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Completing the Second European and First Serbian Bird Breeding Atlas

- final report -



Veliki Krš mountain chain (1.148 m asl) near Bor town (E Serbia) – nesting and feeding habitat of Rock Partridge (*Alectoris graeca*), Golden Eagle (*Aquila chrysaetos*), Peregrine Falcon (*Falco peregrinus*) and Shorttoed Snake Eagle (*Circaetus gallicus*)

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Project area	Republic of Serbia
Project tittle	Completing the Second European and First Serbian Bird Breeding Atlas
Beneficiary name	Bird Protection and Study Society of Serbia (BPSSS)
Project coordinator	Draženko Rajković
Legal representative	Milan Ružić





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INTRODUCTION and BACKGROUND

The Bird Protection and Study Society of Serbia after first year of contribution to the Bird Breeding Atlas of Europe initiated data collection for the first National Breeding Bird Atlas in winter/spring of 2014. This national project in the end will fulfill gaps in our understanding of abundance and geographical distribution of the more than 241 species of birds which breeding within borders of Serbia. Up to now, over 120 amateur and professional ornithologists and birdwatchers from 9 European countries and 12 organizations surveyed large part of Serbian territory and generated over 220.000 different records of breeding birds, making this job in this moment the largest citizen-based biodiversity project in the Serbia ever! Changes in land use, the emerging effects of climate change and human development in Serbia continue to have destroying and often unforeseen effects on our bird community and also other wildlife and habitats. The comprehensive data on distribution and abundance of breeding birds which will be generate by this Atlas effort will provide critical information to inform a variety of conservation strategies and management actions and help ensure that the richness and diversity of Serbian wild avifauna are maintained into the future. Also we hope very much that this project will provide an excellent opportunity for the many bird lovers in Serbia to get out in the field, make new friends, learn more about birds, and all the while contribute to ornithological research and conservation in the state.

GENERAL PURPOSE

The main purpose of First Atlas of Breeding Birds of Serbia is to determine the distribution and abundance of the breeding birds in order to provide a record of recent status of breeding bird fauna and to make these data readily available to support the conservation of birds and their habitats.

GENERAL OBJECTIVES

First Atlas of Breeding Birds of Serbia has several main objectives. However, all of them will contribute to better understanding of Serbian bird assemblage in general. In this light, the Atlas will:

➤ Classify the breeding evidence for each species using a set of international EBCC codes based upon bird behaviours and map the breeding records for each species using a system of UTM squares 10×10 km.





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- Provide measureable data that will allow comparisons with other Serbian bird related studies to document breeding bird population changes and trends.
- ➤ Obtain finely resolved data for property inventories and identification of areas important to birds.
- Provide accurate information on the nesting occurrences, phenology, habitats, and status of rare, special concern, and poorly monitored bird species.
- ➤ Provide a major scientific database and reference for public policy, conservation planning, education, recreation and research.
- Introduce Serbian birders to a new and exciting way of birding, which at the same time contributes valuable scientific information.
- Provide a coordinated and cooperative project that will bring bird enthusiasts together along with partnering organizations and donors so they will become more involved in conservation issues and educated about birds as a natural resource.

ACTIVITIES PLANNED for BREEDING SEASON of 2018

During 2018 in light of First Atlas of Breeding Birds of Serbia Bird Protection and Study Society of Serbia planned to:

- Improved knowledge on bird distribution in Serbia, especially in central and south-western part of the country
- At least 40 squares 10 × 10 km covered with relevant species list and atlas codes
- At least 50 new 10 × 10 km squares with more than 100 individual data (focus is on squares that were previously poorly covered by research with less than 100 individual data)
- More than 10.000 opportunistic data on different species
- > New data on understudied species: woodpeckers, grouses and nocturnal species

MAIN RESULTS

1. Survey of chosen transects

Besides the predefined transects which was finished in 2017 for EBBA 2 purposes, about 22 chosen transects were conducted in different part of the country during 2018 with aim to census common bird species and calculate their densities. Also, a large volume of opportunistic data was collected in various parts of country. Opportunistic data, collected during 2018, are numerous and





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a large part of them remains non-digitalized (see below). A significant part of data is located in the eBird database (where around 180.000 breeding records from Serbia are stored). A part of the opportunistic data is located in the national BioRas database. For the realization of field activities related to data collection a total of 86 working days were spent. Data digitalisation it's still going on.

2. Field research of mountain habitats with an aim to census the owls, woodpeckers and grouses

In total of 9 mountain massifs were surveyed in accordance with this activity: Suva Mt (E Serbia), Medvednik, Jablanik, Povlen, Maljen, Golija (SW Serbia), Goč, Stolovi, Kosmaj (C Serbia). The attention was directed to surveying the locations in which this species were not documented at least 20 years ago. A total of 29 Hazel Grouse (Bonasa bonasia), 18 White-backed Woodpecker (Dendrocopos leucotos), 47 Black Woodpecker (Dryocopus martius) and more than 120 territories of other woodpecker species were noted. Also we collected data for Western Capercaillie (Tetrao urogallus) abundance and distribution on Mojstir Mt (SW Serbia). We found between 20 and 30 calling cocks on five different leks and this results confirm previous speculations about numbers on this location. These findings represent largest population of Western Capercaillie existed on Serbia and one of only four locations were this species bred. In addition, we discovered 7 new territories of Eagle Owl (Bubo bubo), 12 new territories of Ural Owl (Strix uralensis) and 14 locations of breeding Rock Partridge (Alectoris graeca). For surveying the breeding owls, grouses and woodpeckers we spent a total of 27 working days.

3. Improvement of BPSSS data gathering and storage

A large portion of the data collected by ornithologists in Serbia is kept in unpublished field notebooks. Only a small portion of the data is published as faunistic studies or short communications. The BioRas portal of biological diversity, which represents a national database in which data regarding biodiversity is stored after going through a system of verification, is operational in Serbia since 2012 (http://www.bioras.petnica.rs/home.php). However, the number of users who store their field data into the BioRas portal is still relatively small. Before the atlas project started, there was just over 3.000 individual data on birds stored in the BioRas database. During the 2018 our data manager worked systematically to store as much opportunistic data as possible in the BioRas database. By the end of December 2018, over 28.000 new individual data on birds are stored in the BioRas portal, from which the majority was entered in the database by the data manager and national atlas team. A portion of the entered data originates from the period before 2013 and relates to the non-breeding period. However, the majority of the records originate from the breeding seasons of 2018.





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4. Atlas expeditions in remote parts of Serbia

During 2018 several ornithological expeditions were organized in remotes parts of Serbia, during which a large volume of ornithological data was obtained. Expeditions were organized in the following parts of Serbia (we will list towns or protected areas in which the expeditions were organized, because a larger number of 50x50km UTM squares was surveyed this way):

- Eastern Serbia the vicinity of Bor, Pirot, Niš, Trgovište and Preševo
- Western Serbia National park "Tara",
- Western Serbia the vicinity of Valjevo, Ivanjica, Bajina Bašta, Zlatibor
- Central Serbia the vicinity of Kraljevo, Vrnjačka Banja, Kragujevac, Mladenovac During expedition to Preševo valley we discovered two territories of new breeding species for Serbia – Olive-tree Warbler (*Hippolais olivetorum*).

5. Other activities related to atlas work

During 2018 Serbian ornithologist conducted monitoring of Saker Falcon (*Falco cherrug*), European Roller (*Coracias garrulus*) and start work on census of heron and cormorant colonies. Also, a great number of small or regional surveys, carried out by individual ornithologist was realised. We used all this field effort to collect data on all breeding birds, which increased a total amount of ornithological information useful for atlas.

CONCLUSION

The work on the Atlas during 2018 was intensive and successful, contributing significantly to the improvement of knowledge on the distribution and abundance of breeding bird species in Serbia. We consider that the project has been successfully carried out, although the activities were not completely in accordance with the ones originally planned within this project. The GOBG grant has significantly improved the capacities of Serbia to work on the Atlas, which is why we hope to continue our cooperation.

BASIC FINANCIAL STATTEMENT

In total, during 2018 we spent 4.333 Eur. For travel costs (fuel) we spent 1.121 Eur, for researchers accommodation 2.070 Eur and for meals 1.142 Eur.





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ДРУШТВО ЗА ЗАШТИТУ И ПРОУЧАВАЊЕ ПТИЦА СРБИЈЕ

DRUŠTVO ZA ZAŠTITU I PROUČAVANJE PTICA SRBIJE

BIRD PROTECTION AND
STUDY SOCIETY OF SERBLA