TAXONOMIC STATUS OF *MACRONYSSUS LONGIMANUS* (KOLENATI) AND *MACRONYSSUS TINAE (LOMBARDINI) (ACARINA : MACRONYSSIDAE). DESCRIPTION OF MACRONYSSUS LONGIMANUS* PROTONYMPH.

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MACRONYSSUS LONGIMANUS
M. TINAE
SYNONYMY
PROTONYMPH
DESCRIPTION

SUMMARY : *Macronyssus tinae* (Lombardini, 1953), known only from the female, is considered to be a junior synonym of *Macronyssus longimanus* (Kolenati, 1856), previously known only from the male. The synonymy is based on morphological data and the occurrence of both sexes on the same host (*Miniopterus schreibersi* Naterer), without the presence of other species of *Macronyssus*. The protonymph of *M. longimanus* is described.

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RÉSUMÉ : *Macronyssus tinae* (Lombardini, 1953) étant connu seulement par la femelle est considéré comme synonyme de *Macronyssus longimanus* (Kolenati, 1856), qui était connu seulement par le mâle. La Synonymie repose sur des données morphologiques et sur la présence des deux sexes sur le même hôte (*Miniopterus schreibersi* Naterer), sans l'existence d'autres espèces de *Macronyssus*. La protonymphe de *M. longimanus* est décrite.

The *cyclaspis* group of the genus *Macronyssus* includes *cyclaspis, cavus, ellipticus, japonicus, longimanus*, and *tinae*. These are large, weakly sclerotized mites with relatively long legs and the dorsal plate having no more than twenty-three setal pairs.

M. longimanus was described by KOLENATI in 1856, based on male only, as *Caris longimana*. The single male specimen labelled as part of the type material of *C. longimana* and deposited in the British Museum (N.H.) is the only specimen from the type series for which the locality is known. This specimen was designated as lectotype by RADOVSKY (1967).

M. tinae was described by LOMBARDINI (1953) as *Liponyssus tinae* (female only ; male belongs to *Macronyssus rhinolophi* (Oudemans, 1902)). The male and protonymph are unknown, DUSBÁBEK (1963) listed " 1 ♂ ? " as part of his collections of *M. tinae*, but the male was not described.

During the course of a study of spinturnicid mites from Spain, we have recorded numerous specimens of Macronyssidae parasitic on *Miniopterus schreibersi* Naterer. Leaving aside other species, *M. longimanus* male, *M. tinae* female and a not yet described protonymph were consistently recovered through one year of captures. No *M. longimanus* female nor *M. tinae* male were recorded.

As staded by RADOVSKY (1967) in the redescrip-

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tion of *M. longimanus* male, " *M. tinae* may represent the female of this species... This relationship is presented merely as a possibility that can be verified only by the study of additional material ". The morphological features pointed out by RADOVSKY (1967) and the ecological relationship of the two taxa suggest that *M. longimanus* and *M. tinae* as well as the undescribed protonymph are conspecific. For these reasons, we relegate *M. tinae* to the synonymy of *M. longimanus*. Both male and female were adequately redescribed by RADVOSKY (1967) under the names of *M. longimanus* and *M. tinae*, respectively.

DESCRIPTION OF THE PROTONYMPH

(Measurements are given in micrometers, from twenty unengorged specimens)

General shape as shown in Figures 1 and 2. Total length (gnathosoma excluded) : 382.96 (345.1-440.3). Total width (at coxa III level) : 239.06 (202.3-279.6). Idiosoma with 35 pairs of setae, plus a postanal seta. Setal distribution typical of the genus, but reduction on pygidial plate. Podosomal plate with 10 pairs of setae ; lateral series long and *j*-series of moderate length. Podosomal plate length : 163.51 (150.2-181) ; podosomal plate width : 157.43 (131.1-180).

Pygidial plate (Figures 3-6) with anterior margin broadly curved, weakly protruding anteriorly. Posterior margin with a well-defined concavity. There is some variation in the shape of pygidial plate (see below). Five setal pairs on pygidial plate. Pygidial plate length : 95.05 (82.5-109.5) ; pygidial plate width : 134.84 (118.5-180).

Unsclerotized dorsal integument with very fine striations. Two setal pairs between podosomal and pygidial plates, on central portion of dorsum, and four pairs in lateral series. Only one pair of caudal setae.

Sternal plate with sculpturing distinct, not strongest anteriorly. Sternal setae long. Sternal plate length : 135.8 (117-150) ; sternal plate width : 92.9 (85.5-97). Four setal pairs between sternal and anal plates, unsclerotized integument. Anal plate length : 78 (60-82) ; anal plate width : 57 (51-59).

Peritreme short (total length : 51 (49-52.5)) ending over coxa III. Legs long and slender, without any special feature. Seta distribution on legs as shown in Table 1. Coxae II and III without coxal ridges. Leg I length : 357 (344-369) ; leg I width (at femur level) : 41.65 (39-46.5), tarsus I length : 89.72 (78-97) ; tarsus I width : 28.6 (24-30).

TABLE 1 : Leg and palpal chaetotaxy of the protonymph of *Macronyssus longimanus* (Kolenati).

	COXA	TROCHANTER	FEMUR	GENU	TIBIA	TARSUS
LEG I	2	$1\,\frac{0}{2}\,1$	$2\,\frac{2}{1}\,\frac{2}{2}\,1$	$1\,\frac{2}{2}\,\frac{2}{1}\,1$	$1\,\frac{2}{1}\,\frac{2}{1}\,1$	19
LEG II	2	$1\,\frac{0}{2}\,1$	$1\,\frac{2}{1}\,\frac{2}{1}\,1$	$1\,\frac{2}{0}\,\frac{2}{0}\,1$	$1\,\frac{1}{1}\,\frac{2}{1}\,1$	15
LEG III	2	$1\,\frac{0}{3}\,0$	$1\,\frac{2}{1}\,\frac{1}{0}\,0$	$1\,\frac{2}{0}\,\frac{2}{0}\,1$	$1\,\frac{1}{1}\,\frac{2}{1}\,1$	15
LEG IV	1	$1\,\frac{0}{3}\,0$	$0\,\frac{2}{1}\,\frac{1}{0}\,0$	$1\,\frac{2}{0}\,\frac{2}{0}\,0$	$1\,\frac{1}{1}\,\frac{2}{1}\,1$	15
PALPI	0	1	4	8	8	12

Deutosternal groove with about thirteen rows of teeth and only one tooth per row. Palpal chaetotactic formula as shown in Table I. Fixed chela similar to that of female, with proximal tooth moderately strong, broad at base ; ventral tooth even less developed than in female (may be apparent only as an angular prominence). Movable chela length : 28.5 (28-28.75).

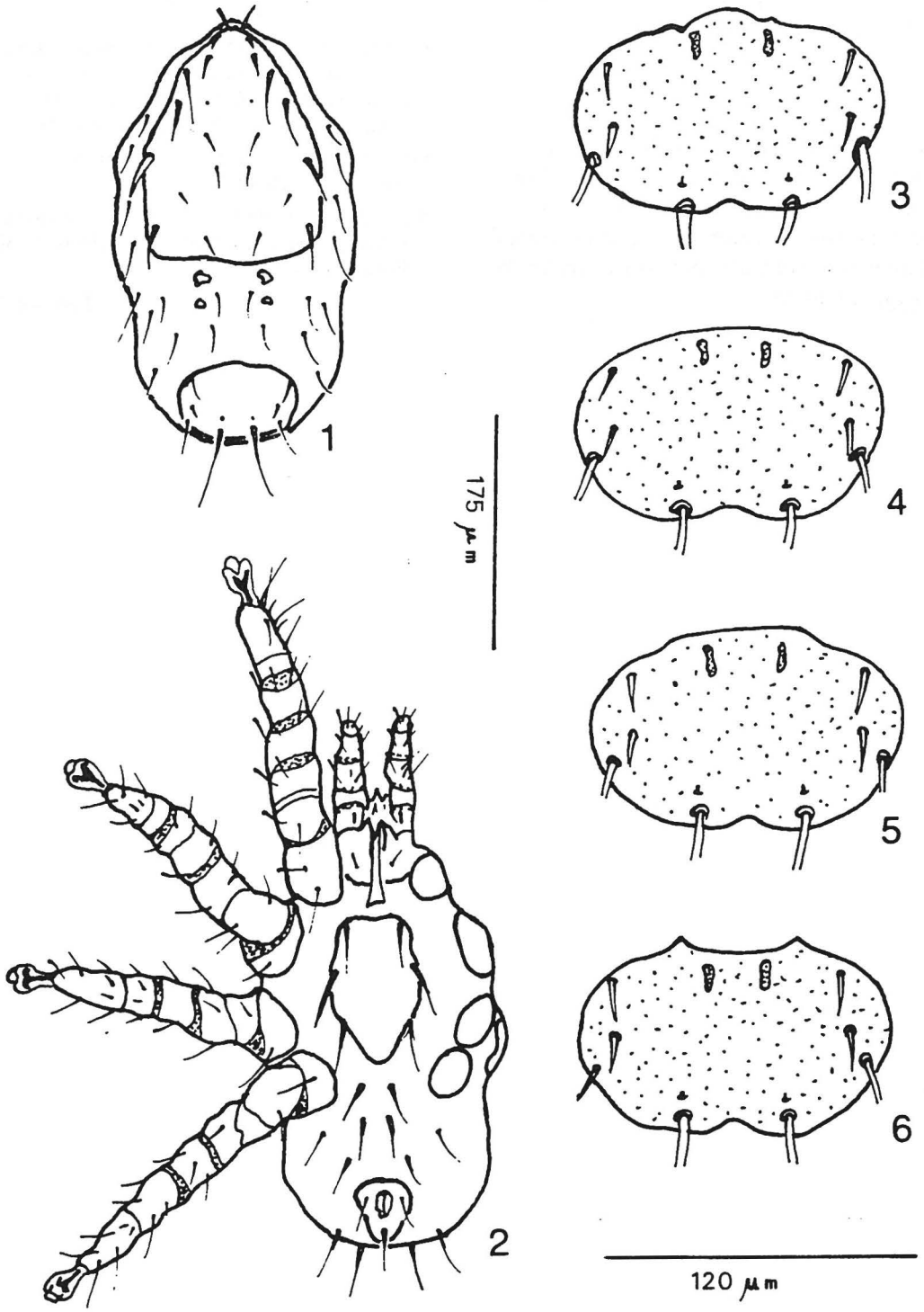
INDIVIDUAL VARIATION

We have noticed some variations in the shape of anterior margin from pygidial plate (see Figures 3-6). The weakly convex, anteriorly produced margin (Figure 3) was the most commonly seen (80 % of individuals recorded). There is no significant association between variation in morphology and locality, as shown by the chi-square test.

MATERIAL EXAMINED

Avenc de Puig de'n Març (Tarragona). — 12-I-1986 (1 male, 1 female, 1 protonymphs), 23-II-1986 (13 males, 11 females, 39 protonymphs), 9-III-1986 (1 female, 3 males).

Avenc del Davi (Barcelona). — 21-XII-1985 (1 male, 1 female, 1 protonymph).



FIGS 1-6 : *Macronyssus longimanus*, protonymph.
1. — Dorsal view ; 2. — Ventral view ; 3-6. — Variations in the shape of pygidial shield.

Mines de la Cartanya (Barcelona). — 4-III-1986 (1 male, 22 females, 4 protonymphs), 9-III-1986 (5 males, 16 females, 61 protonymphs).

REMARKS

The *M. longimanus* protonymph is similar to those of the *cyclaspis* group and is very closely related to that of *M. ellipticus*. From this, it can be distinguished by the presence, in the deutosternal groove, of only one tooth per row, as well as by the shape of pygidial plate.

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