

## ORNITHOLOGY AND BIRD PROTECTION IN BOSNIA AND HERZEGOVINA: SITUATION AND PERSPECTIVES

### Ornitologija in varstvo ptic v Bosni in Hercegovini: razmere in perspektive

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#### 1. Introduction

The first records on birds in Bosnia and Herzegovina (BiH) can be found in travel books edited during the mid-19<sup>th</sup> century. Expeditions organized by German and Austrian museums, aimed at collecting biological materials, collected specimens of birds hunted in BiH. Organized investigations started with the foundation of the National Museum of BiH, in 1888, and were connected to the name of Otmar Reiser, the founder of ornithology in BiH (OBRATIL 1980, KOTROŠAN 2002). In the period that followed, the development of ornithology was limited by political, economical and social factors, and this situation was reflected in the development of organized movements for the protection of habitats and bird population. The same situation may pertain today. In spite of the rather long history of ornithology, BiH still represents “terra incognita” for those interested in the field. Numerous serious consequences resulted, for example, in the appearance of incorrect data on birds and their habitats in BiH, in the “Bird check list of the World, Bosnia and Herzegovina” (LEPAGE 2004). Also, the expected cooperation and support in the development of programs for nature and bird protection by international and specialist European associations, which could improve the situation, are lacking.

#### 2. Ornithology in Bosnia and Herzegovina

The first reliable information on BiH birds is published in the works of Dombrowski, Kadisha, Platz and others, during the 1880s. But the foundation of the National Museum of BiH was the precondition for establishing a research centre for ornithological investigation in BiH (OBRATIL 1980). Up to now two main periods of centre activities could be recognized.

The first one, from 1888 up to 1920, was marked by the work of Otmar Reiser in the area of fauna and taxonomy. An all-inclusive review of his research was presented in the first, and the only, monograph on BiH avifauna (REISER 1939). The second period, 1964 – 1992, was connected to the work of Svjetoslav Obratil dedicated to fauna and bird ecology. Special significance is attached to the work done in the areas of Hutovo blato and Bardača, which present the first systematic investigations of these very important bird areas. Together with Obratil, a few researchers from Serbia and Croatia contributed significantly to the recognition of BiH avifauna, especially Dragutin Rucner with his work in the delta area of the river Neretva (KOTROŠAN & PAPES *unpubl.*).

Between these two periods very little was published about birds in BiH, as well as in the period after 1992. Of course, the war and post-war period did not favour bird investigations. The mine fields, and lack of material and human resources contributed to the very slow recovery of these activities. But it is worth underlining that the National Museum of BiH has been the only institution that employed ornithologists throughout the whole period.

It is also important to note that Branislav Gašić, curator of the Museum of the Republic of Srpska in Banja Luka, is engaged in ornithology and some results can be expected. But in general, from 1995 till 2004, very few publications appeared (GAŠIĆ 2001, MULAOMEROVIĆ *et al.* 2002, RUBINIĆ 2002A, B, C, D & E, ŠURINA 2002 A & B, ŠTUMBERGER 2002 A & B). Some efforts have been made by NGOs, especially in monitoring, numbering and surveying some species. The foundation of the NGO “Naše ptice” (“Our birds”), which is aimed at developing bird research, is welcome (KOTROŠAN 2003).

## 2.1. Inventory

The first, all-inclusive review on avifauna in BiH was prepared by REISER (1939). A more detailed review, which included Reiser's results as well as those of other ornithologists during 1888 – 1920, was made by OBRATIL (1980) in his six papers published in the period 1967 – 1977.

Two inventories of BiH avifauna have been made by MATVEJEV & VASIĆ (1973) and OBRATIL (1980). The latter listed 315 species. According to MATVEJEV & VASIĆ (1973) 218 species were recorded as nesting. Comparison of the two lists showed highly significant differences. For example Pallid Swift *Apus pallidus* was on the list in 1973 as a breeding bird (nesting was notified in Neum), but not on the second list. The list published by LEPAGE (2004), which includes 318 – 319 bird species, should also be mentioned. In all these lists, probably based on the 1973 inventory, some species are missing that have been recorded in BiH, such as Spanish Sparrow *Passer hispaniolensis* and Zitting Cisticola *Cisticola juncidis*, while some others as Rufous Bush Robin *Cercotrichas galactotes* that is listed by mistake and Bewick's Swan *Cygnus columbianus*, never notified in BiH, are on the list. Generally, it could be concluded that there is no list that can be authorized.

All this led to the preparation of the new, revised systematic list of BiH avifauna, based on inventories in the 19<sup>th</sup> and 20<sup>th</sup> centuries. According to the new list, 322 bird species were registered in BiH (KOTROŠAN & PAPES *unpubl.*). Also, having in mind identified changes, it will be necessary to prepare a new atlas of breeding birds. Even OBRATIL & MATVEJEV (1989) stated 15 breeding bird species that have become extinct. Some new preliminary investigations have confirmed this increasing trend.

## 2.2. Collections

The National Museum of BiH possesses the largest bird collection in the country. It consists of 9528 specimens from 350 species, of which 4783 (305 species) originate from BiH. Besides this collection, the Museum possesses collections of eggs (5000) and nests (55), again mainly from BiH. These collections form the basis for scientific research in the areas of fauna, taxonomy, biogeography and ecology. Up to now they are used mainly for research in the field of bird fauna and ecology. Very limited investigations have been made in taxonomy (KOTROŠAN & LELO 2002).

Less rich but important collections are found in the museums in Banja Luka, Travnik and Tuzla. The only

published catalogue belongs to the Museum of the Republic of Srpska in Banja Luka (GAŠIĆ 1999).

There is no evidence concerning private collections or collections of hunter associations.

## 3. Bird protection

The first sign of decrease of bird populations in BiH was observed in the first decade of the 19<sup>th</sup> century (BREŽANČIĆ 1984). It is known that the population of breeding Dalmatian Pelican *Pelecanus crispus* population in BiH had expired by the middle of 19<sup>th</sup> century (OBRATIL & MATVEJEV 1989).

Up to 1992 bird protection was defined by the "Law on nature protection". Under this law 252 bird species are protected. In 1954 the reserve Hutovo blato was put under protection and in 1969 the colony of water birds at Bardača, also. All the legislatives were in accordance with the International Conventions for bird protection and the protection of wetlands (La Convention de Ramsar, La Convention de Paris), ratified by ex-Yugoslavia. But in spite of the legislatives, protection of bird species and their habitats was at a low level and without adequate control (BREŽANČIĆ 1984).

After independence and signing of the Dayton Agreement the State of BiH realised the obligation to obey international conventions on environmental protection. But still BiH has not ratified any convention on bird protection or their habitats. Even, it is better to say that bird protection does not exist officially in BiH. The situation with regard to once protected areas, such as Hutovo blato and Bardača, is also unsatisfactory. The special focus is on illegal hunting and illegal trade of threatened and rare species (PANJETA 2003).

It is important to emphasize that BiH still has no "Red data book". The only suggestion on categorization of the threat to birds was made by OBRATIL & MATVEJEV (1989). Their dossier included 97 species that belong to different levels or categories of threat. Of course war activities (1992 – 1995) as well as poisoning, notified in the last 15 years, caused drastic changes in numbers of some endangered species, which influenced the threat category for some of them. The best example is the Griffon Vulture *Gyps fulvus* designated as V – vulnerable, which is nowadays totally extinct and needs to be designated as Ex – extinct. According to the preliminary investigation (B. GAŠIĆ *pers. comm.*) a similar situation can be expected with some other birds of prey. Further, the dossier was based mainly on species distribution, less on the numbers that need to be revised. In short, BiH has to get a "Red data book".

### 3.1. IBAs

The special topics, when the bird protection in BiH is in focus, belong to the Internationally Important Bird Areas – IBAs. Namely, three areas in BiH are marked as IBAs (GRIMMETT & JONES 1989): Hutovo blato, Bardača and Boračko Lake. The accepted categorization needs to be discussed again knowing the levels of investigations. It is not clear why Lake Boračko belongs to the same group with Hutovo blato and Bardača. Its area is not systematically explored. For avifauna there are some old and a few, mainly insufficient data. The only systematic exploration of avifauna of Bardača was done in the period 1970 – 1983. New data are based on short visits (1 to 2 days). In the last 2 – 3 years indications of drastic changes are recorded. Up to now only Hutovo blato is the area that is systematically explored. Even in the last period (OBRATIL 2001) there are data, which indicate changes, mainly decrease of bird populations.

However, some other areas in BiH could probably fulfill the criteria for IBAs, as Livanjsko polje or the Park of nature Blidinje. Consequently it is really urgent to revise IBAs program in BiH and include other potential important areas.

At the end, there are needs to emphasize that birds investigation in BiH are based on recording of bird species, very rare on population and numbering.

### 4. Discussion

The history of avifauna in BiH shows very close connection between research, scientific exploration and protection of birds and their habitats. In spite of the fact that BiH ornithology was based on the work of only one person, there was very limited number of ornithologists, the fauna of birds in BiH is studied on the rather high level, on special aspects of fauna and ecology (area and space distribution). However, quantitative data are missing. That influenced the categorization of threatened species: some species just missed from the list of endangered birds. This fact for sure, shapes actual relation to the bird protection, if any.

In the post war period the development of ornithology was very limited by lacking of human and material resources. There are three active ornithologists, who could shape the efforts of a few bird observers whose work was uncoordinated. It is also important to emphasize foundation of the first ornithology association in BiH, as much as the fact that we possess potentials, e.g. museums and other collections, which are making develop of different areas in ornithology possible. Ornithology development, with the stress on

monitoring and census projects, will make adequate access to the bird conservation. Passing a law entries and signing the international conventions are the first prerequisite for the bird protection and protection of their habitats. It is necessary to stress a need for improvement of BiH institutions as National museum of BiH, and other NGOs which are trying to solve problems connected with ornithology in BiH. Because of that, help and cooperation of institutes and organizations from abroad is very important and helpful.

### Summary

In the paper, the base information about ornithology in Bosnia and Herzegovina (BiH) is carried out, the level of avifauna knowledge in BiH, potentials and current conditions about protection of birds and their habitats in BiH. In spite of difficulties the ornithologists, especially after the last war, succeeded to carry on long tradition of ornithology in BiH. One of the most important things is that numbers of new ornithologist and bird observers is increasing. Besides the National museum in BiH, big role in affirmation of ornithology in BiH has NGO "Naše ptice". Unfortunately, BiH economic and politic situation is not good, so it makes impossible to run any bigger scientific project. This situation has negative effects on protection of birds and their habitats. After all, this situation is result of the fact that BiH did not sign even one international agreement about bird protection. The main goal is to deal these problems and for that the help and improvement of connections with another organizations and institutes from other countries is needed.

### Povzetek

V članku so predstavljeni osnovni podatki o ornitologiji v Bosni in Hercegovini (BiH), raven avifaunističnega znanja ter potenciali in trenutne razmere glede varstva ptic in njihovih habitatov v državi. Ornitologom se je kljub mnogim težavam, posebno po zadnji vojni, posrečilo nadaljevati dolgoletno ornitološko tradicijo v BiH, pri čemer je še posebej pomembno, da število novih ornitologov in opazovalcev ptic nenehno narašča. Pomembno vlogo pri uveljavljanju ornitologije igra poleg Narodnega muzeja nevladna organizacija "Naše ptice". Žal pa je ekonomski in politični položaj v državi trenutno tako slab, da ni mogoče izpeljati niti enega večjega znanstvenega projekta, kar seveda ni dobro za varstvo ptic in njihovih habitatov v BiH. Navsezadnje je takšno stanje posledica dejstva, da država ni podpisala

nobenega mednarodnega sporazuma o varstvu ptic. Poglavitni cilj je zatorej spopasti se s temi problemi, za kar pa v BiH potrebujejo pomoč in boljše povezave z organizacijami in institucijami iz drugih držav.

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