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Parapygmephorus crossi (Acari, Heterostigmata, Neopygmephoridae), a mite species new to fauna of Iran

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There are 21 genera in the family Neopygmephoridae (Acari: Heterostigmata: Pygmephoroidea) (Khaustov and Mandelshtam 2017) in which many of them are associated with various arthropods including chilopods, spiders, bees, ants, beetles, and termites (Khaustov 2017). One of the neopygmephorid genera is *Parapygmephorus* Cross, 1965 encompassing eight species, associated with bees of the families Halictidae, Apidae, Colletidae and Megachilidae, and in one case on a spider wasp, Pompilidae (Fan *et al.* 2014). These phoretic mites feed on fungi in the nests of their bee hosts and are clinging them by a large and strong single claw on their first tibiotarsus (Cross 1965).

During a sampling of bees and their associate mites in Iran, the mite *Parapygmephorus crossi* Mahunka, 1974 (Figs. 1A, B) recovered from *Halictus (Halictus) resurgens* Nurse, 1903 (Halictidae) (Figs. 1C, D) in city park (Park Jangali) close to Yasouj, capital of Kohgiluyeh and Boyer Ahmad Province (Southwestern Iran) on 7 September 2014. Twelve specimens of phoretic mites were found attaching to body hairs of a bee host. The materials are deposited in the Acarological Collection, Department of Entomology, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran.

Mite Parapygmephorus crossi was collected and described for the first time on Halictus holtzi (Schultz) from Afghanistan (Mahunka 1974) characterized by setae ps₁ longer than ps₂ and setae ps₃ distinctly shorter than ps₂. So, it is first record of this species in Iran and second record in the world, including Palaearctic. Previously, three other species of the Parapygmephorus were collected from Iran: P. khorasanicus Hajiqanbar & Khaustov, 2011 on Halictus quadricinctus (Fabricius); P. delyorum Mahunka, 1980 on an unidentified halictid bee; and P. magnisetosus Khaustov and Zaloznaya, 2011 on Amigella sp. and Eucera sp. (Apidae), Halictus spp. and Lasioglossum sp. (Halictidae), and Lithurgus chrysurus Fonscolombe, 1834 (Megachilidae) (Hajiqanbar et al. 2011a, b; Hajiqanbar and Rakhshani 2011; Loghmani et al. 2014; Sobhi et al. 2017).

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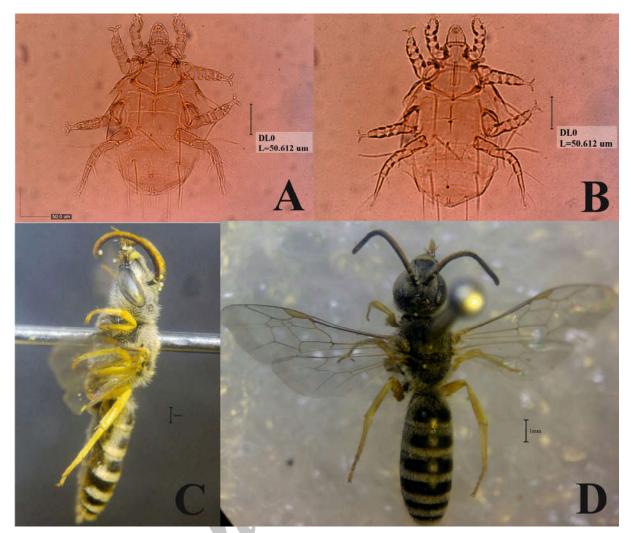


Figure 1. Parapygmephorus crossi Mahunka, 1974 (A, B), and Halictus (Halictus) resurgens Nurse (C, D) – A. Ventral view of body; B. Dorsal view of body; C. Lateral view of body; D. Dorsal view of body.

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