

A New Species of the Genus *Euseius* (Acari: Phytoseiidae) from Ulleungdo Island in Korea

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울릉도산 순모이리응애속(Acari: Phytoseiidae) 1신종 보고

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ABSTRACT: A new species, *Euseius ulleungensis* sp. nov. is described from Korea. The new species was collected on *Aster glehni* Fr. Schm. at Jeodong, Ulleung-up, Ulleung-gun, Gyeongsangbuk-do.

Key words: *Euseius*, *Euseius ulleungensis*, Korea, New species, Phytoseiidae

초 록: 신종인 울릉이리응애(*Euseius ulleungensis*) (신칭)를 기재한다. 이 신종은 울릉도 섬쭉부쟁이에서 채집되었다.

검색어: 순모이리응애속, 울릉이리응애, 한국, 신종, 이리응애과

Many species of the phytoseiid mites are predaceous mites that occur on a wide range of plants in association with phytophagous mites and insect pests.

There are 213 nominal species in the genus *Euseius* in the world (Demite et al., 2014). Among them, only one species, *Euseius finlandicus* has been recorded from Korea (Ryu, 2007, 2012).

In this study, *Euseius ulleungensis* is described as new to science, based on five female specimens collected at Ulleungdo Island.

Fr. Schm. at Jeodong, Ulleung-up, Ulleung-gun, Gyeongsangbuk-do. Korea. The specimens were mounted on slide glass in Hoyer's medium and overnight on hot plate at 40°C. The setal nomenclature was based on that of Rowell et al. (1978). All measurements are given in micrometers. Length of dorsal shield is distance between setae j1 and J5, width of that is distance between base of the seta s4. The type series of the new species are deposited in the collection of National Institution of Biological Resources (NIBR), Korea.

Taxonomic accounts

Family Phytoseiidae Berlese, 1916 이리응애과

Subfamily Amblyseiinae Muma, 1961 순이리응애아과

Genus *Euseius* Wainstein, 1962 순모이리응애속

Type species: *Seiulus finlandicus* Oudemans, 1915.

Euseius: Muma and Denmark, 1970: 92; Moraes et al., 1986: 35;

Materials and Methods

The materials were collected from the leaves of *Aster glehni*

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Chant and McMurtry, 2005: 209; 2007: 118; Ryu, 2007: 253; Ryu, 2012: 34.

Euseius ulleungensis Ryu sp. nov. 울릉이리응애(신칭) (Fig. 1)

Female. Dorsal shield lightly reticulated laterally; 330 long, 203 wide; at least 3 pairs of small pores. Setae on dorsal shield: Z5 being longest; j1 slightly longer than j3 and s4; remaining setae much shorter, smooth. Peritreme short, extending between z2 and j3. Sternal shield with invisible posterior margin, with

3 pairs of setae; no metasternal platelets. Ventrianal shield much longer than wide, narrower than genital shield, with lateral margins slightly convex; 3 pairs of preanal setae, 2 pairs of them (JV2 and ZV2) being arranged in a transverse line on the anterior part of the preanal region; 1 pair of crescentric preanal pores caudal to posterior pair of preanals (JV2). Setae JV5 smooth. 1 pair of slender metapodal platelets. Spermatheca with funnel-shaped cervix; atrium well developed (Fig. 1D and E). Fixed digit of chelicera 4 teeth; movable digit with unidentate. Chaetotaxic formula; genu II, 2-2/0, 2/0-1; genu III,

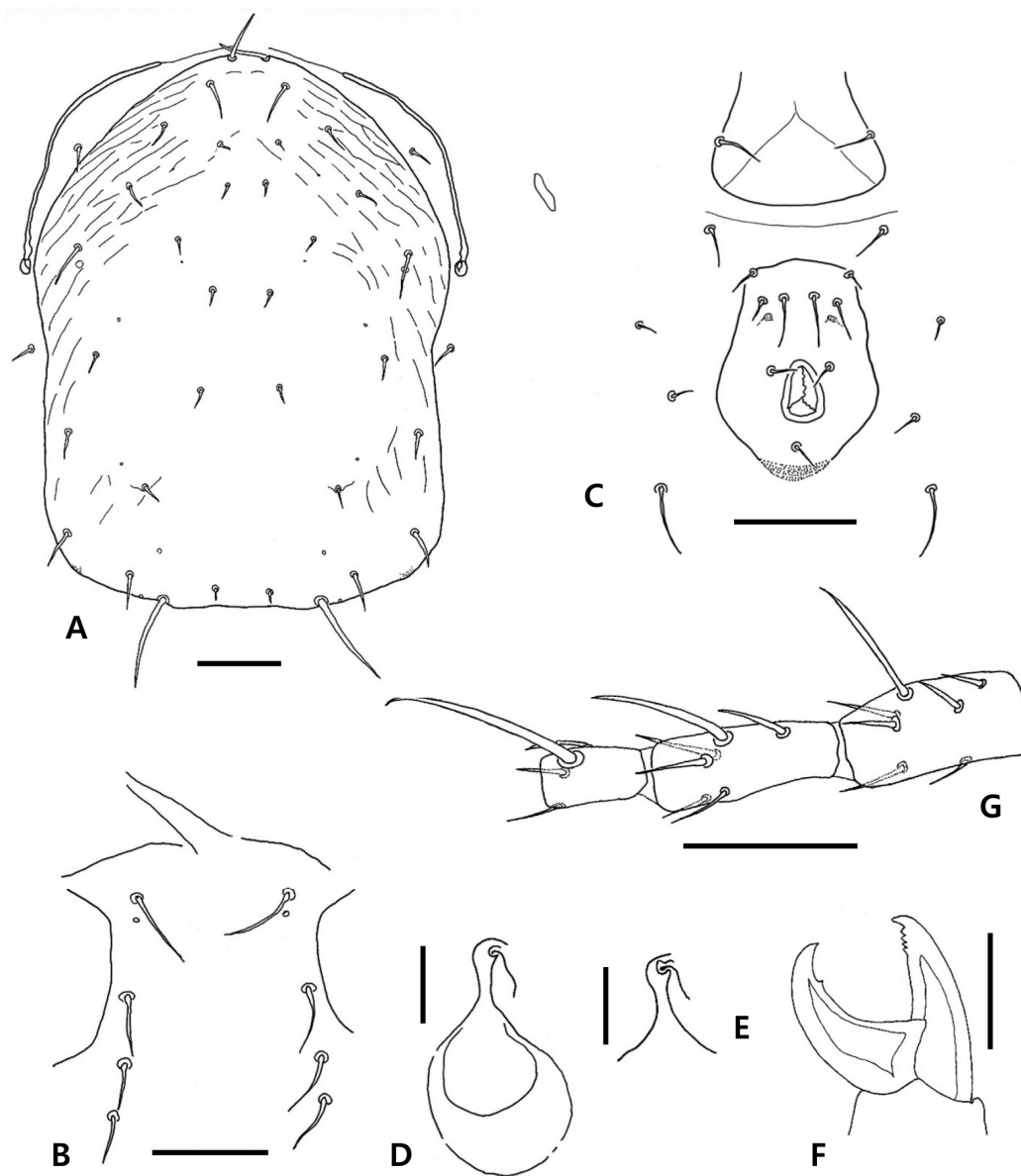


Fig. 1. *Euseius ulleungensis* sp. nov. (♀) A, Dorsum of idiosoma; B, Sternal shield; C, Posterior ventral surface; D-E, Spermatheca; F, Chelicera; G, Basitarsus, tibia and genu of leg IV. (Scales: A, B, C, G = 50 μ m; D, E = 10 μ m; F = 20 μ m)

1-2/1 2/0-1. Leg IV with 3 macrosetae, genu, tibia, and basitarsus; macroseta on basitarsus much longer than that on tibia and genu. Lengths of setae (n = 5, mean): j1 31.3, j3 25.7, j4 8.5, j5 9.1, j6 11.5, J2 12.8, J5 4.9, z2 17.9, z4 17.4, z5 9.9, Z1 12.3, Z4 14.3, Z5 55.2, s4 27.6, S2 18.5, S4 20.8, S5 22.0, r3 13.6, R1 13.5, JV5 30.2, macrosetae on leg IV; genu 35.8, tibia 36.0, basitarsus 56.3.

Male. Not Known

Type series. Holotype: ♀, 13. VII. 2018 (Ryu leg.), on *Aster glehni* Fr. Schm. at Jeodong, Ulleung-up, Ulleung-gun, Gyeongsangbuk-do (NIBRIV0000834887). Paratypes: 4 ♀ ♀, same data as holotype (NIBRIV0000834888~91).

Etymology. The specific name is derived from the type locality, Ulleungdo Island

Remarks. *E. ulleungensis* sp. nov. resembles *E. ovalis* (Evans, 1953), *E. sojaensis* (Ehara, 1964), *E. aizawai* (Ehara and Bhandhufalck, 1977), *E. ovaloides* (Blommers, 1974) and *E. australis* (Wu and Li, 1983). But the female of *E. ulleungensis* differs from the female of those species by the shape of the spermatheca. Furthermore, the female of *E. ulleungensis* differs from that of *E. ovalis* by the relative lengths of setae J1 and j3, the female of *E. sojaensis* by the relative lengths of macrosetae on Leg VI and having dorsal shield reticulate along lateral margins, the female of *E. aizawai* by the relative lengths of macrosetae on leg VI, the female of *E. ovaloides* by the relative lengths of macrosetae on Leg VI and the number of teeth on fixed digit and the female of *E. australis* by the relative lengths of macrosetae on Leg VI and having dorsal shield reticulate along lateral margins.

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