Ministry of environment and water, BULGARIA

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Opportunities for better life
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Project: Mapping and identification of conservation status of natural habitats and species

Even though Bulgaria is a small country with a territory of 110 912 km², it has 3 biogeografical regions (Alpine, Continental and Black Sea) and diverse topography, geology and hydrology. Bulgaria has therefore a very rich biodiversity - about 3900 vascular plant species, more than 27000 invertebrate species, 210 marine and sweet-water fish species, 421 bird species and mammals species.

NATURA 2000 covers 34,34% of the Bulgarian terrestrial territory, which is second only after Slovenia. Such significant coverage defines the need of a proper and long-term management that have to be based on relevant and reliable information about the conservation status and distribution of the protected species and habitat types. Therefore in 2009 the Bulgarian Ministry of Environment and Water developed the project "Mapping and identification of conservation status of natural habitats and species". The **main aim** of the project is mapping and determination of favorable conservation status of 87 habitat types and 119 species, included in the Habitat Directive (92/43/EEC). Project's **second goal** is to determinate areas, which are on the one hand valuable for 40 bird species (included in Bird Directive (2009/147/EC) but on the other hand suitable for wind farms.

The Project budget is 13 223 867 Euro - 1 983 579 Euro is a National co-financing, and 11 240 287 Euro from the European Regional Development Fund. This makes it the largest project in Bulgaria financed by the Operational Programme Environment, sector Biodiversity.

The project is divided into two field seasons (from Mart 2011 till Mart 2013) and has 7 different units: Lot Invertebrates, Lot Fishes, Lot Amphibians and Reptiles, Lot Mammals, Lot Bats, Lot Vascular plants, mosses and habitats, and Lot Birds. The implementation of the project involves 120 teams with a total of 400 experts and volunteers. The involved experts represent the Bulgarian academy of science, Bulgarian environmental NGO's, University professors, science organizations and experts from deferent administration as well as experts from abroad.

The achievement of the first aim of the project (mapping and determination of favorable conservation status) needs theoretical phase and a field work divided into 3 steps: **1.** Mapping the potential species' habitat borders (within NATURA 2000 sites) on the base of GIS models, ortho-photo images and other layers; **2.** Verification of the collected data in the first stage; **3.** GIS processing and correction of borders settled in the first stage.

The achievement of the second aim of the project (minimizing the risks for the wild birds) also needs a theoretical phase and a field work. The focus is on the preparation of GIS based map of the major bird migration routes in Bulgaria and the analysis of the data will help to point out the most suitable areas for wind farms, where birds are not in danger of collision with the turbines.

Expected results from the implementation of the project: methods for mapping and determination of favorable conservation status; detailed mapping of nature habitats and habitats of species subject of the project; determination of favorable conservation status of the habitat types and species on national and biogeographically level and in the NATURA 2000 network; developed early warning radar system, which will regulate the operation of wind farms during the risk period of bird migration; developed guidance for the conservation of wild birds, living, nesting, breeding or migrating in areas suitable for wind farms in Bulgaria; map and a GIS model of the areas with risk potential for bird collision with wind turbines.