

EPIGEICKÁ AKTIVITA MRAVCOV (HYMENOPTERA: FORMICIDAE) V RÁMCI HEMERÓBNEHO GRADIENTU: JEDNOROČNÉ PLODINY – VIACROČNÉ KRMOVINY – TRVALÉ TRÁVNE PORASTY

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ABSTRACT

Wieziková A.: **Epigeaic activity of ants (Hymenoptera: Formicidae) at hemerobic gradient: arable land – green forage – permanent grassland**

We studied the ant assemblages under different disturbance regimes at agricultural area of Očová at Zvolenská kotlina Basin and Poľana Mts, central Slovakia. During the growing season of 2006 and 2007 we sampled ants at three different disturbance regimes (arable land, green forage and permanent grassland) using a pit-fall trap method. Each disturbance regime was represented by two replications. We installed 5 traps with 10 cm diameter at each plot. The trapped material was extracted monthly, during whole sampling period. Altogether, we sampled 3 203 individuals of ants belonging to 13 species and two subfamilies. Both, species richness and composition was quite similar at all three disturbance regimes. Pronounced differences were recorded in the activity. While arable land and green forage were typical by very low activity (in total 284 and 126 individuals, respectively), the permanent grasslands reached about 10 times higher activity (2334 individuals), compared to former. Among the recorded species at arable land and green forage, only *L. niger* was recorded in amounts suggesting the presence of colonies. Surprisingly, the green forage was typical by the lowest activity, although the disturbance compared to arable land is supposed to be lower at this habitat. We suggest that the relative high homogeneity and complexity of the green forage culture, high shading of the soil combined with extreme post-mowing insolation, and relatively cold climate of the region, probably caused the absence of ants in this habitat.

Key words: Formicidae, arable land, green forage, permanent grassland, activity