

## Slovakian section II.

**Date:** September 30, 1998

**Country:** Slovak Republic

**Name of wetland:** Upper Tisa and its backwater area

**Geographical coordinates:** 48° 53' 60 - 65'' N, 22° 45' 83 - 86'' E

**Altitude:** Minimum is 100 m, the maximum is 107 m, with an average of 103 m above Baltic Sea level

**Area:** 1130 ha

**Overview:** The site represents the right bank of River Tisa, the plain permanently and periodically flooded (5 km of the Slovak part of River Tisa). The site is made up of the alluvium of River Tisa, which is represented by fragments of alluvial forests and shrubs, by the old arm of the previously meandering River Tisa (a backwater) and by agricultural lands.

**Wetland type:** M, W, X

**Ramsar criteria:** 1a,c; 2b

**Map of site included?** see Map

**Name and address of the compiler of this form:**

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**General location:** The proposed River Tisa Ramsar site is located in the southern part of Eastern Slovakia, specifically in the subregion of the East Slovakian Lowlands on the borders with Ukraine and Hungary. It is located within the region of Košice, county Trebišov, and the nearest town is Kráľovský Chlmec. The area belongs to the land-register of the villages Velké Trakany and Malé Trakany.

**Physical features:** The existing geological substrate forms rocks of the Upper Miocene up to Pliocene, represented mostly by alluvial sediments motleyed by sand sediments from the last glacial period. Soil types are typical alluvial soils enriched by clays.

At this part of the river the average outflow is 379 m<sup>3</sup>/s and the whole inundation area is periodically flooded.

The amount of yearly precipitation is 550 mm. This area is represented by subcontinental climate, hot summers and cold winters, with average temperatures of 9,3 C°.

Water quality of River Tisa is good (class II.) but in the backwaters there is a high degree of eutrophication with pollution occurring from nearby agricultural lands (e.g. pesticides, etc.). In the current situation there is no proper hydrological connection between the old riverbed system and the channelized areas.

**Hydrological values:** The natural environment during the summer months in this area is mostly with evapotranspiration; dew is very important. It increases the humidity of the air .

**Ecological features:**

River: The most important phenomenon in the River Tisa area is the clean water with high oxygen capacity, which is indicated by the presence of the fish species *Acipenser ruthenus* and Ephemeropterans *Ephemera vulgata*, *Cloen dipterum*, *Isogerus nubecula*, *Isoperla obscura*.

On the riverbank *Salicion albae* association is present with euro-american poplars, and associations in the backwaters can be *Lemnea*, *Potametea*, *Littorelletea*, *Isoeto-Nanojuncetea*.

**Noteworthy flora:** *Lemna gibba*, *Stratoides aloides*, *Hydrocharis morsus-ranae*, *Salvia natans*, *Hottonia palustris*, *Potamogeton gramineus*, *Butomus umbellatus*, *Symphytum tanaicense*, *Dichostylis micheliana*, *Armoracia macrocarpa*, *Lindernia aquatica*, *Ranunculus lateriflorus*, *Leucanthemella serotina*

**Noteworthy fauna:** Birds: *Podiceps cristatus*, *Ardea cinerea*, *Ardeola ralloides*, *Egretta garzetta*, *Ciconia nigra*, *Platalea leucorodia*, *Milvus migrans*, *Buteo buteo*, *Accipiter gentilis*, *Coturnix coturnix*, *Vanellus vanellus*, *Tringa glauca*, *T. totanus*, *Larus ridibundus*, *Chlidonias niger*, *Alcedo atthis*, *Luscinia luscinia*, *Remiz pendulinus*, *Riparia riparia*, *Sitta europaea*, *Oriolus oriolus*.

Reptiles: *Emys orbicularis*. Fish: *Acipenser ruthenus*, *Rutilus pigus*, *Abramis sapa*, *Pelecus cultratus*

Amphibians: *Triturus cristatus dobrogicus*, *Pelobates fuscus*, *Rana arvalis*, *R. dalmatina*

**Social and cultural values:** Citizens in this area lost their identity and connection to the land because the natural environment has been transformed. Fish and game production have also decreased. The site is important for its landscape values, for traditional fishing, regulated recreation, etc.

**Land tenure/ownership of:**

The largest proportion of the area belongs to state and private owners and local communities.

**Current land use:**

(a) Site: The main economic activity in this area is extensive agricultural production, meadow and pasture use, vegetable growing and orchards. A proportion of these areas has been ameliorated. Lowland forests are not properly maintained.

(b) Surrounding/catchment: Intensive agricultural production.

**Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land use and development projects:**

Besides the existence of "black dumps" (i.e. illegal dumpsites), it is unregulated recreation without infrastructure, illegal felling, the intensification of agriculture, and angling that can cause trouble.

Also, there is always a possibility that polluted water arrives from Ukraine.

**Conservation measures taken:** In 1975, on the basis of the resolution of county authority in Trebišov, the evaluated site was given certain degree of protection (category "C"), with a perspective to developing its protection. On this basis during 1991-1996 the removal of buildings without permission was carried out, recreation activities were limited, and the mouth of the channel of the waste water treatment plant in Cierna nad Tisou was improved.

**Conservation measures proposed but not yet implemented:** For the more advanced protection of the site is necessary to regulate recreation during summertime (there is no infrastructure there), to prevent illegal felling, to eliminate illegal dumpsites and to modify present land use plans with the emphasis transposed onto meadow, pasture and orchard forms of farming. For the protection of this site as a nature reserve it is necessary to carry through the preparation phase in accordance with the regulations of the Act on Nature and Landscape Protection 287/1994.

**Current scientific research and facilities:**

It appears that there are no recognised research projects under way.

**Current conservation education:** This region does not have a special focus on environmental education but, throughout the area, a well-organized campaign for the protection of wetlands has been launched.

**Current recreation and tourism:** The site is suitable for summer tourism because river banks are sandy and supplied with the shadow of trees. The water is clean and suitable for angling. There is a potential for closer co-operation in tourism and recreation between Ukraine and Hungary when the borders will be more permeable.

**Jurisdiction:** Water Management Authority for Bodrog and Hornád, Košice.

**Management authority:** The management of this site is fulfilled by the Water Management Authority for Bodrog and Hornád, in Košice.

## *References*

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