CAVERNICOLOUS DIPLOPODA OF ROMANIA

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The study of the Diplopoda from the Romanian caves began in 1896 and, even from the first investigations made by Verhoeff, remarkable species and types of new families (*Trichopolydesmus, Anthroleucosoma*) were discovered. Later on, the pace of the investigations quickened from 1956 when Tr. Ceuca began the study of the "Biospeologica" collection and the researchers of the "Emile Racovitza" Speleological Institute began the systematic study of the Romanian caves. Up to the present, 56 species have been collected from the caves, 20 species being true troglobitic species. The authors present a list of the species found in caves and a biogeographic analysis of the troglobitic lineages.

1. INTRODUCTION

The founder of modern biospeology, EMILE RACOVITZA pointed out (1912, 1926) that taxonomy should be "an applied phylogeny" and there can be no other kind of taxonomy than that based on phylogeny and geographic repartition. Racovitza (1912) considered the species as "une colonie isolée de consanguins" ("an isolated colony of consanguines") that should be regarded as a morphological, historical and geographical entity. The closest fellow-worker of Racovitza, the French scientist RENÉ JEANNEL, argued (1942) in his vast work that biogeography should be understood as a historical science based on detailed phylogenetical studies. However, as A. VANDEL showed (1952), not all the animal groups present the same importance for the biogeographical studies. Ancient groups, with a great morphological stability, a low dispersion capacity and with narrow ecological requirements are the groups able to give the most important data. In our opinion, the Diplopoda certainly correspond to these premises.

Within the Myriapodes, the Diplopodes represent the most diversified class; it is also the class with the largest number of species. There are four classes within the Myriapodes (Diplopoda, Pauropoda, Symphyla and Chilopoda), representing terrestrial Arthropods, with mandible (Mandibulata), tracheal breathing (Tracheata), uniramous appendages (Uniramia), a large number of legs and lacking the second pair of antennas (Atelocerata). Some authors consider the Myriapoda as a superclass, a subphylum or even as a phylum, but for most of them Myriapoda is not a monophyletic group. Actually, the Chilopoda are distinct from the other classes within the Myriapodes through their maxilipedes, derived from the first pair of legs

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