

DISTRIBUTION MAPS FOR PROTECTED AREA ROSCI 0299 - DUNĂREA LA GÂRLA MARE MAGLAVIT

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Abstract: *Protected areas, defined as areas in which the primary purpose is the conservation and protection of nature and cultural values are important to all segments of society. They have great potential to become models of the harmonious development of human society because these areas are promoted, more than elsewhere, sustainable management of natural and cultural resources. One of such protected area is - ROSCI0299- DUNĂREA LA GÂRLA MARE MAGLAVIT in Dolj County, and it consists of six blocks. Site of Community Importance, ROSCI0299 Danube at Gârla Mare - Maglavit is characterized by the presence of several classes of habitats, specify both the wetlands and the land, territories sure walk some important species of conservation interest, among mammiferous , amphibians, fish etc. The site totals an area of 9422 ha, which, in terms of bio-geographic region is integrated into the mainland. Actions due to natural phenomena (unpredictable or predictable) and / or factor socio-economic constantly evolving technical and economic can generate, over time, changes in the natural environment and components defining site ROSCI0299 Danube at Gârla Mare - Maglavit, with implications area times its scientific relevance. Mapping the distribution of the species for this site is a very important part of the management plan of the protected area.*

Keywords: *protected areas, mapping, distribution of the species*

1. Introduction

The site is located in the southern counties of Dolj and Mehedinti, Olt plain, falling within the geographical unity of the Romanian Plain, a strip along the Danube. Localities in Dolj county holding areas within the site are: Calafat, Cetatua and Maglavit, Salcia, Gârla Mare, Pristol, and Vrata belong Mehedinti county,. Site coordinates are 44° 6 '40' 'N and 22° 55' 38 " longitude E [4].

Access to the site occurs inland terrestrial communication infrastructure represented by roads or county roads related to settlements cover the distance Craiova Podari-Galicea Radovan-Mare 79 (DN 56) then Maglavit on Route 56A, total distance totaling approx. 80 km. If it continues on Route 56A route Maglavit-Hunia-Moreni, reaching the Cetate (approx. 8km) being allowed access to the site by DC 149. From Cetate DN 56A and 56C is reached settlements related Mehedinti county .

Descriptive delimitation of the site should be assumed as indicative limits, localities Gârla Mare (north), Pristol (East), Calafat (southern) and Cetate - Maglavit (west). Limits that have forced the Danube River to the south, from the village tails (Pristol) until the Basarabi (Calafat).

The contour of land distinguish often as boundaries between site area and other land, local roads, such as roads peripheral adjacent villages (eg. Basarabi, Golenți, Maglavit, Hunia,

Moreni, Vrata, Gârla Mare, Cozia) or other roads of agricultural interest. Site surface has a length of approx. 36 km while the maximum width varies between 5 and 9 km, minimum is about 1 km. As a result, the site has an irregular outline, sinuous, encompassing a varied biotope offering different living conditions conducive various animal and plant species.

2. Description of protected area

Site of Community Importance, ROSCI0299 Danube at Gârla Mare - Maglavit is characterized by the presence of several classes of habitats, specify both the wetlands and the land, territories sure walk some important species of conservation interest, among mammals, amphibians, fish etc. Importance of the site is all the greater when there are many sites designated for conservation of species listed in Annex II to Directive 92/43 / EEC: *Spermophilus citellus*, *Lutra lutra*, *Emys orbicularis* or *Triturus dobrogicus*. Along with these species and site conservation interest for *Bombina bombina*, *Gobio albipinnatus*, *Gobio kessleri* or *Rhodeus sericeus amarus*.

The site totals an area of 9422 ha, which, in terms of bio-geographic region is integrated into the mainland. It has the coordinates 44°6'40 " north latitude and 22°55'38 " east longitude. Surface of (9422 ha), is distributed 57% in Mehedinti county and 43% in Dolj County in the Region IV South - West Oltenia.

Danube at Gârla Mare - Maglavit was proposed as a Site of Community Importance (SCI) in 2011, based on the Order of the Minister of Environment and Sustainable Development No: 1964/2007 regarding the creation of the protected area of sites of importance Community, as part of the European ecological network Natura 2000 in Romania, approved with amendments and completions by Ministry of environment and forests No: 2387/2011.

As a site of Community importance, it is intended to:

- contribute significantly to the maintenance or restoration of habitat in Annex 2 or a species in Annex 3 of the Ordinance of the Government No: 57/2007 on the regime of protected areas, natural habitats, wild flora and fauna, approved with amendments and additions by Law 49/2011 as amended, the conservation status;

- ensure the coherence of Natura 2000;
- ensure maintenance of biological diversity biogeographic in that region.

These goals are part of the broader objectives of Natura 2000, covering:

- halting biodiversity decline by long-term conservation of valuable habitats and species of Community interest;

- protecting biodiversity of Europe;
- promote beneficial economic activities

Legal regulations have ensured that status a total of 273 sites, which corresponds to 13.21% of the country. Add to this Sites of Special Protection, numbering 108, accounting for 11.89% of Romania.

Geology

Oltenia Plain basis, the fall and this territory is Moesica platform. In tectonically, the area is characterized by stability imposed. From the information available it can be said that the base platform has Hercynic origin, while sediments superior Carpathian origin. They date from the Pleistocene while Mesozoic and meadows dates from Holocene. The layers formed between the Jurassic and Cretaceous oil deposits are invested. Layer of loess totaling a maximum thickness of 40 m, particularly in the plains tabulated [1].

Geomorphology

Relief relatively plan, specific Danube Plain and Plain Oltenia. The average altitude is 36 m; The minimum spacing of between 17 m and maximum of 71 - 75m. For example, the Gârla Mare height is 61 m (Boengiu S., Pleniceanu V., 2003), Cetate, Maglavit 53 m and 75m. Dolj county adjacent areas predominate Danube meadow and terraces plus formations of sand (dunes).

Hydrology

The territory belongs to the basin Jiu. The site is at the lower basin, bounded as follows:

- Northern mountains Surian, Parang, Retezat, Cerna;
- West Hills and platforms high up near the village of Sarbatoarea;
- East, a narrow ridge that separates him from most of the Olt River, up near Craiova, then continue on the line localities Leu, Ghizdăvești, Bechet.
- To the south, the Danube River.

The site is crossed by Drancea River, a tributary of the Danube that flows from Getic Piedmont, has a length of 73 km and an annual average flow of 0.45 m³ / s. Site works are carried out on the territory of regularization Drâncea in the zone where the Danube embankment works on a single shore. Surface waters are the lakes and ponds as Fântâna Banului, Balta Mare, Salcia, Hunia, Maglavit, Golenți formed on the left bed of the Danube river [2].

Climate

Across the site meets a specific climate regime Oltenia Plain, falling into the type of temperate continental climate with little nuances Mediterranean, with hot summers and long, mild winters, short springs, long autumns and dry. The average annual temperature is 11,5C, the hottest month being July with 23,4C multi-annual average temperature and the coldest month is January with an average temperature multiannual 1,5C. Average annual rainfall is 500 mm with a maximum uniformly distributed in 58.5 mm and 28.5 mm minimum in July. The wind highlights the frequent winds in the west, southwest and northwest, which represents 38.9% of total days of the year.

3. Results – map of distribution

For mapping the distribution of site management plan's were performed field measurements using GPS technology complemented mainly in areas covered with forests with total station. Also they were used cadastral maps 1: 10000, and the latest available aerial images.

In the first stage was made a administrative map (Fig.1) which were highlighted villages, main access roads, hydrography and land use categories.

After conducted field trips with biologists specialists in identifying areas of distribution of various species distribution maps were drawn. We present below only three of them (Fig. 2,3,4).

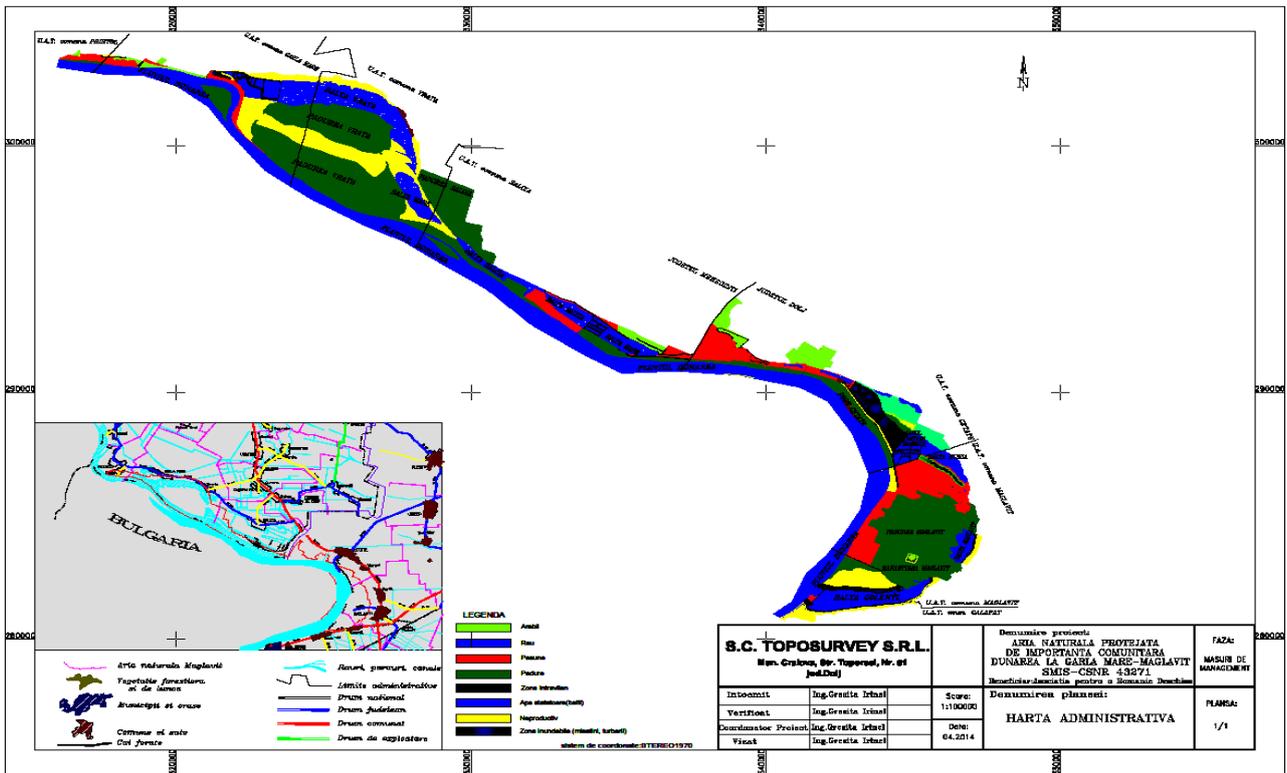


Fig. 1. Administrative map of ROSCI0299

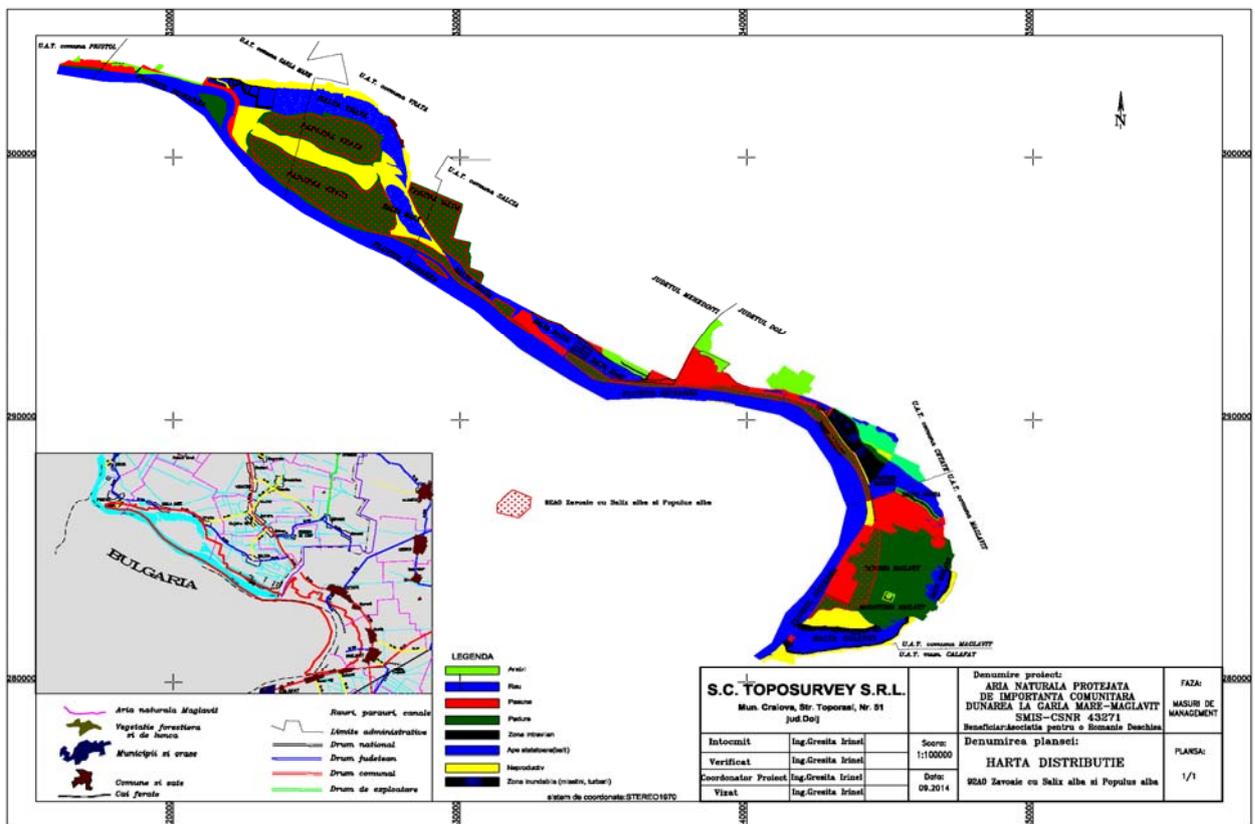


Fig. 2. Distribution map for 92A0 areal in ROSCI0299

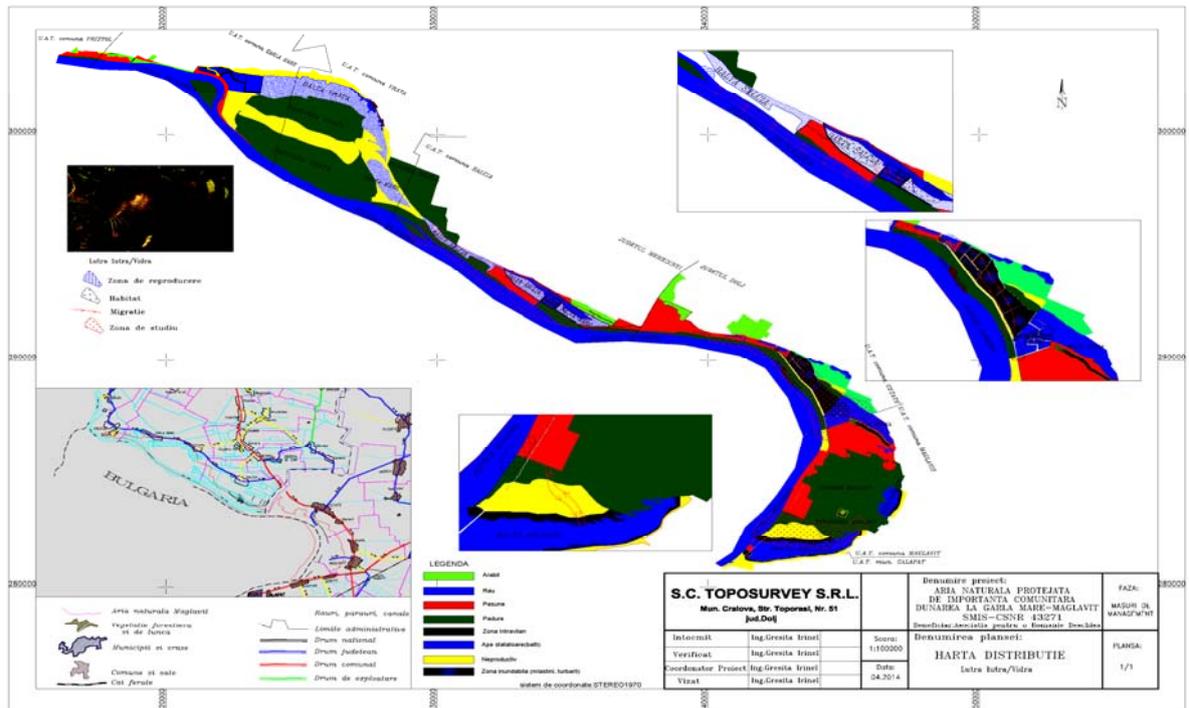


Fig. 3. Distribution map for “Lutra Lutra” species in ROSCI0299

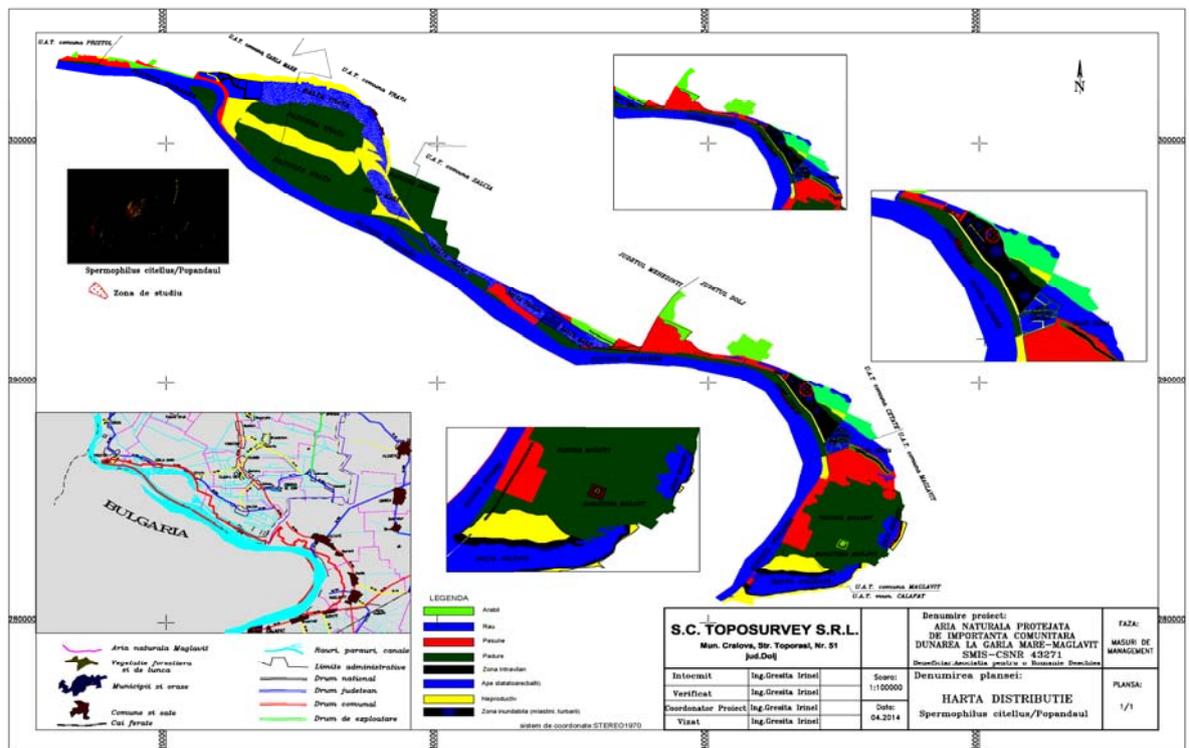


Fig. 4. Distribution map for “Spermophilus citellus” species in ROSCI0299

4. Conclusions

Execution of species distribution maps for protected area is an important part of protected area management plan. The maps were obtained by field measurements followed by advanced image classification [3], vectorization and remote sensing and especially interpretations of experts in order to identify areas of distribution of plant species. All maps obtained, referencing data in a centralized geospatial database unit at site level with the projection system - Stereo70. Cartographic map products, are shown in a mapping unit, observing a standard template map.

5. References

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