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TWO NEW SPECIES OF EREYNETES (EREYNETIDAE, ACARINA) FROM THE PHILIPPINES[1]

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Two new species of ereynetid mites are reported and described from the Philippine fauna. These are Ereynetes (Ereynetes) philippinensis **and** E. (Anereynetes) upelbensis.

A species of ereynetid mites was accidentally encountered a year ago while collecting mesostigmatic mites associated with dung beetles. The exact location on the beetle was not known in the first batch of specimens since the beetle was collected directly into alcohol and the mites had been dislodged from it at the time of microscopic examination A second collection on two beetles showed them attached to the thoracic and abdominal sterna. They were not found in particularly large numbers in these limited collections: the largest count was on a beetle harboring 3 adults and 6 tritonymphs. A second species was collected a little later on decomposing bark. Both species appear unknown elsewhere, and although related species have since been known from neighboring areas of the Malay Archipelago [viz., *Ereynetes cruciatus* (Berlese) from Java; *E. potator* Vitzthum from Sumatra and *E. malayi* (Fain and Nadchatram) from Malaysia], no representatives of the family have yet been recorded from the Philippines. This paper reports the occurrence of this mite group here, and the description of these two newly discovered species.

The two species described can be classified into two of the five subgenera currently recognized within the genus *Ereynetes*. E. *philippinensis* belongs to the nominal subgenus, *Ereynetes,* in which 1 or 2 dorsal shields, lenslike eyes, the last pair of dorsal seta (*d*-5) and 5-segmented palps are present. The other species, *E. upelbensis,* is a member of the subgenus *Anereynetes* which are similar to the former subgenus except for the absence of lenslike eyes.

Setal nomenclature of the dorsum is adopted from Fain (1970).

1. Ereynetes (Ereynetes) philippinensis Corpuz-Raros, *new species,* Fig. 1-5

This species is similar to *E.* (*E.*) *arcuatus* (Berlese) in having two reticulate dorsal shields and by the relative positions of the internal verticals (*vi*) and the anterior sensilla (Sa or internal scapular, *sci*). However, the reticular patterns of

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the propodosomal shield are quite different, especially between setae *vi*. Also, the reticulate area tends to be drawn on the posterior margin while it is rather straight in the named species. It also superficially resembles *E.* (*A.*) *potator* Vitzthum but this species possesses no eyes as is true of all members of the subgenus *Anereynetes*.

FEMALES Color in life creamish. Gnathosoma 76-82 u long and 73-76 u wide between bases of palps; surface finely granulate; hypostome with 3 apical setae on each lobe, the anterior two minute and appear recessed into their alveoli and the posterior much bigger, about 9 u long, and barbed; subcapitulum also with a pair of densely barbed setae, about twice as long as posterior hypostomal, and arising near bases of palps. Palps 5-segmented; surface of segments finely granulate; chaetotaxy as illustrated. Chelicerae 70-73 u long and about half as wide at base; surface finely striate and granulate.

Idiosoma 289-409 u long and 194-256u at widest part between setae l-1. Dorsum with two shields, propodosomal and metapodosomal; areas not covered by shields finely and densely striate-granulate. Propodosomal shield roughly hexagonal with anterior margin produced forward into a rounded, finely striate-granulate lobe; greater portion of shields reticulate and entire surface of shield, including remaining non-reticulate areas also granulate; reticulate area a little drawn posterad, with a characteristic pentagonal cell defined between setae *vi*, and the remaining reticular pattern as figured. Metapodosomal shield transverse, much broader than long, also reticulate-granulate. Dorsal setae, except sensilla elongate, thickened but pointed, and densely barbed; number normal for the subgenus, with seta *d*-5 present; seta *vi* the smallest, 9-11 u long, *d*-5 a little longer, 13-15 u, and the rest 21-40 u long. Seta *vi* borne on outer corners of pentagonal cell and mesoposterad of anterior sensillum; seta *d*-1 on posterior lobes of propodosomal shield, and seta *d*-2 on metapodosomal shield. Anterior sensillum 83-94 u long, posterior slightly shorter, 70-82 u; both sensilla moderately clothed with short tufts. A pair of lenslike eyes present on propodosoma, arising close to the external verticals (*ve*).

Venter of idiosoma finely and densely striate, with striations in intercoxal region converging into a V-like pattern. Setae similar in shape to dorsals but generally shorter and thinner; 2 pairs present on membrane between coxae, the rest associated with genital and anal openings. Genital opening an inverted T; 2 round suckers on each side; genital setae 10 pairs in two pairs of rows of 5 setae each. Anal setae 2 pairs, the posterior much longer than anterior, about 1 2/3 as long. Coxae divided into two groups, I-II and III-IV; sclerotic and finely granulate; setae numbering 3-1-3-2, all shaped like idiosomals; coxa II armed with a spur-like projection from posterior margin. Trochanters with 1-0-1-0 setae, the setae all barbed. Ereynetal organ ovoid, extending anteriorly to the bases of outer lateral seta. Number and arrangement of setae on other leg segments as illustrated.

MALE: Much like female including shapes and reticulations of dorsal shields, as well as dorsal chaetotaxy of idiosoma. Idiosoma 318 u long and 212 u wide; gnathosoma 73 u long and 70 u wide at bases of palps . Dorsum a little more sclerotic than those of female, shields densely granulate, and striations coarser, wider apart and granulate like shields. Venter differing only in the genital area; genital structure with anterior transverse arms slightly curved and forming a T with body of structure; 10 pairs of setae visible in single specimen available, with the innermost pairs normally located within genital opening not obvious due to the compression of genital parts, and the ten visible ones in two groups of five on each side of genital opening.

TRITONYMPH: Generally resembles adult female, with shield reticulations not yet developed but outine already distinctly defined. Genital area with only 8 piars of setae arranged in two pairs of rows, the inner row including three and the outer five pairs; 2

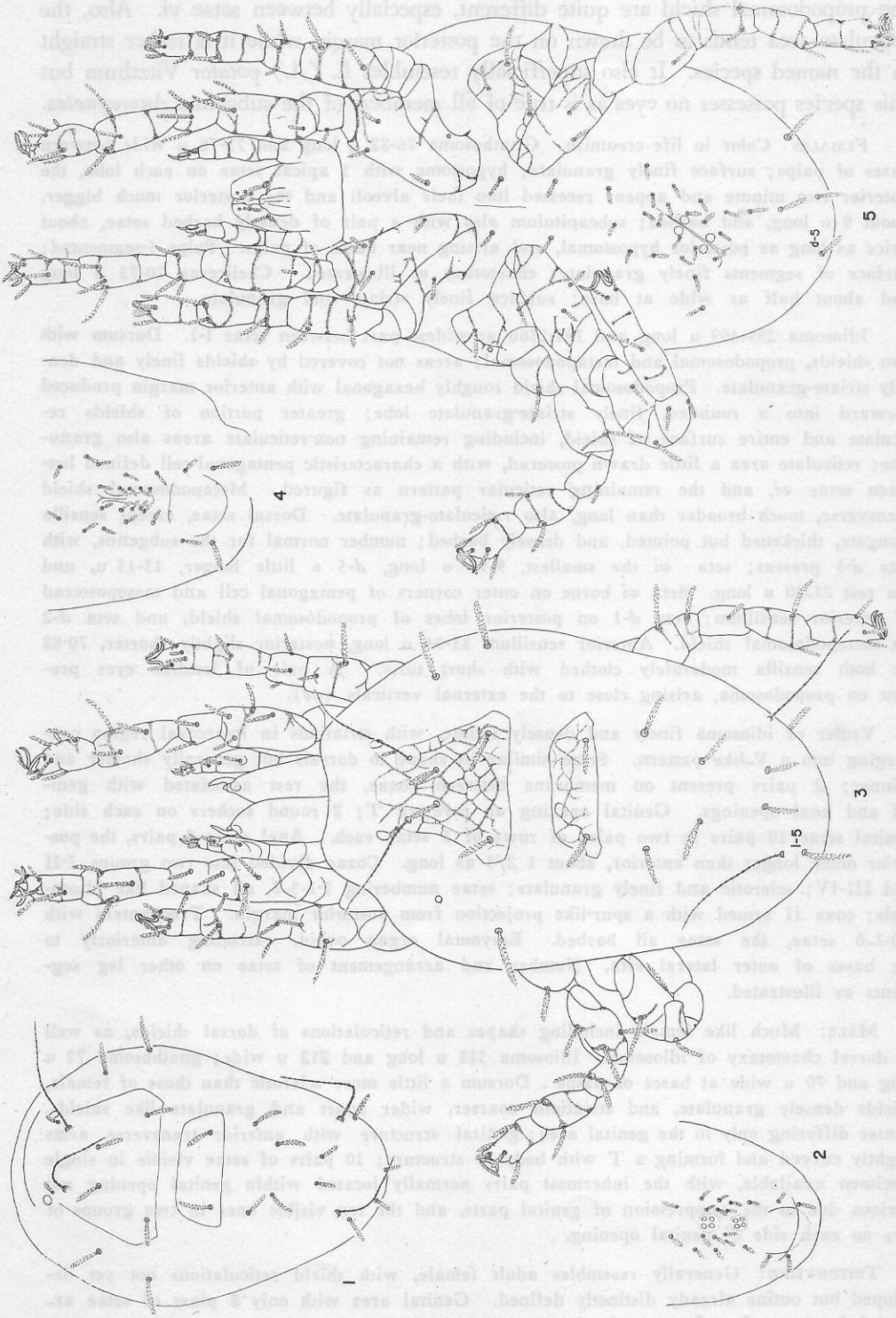

Fig. 1-5. *Eryncetes* (*Eryncetes*) *philippinensis* n.sp: 1. dorsum of idosoma of tritonymph; 2. venter of opisthosoma of deutonymph; 3. dorsum of female; 4. venter of opisthosoma of male; 5. venter of female.

groups of four suckerlike structures each, located between internal pairs of setae in the position of the future genital opening.

TYPES: HOLOTYPE: female, College, Laguna, 1 November 1971, dislodged from a scarab beetle preserved in alcohol (R.S. Raros). *Paratypes*: 2 females and 1 male with the same data as holotype; and 5 females and 6 tritonymphs from the same locality but collected 17 January 1972 from thoraric and abdominal sterna of two scarab beetles. Three paratype females and one tritonymph in the collection of Dr. Alex Fain in the Institut de Medicine Tropicale, Antwerp, Belgium; holotype and remaining paratypes in the Department of Entomology Museum, University of the Philippines.

REMARKS. Three females and one tritonymph were kindly examined and compared with some Berlese species of *Ereynetes* by Dr. Fain. He is also of the opinion that this new species is distinct from the two species discussed above in diagnosis. For this, I wish to thank Dr. Fain, without whose expertise and opinion would have made taxonomic decisions considerably more difficult.

2. Ereynetes (Anereynetes) upelbensis Corpuz-Raros, *new species*, Fig. 6-7

This species is recognized from other *Ereynetes* species by a combination of the following characters: a single, distinctly defined, and smooth hexagonal dorsal shield; presence of an arch like projection arising from anterior margin of dorsal shield, and the absence of eyes.

FEMALE: Gnathosoma 52-55 u long and 45-58 u wide between palp bases; hypostome with 2 minute setae on apex of each lobe; subcapitulum with a pair of densely barbed setae, about 14 u long, and arising on eoch side from near bases of palps. Palps 5-segmented with apical segments rather small and indistinct; number and arrangement of setae as illustrated. Chelicerae 52-55 u long; surface entirely smooth.

Idiosoma rather slender, 242-279 u long and 133-164 u at widest portion between setae l-1. Dorsum wih a single distinctly defined propodosomal shield; remaining areas finely striate. Propodosomal shield hexagonal; surface smooth, with a few wartlike areas anteromarginally; a pair of sclerotic bars arising from anterior corners and just outside seta *vi*, the bars converging anteriorly into an arch. Dorsal setae, excluding sensilla elongate, thickened but pointed, and densely barbed; number normal, with seta *d*-5 present; setae *ve* and d-5 noticeably shorter than the rest, 8-10 u long; remaining setae 13-23 u in length; seta *d*-1 borne on shield, not on membrane. Anterior sensillum arising from approximately the same level as seta *vi*, about 75 u long, and moderately clothed with short barbs; posterior sensillum of similar shape, 69-71 u in length. Eyes absent.

Venter finely striate like membranous areas of dorsum; setae similar in shape to those on dorsal surface but relatively shorter. Striae between coxae converging into a V; 2 pairs of barbed setae present in intercoxal membrane. Genital opening inverted T-shaped; genital setae 10 pairs, arranged in 2 rows of 5 setae each on each side of genital opening. Anal setae 2 pairs, the posterior much longer, about twice anterior pair in length.

Legs with coxae I and II separated from III and IV; coxal setae 3-1-3-2 in number, those of trochanters 1-0-1-0, and those of other leg segments as illustrated. Leg setae, including trochanterals, all barbed like idiosomals. Tibia I with a duplex seta on outer anterior margin, the duplex consisting of a posterior slender barbed seta and a similarly slender and subequally long but smooth, flat-tipped anterior seta. Ereynetal organ small and pear-shaped, extending anteriorly to base of duplex seta.

MALE: Unknown.

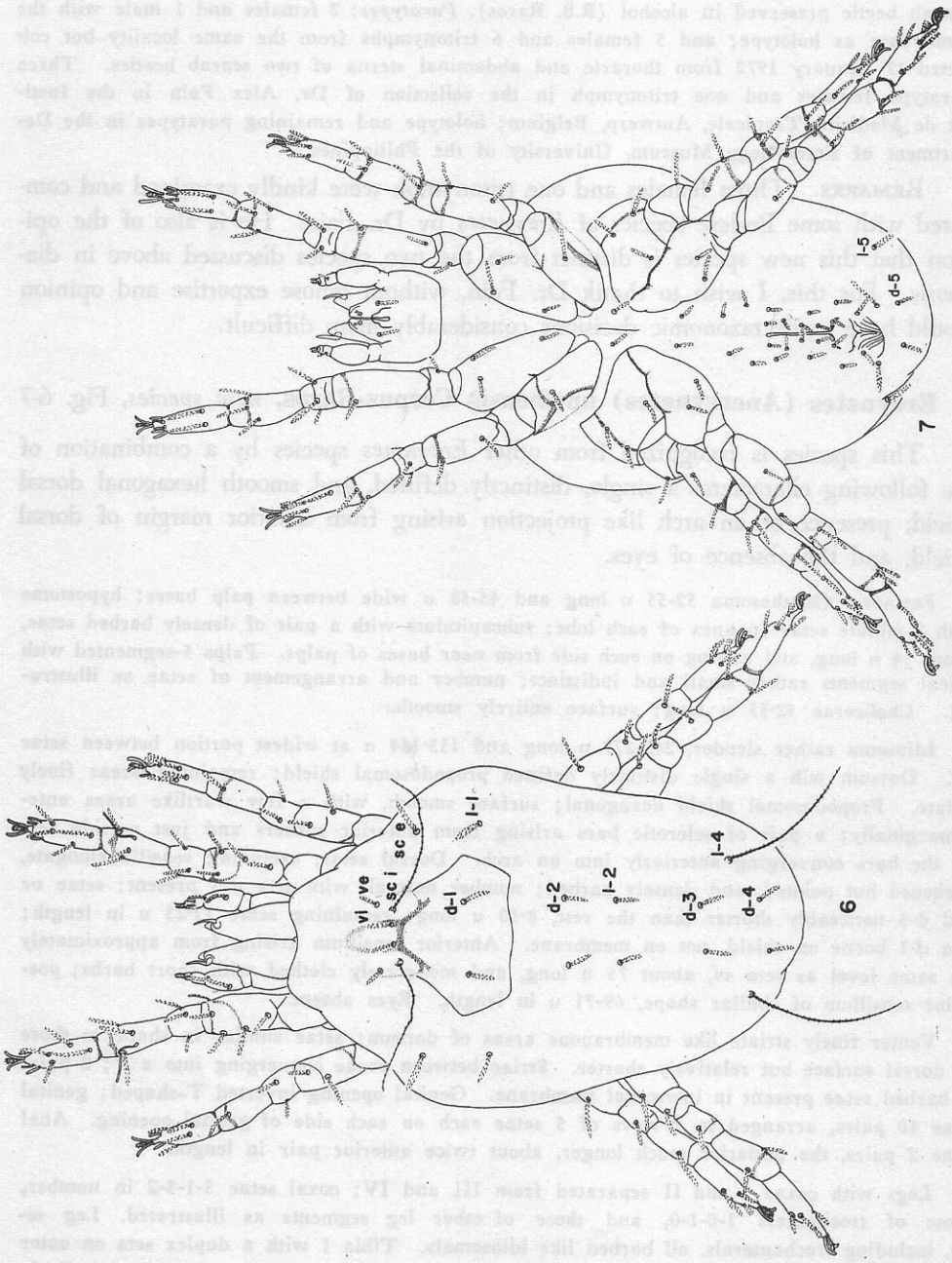

Fig. 6-7. *Ereynetes* (*Anereynetes*) *upelbensis* n.sp., female: 6. dorsum; 7. venter;

TYPE: HOLOTYPE: female, Mt. Makiling, Laguna, Mud Spring Area, 8 April 1972 on decomposing bark of a fallen log (L.A.C. Raros). *Paratypes*: 4 females collected with the holotype. All types in the Department of Entomology Museum, University of the Philippines.

REFERENCES

BAKER, E. W. 1945. Five mites of the family Ereynetide from Mexico. *Jour. Wash. Acad. Sci.* 35; 16-19.

FAIN, A. 1962. Insects of Macquarie Island. Acarina: Trombidiformes; Ereynetidae. *Pacific Insects* 4(4): 921-928.

————. 1965. Les Ereynetidae de la collection Berlese a Florence designation d'une espece type pour le genre *Ereynetes* Berlese. *Redia* 49:87-111.

————. 1970. Nomenclature des poils idiosomaux et description de trois especes nouvelles dans la famille Ereynetidae (Trombidiformes). *Acarologia* 12: 313-325.

————. and M. NADCHATRAM. 1962. Acariens nasicoles de Malaise. I. *Ereynetoides malayi* n. g., n. sp., parasite d'un nectarin (Ereynetidae; Trombidiformes). *zh. f. Parasitenkunde* 22: 68-82.

HUNTER, P. E. 1964. Five mites of the subfamily Ereynetinae (Acarina: Ereynetidae). *Fla Ent.* 47(3): 181-193.

————. and E. A. CROSS. Key to the North American Ereynetinae and description of a new species (Acarina: Ereynetidae). *Jour. Georgia Ent. Soc.* 3(4): 154-158.

THOR, S. 1933. Tydeidae, Ereynetidae. *Das Tierreich* 60: 1-84.