

POPULATION DEVELOPMENT OF THE WHITE-TAILED EAGLE *Haliaeetus albicilla* IN BULGARIA IN THE PERIOD FROM 1977 TO 2005

Razvoj populacije belorepca *Haliaeetus albicilla* v Bolgariji v obdobju od 1977 do 2005

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By the end of the 1970s only one breeding pair of White-tailed Eagle *Haliaeetus albicilla* was left in Bulgaria. New data on the species, collected in the succeeding decades for the whole country, are presented in this paper. The material was sampled mainly from the mid-winter counts on the Danube between 1977 and 2005, and from observations in the country, at times including the breeding season. A definite increase of the number was found. It is more pronounced along the Danube. At least 9 pairs were recently breeding along the Danube and a further 3 pairs along the Black Sea coast. The positive change started in the late 1980s. The reasons are the strict protection of the species and the recovery of the White Poplar *Populus alba* forests on many places on the islands along the Danube river. The White-tailed Eagle has also been observed recently in many places inland in the country. Special attention should be given to further protection of the White Poplar forests on the Danube islands.

Key words: White-tailed Eagle, *Haliaeetus albicilla*, population, Bulgaria
Ključne besede: belorepec, *Haliaeetus albicilla*, populacija, Bolgarija

1. Introduction

The White-tailed Eagle *Haliaeetus albicilla* is closely associated with water habitats rich in fish or supporting large waterfowl populations. Persecution and environmental changes in the 19th and 20th centuries have reduced its population and the species disappeared from many parts of its range. Protection permitted population growth, but the chemical pollution from the 1950s to the 1970s reversed this tendency. More recently, an increase in the number of breeding pairs has been established for the countries of Northern and Central Europe. In Southern Europe the White-tailed Eagle remains rare (HAGEMEIJER & BLAIR 1997, BIRDLIFE INTERNATIONAL 2004). In Bulgaria, it was still a relatively common breeding bird along the Danube and the Black Sea coast till 1950 (JORDANS 1940, PATEFF 1950), but a negative trend had already been observed (HARRISON 1933). The next 20 years were the most critical for the species. By the end

of the 1970s only one breeding pair was left (IVANOV 1985). SIMEONOV *et al.* (1990) did not add any new information to this picture.

The aim of this study is to present the data on the species collected in the period from 1977 to 2005 for the whole country, and to clarify the species' status.

2. Material and methods

Mid-winter counts have been available in Bulgaria since 1977. They present a good opportunity for monitoring the population of this large eagle. Pairs are sedentary in their breeding territory, and only young birds usually wander from their natal areas, occasionally very far (CRAMP & SIMMONS 1980). During the winter the White-tailed Eagle feeds mainly on waterfowl and stays close to their large concentrations. It perches on trees or rests on the sand banks in the Danube, and is easily visible. The material presented here was collected mainly during the mid-winter counts on the

Danube in the period 1977–2005. Between 1977 and 1985 a point scheme for the river was used and each place was visited by car. Very often bad meteorological conditions (fog, snow cover) did not allow the team to reach the bank and provide successful observations. Later (1984, 1990, 1991, 1996, 1998, 1999 and 2005) we used the regular trips of the ship of the Agency for Navigation, maintaining and investigating the Danube in the Somovit–Silistra stretch. Each trip started from Russe, so we had the possibility to monitor the river from Russe to Somovit and Russe to Silistra twice in 2–3 days in good meteorological conditions. Part of the data was collected during visits to the country, at times including the breeding season. With the generous permission of BSPB we used the BSPB data base for some of the localities.

3. Results

Figure 1 shows regular sightings of White-tailed Eagle in Bulgaria on the UTM grid. The most westerly situated locality of the White-tailed Eagle in the past was the island of Goliam Kalafat by Vidin (UTM FP57). Subsequent deforestation of the island made further nesting impossible (DJUNINSKI 1980). In January 1977, 2 immatures were resting in this region, near a large concentration of Mallards *Anas platyrhynchos*. Two years later, near the town of Vidin, we saw an adult bird and in the following year a pair was present. Later observations confirmed the restoration of the breeding pair in the region of Vidin. An adult bird was observed near the island of Gorni Zibar (UTM GP05) in 1979 and again in 1980. We assume that, on that very large island, a pair is also breeding, but we do not have more reliable information.

The region of the village of Zagrajden (UTM LJ04) is known as a wintering place for White-fronted Geese *Anser albifrons* whose numerous flocks overnight on the sand bank of the river. On 15 Jan 1978 4 young eagles were observed and during the counts in 1983 and 1997 only 1 adult per year was recorded. The latter birds could be part of the pair of the nearest nest on the Romanian island of Kalnovaz (UTM LJ14). On this island an old bird was still seen in January 1991 but both partners were registered for the first time resting together on 23 Jan 1996 at the mouth of the river Olt.

Belene (UTM LJ53) is the largest Bulgarian island in the Danube. A reserve has been established here since 1981. This is the oldest and permanent breeding locality of the White-tailed Eagle in Bulgaria. Most often the pair used the nest on the neighbouring small island of Milka. Besides the two old birds in January

1984, 3 immatures also overwintered here. Immatures were recorded in 1998 and 1999 also. SHURULINKOV *et al.* (2005) presumed that 2–3 breeding pairs were in the region. In January 2005, two pairs and two immatures were found in the region of Belene island. In the following breeding season, nesting was confirmed for both pairs (TODOROV *pers. comm.*).

The island of Vardim (UTM LJ73) is situated east of Svistov and is known to be an old breeding place of the White-tailed Eagle. There are no exact data in the literature as to when it nested for the last time. We found a new pair here in 1984. During the next midwinter counts, the birds were regularly present and, in 1990, one young bird after the first moult was also present in this territory. In January 2005 the pair was followed by one immature after the third moult. The nest was not found. These birds often visit the nearest fishponds in the village of Hadjidimitrovo and clearly they penetrate further inland, reaching the Gorni Dabnik dam near the town of Pleven (SHURULINKOV *et al.* 2005).

Till 1961 one pair bred on Batin island (UTM LJ93; GEISLER 1962). A couple of eagles were here again in 1984. On different places between this island and the town of Russe, adult and young birds were seen regularly during the following years. It is possible that around 1999 two pairs still had their territories, but only in 2005 was it possible to determine definitely that on this part of the river there were three pairs. One of them has its nest on the island of Batin and the other two were assumed to nest on Romanian territory. The river bank here is less populated and not urbanized.

In the past another pair bred, possibly near Rjahovo (west of Russe; UTM MJ37), where it was last observed in September 1964 (BAUMGART 1971). We found a pair there again in 1998. In 1990 it was followed by a young bird. In 1999 the nest was built on a poplar on Marten island (UTM MJ26).

Further west, between the town of Tutrakan and the village of Popina, there are several large islands suitable for the eagle. Some of them have still not been changed by man. The island of Kosui (UTM MJ77), which belongs to this group, is a protected area. Since 1990 old birds have been regularly observed here. They often visited and fished in the farm west of the town of Tutrakan. Obviously a pair has its territory here. On 19 Jan 2005, together with 2 immatures, it was observed on a sand bank by the village of Popina (UTM MJ98). The islands of Vetren (Bialata prast) and Devnja (UTM NJ08) are known as a traditional breeding place of the White-tailed Eagle. They are close to the Srebarna reserve, famous for its rich bird fauna.

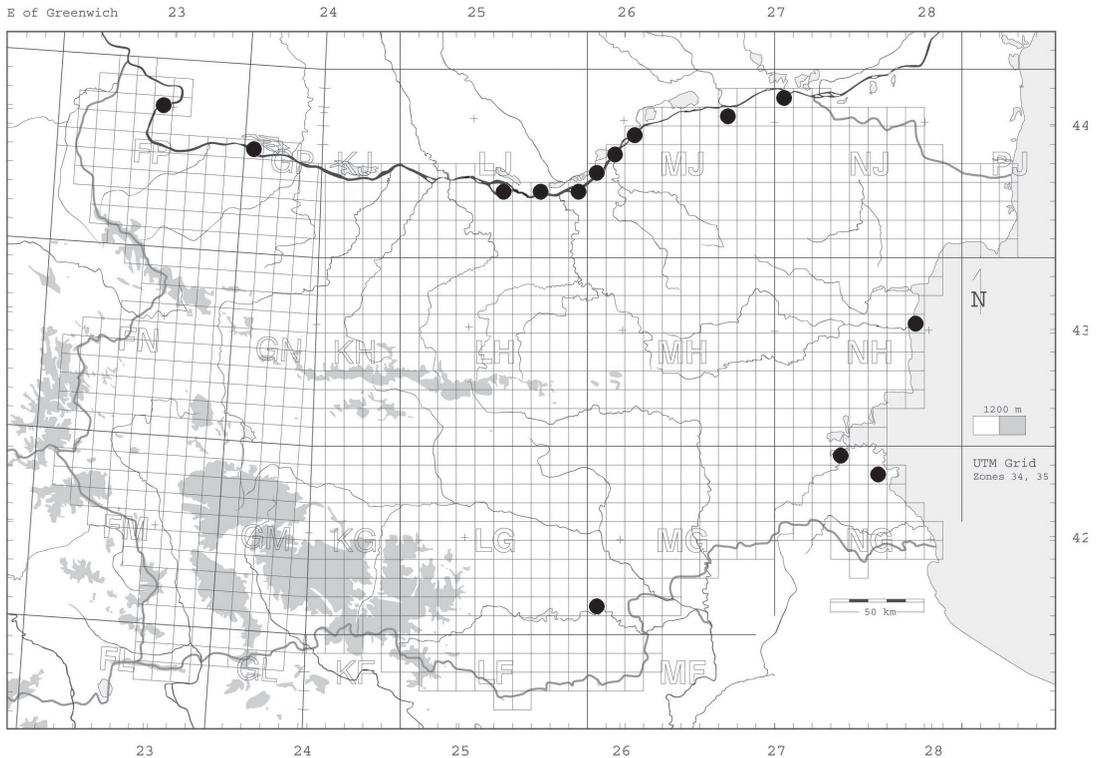


Figure 1: The UTM squares in Bulgaria where the White-tailed Eagle *Haliaeetus albicilla* was observed regularly in the period 1977–2005

Slika 1: UTM kvadrati v Bolgariji, kjer je bil belorepec *Haliaeetus albicilla* redno opažen v obdobju 1977–2005

The pair bred here till 1967 (MICHEV 1968). It was observed here again in 1972, but there was no evidence for breeding (KÖNIGSTEDT & ROBEL 1977). In January 1985 an immature bird was seen near Silistra and, from 1990 onwards, also during the breeding season, a pair was regularly present. Possibly it occupied the territory again in the late 1980s. The island of Vetren is in Romanian territory and it is not possible to search there for the nest, but the birds regularly rest there and hunt in the Srebarna reserve, which is a good indication of breeding. In 2005 we found at least 3 pairs between Ruse and Silistra. Currently, at least 12 pairs breed along the Bulgarian–Romanian stretch of the Danube, 9 of which have their nests on Bulgarian territory. A definite increase in the number of White-tailed Eagles along the Danube thus took place during the period of investigation.

In the past the Black Sea coast was the second most important breeding area for the White-tailed Eagle. Its numbers diminished here more quickly than along the Danube. In 1957 a pair was observed at Djavolska river (UTM NG67; BALAT 1962) and in 1960 another at Mandra Lake (UTM NG39) by Burgas (MOUNTFORT

& FERGUSON-LEES 1961) – both without evidence of breeding. The eagle bred at the Ropotamo reserve (UTM NG58) till 1965 (BAUMGART 1971), which was the last pair along the coast. By the early 1960s it was still very common during the winter in the region of Burgas (PROSTOV 1964), but later on, associated mainly with the large concentrations of waterfowl. Single birds were rarely observed during migration or in the winter (DONTCHEV 1980, KOSTADINOVA & DERELIEV 2001, MICHEV *et al.* 2004). In May 1992 we again observed a pair in the Ropotamo reserve and we were assured by the forestry ranger that it bred in the forest. This probably also occurred earlier. Since the early 1990s the species has recovered as a breeding bird in Mandra Lake also (MICHEV *et al.* 2004). More recently (since 1997) breeding was established in the Kamchia reserve (UTM NH66) (GEORGIEV *pers. comm.*). At the moment there are 3 pairs of White-tailed Eagles on the Bulgarian Black Sea coast.

The last documented breeding inland was in 1942 in the region of Jambol (UTM MH50; ARABADJIEV 1962). During the midwinter counts, single and most often immature birds, were rarely reported at the dams,

with large concentrations of ducks (KOSTADINOVA & DERELIEV 2001, MICHEV & PROFIROV 2003, SHURULINKOV *et al.* 2005). After the breeding season and in the winter, birds from the Danube penetrate inland and can be seen on the nearest lakes, fishponds and dams more than 100 km away (SHURULINKOV *et al.* 2005, *own data*). During the last winters birds, possibly from the Danube Delta, visit Durankulak and Shabla Lakes more regularly. A general tendency to increased presence during the winter on the inland pools has been recorded. In January 2005 a pair was observed close to the Greek border at Ivailovgrad dam (UTM MG01; IANKOV *pers. comm.*). The pair was observed here many times during the breeding season and there were indications of breeding, but the nest was not found.

4. Discussion

Information on the White-tailed Eagle for Bulgaria is scanty and does not permit the history of the population decline to be detailed. Clearly the time between the 1950s and 1960s was the most critical for the species. Mainly in this period, most of the large wetlands along the Danube were drained. The islands were deforested and planted with poplars, which destroyed the typical breeding habitats of the eagle. Additional negative effects were the winter hunting of waterfowl and the practice of using poisoned carcasses for reducing the number of large carnivores (BAUMGART 1971). This latter also affected the wintering migrants and the dispersing young birds originating outside the region. The forest policy of island deforestation eliminated the big White Poplar *Populus alba* trees, used by the birds as nesting places. This was practised also on some Romanian islands (DJUNINSKI 1980). As a result, during the breeding season of 1965, only 4 birds were present on the Bulgarian stretch of the river (MICHEV 1968) and in 1979 only one breeding pair existed on the island Belene.

During this study we found a definite increase in the number of White-tailed Eagle in Bulgaria. This was more pronounced along the Danube. At least 9 pairs were recently breeding along the Danube and 3 pairs along the Black Sea coast. This number is slightly higher than that given by KOSTADINOVA (1997) and close to the assessment of NANKINOV (2004). The restoration of the population probably started at the end of the 1980s and the beginning of the 1990s. The reason appears to be the strict protection of the species. Another factor is the recovery of the White Poplar population on many places on the islands. Most of the nests we found were built on relatively young trees. The

several big fish farms existing till 1990 along the river offered an additional good food supply for the birds. The White-tailed Eagle has been observed recently in many places (predominantly reservoirs) inland in the country. There is still no proved breeding, but the case of the Ivailovgrad dam gives some hope.

Future conservation measures and actions should involve protection of the existing nests and special attention should be given to saving the White Poplar trees on the Danube islands.

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5. Povzetek

Do konca sedemdesetih let dvajsetega stoletja je v Bolgariji gnezdil le še en par belorepca *Haliaeetus albicilla*. Novi podatki iz zadnjih desetletij, zbrani predvsem med zimskim štetjem vodnih ptic na reki Donavi v obdobju 1977–2005, so predstavljeni v tej študiji. Prav tako so upoštevani tudi vsi ostali zbrani podatki. Populacija belorepca v Bolgariji je v tem obdobju naraščala, kar je predvsem izraženo Donavi. V zadnjem času vzdolž reke Donave gnezdijo 9 parov belorepcev, vzdolž črnomske obale pa trije. Populacija je začela naraščati konec 80-tih let prejšnjega stoletja. Razlogi so najverjetneje stroga zaščita vrste ter dejstvo, da si je opomogel gozd belega topola *Populus alba* na otokih vzdolž Donave. Nekaj podatkov pa je tudi o opazovanih belorepca iz notranjosti dežele. V prihodnosti bo potrebno dati še več poudarka zaščiti gozdov belega topola.

6. References

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