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A NEW PYROGLYPHID MITE
(ACARI : PROGLYPHIDAE)
FROM A WOODPECKER (PICIDAE) IN THAÏLAND

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A NEW PYROGLYPHID MITE (ACARI : PYROGLYPHIDAE) FROM A WOODPECKER (PICIDAE) IN THAILAND¹

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TAXONOMY
PYROGLYPHIDAE

SUMMARY : *Asiopyroglyphus thailandicus* n. g., n. sp. (Acari, Pyroglyphidae) is described from a bird *Meiglyptes tristis* (Picidae), from Thailand. Subfamilies and included species plus known associations of pyroglyphid species and Piciformes are listed.

TAXONOMIE
PYROGLYPHIDAE

RÉSUMÉ : *Asiopyroglyphus thailandicus* n. g., n. sp. (Acari, Pyroglyphidae) est décrit d'un oiseau *Meiglyptes tristis* (Picidae), de Thaïlande. Une liste est donnée des sous-familles de Pyroglyphidae et de leurs espèces, ainsi que des espèces trouvées en association avec les Piciformes.

INTRODUCTION

FAIN (1988) divided the family Pyroglyphidae into five subfamilies, among which three are new. Including the new genus and species described herein the number of valid genera and species in this family is now 19 and 47 respectively. We give herein the list of these genera with their type species :

1. *Bontiella* Fain, 1965. Type species : *Bontiella bouilloni* Fain, 1965.
2. *Weelawadjia* Fain & Lowry, 1974. Type species : *W. australis* Fain & Lowry, 1974.
3. *Campephilocoptes* Fain, Gaud & Pérez, 1982. Type species : *C. atyeoi* Fain, Gaud & Pérez, 1982.
4. *Asiopyroglyphus* n. gen. Type species : *A. thailandicus* n. sp.

PYROGLYPHINAE Cunliffe, 1958, Fain, 1967

1. *Pyroglyphus* Cunliffe, 1958. Type species : *P. morlani* Cunliffe, 1958.
2. *Euroglyphus* Fain, 1965, 1988. Type species : *Mealia maynei* Cooreman, 1950.
3. *Gymnoglyphus* Fain, 1965, 1988. Type species : *Mealia longior* Trouessart, 1897.
4. *Hughesiella* Fain, 1965, 1988. Type species : *Dermatophagoides africanus* Hughes, 1954.

DERMATOPHAGOIDINAE Fain, 1963

1. *Dermatophagoides* Bogdanov, 1864. Type species : *Mealia pteronyssina* Trouessart, 1897 (= *Dermatophagoides scheremetewskyi* Bogdanov, 1864) (Syn. *Hullia* Gaud, 1968).
2. *Hirstia* Hull, 1931. Type species : *Hirstia chelidonis* Hull, 1931.
3. *Sturnophagoides* Fain, 1967. Type species : *Dermatophagoides (Sturnophagoides) bakeri* Fain, 1967.

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4. *Malayoglyphus* Fain, Cunnington & Spieksma, 1969. Type species : *M. intermedius* Fain, Cunnington & Spieksma, 1969.

ONYCHALGINAE Fain, 1988

1. *Onychalges* Gaud & Mouchet, 1959 (= *Neonychalges* Gaud, 1983 ; = *Capitonoecius* Fain & Gaud, 1984 (see FAIN, 1988). Type species : *Megninia longitarsus* Bonnet, 1924.
2. *Paramealia* Gaud, 1968. Type species : *Onychalges ovatus* Gaud & Mouchet, 1959.
3. *Kivuicola* Fain, 1971. Type species : *Sturnophagoides (Kivuicola) kivuana*, Fain, 1971.

GUATEMALICHINAE Fain, 1988

1. *Guatemalichus* Fain & Wharton, 1970. Type species : *G. bananae* Fain & Wharton, 1970.
2. *Pottocola* Fain, 1971. Type species : *P. scutata* Fain, 1971.
3. *Fainoglyphus* Atyeo & Gaud, 1977. Type species : *F. magnasternus* Atyeo & Gaud, 1977.

PARALGOPSINAE Fain, 1988

With only one genus, *Paralgopsis* Gaud & Mouchet, 1959. Type species : *Dermoglyphus (Paralgus) paradoxus* Trouessart, 1899.

PYROGLYPHYDAE FROM NESTS OF BIRDS OR FROM BIRDS

Among the 47 species of Pyroglyphidae described so far, 28 were found exclusively from birds or from the nests of them. The most frequently parasitized are the Passeriformes (with 16 species), they are followed by the Piciformes (8 species), the Psittaciformes (3 species) and the Apodiformes (2 species, of which 1 also found of Passeriformes). The Piciformes were parasitized in the following countries :

In Africa, 5 species belonging to 2 genera have been found on Piciformes :

Genus *Pottocola* :

1. *Pottocola (Pottocola) scutata* Fain, 1971 : from *Thripas xantholophus* (Picidae) in Zaire.

2. *Pottocola (Capitonocoptes) ventriscutata* Fain & Gaud, 1984 : from *Melanobucco bidentatus* (Capitonidae), from Zaire.

3. *Pottocola (Capitonocoptes) longipilis* Fain & Gaud, 1984 : from *Pogonoiulus scolopaceus* (Capitonidae), from Togo.

4. *Pottocola (Capitonocoptes) lybius* Fain & Gaud, 1984 : from *Lybius vieilloti* from Togo and Zaire, *Lybius dubius* from Togo and *Lybius torquatus* and *Lybius rubrifascies*, both from unknown localities (Capitonidae).

Genus *Onychalges* :

Only one species : *O. spinitarsis* Fain & Gaud, 1984 : from *Pogonoiulus scolopaceus* (Capitonidae), from Zaire.

In Asia :

Only one genus and species is known from Piciformes : *Asiopyroglyphus thailandicus* gen. and spec. nov. It was found on *Meiglyptes tristis* (Picidae) from Thailand.

In South America :

The only genus known from Piciformes is *Campephiloptes* Fain, Gaud & Pérez, 1982, represented by 2 species : *C. atyeoi* Fain, Gaud & Pérez, 1982 from *Campephilus rubricollis* (Picidae), from Venezuela, and *C. paraguayensis* Fain, Gaud & Pérez, 1982, from *Campephilus leucopogon* (Picidae) from Paraguay.

SUBFAMILY PYROGLYPHINAE

Genus *Asiopyroglyphus* gen. nov.

Definition : With the characters of the Pyroglyphinae. Cuticle sclerotized with thick sclerotized punctate striation. Tegmen relatively short, almost straight. Median area between coxae I punctate. Setae *sc e*, *d5*, *l2*, *l3*, *l5* long and strong. Female : posterior vulvar lip punctate in its lateral parts, striated in the median area, its anterior extremity incised Hysteronotum without shield. Epigynium distinctly separated from epimera I, the latter not fused on the midline. Tarsi III and IV ending into 2 well-developed conical and undivided apical spines. Male : with well-developed adanal suckers and

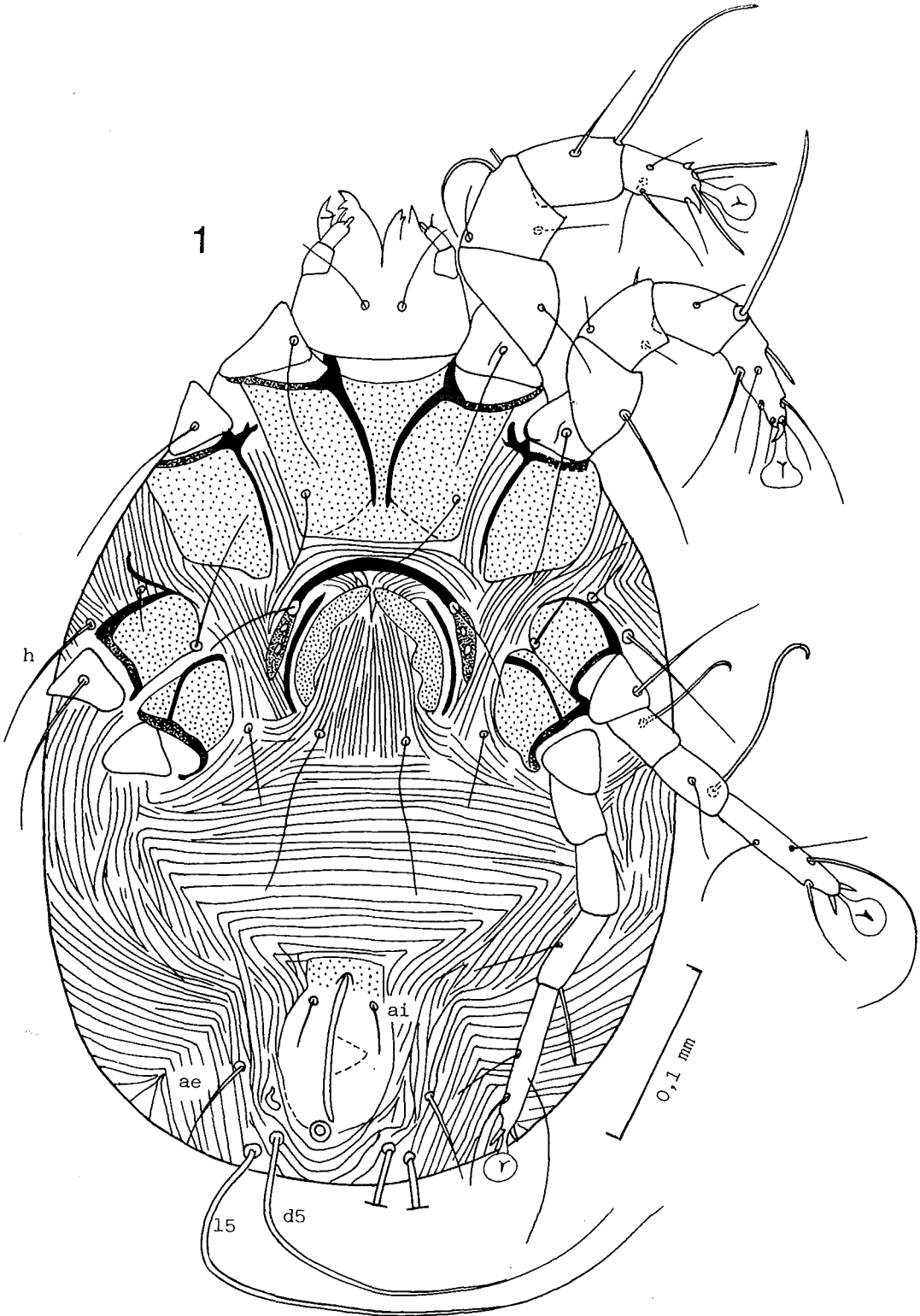


FIG. 1 : *Astiopyroglyphus thailandicus* sp. n. Female in ventral view

tarsal suckers (tarsi IV). Tarsi III without an apical furcate spine. Epimera I fused into a long sternum. Types species : *Asiopyroglyphus thailandicus* spec. nov.

In the subfamily Pyroglyphinae only the genera *Campephiloptes* and *Weelawadjia* have long and strong setae *sc e* as in *Asiopyroglyphus*.

This new genus differs from these two genera, in

the female by the complete absence of hysteronotal shield (the hysteronotum being completely striated in this new genus), and by the strong and long setae *l2* and *l3*. In addition, it differs from *Weelawadjia* by the shape of epimera I (not fused in midline). The male is distinguished from these genera by the long setae *l2* and *l3* and the very strong legs I.

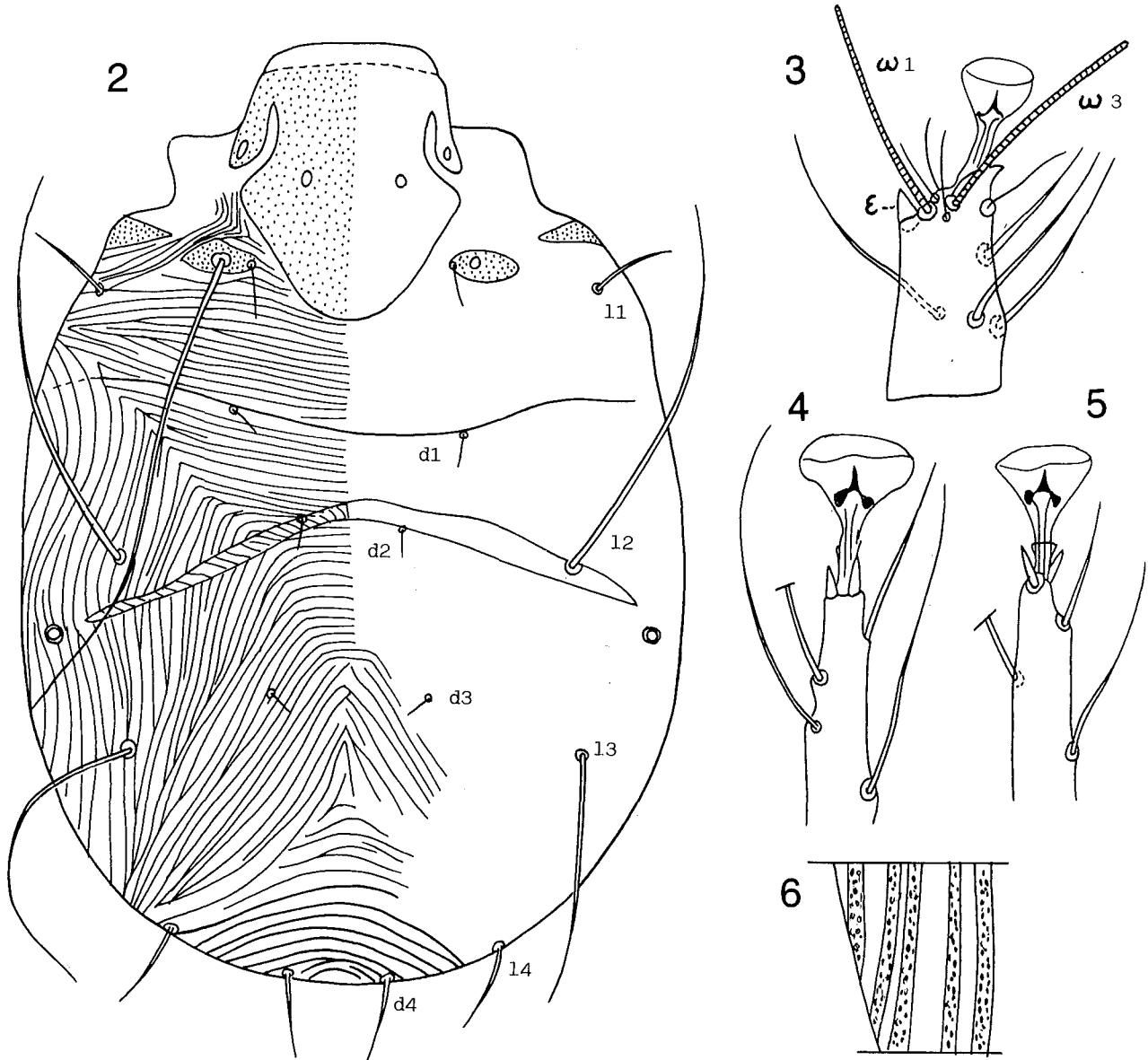


FIG. 2-6 : *Asiopyroglyphus thailandicus* sp. n. Female in dorsal view (2) ; tarsus I (3) ; apical part of tarsi III (4) and IV (5) ; striations (enlarged) of dorsum lateral to setae *l3* (6).

Asiopyroglyphus thailandicus spec. nov.

Female (holotype) (figs. 1-6) : Length and width of idiosoma $459 \times 315 \mu$ (maximum width). Dorsum with an incomplete sejugal furrow. There is a large propodonal shield, behind this shield the cuticle is striate-punctate. Hysteronotum completely striated, this striation being thick, especially those in the posterior part of the dorsum. Length of setae *sc e*, *l2*, *l3* : 210μ , 205μ and 120μ respectively ; other setae much shorter. Venter : Epimera I free. Epigynium strong but only slightly curved, bearing the setae *ga* laterally. Setae *cx I*, *cx III*, *gp* and trochanterals very thin and long. Setae *gm* and *gp* on the same transverse line. Copulatory orifice with thick sclerotized walls, situated very close to the posterior extremity of the anal slit. Anterior legs distinctly thicker than posterior ones. Lengths of tarsi I-IV : $40-54-75-84 \mu$. Tarsi I-II each with a strong apical curved process ; tarsi III-IV without processes. Chaetotaxy of legs (number of setae) : Tarsi I-II with 8 thin setae, tarsi III-IV with 2 simple apical spines and 4 (tarsi III) or 3 (tarsi IV) thin setae. Tibiae with 1-1-1-1 setae. Solenidia : Tarsus I with $\omega 1$ and $\omega 3$ apical. A strong spine-like famulus is present at the base of $\omega 1$.

Male (figs. 7-11) : Length and width (idiosoma) of the 2 paratypes : 375×240 and $390 \times 255 \mu$. Both specimens are strongly heteromorphic. Cuticle striate-punctate. Dorsum with two large median shields (propodonal and hysteronotal) and a pair of smaller paramedian shields situated on the posterior part of propodonotum. The lateral tegument of hysteronotum, lateral of setae *l2*, is striated. Setae *sc e*, *l2*, *l3*, *l5*, *d5* and *ae* are long or very long. Venter : All coxae covered by large punctate shields. Genital organ situated between coxae IV. Anus surrounded by a chitinous sclerotized ring, open posteriorly ; adanal suckers well developed. Legs : legs I monstrously developed, very thick and as long as the idiosoma (in both paratypes) ; femur I with a strong spur. Legs III thicker than legs IV. Tarsi I-IV with 8-7-5-3 setae ; tarsus IV bears in addition 2 small suckers. Tarsi I and III with two curved apical processes. Tarsus II

with only one curved apical process. Tarsus IV without apical processes.

KEY TO THE PYROGLYPHINAE
(Partly from FAIN, 1988)

Females

1. Setae *sc e* strong and very long (at least 180μ) 2
Setae *sc e* thin and short (maximum 50μ).....
Pyroglyphus, *Euroglyphus*, *Gymnoglyphus*, *Hughe-*
siella and *Bontiella*
2. Hysteronotum covered with a large punctate median shield..... 3
Hysteronotum without shield, tegument striated ...
..... *Asiopyroglyphus*
3. Epimera I fused on midline. Vulvar lip not incised anteriorly. Tarsi III-IV each with 2 apical conical spines *Weelawadjia*
Epimera I separated. Vulvar lip incised anteriorly.
Tarsi III-IV with all setae very thin
..... *Campephilocoptes*

Males

1. Setae *sc e* strong and very long (at least 180μ) 2
Setae *sc e* thin and short (maximum 50μ).....
Pyroglyphus, *Euroglyphus*, *Gymnoglyphus*, *Hughe-*
siella and *Bontiella*
2. Setae *l2* and *l3* very thin and short. Legs I either normal or slightly enlarged 3
Setae *l2* and *l3* long and thick. Legs I very strong and as long as the idiosoma *Asiopyroglyphus*
3. Tarsi III with a strong apical spine and a small apical curved process. Legs III only slightly larger than legs IV *Weelawadjia*
Tarsi III without an apical spine but with 2 strong curved apical processes. Legs III much stronger than legs IV *Campephilocoptes*

Host and locality

Holotype female and 2 paratype males from a woodpecker *Meiglyptes tristis* (Picidae). Locality : Khao Luang Nakornsithamaras, Thailand. (Migratory Animal Pathological Survey 494, University of Nebraska accession 13, 069). Holotype and 1 paratype in the US National Museum of Natural History Washington. One paratype male in the Institut royal des Sciences naturelles de Belgique, Belgium.

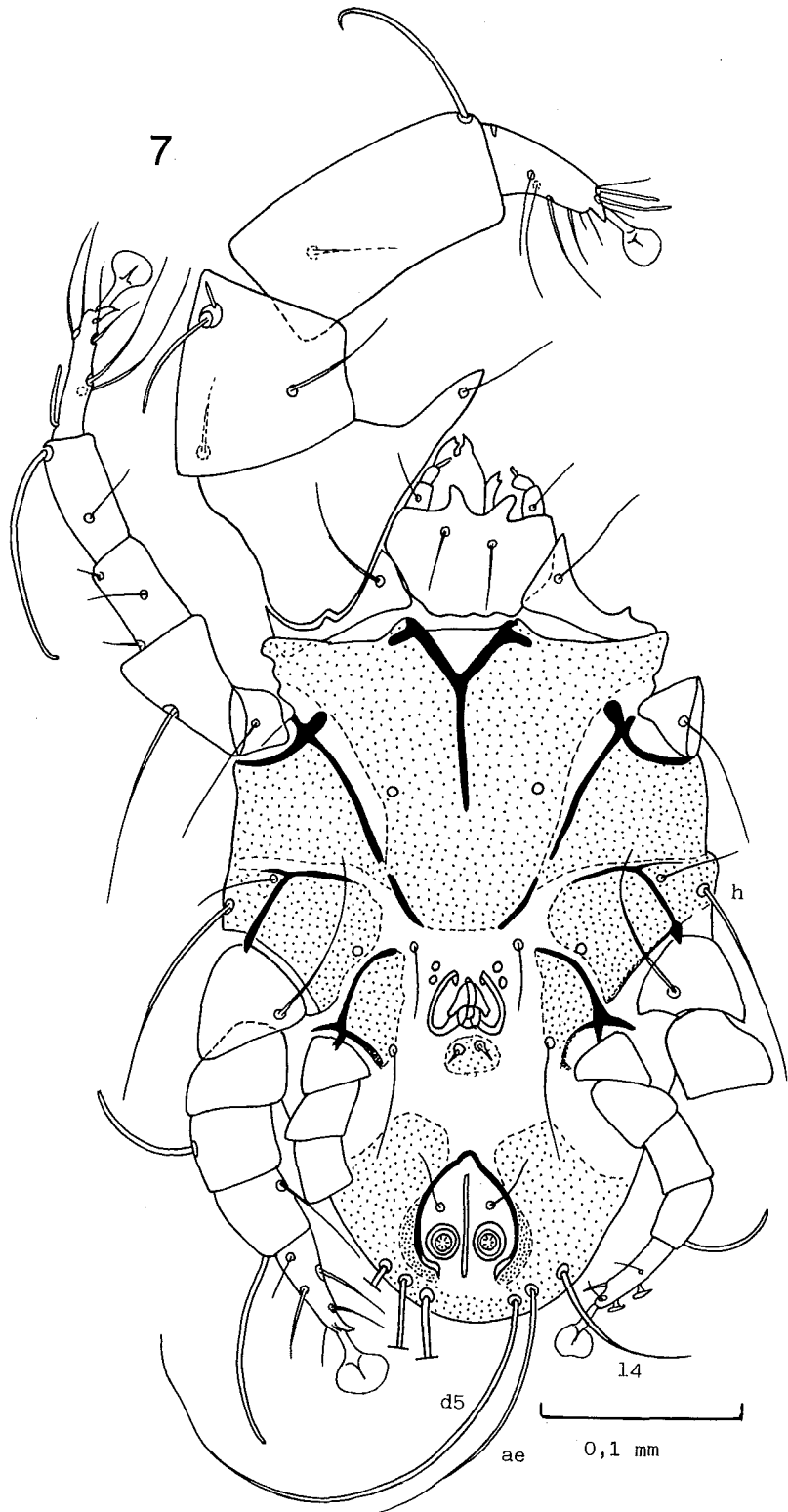


FIG. 7 : *Asiopyroglyphus thailandicus* sp. n., male, venter.

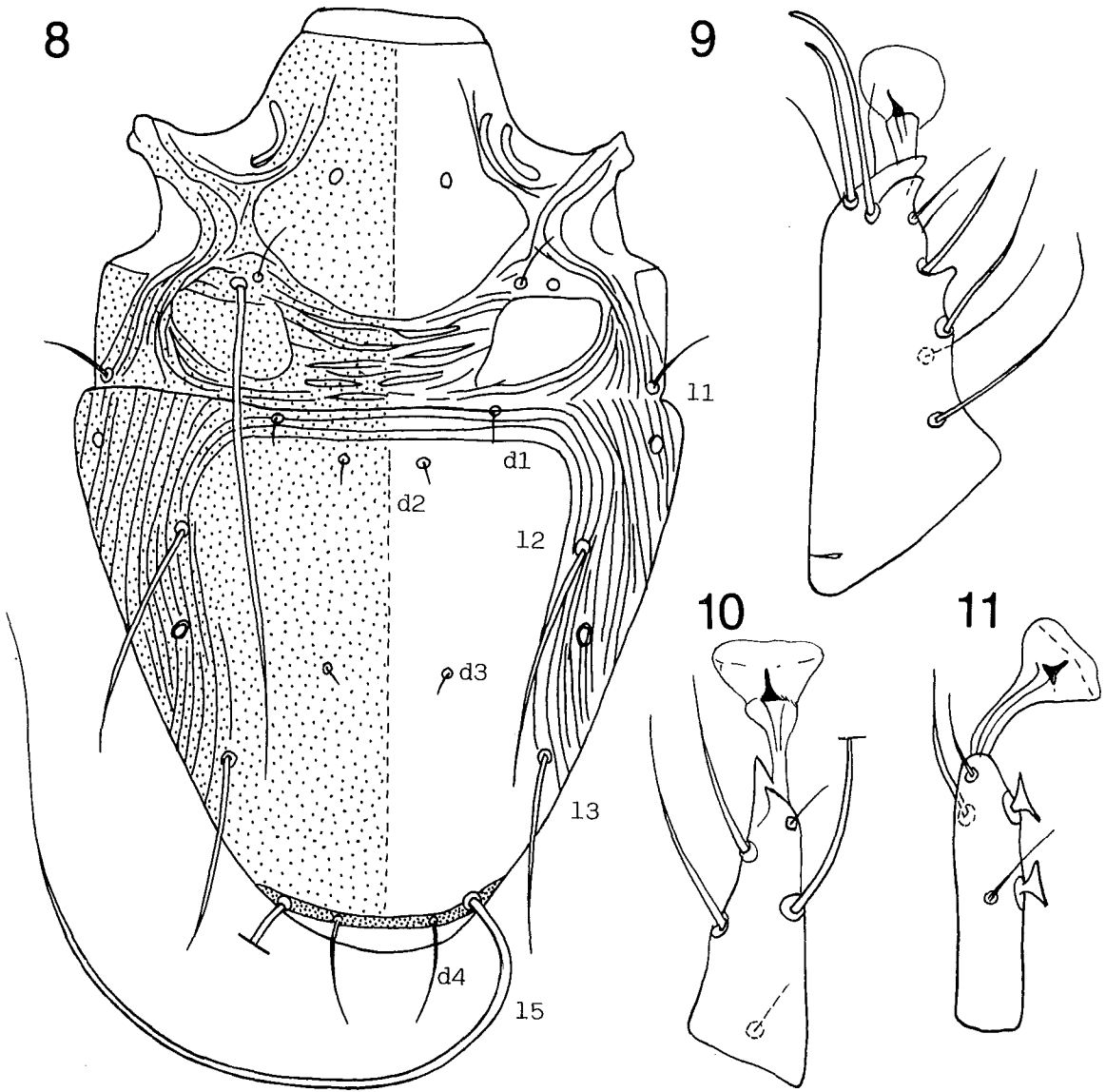


FIG. 8-11 : *Asiopyroglyphus thailandicus* sp. n., male. Dorsum (8); tarsus I (9); tarsus III (10); tarsus IV (11).

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