

Effect of grazing of local cattle breeds on biodiversity of meadows and pastures in Polesie Lubelskie region

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Summary

The research aim was to determine the effect of grazing on biodiversity of meadow and pasture ecosystems in the Polesie Lubelskie region. Research was conducted on two test areas: WY – 3 ha where White-backed and Polish Black-and-White cows were grazed and NW – 3,5 ha without grazing. The plots selected to research were located next to each other, right next to the border of Poleski National Park. Grazing was conducted in accordance with the requirements of 5.1 package of agrienvironmental Programme from May 1st to October 15th at stock not exceeding 1 livestock unit per 1 ha of permanent grasslands. The diversity of flora was studied in two representative, homogeneous areas of vegetation (25 m² per each). In the research, the method of mapping of all species was applied. Terrain analysis was conducted twice during the growing period. The sociological-ecological structure, species frequency, life forms of plants and biodiversity of flora was characterized. Bird counts relied on movement across the research area and counting all seen or heard birds as well as on record of all found places in GPS devices. Three-four times finding of singing or voice-mating season bird, observation of concerned individuals, birds with the feed or nest builders was the basis to qualify these birds as nesting species. Moreover, the non-nesting bird species were recorded. They used the grazing or non-grazing parts of research areas as well as a presence of cattle to gain nourishment. The preliminary studies indicate that grazing of native cattle breeds slightly decreases only the flora biodiversity. However, it enables a conservation of valuable species, i.e. *Dianthus superbus*. It has been shown that a properly conducted pasturage creates favorable conditions for meadow-pasture birds and increases the biodiversity of their habitats.

KEY WORDS: native breeds of cattle / pasture grazing / flora biodiversity / avifauna of meadows and pastures / Polesie Lubelskie region