

## Short communication

## A new species of the family Mesopsocidae (Insecta: Psocoptera) on ash trees from Iran

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## چکیده

در بررسی تنوع گونه‌های بندپایان درختان زبان گنجشک در شهرستان مشهد و حومه، نمونه‌هایی از شپش‌های چوب و کتاب در اسفند سال ۱۳۹۲ جمع‌آوری شد که توسط پروفسور Charles Lienhard از موزه تاریخ طبیعی سوئیس با نام علمی *Mesopsocus hiemalis* Marikowskii (Psocoptera: Mesopsocidae) شناسایی گردید. این خانواده، جنس و گونه برای اولین بار از ایران گزارش می‌شود.

The species *Mesopsocus hiemalis* Marikowskii (Psocoptera: Mesopsocidae) is recorded for the first time from Iran. The family Mesopsocidae belongs to the suborder Psocomorpha, which is the largest suborder containing 30 out of the 45 extant families of psocids (Johnson & Smith, 2014). Members of this family are recognized with the following characters: 13-segmented antennae; forewing with pterostigma, areola postica free, veins and wing margins glabrous, females in some species are apterous; 3-segmented tarsi, claws with subapical tooth, pulvillus slender; subgenital plate with strongly developed median lobe, gonapophyses complete, dorsal valve usually with subapical process, hyandrium simple (New, 1974).

The family Mesopsocidae includes about 74 species in 12 genera with a worldwide distribution representing the highest diversity in tropical Africa and Eurasia. Sexual dimorphism is common in this family as males are slender and winged, but females are stout with short wings or wingless. Mesopsocids inhabit bark and stone surfaces, and one species has been associated with termite nests (Johnson & Mockford, 2003).

The genus *Mesopsocus* Kolbe includes 24 species (Broadhead & Richards, 1982). The newly recorded species, *M. hiemalis*, was described by Marikowskii (1957) from Kazakhstan. Further descriptions were given by Badonnel (1982) and Badonnel & Lienhard (1988). It was later recorded from Turkmenistan (Vishnyakova & Kaplin, 1980; Badonnel & Lienhard, 1988; Kaplin, 1991, 1994). As most of *Mesopsocus* species, *M. hiemalis* has fully winged (macropterous) males and wingless (micropterous) females. The male is distinctive with the absence of ctenidiobothria on the first article of hind tarsus. The species *M. hiemalis* is phenologically characterized by the particular development of its nymphs and adults in winter and egg-diapause in summer (Vishnyakova & Kaplin, 1980; Kaplin, 1991). This species lives on different trees and shrubs and feeds on lichen and epiphytic algae (Broadhead & Richards, 1982).

**Material examined** – 7 ♀♀, Khorasan-e Razavi province, Mashhad, N 36°15', E 59°38', 24.XII.2013, leg. F. Khandehroo.

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Received: 13 April 2014

Accepted: 19 August 2014