1530 *Pannonic salt steppes and salt marshes

Management of Natura 2000 habitats. Summary

Suaeda pannonica is indicator of highest salt concentration on Pannonic salt steppes. Böddi-szék, Dunatetétlen, Hungary. Photo: Daniel Dítě

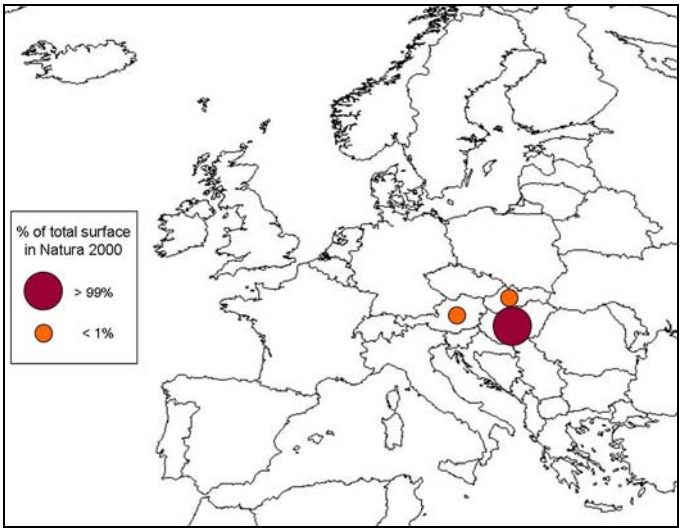
Pannonic salt steppes and salt marshes are highly influenced by pannonic climate with extreme temperatures and aridity in summer. The enrichment of salt in the soil is due to high evaporation of ground water during summer. There is characteristic zonation of vegetation, based on inland flooding regime, with dominant salt-tolerant grasses and herbs that tolerate or even demand salt concentrations in the soil water. Compared with other salt lakes and marshes of the world, the alkaline lakes of the Carpathian Basin are characterised by lower salt content but higher alkalinity. Alkali habitats have certainly been present in the Carpathian Basin since the last Ice Age. Pannonic salt steppes and salt marshes occur only in a few countries of European Union. The highest area of total surface and centre of distribution of this habitat type is in Hungary, with edges of its distribution in Lower Austria, southern Slovakia, Romania and Bulgaria. Due to limited geographical distribution, they belong to the most threatened European communities.

Alkali plant communities are relatively species poor. The species combinations, however, are specific but very diverse; therefore the classification of alkali plant communities is rather complicated. The vegetation pattern is closely related to the relief determined by salt content, salt quality, and the depth of soil layer with higher salt concentration. The mosaic-like structure of different habitats supports an exceptionally rich fauna and flora, with several endemic species.

Many Pannonic salt steppes and salt marshes were totally destroyed for agricultural purposes. Ploughing for agriculture is still a major threat. Those remained are threatened by agriculture – impact of eutrophication and lack of management as well as by water management – lowering of water table connected with river regulations and building of canals have very negative impact on those ecosystems.

Primary alkali steppes don't need any active management. Most of the salt steppes in the region represent semi-natural habitats where biological diversity is maintained in conjunction with human activities. Grasslands are relatively fragile and can only stand extensive grazing. The indigenous animal species play an important ecological role in the conservation of the salt steppes and salt marshes habitats. When grazing on the appropriate habitat types, they provide optimal maintenance of the vegetation, and thus contribute to the recovery of habitats. Hungarian grey cattle (variety of *Bos taurus primigenius*) is adopted for grazing of salt steppes, as well as racka sheep (*Ovis strepsiceros hortobágyensis*).

Number of grazing animals has decreased dramatically and distribution between grazing species has changed also. On the area of the Hortobágy and Kiskunság National Parks, special care is devoted to the original breeds of domestic animals in order to maintain the national gene reserves. Traditional grazing systems are being restored to recreate salt steppe grasslands in Fertő-Neusiedler Lake in Austria.



Percentage distribution of the total surface of Pannonic salt steppes and salt marshes 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.