FÖLDMŰVELÉSÜGYI MINISZTÉRIUM

EURÓPAI BIZOTTSÁG

Opportunities of implementing the EU Regulation on combating invasive alien species in Hungary

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DEPARTMENT OF NATURE CONSERVATION

REGULATION (EU) No 1143/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species

Preambulum:	Objectives
Chapter I.: General provisions	Subject matter, scope, definitions, List of invasive alien species of Union concern, Risk assessment
Chapter II. : Prevention	Restrictions, Permits, Authorisations, Emergency measures,Action plans on pathways, lists of regional and MS concern
Chapter III.: Early detection and rapid eradication	Surveillance system,Official controls, Early detection notifications,Rapid eradication at an early stage of invasion, derogations
Chapter IV.: Management of IAS that are widely spread	Management measures,Restoration of the damaged ecosystems
Chapter V.: Horizontal provisions	Cost recovery, Cooperation and coordination
Chapter VI.: Final provisions	Reporting and review, information support system, public participation etc.

high diversity of tasks

Implementation of EU regulation

- Legal harmonisation
  - transposition into national legislation and implementation of the EU regulation's provisions
  - designation of competent authorities
  - analysis of the existing institutional systems, and their adaptation to the new challenges, including embedding into national legislation
- Species list of EU concern, regional lists, national list
- Collect the relevant information, establish the system of information exchange
- Establish the Hungarian surveillance (early detection) system
- Communication, public awareness-raising

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IAS in national law before transposition, existing provisions

- Hungarian legislation does not contain a comprehensive and dedicated law against invasive alien species
- Different regulations and restrictions related to several IAS were included in sectorial Acts and Decrees:
  - Sectorial Acts
    - e.g. Nature Conservation, Fish Farming and Protection on Fish
  - Regulations setting out rules concerning subsidies:
    - e.g. energy plantation, Natura 2000 grasslands, Ecological Focus Areas – permanent grasslands
  - Some specific regulations:
    - e.g. Governmental Decree on the protection of arboreal plants

The most important sectorial laws which contain regulations dealing with IAS

- Act. No. LIII. of 1996 on Nature Conservation
  - Article 13 (4). Preliminary authorisation of the Minister of Rural Development is needed to introduce any non-native living organism or to reintroduce any living organism to Hungary, except in the specified case in paragraph (2).
  - Article 14. It is prohibited to introduce any non-native fish species into natural or semi-natural waters, or to transfer such a species from fish farms into any other wetland.
- Act 53/1995 on the General Rules of Environmental Protection;
- Act 55/1996 on the Protection of Game, Game Management and Hunting;
- Act 37/2009 on Forests and the Protection of Forests during 2009;
- Act 102/2013 on Fish Farming and the Protection of Fish;
- Act 154/1997 on Public Health;
- Act 46/2008 on the Foodchain and its supervising authorities.

Regulations setting out rules concerning subsidies (some examples)

- Ministerial Decree 45/2007 (11 June) of the Ministry of Agriculture and Rural Development which lays down detailed rules regarding the establishment of energy plantation of arboreal species: in particular, Article 2 (4) establishes that introduction of *Robinia pseudoacacia* must not be authorised for planting in protected natural areas and non-protected Natura 2000 sites.
- Ministerial Decree 72/2007 (VI. 27.) sets out rules for obtaining EAFRD subsidy for the establishment of short rotation bioenergy plantation of woody plant species. Applicants are required to have all necessary permits from the authorities (e.g. permission of nature conservation authorities if the plantation is situated in a protected area and/or Natura 2000 site), which determines among others the selection of species applied.
- Ministerial Decree 71/2007 (VI. 27.) sets out rules for obtaining EAFRD subsidy for the establishment of perennial herbaceous energy plantation. Article 4 (8) establishes that the applicant has to prevent (localise) the spontaneous spread of individuals from plantations of the genera Agropyron, Elytrigia or Miscanthus.

The Rural Development Agency (operating under supervision of the Ministry of Rural Development) is responsible for monitoring and carries out 'on-the-spot' controls.

Specific regulations containing lists of the relevant invasive species (some examples)

- 346/2008 (XII. 30.) Governmental Decree on the protection of arboreal plants listing 6 arboreal IAS (*Robinia pseudoacacia, Fraxinus americana, Ailanthus altissima, Amorpha fruticosa, Prunus serotina, Acer negundo* except their cultivars) which are prohibited to plant in public places;

- 269/2007 (X. 18.) Governmental Decree on land use prescriptions of the Natura 2000 grassland areas listing 9 arboreal and 6 non-arboreal IAS (*Robinia pseudoacacia, Fraxinus americana, Ailanthus altissima, Elaeagnus angustifolia, Pinus nigra, Pinus silvestris, Amorpha fruticosa, Prunus serotina, Acer negundo, Phytolacca americana, Fallopia spp., Solidago canadensis, Solidago gigantea, Ambrosia artemisiifolia, Asclepias syriaca, Echinocystis lobata*), against whose spread and settling farmers have to take preventive measures.

Legal harmonization of EU regulation

- Hungarian legislation does not contain a comprehensive and dedicated law against invasive alien species.
- Different regulations and restrictions related to several IAS were included in sectorial Acts and Decrees.

- To fulfil the requirements further legislation process and modifications of existing law are required on the level of acts, governmental decrees and ministerial decrees

- The task is complex as it concerns different sectors and their legal system

  Two phases:
  - On the level of acts and governmental decrees – main regulations, empowerment
  - Ministerial decrees and ordinances – detailed regulation

- The Ministry of Agriculture has drafted the main proposals for amendment that will soon be submitted to the Government and subsequently to the Parliament.

Proposals for amending acts

Amending acts: Nature conservation, Fish arming and the protection of fish, Foodchain and its supervising authorities, The recognition of plant varieties, and on the production and marketing of planting materials

Establishment of the main regulations concerning IAS:

- Definitions, empowering provisions
- Procedure of elaborating and endorsement of various species lists,
- Establishment of the legal basis of issuing permits and obligations
- Establishment of the system of derogation permits, exemptions and approvals
- Provisions relevant to landowners,
- Foundations of the sanction system

Proposed Government Decree and amendment to an existing decree

- Government Decree on the prevention and management of the introduction and spread of invasive alien species
- Amendment to an existing decree on the designation of authorities and administrative bodies in the field of environment and nature conservation

Establishment of the main regulations concerning IAS:

- Designation of competent authorities and co-operating authorities.
- Regulations on authoritative procedures and on the roles, competencies and co-operation of different authorities.
- Regulations on communication, public and stakeholder involvement as well as information exchange.
- Regulations on the extent and imposition of sanctions.

Ministerial decrees

- Self-standing ministerial decree on the national list of IAS of MS concern, and on the regulations pertaining to them.

- In addition, the amendment of certain sectorial ministerial decrees will also be necessary in order to harmonise all activities concerning IAS and to integrate the new regulations into the existing systems.

- Administrative fees, consultancy fees and laboratory costs also have to be laid down.

Authorities competent in IAS issues

- No new, independent authority will be established for IAS issues.
- The Regional Government Authorities (RGA) will be responsible for most authoritative tasks.
- Within the RGAs, the chief authority for IAS will be the Department for Environment and Nature Conservation.
- In addition, other departments of RGAs as well as a few other authorities will also have certain responsibilities for IAS, in line with their other competencies.

KORMÁNYHIVATALOK

Implementation of EU regulation

- Legal harmonisation
- Species list of EU concern, regional lists, national list
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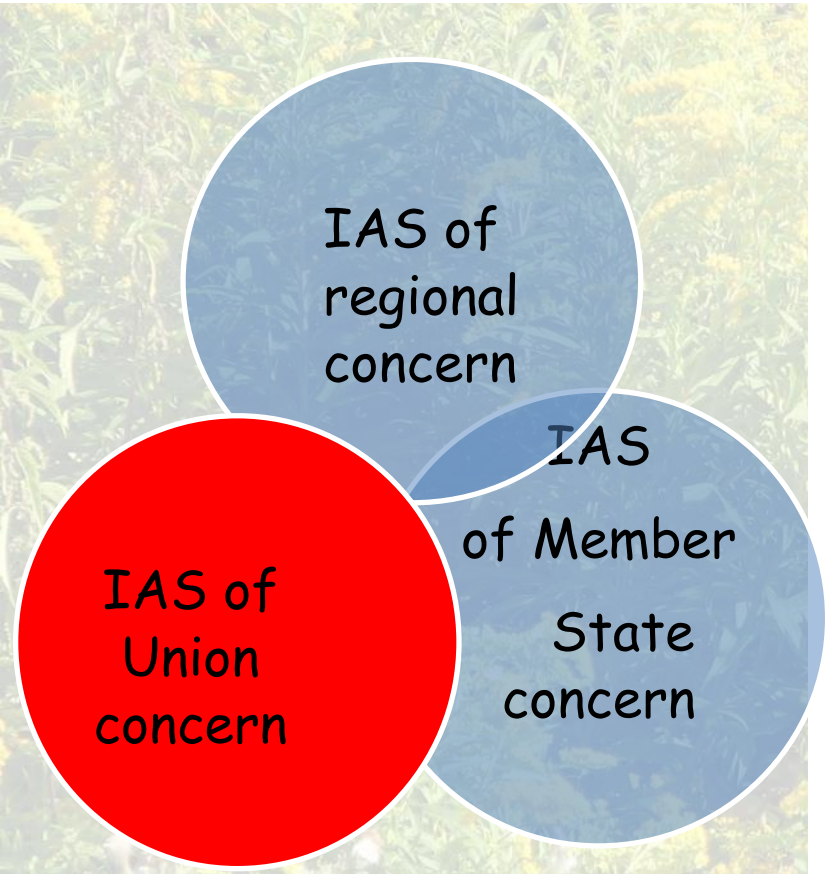
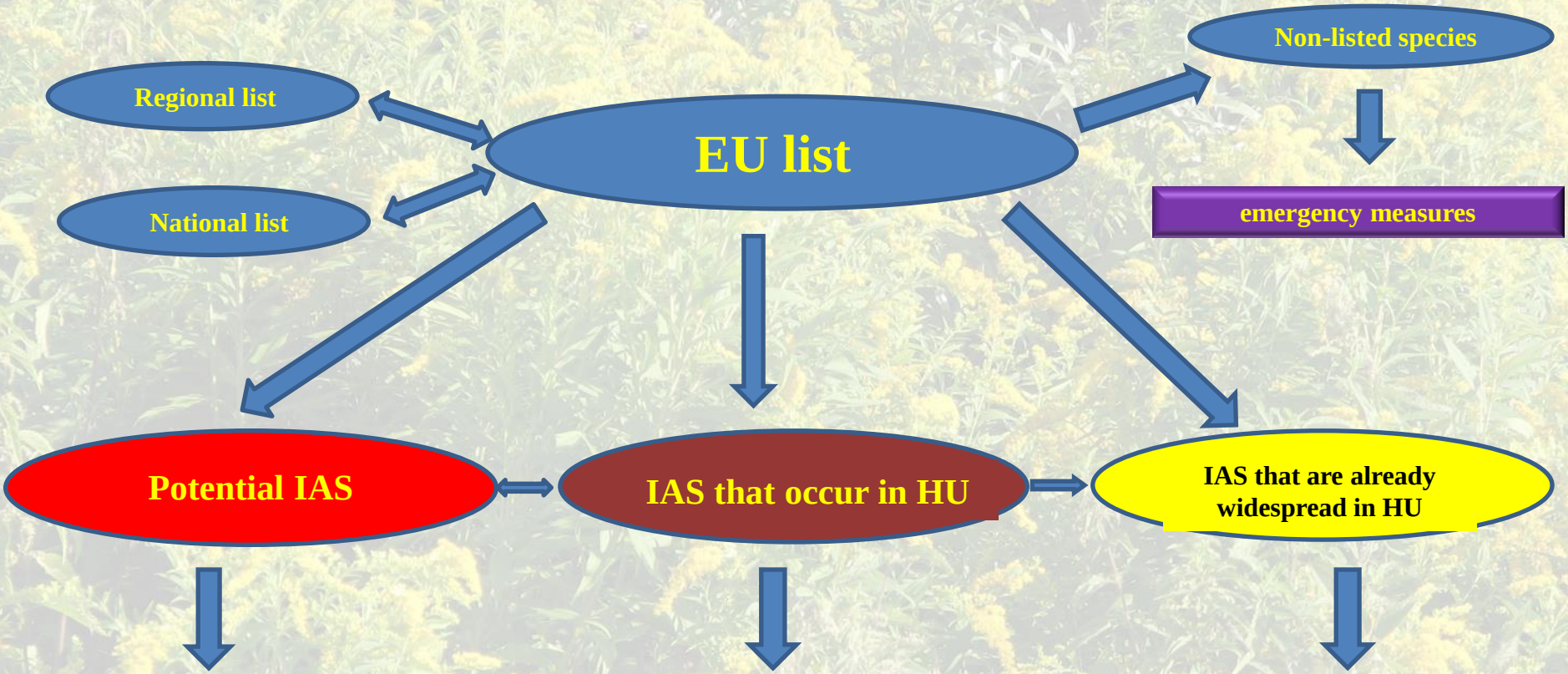
List of IAS of Union concern



- Dynamic list
- Based on standard criteria: alien, spreadable, negative effect on biodiversity, transboundary actions needed, listing helps control
- Risk assessment required
- Member States may propose species on the list
- Priority for not yet present or in early stage of invasion IAS and IAS with most significant adverse impact
- First Union concern list are under proclamation



IAS that do not occur in Hungary yet, but mean potential threat for nature in Hungary.
eg.: **kudzu vine (*Pueraria lobata*)**

- ✓ **First step: to prevent the introduction of the potential IAS**
- ✓ **Restrictions**
- ✓ **Early detection**
- ✓ **Explorations of the pathways**

IAS that occur in Hungary, but just in few populations.
eg: **Sosnowski's hogweed *(Heracleum sosnowkyi)***

- ✓ **Restrictions**
- ✓ **Early detection**
- ✓ **Rapid eradication**
- ✓ **Restoration of the damaged ecosystems**
- ✓ **Comprehensive analysis of the pathways**

IAS already widespread in Hungary.
eg.: **Carolina fanwort (*Cabomba caroliniana*)**

- ✓ **Restrictions**
- ✓ **Control, impact minimisation**
- ✓ **Restoration of the damaged ecosystems**
- ✓ **Comprehensive analysis of the pathways, elaboration of action plans**

Species on the list of EU concern and occur in Hungary

Magyar név/ Hungarian name	**Tudományos név/ Scientific name**	**Goup aquatic/terrestrial**
Borfa, tengerparti seprűcserje *	Baccharis halimifolia L.	terrestrial
Kaliforniai tündérhínár **	Cabomba caroliniana Gray	aquatic
Vízijácint *	Eichhornia crassipes (Martius) Solms	aquatic
Perzsa medvetalp	Heracleum persicum Fischer	terrestrial
Sosnowsky-medvetalp **	Heracleum sosnowskyi Mandenova	terrestrial
Hévízi gázló **	Hydrocotyle ranunculoides L. f.	aquatic
Fodros átokhínár **	Lagarosiphon major (Ridley) Moss	aquatic
Nagyvirágú tóalma *	Ludwigia grandiflora (Michx.) Greuter & Burdet	aquatic
Sárgavirágú tóalma **	Ludwigia peploides (Kunth) P.H. Raven	aquatic
Sárga lápbuzogány	Lysichiton americanus Hultén and St. John	terrestrial
Közönséges süllőhínár *	Myriophyllum aquaticum (Vell.) Verdc.	aquatic
Keserű hamisüröm	Parthenium hysterophorus L.	terrestrial
Ördögfarok keserűfű	Persicaria perfoliata (L.) H. Gross (Polygonum perfoliatum L.)	terrestrial
Kudzu nyílgyökér	Pueraria montana (Lour.) Merr. var. lobata (Willd.) (Pueraria lobata (Willd.) Ohwi)	terrestrial

**Known to occur in Hungary, but not in natural habitats*

*** Known to occur in Hungary even in natural habitats, at least occasionally*

Regional list

- Species of regional concern
- Regional action helps to prevent introduction
- Regional action, transboundary co-operation helps to control or manage IAS

- IAS will be discussed e.g. at the next V4 meeting

- Helps early detection
- IAS appearing in neighbouring countries = potential IAS in Hungary – increased attention

Elaboration of a future list of IAS of national concern

Several draft lists exist already, initiated by state nature conservation and elaborated by experts:

1999 Aggtelek NP – first draft list
2006 Volume on IAS plants in Hungary
termeszetvedelem.hu

National list(s)

- To be based on consensus with other sectors
- Focus on biodiversity protection, thus co-ordinated by state nature conservation

Different aspects e.g. type of distribution, risk, impact, cultivation

⇓

Several different list

⇓

With different measures

		Early detection /monitoring system	Forbid of the introduction/ cross-border trade	Control of the placing on the market/ restriction (e.g. species in EU raised, but in Hu dangerous)	Control of the trade/ restriction	Restriction of the reproduce	Restriction of the keeping	Tackle of the releasing/ intro-duction	Eradication	Population manage-ment	Research
EU	EU regulation list (among them are some potential and wide-spreaded IAS)	Including in existing systems	Prohibition	Prohibition	Prohibition	Prohibition	Prohibition	Prohibition	Compulsory rapid eradication of the new IAS	IAS wich widely spread, proportio-nate to their impact/ be based on an analysis of costs and benefits	Research or ex situ may be allowed with the terms in the article 8.
HUA	Potentially, not prensent yet	Include in existing systems	Prohibition	Prohibition	Prohibition	Prohibition	Prohibition	Prohibition	rapid eradication of the new IAS	-	Research or ex situ conservation may be allowed
	IAS in 1-2 localities	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	Same as above	-	Same as above
HUB	IAS that are already widely spreaded	include in existing systems	restriction/ prohibition?	restriction/ prohibition?	restriction/ prohibition?	prohibition?	prohibition?	prohibition?	-	Priority on protected areas	With permission for research?

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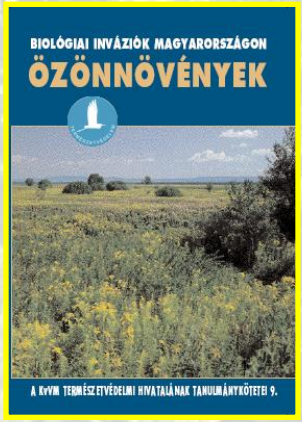
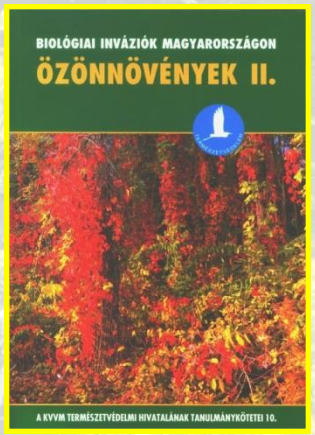
Collect the relevant information, establish the system of information exchange

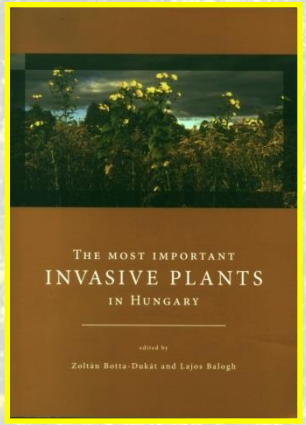
- Collection of publications, analysis of information on listed species
- Analysis of the results of data surveying programmes
- Gathering and systematisation of information collected in Monitoring Systems
- Creation of a database for practical management experience and project implementation

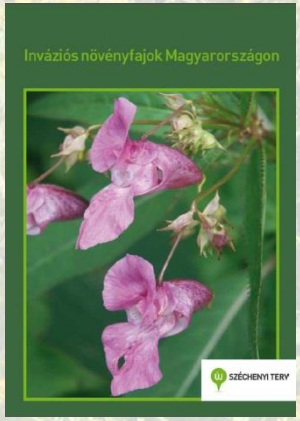
Publications

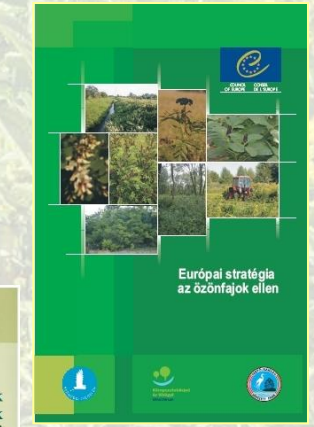
- Books on invasive alien plant species in Hungary:
  - chapters present the most important invasive plant species in Hungary
  - distribution data
- Practical management information
- Hungarian edition of the European Strategy on Invasive Alien Species











Examples
the most important publications

Balogh, L., Botta-Dukát, Z. (2008): The most important invasive plants in Hungary. Institute of Ecology and Botany of the Hungarian Academy of Sciences, Vácrátót. 255 pp.

Balogh, L., Dancza, I., Király, G. (2008): Preliminary report ont he grid-based mapping of invasive plants in Hungary. – In: Rabitsch, W., Essl, F., Klingenstein, F. (Eds.): Biological Invasions - from Ecology to Conservation. NEOBIOTA 7: 105-114.

Botta-Dukát, Z., Mihály, B. (2006): Biológiai inváziók Magyarországon. Özönnövények II (Biological invasions in Hungary, Invasive Plants II). A KVVM Természetvédelmi Hivatalának Tanulmánykötetei 10. TermészetBÚVÁR Alapítvány Kiadó, Budapest. 412 pp. (in Hungarian) http://www.termeszetvedelem.hu/_user/downloads/invazios_fajok/ozonnovenyek.pdf

Botta-Dukát, Z. (2009): Invasion of alien species to Hungarian (semi-)natural habitats. – Acta Botanica Hungarica 50(1): 219-227.

Csiszár, Á. (szerk) (2012): Inváziós növényfajok Magyarországon, Nyugat-magyarországi Egyetem, Kiadó, 364 pp.

Genovesi, P. , Shine, C. (2007): Európai stratégia az özönfajok ellen (European strategy on invasive alien species, Nature and environment, No. 137 Council of Europe), Hungarian edition. Directorate of the Fertő-Hanság National Park and Ministry of Environment and Water. 58 pp.

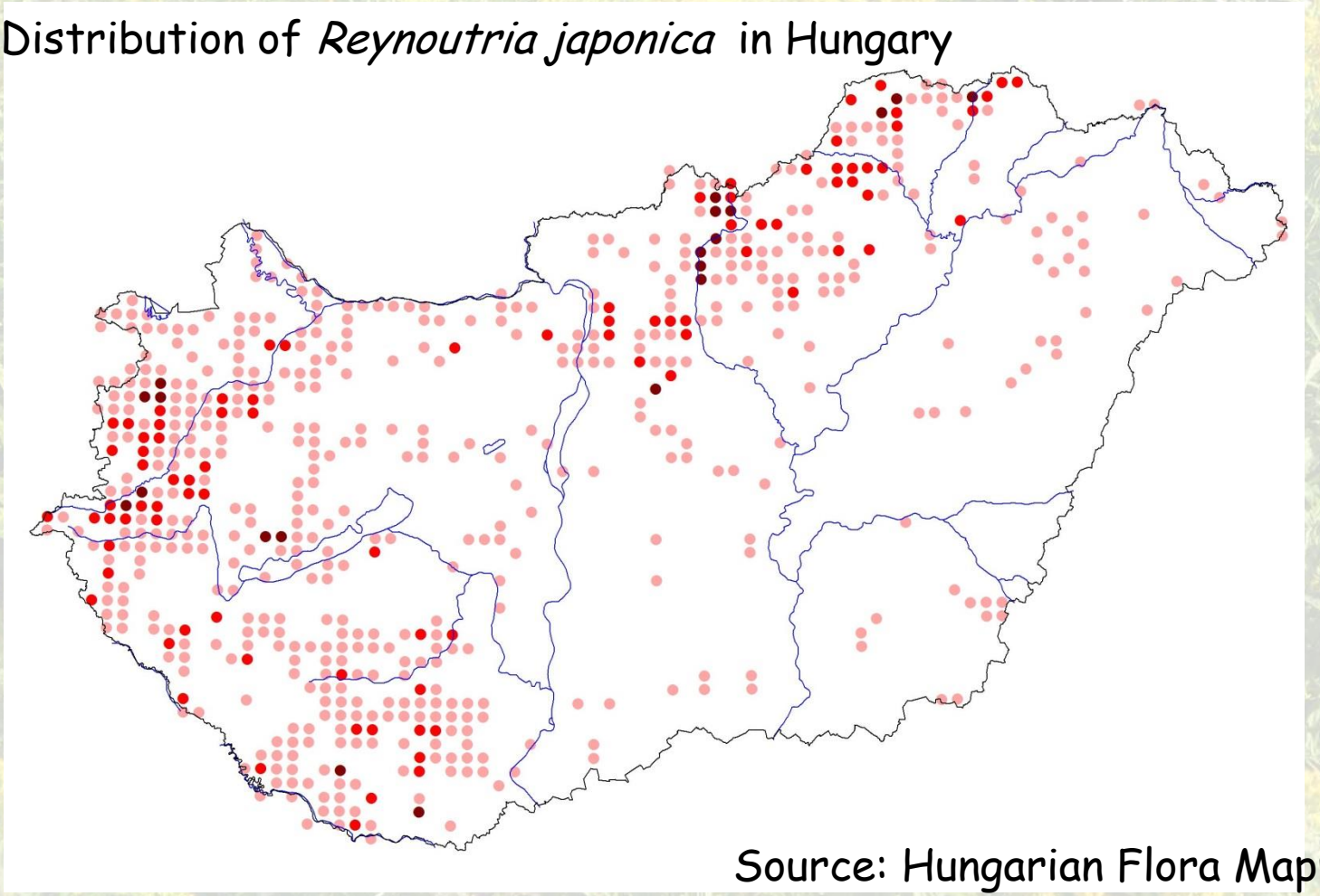
Király, G., Steták D., Bányász D. (2008): Spread of invasive macrophytes in Hungary. – In: Rabitsch, W., Essl, F., Klingenstein, F. (Eds.): Biological Invasions - from Ecology to Conservation. NEOBIOTA 7: 123-130.

Mihály, B., Botta-Dukát, Z., (eds.) (2004): Biológiai inváziók Magyarországon. Özönnövények (Biological invasions in Hungary, Invasive plants). A KVVM Természetvédelmi Hivatalának Tanulmánykötetei 9. TermészetBÚVÁR Alapítvány Kiadó, Budapest. 408 pp. (in Hungarian) http://www.termeszetvedelem.hu/_user/downloads/invazios_fajok/%F6z%F6nn%F6v%202.pdf

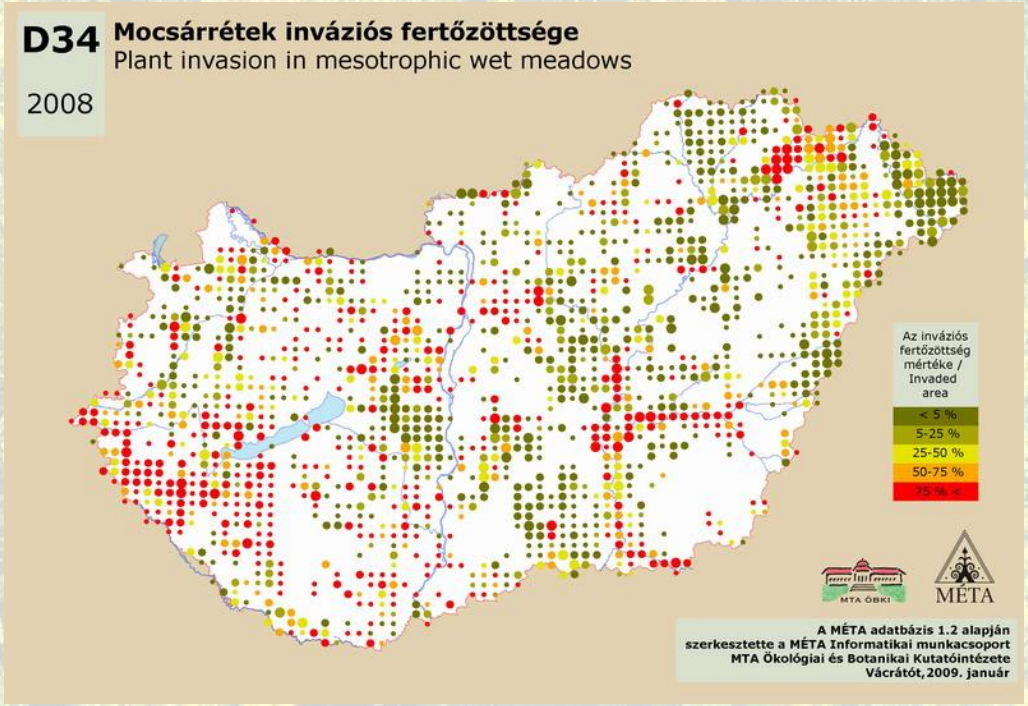
Csiszár Ágnes és Korda Márton (szerk.) (2015): Özönnövények visszaszorításának gyakorlati tapasztalatai. Rosalia kézikönyvek 3. – Duna–Ipoly Nemzeti Park Igazgatóság, Budapest, 239 pp.

Analyses of results of data surveying programmes

Distribution of *Reynoutria japonica* in Hungary



Source: Hungarian Flora Mapping Programme – West Hungarian University



Source: MÉTA- MTA ÖK

Plant invasion in mesotrofic wet meadows

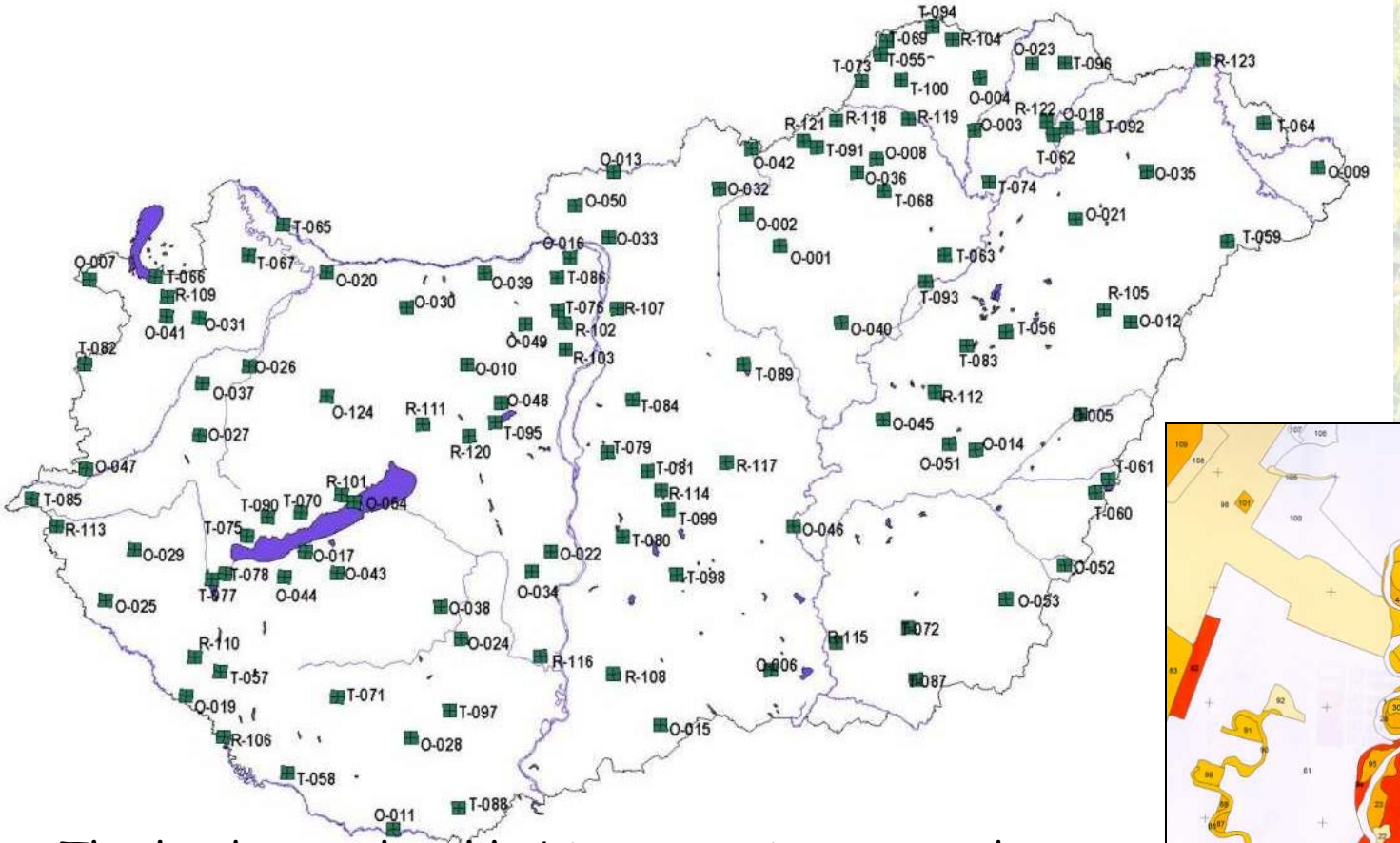
D34 - Colline and lowland eu- and mesotrophic meadows:

One-third of its area is threatened by plant invasion. Stands in the south-western part of the country and along the Tisza river are the most highly endangered. Although many alien species can occur in this habitat, the most important ones are goldenrod species (Solidago spp.) and false indigo (Amorpha fruticosa). The former prefers the more humid climate, while the latter is most abundant along the Tisza river.

Hungarian Biodiversity Monitoring System

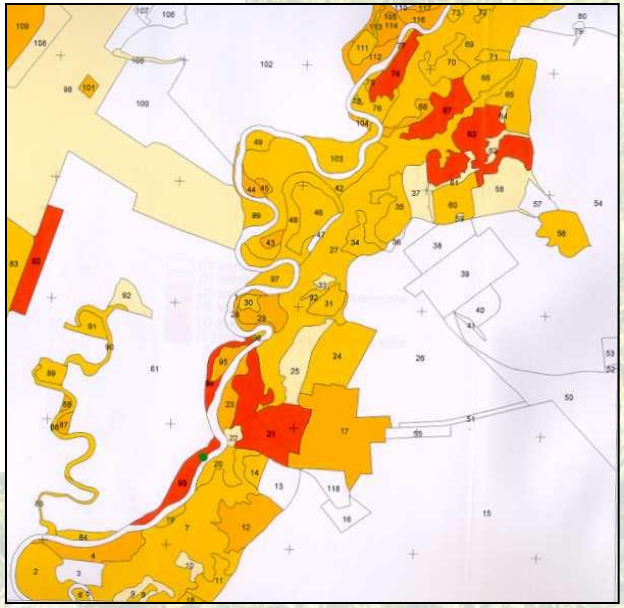
Monitoring activities have been organised into **11 projects** as follows:

I. Monitoring of protected and threatened species
II. Monitoring of wetland habitats and their communities
III. Surveying, mapping and monitoring of habitat types in Hungary
IV. Monitoring of invasive species
V. Monitoring of forest reserves and managed deciduous woodlands
VI. Monitoring of plant and animal species in the Kis-Balaton
VII. Monitoring of wildlife communities of the River Dráva
VIII. Monitoring of saline habitats
IX. Monitoring of dry grasslands
X. Monitoring of montane meadows
XI. Monitoring of species and habitats of community importance (Natura 2000)



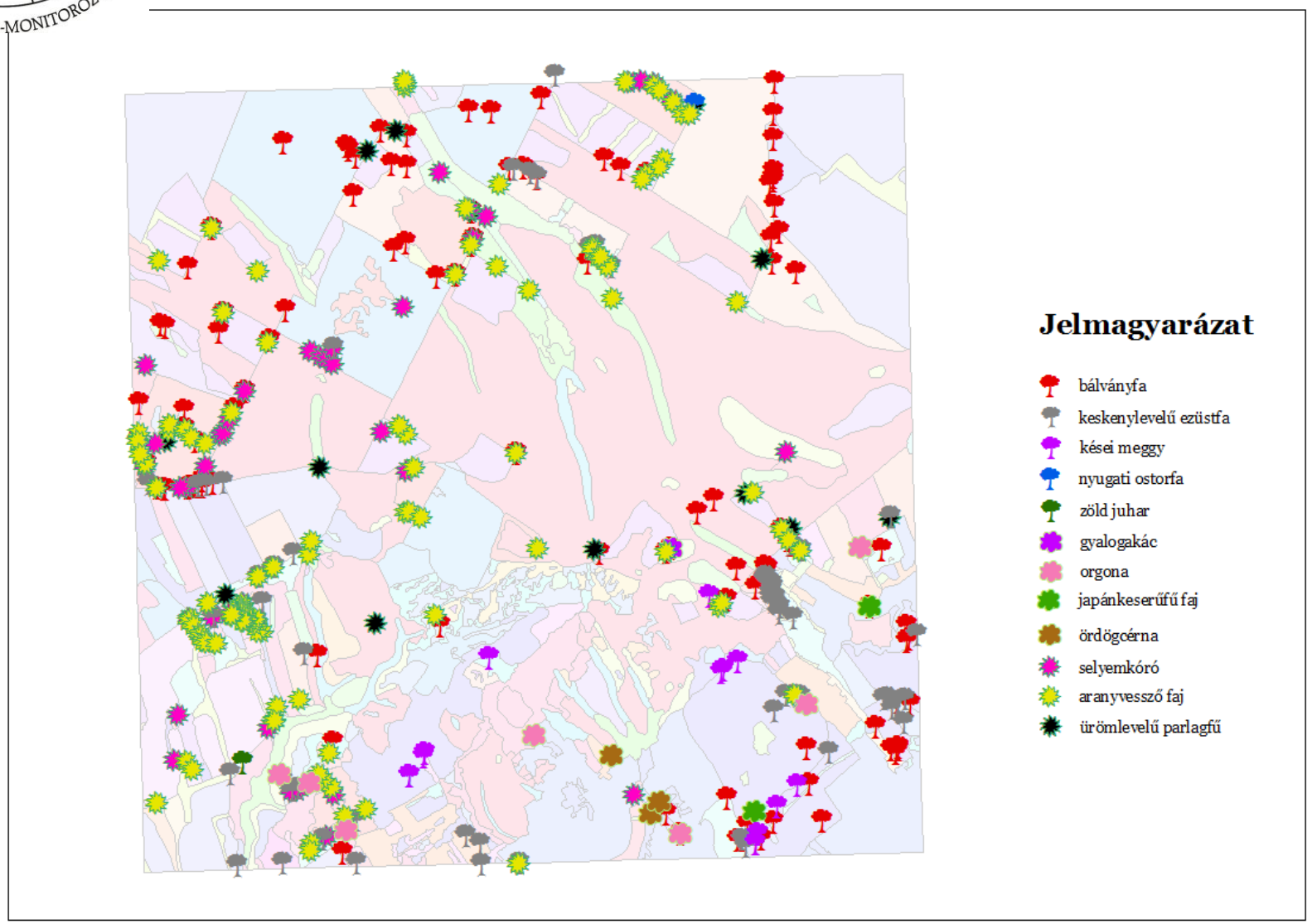
The landscape-level habitat mapping started in 1998 within the framework of HBMS, 125 sample areas of 5X5 km were designed.

Mapping of 5 selected invasive species (*Ailanthus altissima, Aclepias syriaca, Amorpha fruticosa, Solidago canadensis, S. gigantea)* are carried out parallel with habitat mapping.

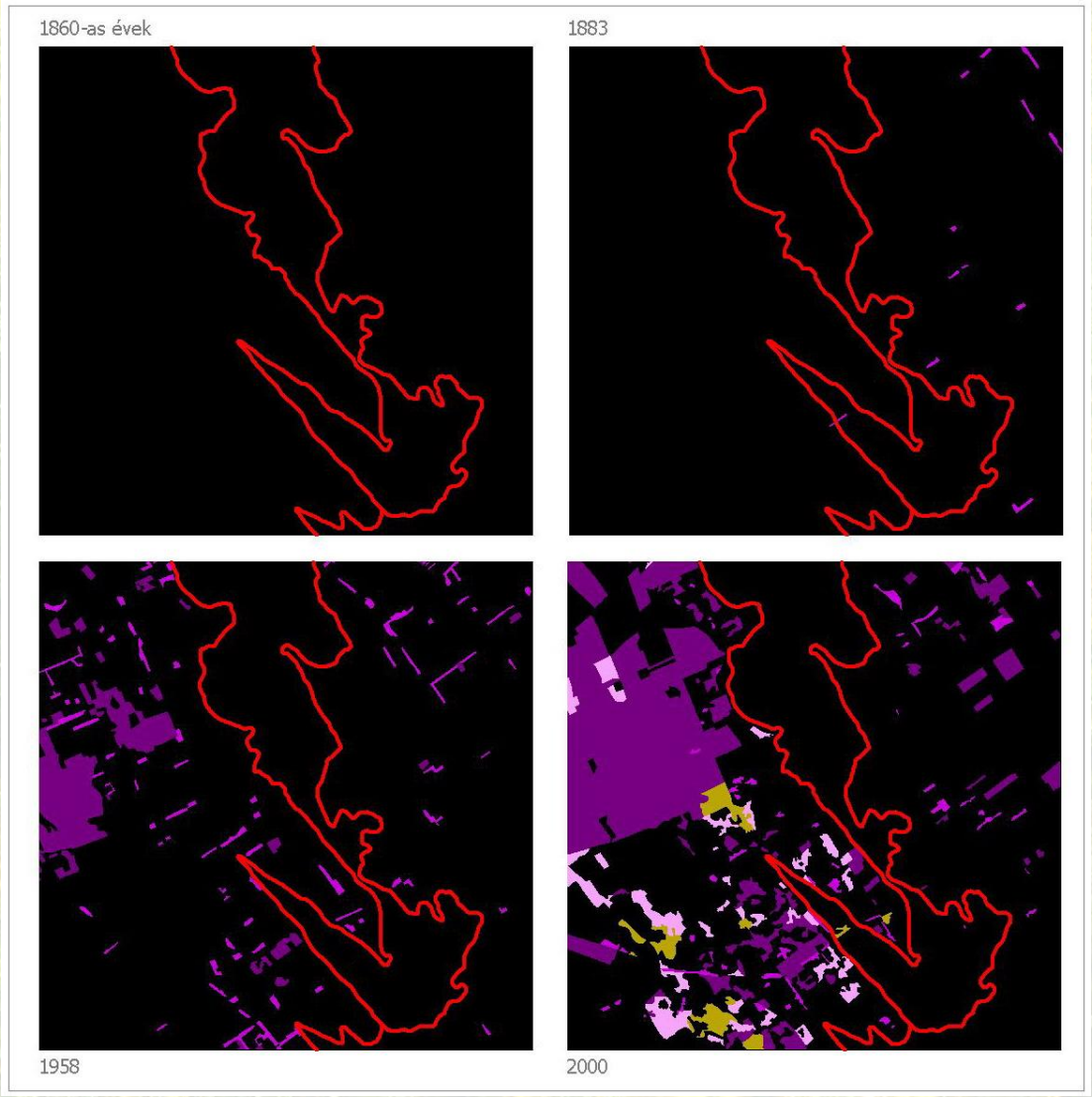


Density of *Solidago gigantea* in different habitat patches (in Alsódobsza)

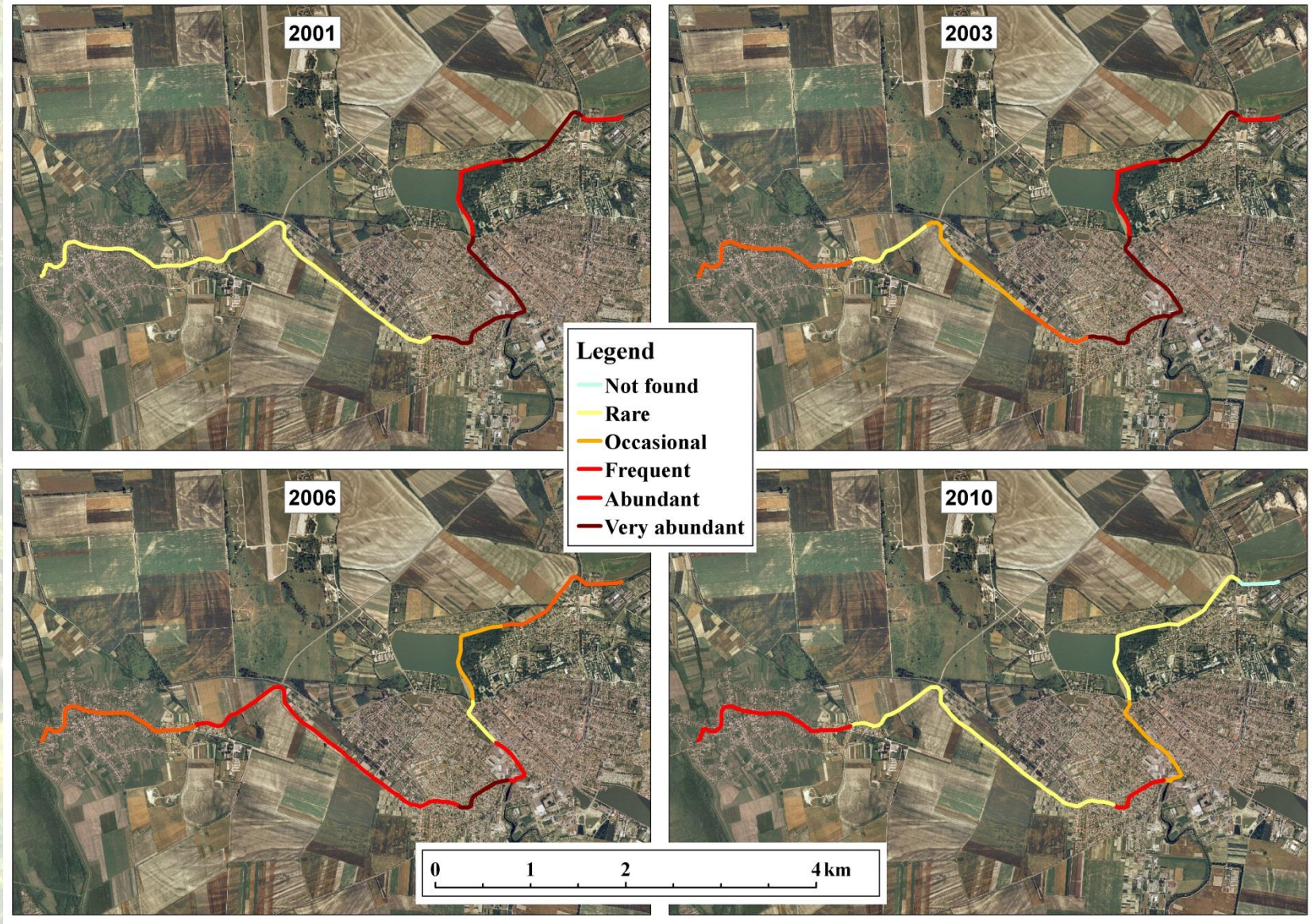
Point maps of invasive species in HBMS quadrats



Interpretation of historical maps (forrás: Molnár et al.)



Spread of *Cabomba caroliniana* 2001-2010



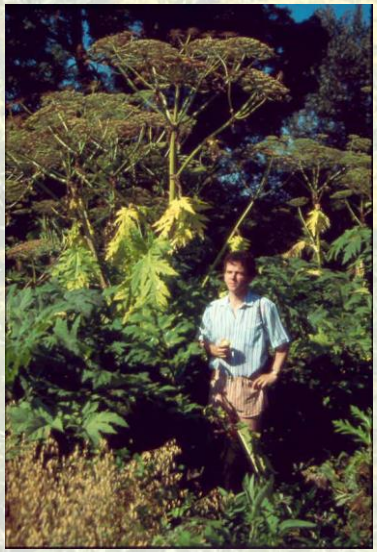
Collection of practical management experience

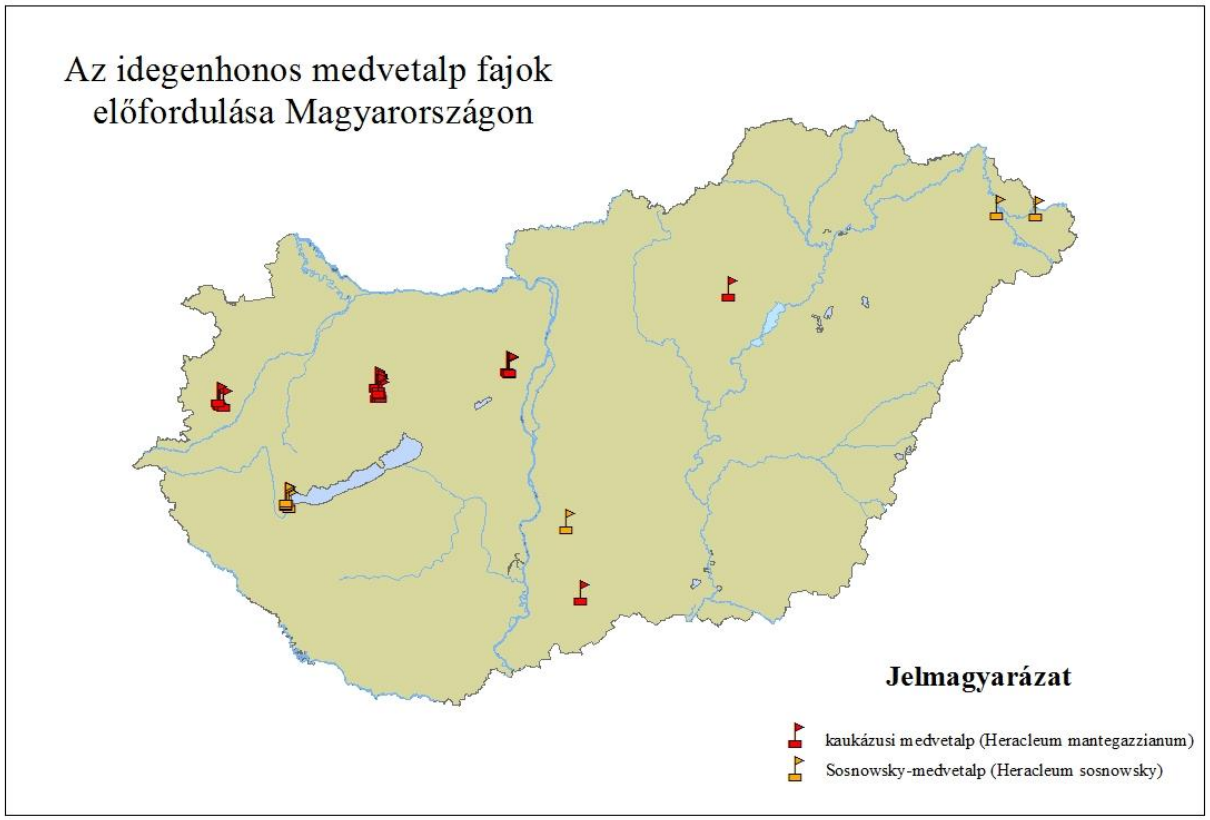
- Technological experiences
- The results of treatments
- Implemented projects (primarily in protected areas)

- Collection of publications, creation of databases
- Creation of a database on implemented projects (data acquisition has begun)

Proposed eradication actions

against *Heracleum* species





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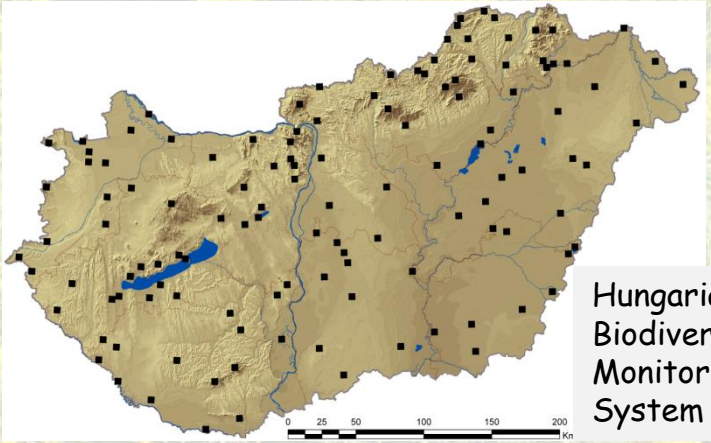
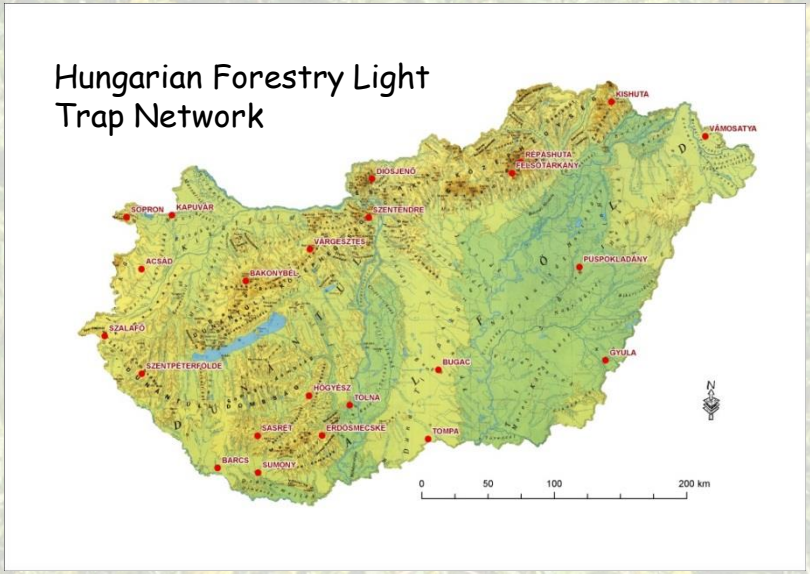
Existing monitoring systems in Hungary

- Hungarian Biodiversity Monitoring System
- Forestry Monitoring System, Hungarian Forestry Light Trap Network (forest health)
- Plant health, plant protection
- Ranger service
- Professional hunters
- Municipaly field guards
- Voluntery guards



Hungarian Biodiversity Monitoring System



Characteristics of the systems:

- Existing systems, with long-term operation in the past
- Based on legislation
- Many participants in the operation
- Countrywide surveys
- IAS are non-targeted species (except some occasion)
- Permanent presence on the field

The results of previous meeting suggest the co-operation in connection with IAS between existing surveillance systems.
The data gathering protocol may be completed with IAS
Collected data may also be analyzed regarding to IAS

To elaborate the details of co-operation is required!

Data collection has to be carried out on strict protocols integrated into existing protocols.
Determine is required:

- List of the species, on wich data will be collected
- Method of data collection
- The method of information flow

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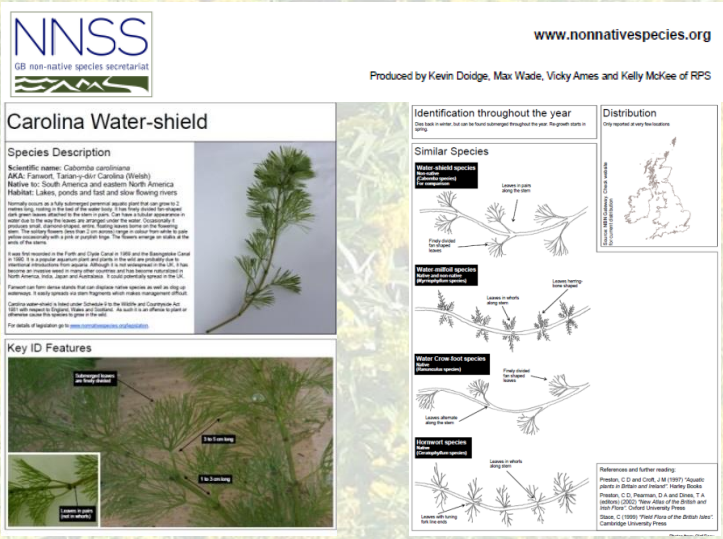
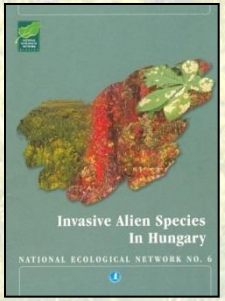
Public awareness

- information leaflets
- posters
- webpage

Forrás:





Collection and adaptation of best practices

Brief description of species

- The aim is to summerize of existing information
- distribution, biological features (morfological parameters, habitats, reproduction), impacts, practical management experiences

Identifying sheets

- The aim is to help identifying IAS
- Brief morphological description
- Photos, drawings focus on tipycal characteristics of species

Support the implementation of regulation

- Focusing on topic of IAS in ongoing programmes is essential
- Allocation of available sources
  - e.g. LIFE biodiversity (technology, communication)
- Ensure further sources

EU regulation in Hungarian:
http://www.termeszetvedelem.hu/_user/browser/File/IAS/IAS_rendelet_1143_2014_hivatalos_magyar.pdf

Information on activities, initiatives in connection with IAS:
http://www.termeszetvedelem.hu/ozonfajok-magyarorszagon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