Two Newly Recorded Species of Oribatid Mites (Acari, Oribatida) for the Turkish Fauna from the House Dust

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Aim of the study: House dust mites belong to the sub-class Acari in the class Arachnida. Their main habitats in house include ground and wall carpets, fabric covered furniture, velvety curtains, feathered toys, mattresses, pillows, sheets and blankets. The term “house dust mite” is usually used to define Dermatophagoides pteronyssinus, Dermatophagoides farinae and Euroglyphus maynei mite species, which invariably live in the house dust and belong to the family Pyroglyphidae (Astigmata). Besides astigmatid mites, some oribatid and prostigmatid mites can live in house dust. The aim of study was investigate the species diversity of the dust mites seen in Erzincan province.

Material and Methods: Within scope of the study, dust samples were collected from 67 houses located at different sites in the city. The dust samples were collected from the carpets, fabric-covered furniture and beddings in homes using a vacuum cleaner with a vacuum applied on an area of 1 square meter for 2 minutes. After the dry sieving process, the samples were weighed using assay balance in per 1 g and studied through lactic acid precipitation method and was examined under a stereo microscope in the laboratory. Mites extracting from the dust samples were diagnosed under a light microscope using the relevant literature. The slide-mounted specimens were deposited in the Acarology Laboratory of Erzincan University, Erzincan, Turkey.

Results: In the present study, it has been evaluated mite specimens collected from houses in Erzincan province. 23 mite species belonging to Astigmata, Prostigmata, Oribatida and Mesostigmata were found in the dust samples. In total, 6 oribatid species have been identified. Two of them, Haplocthonius simplex (Willmann, 1930) and Nothus borussicus Sellnick, 1928, have been determined as new records for the mite fauna of Turkey. It is expected that this study contributes to mite biodiversity of Turkey.

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Keywords: Dust mite, biodiversity, new record, fauna, Erzincan, Turkey.

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