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ANDRETYDAEOLUS ALIUS, A NEW GENUS AND SPECIES OF IOLINID MITE FROM HUNGARY (TYDEOIDEA: IOLINIDAE: TYDAEOLINAE)

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SUMMARY: a new genus Andretydaeolus, and a new species A. alius of iolinid mite are described and illustrated; and supplied with remarks on ecology and systematics.

INTRODUCTION

The subfamily Tydaeolinae was established by ANDRÉ (1979) as one of the seven subfamilies of the family Tydeidae Kramer, 1877. Recently this subfamily has been transferred to the family Iolinidae Pritchard, 1956 sensu ANDRÉ & FAIN (2000). During our investigations on the acarofauna in Hungary we found the new species of Tydaeolinae which represents a new genus. This genus is named in honour of Dr. HENRI ANDRÉ (Belgium), the eminent expert on Tydeoidea. The morphological nomenclature for idiosoma applied by KAŹMIERSKI 1989 and for appendages (gnathosoma, legs) by ANDRÉ 1981a, ANDRÉ 1981b and KAŹMIERSKI 1998b are used in this paper. Measurements are given in micrometers and refer to the holotype.

DIAGNOSIS OF THE NEW GENUS

Andretydaeolus gen. nov.

ASPIDOSOMA. Chaetotaxy -4: ro, la, ex, bo. Setae ro situated behind the line bo-bo (prodorsum procured). Trichobothrial setae (bo) whip-like. Eyes absent.

OPISTHOSOMA. Dorsal chaetotaxy -11: c1, c2, dl, e1, f1, f2, h1, h2, ps1, ps2, ps3 (displaced on ventral side). Poroidotaxy -4: ia, im, ip, ih. Genital organotaxy — AD (0,3-3-4). Epimeral formula — AD (3-1-4-3). Dorsal ornamentation: transverse striation.

LEGS. Chaetotaxy — AD: I (11-4 + 1-4-6-1), II (8-2-4-5-1), III (7-2-2-3-1), IV (7-2-1-2-0). Eupathidia on tarsus I: ftΩ, (ic Ω), (p Ω). Solenidiotaxy -3: o I, o II, φ. Femur IV not divided.

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Type species: Andretydaeolus alius sp. n.

Remarks. The chaetotaxy of the new genus is very close to that of Tydaeolus Berlese, 1910 sensu Baker 1965. Andretydaeolus gen. nov. has five setae on femur II (instead of four), as well as three pairs of genital setae (instead of two pairs of ge in Tydaeolus). Moreover, Andretydaeolus gen. nov. has whip-like bothridial setae instead of club-like in Tydaeolus. Finally, dorsal opisthosomal striae are arranged transversely in Andretydaeolus gen. nov. whereas Tydaeolus is characterized by longitudinal striation. The last two features (shape of the trichobothria and opisthosomal striation) make the new genus close to the genus Microtydeus Thor, 1931 sensu Baker 1965. However, Microtydeus has femur II with four setae and genu III with only one seta, two pairs of genital setae and three pairs of aggenital setae on adults.

Description of new species

Andrettaeolus alius sp. nov. (Figs 1-3)


Type repository. Holotype female is deposited in Hungarian Natural History Museum in Budapest. Paratype female (very damaged, but with visible leg chaetotaxy) is in the collection of the senior author.

Etymology. The name of the new species is a Latin word "alius" meaning "different".

Body small, narrowly oval, glittering yellowish-white.

Idiosoma. Holotype female: length 210, width 95. Dorsal ornamentation consisting of fine striae (with small rods) running longitudinally on aspidosoma and transversely on central part of opisthosoma. Aspidosomal bothridial setae (bo) whip-like, with ciliate distal parts. Remaining (normal) dorsal idiosomal setae nude, narrowly lanceolate, sharply ended. Setae ro located behind the line bo-bo. Setae ps1 situated dorsally, ps2 — ventro-terminally and ps3 -ventrally, close to pseudanal lips. Length of setae: bo -38, ro -16, la -9, ex -22, cl -12, c2 -22, d1 -12, e1 -13, fl -16, f2 -24, h1 -20, h2 -27, ps1 -20, ps2 -22 and ps3 -10.

Lyrifissures situated as in Fig. 1 (ia, im, ip) and Fig. 2 (ih).

Ventral surface finely striated; striae arranged longitudinally between prosternal and metasternal setae. The latter, as well as remaining ventral setae (epimera, aggenitalis) are very narrowly lanceolate, 10-12 long. Genital setae (ge) similar in type, but shorter (6-8). Genital opening more or less in shape of inverted letter “T”, with rounded centre.

Legs. Each apotele with two claws and empodium. Chaetotaxy as in generic diagnosis. Tarsus I (Figs. 3AB): length 30, width 9. Setae ft', ft, (tc), (u) and (ps) — serrate. Setae ft', (it) and v — nude. Solenidion o-I spadiceous, 4 long. Tibia I (Figs. 3AB): long 18, wide 10. All setae (d, f, r, v) nude. Famulus k' cleft distally, 3.2 long. Solenidion (I very small (1). Tarsus II (Fig. 3C) with four pairs of nude setae (ft), (te), (p) and (u). Solenidion o-II similar in shape and size to o-I. Tarsi III and IV (Figs. 3DE) each with nude setae ft, (te), (p) and (u).

Gnathosoma. Cheliceral styles of Fig. 3F) each 9 long. Palpal tarsus (Fig.3G): long 13, wide 2.7. Eupatheidium (p) cleft (length 3), ba and α very small. Besides, setae d, f', r', v and v present.

Remarks. Andretydaeolus alius gen. n., sp. n. was found on tree foliage collected from park and street trees, green areas of housing estates and arboretas in Hungary (along with other nineteen Tydeoidea species) as a single representative of the subfamily Tydelaolinae. It was provisionally mentioned as Tydelaolinae gen. nov sp. nov. V in Ripka & Kázmérs 1998. Species of Tydelaolinae prefer soil and moss, in the contrary to Pronematinae which occur on plants or insects (Kázmérs, 1998a). A. alius found on tree foliage is exceptional in this respect.
Fig. 1: *Andreydaeolus alius* gen. n., sp. n., female (holotype). Dorsal view of body, inserts with dorsal striation and setae: bo, ro, la, ex, c1, c2, h2, ps2 and ps3.
Fig. 2: Andretydaeolus alius gen. n., sp. n., female (holotype). —Ventral view of idiosoma and gnathosoma.
However, this fact confirms the habitat shift “soil-plants and insects” observed in the lineage “Tydaeolinae — Pronematinae” (ANDRÉ & FAÍN 2000, Table 4). Though Tydaeolinae seems to be saprophagous, it is hard to determine the feeding-habit and the role which the new species plays in its environment.

REFERENCES


