

6440 Alluvial meadows of river valleys of the *Cnidion dubii*

Management of Natura 2000 habitats. Summary



Alluvial meadows of Morava River floodplains. Photo: Viera Šefferova Stanova

Alluvial meadows with natural flooding regime occur in large lowland river floodplains, which are regularly flooded, but dry out in summer due to a continental climate. The species composition of these communities is influenced by ecological factors, mainly the frequency, duration and time of flooding, which is the main source of nutrients. Floodplains have a long tradition of high-quality hay production. Meadows were usually mowed twice a year, depending on weather and floods, with the hay being used for the feeding of livestock.

Mowing is usually recommended for the conservation of wet meadows, in particular the prevention of land degradation and scrub encroachment. When mowing is abandoned litter accumulates and a decrease in species vitality is observed. This is then followed by self-fertilization, which leads to a progressive change in the botanical composition of the meadow and, later on, to scrub encroachment. Finally, mowing can also reduce the competitiveness of some invasive species.

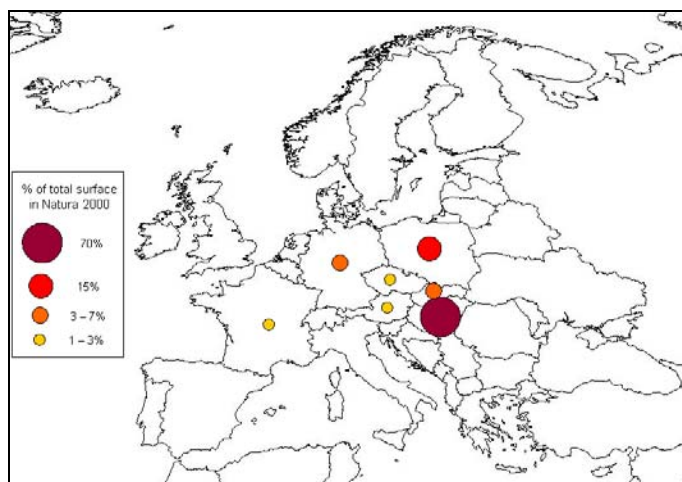
Early mowing improves the floristical composition and prospects for an integration of management and biomass in existing farming systems. Moreover, early management often conflicts with zoological interests, in particular because ground nesting birds and many invertebrates depend on late mowing and a tall vegetation structure in early summer.

The keys to sustainable grazing of the floodplains are control of access, duration and intensity of grazing. The floodplains should not be grazed in the late wet/early dry season and should be lightly grazed early in the wet season.

Duration of grazing is important. It is critical to keep the stock off the floodplains, particularly low lying areas until they dry out. The effects of grazing on floodplains tend to be less positive with mixed effects on species richness, and major impacts on both below- and above-ground biomass at high stocking rates.

If manipulation of the flood regime is possible, flooding should be over by the end of April and the area should not be flooded for more than 10 days (except for depressions).

Due to their high value for biodiversity preservation, flood mitigation and nutrient retention, the re-creation of flood meadows is presently one of the main targets of restoration projects along large Central European lowland rivers. Like other semi-natural grasslands, flood meadows depend on adequate agricultural management to fulfil these important ecological functions. To achieve this in an ecologically and economically sensible way, the prospects for incorporating management and biomass utilization in farming systems appears to be a key issue.



Percentage distribution of the total surface of alluvial meadows in Natura 2000

The complete text of the document is available at: http://ec.europa.eu/environment/nature/natura2000/management/best_practice_en.htm

Management of Natura 2000 habitats is a project launched by the European Commission in January 2007 aimed at defining best practices for management of habitat types included in Annex I of the Habitat Directive (92/43/EEC) that need active recurring management. Twenty six habitat types that are representative of different bio-geographical regions have been considered.