

## SUMMARY

### **Importance of natural refuges, occurring among agricultural lands, as sites of protected plant species – studies from the Wrocław Plaine**

Agricultural landscape is a dominating form of land management in the majority of European countries. The agricultural lands occupy over 60% of Polish territory. The paper presents results of field research concerning distribution of protected plant species in 8 habitat types (biotopes) (N=255) not used as agriculture lands (old mansion parks, tree clumps among agricultural lands, trees by water reservoirs or courses, narrow tree zones, avenues, village cemeteries, water reservoirs and meadows), located in the part of the Wrocław Plaine which is intensively used as agricultural land (54,8 square km). Altogether 11 protected plant species occurring in 51 localities were recorded in the area. *Hedera helix* and *Galanthus nivalis* are the most numerous species (Tab. 4). The biggest number of localities was recorded in the case of forest species such as *Viburnum opulus*, *Hedera helix* and *Frangula alnus*, occurring in diverse types of tree zones. Sites with at least one protected species were 16.1% (n=41) among 255 controled localities, where protected plant species could occur (Tab. 2 and 3, Fig. 5). The highest percentage of sites with at least one protected species was noted in old mansion parks (77.5%) and village cemeteries (75%). The biggest number of protected plant localities was recorded in tree clumps among agricultural lands (Fig. 2, Tab. 3). Relatively high, statistically significant correlation between the clump surface and the number of protected plant species was noted ( $r=0.57$ ,  $p=0.04$ ,  $N=18$ ). The minimal size of tree clump with at least one protected plant species was 0.18 ha. Average density of potential sites with protected plant species (except water reservoirs) was 4.65 sites per 1 km<sup>2</sup> and mean density of sites with at least one protected species (n=41) was over six times lower (4.65 vs 0.75 sites per km<sup>2</sup>).