Overview on the Carpathian wetlands and possibilities for their protection in Hungary

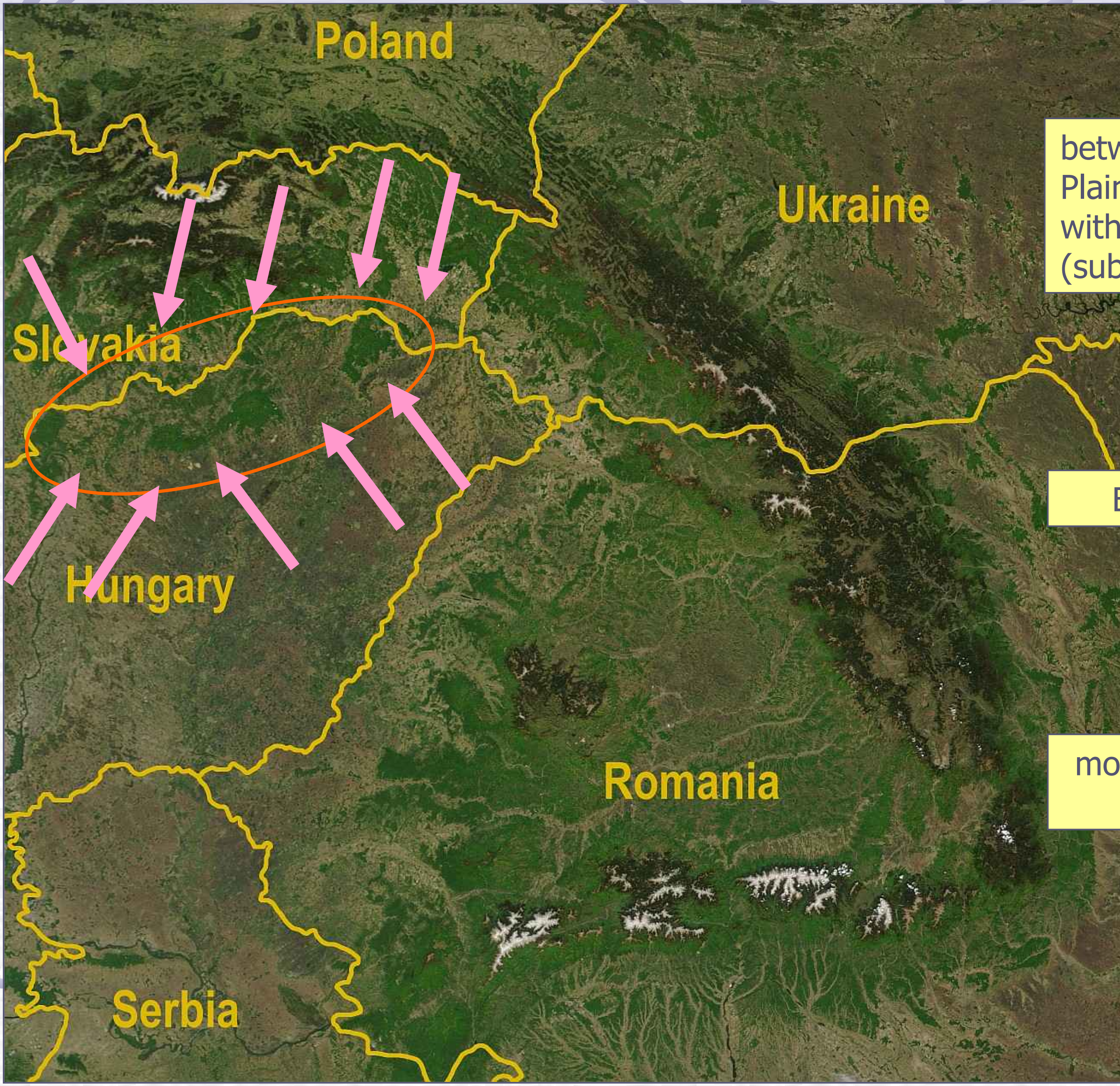
András Schmotzer – research adviser
Bükk National Park, Eger - Hungary

„Conservation of Wetlands in the Carpathians”

16-19. November 2009. Tatranska Strba (Slovakia)

Topics

- Evaluation of the Carpathian feature of Hungary
- Designation of the key Carpathian wetland habitats
  (peat bogs, mountain creeks, swamp forests)
- Why these wetlands are important not only in national, but also in Carpathian context?
- Nature conservation structure of „Carpathian region” in NE-Hungary (institutional background)
- Protection level of the wetlands
- Threads – Possibilities of further steps



EFFECTS

between Carpathians & Great Plain $\rightarrow$ mixture flora & fauna with continental and montane (subalpine) features

BUT, no „massif” features

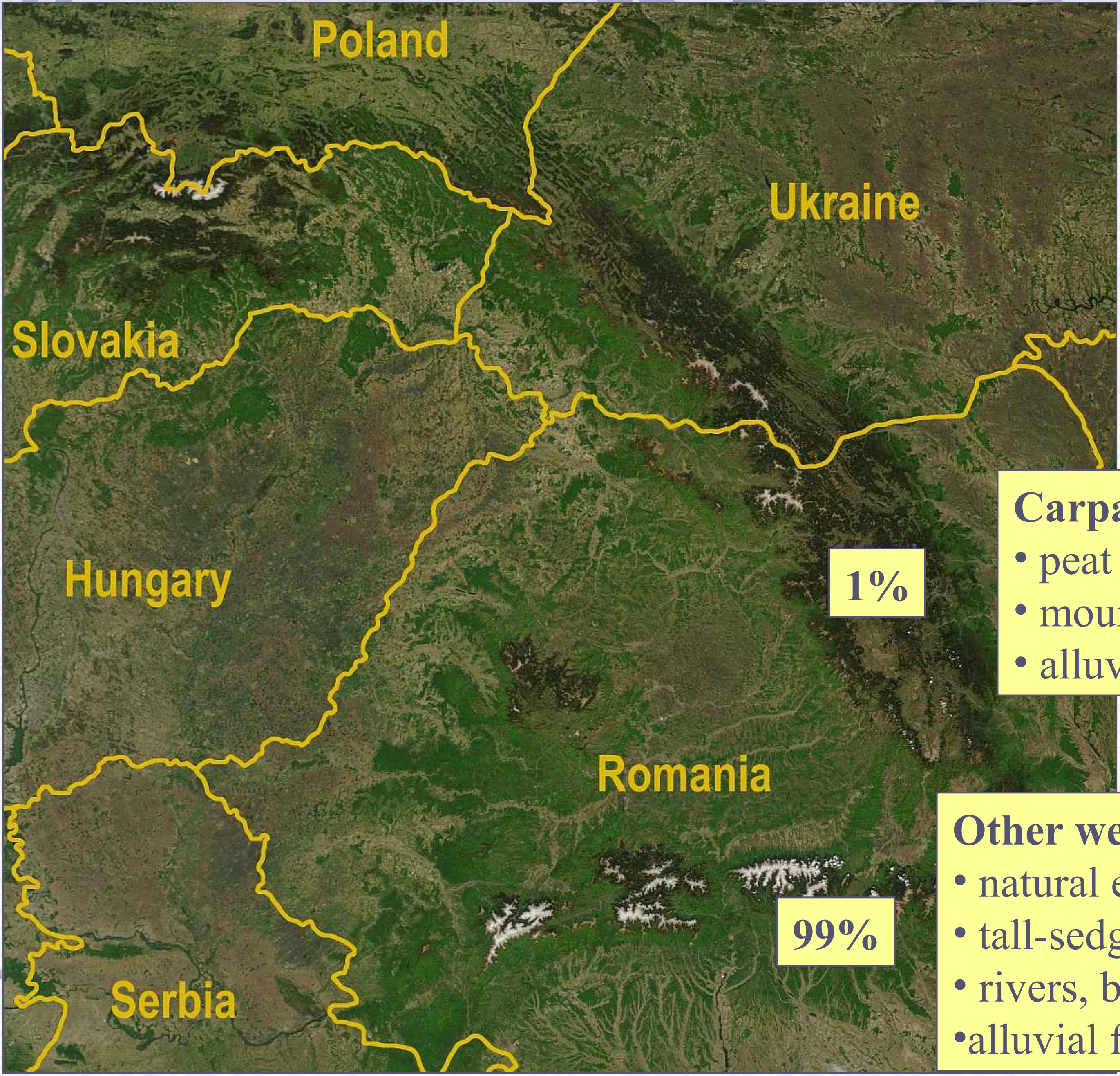
montane ENDEMIC species are not specificated

Evaluation of the Carpathian feature of Hungary

- Hilly areas – North Hungarian Middle Range Mountain (macro landscape unit)
- petrographically variable mountains – between Carpathians & Great Plan $\rightarrow$ mixture flora & fauna with continental and montane (subalpine) features
- <u>Typical Carpathian vegetation is not occur</u>
- e.g. missing habitats (due to the lower altitude):
  - 3220 (Alpine rivers and the herbaceous vegetation along their banks)
  - 7150 (Depressions on peat substrates of the Rhynchosporion)
  - 91D0 (Bog woodland)
- The more montaineous habitats are the limestone grasslands, mixed ravine and slope forests

Carpathian Land Slug
(*Bielzia coerulans*)

Carpathian Monk’s Hood
(*Aconitum moldavicum*)



No typical Carpathian wetland types

Several wetland types in Carpathian Region

Carpathian wetland types:
- peat bogs
- mountain creeks
- alluvial forests (Alnus)

Other wetland types:
- natural eutrophic lakes
- tall-sedge communities
- rivers, brooks (of hilly areas)
- alluvial forests (Salix, Populus)

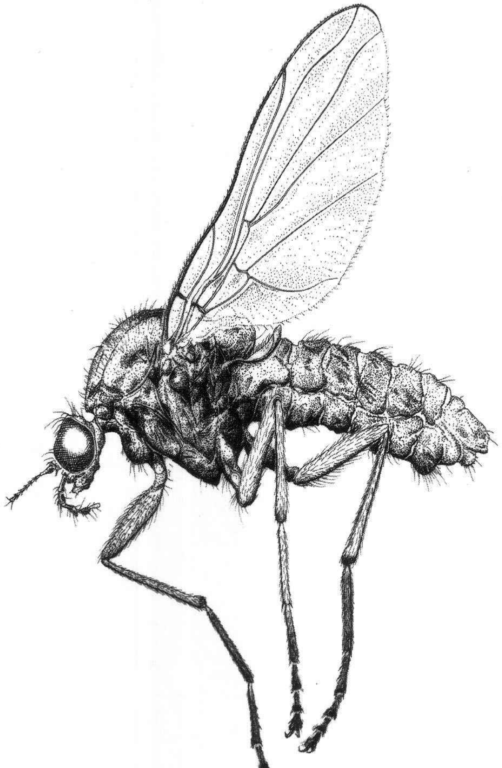
Carpathian wetlands

Five peatbogs in this region:
- unique habitats
- some Carpathian elements (e.g. Cottongrass, Microlepidoptera, etc.)

Carpathian wetlands

Mountain creeks

Very vulnerable habitats
- invertebrates
- refugium sites (e.g. Diptera)



Thaumalea sp.

Carpathian wetlands

lder and ash swamp woodlands

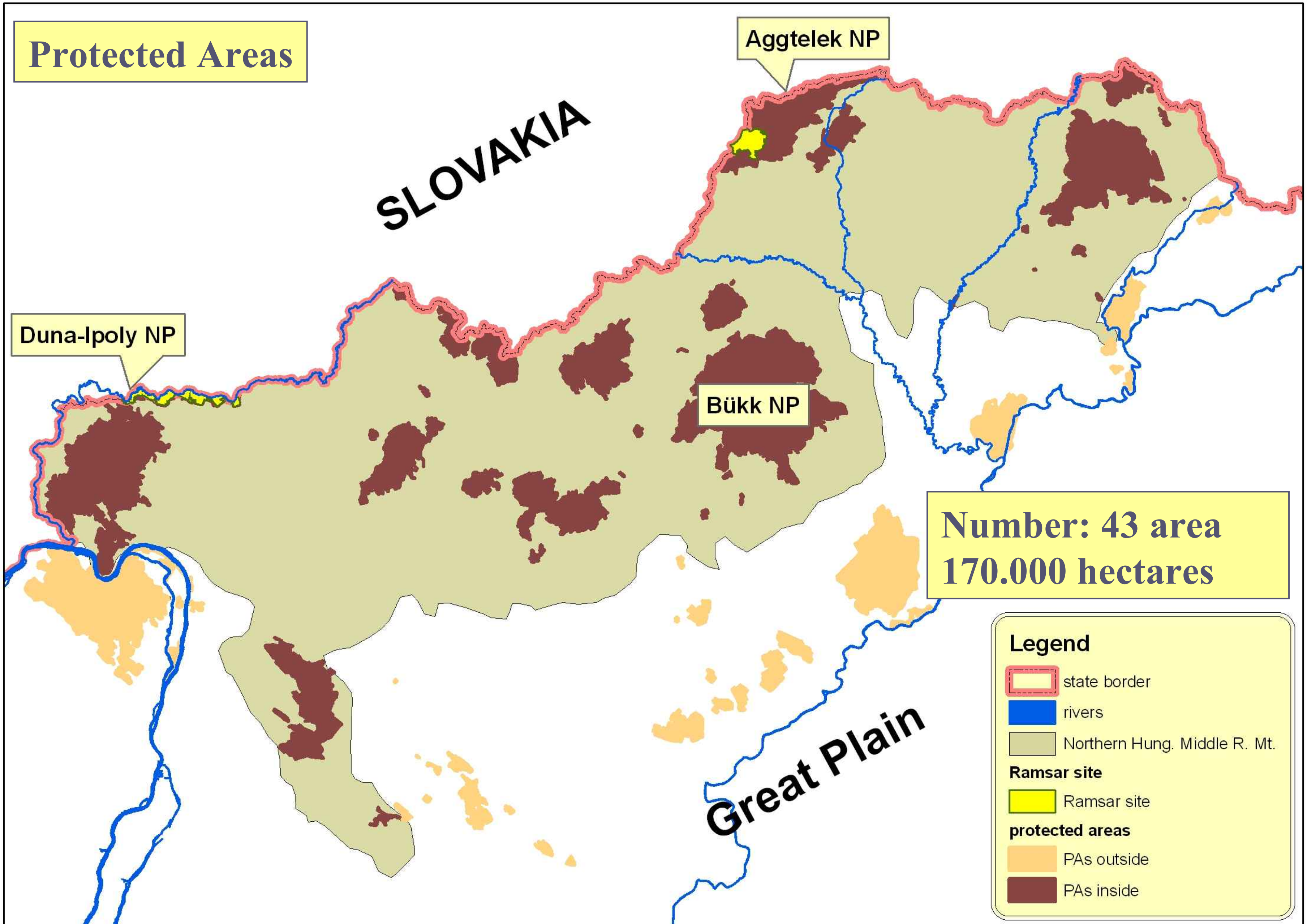
Alpine Newt

Yellow-Bellied Toad

Carpathian wetlands

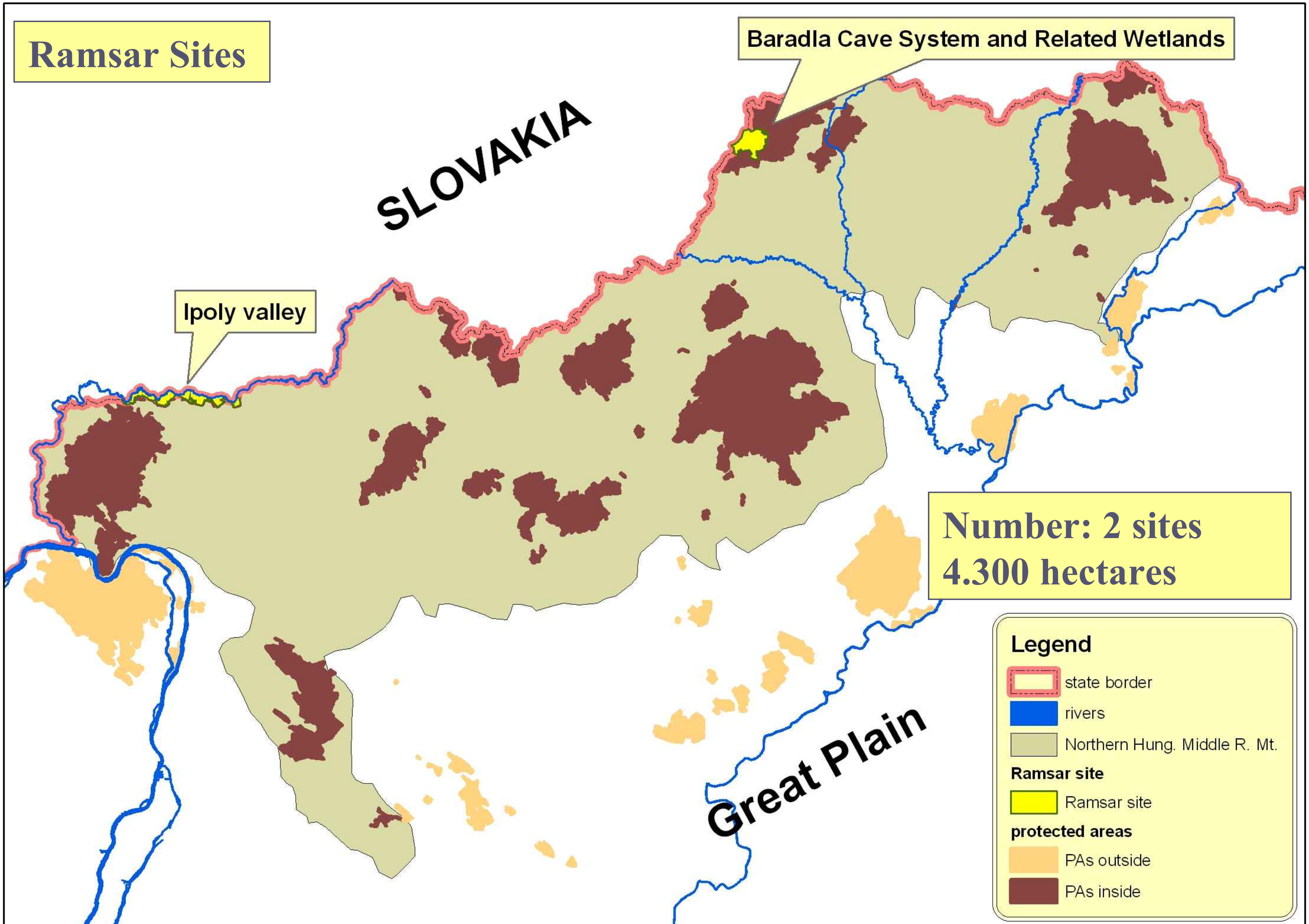
Nature conservation structure of Hungary

- 10 national park directorates,
- which manage 1 NP & several protected landscape area & natural protected area & ex-lege sites (alkalic lakes, caves, mires) & Natura 2000 sites („state side”)
- Local protected sites are belonging to communities („municipality side”)
- Carpathian Region – 3 NP Directorate:
- From west to east: Duna-Ipoly NPD – Bükk NPD – Aggtelek NPD



Protected Areas
Aggtelek NP
SLOVAKIA
Duna-Ipoly NP
Bükk NP
Number: 43 area
170.000 hectares
Great Plain
Legend
state border
rivers
Northern Hung. Middle R. Mt.
Ramsar site
Ramsar site
protected areas
PAs outside
PAs inside

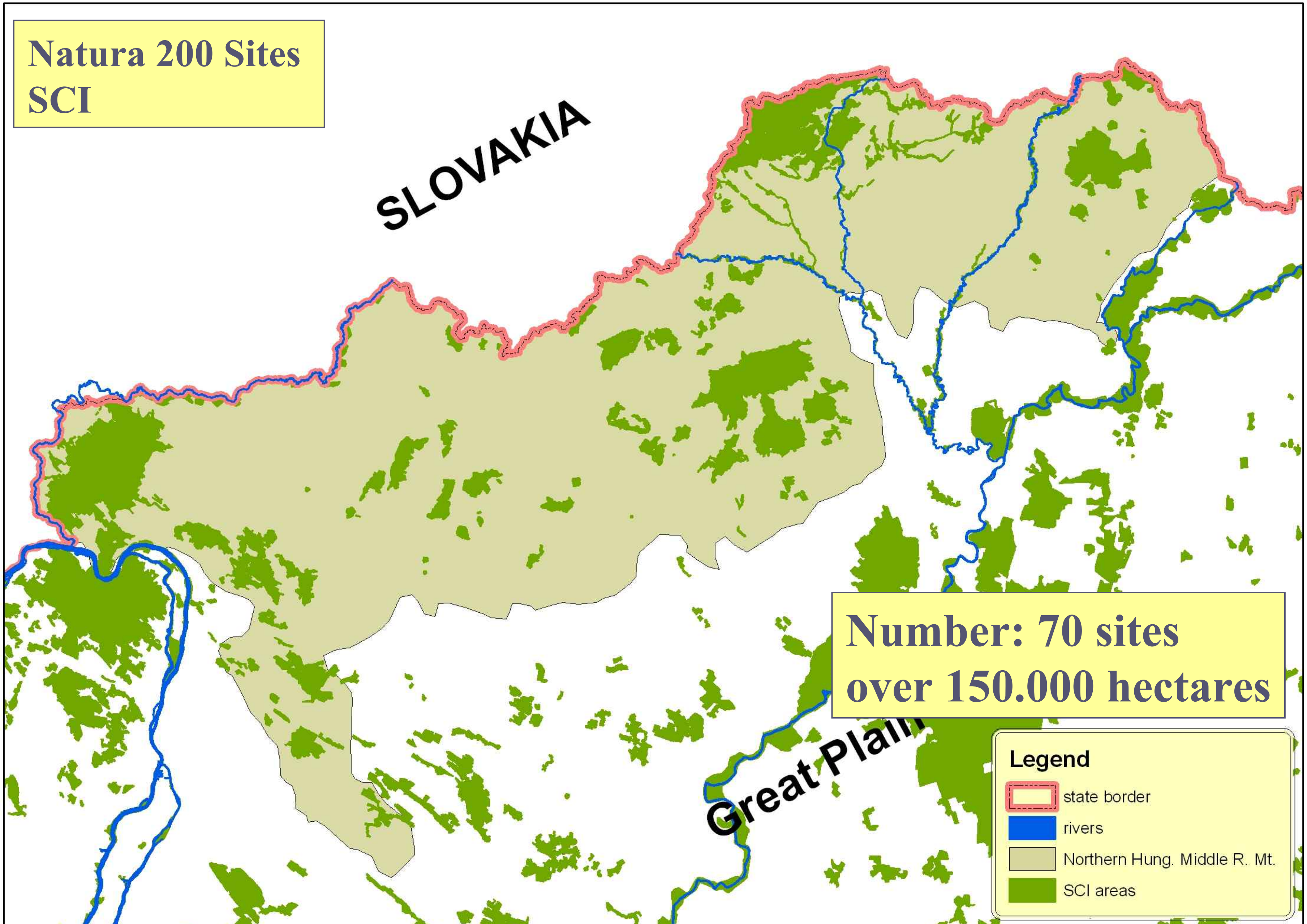
Ramsar Sites

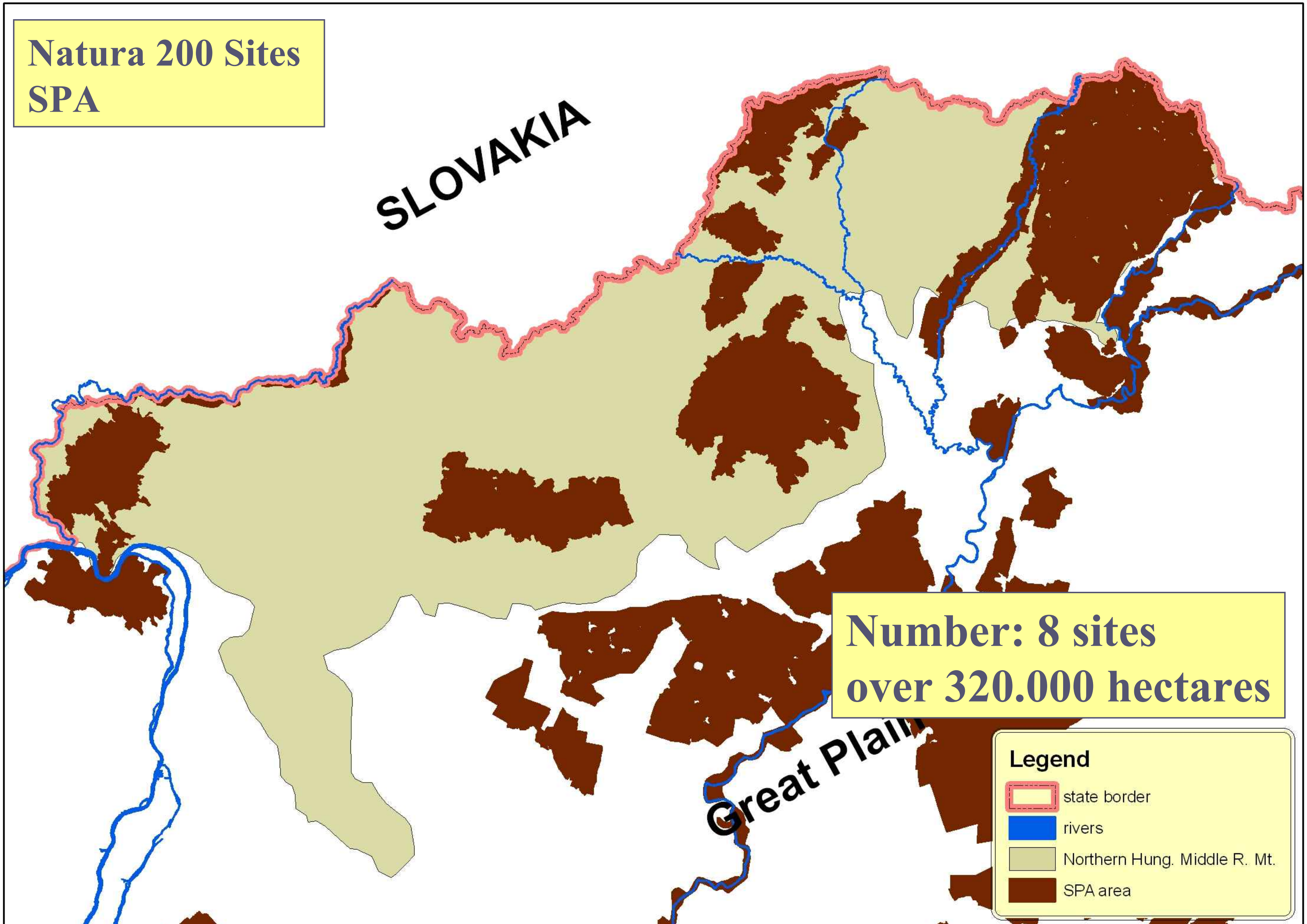


Number: 2 sites
4.300 hectares

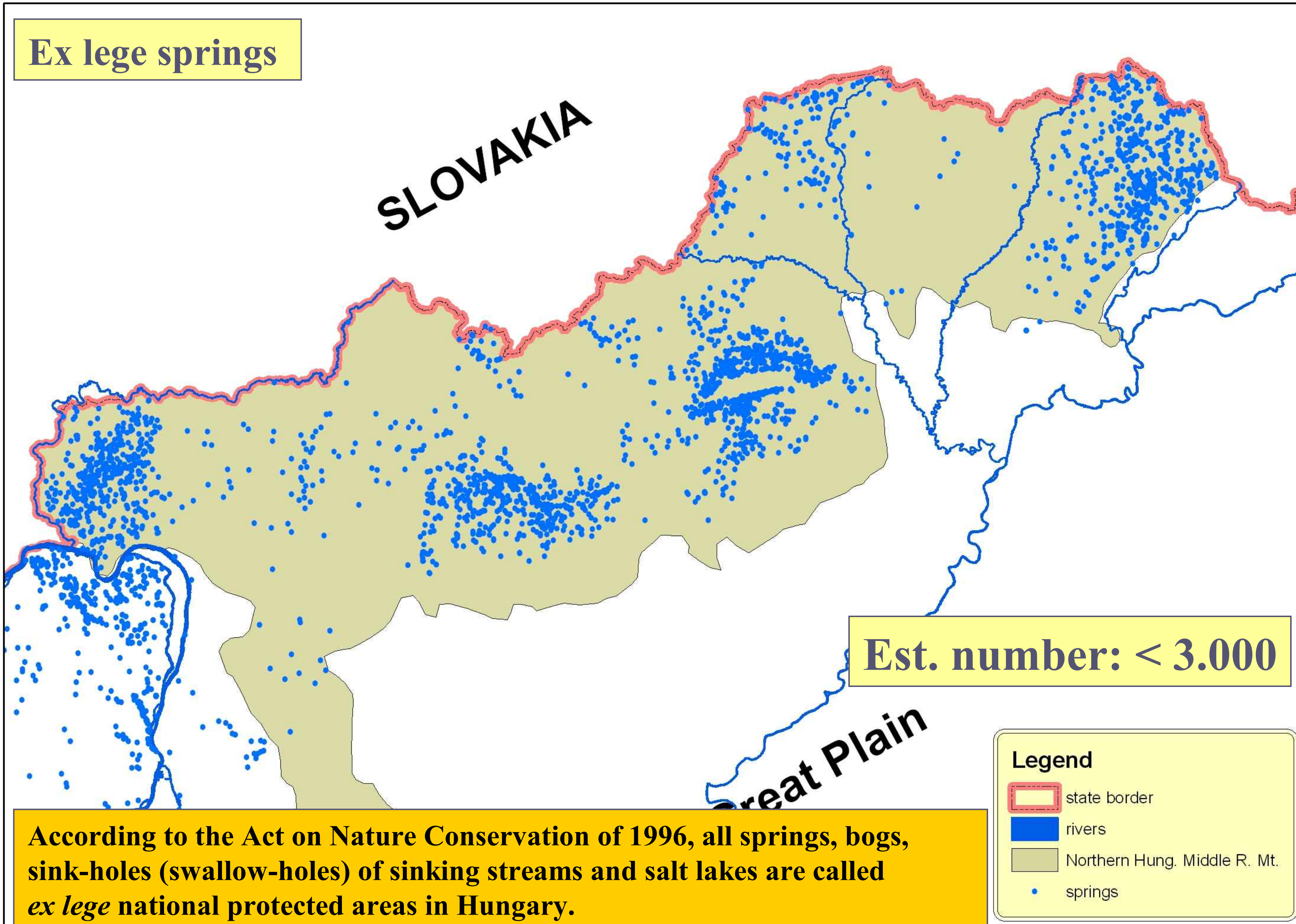
Ramsar sites

Ramsar sites


Natura 200 Sites
SCI
SLOVAKIA
Number: 70 sites
over 150.000 hectares
Great Plain
Legend
state border
rivers
Northern Hung. Middle R. Mt.
SCI areas

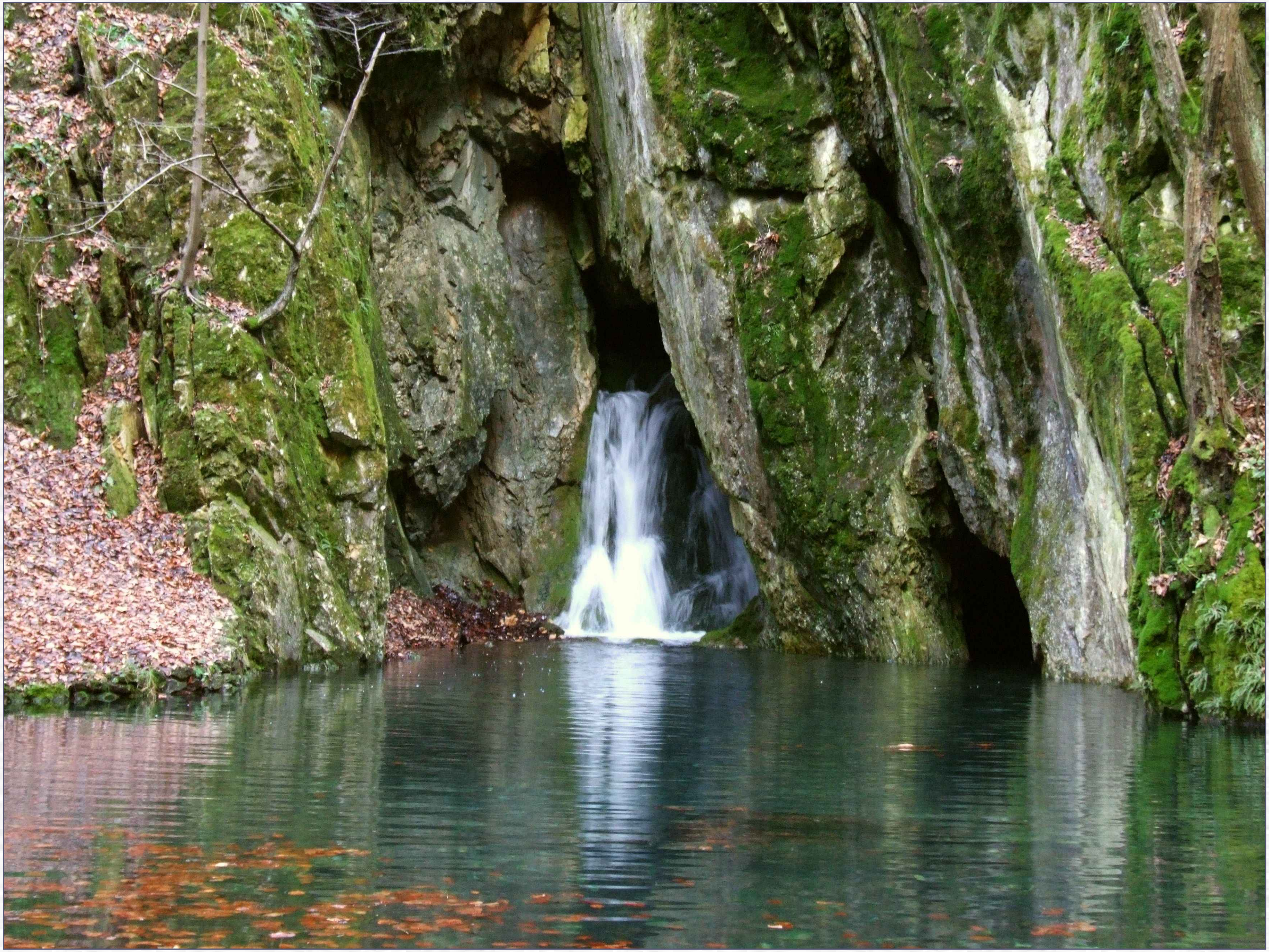

Natura 200 Sites
SPA
SLOVAKIA
Number: 8 sites
over 320.000 hectares
Great Plain
Legend
state border
rivers
Northern Hung. Middle R. Mt.
SPA area

Ex lege springs

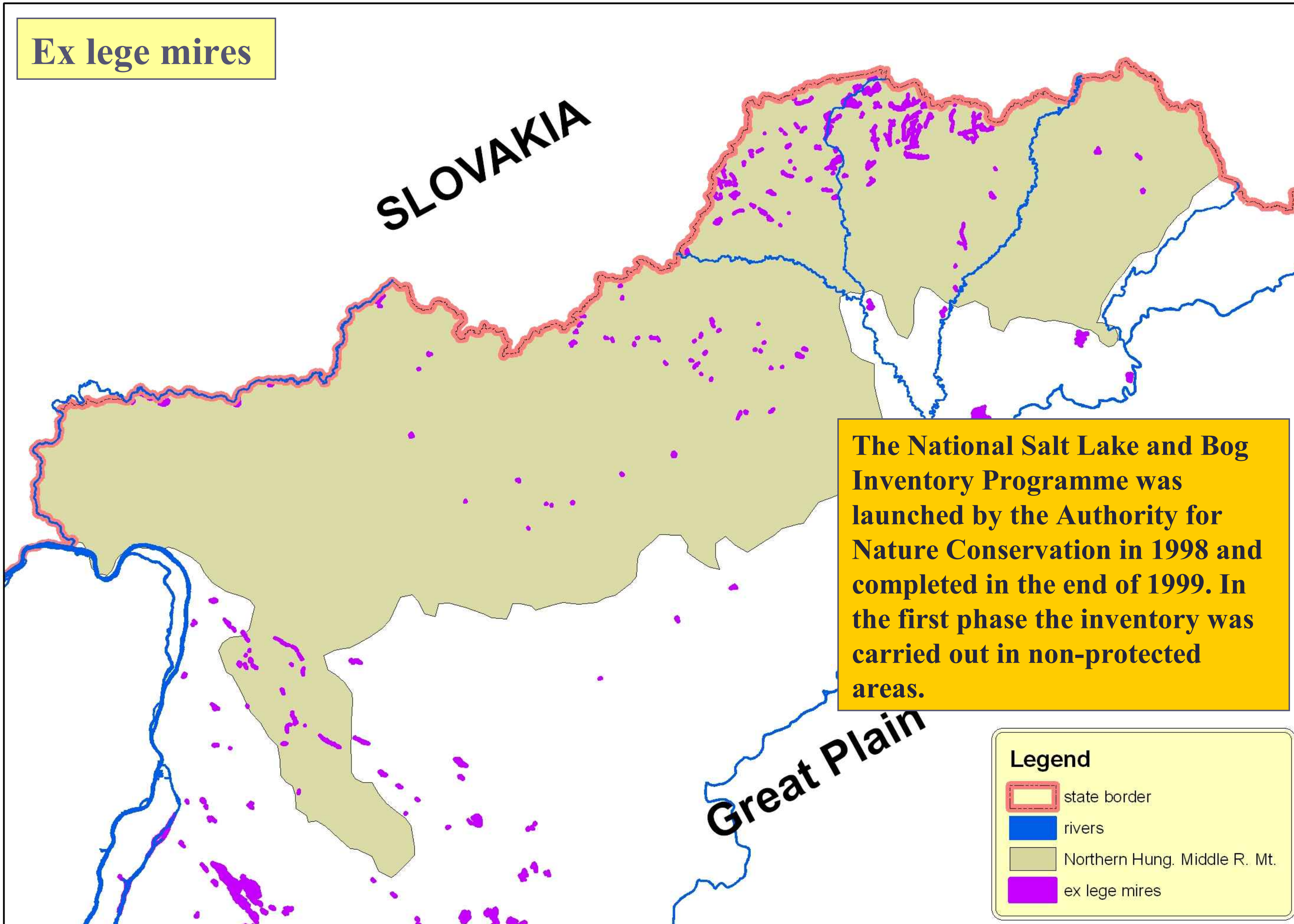


Est. number: < 3.000

According to the Act on Nature Conservation of 1996, all springs, bogs, sink-holes (swallow-holes) of sinking streams and salt lakes are called *ex lege* national protected areas in Hungary.



Ex lege mires

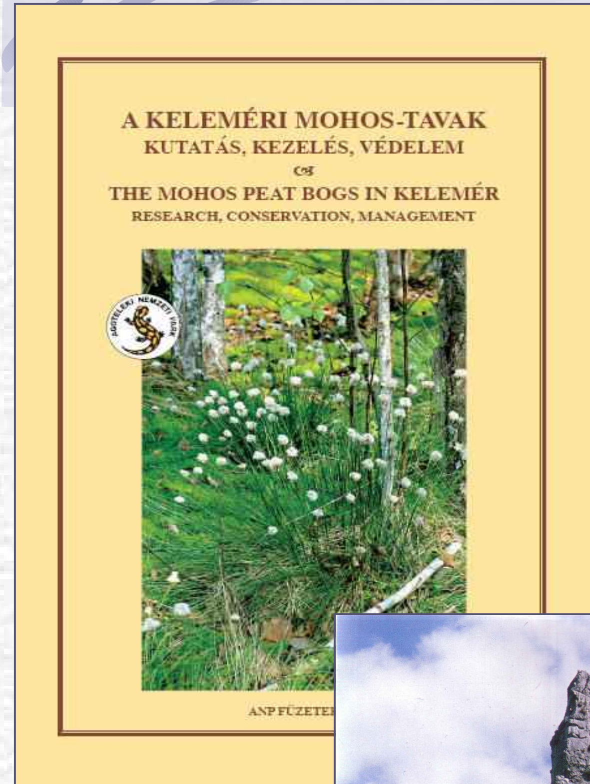


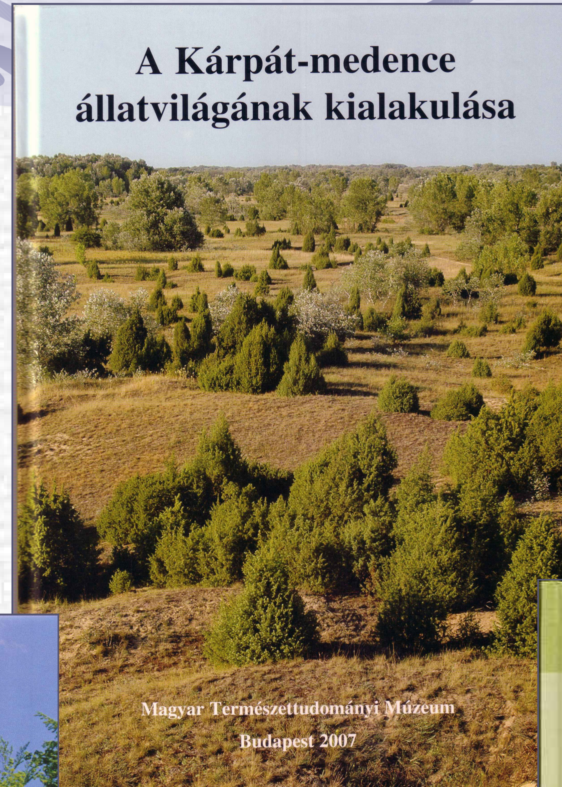
The National Salt Lake and Bog Inventory Programme was launched by the Authority for Nature Conservation in 1998 and completed in the end of 1999. In the first phase the inventory was carried out in non-protected areas.

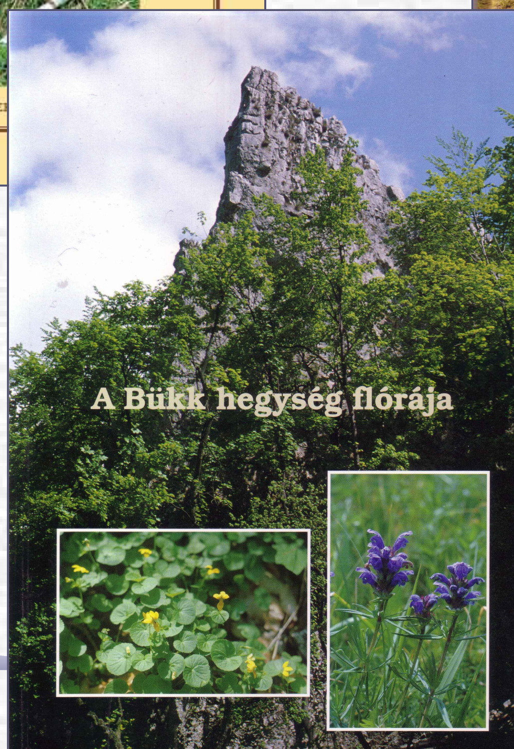
Threads & possibilities

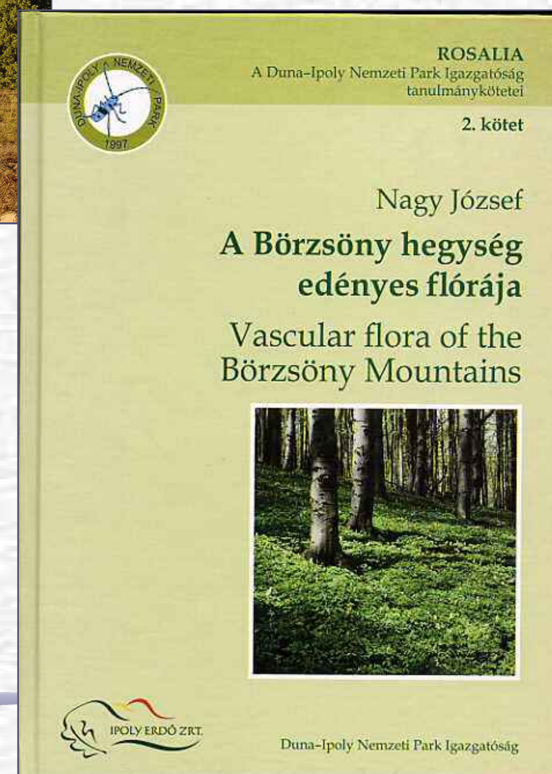
- Majority of the „Carpathian" wetlands are protected (multi-protected) BUT
- Carpathian wetland flora- & fauna-elements occur in lower territories also (disjunct area, „stepping stones") – several problem in protection
- Climatic changes are significant – major risk of degradation & extinction

- More attention is focused into mountain wetland habitats
- More possibilities for transboundary cooperation


A KELEMÉRI MOHOS-TAVAK
KUTATÁS, KEZELÉS, VÉDELEM
THE MOHOS PEAT BOGS IN KELEMÉR
RESEARCH, CONSERVATION, MANAGEMENT


A Kárpát-medence állatvilágának kialakulása
Magyar Természettudományi Múzeum
Budapest 2007


A Bükk hegység flórája


ROSALIA
A Duna-Ipoly Nemzeti Park Igazgatóság tanulmánykötetei
2. kötet
Nagy József
A Börzsöny hegység edényes flórája
Vascular flora of the Börzsöny Mountains
IPOLY ERDŐ ZRT.
Duna-Ipoly Nemzeti Park Igazgatóság


Thank you for your attention!