



Distribution of Emerald/NATURA 2000 species and habitat types by biogeographical regions

**Presentation of Emerald Network project
results**

Zagreb, 23rd of October, 2006.

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“Distribution of Emerald/NATURA 2000 species and habitat types by biogeographical regions”

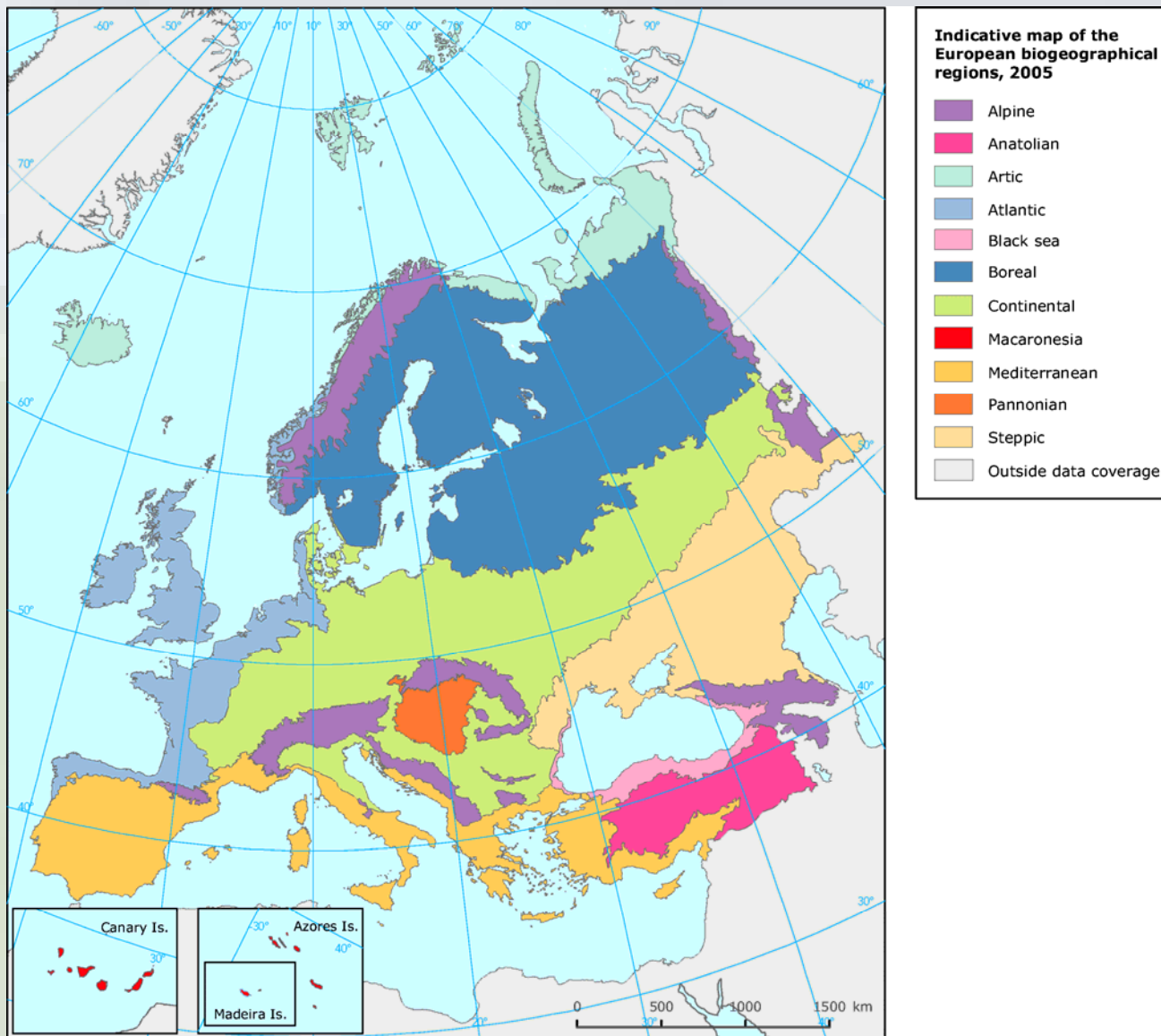
- Expert group for species and habitats
- Biogeographical regions
- Emerald/NATURA 2000 **species** by biogeographical regions
- Proposals of further species to be included in the official list under the Bern Convention
- Emerald/NATURA 2000 **habitat types** by biogeographical regions
- Proposals of further habitat types to be included in the official list under the Bern Convention



Expert group on species and habitats

- Revising species and habitats lists by biogeographical regions
- Development of proposals of further species and habitat types to be included in the official list under the Bern Convention
- Defining status of species and habitats distribution data
- Proposing priorities for further researches

Biogeographical regions



- 11 regions in Europe

Biogeographical regions



- 4 regions in Croatia



Emerald/NATURA 2000 species

- Resolution VI – 927 species, 227 in Croatia

Emerald/ NATURA vrste u Hrvatskoj

Skupina

Broj

Sisavci (mammals)

20/20

Vodozemci i gmazovi (amp/rep)

14/14

Ribe (fishes)

40/44

Beskralješnjaci (invertebrates)

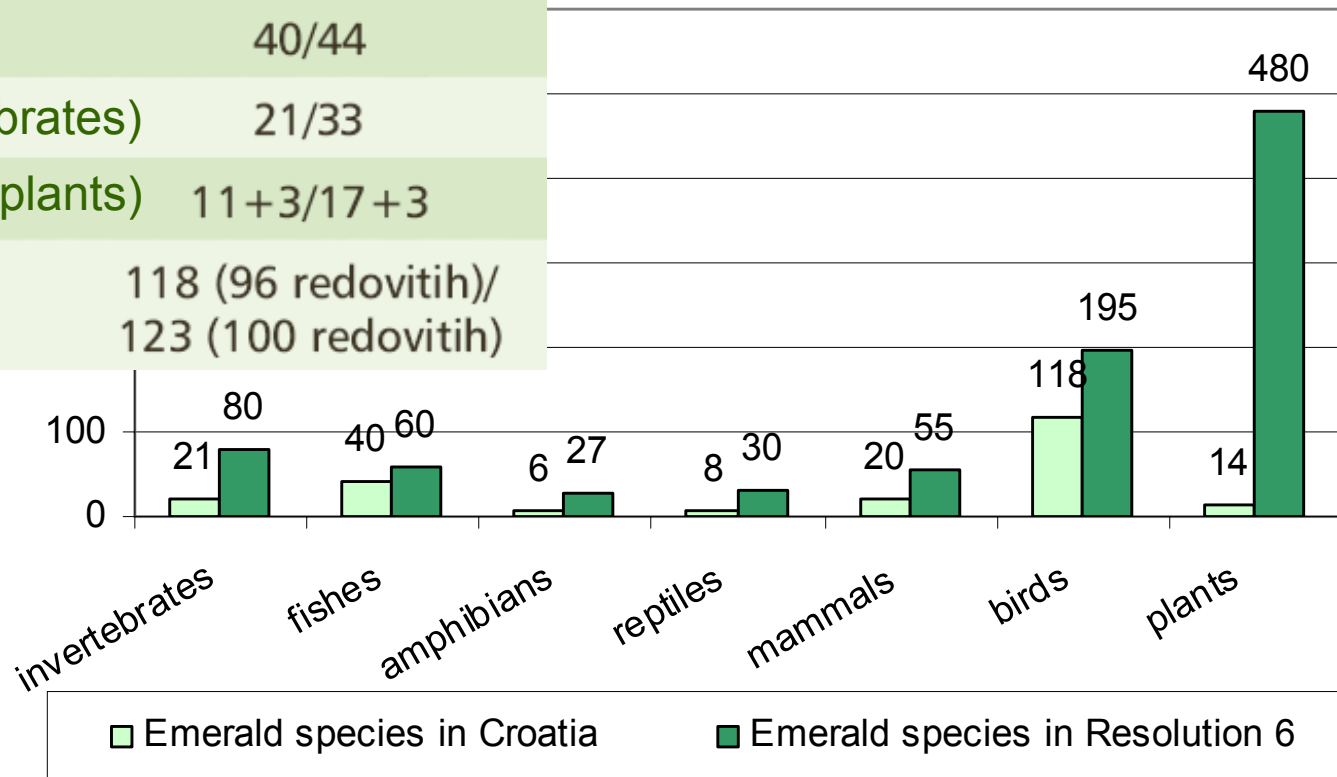
21/33

Biljke (vask. + mahovine) (plants) 11+3/17+3

Ptice * (birds)

118 (96 redovitih)/
123 (100 redovitih)

- BD annex I – 123 in Croatia
- HD annex II – 129 in Croatia



Differences between Emerald and NATURA 2000 species

- Annex I BD:
5 species of birds
- Annex II HD:
6 species of plants
6 species of fishes
12 species of invertebrates

Skupina	Samo NATURA vrste:
PTICE (birds)	<i>Falco cherrug</i>
	<i>Charadrius alexandrinus</i>
	<i>Oenanthe pleschanka</i>
	<i>Larus minutus</i>
	<i>Tetrao urogallus</i>
BILJKE (plants)	<i>Adenophora lilifolia</i>
	<i>Cerastium dinaricum</i>
	<i>Arabis scopoliana</i>
	<i>Scilla litardierei</i>
	<i>Himantoglossum adriaticum</i>
	<i>Himantoglossum caprinum</i>
RIBE (fishes)	<i>Umbra krameri</i>
	<i>Gobio kessleri</i>
	<i>Pelecus cultratus</i>
	<i>Cobitis elongata</i>
	<i>Gymnocephalus baloni</i>
	<i>Cottus gobio</i>
BESKRALJEŽNJACI (invertebrates)	<i>Austropotamobius torrentium</i>
	<i>Carabus variolosus</i>
	<i>Leptodirus hochenwarti</i>
	<i>Erannis ankeraria</i>
	<i>Leptidea morsei</i>
	<i>Colias myrmidone</i>
	<i>Nymphalis vaualbum</i>
	<i>Coenagrion ornatum</i>
	<i>Cordulegaster heros</i>
	<i>Paracaloptenus calaptenooides</i>
	<i>Theodoxus transversalis</i>
	<i>Congerius kusceri</i>

Mediterranean biogeographical region

- **16** Emerald/NATURA2000 species of **mammals**
- **11** Emerald/NATURA2000 species of **amphibians** and **reptiles**
- **18** Emerald/NATURA2000 species of **fishes**
- **10** Emerald and **12** NATURA 2000 species of **invertebrates**
- **6** Emerald and **12** NATURA 2000 species of **plants**





Alpine biogeographical region

- **15** Emerald/NATURA2000 species of **mammals**
- **6** Emerald/NATURA2000 species of **amphibians** and **reptiles**
- **16** Emerald/NATURA2000 species of **fishes**
- **10** Emerald and **17** NATURA 2000 species of **invertebrates**
- **8** Emerald and **13** NATURA 2000 species of **plants**





Continental biogeographical region



- **12** Emerald/NATURA2000 species of **mammals**
- **6** Emerald/NATURA2000 species of **amphibians** and **reptiles**
- **19** Emerald and **23** NATURA 2000 species of **fishes**
- **16** Emerald and **23** NATURA 2000 species of **invertebrates**
- **7** Emerald and **11** NATURA 2000 species of **plants**



Pannonian biogeographical region

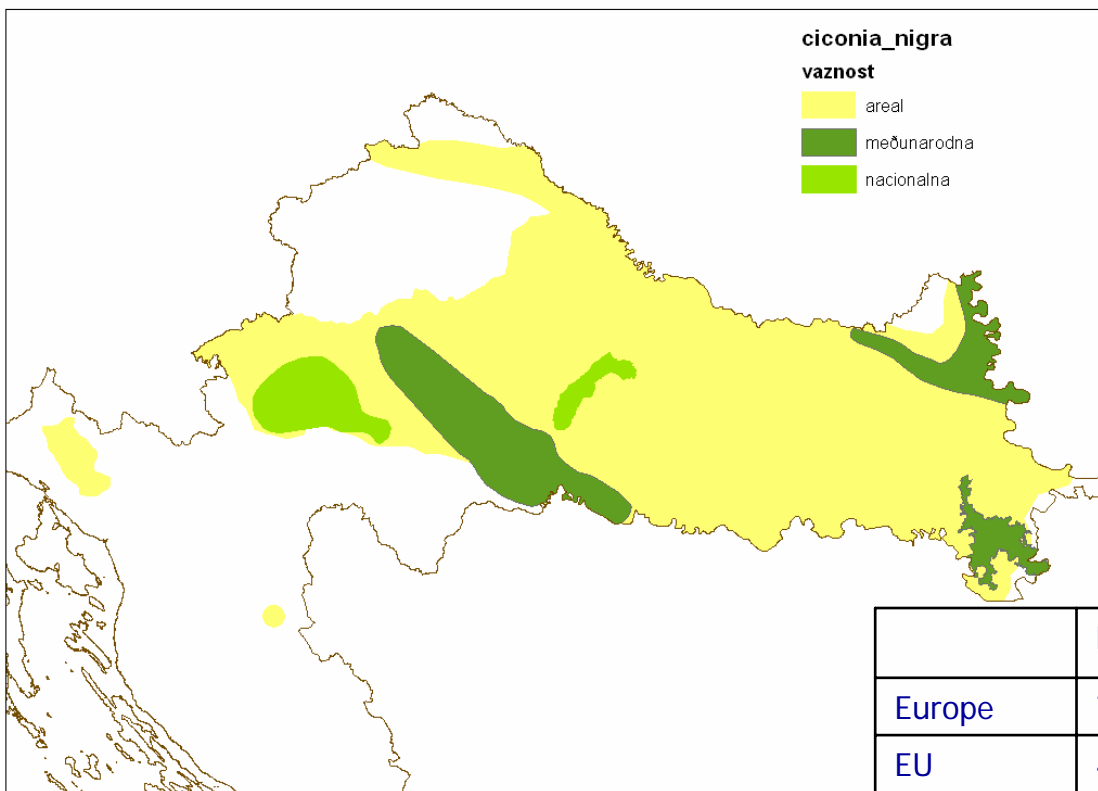
- **11** Emerald/NATURA2000 species of **mammals**
- **3** Emerald/NATURA2000 species of **amphibians** and **reptiles**
- **19** Emerald and **22** NATURA 2000 species of **fishes**
- **4** Emerald and **8** NATURA 2000 species of **invertebrates**
- **2** Emerald and **3** NATURA 2000 species of **plants**



Proposals for additional species to be included on Resolution VI

- **Plants:** *Edraianthus dalmaticus* i *Gentiana pneumonanthe*
- **Mammals:** *Plecotus kolombatovici*, *P. macrobularis* and *Dinaromys bogdanovi*
- **Reptiles:** *Lacerta mosorensis*, *L. vivipara* (AlpDin) and *Typhlops vermicularis*
- **Fishes:** 18 species and genera
- **Invertebrates:** 14 species of underground fauna, 1 species of Lepidoptera and 4 species of Orthoptera

What we need to know about species



	No. of pairs	% in imp.site	Criteria
Europe	7.800 – 12.000		
EU	4.200 - 6.000	cca 1%	C2
Croatia	350-400	10%	N

Habitat classification

- CORINE – NATURA2000
- PHYSIS – Emerald Network
- NKS – National Ecological Network



INTERPRETATION MANUAL OF EUROPEAN UNION HABITATS

EUR 25
April 2003



EUROPEAN COMMISSION
DG ENVIRONMENT
Nature and biodiversity



Strasbourg, 24 September 2003
[T-PVS/Emerald/1a/03]

T-PVS/Emerald (2003) 14

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE
AND NATURAL HABITATS

Group of Experts for the setting up
of the Emerald Network of Areas of Special Conservation Interest

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Application and development
of the Palaeontic habitat classification
in the course of the setting up of the Emerald Project

– Croatia –

2002-2003 Revision

Document established
by Jean Devillers-Terschmann and Pierre Devillers
Institut Royal des Sciences Naturelles de Belgique

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Emerald/NATURA 2000 habitat types

- **Resolution IV:**
187 habitat types

52 in Croatia

- **Annex I HD:**
218 habitat types

72 in Croatia



Resolution IV habitat types by biogeographical regions

- **Mediterranean**
25 habitat types
- **Alpine**
17 habitat types
- **Continental**
30 habitat types
- **Pannonian**
11 habitat types



Proposals for additional habitat types to be included on Resolution IV

- **8** from the pilot project

+

- **3** additional

Novi stanišni tipovi predloženi u pilot-projektu *Smaragdna mreža* koji se ne mogu podvesti pod postojeće CORINE/PHYSIS klasifikacije, s predloženim kodovima

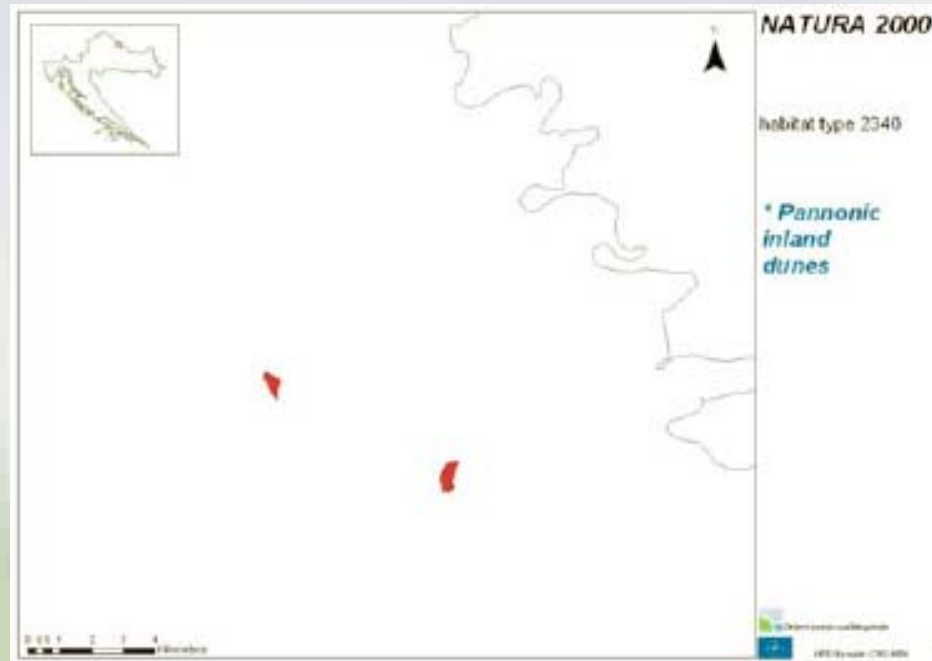
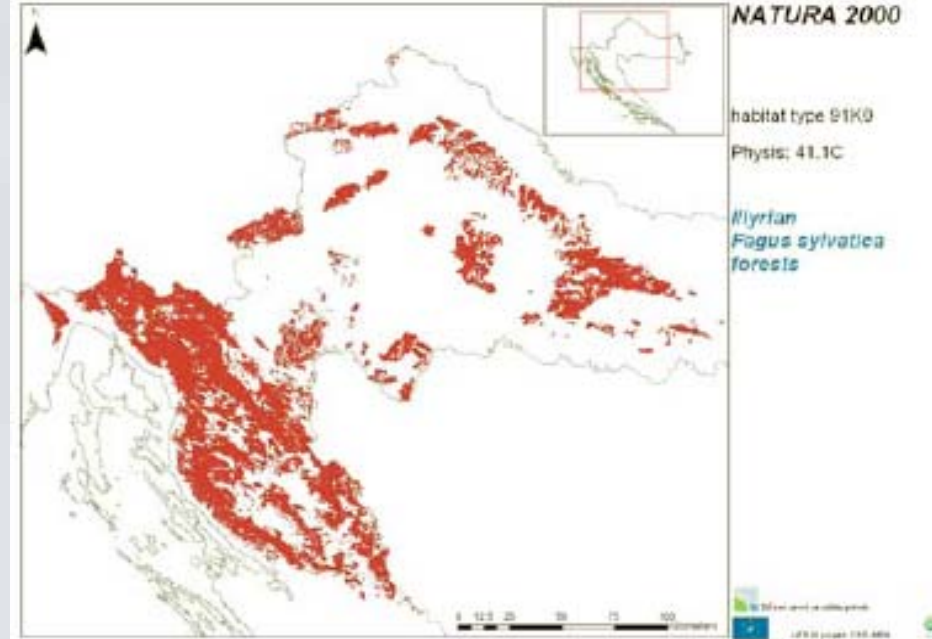
- 24.422 - Sedrotvorne riječne zajednice
- 24.423 - Sedrotvorna vegetacija na slapovima
- 32.B - Ilirsko-jadranski garizi
- 38.237 - Ilirske submontane mezofilne košanice (*Alchemillo-Trisetetum*)
- 42.124 - Dinarske jelove šume na vapnenačkim blokovima (*Calamagrosti-Abietetum*)
- 42.1322 - Ilirske acidofilne jelove šume (*Blechno-Abietetum*)
- 42.255 - Dinarske smrekove šume
- 54.483 - Ilirski cretovi bijele šiljkice (*Rynchosporion albae*)

Dodatni stanišni tipovi iz PHYSIS klasifikacije koje Stručno povjerenstvo predlaže dodati na popis Rezolucije 4

- 37.5 - Termofilni niski vlažni travnjaci (*Deschampsietum mediae*)
- 37.63 - Istočnojadranske livade riječnih dolina (*Molinio-Hordeion secalini*)
- 38.222 - Higromezofilne srednjoeuropske nizinske košanice (*Arrhenatheretum elatioris*)

What we need to know about habitats

- Area of distribution
- Important areas for every habitat type
- Proportion of habitat type in each area of special conservation interest





Missing data

- Annex I BD species (species for which there is no data in last 10 years)
- Annex II HD species (especially invertebrates and species classified as DD in Red Books)
- Annex I HD habitat types (especially habitats that are represented by small areas)
- Marine areas (data required for selecting ASCIs)
- Biospeleological objects (data required for selecting ASCIs)



Thank you for the attention!!!

www.dzzp.hr

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