Natura 2000 - Bulgaria

"Forum NATURA 2000"

Bulgaria: Data Availability/Field Mobilization

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Bucharest, Hotel Minerva

Technical Assistance for Revising and Complementing the Feasibility Study Regarding the Improvement of Navigation Conditions on the Romanian-Bulgarian Common Sector of the Danube and Complementary Studies - FAST DANUBE

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- **Dicon** - Environmental Company based in Sofia, will contribute to the AA study and EIA.
- **Team of experts:**
  - Svetlana Papukchieva –Team Leader;
  - Rumyana Mecheva – EIA Team Leader;
  - Nikolay Nedyalkov – AA Team Leader;
  - Dragan Chobanov – Invertebrates expert;
  - Krasimir Kirov – Aquatic Invertebrates expert;
  - Apostolos Apostolou – Ichtyofauna expert;
  - Borislav Naumov – Amphibians and Reptiles expert;
  - Ivan Pandurski – Mammals, incl. Bats expert;
  - Svetlana Bancheva – Natural habitats expert.

Note: other experts may be engaged as needed.

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- To be presented here:
  - Field data available.
    - Previous AA;
    - New data available;
    - Examples.
  - Field mobilization rationale.
    - Plan approach.
  - Questions.

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- General Approach - Field Data
  - *Field Surveys were performed in 2010 - 2011 (Appropriate Assessment Study) on a limited number of Natura 2000 sites (AA-2011)*

Field Surveys	Time Period
Natural habitats	May – June 2011
Invertebrates	May 2011
Ichtyofauna	November 2010
Amphibians and reptiles	May 2011
Birds:	
▪ Wintering birds	December 2010 – January 2011
▪ Migratory birds	April 2011
▪ Nesting birds	May – June 2011
▪ Raptorial birds	Mapped in parallel with the examination of wintering and/or migrating birds
Mammals	December – January 2011
Bats	May 2011

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- However, **the assessment of the impacts on Natura 2000 sites performed in 2010-2011 still suffered from the fact that conservation objectives have not been adopted.**
- **New data** is currently available as presented below.
    - **Field data** on water, sediment and fish data available from Joint Danube Survey **(JDS)** (2013) *all Danube countries surveyed*.
        - Macroinvertebrates;
        - Macrophytes;
        - Phytobenthos;
        - Phytoplankton;
        - Fish (electrofishing and benthic frame trawl nets for bottom);
        - Zooplankton;
        - Invasive alien species;
        - Microbiology.

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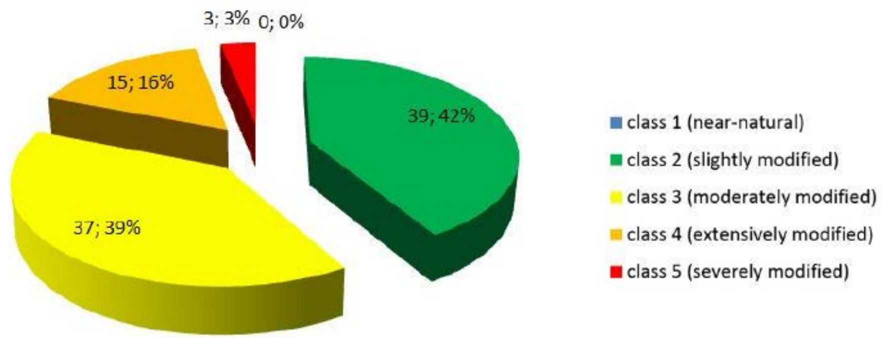
- **New data (cont.)**
  - **Field data** on water, sediment and fish data available from Joint Danube Survey (2013) *all Danube countries surveyed*.
    - Nutrients;
    - Hazardous substances;
    - Organic compounds;
    - Hydromorphology:
      - Class 2 (slightly modified): 21%;
      - Class 3 (moderately modified): 39%;
      - Class 4 (extensively modified): 26%;
      - Class 5 (severely modified): 14%.



  - **Yearly, JDS also** performs monitoring on a fewer number of parameters of interest (*mainly water quality)*

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- **New Natura sites also identified - a total of 42 Natura 2000 sites in Bulgaria along the Ro-BG sector** some overlapping the 3 Ramsar (wetland) sites on the Bulgarian side.
  - **Field data** available from the **National Mapping Project 2012 - includes distribution maps, geo base data:**
    - Natural habitats;
    - Invertebrates;
    - Fish;
    - Amphibians and Reptiles;
    - Mammals incl. Bats.
  - **Field data performed on Inter-calibration project (2014-2015):**
    - Fish;
    - MZB (Macrozoobenthos);
    - MPH (Macrophytes).

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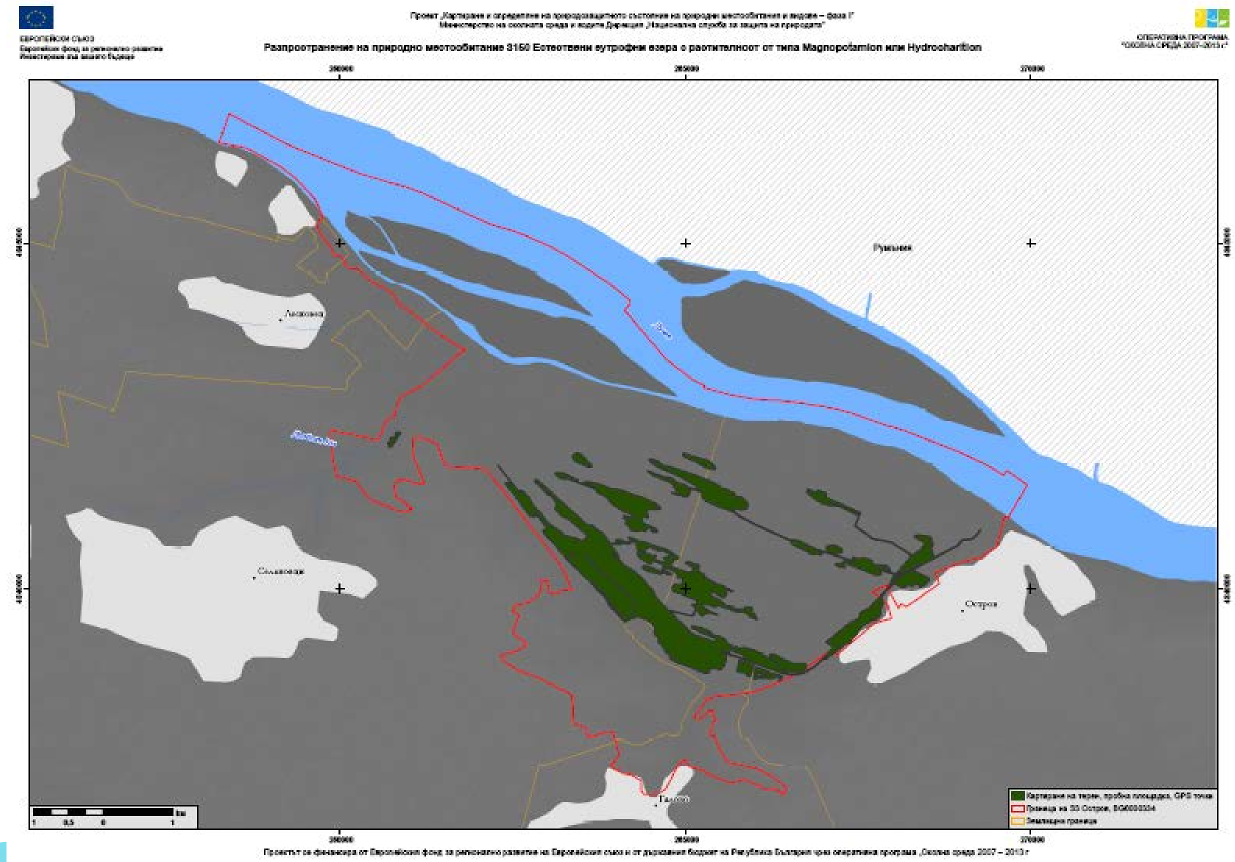
- **Distribution map example (1) -** Distribution of habitat type 3150 Natural eutrophic lakes with Magnopotamion or Hydrocharition type vegetation in SCI BG0000334 Ostrov.



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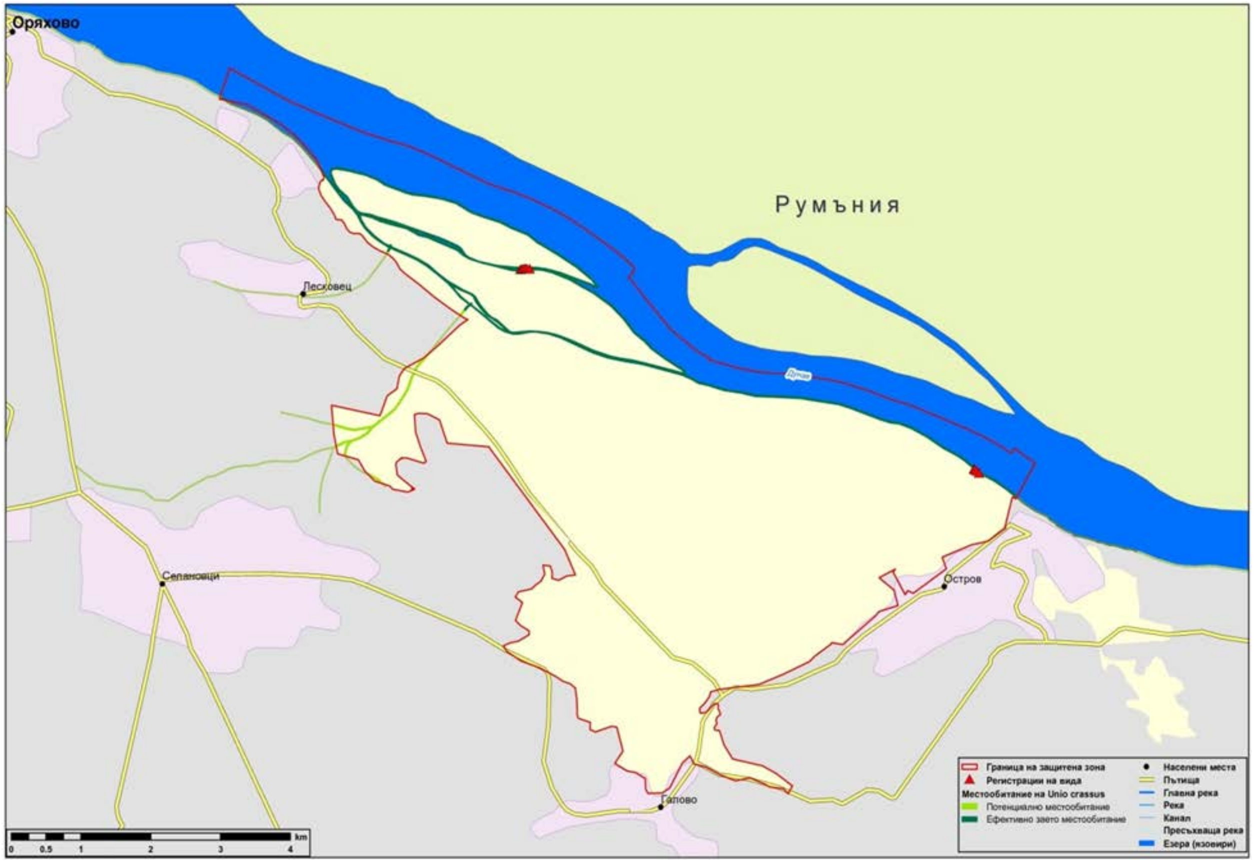
- **Distribution map example (2) –** Distribution of the thick shelled river mussel (*Unio crassus*) in SCI BG0000334 Ostrov.



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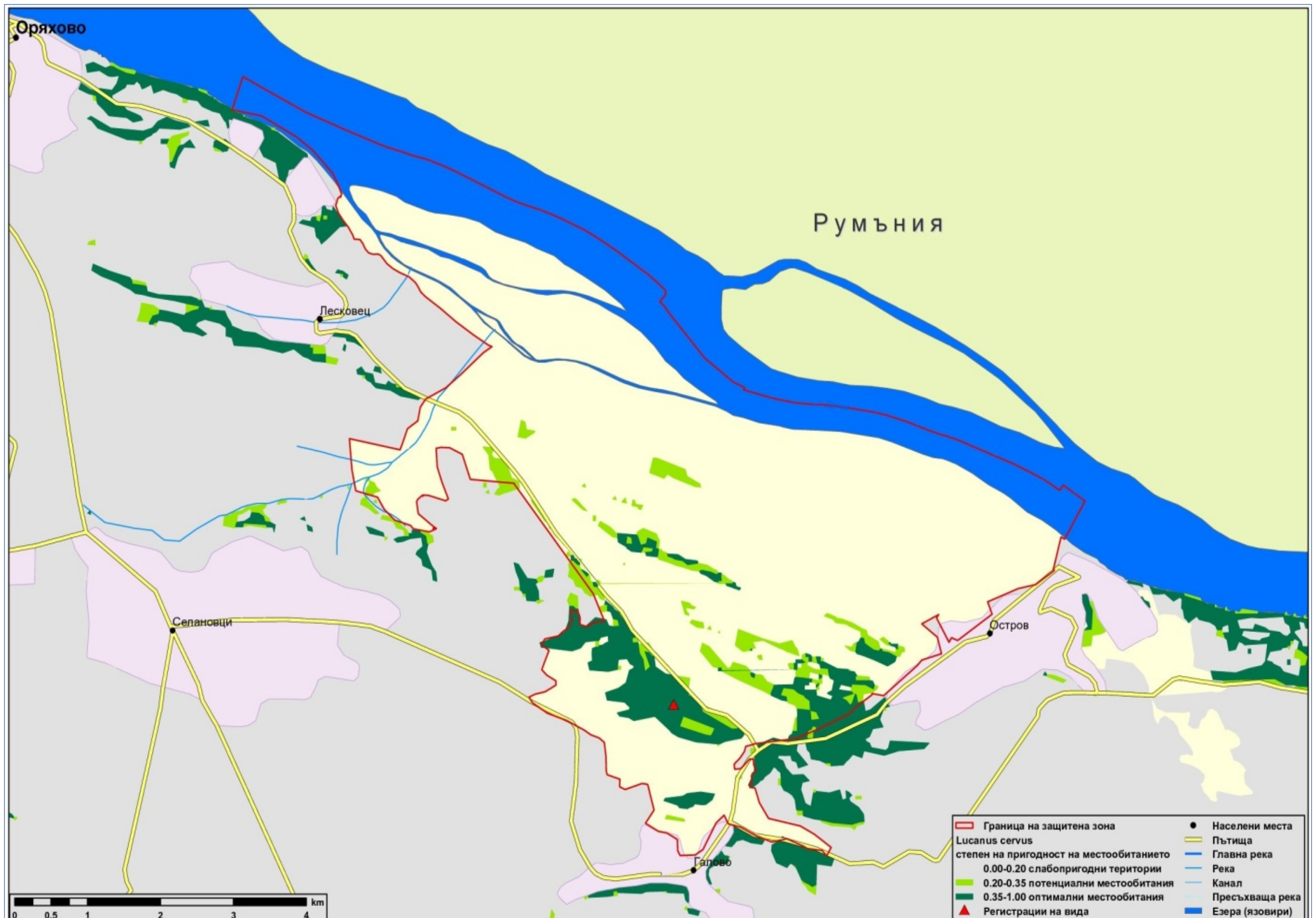
- **Distribution map example (3) –** Distribution of the Stag beetle (*Lucanus cervus)* in SCI BG0000334 Ostrov.



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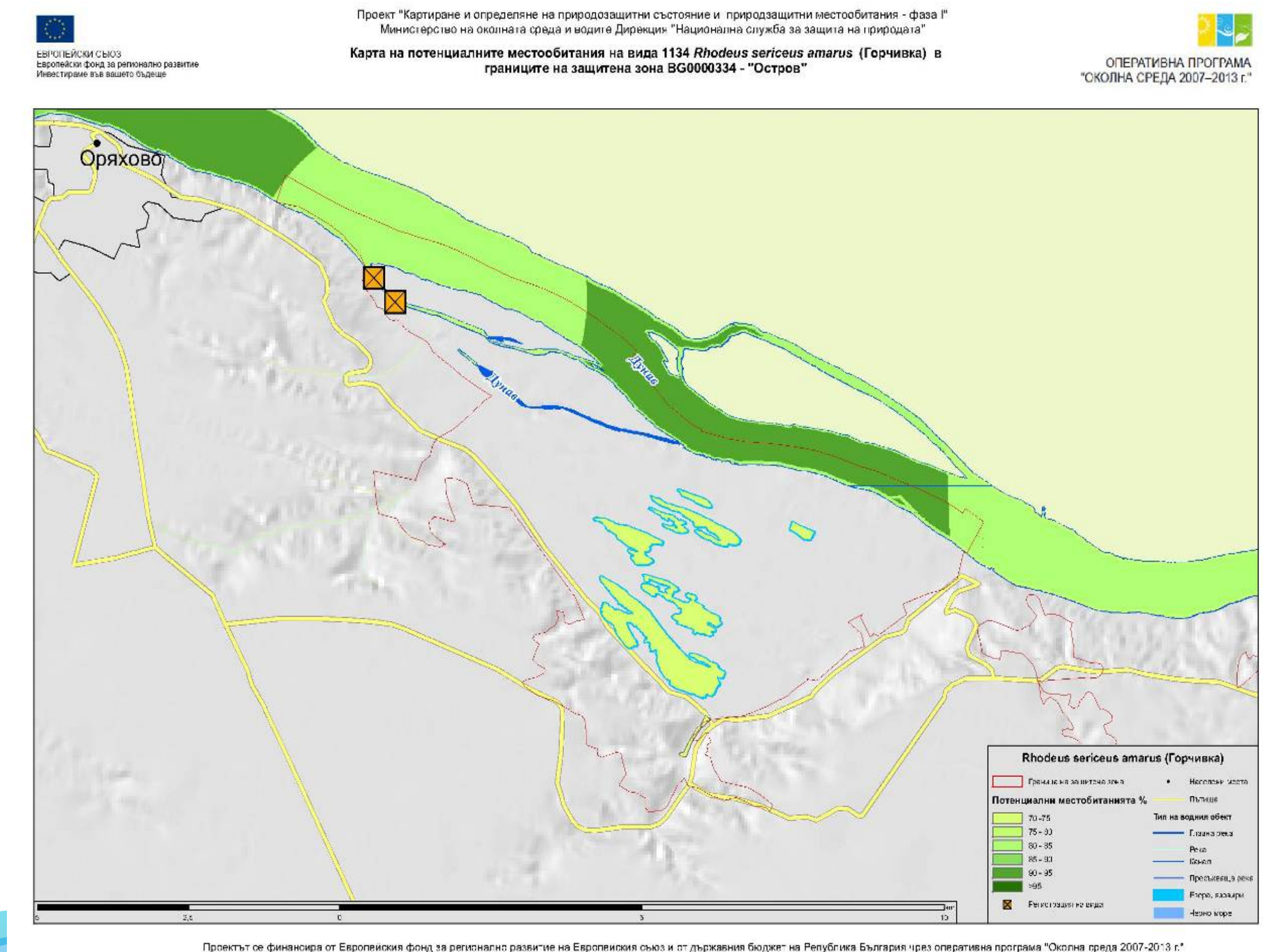
- **Distribution map example (4) –** Distribution of the European bitterling (*Rhodeus sericeus amarus)* in SCI BG0000334 Ostrov.



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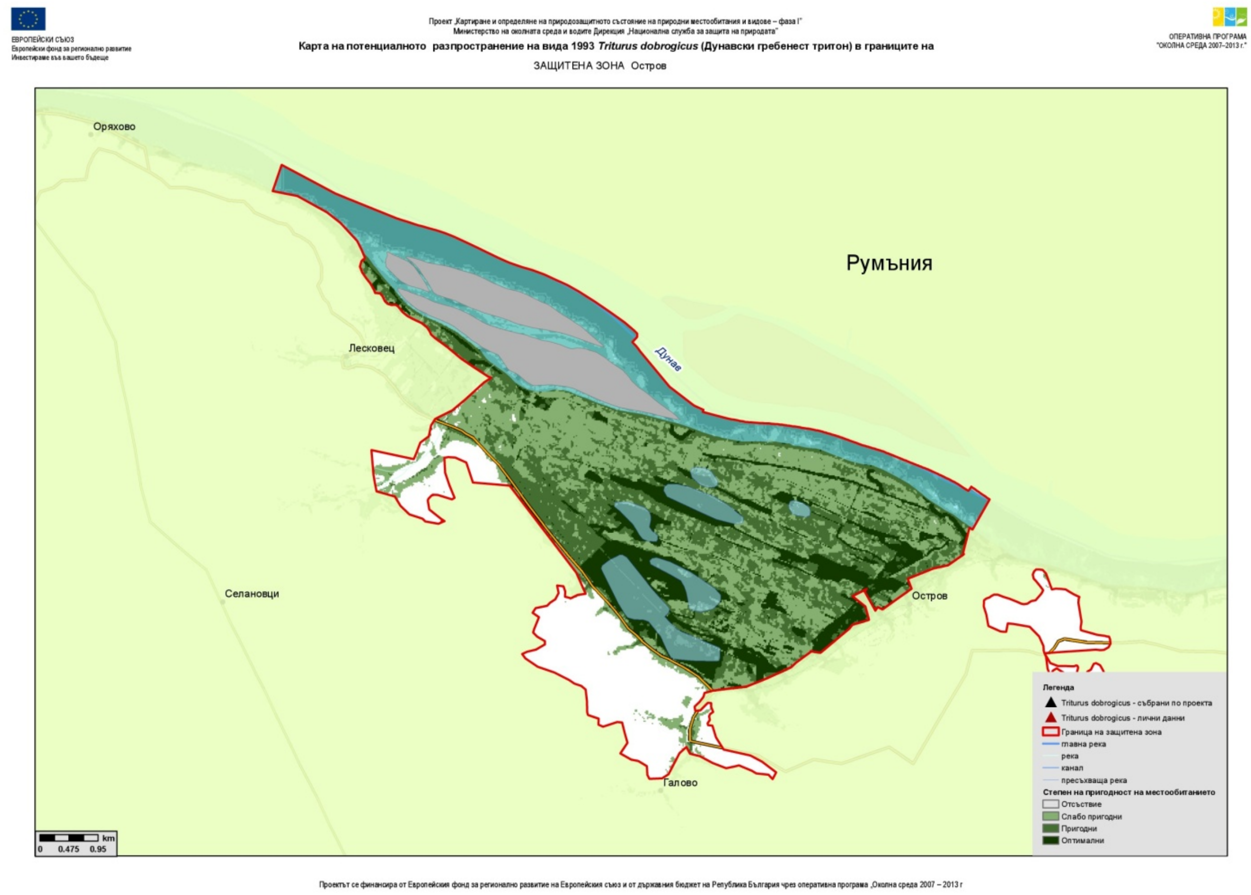
- **Distribution map example (5) –** Distribution of the Danube crested newt (*Triturus dobrogicus)* in SCI BG0000334 Ostrov.



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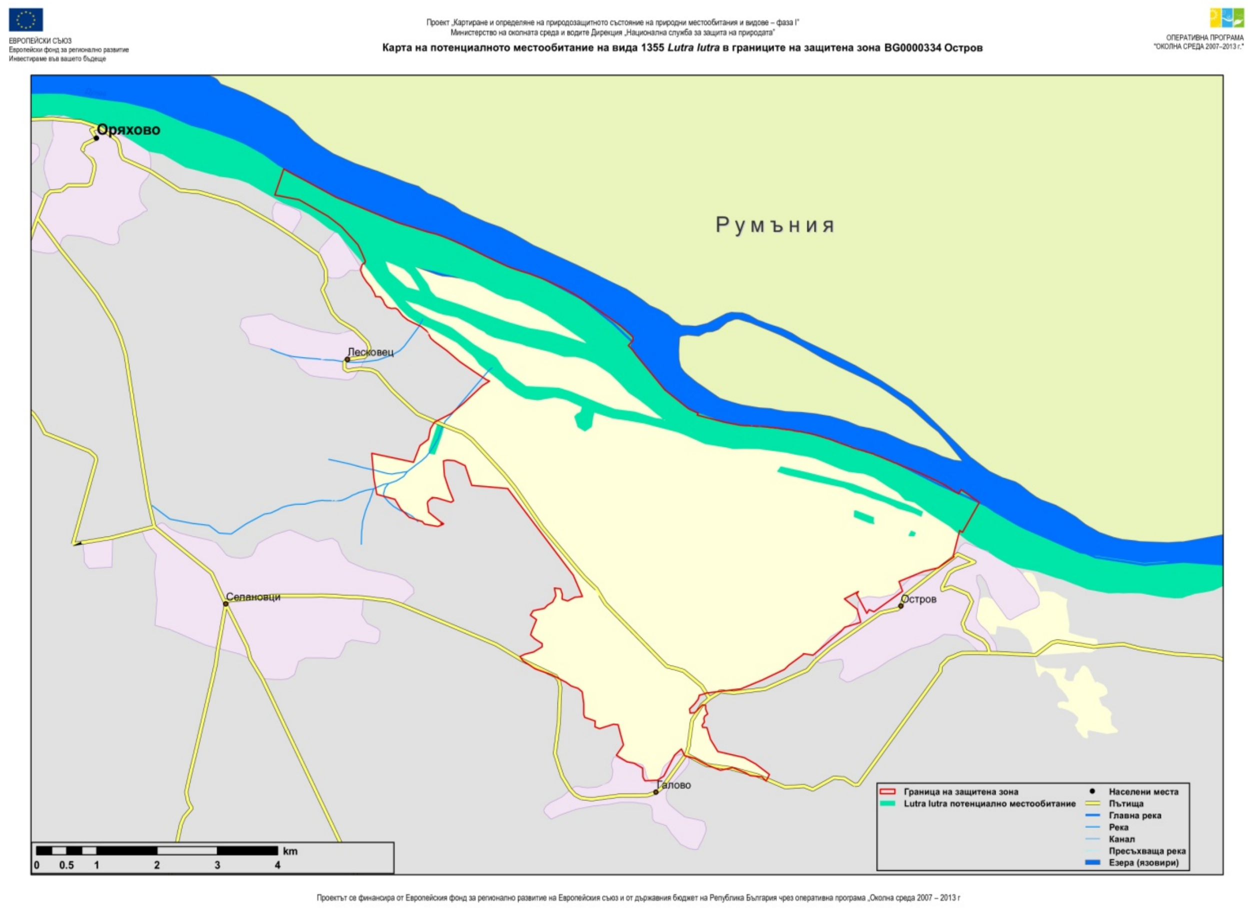
- **Distribution map example (6) –** Distribution of the European otter (*Lutra lutra*) in SCI BG0000334 Ostrov.



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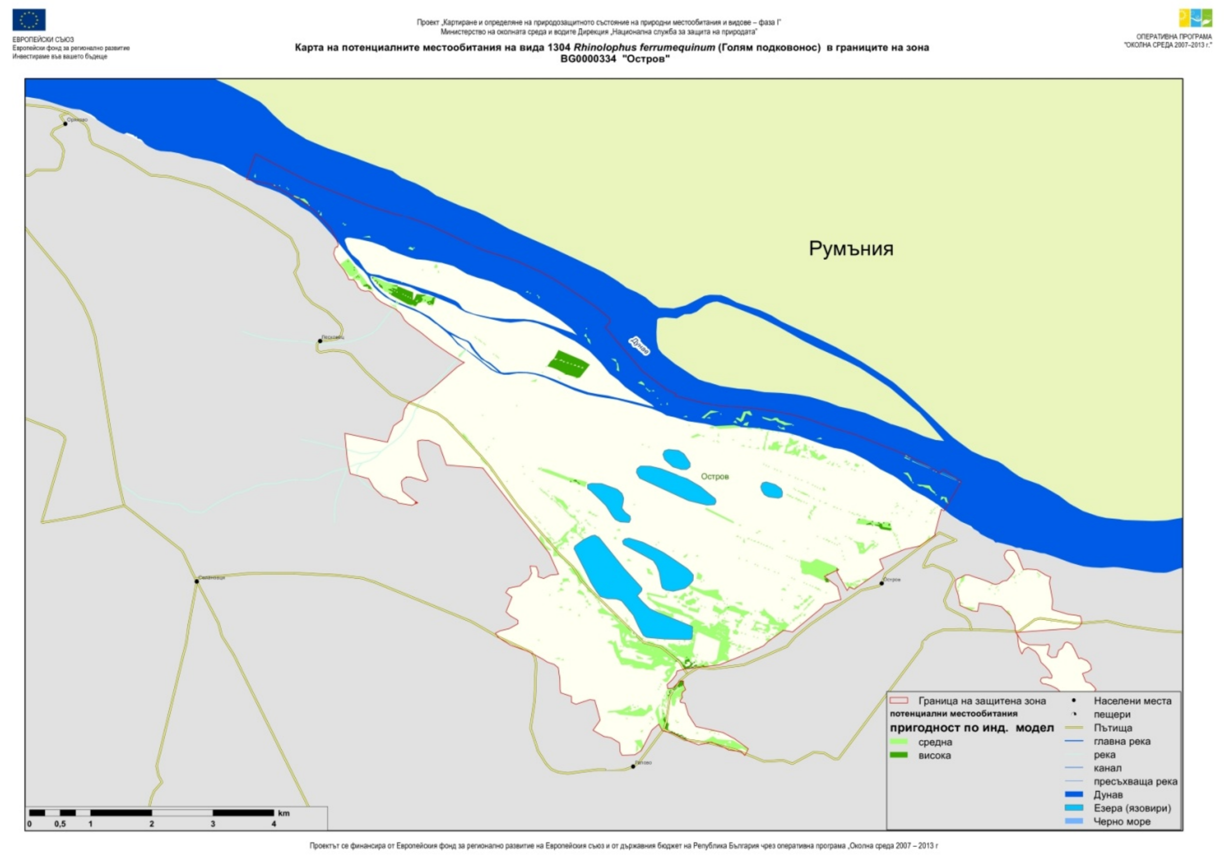
- **Distribution map example (7) –** Distribution of the Greater horseshoe bat (*Rhinolophus ferrumequinum*) in SCI BG0000334 Ostrov.



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- **Fish/Sturgeon** data:
  - **Fish**
    - 67 fish species inhabit the Bulgarian sector of the Danube;
    - 17 fish species are included in the NATURA 2000 list;
    - 8 introduced species have been established during the last century in the lower Danube.
  - **Sturgeon**
    - 2 of the sturgeons (Acipenser nudiventris and Acipenser sturio) are "protected" under Biodiversity Law (included in Category EX = extinct);
    - 4 of the sturgeons (Acipenser stellatus, Huso huso, Acipenser gueldenstaedtii and Acipenser ruthenus) are under conservation and Regulated use.

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- **Conservation objectives** established - example 1 (SCI BG0000396 “Persina”):

Common conservation objectives:

1. Conservation of the described types of natural habitats and habitats of species, their populations and distribution within the Natura 2000 site, in order to achieve and maintain their favourable conservation status;

2. Improving where necessary, the status of the described types of natural habitats and species habitats;

3. Restoration, where necessary, of the described types of natural habitats and species habitats.

The specific conservation objectives will be defined in the order for determining of SAC and in the Management plan of the site.

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- **Conservation objectives** established - example 2 (SPA BG0002017 “Кompleks Belenski ostrovi”):

Conservation objectives according designation order of SPA:

1. Conservation and maintenance of the habitats of the described bird species in order to achieve their favourable conservation status;

2. Restoration of habitats of bird species for which an improvement in their conservation status is necessary.

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Field activities rationale:

step 1.

- survey the critical points areas where works are performed - activity start - September 2017.

step 2.

- evaluate modeling results of potential solutions - and the data needs to study the area of impact downstream resulted from modeling, namely:

- impact from morphological changes;
- impact from hydro-morphological changes;
- impact from hydrodynamics changes.

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- **Field observation sheet/methodology:**
  - Selection of points for collecting information on the shores of critical areas for the presence of target and protected species and habitats within the affected NATURA 2000 sites;
  - Collection of photoes evidence of the presence/absence of flora and fauna, habitat status in the proximity of the river bank, from the waterway;
  - Determination of the quality, suitability and recoverability of habitats of the target species;
  - Collecting data on hydrological and hydromorphological environmental parameters affecting the distribution and abundance of hydrobonds (aquatic invertebrates and fish);
  - Use of collected data to evaluate and correct available information.

Thank you for your attention!

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