



PREDATORS OF THE OLD CONTINENT IN COLOMBIAN SOIL: FROM THEIR IDENTIFICATION TO THEIR USE AS BIOLOGICAL CONTROL AGENTS

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Soil mites of the order Mesostigmata constitute a large group that includes predators of other small invertebrates, including organisms that can cause damage to plants. Some species are currently used to control some pest organisms around the world. In Colombia, knowledge about soil mites is reduced, which limits their use in biological control. In addition, since the establishment of the Convention on Biological Diversity, the importation of exotic organisms, including biological control agents, is restricted. Hence, the knowledge of species of this group occurring naturally in Colombia for further evaluation as biological control agents is warranted. Our objective was to expand the knowledge about soil Mesostigmata in Colombia and, based on this knowledge, to prioritize the species to be evaluated as candidate for use in biological control programs. Samplings were carried out in the Bogotá plateau, especially in rose fields, an agroecosystem of great economic importance in the country and with problems of pests that have part of their life cycle in the soil. Over 90 species of non-Uropodina mesostigmatic mites have been found, including several species of common occurrence in temperate areas and in the old continent, which is not surprising given the temperate conditions of the Bogotá plateau (2460-2777 m.a.s.l.). The need for revision to complement several of the descriptions available to identify species in that region was evident, as well as the need for the collection of reference material of native species and others of natural occurrence in Latin American countries. Several of the species found have already been used for pest control or their great potential for predation is known from studies in other countries, especially in Europe. For this reason, studies were carried out on Colombian populations of Mesostigmata for the management of pests that affect important cultivated plants in that country, such as rose. Our results indicated that the biological characteristics of the Colombian population of some species are comparable to those reported for populations of other countries, suggesting their potential to be used in biological control of pest species in Colombia.

Keywords: edaphic Mesostigmata, Bogotá plateau, Cundinamarca, Biological control.