
Country report of the Slovak Republic

Zuzana Kadlecikova

Jan Kadlecik

Peter Urban

Petra Hajkova

European Otter Workshop, 5 – 10 October 2008

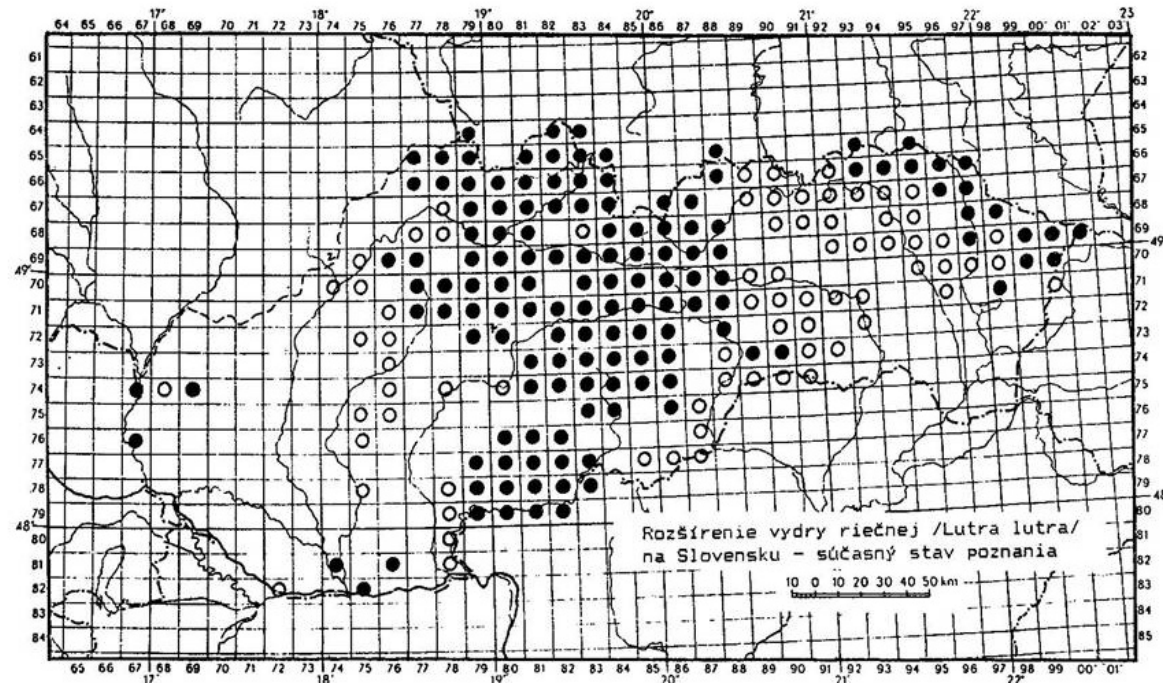
Moravske Toplice, Slovenia

Otter distribution

- Survey of Eurasian otter
 - Grid of 430 squares of the Databank of Slovak Fauna (DSF) 12x10 km
 - 1989, started – „Action Otter“ – survey in different parts of the country

● 31.9 % from 1984 to 1992

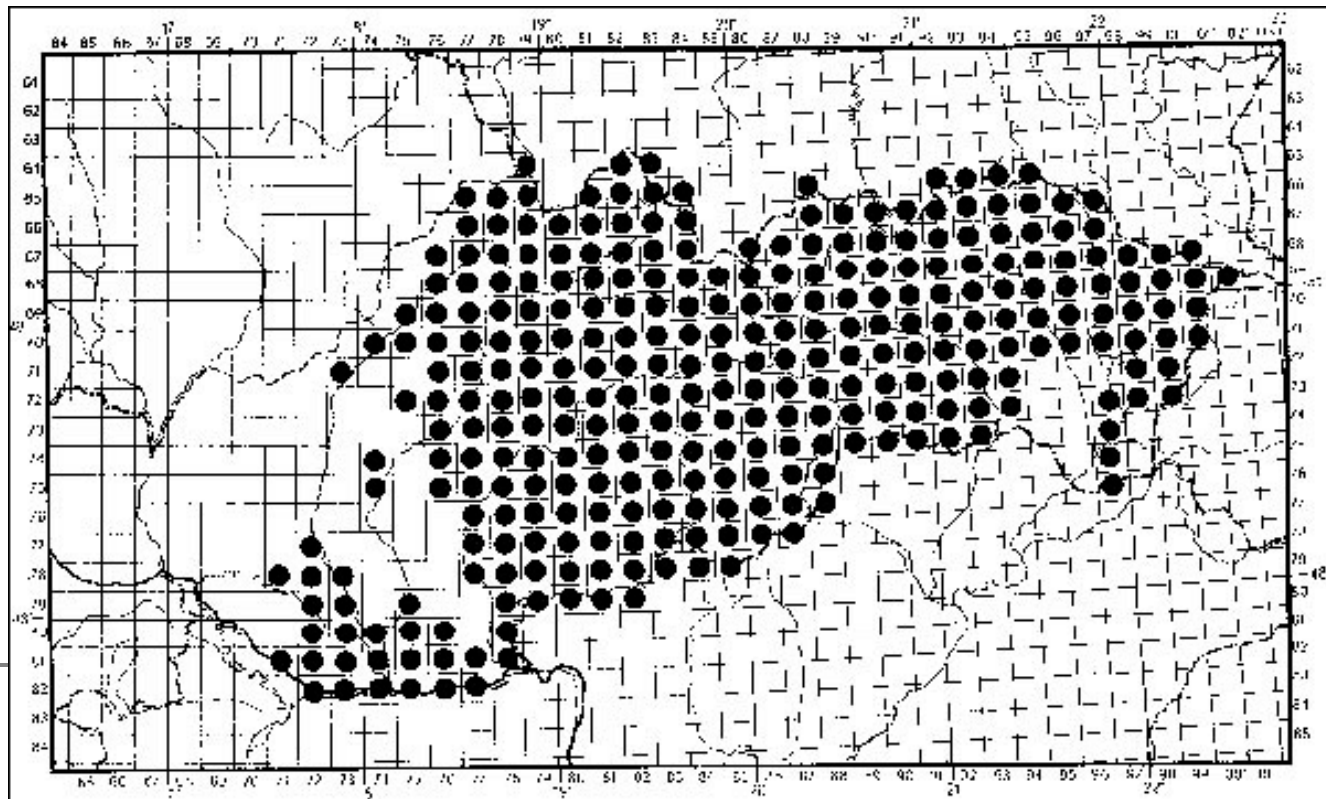
○ 17 % from 1972 to 1991



Kadlečík, J. 1992: Distribution of Eurasian otter (*Lutra lutra* L., 1758) in Slovakia – the present state of knowledge.

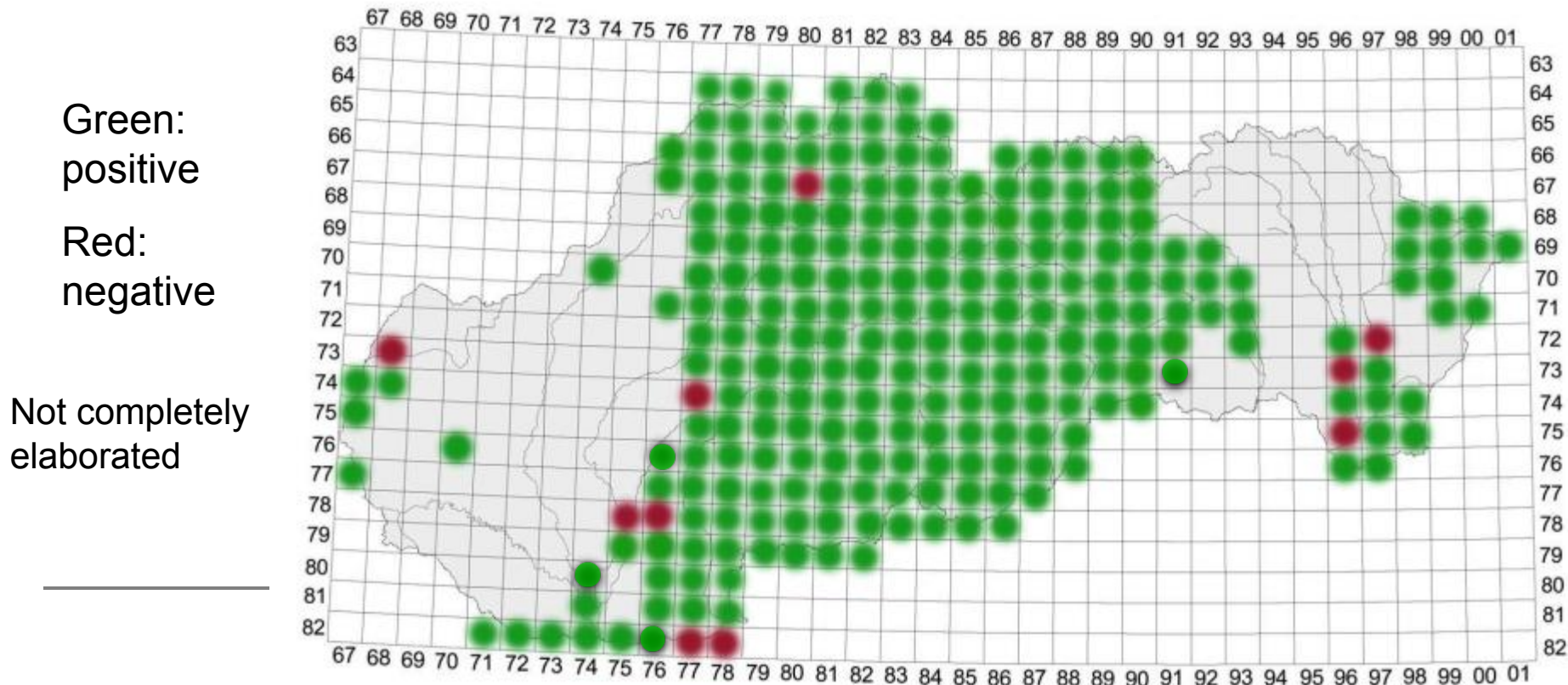
Otter distribution

- Survey of Eurasian otter
 - 1994-2001 (Kadlečík & Urban 2001, unpubl.)
 - 70.7 % of the surface of the Slovak Republic



Otter distribution

- Survey of Eurasian otter
 - 2007: State Nature Conservancy of SR
 - Modified standard method of IUCN



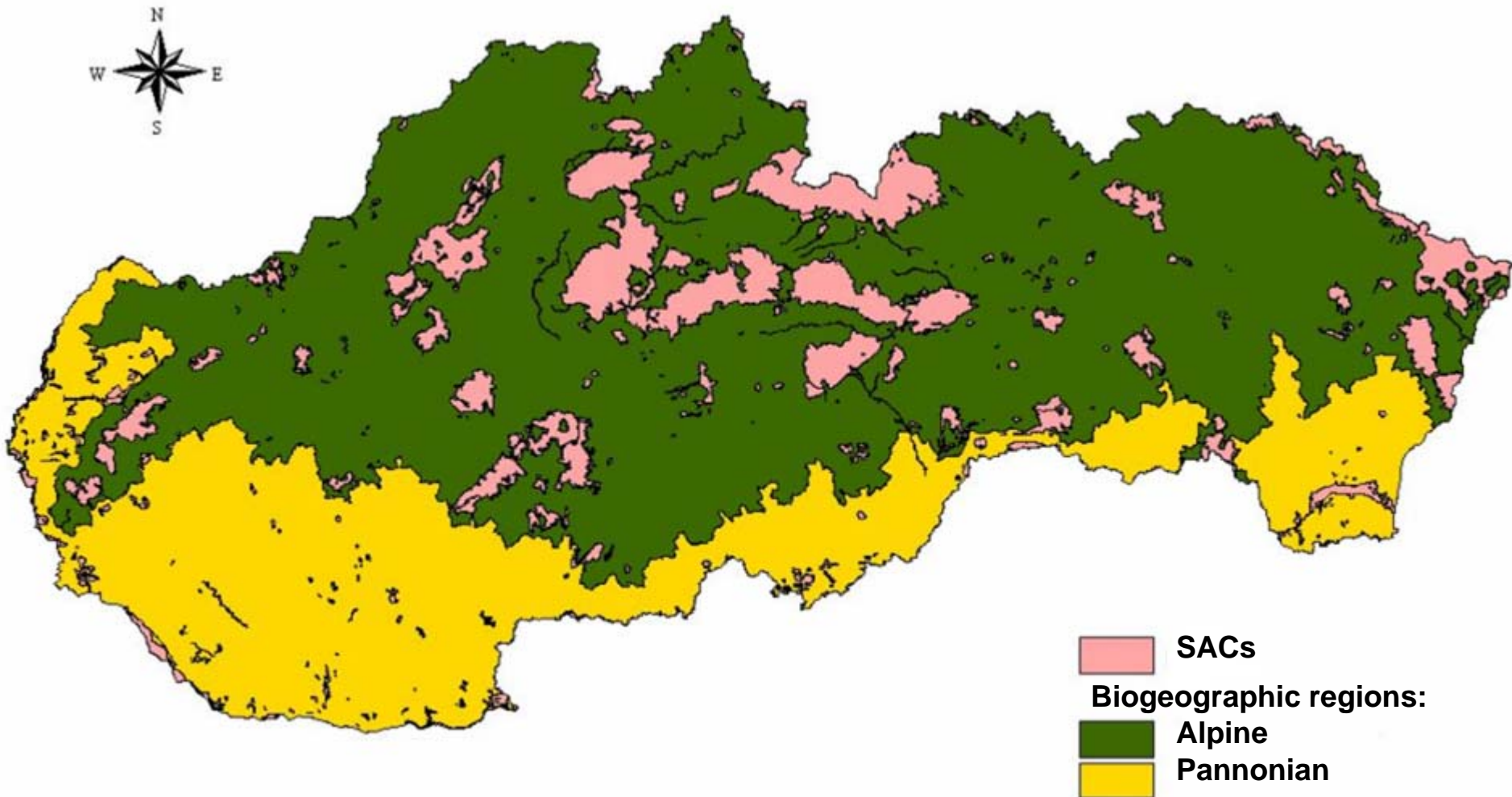
Geography

- 2.1. River catchments areas
 - Central Europe, catchments of the Danube River (Black Sea) and Vistula River (Baltic Sea)
- 2.2. Morphology
 - Lowlands (94 m a.s.l.) – highland (2655 m a.s.l.)



Geography

■ 2.3. Biogeographic regions in EU



Otter Habitats

■ 3.1. Rivers

- Length of watercourses: 38 211 km
- With otter: the most important rivers of Slovakia and their tributaries



- No otter: high altitude, rivers with high level of pollution and disturbance

Otter Habitats

■ 3.2. Lakes

- The most of natural lakes – in Tatra mountains, high altitude, without fish = without otter
- Other lakes: small surface area



Otter Habitats

■ 3.3. Reservoirs

- Water reservoirs totally: 278; volume: 1 908 mil m³
- 54 big water reservoirs; volume: > 1 mil m³
- Some of them – with otter

■ 3.4. Fish ponds

- Generally only few and small size

■ 3.5. Canals

- Western and eastern part of Slovakia,
sufficient fish supply = with otter



Protection status of otter in Slovakia

- Fully protected from 1948 (now - Act no. 543/2002 on Protection of nature and landscape, Decree no. 24/2003)
- Red book of ČSSR (Baruš et al. 1989*): CR - Critically endangered
- Red list of Mammals of Slovakia (Žiak & Urban 2001**): VU - Vulnerable
- Hunting law: game species, fully protected

•* Baruš, (ed.) 1989. Red book of endangered and rare species of plants and animals in ČSSR. 2: fish, amphibians, reptiles and mammals.

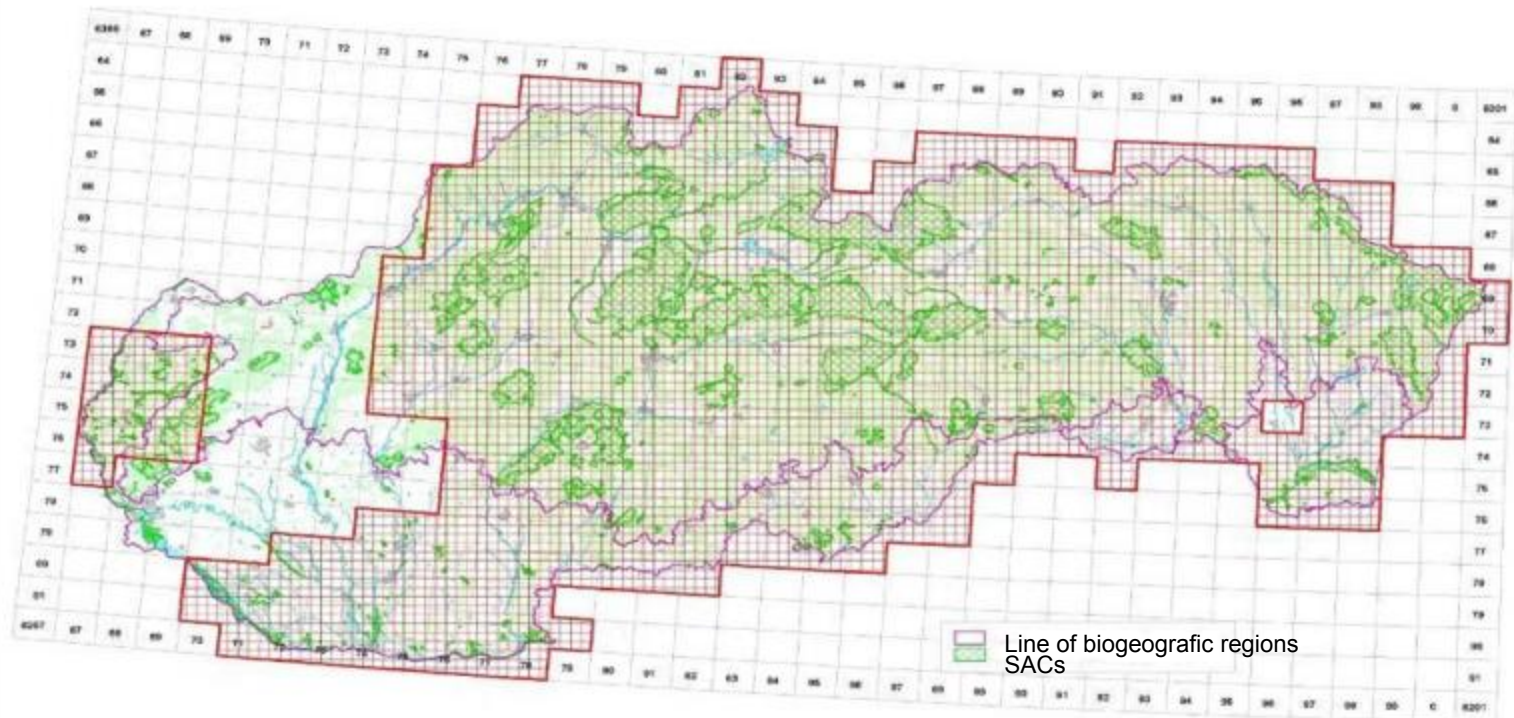
•** Žiak, D. & Urban, P. 2001: Red (ekosozological) list of mammals of Slovakia.

Protected Areas



■ 6.1. Natura 2000 sites for otters

- Otter - subject of protection in 91 SACs in Slovakia



A map prepared for Report for European Commission according to Art. 17 Habitat Directive

As of 31.12.2007

Protected Areas

- 6.2. Other protected areas for otters
 - Small-scale protected areas (Protected sites, Nature Reserves, Nature Monuments)
 - PS Žarnovica, PS Kamenistý potok, PS Revúca
 - Protection of important otter habitats in large-scale protected areas (National parks, Protected Landscape Areas)
-

Otters in captivity

- 7.1. ZOOs - no
- 7.2. Otter centres – no
 - 1 otter cub - transport to the Czech Republic (released in 2002), 1 adult (2007), 1 otter cub - in captivity in rescue station for handicapped animals (released in 2008)
- 7.3. Other otter species in captivity - no



NGOs

- 8.1. Exclusively for otters - no
- 8.2. Otter as a high priority - no
- 8.3. Otter as a low priority – yes
 - Environmental Society Lutra (Čebovce)
 - Aim: environmental education, protection of biodiversity, otter as one of umbrella and flagship species



Research projects

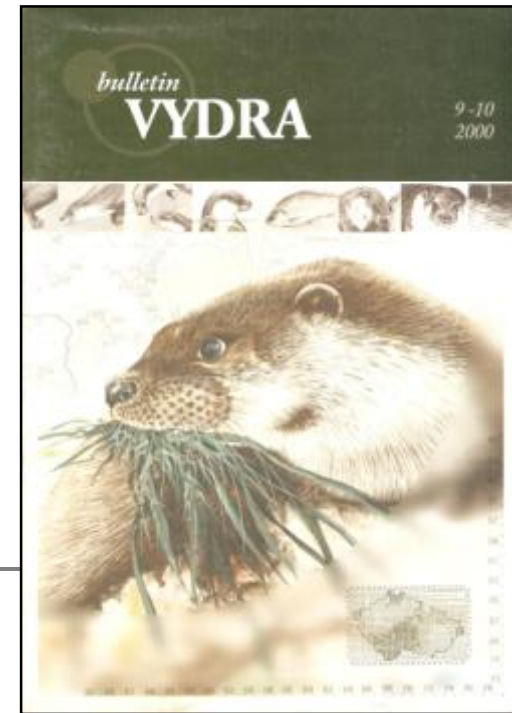
- Faculty of Natural Sciences, Matej Bel University, Banska Bystrica (Habitat requirements of Eurasian otter (*Lutra lutra* L.) on rivers in the Slovak Republic)

 - Diploma thesis:
 - Comenius University, Faculty of Natural Sciences, Bratislava,
 - Matej Bel University, Faculty of Natural Sciences, Banska Bystrica,
 - Technical University, Faculty of Ecology and Environmental Sciences and Faculty of Forestry, Zvolen,
 - University of P. J. Safarik, Faculty of Sciences, Kosice
-

Publications and reports

- Protection on national level:
 - 2002: approved Management Plan for Eurasian otter (2002-2007) (Urban & Kadlečík 2001)
 - 2008: new Management Plan prepared (2008-2013) – not approved yet
- „Bulletin Vydra“ → CZ + SK
 - +/- regularly from 1990

Urban, P. & Kadlečík, J. 2001: Program záchrany chráneného ohrozeného druhu vydra riečna *Lutra lutra* (Linnaeus, 1758).



Publications and reports

Some of publications and reports from the Slovak Republic, or referring to the Slovak Republic from 1998 to 2008

■ With IF

- Hájková, P., Roche, K., Kocian, Ľ. 2003: The use of diagnostic bones of brown trout, *Salmo trutta* m. *fario*, grayling, *Thymallus thymallus* and Carpathian sculpin, *Cottus poecilopus* in Eurasian otter, *Lutra lutra* diet analysis. *Folia Zool.* 52 (4), 389-398.
- Hájková, P., Pertoldi, C., Zemanová, B., Roche, K., Hájek, B., Bryja, J. & Zima, J. 2007: Genetic structure and evidence for recent population decline in Eurasian otter populations in the Czech and Slovak Republics: implications for conservation. *J Zool Lond* 272, 1-9.

■ Reviewed

- Grendziok, P., Korňan J. & Lojkásek B. 1998: Mezinárodní zimní mapování vydry říční (*Lutra lutra*) v roce 1996, pp. 37–40. In: Urban P. (ed.), Výskum a ochrana cicavcov na Slovensku III. Banská Bystrica & Bratislava, 156 pp.
- Hájková P. 2008: Conservation genetics of the Eurasian otter. Ph.D. Thesis. Faculty of Science Masaryk University Brno, 100 pp.
- Hájková, P. & Hájek, B. 2002: Potrava vydry riečnej (*Lutra lutra*) v hornej časti povodia Hornádu, pp. 69–81. In: Urban P. (ed.), Výskum a ochrana cicavcov na Slovensku V. Banská Bystrica, 173 pp.
- Hájková, P., Hájek, B., Bryja, J., Zemanová, B. & Zima, J. 2004: The use of non-invasive genetic method for studying Eurasian otters (*Lutra lutra*). In: Adamec, M. & Urban, P. (eds). Výskum a ochrana cicavcov na Slovensku VI, Banská Bystrica 2003, p 157-165.
- Kadlečík, J., Burešová, A. & Sabolčíkova, Ľ. 2000: Správa o mapovaní vydry riečnej (*Lutra lutra*) v južnej časti Košického kraja v roku 1999, pp. 141–148. In: Urban, P. (ed.), Výskum a ochrana cicavcov na Slovensku IV. Banská Bystrica, 191 pp.

Publications and reports

■ Reviewed:

- Kadlečík, J. & Urban, P., 1998: Otter Action Plan. Country report. 3.4.1.39. Slovakia. SAŽP COPK, Banská Bystrica, p.4. (msc.) Depon. In: SAŽP-COPK, Banská Bystrica.
- Kyselová, K. 2004: European otter (*Lutra lutra* Linnaeus, 1758) in river Rajčianka catchment, pp. 159–162. In: Franc, V. (ed.), Strážovské vrchy Mts. – research and conservation of nature. Proceedings of the conference. Faculty of Natural Sciences UMB Banská Bystrica, 163 pp.
- Pánisová, Z., Topercer, J. & Urban, P. 2006: Značkovacie správanie vydry riečnej (*Lutra lutra* L.) na vybraných lokalitách Oravy a Studeného potoka, pp. 95-108. In: Adamec, M. & Urban, P. (eds.), Výskum a ochrana cicavcov na Slovensku VII. Banská Bystrica, 239 pp.
- Urban, P. 2000: Shelters of Eurasian otter (*Lutra lutra*) in the Slovak Republic. Úkryty vydry riečnej (*Lutra lutra*) na Slovensku. Lynx, Praha, n. s. 31: 133-142.
- Urban, P. & Topercer, J. 1999: Distribution, numbers and life conditions of the otter in the greater Poľana Mts. Region. Ochrana prírody 17: 189-208
- Urban, P. & Topercer, J. 2000: K úkrytom vydry riečnej (*Lutra lutra*) na Slovensku, pp. 123–140. In: Urban, P. (ed.), Výskum a ochrana cicavcov na Slovensku IV, Banská Bystrica, 191 pp.
- Urban, P. & Topercer, J. 2001: K značkovaciemu správaniu vydry riečnej (*Lutra lutra* L.) na strednom Slovensku. Folia venatoria (hunting magazine Poľovnícky zborník) 30–31: 207–224.
- Urban, P. 1999: K ekológii vydry riečnej na Slovensku. Ph.D. Thesis. Ústav ekológie lesa SAV, Žvolen, 103 pp.
- Urban, P., Kadlečík, J., Majko, P., Hrivnák, R., 1998: Mortalita vydry riečnej na cestných komunikáciách v Slovenskej republike a návrh na jej zmiernenie: 31-36. In: Urban, P. (ed.): Výskum a ochrana cicavcov na Slovensku III. Banská Bystrica & Bratislava, 156 s.

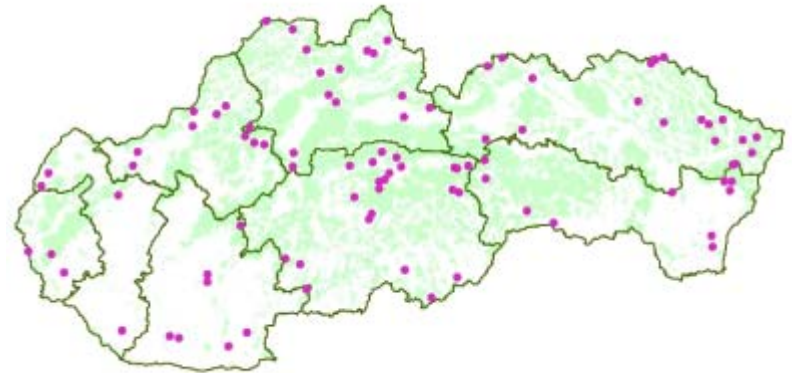
Releases

- 11.1. Reintroductions - no
- 11.2. Restocking - no
- 11.3. Translocations - no



Monitoring

- 12.1. Distribution
 - Survey of distribution (no periodic interval)
 - Partial Monitoring System Biota – monitoring 90 localities in Natura 2000 sites from 2001, two times per year
 - Population size estimation – snow tracking in model areas (Turiec river basin, Poľana PLA,...)
- 12.2. Road casualties
 - recorded, kept samples
- 12.3. Pollution
 - Water – monitoring – Partial Monitoring System – made by the Slovak Hydrometeorological Institute (quality, quantity); reported annually; reporting for Water Framework Directive



Habitat restoration

- Revitalization of rivers:
 - Restoration of river bed and natural functions of streams
 - Flood prevention measures
 - Environmental Fund - projects for Slovak Anglers Union (SAU)
 - 2004: 175 928 € – Restoration of favourable status of ichthyocoenosis in water bodies used by SAU and food supply for otter
 - 2005: 121 822 € for projects – Maintenance of favourable status of ichthyocoenosis in water bodies used by SAU and for restoration of the Hron River and Rimava River.
-

Environmental impact assessment

- Act no. 24/2006
 - Otter:
 - considered as protected species and species of European importance
 - Water power plants, reservoirs, highways
-

Fish stocking policies

- Fishing and fish farming
- Streams, fishponds (sport fishing) – obligation for re-stocking

Conflict resolution

- 16.1. Fish farms
 - Act no. 543/2002 on nature and landscape protection
 - Decree no. 24/2003
 - Compensation of damages caused by some protected animal species on fish cultivated for economic production in fishponds (expert statement + conditions fulfilled (fencing, measures preventing otter entering))
 - Only 5 compensations during 2003-2008
payed - 12 112 €
-

Conflict resolution

■ 16.2. Rivers

- No compensation of damages by Act
- Increasing problem – trout streams



Threats and concerns

- Road mortality, building of new roads and highways
 - Fishermen – illegal hunting and killing
 - Decrease of available sites (destruction of habitats, habitat changes and loss)
 - Water pollution
 - Water power plants
-

Thank you for your attention

