mites may be considered free-living, and are frequently found on the litter, humus, and debris, probably feeding on mites, Collembola and small arthropods.

The mites were collected by modified Berlese funnel, for permanent slides preparation Herines modified PVA medium was used.

HYPOASPIS LEEAE TSENG, NEW SPECIES

Female. Body of medium size; total length 931 μ , 421 μ wide.

Gnathosoma 265 μ long, 157 μ wide, brown in colour. Chelicera with three segments, 1st segment 92 μ long, 57.5 μ wide, 2nd segment 193 μ long, 3rd segment 87 μ long. Fixed digit with 12 rounded, tooth-like processes, movable digit with 2 teeth. Labrum elongate, whip-like, pectinated. Cornicula stout, blunt at apex, 46 μ long, 16 μ wide. Capitular seta 32.2 μ long, arising from middle of capitulum. Hypostomal setae three pairs: hyp 1 46 μ long, more slender than hyp 2 and hyp 3 which are horn-like;

hyp 2 79 μ long; hyp 3 34.5 μ long; hyp 3 located on the slightly postero-interal of hyp 2. Pedipalp 6-segmented; Chaetotaxy of trochanter-femur-genu-tibia as 2-5-6-14; apotele on palptarsus as two tined.

Idiosoma 666 μ long, 421 μ wide. Dorsal shield large, heavily sclerotized, reticulate, bearing 39 pairs of setae plus 2 unpaired setae, and at least 19 pairs of pores; j_1 and z_1 seta-like, j_2 lanceolate, all remaining setae scimitar-like; setae r-R group arising from interscutal membrane, r2, r6 present, R series 4 pairs, R₂, R₃, R₄, R₅, all of r-R series setae rather shorter than dorsal setae and with spiniform. A pair of large pores on posterolateral margin of dorsum. Peritreme extending to middle of pedipalp;

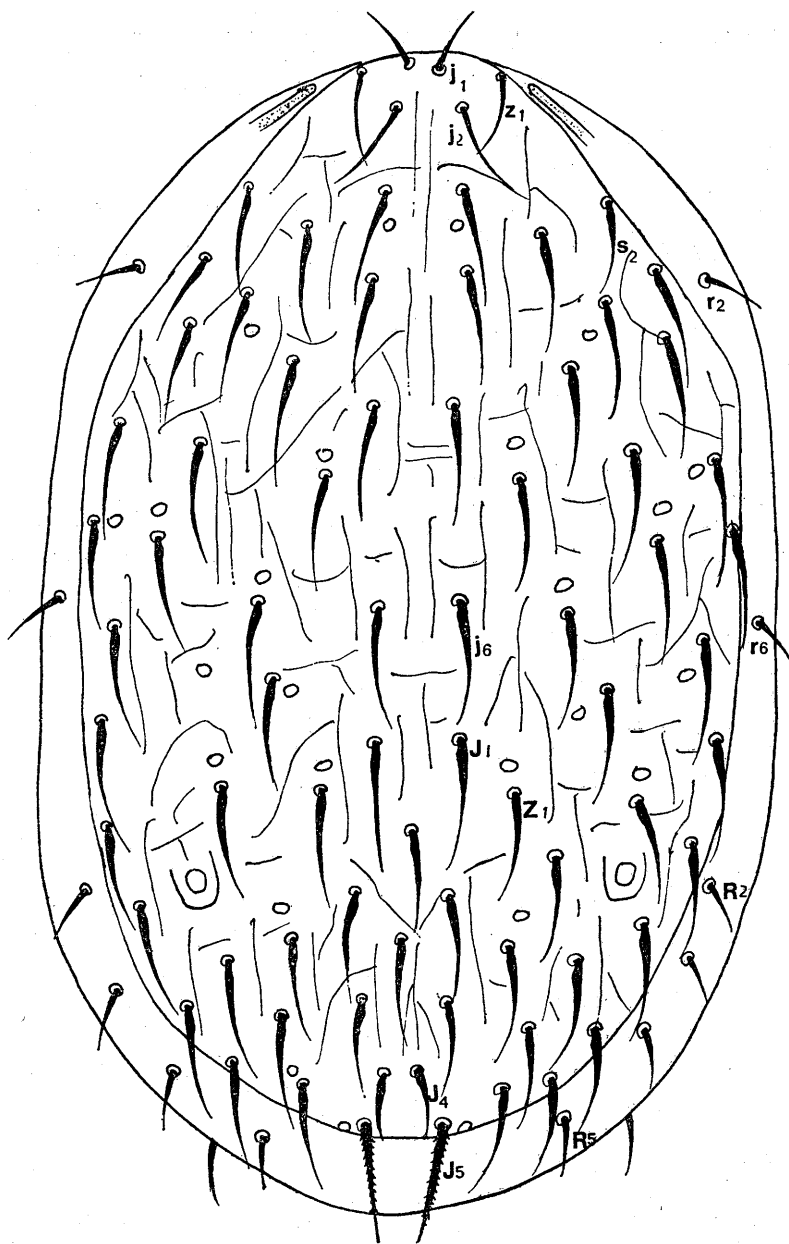


Fig. 1. Diagrammatic representation of chaetotaxy of body dorsum (♀)

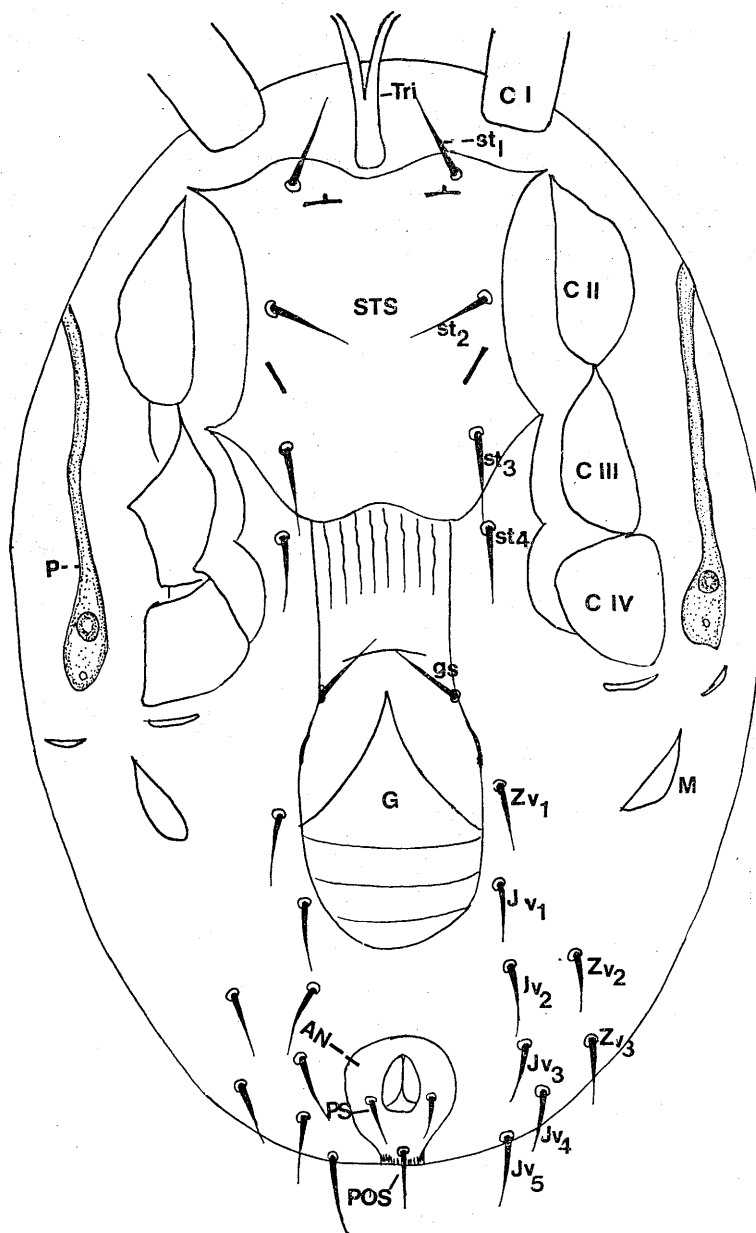


Fig. 2. Body venter (♀)

C I-IV: Coxa 1-IV; Tri: Tristernum; STS: Sternum; st 1-4: Sternum setae 1-4; gs: Genital seta; G: Genital organ; AN: Anal plate; PS: Para-anal seta; POS: Postanal seta; M: Metapodal platelet; P: Peritreme

peritremal shield fused anteriorly with dorsal shield, free posteriorly. Sternal shield sclerotized, reticulate, 168μ long, 152μ wide, bearing 3 pairs of setae, the forth pair setae off the sternal shield, arising from the membrane, and 2 pairs of pores of which the 1st pair lying behind 1st sternal setae, while the 2nd pair lying intermediate between 2nd and 3rd sternal setae. Genital shield large, poorly tanned, weakly reticulated, nearly parallel-sided, 257.6μ

long, 110.4μ wide, rounded posteriorly, with a pair of setae, a short, longitudinal heavily sclerotized located on the middle of each side. Metapodal platelets in 3 pairs of which the 2 anterior ones are narrowed, with tapering form, and the posterior one is large and broad. Setae Jv in 5 pairs, Zv in 3 pairs, all aculeus-like and arising from membrane, Anal shield pear-shaped, broad anteriorly, with 1 pair of para-anal setae and 1 postanal seta. Legs

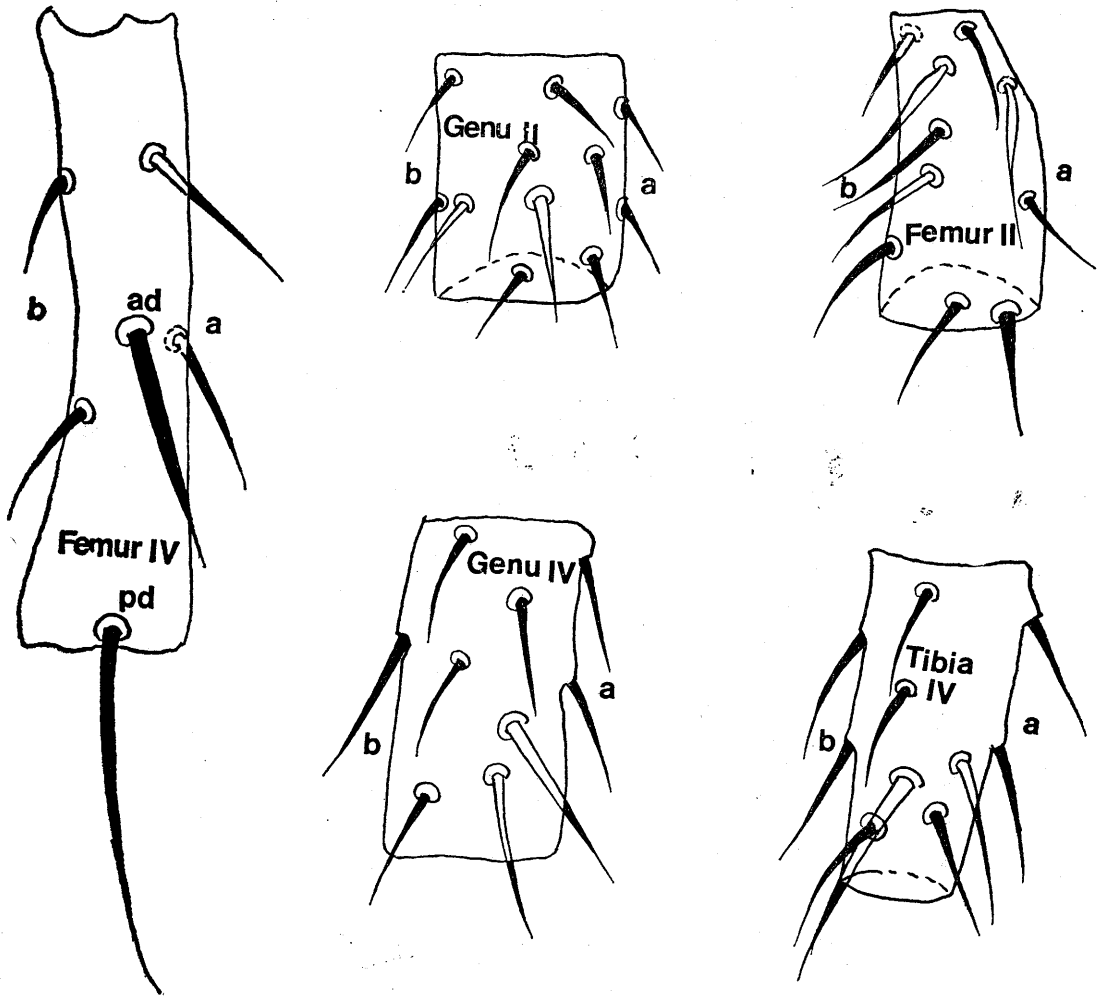
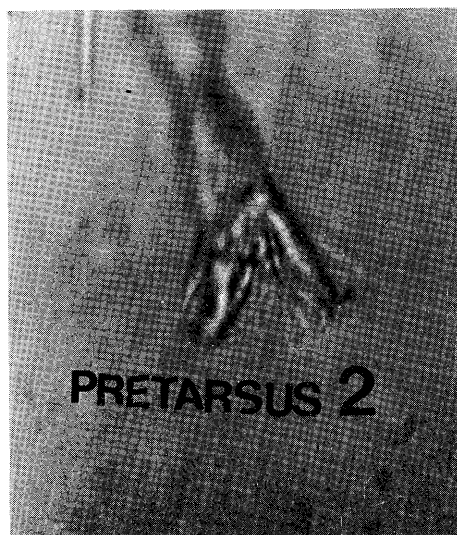
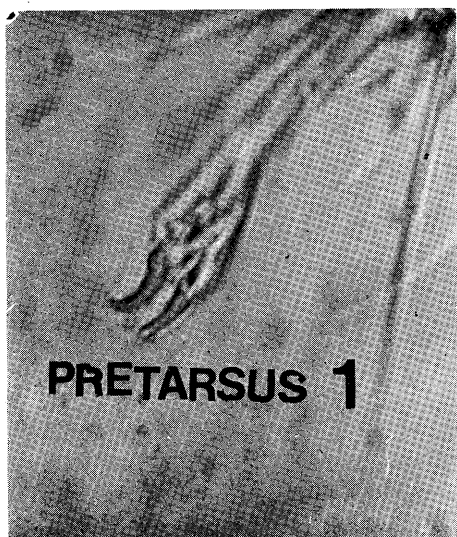


Fig. 3.] Diagrammatic representation of the chaetotaxy of selected segments of the legs (♀): Black indicated dorsal setae; Open indicated ventral setae.
a: Anterior; b: Posterior.



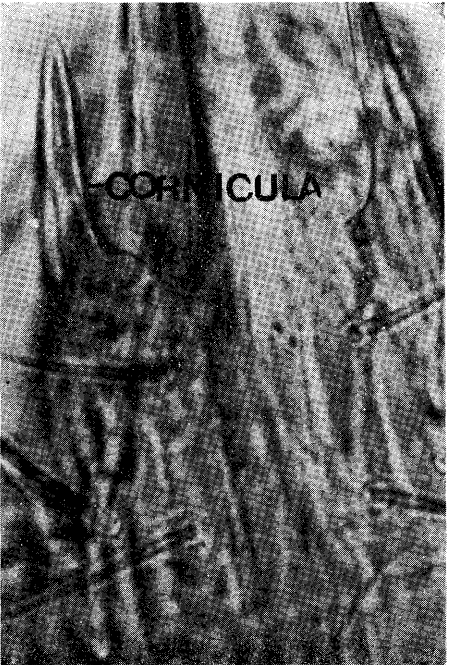
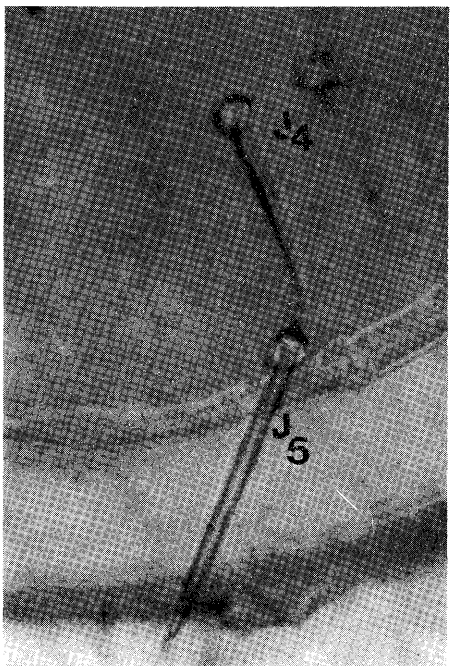
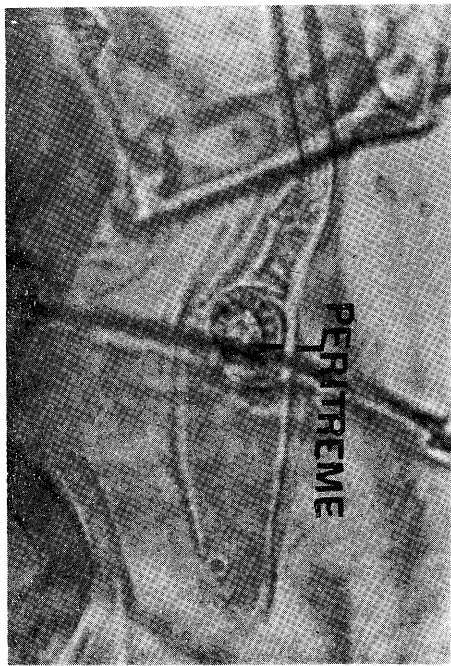


Plate 1 *Hypoaspis leae* (♀)

normal, lengths of legs I-IV 725, 567, 529, 958 μ respectively; trochanter II with a small, spiniform posterodorsal seta; femur IV 122.5 μ long, seta ad 50 μ long, lanceolate, pd 74.5 μ long, whip-like. Setal formula as follows:

	Coxa	Trochanter	Femur	Genu	Tibia	Basitarsus
I	$0^0_2 0$	$1^1_1 1$	$2^3_4 4$	$2^2_3 6$	$3^2_2 6$	0
II	$1^1_0 1$	$2^0_2 2$	$3^3_2 2$	$2^5_2 2$	$2^4_2 2$	$1^2_0 1$
III	$1^0_0 1$	$2^1_1 1$	$1^3_0 2$	$2^4_2 1$	$1^3_2 1$	$1^2_0 1$
IV	$0^1_1 0$	$2^1_1 1$	$1^2_1 2$	$2^5_1 1$	$2^4_2 2$	$1^2_0 1$

Male-Unknown.

Holotype ♀ (BCIQT-4), Yun-Lin Hsien, Taiwan, ex debris, 15. XI. 1975 (Y. H. Tseng); paratypes 4 ♀ ♀, same data as holotype; 1 ♀, Nei-pu, Chia-Yi Hsien, ex debris, 11. I. 1976 (Y. H. Tseng). Holotype and paratype deposit in Tainan Branch Office, Bureau of Commodity Inspection and Quarantine; 1 paratype each in the British Museum (Natural History), United States National Museum and Canadian National Collection.

Hypoaspis leeeae apperas to be closely related

to *H. vacua* (Micheal) which also has scimitar-like setae on the dorsal shield, and from which the new species can easily be distinguished in having the seta J_5 finely barbed and longer than J_4 ; the setae Jv_4 and Zv_3 seta-like (not blunt apically) and the peritreme longer and extending to the pedipalp.

The new species is named after Dr. W. J. Lee of the Institute of Zoology, Academia Sinica, Taipei.

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臺灣產 *Hypoaspis leeeae* 之一新種研究

(蟎目：中氣門亞目)

曾 義 雄

本文是敘述新種 *H. leeeae* 雌蟲形態，本種之蟎類經常被發現於腐植質及落葉中，據推測可能是捕食生活於地表或腐質中之蟎類，跳蟲及微小之節肢動物等。