MALAYOGLYPHUS INTERMEDIUS n. g., n. sp., A NEW MITE FROM HOUSE DUST IN SINGAPORE AND DJAKARTA (PYROGLYPHIDAE : SARCOPTIFORMES) [1]

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The new species which is described here has been found in the course of investigations on the house-dust fauna in Singapore (Republic of Singapore) and in Djakarta (Indonesia). These investigations had been conducted in relation with the problem of house-dust asthma in these regions.

Curiously enough, this new species had been discovered nearly at the same time by two different investigators working in two widely separated localities. A single female specimen was recognized among a series of mites that had been isolated from the dust of a house in Singapore, in February 1968. This sample of dust contained also numerous mites belonging to a species that, so far, was known only from Brasil (*Sturnophagoides brasiliensis*) and a few specimens of the ubiquitous *Dermatophagoides pteronyssinus*. All the other specimens of this new species had been collected in two houses in Indonesia during April 1968. Most of these were found in a house of Djatinegara, near Djakarta. They were mixed with several other species of mites among which *Dermatophagoides pteronyssinus* (29 specimens), *Dermatophagoides farinae* (5 specimens), *Glycyphagus* sp. (30 specimens) and some cheyletids (10 specimens). Four other specimens were obtained from a house in Djakarta, together with *D. pteronyssinus* (150 specimens), *D. farinae* (30 specimens) and *D. chelidonis* (5 specimens).

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Family Pyroglyphidae Cunliffe, 1958
Subfamily Dermatophagoidinae Fain, 1963

Malayoglyphus nov. gen.

The species that represents this new genus is, by some characters, intermediate between the Dermatophagoidinae and the Pyroglyphinae, though more close to the former subfamily. Owing to the regular structure of the striation, the poor development of the sclerotized punctate areas of the cuticle and the complete absence of the tegmen (= tectum) it resembles the other species of the Dermatophagoidinae. However, the poor development of the scapular setae and the absence or the very small size of the epigynium place it more close to the Pyroglyphinae. The discovery of this intermediate form lessens the validity of the subfamily Dermatophagoidinae. We think, however, that the absence of the tegmen and the normal structure of the striation are sufficient to maintain this subfamily.

Definition : Body very small (smaller than in the genus *Dermatophagoides*). Cuticle regularly striated in both sexes, except in the median part of the dorsal surface of the propodosoma which bears a punctate shield, longer than wide. The male presents an additional punctate area ventrally, at both sides of the slit. Tegmen absent. Sejugal furrow rather well developed. Dorsal surface of the hysterosoma regularly striated in both sexes but there is, however, a slight degree of sclerotization (punctate striation) in the posterior part of this region, especially in the male. Vulva in the shape of a bow with posterior concavity and not in an inverted Y as it is the case in the genus *Dermatophagoides*. Posterior lip of the vulva regularly striated. Epigynium absent (or ? very poorly developed). All epimera free in both sexes. Legs slender. In the female the posterior legs are equal or subequal. In the male the legs III are slightly shorter than the legs IV. Anterior tarsi without apical processes in both sexes (= " ongles "). All tarsi bearing a small sucker containing a vestigial claw represented only by its base.

Chaetotaxy : Idiosoma as in the genus *Dermatophagoides* except that the setae *a e* are missing in both sexes and that the *sc e* are very short. The chaetotaxy of the legs differs from that of *Dermatophagoides* in both sexes by the presence of 7 setae on tarsi I and II and of 5 setae on tarsi III. In the female the tarsi IV bear 5 setae ; in the male these tarsi bear 3 simple setae and one small rounded papilliform production which seems to be the remnant of one of the two specialized sensory setae found in *Dermatophagoides*. *Solenidiotaxy* : there is only one solenidion on genu I. Other solenidia as in *Dermatophagoides*. A famulus is present on tarsus I.

Type of the genus : *Malayoglypüus intermedius* nov. spec.

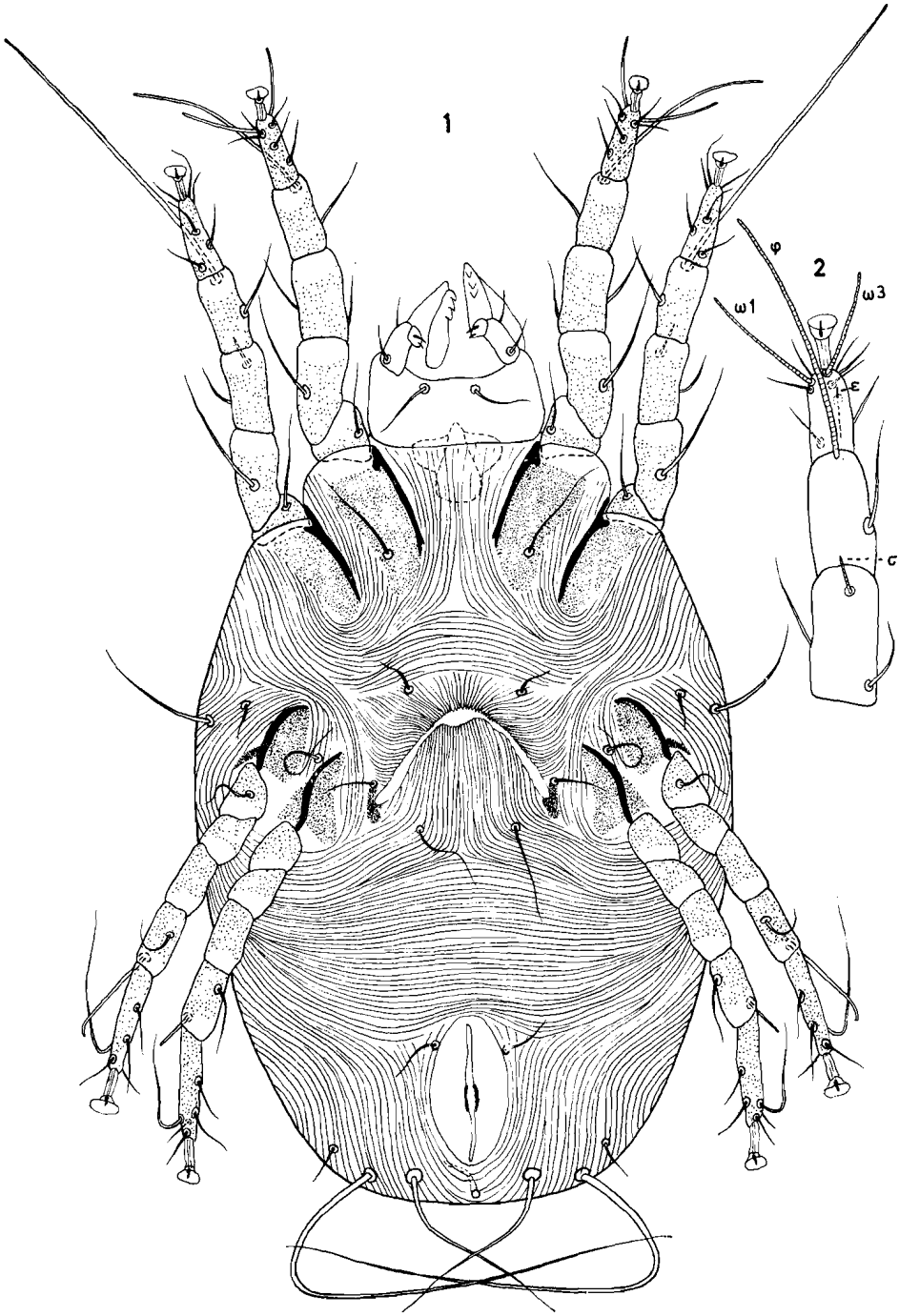

FIG. 1-2 : *Malayoglyphus intermedius* n. sp. : Female, in ventral view (1) ; tarsus, tibia and genu I, dorsally (2).

Malayoglyphus intermedius nov. spec.

Female (holotype) (fig. 1-3) : Length of the idiosoma 218 μ, width 135 μ. In 4 paratypes : 220 × 130 μ ; 223 × 135 μ ; 225 × 150 μ ; 243 × 159 μ. Cuticular striation slightly thicker than in the *Dermatophagoides* spp. Propodosomal shield lanceolate, 63 μ long and 30 μ wide (maximum). All coxae slightly punctate. Bursa opening in the median line, a little behind the genital slit ; genital papilla poorly developed. The last part (the more external) of the bursa, immediately before the papilla, is slightly expanded. Internal orifice of the bursa surrounded

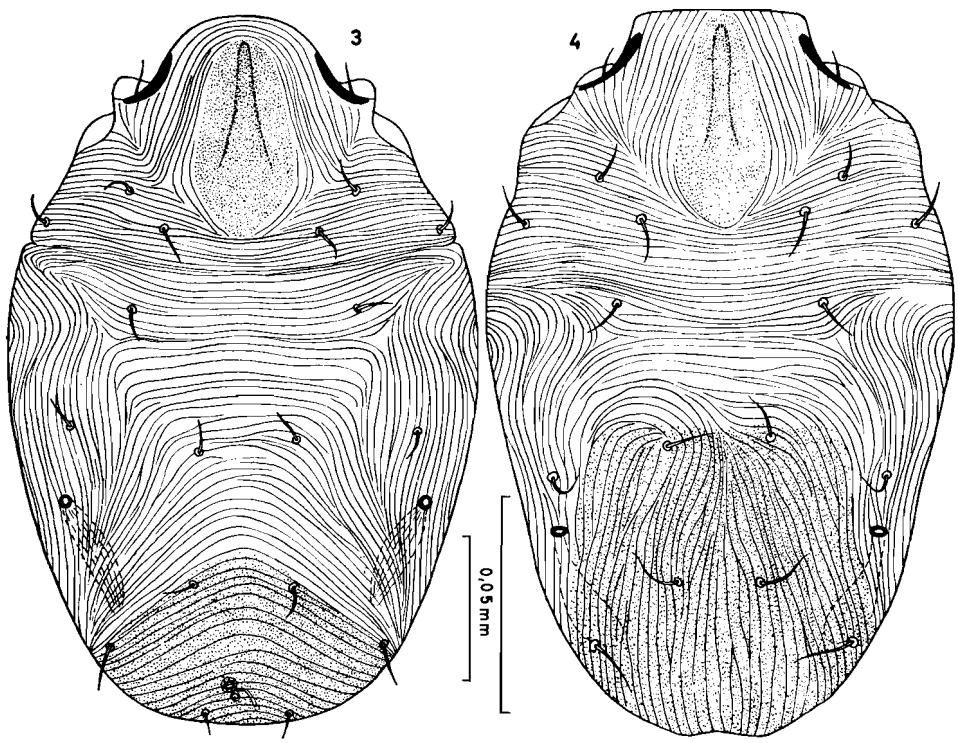

FIG. 3-4 : *Malayoglyphus intermedius* n. sp. : Dorsal surface of the female (3) and the male (4).

by a sclerotized ring with radial expansions resembling that of *D. pteronyssinus* but much smaller. Genital apodems well developed. Tarsi I 19-20 μ long. Posterior legs slender, subequal. Tarsi III and IV respectively 30 μ and 32-33 μ long. Setae *sc e*, *sc i*, *h*, *d* 5 and *l* 5 respectively 12-15 μ, 10-12 μ, 35 μ, 50 μ and 150-180 μ long. The *d* 5 and *l* 5 are broken at their base in most of the specimens. The two solenidia of tarsus I are relatively very long : ω *1* is 25 μ long and ω *3* is 20 μ long. Genua I with only one solenidion. Other characters as given for the definition of the genus.

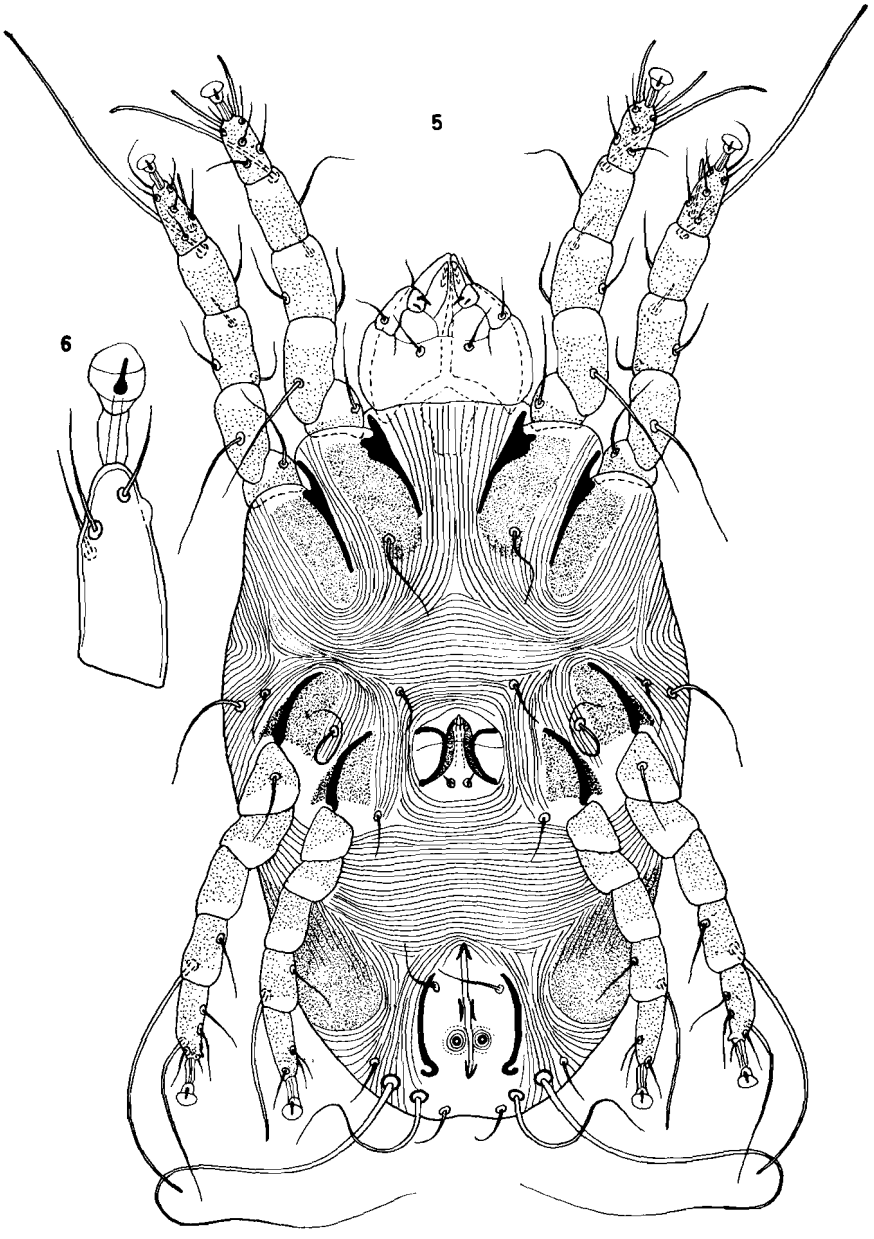

FIG. 5-6 : *Malayoglyphus intermedius* n. sp. : Male in ventral view (5) : tarsus IV in lateral view (6).

Male (allotype) (fig. 4-6) : Idiosoma 175 μ long, 108 μ wide. In 2 paratypes : 168 × 111 μ ; 175 × 120 μ. General characters as in the female. The sclerotized ring around the anus is 25 μ long and 24 μ wide ; it is widely open forwards and afterwards. Adanal suckers very small, situated in the posterior half of the perianal ring. Legs IV slightly longer than legs III. Tarsi IV with 3 simple setae and a rounded papilliform production.

Habitat and locality :

1. In the dust of a house in Singapore, February 1968 (Coll. Dr CUNNINGTON) : 1 female paratype.
2. In the dust of a house in Djatinegara (near Djakarta), Indonesia, 28 April 1968 (Coll. Dr SPIEKSMA) : Holotype and 33 females paratypes ; allotype and 15 males paratypes.
3. In the dust of a house in Djakarta : 4 females, paratypes (Coll. Dr SPIEKSMA) (April 1968).

Types : Holotype and allotype in Institut royal des Sciences naturelles de Belgique. Paratypes in the British Museum, in the Rijksmuseum voor Natuurlijke Historie te Leiden, and in the collections of the authors.

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