

***Oxyoppia (Dzarogneta) iranensis* (Oppiidae: Oxyoppiinae), a new species of oribatid mite from Iran**

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Abstract

A new species of oribatid mite of the family Oppiidae Sellnick, 1937, *Oxyoppia (Dzarogneta) iranensis* sp. nov., is described from Iran. The new species is recognized by the long sensillus with a lanceolate and pectinate head, poorly developed humeral processes, conspicuously barbed notogastral and ventral setae, and its large body size. This species was collected from soil of pasture plants, especially *Bromus* sp.

Key words: Acari, Oribatida, Oppiidae, new species, Iran

Introduction

The genus *Dzarogneta* was established by Kulijev in 1978, with *Oppia dubia* Kulijev, 1966, as the type species, and the diagnostic characters of presence of lamellar costulae, sensillus pectinate, 10 pairs of notogastral and 5 pairs of genital setae. It was later reduced to a subgenus of *Oxyoppia* Balogh & Mahunka, 1969, by Subías and P. Balogh (1989). According to Balogh and Balogh (1992), the main diagnostic characteristics of this subgenus are a pectinate sensillus, long notogastral setae, five or six pairs of genital setae and usually with well-developed humeral processes.

According to Subías (2004) and Baran and Ayyildiz (2007), this subgenus is represented by 12 species. In the course of a study on the species diversity of oribatid mites of Mazandaran province, northern Iran, one species belonging to *Oxyoppia (Dzarogneta)* Kulijev, 1978, was found. *Oxyoppia (Dzarogneta) iranensis* is described in the present paper as new to science. Prior to this study there was no record of the subfamily Oxyoppiinae Subías, 1989, from Iran.

***Oxyoppia (Dzarogneta) iranensis* sp. nov. (Figs. 1–4)**

Material examined

Five specimens (holotype and 4 paratypes): Aftalet village, Behshahr, Mazandaran province, Iran, soil of pasture plants, especially *Bromus* sp., 36°33'N, 53°43'E, 1550–1700 m above sea level, 30-IX-2004, M.A. Akrami leg. The specimens are deposited in the Department of Plant Protection, Shiraz University, Shiraz, Iran.

Description

Measurements. Holotype: body length 300 µm, width 160 µm.; paratypes: body length 300–350

µm, width 160–190 µm.

Prodorsum (Fig. 1). Rostrum nearly truncate with 2 lateral angles slightly bulging; rostral crest well-developed; rostral setae (*ro*) dorsally inserted, situated far from each other, extending well beyond tip of rostrum; lamellar crests well-developed but distinctly narrow, length of lamellae just shorter than half total length of prodorsum; lamellar setae (*le*) about same length as rostral setae, extend past insertion points of rostrals; interlamellar setae (*in*) about two-thirds length of lamellars; exobothridial setae (*ex*) about same length as interlamellars, all previous prodorsal setae densely barbed throughout their length; sensillus (*ss*) longest prodorsal seta, with weakly swollen lanceolate and pectinate head and smooth, narrow stalk; bothridia (*bo*) round, directed anterolaterally; 1 pair of muscle sigillae situated between interlamellar setae and a few outside lamellar crests distally.

Notogaster (Fig. 1). Notogaster oval, slightly longer than wide, surface of notogaster smooth; dorsosejugal suture (*dsej.*) convex; humeral processes poorly developed; 10 pairs of notogastral setae present, seta *c*₂ short, thin and smooth, remaining notogastral setae very long and thick, distinctly barbed bilaterally, clearly extend past insertion points of setae in posterior row, *lm* and *la* situated nearly on same level; lyrifissures *ia* and *im* and latero-opisthosomal gland (*gla*) opening well-developed, latter situated posterolaterally to *h*₃.

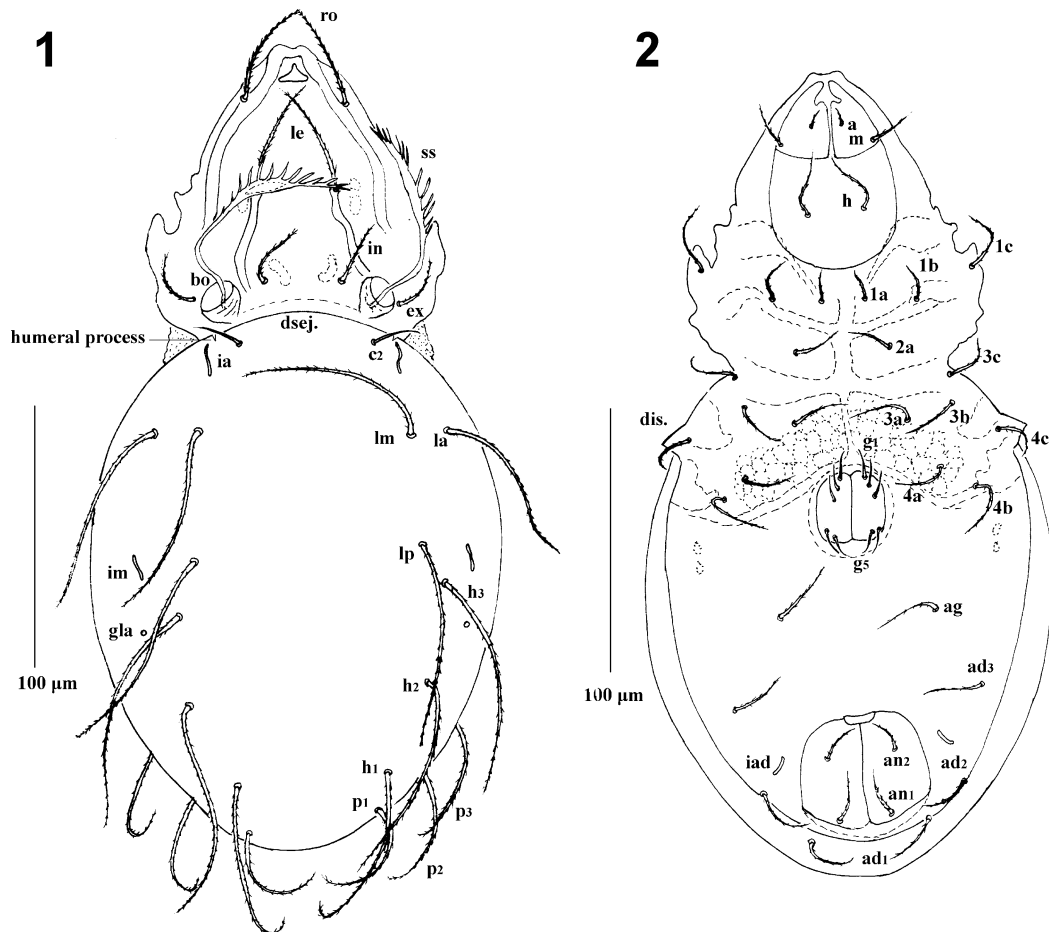


FIGURE 1, 2. *Oxyoppia (Dzarogneta) iranensis* sp. nov. Holotype. 1, dorsal view; 2, ventral view.

Ventral region (Fig. 2). Hypostomal setae *h*, *m* and *a* barbed bilaterally; surface of epimeral region III–IV with a number of muscle sigillae; apodemes *I*, *II*, *Sj* and *IV* well-developed; epimeral setal formula (I–IV) 3-1-3-3; all epimeral setae distinctly barbed bilaterally; discidium (*dis.*) well-developed; surface of ventral and also anal and genital plates smooth, only 2 small sigillae situated posterolaterad of each epimeral seta *4b*. Anal and genital apertures situated far from each other, the former one is far larger than the other; 5 pairs of genital setae (*g*₁–*g*₅) short and smooth, 3 arranged on anterior half and other 2 on posterior half of plates; 1 pair of aggenital setae (*ag*) situated lateroposterior to genital aperture; 2 pairs of anal (*an*₁–*an*₂) and 3 pairs of adanal setae (*ad*₁–*ad*₃), seta *ad*₃ in preanal position; aggenital, anal and adanal setae densely barbed bilaterally; adanal lyrifissures *iad* inverse apoanal.

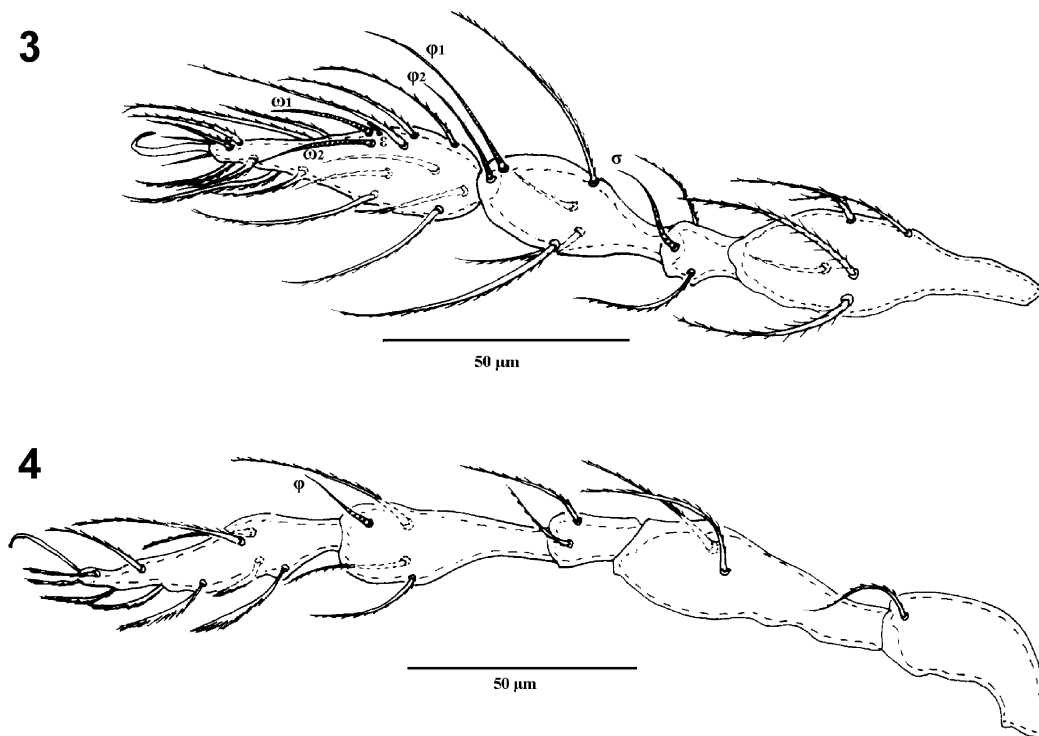


FIGURE 3, 4. *Oxyoppia (Dzarogneta) iranensis* sp. nov. Holotype. 3, leg I; 4, leg IV.

Legs (Figs. 3 & 4). All tarsi monodactylous; formula of leg setation of legs I and IV, including famulus: I (femur to tarsus) (5-2-4-20); IV (trochanter to tarsus) (1-2-2-4-10) and the formula of solenidia: I (1-2-2); IV (0-1-0). On tarsus I solenidia ω_2 just under half length of segment, ω_1 slightly shorter than ω_2 ; famulus ε short and slender, situated behind ω_1 , tibia I with an extremely long solenidion ϕ_1 , of similar length to segment, and shorter ϕ_2 , about two-thirds length of ϕ_1 ; genu I with solenidion σ about same length as the dorsolateral setae; also tibia IV with solenidion ϕ shorter than the lateral tibial setae.

Etymology

The specific name "*iranensis*" refers to the country of the type locality of this species, Iran.

Remarks

Among the known species of the subgenus *Oxyoppia* (*Dzarogneta*), the new species, because of the shape of the lamellar costulae and length of notogastral setae, is similar to *O. (D.) dubia* (Kulijev, 1966) and *O. (D.) intermedia* Subías & Rodríguez, 1986. It differs from them by the form of the sensillus (setiform and pectinate in the other two species), and by most of the notogastral and ventral setae being conspicuously barbed (smooth in the other two species). Like the new species, adanal lyrifissures *iad* are inverse apoanal in *O. (D.) dubia* but in *O. (D.) intermedia* they are direct apoanal, and also humeral processes are not developed in *O. (D.) intermedia*. Also, the body size range of the new species is similar to *O. (D.) dubia* (305–326/178 µm) and larger than *O. (D.) intermedia* (263–297/133–157 µm).

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