Project CB005.1.12.135:

Preparation and promotion of the process of development of European ecological network NATURA2000 in Istranca Mountain

Activity1: Demonstration of process for designation of NATURA 2000 sites in Istranca.

Establishing and development of NATURA 2000 in Bulgaria

Presented by by Ivaylo Klisurov – amphibians, reptiles, birds and Natura 2000 expert.

25 – 26 October 2017, Turkey, Demirkoy.









Challenges in Natura 2000, as a result of new countries accession – EU 25, EU 27

- Due to enlargement of EU referent list of Natura 2000 habitats and species constantly changing
- Lack of referent map,
- Difficult or impossible access to state or scientific data collected,
- Difficult access to all sorts of digital data,
- Lack of capacity are among constrains which countries facing during their accession.









Challenges in Natura 2000, as a result of new countries accession

- Big challenge is also establishment of national coverage and population size of referent habitats and species in the countries.
- Quite difficult and new task is determination of favorable conservation status of habitats and species.
- New accession countries facing huge pressure from known and unknown "investor interests", very week implementation of precaution principle and all preservation principals of Directives.









Reference list of Natura 2000 habitats and species in Bulgaria

- Birds from Annex I, Dir. 2009/147/EC 114
- Regularly occurring migratory birds that are not included in Annex I, Dir. 2009/147/EC 127
- Habitats from Annex I, Dir. 92/43
 90 ; Priority 26
- Plants from Annex II, Dir. 92/43
 20 (25); Priority 1 (3)
- Mammals from Annex II, Dir. 92/43 25 (28); Priority 3
- Fishes from Annex II, Dir. 92/43 25 (28); Priority (1)
- Rept. & Amph. Annex II, Dir. 92/43 10 (3); Priority (2)
- Invertebrates Annex II, Dir. 92/43 36 (40); Priority 6 (7)









Establishment of Natura 2000 in Bulgaria

4 main phases:

- Field inventories and compiling data to be submitted to the EK: 2003 2007 January 1st.
- Attempts to stop Natura 2000 or at least to reduce it: 2007
- "Revision" of data by Bulgarian Academy of science and final approval of complete list by the Government: 2007
- Biogeographicall seminars and minor additions to fulfill insufficiences of the network 2008 - 2009









Input:

2002 – 2004 DEPA/DANCEE

"Conservation of species and habitats in Bulgaria: EU approximation"

2005 - 2006

2 main projects financed by MoEW (EMEPA)

- Green Balkans project "Establishment of Natura 2000 in Bulgaria"
- BSPB project "Establishment of national network of SPAs as part of Natura 2000"
 + many small NGO projects financed by international/European donors

2007

Projet financed by MoEW (EMEPA)

Bulgarian Academy of Science: "Optimization of Natura 2000 in Bulgaria"











DEPA/DANCEE project 2003 – 2004

"Conservation of Species and Habitats in Bulgaria – EU Approximation"

Main goal:

Preparation of required documentation (SDF and maps) for potential Natura 2000 sites in Bulgaria (initially 12.5 % of terrestrial territory)

Field seasons – 2003 and 2004

Office team – 4 persons, Field Experts – 80 persons

Biodiversity experts participation – 2, 680 man/days

Finances: 0.5 million Euro











The "Blue map" – 42 % of the Bulgaia's territory = potential Natura 2000













The "Blue map" – 42 % of the Bulgaia's territory = potential Natura 2000





Bulgaria - Turkey

PARTN RSHIP

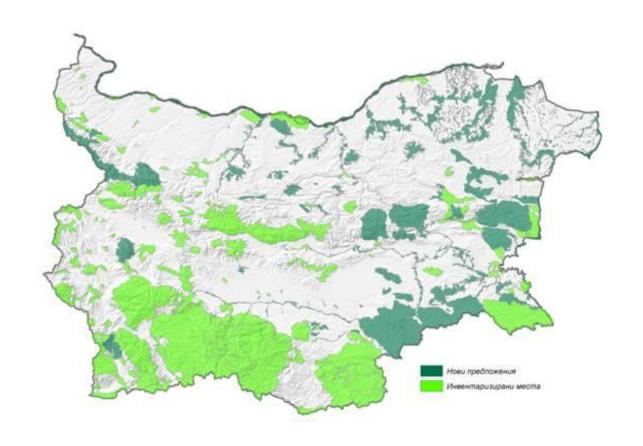






Сакар"

Inventoried till the end of 2004 6% of natural habitats, 10% of fauna Identified potential Natura 2000 : 34% of county's terrestrial territory













Green Balkans/Bulgarian MoEW project 2005-2008

MoEW "delegated" to Green Balkans the preparation of the National list of Natura 2000 sites

>AIMS:

- Implementation of the engagements of Bulgaria in the process of EU accession on designation of NATURA 2000 network
- Preparation of required by EC documentation on potential NATURA 2000 sites – Standard Data Forms and maps based on field inventories of EU significant habitats and species.
- Keeping momentum of DEPA project as a guarantee of quality and in time fulfillment of engagements









Green Balkans/MoEW project 2005 - 2008

- ➤ Office Team 5,
- > Field Teams more than 150 experts
- ➤ Man days: more than 10 000
- > PROJECT DURATION: 01.02.2005 30.06.2008
- **BUDJET: 670 000 Euro**









Project activities:

- 1. Coordination of Natura 2000 network establishment at national level
- Coordination and QA of field inventories
- Maintenance and update of National Natura 2000 GIS and Data base
- 2. Field inventories and fulfillment of SDF
- 3. Establishment of national figures for habitat coverage and population sizes to assess level of compliance with EU requirements and gaps
- 4. Clarification of NATURA 2000 site boundaries and adjustments of 1:100,000 maps to the National cadastre in scale 1: 5 000. Estimation of land use and land purpose within proposed NATURA 2000 sites.









Approach, Methodology and Steps

- > Use of all relevant data
- > Clarification of borders of biogeographicall regions in Bulgaria
- > Identification of eco-corridors and stepping stones
- > Determining of the "Bulgarian" target (= referent) species and habitats
- **→** Choosing of referent map CORINE Landcover
- > Determining of target sites to be inventoried
- > Inviting the leading biodiversity experts of NGO and scientific community
- > Development of National Natura 2000 GIS and database strategy
- > Establishing criteria for final site selection









Field inventories:

- > Revision of habitats and species list
- ➤ Publication of Bulgarian Habitats Guide (in cooperation with WWF DCP) & Herpetological guide (in cooperation with Herpetological society)
- > Selection of sites to be investigated
- ➤ Carrying out field inventories in sites where there is no or insufficient biodiversity data available
- Compiling and analyzing existing biodiversity data from protected areas network in Bulgaria
- > Preparing Standard NATURA 2000 data forms for sites investigated
- Compiling inventory results in MoEW NATURA 2000 Data base and analyze data

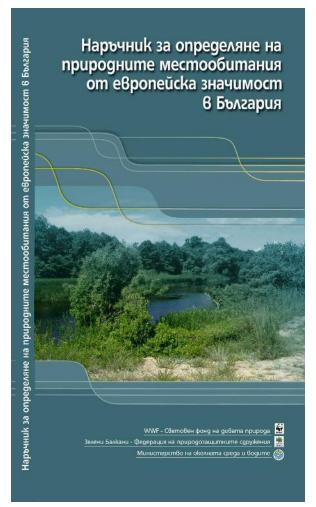


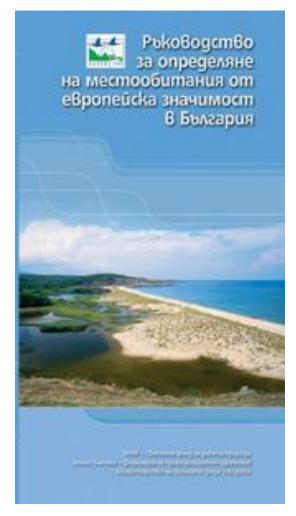






Publication of Bulgarian Habitats Guide (in cooperation with WWF - DCP) & Herpetological guide (in cooperation with Herpetological society)

















All achievements of previous investigations are considered:

- National Action Plan for conservation of the most important wetlands in Bulgaria, 1995;
- National Strategy for Biodiversity Conservation, 1995;
- CORINE Biotopes Project, 1994;
- CORINE Landcover Projects, 1990 and 2000;
- EMERALD Project;
- RAMSAR sites;
- Important Bird Areas (IBA), 2000;
- Established network of protected areas and their Management Plans;
- Strategy /2001/ and Action Plan /2003/ for the Protection and Restoration of Floodplain Forests on the Bulgarian Danube Islands.

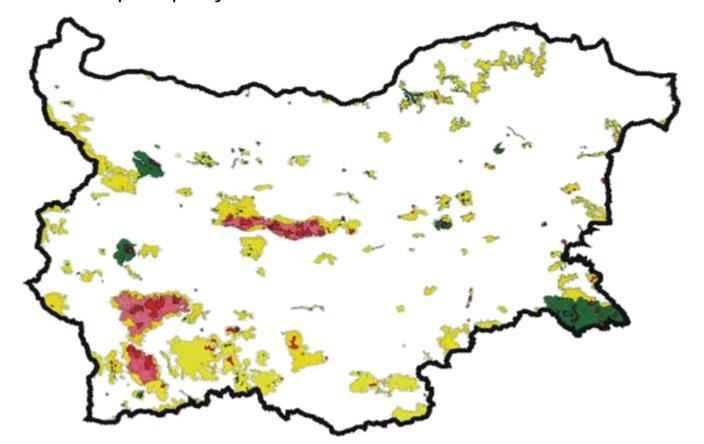








CORINE Biotopes project 1994













National Action Plan for Conservation of the most important Wetlands in Bulgaria, 1995



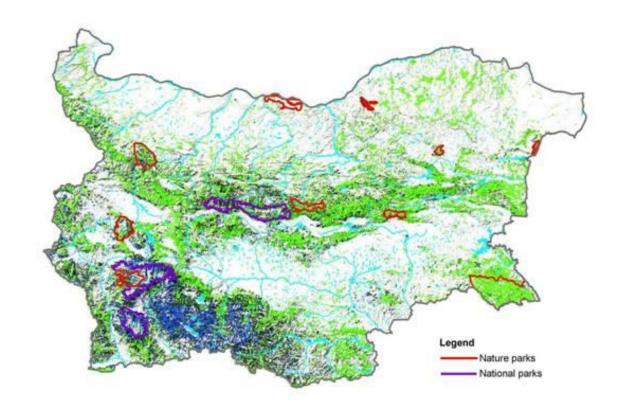








Management Plans (existing and under preparation) of "traditional" protected areas network



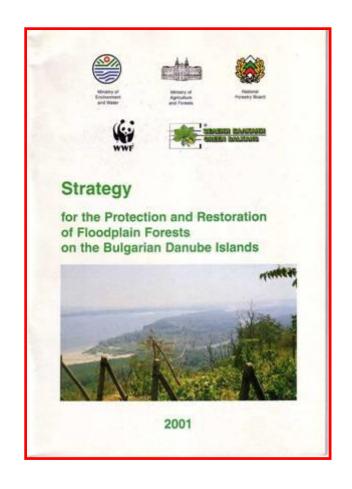


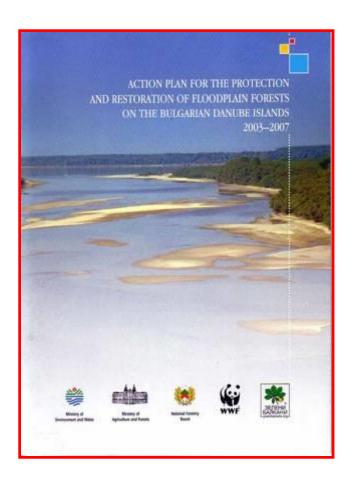






Strategy and Action Plan for Danube islands





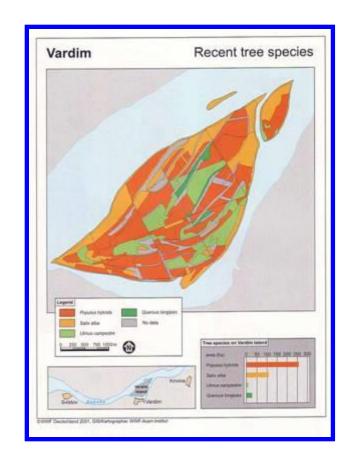


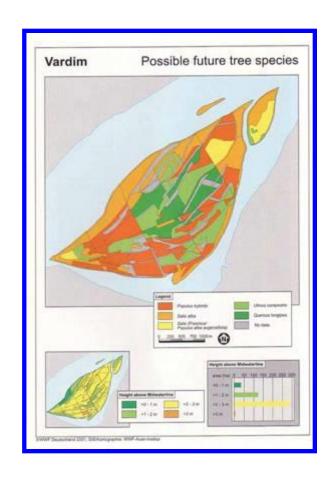






Strategy and Action Plan for Danube islands





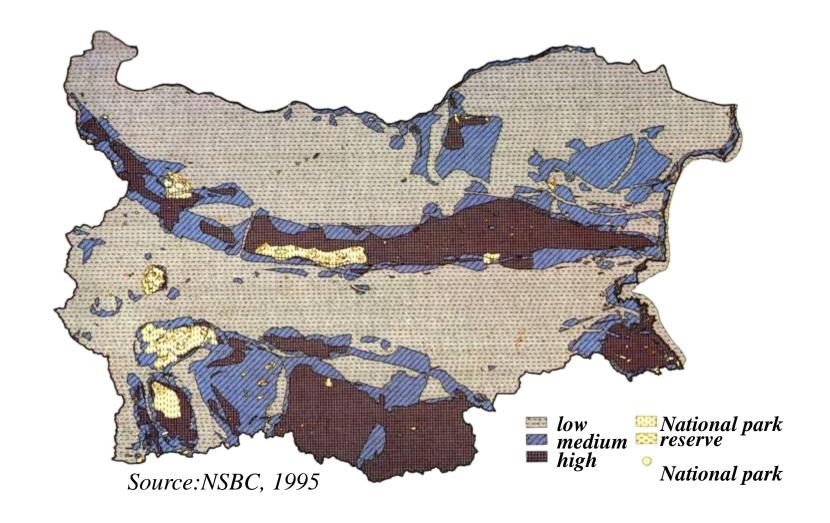








National Strategy for Biodiversity Conservation, 1995





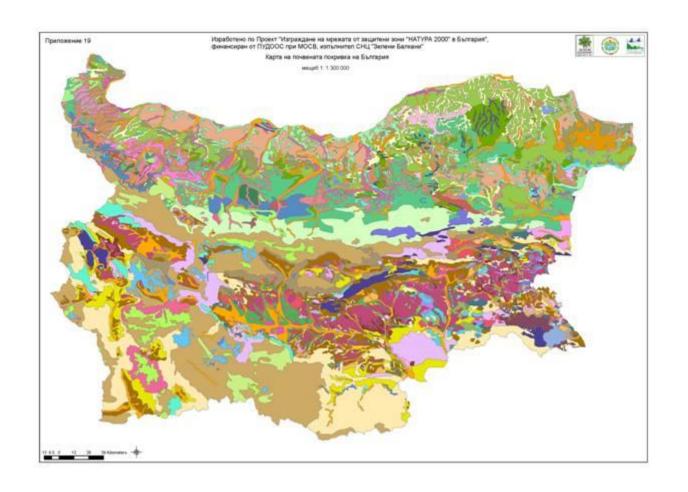








Searching, collecting, digitilasing info from verious sourses





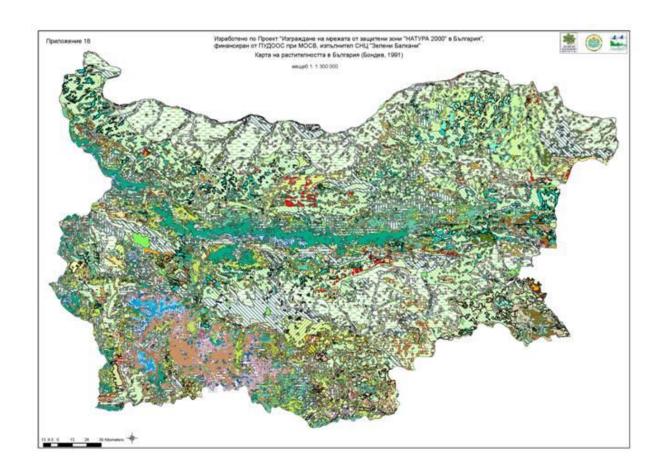








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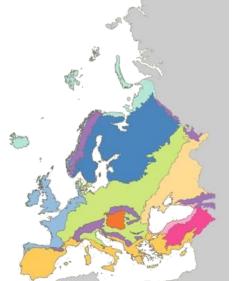


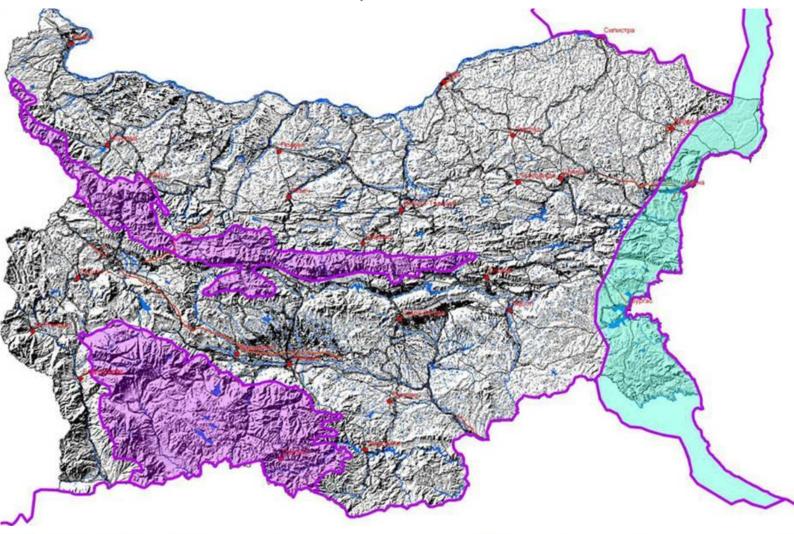






Biogeographical regions in Bulgaria ETC/ BNP version, 2002















Field work preparation

- Development of Bulgarian Natura 2000 Field Manual
- > Field equipment
- > Prioritization of target sites
- Distribution of sites among experts
- > Signing contracts with experts
- > Trainings on usage of field equipment (GPS), completion of SDF etc.









GIS Strategy

1. Field inventory maps

A crucial issue in the GIS strategy is the selection of map projection, and it was decided to use both – WGS 84 and the national coordinate system – Baltic coordinate system, 1970.

2. GPS use –

It was decided that an accuracy of 2-3 m for the GPS devices would be sufficient. GARMIN 72 was therefore chosen as an appropriate model.

Conversion of the GPS waypoint coordinates from WGS84 to the basic coordinate system of the project – Baltic, 1970.

3. Natura 2000 software –

In order to be accurate it is important to work with the latest version of the Natura 2000 software from the European Commission.

Important experience was gained with the Project's participation in the workshop "Natura 2000 GIS and Data requirements" in Brussels 29 -30 October 2003. The Project Team is prepared to fulfill the requirements of the ETC/NPB and the Spatial Application Division.

4. National GIS database









National GIS Database

- Database for Potential Natura 2000 sites (pSCI and SPA)
- Dataset showing the relations between potential Natura 2000 sites and Bulgarian protected areas network
- Dataset showing the municipal location of the potential Natura 2000 sites (how many and which municipalities are within the potential Natura 2000). This dataset was created to help the project with getting digital cadastral information
- Feature classes for boundaries of some national and nature parks and reserves
- Feature class for Bio-geographical regions
- Grid (3D visualization) showing the terrain on the basis of contour lines of every 200 m











Field Inventory Form

- > The Field Inventory Form contains extracts of the Standard Natura 2000 forms and Explanatory notes
- > Contacts Lists of local experts form the MoEW and MAF inspectorates
- > Contact Lists of the inventory teams
- > Permission in accordance with the Bulgarian legislation and letters of collaboration from the MoEW and MAF to their local inspectorates
- > Instructions for working with GPS devices
- > Methodologies for population estimation of different fauna groups
- > Form for reporting of illegal Environmental Activities observed
- > Form for Proposing designation of new protected area
- > Lists of Protected areas according to their municipal distribution
- > Maps











Field Inventory Manual (List of Annexes) on Natura 2000 in Bulgaria

- Potential Natura 2000 sites targets of inventories during the field season of the project
- List and contacts of field experts participating in the inventories Fauna teams
- List and contacts of field experts participating in the inventories Habitats & Flora teams
- List and contacts of experts from regional inspectorates of MoEW
- List and contacts of experts from National forestry board/MAF regional and local units
- List of habitats from Annex 1 of Habitats Directive occurring in Bulgaria
- Habitat classes of CORINE Landcover classification
- List of target species to be inventoried Annex 3 of Biodiversity Act
- List of plant species from Annex I of Habitat Directive occurring in Bulgaria











Field Inventory Manual (List of Annexes) on Natura 2000 in Bulgaria

- Activities influencing protected status of sites /full list of activities/
- Activities influencing protected status of sites /list of activities with codes/
- Project Summary
- Official permission (required by The Bulgarian Biodiversity Act) from MoEW for experts field work
- Supporting letter from MoEW sent to it's regional Inspectorates
- Supporting letter from MAF sent to it's regional and local offices
- Instructions for work with GPS equipment
- Recommendations for collection of additional information
- Form for collection of additional information











Field Inventory Manual (List of Annexes) on Natura 2000 in Bulgaria

- Methodology for ornitofauna inventories
- Instructions for bats data collection
- Instructions for herpetofauna data collection
- Instructions for invertebrate fauna data collection
- Activities and expenditure Reporting form for the field experts
- Form for reporting of observed illegal environmental activities
- Form for proposing designation of new protected area
- Protected areas in the borders of municipalities to be inventoried in the field season
- Distribution of sites to be inventoried in the field season amongst the municipalities









Field inventory maps

In the national coordinate system – Baltic coordinate system, 1970 - four different geodatabases had to be created – K3, K5, K7 and K9.

Each of the four geodatabases contains the following datasets:

- Land coverage (includes compiled and analysed data from different classes of CORINE Land Cover Project, the information has been received as ArcInfo coverage files, created on the interpretation of satellite images with a resolution 30/30 m; the coverage files were converted and geo-referenced in order to be integrated into geodatabase); type of feature class: polygons;
- Boundaries of the potential Natura 2000 cites; type of feature class: polygons;
- Boundaries of CORINE sites; type of feature class: polygons and points;
- Boundaries of IBA; type of feature class: polygons and points;









Field inventory maps

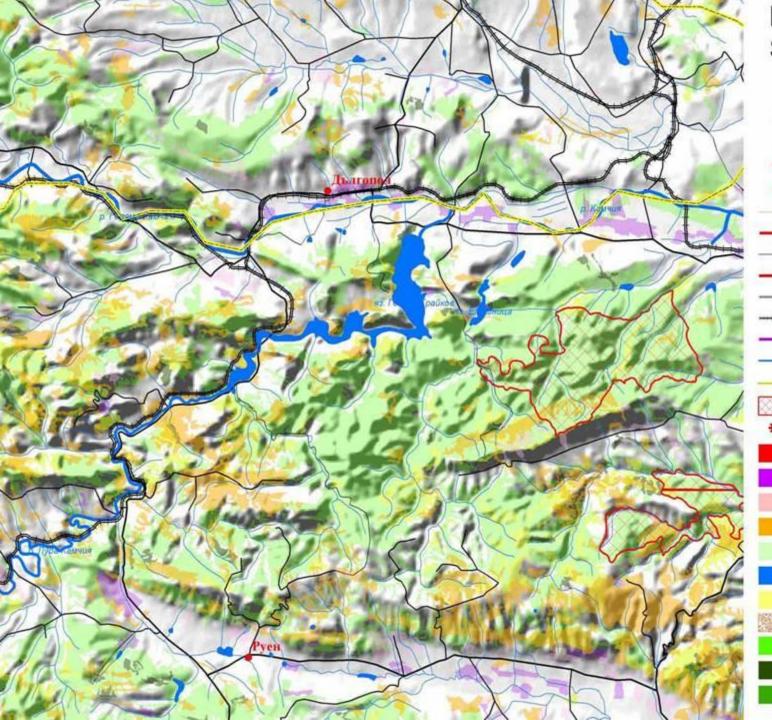
- Regional centres; type of feature class: points;
- Regional boundaries; type of feature class: polylines;
- Municipal centres; type of feature class: points;
- Municipal boundaries; type of feature class: polylines;
- Settlements; type of feature class: points;
- Hydrological network; type of feature class: polylines;
- Road network; type of feature class: polylines;
- Contour lines; type of feature class: polylines;
- Railway network; type of feature class polylines;











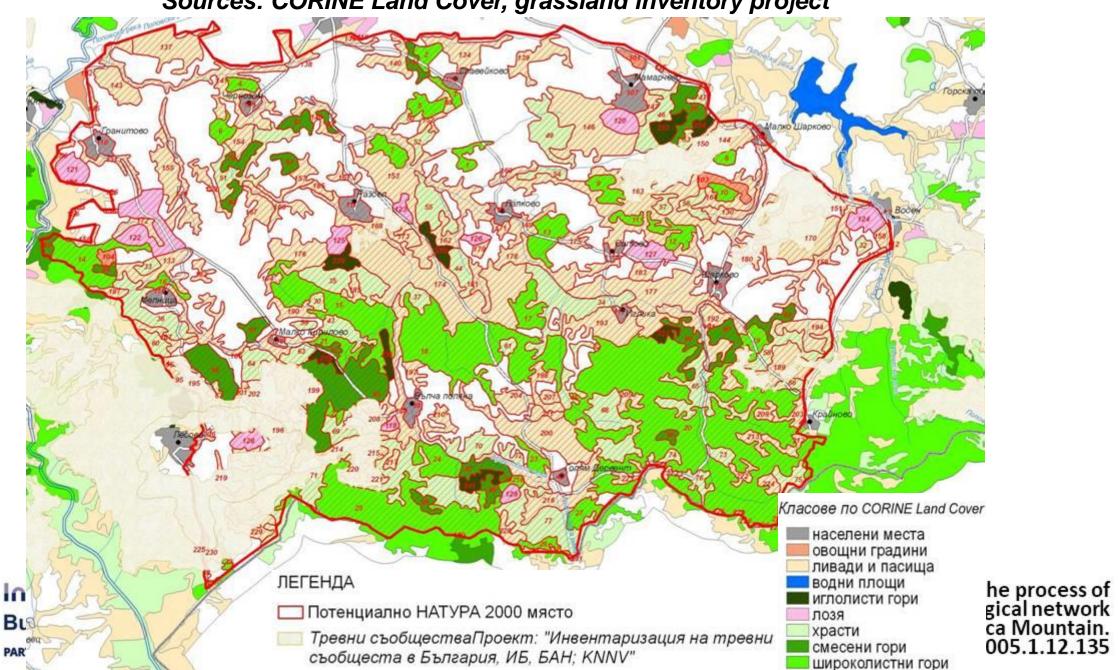
FIELD MAP Scale 1:100000



LEGEND

- · Settlements
- Regional centers
- Municipal centers
 - Contour lines at intervals of 200 m
- State boundary
- Road net
- Regional boundaries
- Boundary of regional and municipal towns
- ---- Railway net
- Municipal boundaries
- Hydrological net
 - Important Bird Areas
 - CORINE site with an area > 100 ha
- * CORINE site with an area < 100 ha
- Rocks
- Orchards
- Vineyards
- Pastures
 - Shrubs and herbaceous association
- Water bodies
- Beaches, dunes and sands
- Rice fields
- Broad-leaved forests
- Coniferous forests
- Mixed forests

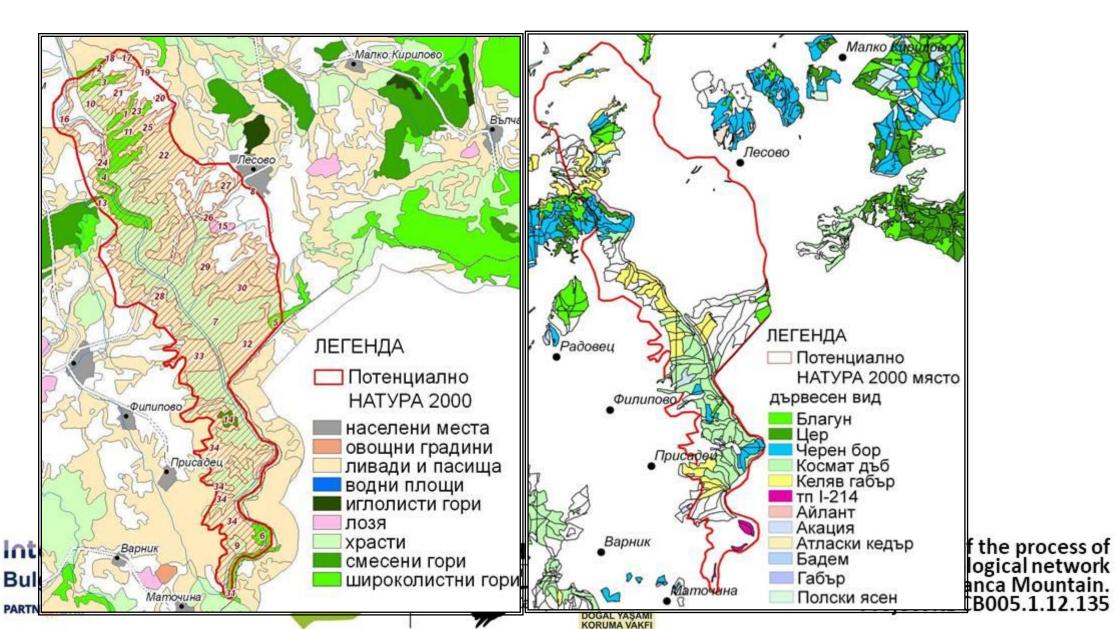
he process of gical network ca Mountain. 005.1.12.135 Field map of potential Natura 2000 site "Derventski vazvisheniya 1" – Sources: CORINE Land Cover, grassland inventory project



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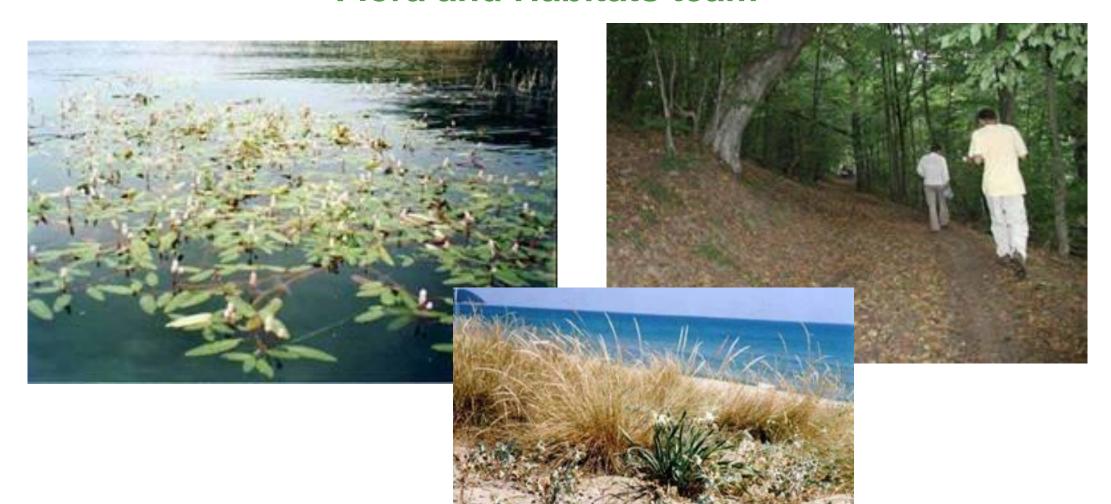
Potential Natura 2000 site "Jdreloto na reka Tundja",

CORINE Land cover BG000021 Forestry management plan map



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Flora and Habitats team













Birds Team



















Mammals Team













Herpethofauna Team





















Preparation and promotion of the process of development of European ecological network NATURA2000 in Istranca Mountain.
Project № CB005.1.12.135



Ihtiofauna Team















Invertebrates Team

















Marine habitats Team



















Field inventory rates

Area objects:

- Natural habitats + plants 750ha.per man/day
- Fauna 1200 ha. Per man/day

Linear objects:

- 10 km. per day (either for fauna or flora)

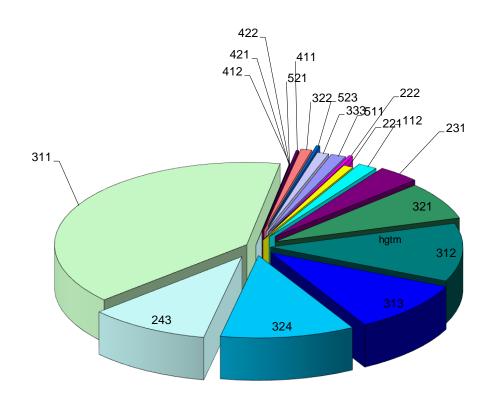








Land Cover classes distribution among potential Natura 2000 network





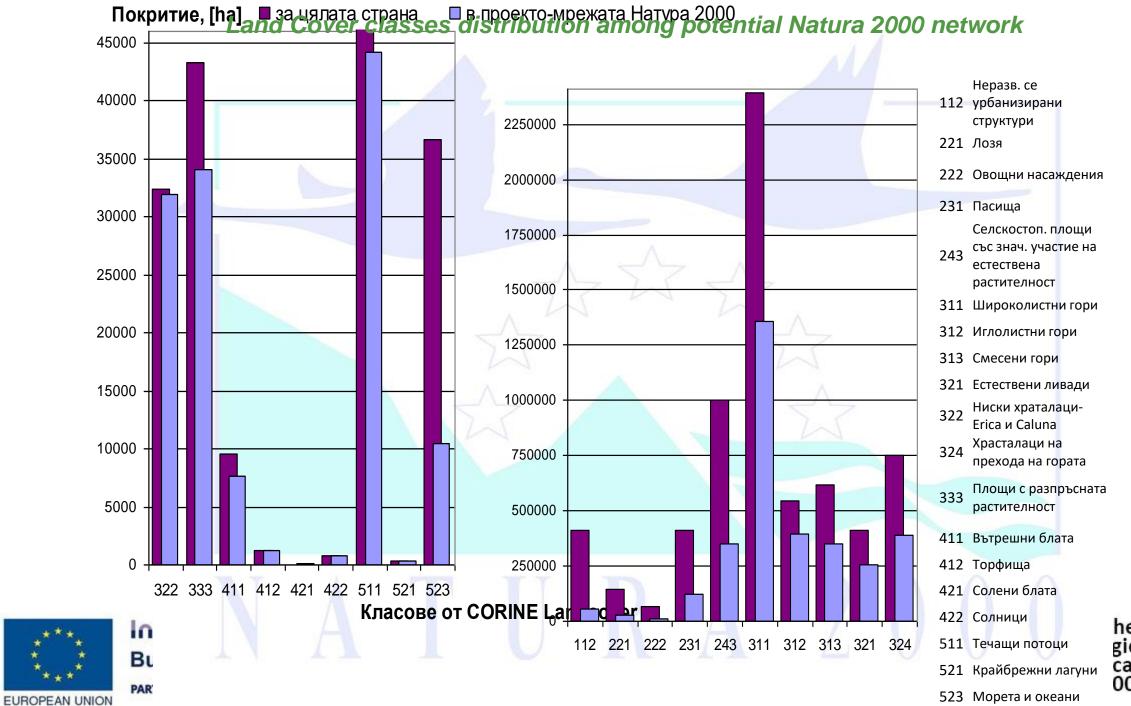












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Internet table of National Natura 2000 list

	Respondent	Habitats,	В	irds, An. I	Dir. 79/40	9	Migratory birds			
Region		An. I,	Docidont	Migratory			Dogidant	Migratory		
		Dir. 92/43	Resident	Breed	Winter	Stage	Resident	Breed	Winter	Stage

Nº	Code	Name_B G	Name_E N	SITE TYPE	Area, ha	Length, km	Longitud e	Latitude	Settleme nt type	Settleme nt	Cadastri al number	Municipa lity

Amph.	Mammals, An. II, Dir.92/43				F	ishes, An.	Invertebr	Plants,		
and	Resident		Migratory		Dooldoot		Migratory	ates, An.	An. II,	
Rep., An.	Kesideni	Breed	Winter	Stage	Resident	Breed	Winter	Stage	II,	Dir.92/43

With links to maps for each site



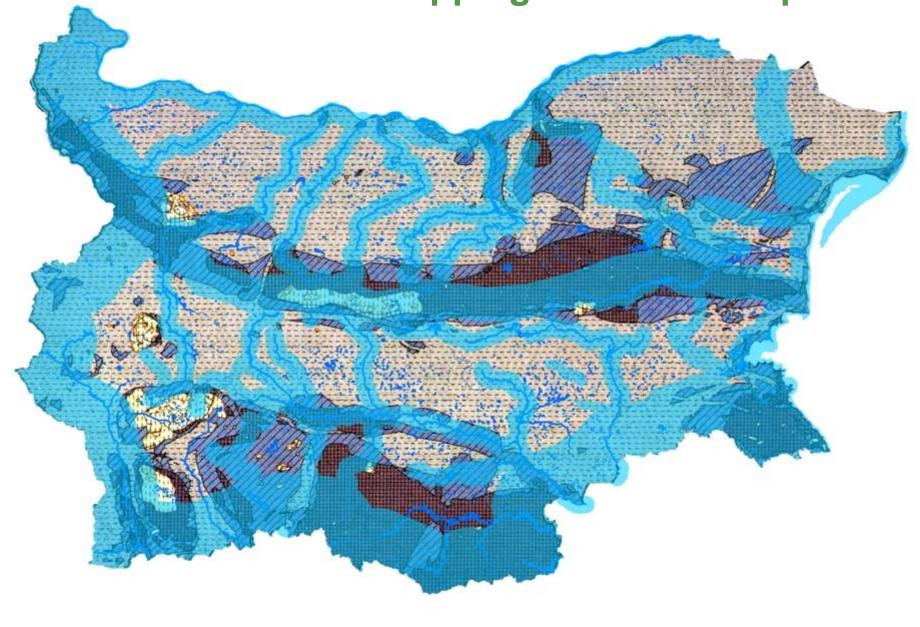








Eco-corridors and stepping stones concept







process of al network Mountain. 5.1.12.135

National habitats coverage and distribution &

species distribution and population size











National coverage of habitats Annex I / Dir. 92/43/EEC in Bulgaria

		Bla	ck Sea	Alı	oine	COntinental		National coverage	
Code	Name	Area [ha]	% of National coverage	Area [ha	% of National coverage	Area [ha	% of Nation al covera ge	Area [ha	%
2180	Wooded dunes of the Atlantic, Continental and Boreal region	16.184	100.00					16.184	100
4070	Bushes with Pinus mugo and Rhododendrom hirsutum (Mugo- Rhododendretum hirsuti)			13772.7 37	99.96	5.551	0.04	13778.2 8	100
40A0	Sub continental peri- Pannonic scrubs	149.993	23.31			493.535	76.69	643.528	100
5130	Juniperus communis formations on heaths or calcareous grasslands			178.917	67.17	87.434	32.83	266.351	100
5210	Arborescent matorral with Juniperus sp	1.987	0.22	0.585	0.07	886.564	99.71	889.136	100
9110	Luzulo-Fagetum beech forests		епри	5117.15 7	76.29	1590.68 ⁶ Pr	23.71 eparati	6707.84 on and p	100
reg rata T	Asperulo-Fagetum beech	N.	- ОДГУ "П	ир 13,86 9бар 389	73.36			entsø≸⊈u NATURA	ropea



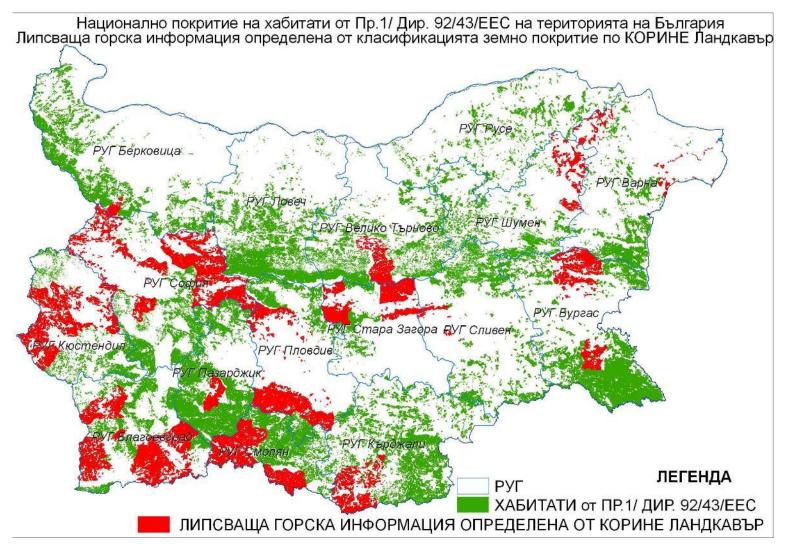
Bulgaria³⁰

PARTN = RSHIP

DOĞAL YAŞAMI KORUMA VAKFI

Preparation and promotion of the process of 6743developments & European ecological network NATURA 2000 in Istranca Mountain.

National coverage of forest habitats





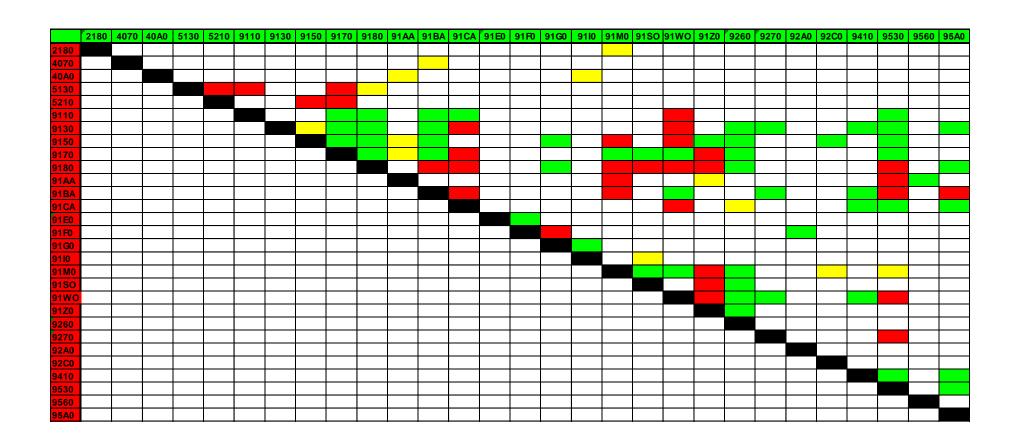








Keys for interpreting forest data





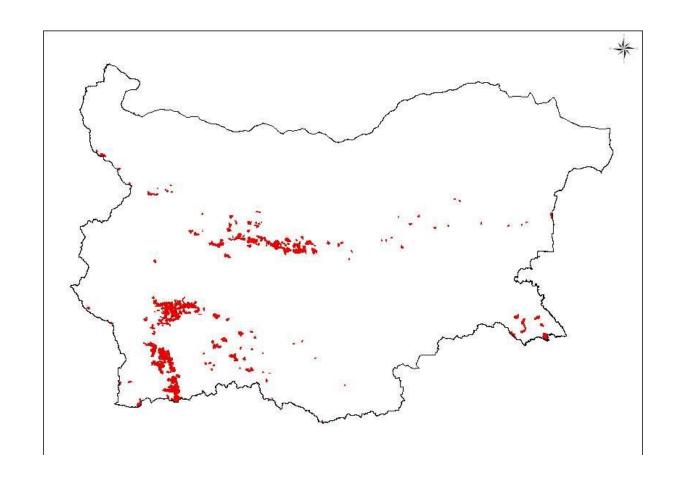








"Virgin forests of Bulgaria", PINMATRA 2001/11, FI, BAS





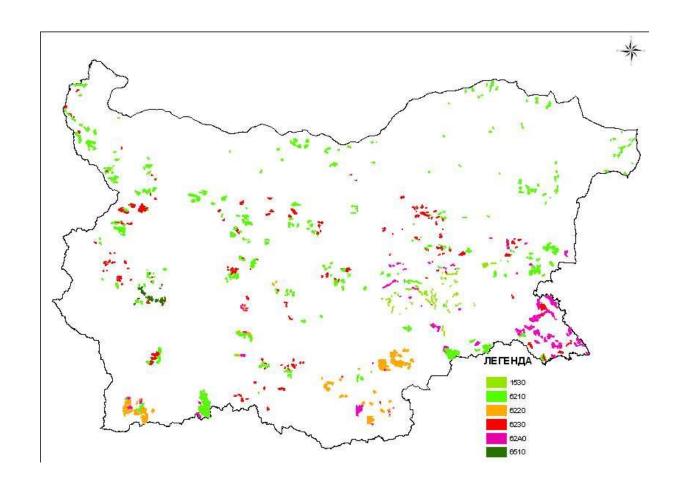








"Grasslands inventory in Bulgaria" PIN MATRA. Meshinev T., I. Apostolova, V.Georgiev, V.Dimitrov, A.Petrova, P.Veen. 2005.





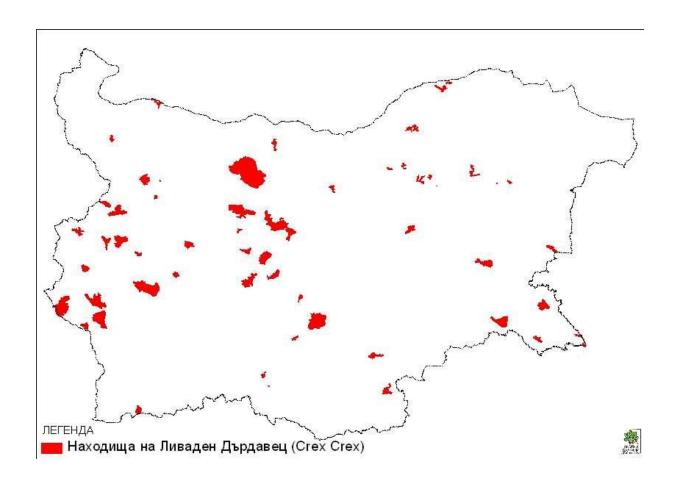








Crex Crex habitats in Bulgaria





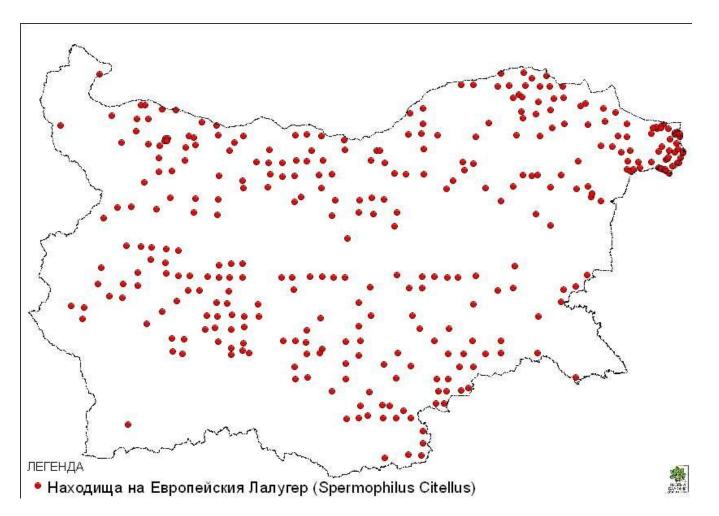








Suslic (Spermophillus cillus) distribution





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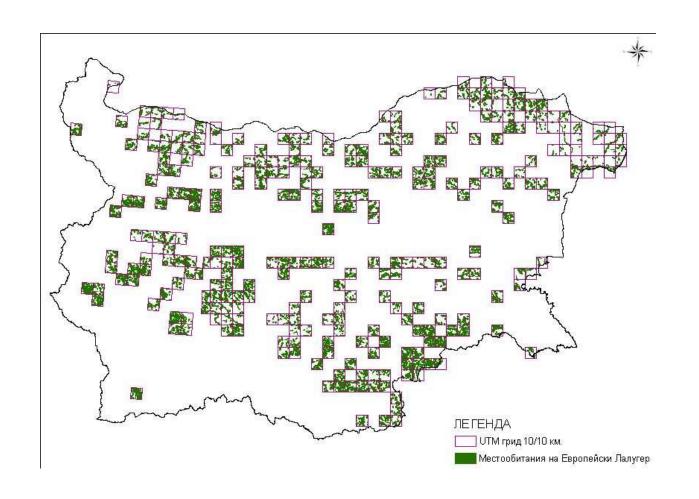








Suslic (SPERMOPHILUS CITELLUS) Distribution













Bat caves





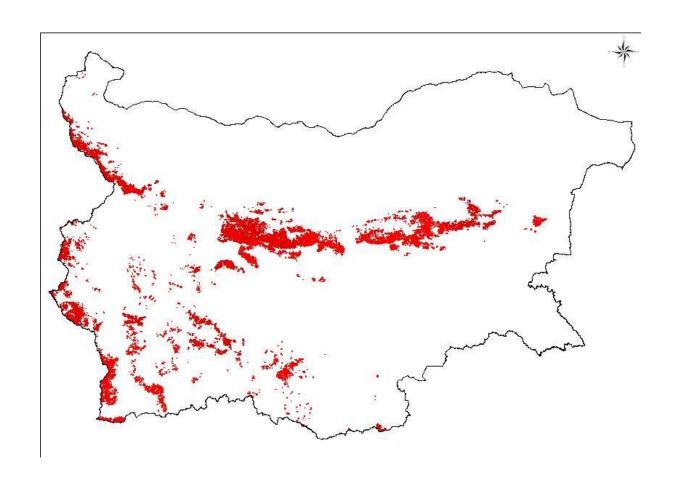








Habitats of forest bat species (Fagus forests over 80 years old)





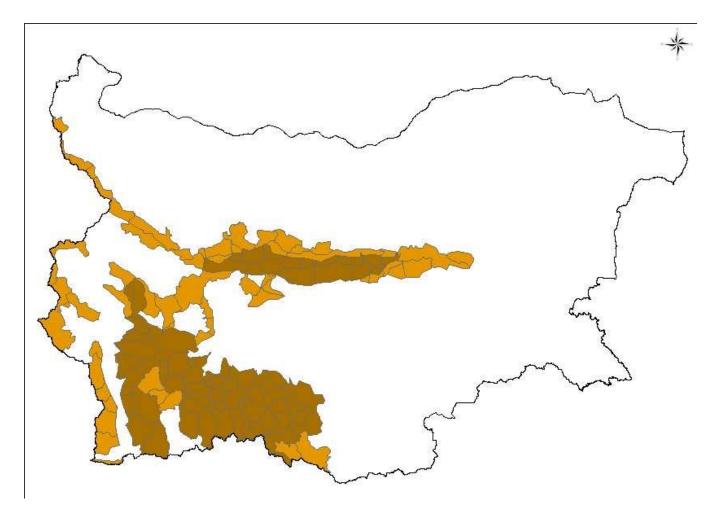








Bear distribution and density





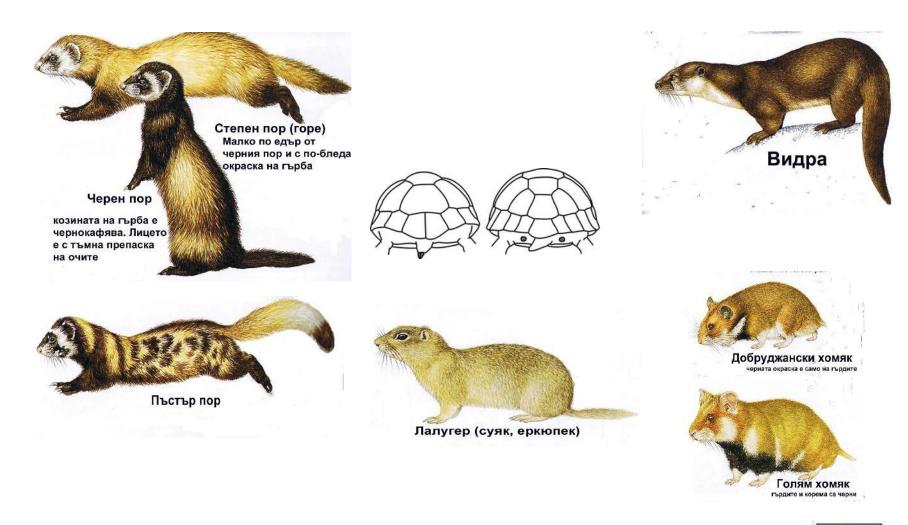








Involvement of Bulgarian Hunting Association in Natura 2000 preparation – questioner on recognizable species





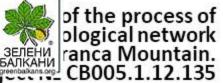












CRITERIA FOR ASSESSING NATIONAL LISTS OF pSCI AT BIOGEOGRAPHICAL LEVEL

http://bd.eionet.europa.eu/activities/Natura_2000/pdfs/crit

List responding to three basic requirements:

- 1. It shall host a sufficiently large and representative sample of each habitat type and species to enable the maintenance of favourable conservation status at the level of the EU and biogeographical level, provided the supporting conservation measures within and outside the sites are in place.
- 2. It must only include sites of Community importance at EU or biogeographical level.
- 3. There should be a proportionate response, so that for those habitats and species of community interest which are rarest a high proportion of the resource will be included within the SAC series, while for those which are more abundant there will be a lower proportion of the resource within the SAC series.

......











Phase 2. Interpretation of criteria for the selection of SCIs from the national lists of sites

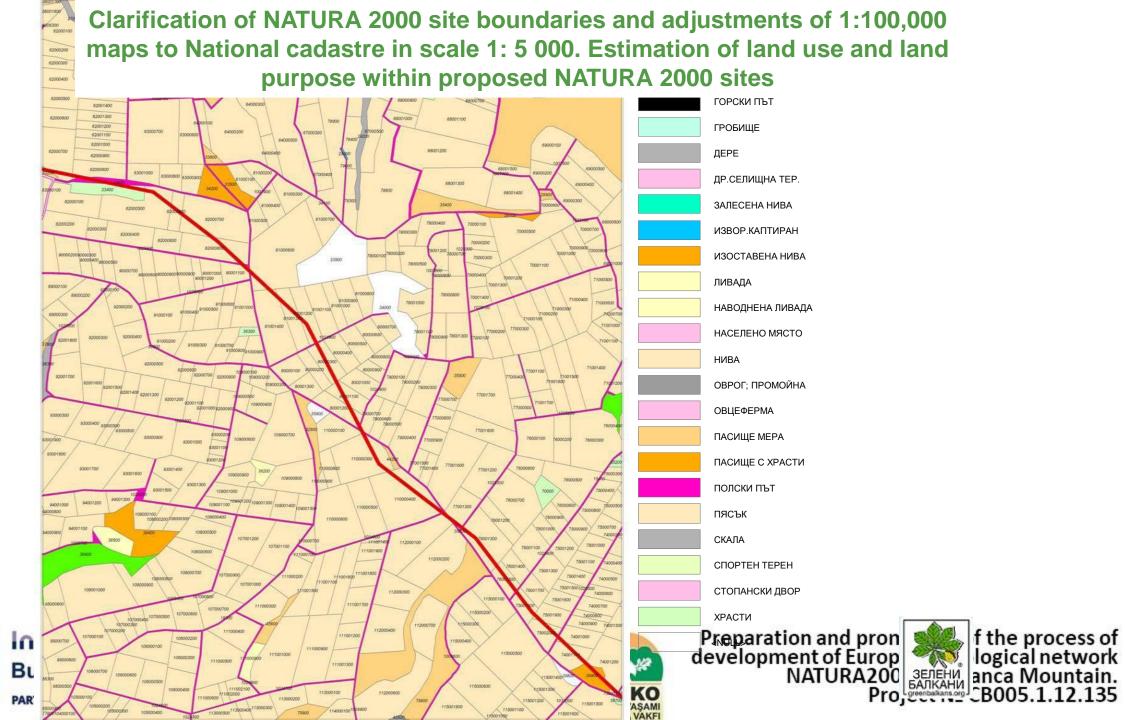
- 1. "Priority" criterion
 pSCI qualifying at a national level for at least one priority habitat type or species.
- 2. "Uniqueness" criterion
 pSCI containing the only significant example of a non priority habitat type or species on a Member State's list.
- 3. "High-quality" criterion pSCI having a high national value for at least one non-priority habitat type or species.
- 4. "High-diversity" criterion pSCI containing a significant number of non-priority habitat types and/or species, even if their respective national values have not been considered as high under the high quality criterion.
- 5. Network coherence" criterion pSCI playing a relevant role to ensure the coherence (as well structural as functional) of the Natura 2000 Network.
- 6. "Safeguard clause" criterion





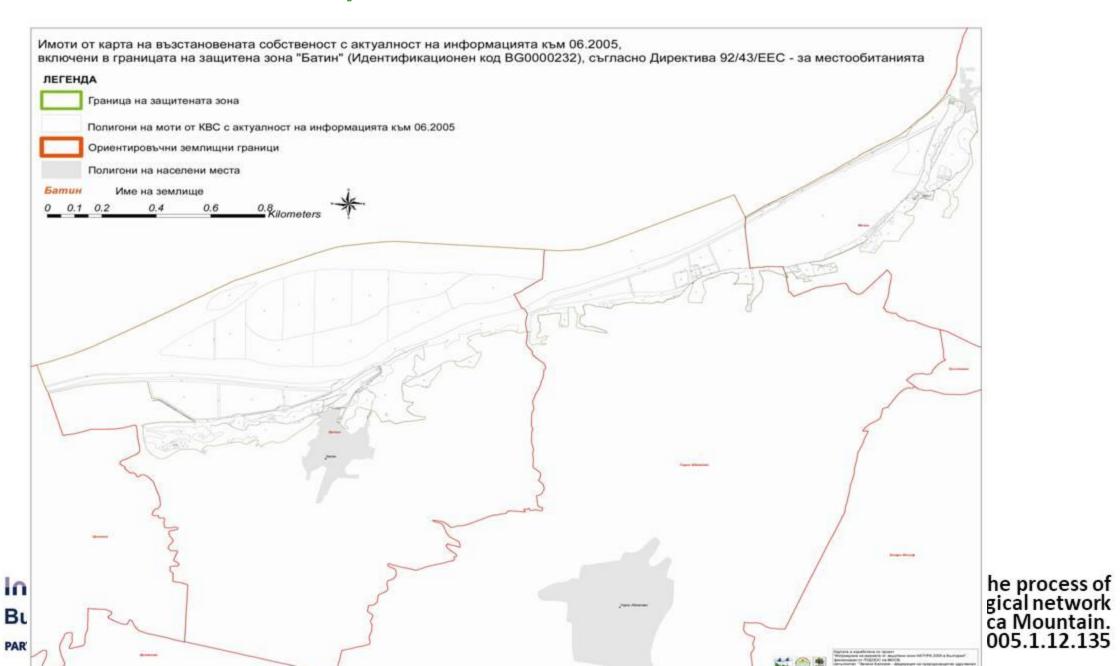






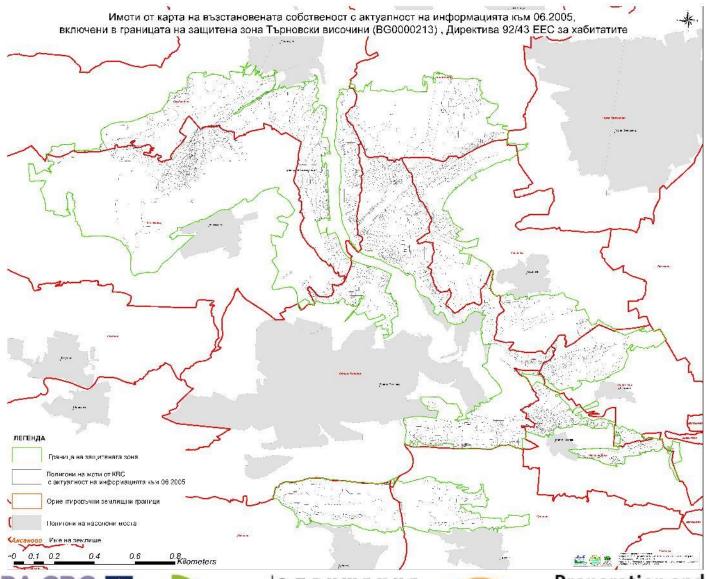
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Maps on cadastre M 1:5000



EUROPEAN UNION

Maps on cadastre M 1:5000





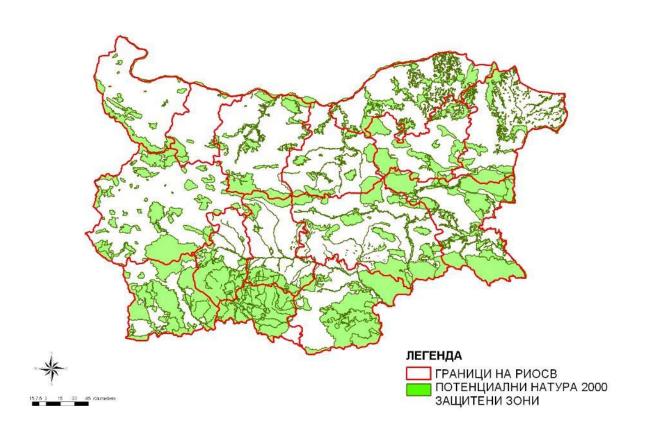
Interreg - IPA CBC Bulgaria - Turkey







Relation of the potential Natura 2000 network to the administrative dividing (Regional inspectorates of MoEW)





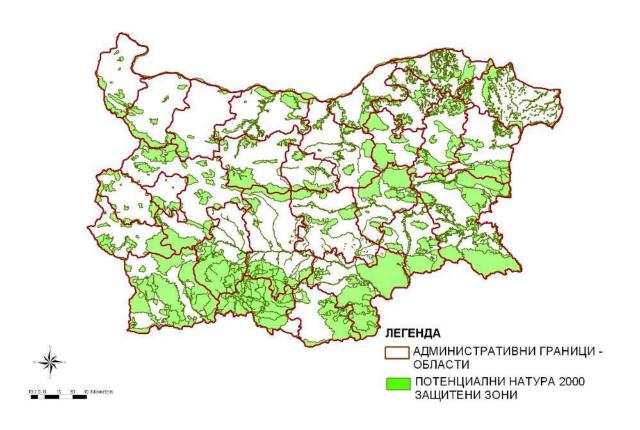








Relation of the potential Natura 2000 network to the administrative dividing (regions)



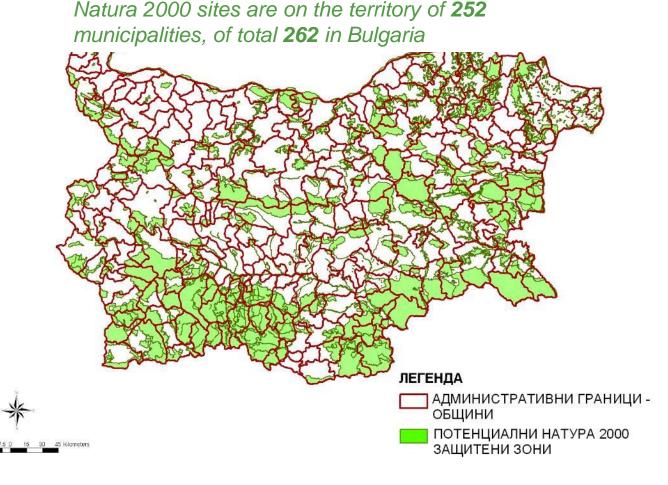








Relation of the potential Natura 2000 network to the administrative dividing (Municipalities)





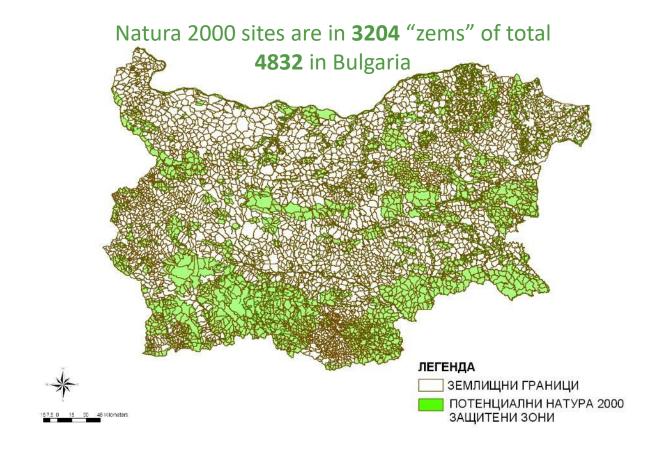








Relation of the potential Natura 2000 network to the administrative dividing (zems)













30 min. film on establishment of Natura 2000 in Bulgaria





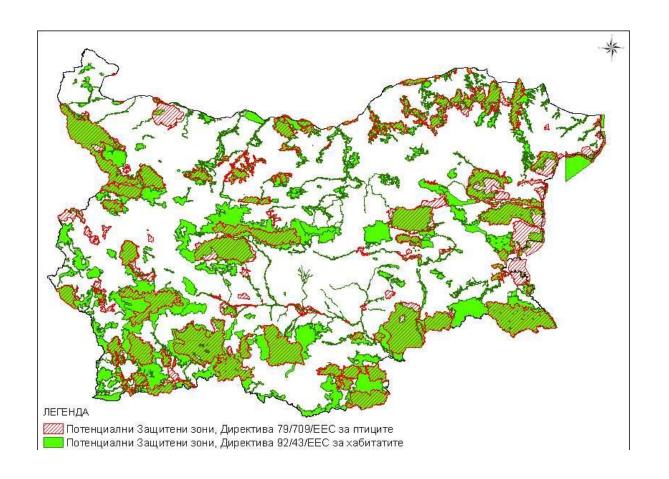








Proposed by NGOs Natura 2000 34,5% of terrestrial area (November 2006)













POSTPONED NATURA 2000 SITES

National Council on Biodiversity - 21. 11. 2006

❖ National Forestry Board rejected 29 pSCIs - postponed for additional clarifications

Government decision № 122/ 02. 03. 2007

- ❖ New 16 pSCIs remitted for reconsideration by the National Biodiversity Council
- ❖ and 26 SPAs remitted for reconsideration by the National Biodiversity Council

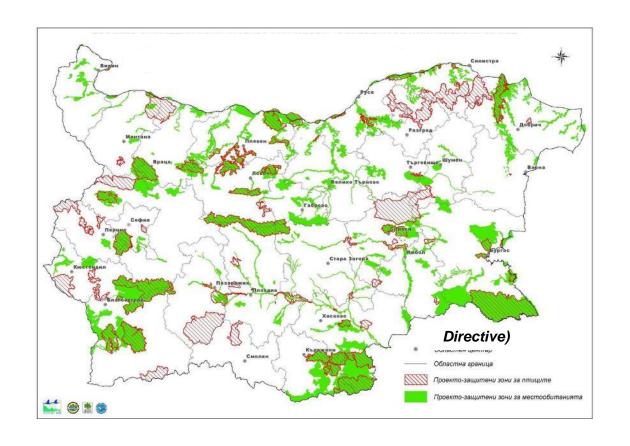
Deadline - October 2007







Approved by Government decision № 122/02. 03. 2007 88 SPAs –11.3 %, 180 pSCIs – 13.3%, Total 18.2 % of the territory













POSTPONED NATURA 2000 SITES

Next developement

❖ Reduced list of Natura 2000 sites (Gov/Dess № **122/02.03.2007**) submited to EK;

❖ In the preliminary report of the ETCentre on Biological Diversity it is dascribed as insufficient

❖ In 2007 BAS was hired by MoEW to verify the information . In the SDF





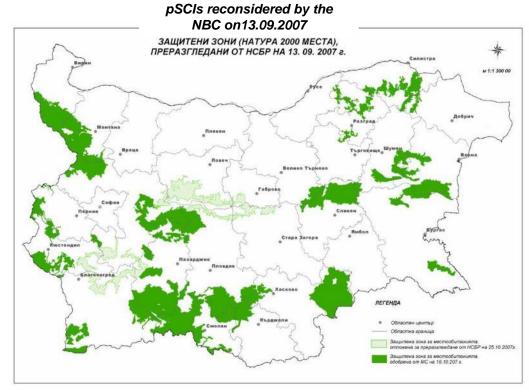




on of the process of ecological network Istranca Mountain. t № CB005.1.12.135

ПРЕРАЗГЛЕЖДАНЕ НА СПИСЪКА С МЕСТА ОТ НАТУРА 2000

НСБР от 13. 09. 2007 и решение на МС № 661// 16. 10. 2007



NCBD 13. 09 . 2007

- Reconsidering of 29 pSCIs, postponed by NFB;
- 26 pSCIs approved without changes in their boundaries;
- pSCI approved with reduced boundaries;
- pSCIs once again turned for clarification.

Government Decigion № 661 16th October 2007:

New 26 pSCI approved (207 in total) covering 26,5 % of the Territory and sent to the EK



PARTN RSHIP





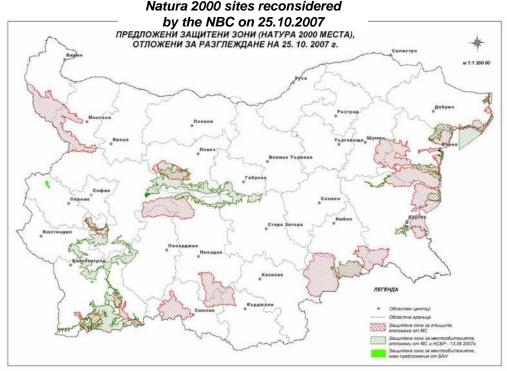




Preparation and promotion of the process of development of European ecological network NATURA2000 in Istranca Mountain. Project № CB005.1.12.135

ПРЕРАЗГЛЕЖДАНЕ НА СПИСЪКА С МЕСТА ОТ НАТУРА 2000

HCБР от 25. 10. 2007/ и решение на МС № 802//04. 12. 2007/



NCBD 25. 10, 2007

- Accepting of all previously proposed pSCIs + 4 of Botany, BAS;
- ❖ Approved 21 pSCIs & 26 SPAs;
- pSCI Rila bufer rejected;

Government Decigion № 802, 04.12.2007

Approved: new 26 SPAs = Total 114 SPAs - 20.4 %

& new 21 pSCIs = Total 228 pSCIs - 29.5 % of the territory



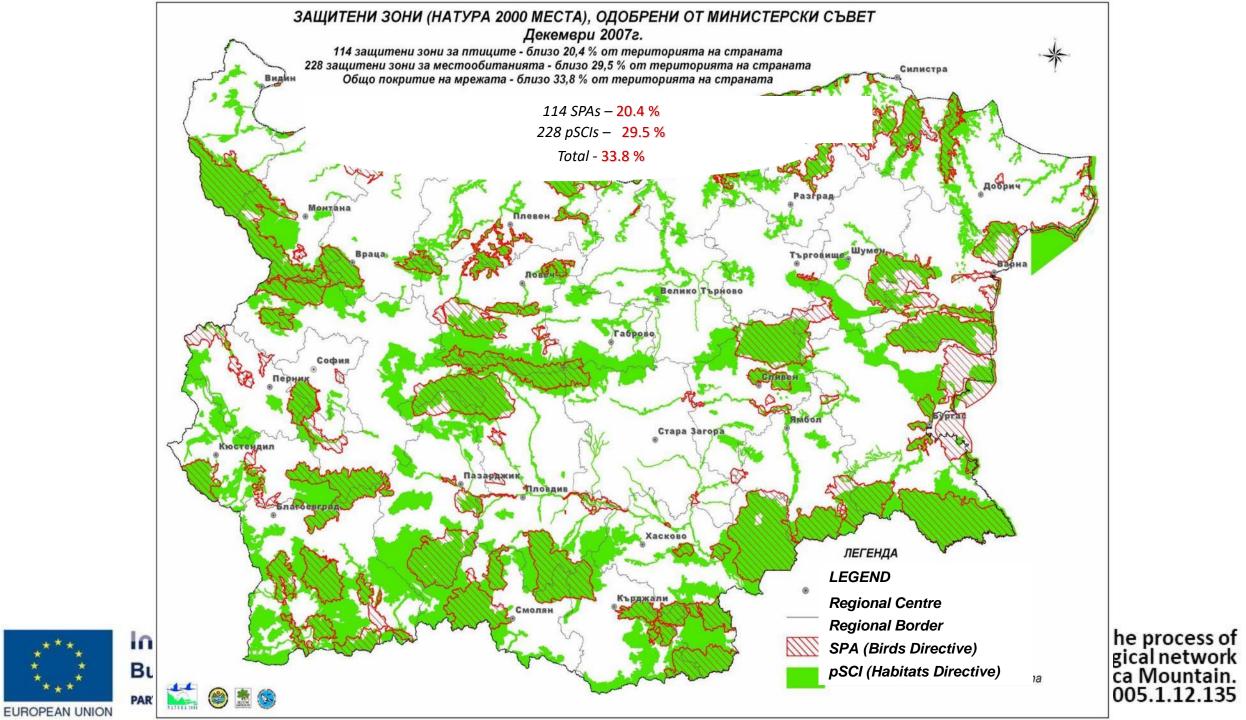


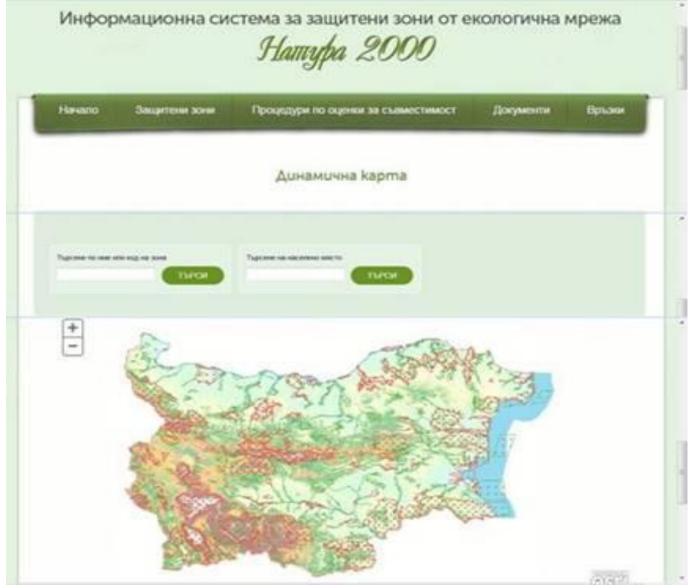






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http://natura2000.moew.government.bg/



Interreg - IPA CBC Bulgaria - Turkey







Preparation and promotion of the process of development of European ecological network NATURA2000 in Istranca Mountain.
Project № CB005.1.12.135

http://natura2000.moew.government.bg/Home/Natura2000Prot ectedSites











http://natura2000.moew.government.bg/Home/ProtectedSite/?code=BG0000 402&layerId=4













