



Conference Abstract

Predatory nematodes of the order Mononchida from riparian habitats in Bulgaria

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Abstract

The riparian zones represent habitats of high and specific biodiversity; however, historically they have been subject to intensive exploitation and most of them are drastically changed. Predatory nematodes are widespread terrestrial organisms and play an important role in biological regulation of litter/soil communities. Some preliminary results on the mononchid fauna in riparian habitats in South Bulgaria are presented. Thirty-four samples were collected from 29 localities with various vegetation types in three districts: Sofia, Smolyan and Burgas. Multiple core soil samples (3 per site) were collected from each habitat (15×15 m sampling site or along the river bank) around the roots of the dominant tree at a depth of 40–60 cm and from litter. The most intensively sampled plant tree was *Salix* spp. (11 samples) followed by *Fraxinus* spp. (8), *Alnus glutinosa* (L.) Gaertn. (6) and *Ulmus* spp. (3). Nematodes were isolated from 200 g of soil (by decanting and sieving method) and 10 g of litter (Baerman funnel method), fixed, dehydrated and mounted on permanent slides. More than 90% of all soil and litter samples contained at least one mononchid genus. Six genera: *Prionchulus* (Cobb, 1916) Wu and Hoeppli, 1929, *Clarkus* Jairajpuri, 1970, *Mononchus* Bastian, 1865 (fam. *Mononchidae*), *Mylonchulus* Cobb, 1916 (fam. *Mylonchulidae*), *Miconchus* Andrassy, 1958 and *Anatonchus* Cobb, 1916 (fam. *Anatonchidae*) were recovered. *Prionchulus* spp. prevailed in litter, occurring in half of the collected samples, while *Mylonchulus* spp. were most common in soil samples (35%). Representatives of *Clarkus* and rarely *Mylonchulus* occurred in both litter and soil. The highest diversity of mononchids (4 genera) was detected in the rhizosphere of *Ulmus laevis*

Pall. along a small river in Strandzha Mt. Further morphological and molecular studies on populations and species identification are envisaged.

Keywords

Anatonchidae, fauna, litter, Mononchidae, Mylonchoidae, soil

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