

# Classification of Ant Assemblages (Hymenoptera: Formicidae) in Green Areas of Sofia

*Vera Antonova, Lyubomir Penev\**

Central Laboratory of General Ecology, Bulgarian Academy of Sciences (CLGE-BAS), 1113- Sofia, 2 Gagarin St., Bulgaria;  
E-mails: antonova@ecolab.bas.bg, info@pensoft.net

**Abstract:** The myrmecofauna of the green areas in Sofia City was extensively sampled by qualitative and quantitative methods to assess spatial variation in species composition of ant assemblages. The cluster analysis of the assemblages based on presence/absence data resulted in grouping into two main clusters: woody and open habitats. The assemblages of the open areas further divided into two groups: grassy habitats and artificial biotopes (asphalt coverings and agricultural land). Most of the assemblages in open areas clearly demonstrated the impact of urbanization by grouping into three main zones depending on the distance from the city centre: central, peripheral and rural.

**Key words:** ants, urban ecology, communities, cluster analyses