

## SUMMARY

The aim of the present study was to estimate the magnetic susceptibility of the boundary area of western and southern Poland. The investigation was carried out in woodlands of chosen forest districts. Samples were collected selectively from the occurring genetic horizons of pit soils. The low-field magnetic susceptibility was obtained in the laboratory using the MS2B Bartington apparatus. Heavy metal content (Fe, Zn, Pb and Cu) was analyzed using AAS method, after the mineralization in the 70% HClO<sub>4</sub> + HNO<sub>3</sub> solution. The magnetic susceptibility results are very diverse and above 80% of them exceed  $50 \cdot 10^{-8} \text{ m}^3/\text{kg}$ , that is, a border value suggesting an occurrence of a magnetic anomaly. Heavy metal content varies in a wide range and the highest values are observed in mountainous areas, where the impact of geological structure is visible. Obviously, the input of dust emissions is significant, what is confirmed by high and positive values of correlation coefficients between magnetic susceptibility and heavy metal content (especially lead) in the area of cluster III.