Key words: biological packages of the agro-environmental programme, invasive plant species, meadow habitats, natural values, the Biebrza River valley

Summary

Functioning of biological packages of the II edition of „Agro-environmental programme” on grasslands in part of the Biebrza River valley in the Grajewo county was assessed in the paper. Agro-environmental activities involved 2 427 ha of permanent grasslands in the years 2008–2011. On prevailing (83.4%) part of these grasslands package 3: “Extensive management of meadows and pastures” was implemented. Smaller share fell to packages devoted to the protection of endangered bird species and natural habitats both outside (package 4) and in (package 5) the areas of Natura 2000. From among these packages the most frequently realised was variant 1 “Protection of breeding grounds of birds”, less frequently were realised the habitat variants: “Semi-natural wet meadows”, “Tall-sedge rushes” “Sphagnum bogs” and “Molinia meadows”. It was found that when selecting a given package or variant, farmers were mainly guided by practical reasons such as: complexity of procedures, possibility of adaptation of land use to definite requirements, access to biology experts and the amount of subsidies to agro-environmental activity.

The status of meadow habitats involved in agro-environmental activity within habitat variants of packages 4 and 5 was quite differentiated and depended mainly on the history of land use before the access to the programme and on moisture conditions. Particularly differentiated was the share of undesired invasive species like nitrophilous herbs of the class Artemisietea, the common reed (Phragmites australis (Cav.) Trin. ex Steud.), seedlings and young trees and shrubs. Bog communities classified to the variant „Sphagnum bogs” and tall-sedge rushes showed a higher natural resistance to invasive vegetation than typically meadow communities classified to variants „Molinion meadows” and „Semi-natural wet meadows”.