Distinctive Collembola communities in the Mesovoid Shallow Substratum: First data for the Sierra de Guadarrama National Park (Central Spain) and a description of two new species of Orchesella (Entomobryidae)

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Two new species of the genus Orchesella Templeton, 1836 have been identified following intensive sampling in the Colluvial Milieu Souterrain Superficiel (Mesovoid Shallow Substratum, or MSS) of the Sierra de Guadarrama using Subterranean Sampling Devices (SSD). The data were obtained from the first extraction of the traps between May and October of 2015. During a study of the Collembola taxon, 32 different genera (61 species) were identified. The highest representative genus presence in almost all traps was Orchesella, with two new species. One of the two species described had been misidentified until this study was carried out, indicating that their preferential habitat had not been sampled; the second species had never been identified. The community of the Orchesella species in the Colluvial MSS was investigated, leading to the conclusion that this environment has its own assemblage of characteristic species. The opportunity to study specimens that belong to five species of the genus Orchesella, including three previously recollected, has allowed for obtaining reliable information regarding their macrochaetotaxy. A part of this chaetotaxy is proposed as a useful diagnostic tool for the species of the genus. In conclusion, it can be affirmed that this study has demonstrated that the Colluvial Mesovoid Shallow Substratum (Colluvial MSS) has its own fauna, and it supports the hypothesis that it constitutes a new biotope, at least for Collembola.
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