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Lorryia reticuloinsignia, a new species of tydeid mite from the Balcan Peninsula (*Acari*: *Prostigmata*)

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ABSTRACT. A new tydeid mite of the subfamily *Tydeinae*, *Lorryia reticuloinsignia* sp. nov. is described and illustrated. The mite is known from Bulgaria and Greece.

Key words: Acarology, taxonomy, *Acari*, *Tydeidae*, *Lorryia reticuloinsignia*, new species, Bulgaria, Greece.

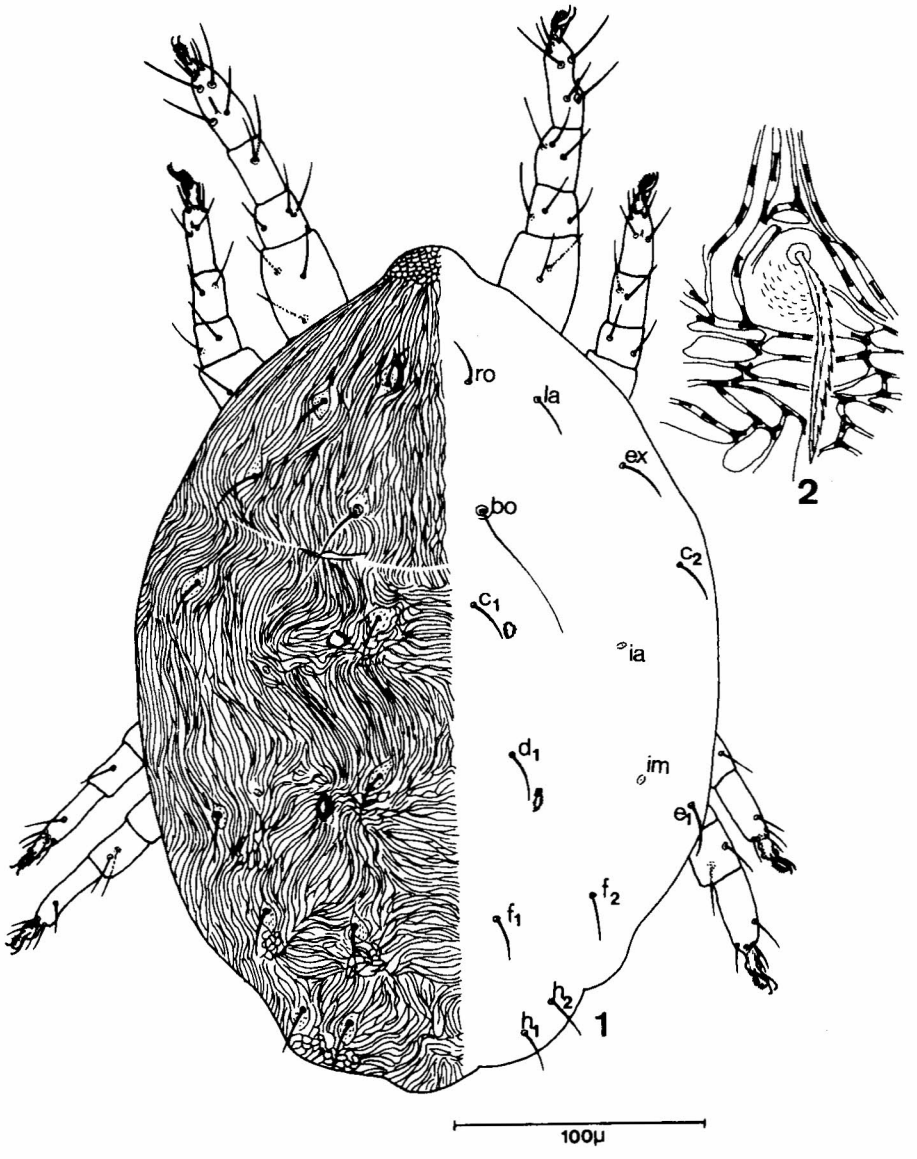
INTRODUCTION

Specimens of the tydeid genus *Lorryia* OUDEMANS (sensu KAŹMIERSKI 1989a), were sampled from litter in Bulgaria and identified as a new species by the senior author (KAŹMIERSKI 1983). Later, during the studies carried out by the junior author on the tydeofauna of Greece, specimens representing the same species were also collected from moss.

Knowledge of the tydeid mite fauna of Bulgaria is very limited and refers to few cosmopolitan species (NATCHEV and SIMOVA 1978b) with addition of a species new to science (NATCHEV and SIMOVA 1978a). According to these authors, the genus *Lorryia* is represented in Bulgaria by a single species: *L. formosa* COOREMAN.

In Greece, the family *Tydeidae* is up to now represented by 41 species, 25 of which belong to the genus *Lorryia* (PELEKASSIS and EMMANOUEL 1981; EMMANOUEL and PELEKASSIS 1983; HATZINIKOLIS 1985; PAPAIOANNOU-SOULIOTI 1989; 1994; EMMANOUEL et.al. 1987; 1991; LYKOURESSIS et.al. 1991; PANOU and EMMANOUEL 1995a, c, e; 1996c). Eight of these were only recently described (PANOU and EMMANOUEL 1995a, b, c, d; 1996a, b; PANOU and KAŹMIERSKI 1996).

In the description, the setal nomenclature proposed by KAŹMIERSKI (1989a); for the idiosoma, infracapitulum (without palps) and lyrifissures and by ANDRÉ (1981a, b); for the appendages is used. All measurements are given in micrometers (μm).

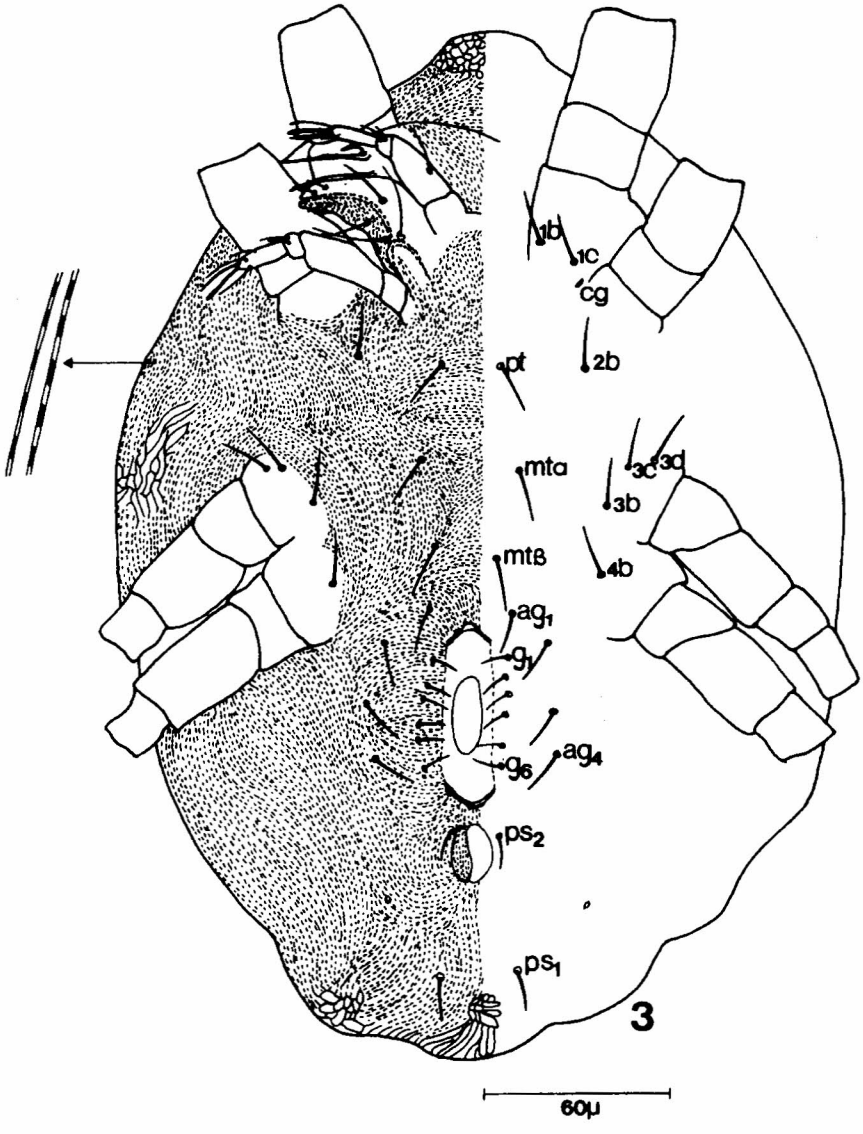


1-2. *Lorryia reticuloinsignia* sp. nov., female: 1 - dorsum, 2 - detail of reticulation pattern

DESCRIPTION OF THE SPECIES

***Lorryia reticuloinsignia* sp. nov.**

Holotype female: length 316/width 207. Female paratype: 330/229. TN: 320/214. All measurements below are of the holotype (those in parenthesis of the paratype female).



3. *Lorryia reticuloinsignia* sp. nov., female: venter

Idiosoma. Dorsum (fig. 1) - A distinct reticulate area is present in front of aspidosoma; rest of idiosoma densely striated and forming small, more or less reticulated areas in the vicinity of opisthosomal setae except c_2. Striation type "*Paralorryia*" sensu Baker. Striae with I- or (less frequently) Y- shaped formations (cross-ties) (fig. 2), which lie at bases of rectangular or semicircular lobes. Eyes not observed. Two pairs of rosette-like areas observed laterally to c_1 and d_1. Dorsal idiosomal setae serrate, curved, subequal in length, set on distinct areas (fig. 2); ps_1 situated ventrally. Sensory setae long, simple, slender and whiplike (fig. 1). Lyrifissura *ia* lies posteromedially to c_2. Lyrifissura *im* lies anteromedially to e_1. Measurements of setae as follows: ro 20 (17), la 20 (18), ex 24 (17), bo 86 (63), c_1 20 (19), c_2 22 (19), d_1 22 (21), e_1 22 (21), f_1 18 (19), f_2 20 (20), h_1 18 (17), h_2 18 (19), ps_1 13 (15). Distances between the bases of setae are: c_1-c_1 51 (50), d_1-d_1 62 (61), e_1-e_1 187 (187), f_1-f_1 52 (54), h_1-h_1 78 (79), ps_1-ps_1 22 (22), f_1-h_1 45 (47).

Venter (fig. 3) - Finely striated; striae between mt and mt V-shaped. Circular opening to coxal gland (cg) on coxa I (fig. 3). Epimeral formula (3-1-4-2). Genital organotaxy (0-6-4).

Gnathosoma - Completely hidden by the anterior projection of the aspidosoma and not visible from above. Cheliceral stylets long, almost as long as the total length of palptarsus and eupathidium pζ (figs. 6, 7). Eupathidium pζ rod-like, rounded distally, as long as the length of palptarsus. Measurements as follows: pζ 16 (14), palptarsus 16 (15) / 5 (6), cheliceral stylets 30 (27), palp femur-genu 27 (22) / 8 (11), df 21 (18), dg 10 (7), t' 9 (11), t"ζ 6 (5).

Legs (fig. 4) - Empodial claws (om) present, well developed (fig. 5). Chaetotaxy of legs typical for the genus (sensu KAŹMIERSKI 1989b). Famulus k'' forked. Solenidion ω_I rod-like 7 (7), ω_{II} short, rod-like as well, 4 (4) (fig. 4II). Length of tarsus I 39 (38), width 11 (16), ft' 20 (19), ft''ζ 21 (22).

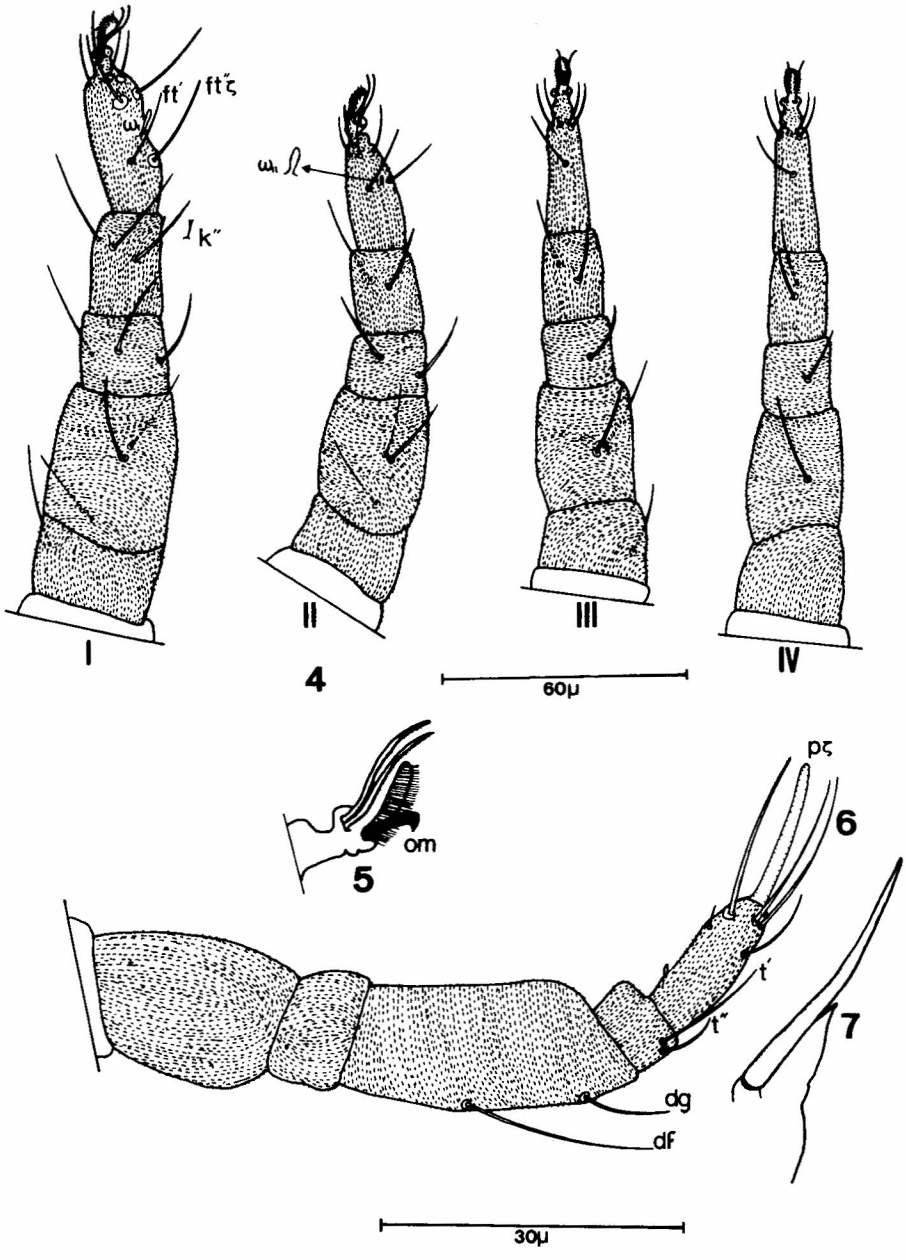
TYPES

Holotype female, one tritonymph paratype, collected from dry shifted litter, in a young oak forest at Ropotamo National Park, Bulgaria, on 26.07.77 by I. CHOJNACKI. Holotype and TN paratype are deposited in the Department of Animal Morphology, Adam Mickiewicz University, Poznań, Poland.

One female paratype collected in moss on ground, at Psilo Chorio (altitude 1.200m), Co. Phokida, region Dorida, Greece, on 08.10.93 by the junior author, is deposited in the Acari Collection of the Laboratory of Agricultural Zoology & Entomology, Agr. University of Athens, Greece.

REMARKS

Lorryia reticuloinsignia sp. nov. belongs to the group of species with ornamentation type "*Paralorryia*" sensu BAKER, with rod-like, rounded distally palpal eupathidium (pζ) and with lyrifissura *im* located anteromedially to seta e_1. This combination of features characterises the following species: *Lorryia carya* (BAKER, 1968), *L. mansoni* (BAKER, 1968), *L. stegmaieri* (BAKER, 1968), *L. formosa* (LIVSHITZ,



4-7. *Lorryia reticuloinsignia* sp. nov., female: 4 - legs I-IV, 5 - apotele, 6 - palp, 7 - cheliceral stylets

1972), *L. scabriseta* (KUZNETZOV, 1972), *L. flamma* (KUZNETZOV, 1973), *L. innuba* (LIVSHITZ, 1973), *L. insignia* (LIVSHITZ, 1973), *L. lena* (KUZNETZOV, 1973), *L. nuncia* (LIVSHITZ, 1973), *L. unigena* (LIVSHITZ, 1973), *L. vinea* (UECKERMANN et SMITH MEYER, 1979), *L. grandiinsignia* KAŹMIERSKI, 1991, *L. octomaculatus* (MOMEN et LUNDQVIST, 1995), *L. filiformis* (MOMEN et LUNDQVIST, 1996) (= *L. spes* KAŹMIERSKI, 1983), *L. alykaenae* PANOU et EMMANOUEL, 1996a; as well as other species described by KAŹMIERSKI (1983) in his unpublished Ph.D. thesis.

Lorryia reticuloinsignia sp. nov. resembles *Lorryia insignia* (LIVSHITZ, 1973). The main differences are given in table 1.

Table 1

***Lorryia insignia* (LIVSHITZ)**	***Lorryia reticuloinsignia* sp. nov.**
1. Length of dorsal setae 14-16	1. Length of dorsal setae 18-24
2. Striae between mtα and mtβ run longitudinally	2. Striae between mtα and mtβ V-shaped
3. Opisthosoma without any reticulate pattern	3. Opisthosoma with several more or less reticulated areas in the vicinity of opisthosomal setae; reticulation pattern in front of aspidosoma
4. ft′ shorter than ft′′ζ (16, 22)	4. ft′ equal in length with ft′′ζ(20, 21)
5. Distance between f_1-f_1 and h_1-h_1 subequal in length	5. Distance between f_1-f_1 shorter than h_1-h_1

The new species is also similar to *L. grandiinsignia* KAŹMIERSKI, 1991. The main differences are given in table 2.

Table 2

***Lorryia grandiinsignia* KAŹMIERSKI**	***Lorryia reticuloinsignia* sp. nov.**
1. Opisthosoma without any reticulate pattern	1. Opisthosoma with several more or less reticulated areas
2. ft′ much shorter than ft′′ζ (17, 28)	2. ft′ equal in length with ft′′ζ (20, 21)
3. Measurements of females: 343-414	3. Measurements of females: 316-320

ETYMOLOGY

The new species is named "*reticuloinsignia*" as it is similar to *Lorryia insignia* (LIVSHITZ, 1973) but possessing reticulate areas on the dorsum.

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