Upper Tisa transboundary Ramsar site (SK-HU) and Domica-Baradla transboundary Ramsar site (SK-HU)

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Courtesy of Prof. Emeritus György Dévai, dr. Margit Miskolczi and dr. András Schmotzer
The Upper Tisa valley

- Preparatory proposal for Ramsar site designation (Eds: Hamar, J. and A. Sárkány-Kiss), 1999
- Site designation in Slovakia (735 ha) and Hungary (22,311 ha) 2003
- Natura 2000 in 2004
Ecological values of the Upper Tisa

- Unique natural heritage still remaining in certain parts of the meandering river
- Most important habitat types: lowland river, mudflats, steep banks, willow thickets
Ecological values of the Upper Tisa

most important habitat types: softwood gallery forests and oxbow lakes
Diversity of habitats: different types of oxbows according to age and degree of sedimentation

- Open lake: Bagi-szegi-morotva
- Pond: Liget-szögi-morotva
- Marsh: Báka-szegi-morotva
- Marshy meadow: Füzes-aljí-morotva
- Gallery forest: Almás-kerti-Holt-Tisza
- Cultivated land: Zovány-tó-közi-morotva
Dragonfly sampling at different locations with different hydromorphological conditions
Endemics: largest mayfly species in the world (*Palingenia longicauda*)
Tisa blooming: mayfly swarming in June
Why the Upper Tisa?

One example: dragonflies (*Gomphus flavipes, G. vulgatissimus, Ophiogomphus cecilia, O. forcipatus*)

**A**

- Gomphus flavipes
- Gomphus vulgatissimus
- Ophiogomphus cecilia
- Onychogomphus forcipatus

**B**

- Gomphus flavipes
- Gomphus vulgatissimus
- Ophiogomphus cecilia
- Onychogomphus forcipatus

**C**

- Gomphus flavipes
- Gomphus vulgatissimus
- Ophiogomphus cecilia
- Onychogomphus forcipatus

**D**

- Gomphus flavipes
- Gomphus vulgatissimus
- Ophiogomphus cecilia
- Onychogomphus forcipatus
Threats and scenarios for oxbows along the Upper Tisa
Examples from the Boroszló-kerti flood plain

Healthy

Silting up

Drained

Dried out
Threats and conservation action needed

- Long (229 km in Hungary) and narrow site
- River regulation, water pollution (cyanide, heavy metals, garbage), drainage of flood plain wetlands
- Forestry (invasive non-native species)
- Agricultural runoff
- Dredging for gravel

- Conservation measures: prevention of pollution, hybrid poplar to be replaced with native species; maintenance of flood plain meadows, conversion of flood plain arable land into grassland, ban on dredging
Domica-Baradla transboundary RS
Site protection

- Aggteleki NP in Hungary since 1985 (PLA 1978)
- Slovensky kras NP Slovakia in 2002 (PLA 1973)
- MAB BR 1979, WH 1995
- Subterranean and surface wetlands designated under Ramsar Convention in 2001
Ecological values

- Unique geomorphology providing diverse habitats:
  - 1200 caves in the region, 273 in the Aggteleki NP;
  - 25 km-long Domica-Baradla system is the temperate zone’s longest cave with an active watercourse
  - sinkholes, dolines, dripstone caves, springs, karrs
Ecological values

• Unique wildlife:
  – cave-dwelling species
  – Carpathian species
  – thermophilous, karst-loving species
Threats & possibilities

- Majority of the „Carpathian” wetlands are protected (multi-protected) BUT
- Climatic changes are significant – major risk of degradation & extinction
- Agricultural and other pollution quickly appears in karst waters

More attention should be focussed on mountain wetland habitats

- Prevention of pollution, elimination of invasive species, grazing in meadows, non-intervention in rock grasslands and protected forests
- More possibilities for transboundary cooperation
Thank you for your attention!