

**THE INFLUENCE OF LEAF LITTER ON THE DISTRIBUTION OF  
CHIRONOMIDAE LARVAE (DIPTERA) IN TUNCA RIVER (EDIRNE/TURKEY)**

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**Aim of the study:** The study was carried out in Tunca River that rises and is mostly located in Bulgaria and only a part of it is located in the European part of Turkey. Our experiment was designed to compare potential differences on colonisation of chironomid larvae in various leaf packages. There aren't any studies based on this statement in Tunca River.

**Material and Methods:** Three localities were chosen on the river and 5 different leaves of trees found in the environment and a hand net were used to take samples. Chironomid samples were taken between May 2012 – October 2012. 20 kg sacks of potatoes were used while packaging of leaves and a total of 25 packs were put in localities. The collected samples were kept in 70% alcohol and brought to the laboratory and they were sorted and identified to the lowest possible taxonomic level under a stereomicroscope. Then the ANOVA test was used to analyze the chironomid larvae in time, station and leaf packs. A statistical significance of 0.05  $\alpha$  was used in all tests. When there is a significant difference, the reason for the difference is revealed by the Tukey test.

**Results:** As a result, Chironomidae larvae were obtained in areas of six different mesohabitats: *Platanus orientalis* leaf litter, *Ulmus laevis* leaf litter, *Morus alba* leaf litter, *Juglans regia* leaf litter, *Buxus* sp. leaf litter. In the mesohabitats sampled, 3365 specimens were identified, among them of 51 taxa belonging to family Chironomidae. Among the chironomids identified Chironomidae was represented by 32 genera. It has been observed that Chironomidae differs from colonization according to time and that situation has improved from the month August. This month has been found to contain more organisms than other months. The results of the variance analysis test show that there is no difference in the colonization of Chironomidae among the stations. Chironomidae has been shown to have a difference in colonization compared to leaf species, and that this difference has been promoted in *Buxus* sp., and that this species has more organisms in it than others.

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**Keywords:** Chironomid larvae, Community structures, Leaf litter, Tunca River, Edirne

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