COLLEMBOLA FROM THE KARSTIC SYSTEM OF ROMANIA (II)

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On présente 111 espèces de Collemboles hypogéicoles de Roumanie (formes troglobiontes, guanobiontes, troglophiles et trogloxènes). On indique, pour chaque espèce, les biotopes qu'elle habite dans la grotte, ainsi que sa distribution géographique. Pour les formes trogloxènes et pour certaines des espèces troglophiles, on mentionne aussi les biotopes dans lesqueles elles ont été trouvées à l'extérieur.

Beginning with the entrance and advancing toward their deep zone, all caves present a multitude of ecological conditions. When the length of the cave is over 50 m, we can distinguish, taking into account the abiotic factors, three main zones: a vestibular zone, an intermediary zone and a deep zone. Taking into account these zones, we tried to specify the ecological niches occupied by the 111 species of collembola found by us in the Romanian caves (Gruia,1999).

The collembola found in the *vestibular zone* inhabit permanently or seasonally the soil accumulations, or the organic remnants from the floor (*the soils association from the initial zone of the cave*) and also the slits and the parietal fissures (*the lithoclasicolous biotope from the vestibular zone*). A special case is represented by *the association of the filling-in deposits from the base of the shafts*, that combines a mixture of trogloxinic forms, among which many strictly endogeous species, with troglophilic and even troglobitic forms. Another special case is represented by *the parietal leakages from the vestibular zone*, the so-called "*hygropetric biotope*" (Orghidan,1964).

In the intermediary and the deep zone, we find the collembola from *the association of organic remnants from the stalagmitic floor or from the soil and clay floor*, from *the parietal leakages biotope* and *the surface of the water form the gours*, and also from *the guano synusia*. In all these biotopes, as detritivorous forms, the collembola are tightly tied to the presence of the organic matter: vegetal remnants, dejections, guano, corpses and skeletons. Here are found troglophilic and troglobitic species and species tied to the presence of the guano mounds.

For the trogloxenic and some troglophylic forms, are also recorded the biotopes in which they were found outside the cave (leaf-litter, endogeous, lapidicolous, lithoclasicolous).

To localize the stations, we used "Harta regiunilor carstice din România" (Map of the karstic regions of Romania), Orghidan *et al*., 1965: **A** – the Southern Carpathians (Făgăraşului Mts. to the Cernei Basin, inclusively), **B** – Banatului Mts.

Trav. Inst. Spéol. «Émile Racovitza», t. XXXIX–XL, p. 59–114, Bucarest, 2000–2001