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

BY A. FAIN & W. T. ATYEO

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:

PYROGLYPHINAE Cunliffe, 1958, Fain, 1967


Dermatophagoidinae Fain, 1963


DERMATOPHAGOIDINA Fain, 1963

8. Asiopyroglyphus n. gen. Type species: A. thailandicus n. sp.

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ONYCHALGINAE Fain, 1988

1. Onychalges Gaud & Mouchet, 1959 (= Neonychalges Gaud, 1983; = Capitonocetes Fain & Gaud, 1984 (see Fain, 1988). Type species: Megninia longitarsus Bonnet, 1924.


GUATEMALICHINAE Fain, 1988


PARALGOPSINAE Fain, 1988

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

PYROGLYPHYDÆ 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 Thripias xantholophus (Picidae) in Zaire.

2. Pottocola (Capitonocetes) ventriscutata Fain & Gaud, 1984: from Melanophobro bidentatus (Capitonidae), from Zaire.

3. Pottocola (Capitonocetes) longipilis Fain & Gaud, 1984: from Pogonoilus scolopaceus (Capitonidae), from Togo.

4. Pottocola (Capitonocetes) 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. spinartis Fain & Gaud, 1984: from Pogonoilus scolopaceus (Capitonidae), from Zaire.

In Asia:

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

In South America:

The only genus known from Piciformes is Campephilocetes Fain, Gaud & Perez, 1982, represented by 2 species: C. atyeoi Fain, Gaud & Perez, 1982 from Campephilus rubricollis (Picidae), from Venezuela, and C. paraguayensis Fain, Gaud & Perez, 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 se e, d5, f2, f3, f5 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: *Asiopyroglyphus 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 Pyroglyphinæ only the genera *Campephilocoptes* and *Weelawadjia* have long and strong setae 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 12 and 13. 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 12 and 13 and the very strong legs I.

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**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 13 (6).
Asiopyroglyphus thailandicus spec. nov.

Female (holotype) (figs. 1-6) : Length and width of idiosoma 459 x 315 µ (maximum width). Dorsum with an incomplete sejugal furrow. There is a large propodonotal 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, I2, I3 : 210 µ, 205 µ and 120 µ respectively; other setae much shorter. Venter : Epimera I free. Epignym 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 traverse 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 µ. Tarsi I-II each with a strong apical curved process; tarsi III-IV without processes. Chaetotaxy of legs (number of setae) : Tarsi I-III with 8 thin setae, tarsi 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 α1 and α3 apical. A strong spine-like famulus is present at the base of α1.

Male (figs. 7-11) : Length and width (idiosoma) of the 2 paratypes : 375 x 240 and 390 x 255 µ. Both specimens are strongly heteromorphic. Cuticle striate-puncutate. Dorsum with two large median shields (propodonotal and hysteronotal) and a pair of smaller paramedian shields situated on the posterior part of propodonotum. The lateral tegument of hysteronotum, lateral of setae I2, is striated. Setae sc e, I2, I3, I5, 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 monstrosely 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.

**Key to the Pyroglyphinae**  
(Parity from FAIN, 1988)

**Females**

1. Setae sc e strong and very long (at least 180 µ) 2  
   Setae sc e thin and short (maximum 50 µ) ........  
   *Pyroglyphus, Euroglyphus, Gymnoglyphus, Hughesiella* 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 180 µ) 2  
   Setae sc e thin and short (maximum 50 µ) ........  
   *Pyroglyphus, Euroglyphus, Gymnoglyphus, Hughesiella* and *Bontiella*

2. Setae I2 and I3 very thin and short. Legs I either normal or slightly enlarged .................. 3  
   Setae I2 and I3 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**

Fig. 7: Asiopyrolyphus 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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