Natura 2000 monitoring

In Fertő-Hanság National Park Directorate
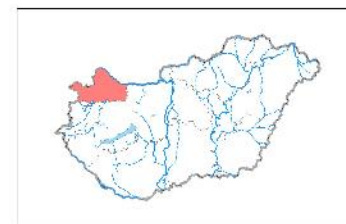
Gábor Takács

Natura 2000 sites some data

- Our operational area: 409.519 ha
- Natura 2000 (SPA + SCI): 87.593 ha (21,4%)
  - >150 species included birds
  - > habitat types
- Protected areas: 46.297 ha
  - 1 national park
  - 3 landscape protected area
  - 8 nature conservation area
- Ramsar sites (Fertő, Nyirkai-Hany)
- World Heritage (Lake Fertő and Pannonhalma)

Research and monitoring before 1998

- Vegetation mapping – only little area

- Mainly faunistical and limonological research between 1960-1990 (insects, birds, mammals) – The area was behind „iron curtain".

- Real monitoring was only for water birds from 1990

Hungarian Biodiversity Monitoring system from 1998

- Original aims
  - provide data on the state of the biota
  - levels of biodiversity organisation
  - support of national and international data requirements
  - principles: state of protected and threatened natural values
  - general state of the ecosystems of Hungary
  - direct or indirect effects of human or environmental factors

Hungarian Biodiversity Monitoring system

- Protocols
  - To achieve the objectives defined in the projects appropriate components have been selected
  - For the sake of standardisation of monitoring activities detailed guidance (protocols) has been prepared for each component
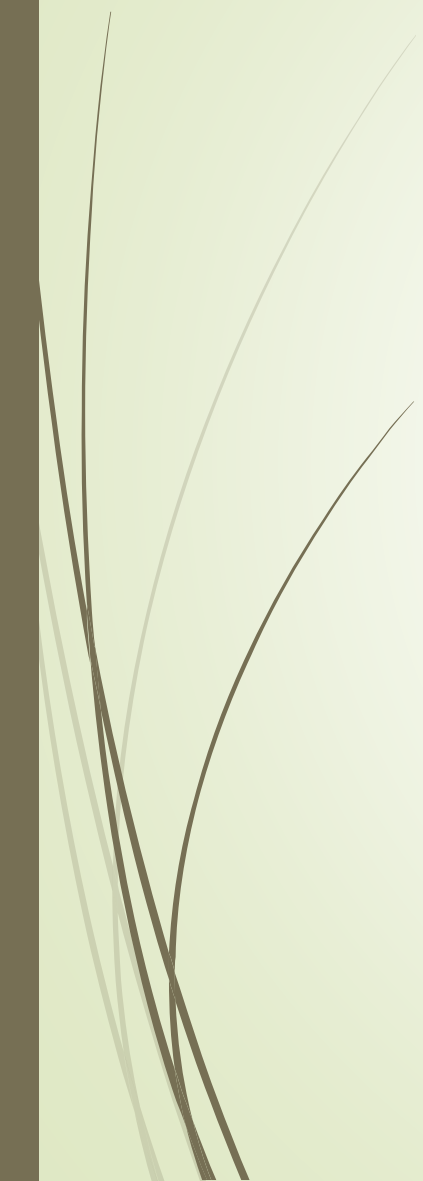
Hungarian Biodiversity Monitoring system

- It worked on peep until 2010
- Didn't have enough money
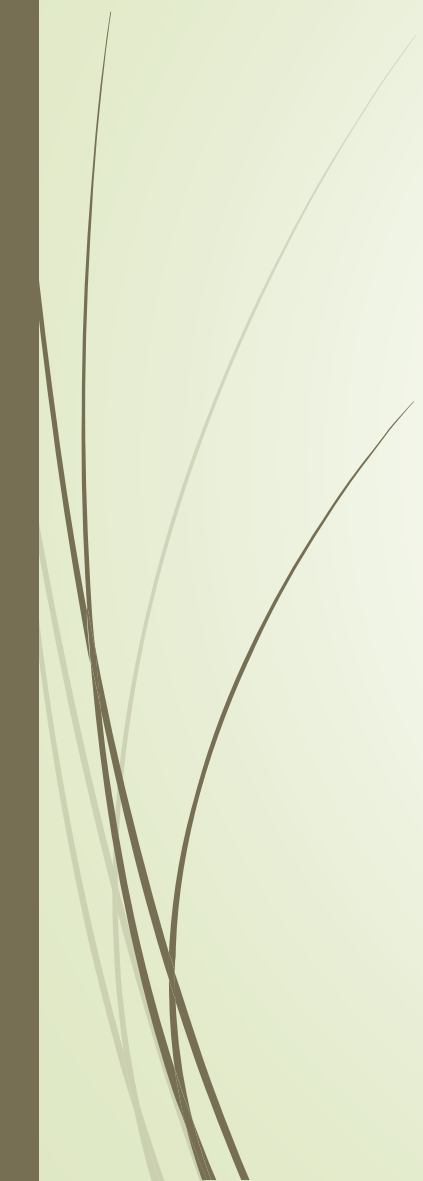
Natura 2000 datasheet and report for EU

- 2004: We didn't have enough data to Natura 2000 nomination – expert guess
- 2007: The 1st report base on expert guess
- …..

Monitoring in our national park - Habitats

- For range and cover – Habitat mapping
- For all Natura 2000 sites in every 10 years
- Use the General Habitat-classification (Á-NÉR)
- Convert it to Natua 2000 habitats

Habitat-mapping

General National Habitat Classification System
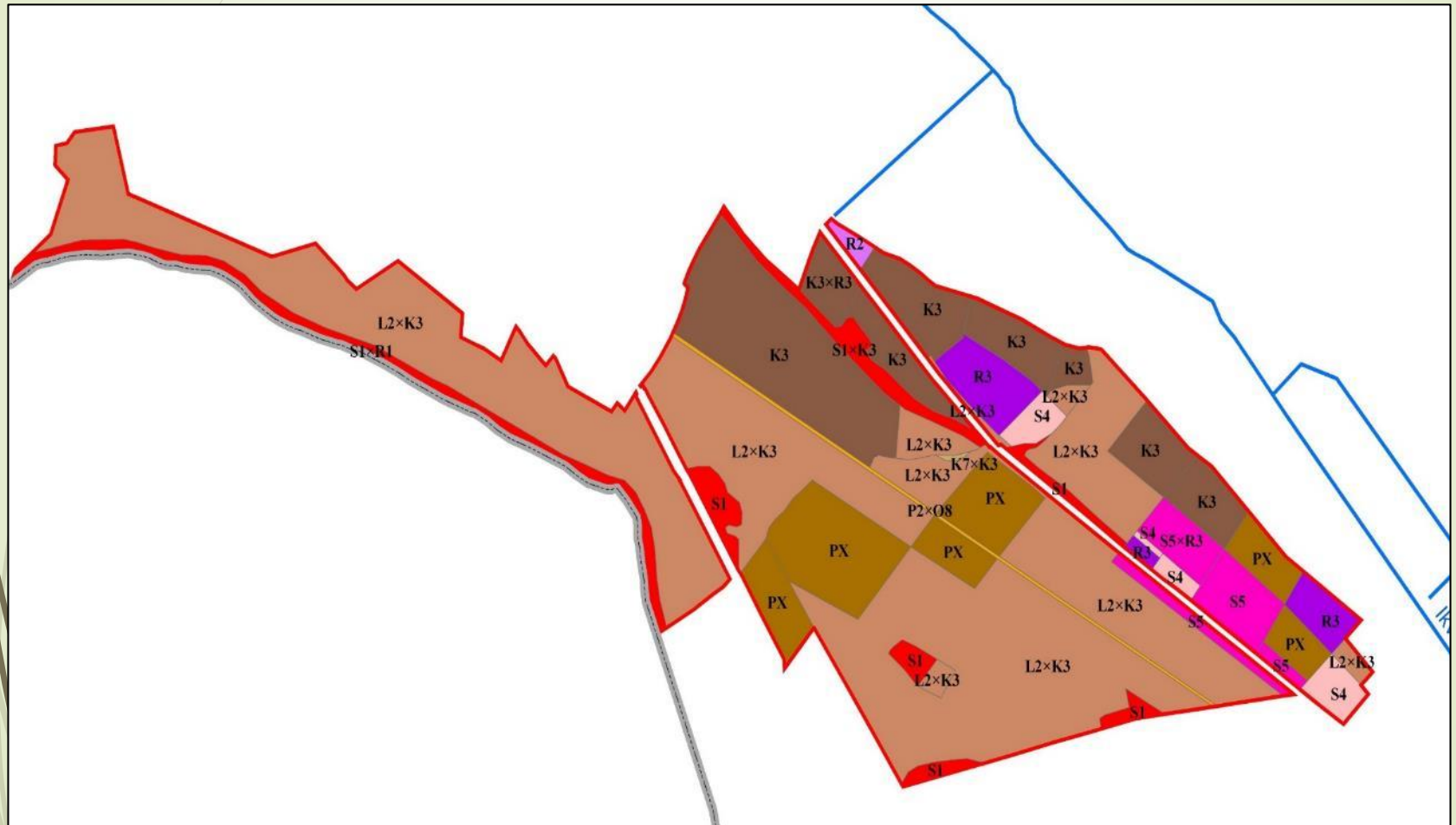
Habitat-mapping

Natura 2000 habitat-types

Monitoring in our national park - Habitats

- For quality – Coenological survey (local) and Natura 2000 method (country)
- Permanent plots

M2.A – tipikus fajok, özönfajok, degradációt jelző fajok 91G0

Tipikus - kedvező állapotokat indikáló - fajok előfordulása, dominanciája a (C) gyepszintben — PANNON GYERTYÁNOS-TÖLGYESEK

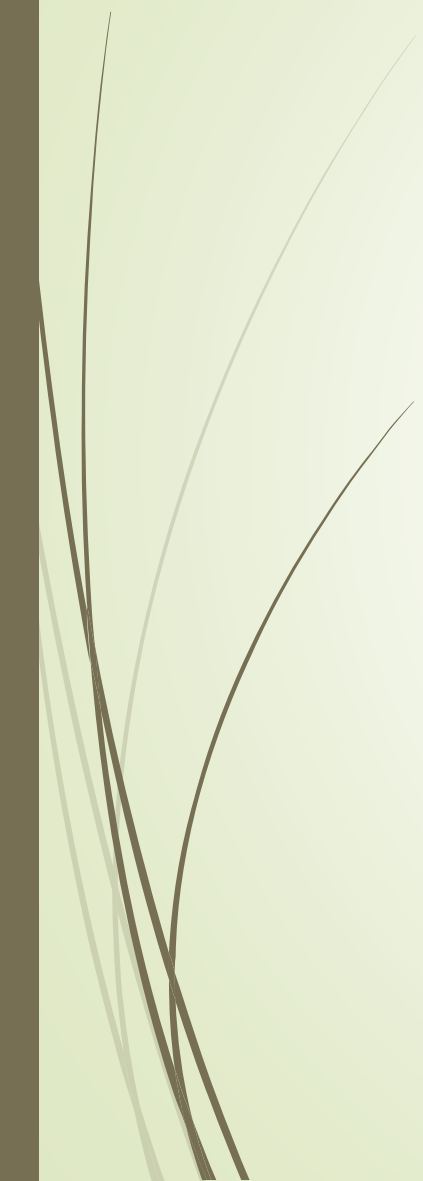|			
Aegopodium podagraria	NINCS, van, 1-5%, több	Sanicula europaea	NINCS, van, 1-5%, több
Asarum europaeum	NINCS, van, 1-5%, több	Stellaria holostea	NINCS, van, 1-5%, több
Carex pilosa	NINCS, van, 1-5%, több	Vinca minor	NINCS, van, 1-5%, több
Dentaria bulbifera	NINCS, van, 1-5%, több	Viola mirabilis	NINCS, (van) 1-5%, több
Euphorbia amygdaloides	NINCS, van, 1-5%, több	Galim. szlvatum	NINCS, (van) 1-5%, több
Galeobdolon luteum agg.	NINCS, van, 1-5%, több	Carex montana	NINCS, (van) 1-5%, több
Galium odoratum	NINCS, van, 1-5%, több	Violis grandifle	NINCS, (van) 1-5%, több
Lathyrus vernus	NINCS, van, 1-5%, több		NINCS, van, 1-5%, több
Melica uniflora	NINCS, van, (1-5%) több		NINCS, van, 1-5%, több
Polygonatum multiflorum	NINCS, van, 1-5%, több		NINCS, van, 1-5%, több

Özönfajok előfordulása, dominanciája a (C) gyepszintben — NINCS !

Acer negundo	N V 1-5% T	Fallopia spp.	N V 1-5% T	Prunus serotina	N V 1-5% T
Ailanthus altissima	N V 1-5% T	Fraxinus pannsylv.	N V 1-5% T	Robinia p.acacia	N V 1-5% T
Amorpha fruticosa	N V 1-5% T	Helianthus spp.	N V 1-5% T	Solidago adv.	N V 1-5% T
Asclepias syriaca	N V 1-5% T	Heracleum adv. spp.	N V 1-5% T	Vitis spp.	N V 1-5% T
Aster adv. spp.	N V 1-5% T	Impatiens adv. spp.	N V 1-5% T		N V 1-5% T
Echinocystis lobata	N V 1-5% T	Parthenocissus spp.	N V 1-5% T		N V 1-5% T
Erigeron annuus	N V 1-5% T	Phytolacca spp.	N V 1-5% T		N V 1-5% T

Degradációt jelző fajok a (C) gyepszintben – CSAK HA TÖMEGES (legalább 5% vagy több) — KEVÉS !

	> 5%	> 5%
	> 5%	> 5%

Egyéb fajok, megjegyzés

Carex mstelii.
Festnca botropyla

IGEN, (NEM), NEM ISMERT   NEM, (TÉLEN IGEN), NYÁRON IS, NEM ISMERT

Ellenőrzés: RM-1? [X]   RM-2? [X]   RM-3? [X]   RM-4? [X]   FOTÓK? [X]   FAJOK? [X]

M.2B-1 – részminta, MVT név ... Sopron ELC OYT ...

MVT ssz	felmérő neve Miklós Geof	2015 08 10 dátum

| 1 | 95 % | EGYSZINTES, (KÉTSZINTES), TÖBBSZINTES |
| részminta ssz | lombkoronaszint (A) összes záródása (max 100%) | szintenként, egy szint képezett 15%-os borítása |

| K2 | 10 % | 2 % | 0 % |
| ÁNÉR2011 | cserje- és újulat szint (B) borítása | gyepszint (C) borítása | mohaszint borítása |

| DSCE 3006-3007 | 0 % | 0 % |
| társulásszint | avaró kiterjedése | fekszint borítása |

NINCS, KEVÉS, ~50%, 100%, n.é.   NINCS, KEVÉS, ~50%, 100%, n.é.   NINCS, KEVÉS, ~50%, 100%, n.é.

(VDI TÚRÁS)   VADCSAPA   KIFEKVÉS   VDI HULLATÉK   EGYÉB HULLATÉK   NINCS

| A szint FAFAJSOROK	d130 (cm)	dominancia (%)	B/C szint FÁK & CSERJÉK	dominancia (%)
A Cer	<15, <30, <60, >60	+, 1-5, <25, (<50), több	B/C HUSO	van, 1-5, (6-25), 26-50, több
A KTT	<15, <30, (<60), >60	+, 1-5, <25, (<50), több	B/C FA	van, (1-5), 6-25, 26-50, több
A GY	<15, (<30), <60, >60	+, 1-5, <25, (<50), több	B/C OBG	(van), 1-5, 6-25, 26-50, több
A BABE	(<15), <30, <60, >60	+, (1-5), <25, <50, több	B/C VSOM	(van), 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C Rubus sp.	(van), 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több
A	<15, <30, <60, >60	+, 1-5, <25, <50, több	B/C	van, 1-5, 6-25, 26-50, több

Monitoring in our national park - Plants

- We use point mapping
- Surveying of important species: in every year
- Surveying of other species: We try survey the populations in every three year.

Iris arenaria
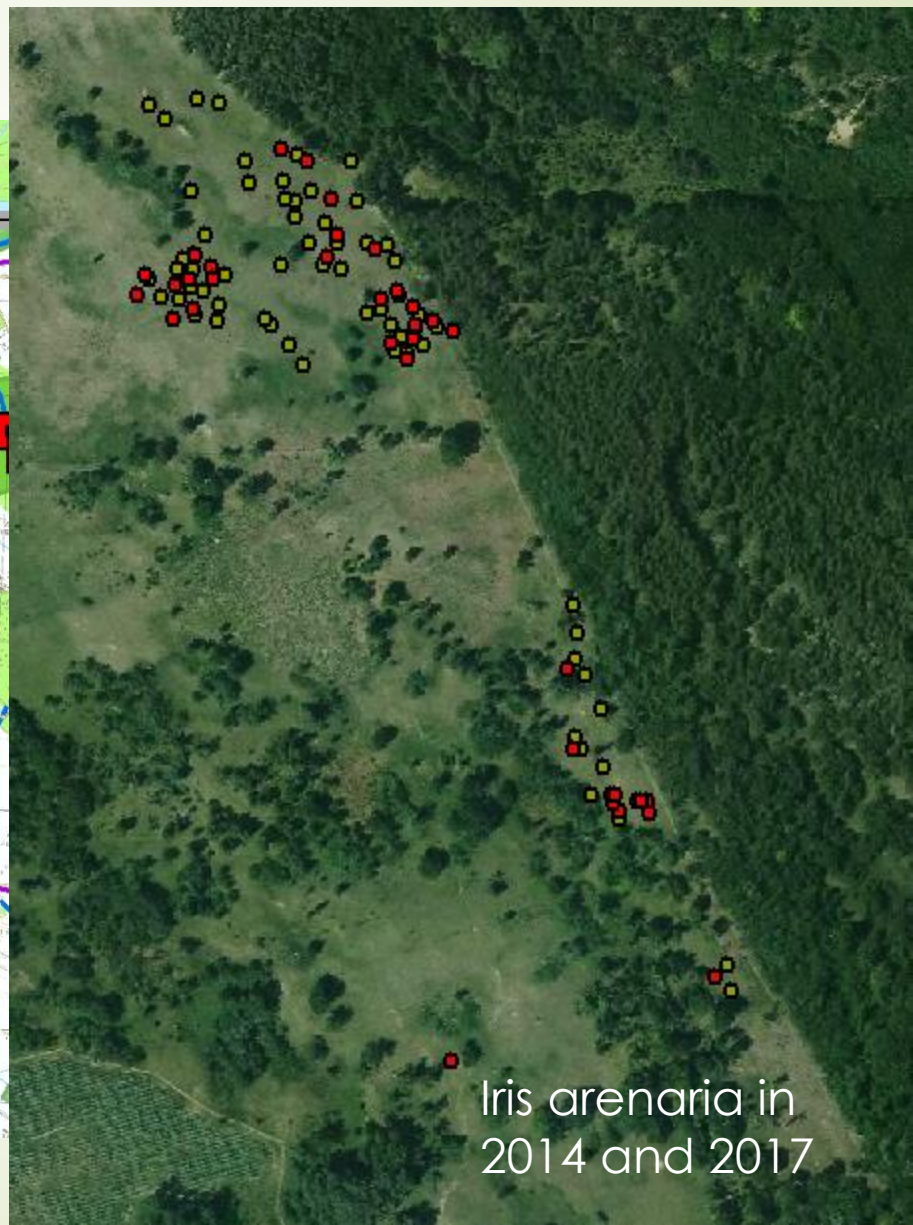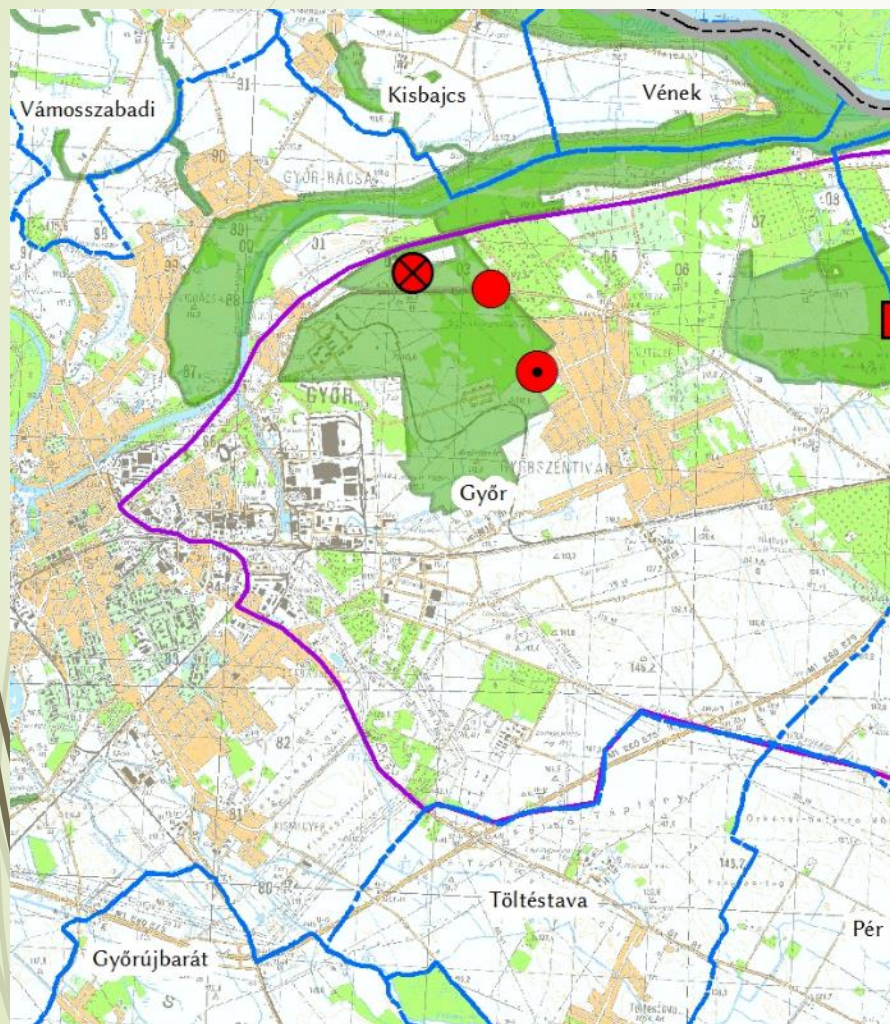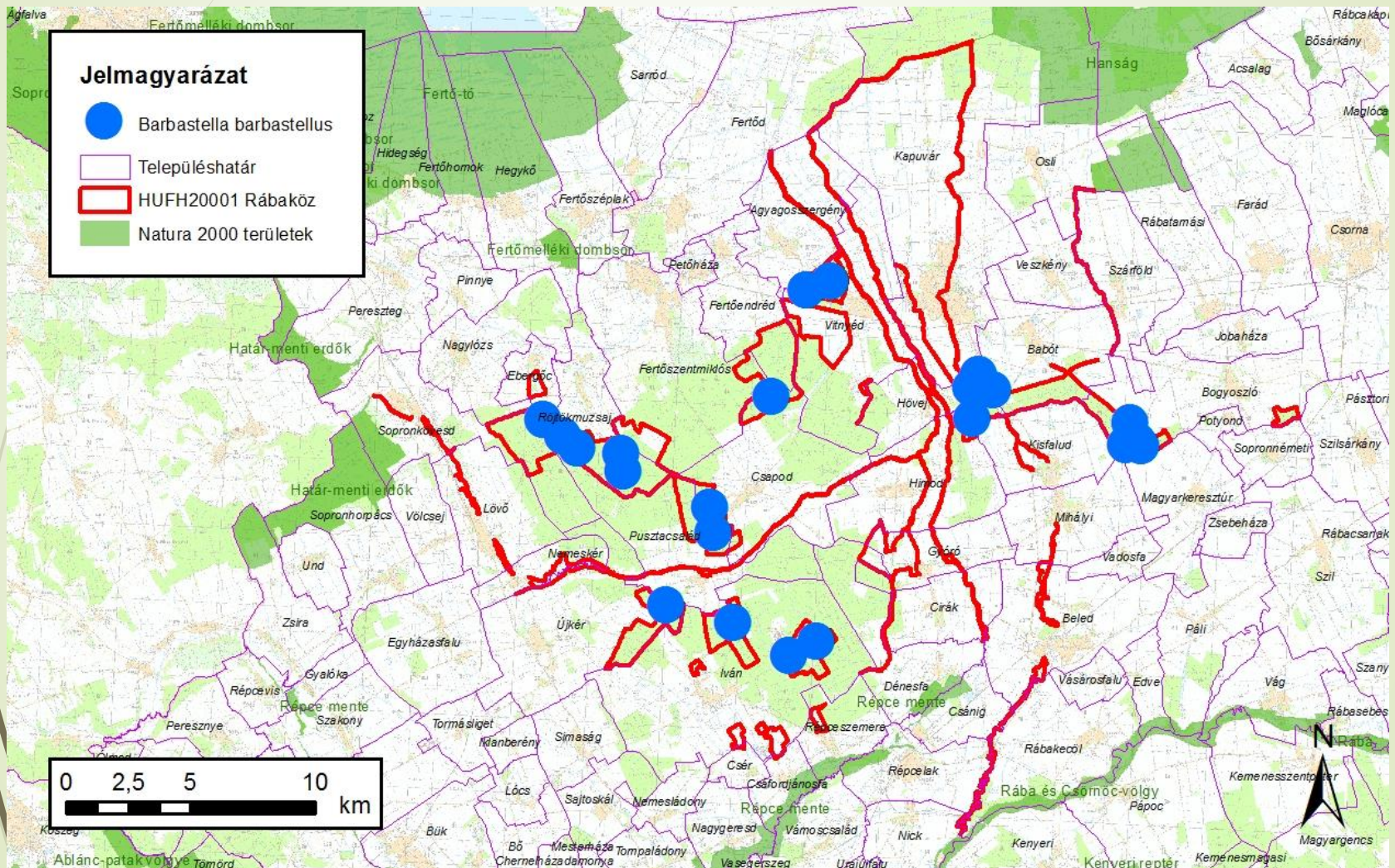

Iris arenaria in 2014 and 2017

Monitoring in our national park - Chiroptera

- We had scattered data only from building until 2008
- We exam the populations in forrest from 2010
- Acustical methods combined with nesting
- We can measure only the activities and no the population size

Barbastella barbastellus

Fishes and macroinvertebrates

- We had a lot of faunistical data before 2004
- There are two levels, but same methods:
  - National points
  - Local points
- Representative sessions

Legend

🟢 Sample points for macrozoobenton (Local level in HUFH20001)

🔴 Sample points for macrozoobenton (Country level)
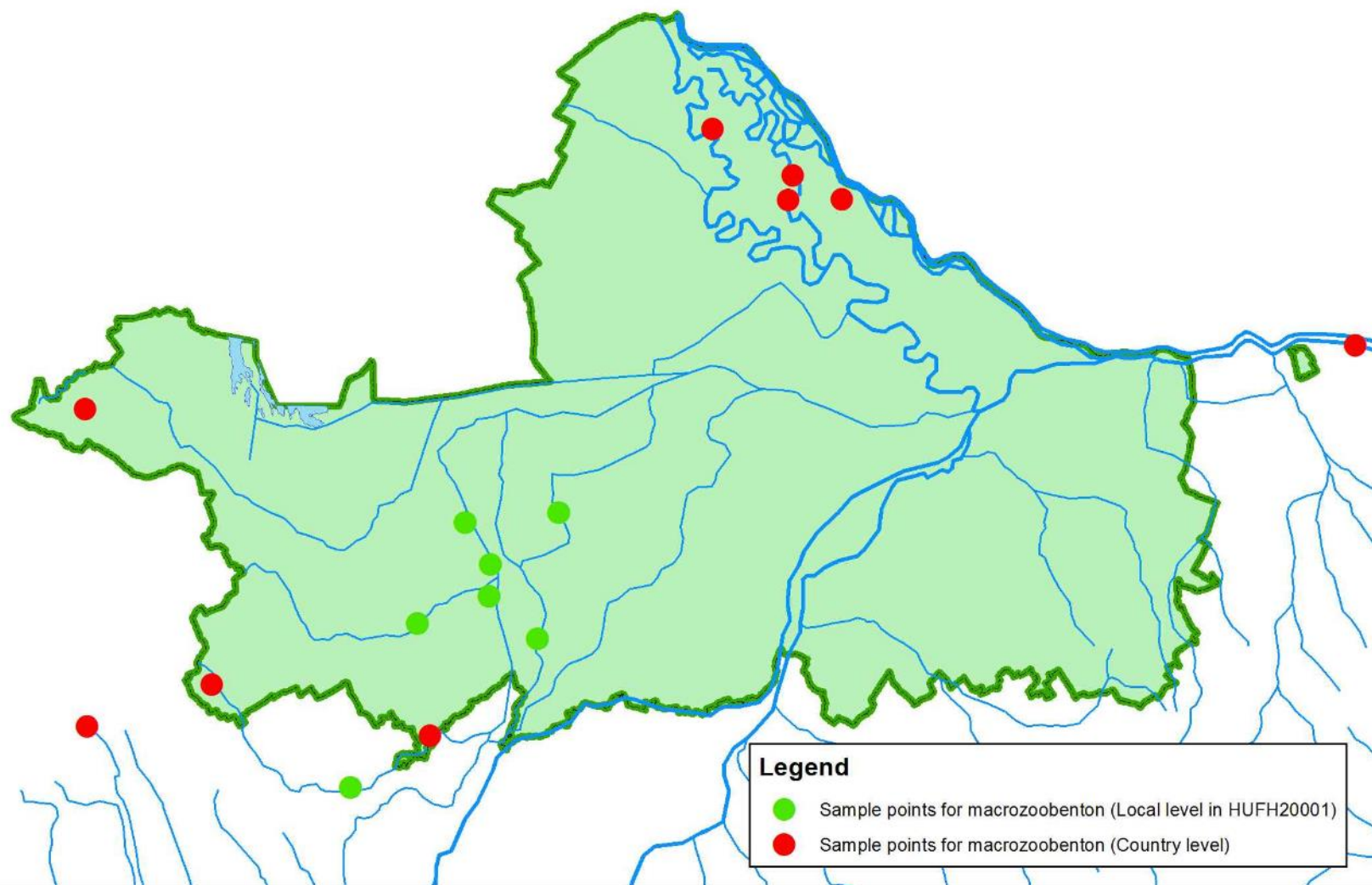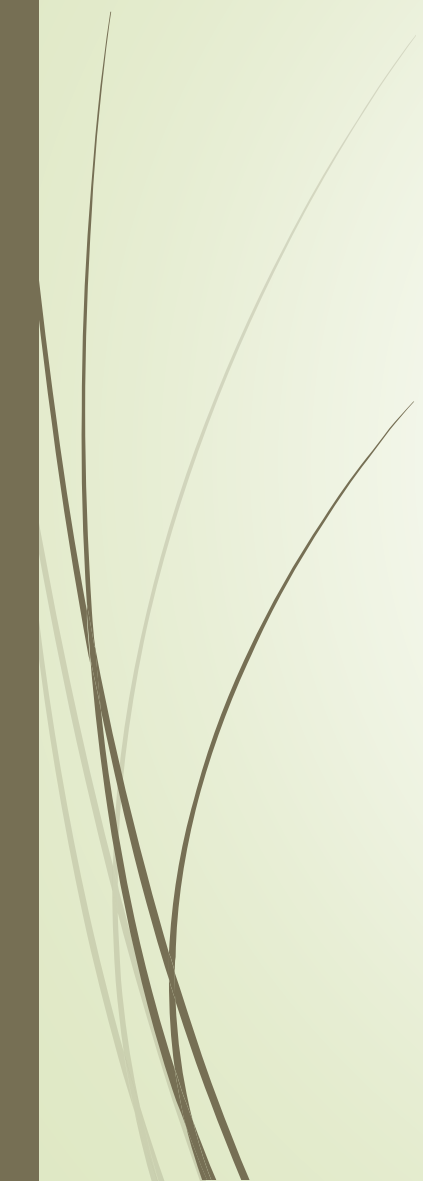
Monitoring in our national park – Insects

- Some taxons can be monitored well
- Lepidoptera, Carabus hungaricus, Isophya costata
- Permanent sample points or trasects, standard methods
- At some taxons we can exam only present/not present

Monitoring in our national park - Mollusca

- We did't have exact data before 2010

- Faunistical research started from 2010 – mainly for Natura 2000 species (Unio crassus, Anisus vorticulus stc.)

- Now we sum up the results and try to set the permanent plots
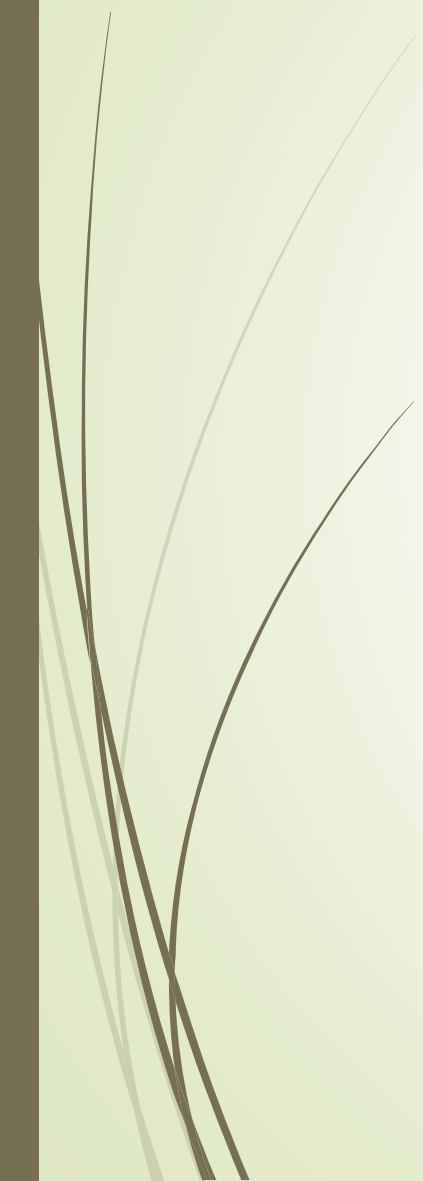
Special examinations

- We have to exam
    - the effects of our restoration projects
    - the effects of agricultural subsidies
    - The effects of water management and forestry
- Feedback for conservationists and decision-makers

Public data collections

- We don't have enough money and researcher to exam every species and population
- We try to involve the local people to monitoring at frequent species
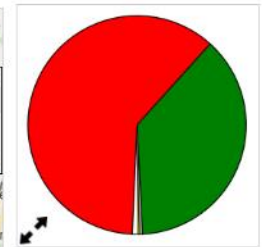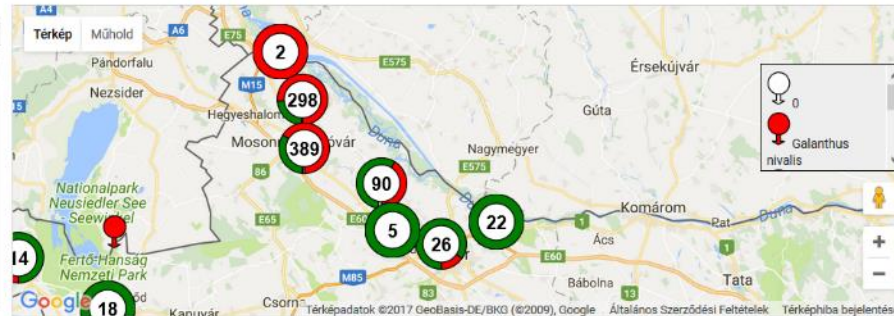
- Collect data with mobile phone
- Some species (ex. Galanthus)

Summary

- The main problems
  - Incalculable financing
  - Lack of goog experts
- The future?
  - Professionals: for qualitative and quantitative data – monitoring system
  - Amateurs: at some frequent and simple taxon - to determine the range

Thank you for your attention!