

The indicative map of the Pan-European Ecological Network for Central and Eastern Europe

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Objectives of the project

- Develop an **indicative** map as a communication tool
- Further develop methodology for the Pan-European Ecological Network
- Integrate methodologies of national networks & int. designation instruments
- Compile existing data & information

Undertaken under the auspices of the
Committee for the development of the
PEEN

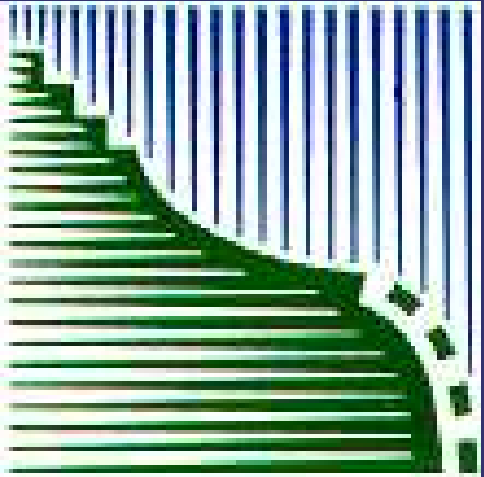


Project facts: Project team

- Scientific co-ordinator: J. Klijn (Alterra)
- R Butovsky (All-Russian Research Institute for Nature Protection)
- A. Dyduch Falniowska & S. Tworek (Institute of Nature Protection -Academy of Science)
- R. Jongman (Wageningen University)
- I. Lysenko (UNEP-WCMC)
- K. Remm & U. Mander (University of Tartu)
- S. Mucher & R. Reijnen (Alterra)
- A. Pickhaver (European Union for Coastal Conservation)
- S. van Opstal (Nature & Reference Centre)



Funders

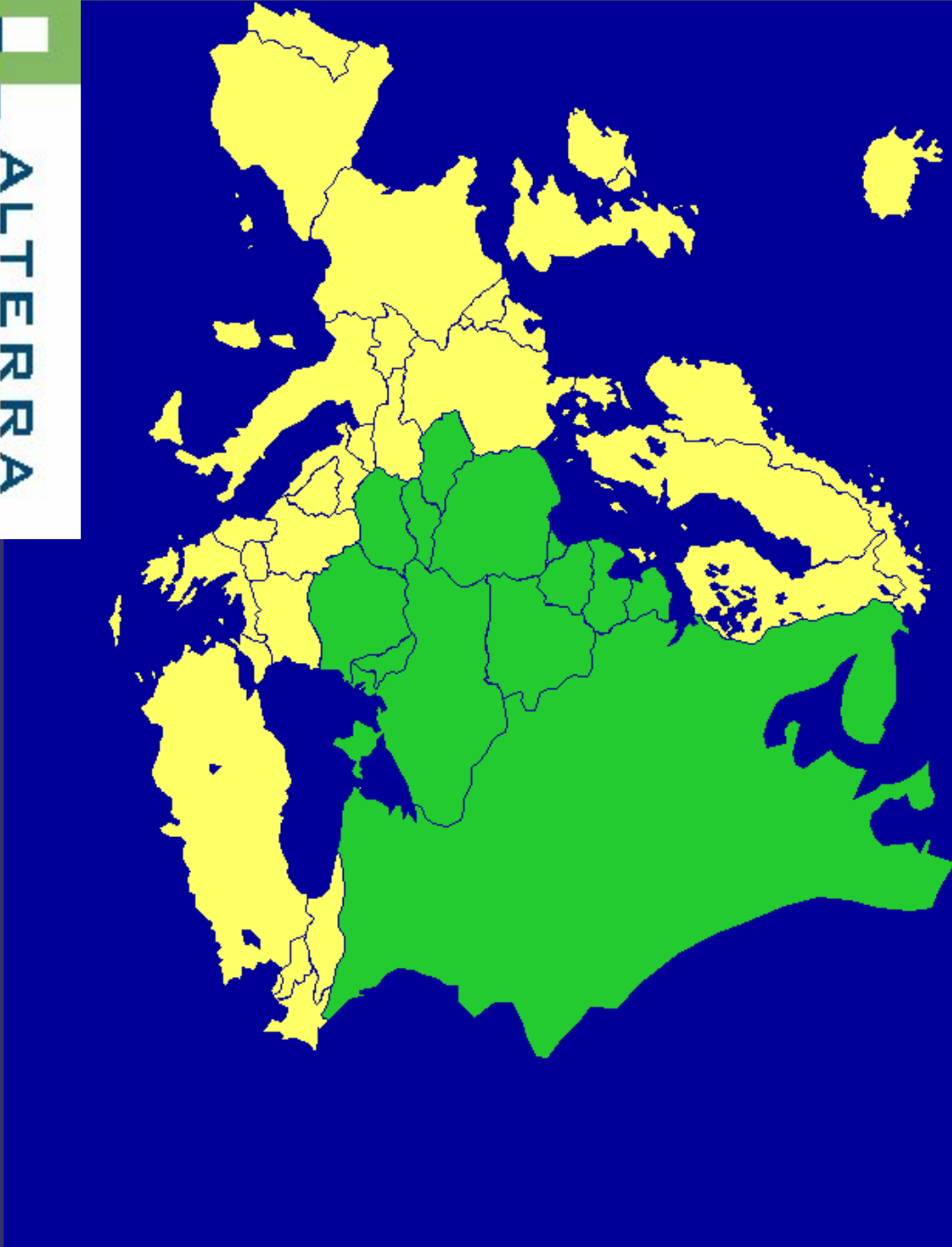


Ministry of the
Walloon region

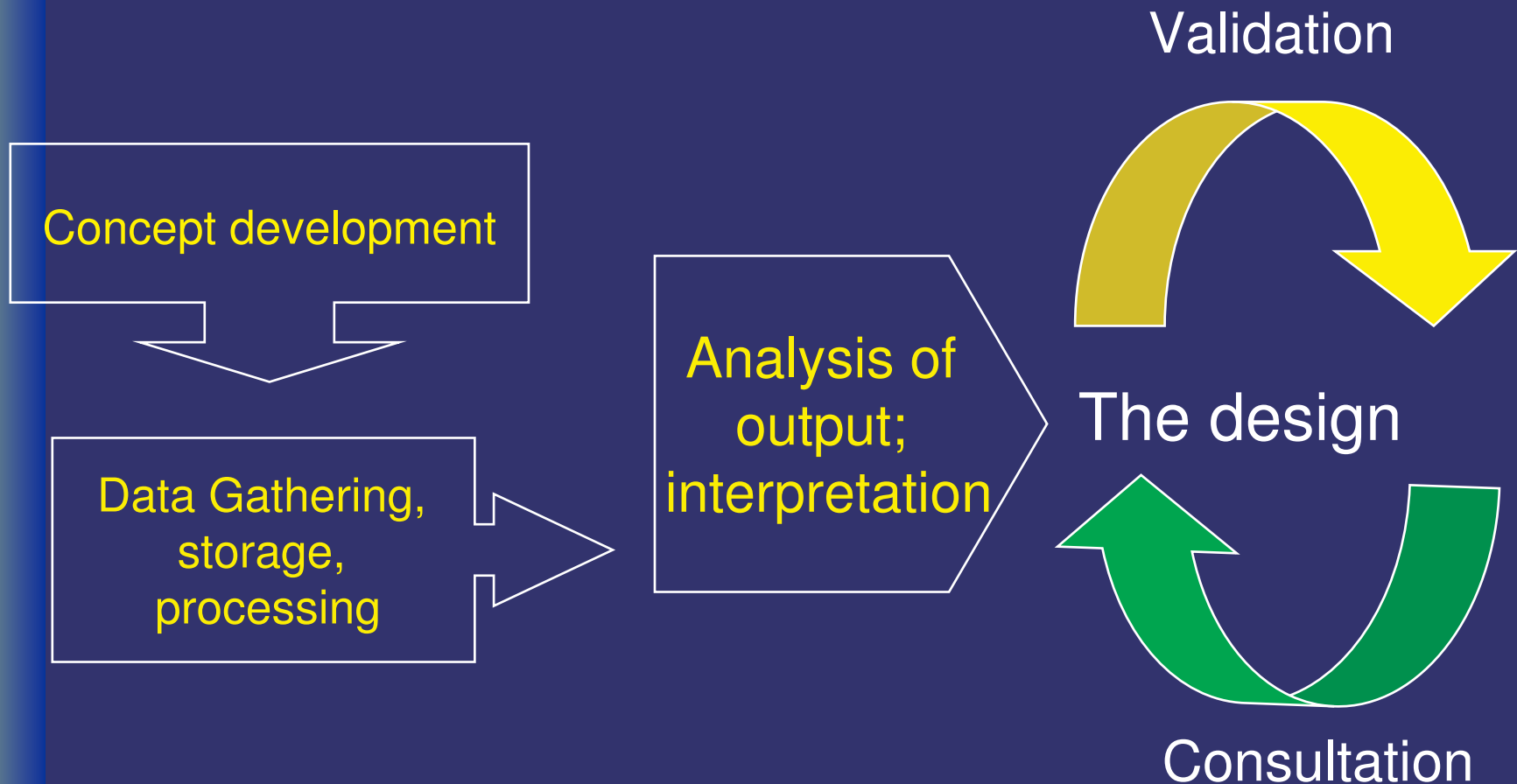


european centre for nature conservation

Area



Process of designing the Pan-European ecological network



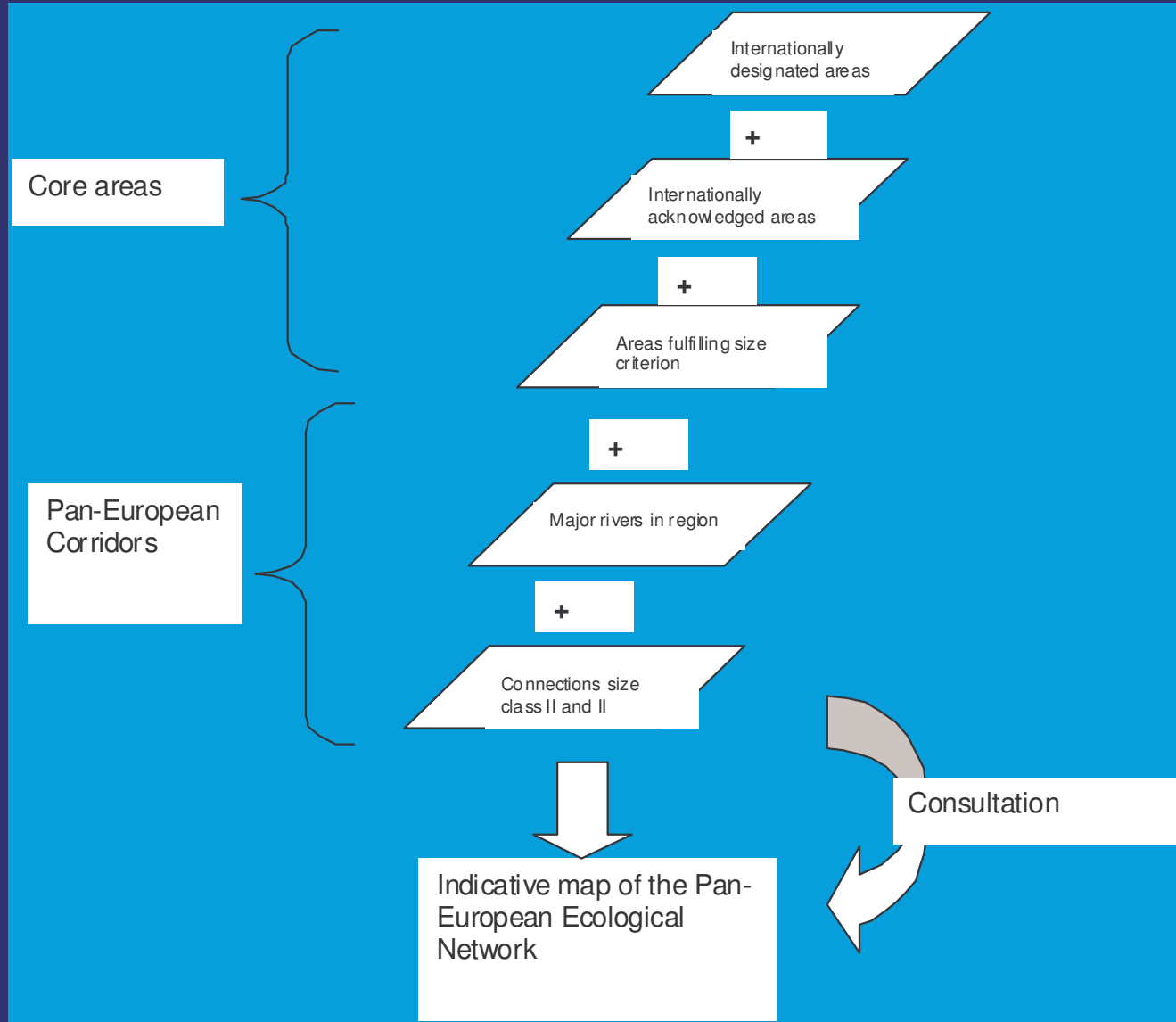
Concepts & definition

- Conservation of biodiversity
- Naturalness
- Connectivity

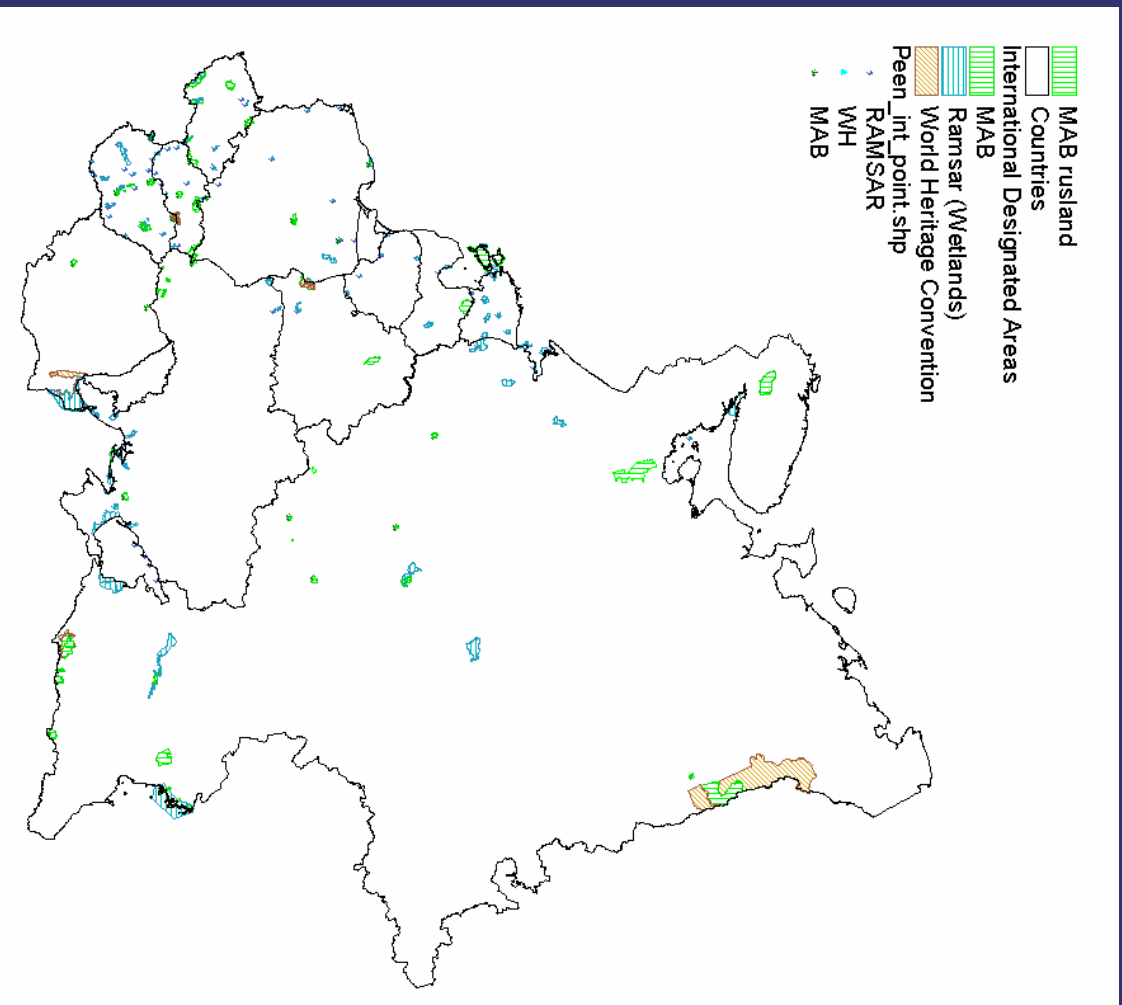
'To ensure that a full range of ecosystems, habitats, species and their genetic diversity and landscape of European importance are conserved; habitats are large enough to place species in a favourable conservation status; there are sufficient opportunities for dispersal and migration of species; damaged elements of the network are restored and the system is buffered from potential threats' (PEBLDS, 1995)



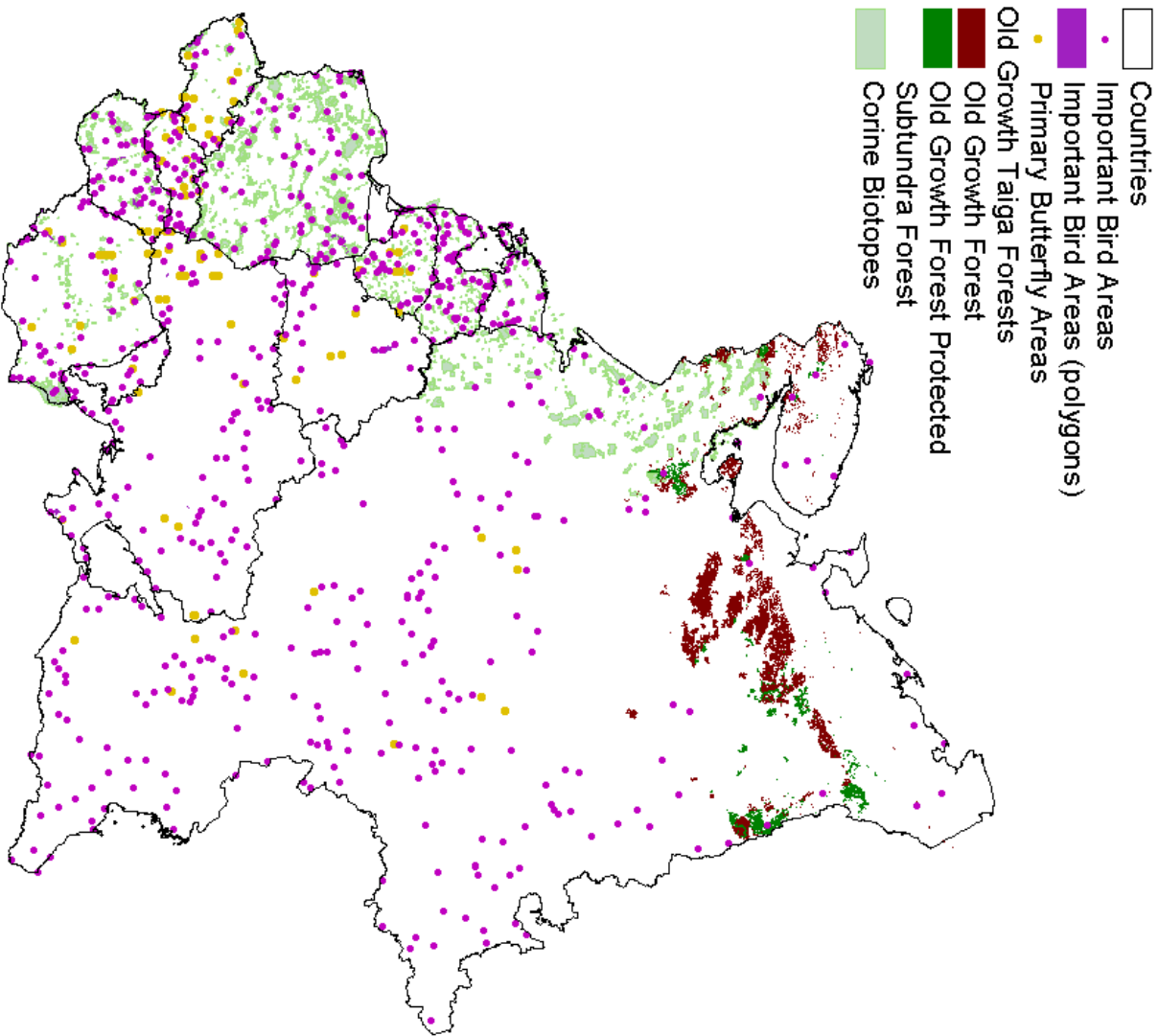
Methodology: basic lines of reasoning



Basic map 1: internationally designated sites



Basic map 2: internationally acknowledged sites



Basic map 2: Large non fragmented 'natural' habitat (complexes) that fulfil species demands

Step 1. Development of a habitat map for the entire region

Step 2. Linking indicator species to habitat types for each ecological region

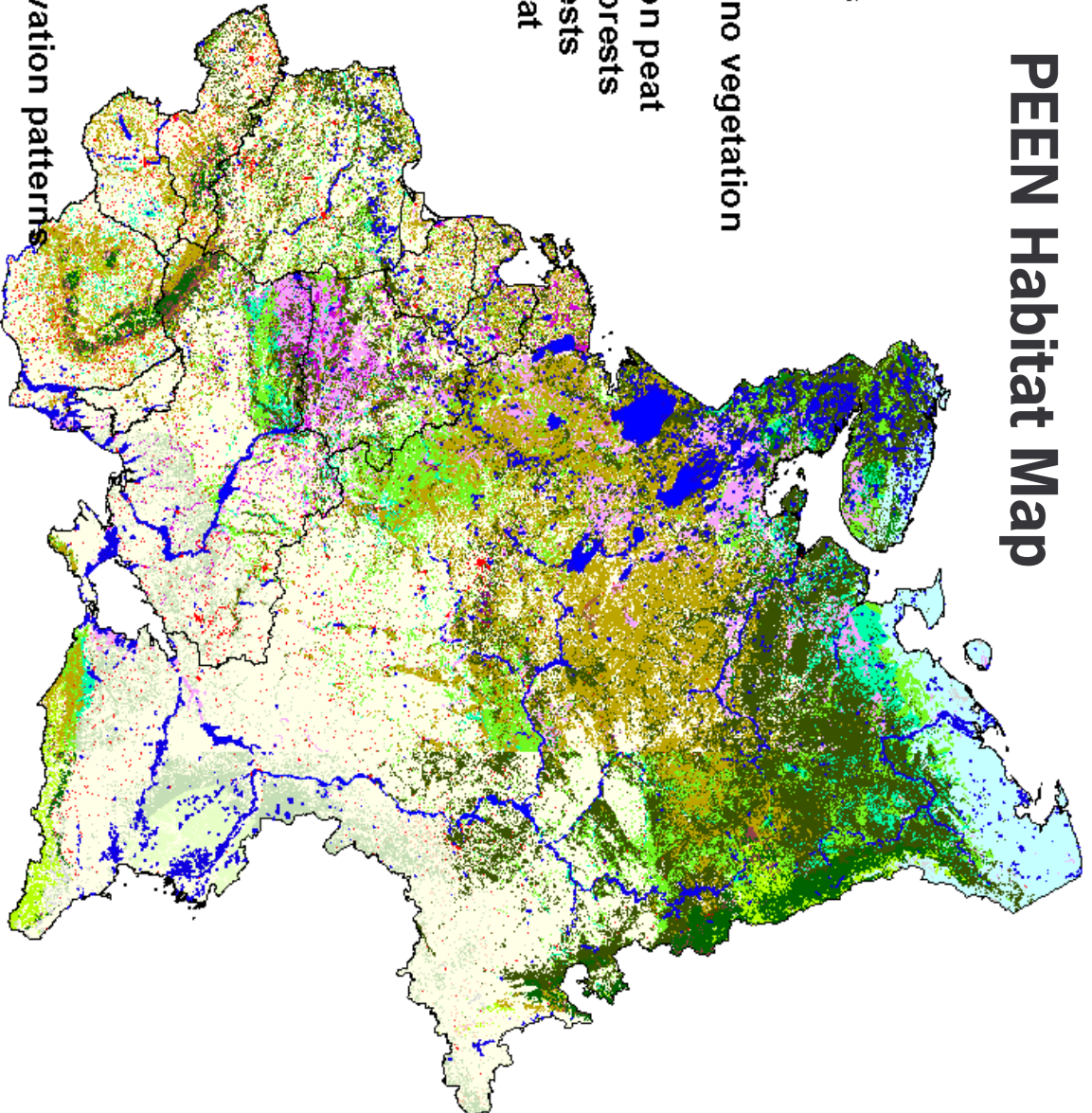
Step 3. Estimation of patch sites that support key populations of indicator species

Step 4. GIS analysis



PEEN Habitat Map

- Bogs, mires and fens
- Artificial constructions
- Inland water bodies
- Peat cuttings
- Salt marshes and salines
- Other wetlands
- Glaciers
- Open spces with little or no vegetation
- Mountain mixed forests
- Broad and mixed forest on peat
- Other broad and mixed forests
- Mountain coniferous forests
- Coniferous forests on peat
- Other coniferous forests
- Alpine scrubs
- Other scrubs
- Tundra
- Alpine grasslands
- Steppic grasslands
- Desert grasslands
- Moist grasslands
- Calcareous grasslands
- Other grasslands
- Permanent crops
- Fields and complex cultivation patterns



Linking habitats, species and patch sites that support key populations of indicator species

	Fens & bogs	Other wetland	Mountain mixed forest	Moist grasland
Gavia stellata	2	2		
Podiceps auritus		3		
Circus gyaneus	5	5		5
Lynx lynx			8	
Dryomys nitedula			2	

2 = 10- 50 km²

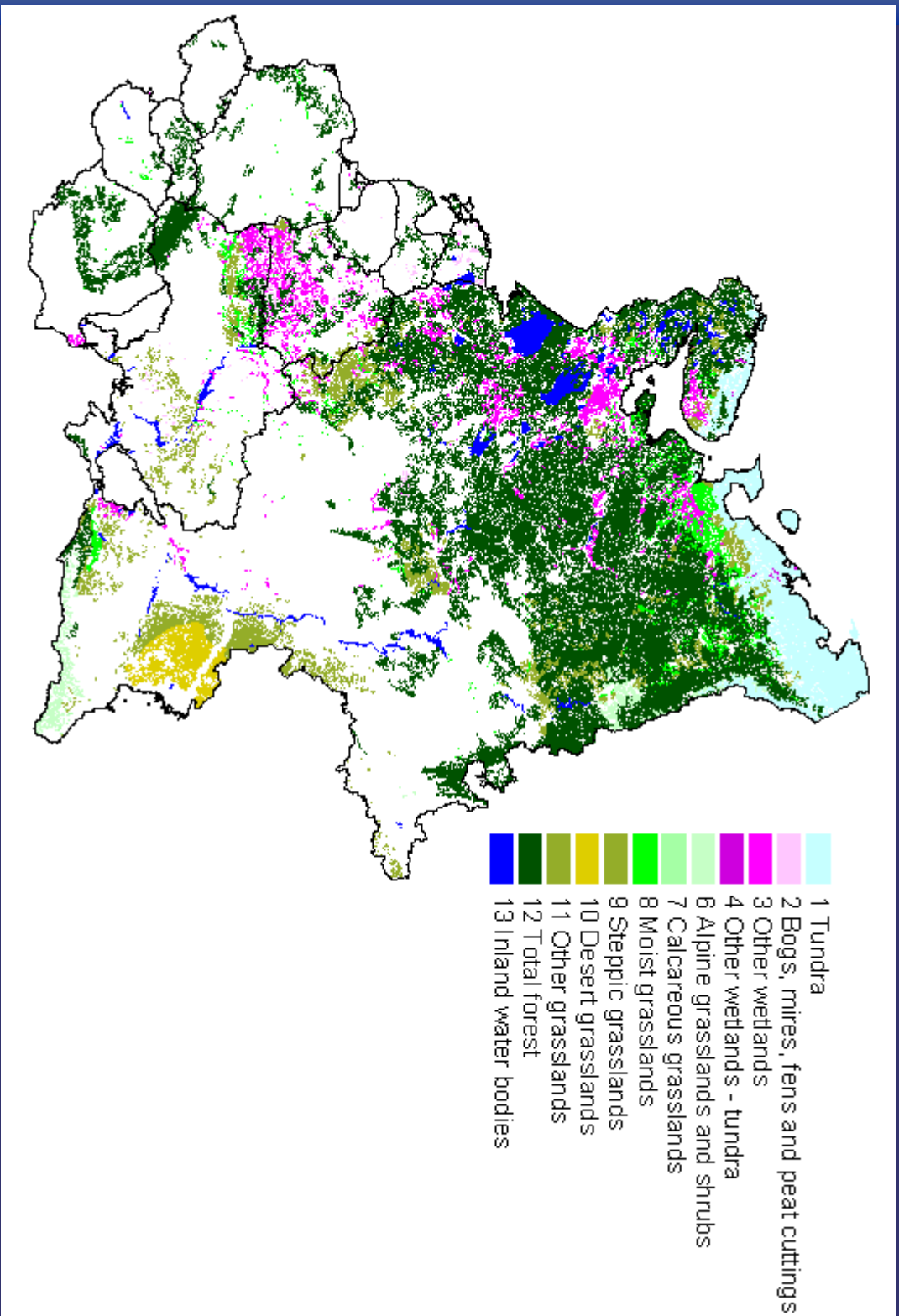
3 = 50-150 km²

5 = 300-600 km²

8 = > 2000 km²



GIS analysis



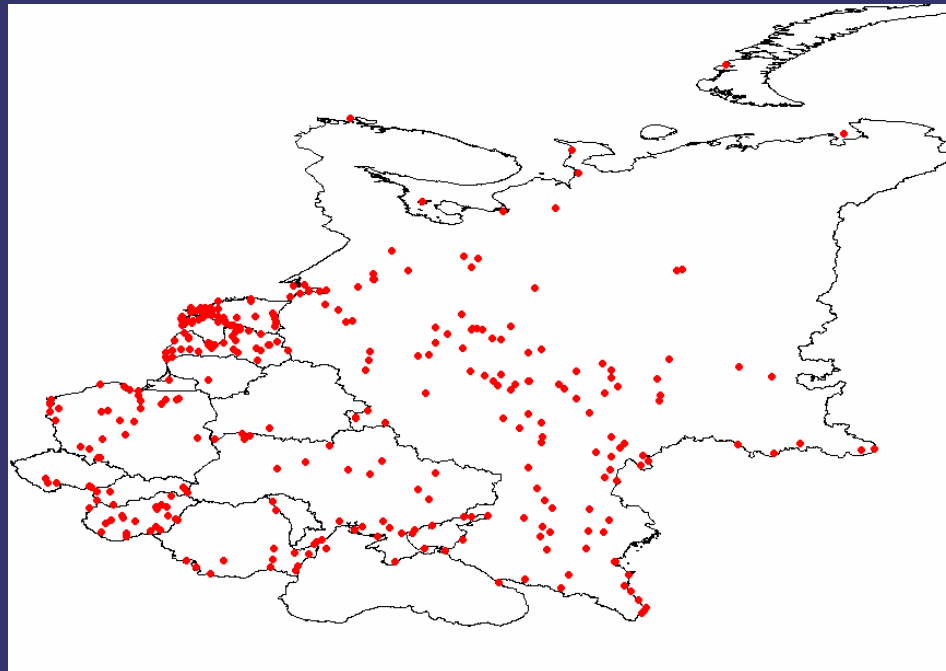
Corridors: Known migration and potential dispersal routes

Forest mammals

Potential dispersal routes based on max. distance (50-100 km) & habitat (size class II- III)

Birds

Important
Bird
Areas



Corridors: Known migration and potential dispersal routes

Fish & aquatic species

Important European Rivers

Regulation ?

Check:

National networks developed

Poland, Slovak Republic, Latvia - international corridors

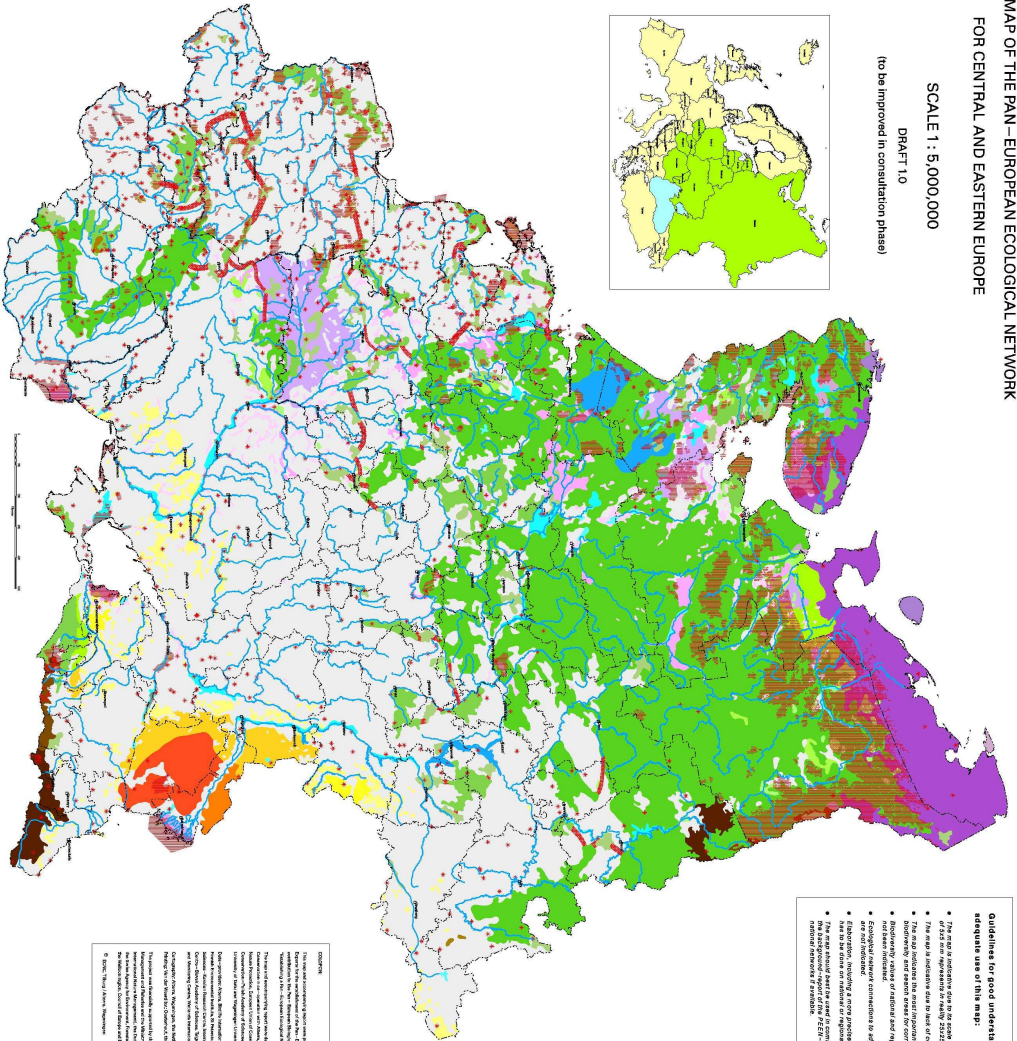
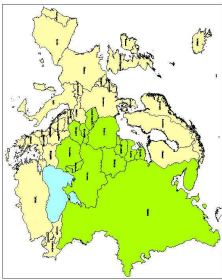


INDICATIVE MAP OF THE PAN – EUROPEAN ECOLOGICAL NETWORK FOR CENTRAL AND EASTERN EUROPE

SCALE 1 : 5,000,000

DRAFT 1.0

(to be improved in consultation phase)



Guidelines for good understanding and adequate use of this map:

- The map was developed for the PAN for Europe, a PAN unit.
- The map is indicative and not a final or official map. It is a working map.
- The map includes the most important core areas for PAN-Europe biodiversity and nature conservation for Central and Eastern Europe, and is not intended to be used for other purposes.
- Ecological network corridors are indicated in red and in coastal areas they are in green or yellow.
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CONTENT

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LEGEND

CORE AREAS

- **Highly sensitive areas:** Areas of high biodiversity value, including rare and endemic species, and areas of high scientific value.
- **Important areas:** Areas of high biodiversity value, including rare and endemic species, and areas of high scientific value.
- **Other areas:** Areas of high biodiversity value, including rare and endemic species, and areas of high scientific value.

SIZE CLASSES (related to core areas):

- **Very large:** Core areas with a size of more than 100,000 km².
- **Large:** Core areas with a size of between 10,000 and 100,000 km².
- **Medium:** Core areas with a size of between 1,000 and 10,000 km².
- **Small:** Core areas with a size of less than 1,000 km².

SEARCH AREAS FOR NATURE DEVELOPMENT AND CORRIDORS

- **Search areas:** Areas where nature development and corridors are likely to occur.
- **Corridors:** Areas where nature development and corridors are likely to occur.

TOPOGRAPHY

- **Water:** Rivers, lakes, and other water bodies.
- **Coastal areas:** Areas along the coast.

Logos: ECNC, Alterra, MANNP, EDC, UNDP WCMC, Wageningen University Environmental Sciences.



Oct. 2001-Dec. 2001 Consultation

- Ministries of Environment
- Committee of Experts
- European Commission
- UNEP (via PEBLDS Secretariat)
- European Environment Agency (via ETC/NPP)
- Bern, Bonn, Ramsar, Helsinki, Barcelona Convention Secretariats
- Committee of the regions
- Birdlife, IUCN, WWF, Wetlands International
- others



Reports:

J.A.Klijn, A.J.F.M. van Opstal & I.M. Bouwma, 2003. The indicative map of Pan-European Ecological Network. ECNC, Tilburg, the Netherlands/ Budapest Hungary.

I.M.Bouwma, R.H.G. Jongman & R.O. Butovsky (eds), 2002. The indicative map of Pan-European Ecological Network - technical background document. (ECNC Technical report series). ECNC, Tilburg, The Netherlands/Budapest Hungary. 111 pp + annexes.

