

Soil Invertebrates in Park and Garden Areas of Nazilli District Center (Aydın/Turkey)

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Aim of the study: Members of a widevariety of animal groups live in varioustypes of soil sand litters. These group sare mainly mites(superorder Acariformes), nematodes (phylum Nematoda), flies (order Diptera), insects(class Insecta) and their larvae. The most crowded group is mites. The members of the Acari formes play an important role in biolog ical efficiency of soil. They decompose organic matters, synthesize humus, protect biologic alelement sand contribute to stimulation of fungal and bacterial metabolism in soil. This study have been carried out to reveal the soil invertebrates which live in park and garden areas of Nazilli district center.

Material and Methods: Litter and soil samples collected from park and garden areas of Nazilli district center between September 2016 and April 2017.In this context, random samples were taken in research areas at monthly intervals. Collected samples were brought in plastic bags, labelled and transfered to laboratory. Then, specimens of different invertebrates group swere extracted by forceps. For identification at family level of the specimens, Nikon SMZ745T and Olympus BX50 microscopes were used. Several reference books and theses have been used in family identifications.

Results: Identified in vertebrate groups were classified at family level according to their microscopic and macroscopic properties. After examinations, 38 in vertebrate families which belonging to 3 different phyla were identified. These; Anguinidae, Aphelenchoididae and Rhabditidae from the phylum Nematoda; Lumbricidae from the phylum Annelida; Anthomyiidae, Anystidae, Bdellidae, Camerobiidae, Carabodidae, Cecidomyiidae, Cepheidae, Ceratozetidae, Cheliferidae, Cunaxidae, Cosmochthoniidae, Damaeidae, Entomobryidae, Euphthiracaridae, Eviphididae, Galumnidae, Geophilidae, Hypogastruridae, Isotomidae, Julidae, Laelapidae, Megeremaeidae, Nenteriidae, Nothridae, Oribatulidae, Phenopelopidae, Phoridae, Phytoseiidae, Scheloribatidae, Sciaridae, Scolopendridae, Tetranychidae, Trombidiidae, Zerconidae from the phylum Arthropoda. Examination of specimens of detected families was carried out in light microscope, their definitions were reviewed, photographs were taken and world distributions were given with literature. The diversity of soil invertebrate groups has been revealed by determing various families which living in litter and soil in park and garden areas of Nazilli district center.

Keywords: Soil, Invertebrata, park and garden areas, Nazilli, Aydın, Turkey.