

A Little Known Species of Oribatid Mites (Acari: Oribatida) from Korea

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ABSTRACT

The supplementary description of a little known species, *Zygoribatula terricola* Hammen is given, which is recorded for the first time in Korea.

Key words : Acari, Oribatida, *Zygoribatula*, Korea

INTRODUCTION

In the course of taxonomic study on oribatid mites of Korea, a little known species of the genus *Zygoribatula* was found. Concerning the genus *Zygoribatula* Berlese, there are more than 100 named species, which are cosmopolitan, and until now five species have been totally recorded in Korea. Apparently the high degree of intra-specific morphological variability occurs in some species of *Zygoribatula*, in regard of body size, structure of lamellae and lamellar cusps, sensilli, position of notogastral setae, as well as the shape of notogaster. Moreover, it is somewhat difficult to deal with it taxonomically, due to the large number of species and the absence of sufficient diagnosis for many species. The certain characters of our material were more similar to those of *Z. terricola* described by van der Hammen (1952) from Netherlands and later reported from Spain and Turkey.

DESCRIPTION

Family Oribatulidae Thor, 1929

Genus *Zygoribatula* Berlese, 1916

Zygoribatula terricola Hammen, 1952 국명 : 제주지계응애 (신칭) (Fig. 1)

Zygoribatula terricola Hammen, 1952: 82, figs. 7j-l.

Zygoribatula terricola: Pérez-Iñigo, 1974: 375, fig. 8; Ayyildiz, 1988: 206, fig. 3.

Measurements. Body length 416-440 μm ; length of notogaster 288-314 μm ; width of notogaster 254-304 μm .

Supplementary description. Rostral, lamellar and interlamellar setae conspicuously barbed, seta *ro* slightly shorter than two others; exobothridial setae smooth, nearly as long as *ro*. Lamella distinctly widened toward anterior direction, with complete translamella. Lamellar cusps not developed, but in two specimens the anterolateral end of each lamella (laterad of insertion of each seta *le*) being with very small tooth (Figs. 1A, C). However, in two other specimens only left lamella being with distinctly developed tooth, but there being no tooth on the right lamella, and evenly rounded anterolaterally (Figs. 1B, D). Thirteen pairs of notogastral setae medium long, smooth; porose areas relatively small, round to oval in shape; lyrifissures *im*, *ip* and latero-opisthosomal gland opening well developed. One specimen having with two setae on the right humeral region, but obviously abnormal character (Fig. 1B). Feature of ventral side and legs, typical for the genus.

The shape of lamellae in this species is considered as a variable character. Also there are some variations in width of translamella, shape of notogaster, size of lyrifissure *im*, and the arrangement of notogastral setae and porose areas.

Material examined. Four specimens (three females and one male): Baikrockdam (1,950 m, Mt. Hallasan), Jeju-do (southernmost island of Korea), 16 October, 1997, leg. S. S. Choi. All the specimens are deposited in the Collection of the Laboratory of Plant Protection, College of Agriculture, Wonkwang University, Iksan, Korea.

Distribution. Palaearctic Region: Netherlands, Spain, Turkey and Korea.

Remarks. As we mentioned above, some species of *Zygoribatula* exhibit a wide range of morphological variability and the description of some species may have been based on the morphological characters. Therefore, there is a high possi-

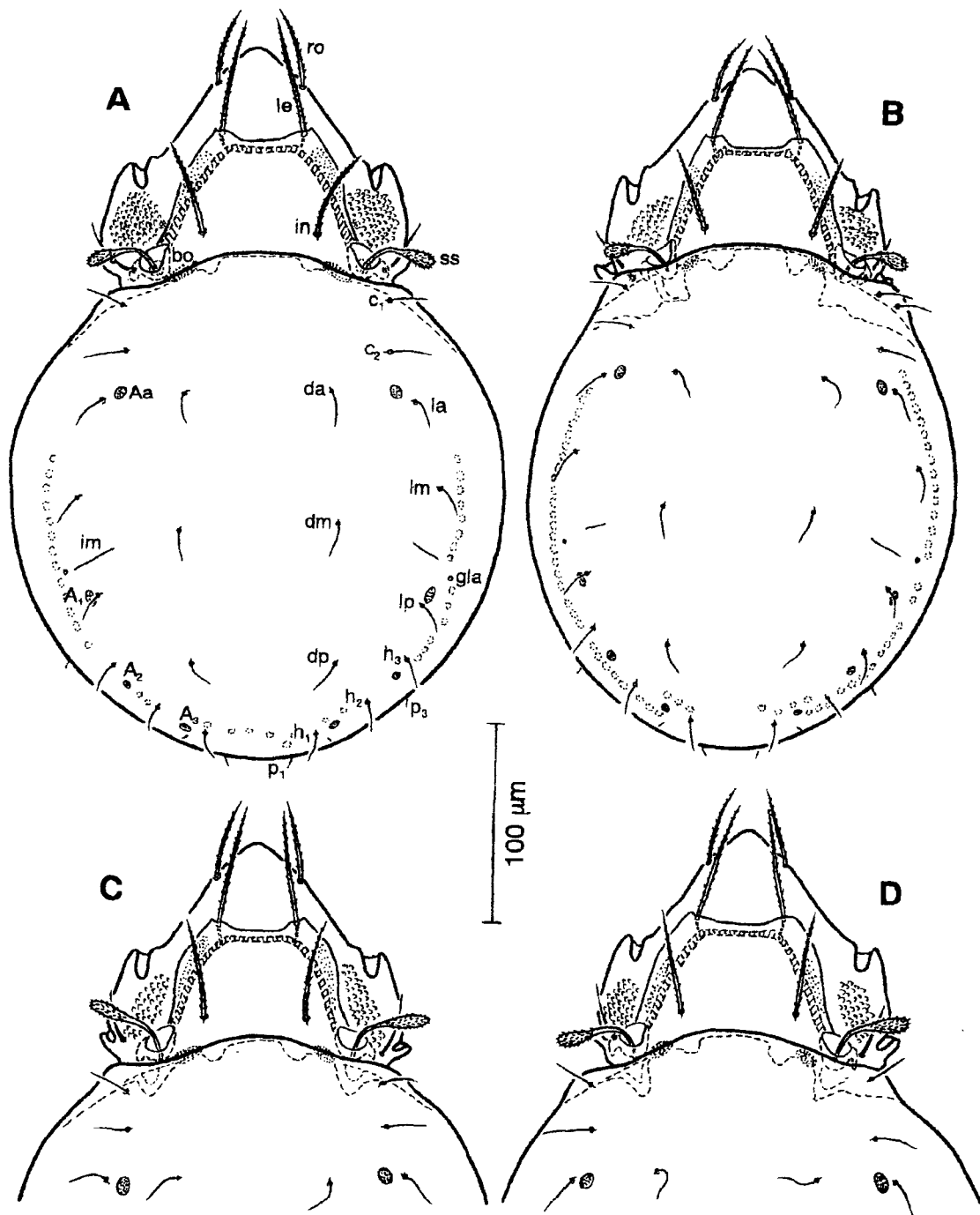


Fig. 1. *Zygorbitatula terricola* Hammen. A & B: Dorsal view, C & D: Prodorsum and anterior part of notogaster.

lity that many species of *Zygorbitatula* might be synonymous. There are several species such as *Z. terricola* Hammen, *Z. clavata* (Ewing), *Z. tenuisetosa* Hammer, *Z. excavata* Berlese, and *Z. hortobagyensis* Mahunka etc., which are very similar morphologically to one another. Some of them are probably identical, but without examination of the type material, it is difficult to decide their taxonomic status. The character of

lamellae of the Korean material was more similar to that of *Z. terricola* described by Hammen (1952) from Netherlands and redescribed by Pérez-Iñigo (1974) and Ayyildiz (1988) from Spain and Turkey, respectively. Therefore, we consider our material as identical with this species. However, the sensilli of European materials were slightly thinner than Korean form in this study.

Oribatid Mite from Korea

사 사

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