

CURRENT STATUS OF THE WHITE-TAILED EAGLE IN UKRAINE

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ABSTRACT

The White-tailed Eagle is included to the CITES, Red Book of Ukraine. The population began increasing since the beginning of the 1980s. Published data indicated that the number of nesting pairs ten years ago ranged from 5-8 or even fewer. A census carried out in 1989 showed that the breeding population of the White-tailed Eagle in Ukraine made up about 30-40 pairs. In the mid-1990s, 50-70 pairs were probably nesting. New investigations were carried out, resulting by the end of the 1990s in 70-80 known nests and probable nest sites. The current (2000) population estimates at least 80-100 pairs.

The White-tailed Eagle is distributed irregularly in Ukraine. Nearly 70% of the population is nesting in the Dnieper valley and its environs. Secondary significance has the river of Siversky Donets. Near 9% of the pairs are nesting in the zone of Polissya (the northern forest part of Ukraine), near 41% in the forest-steppe zone and near 50% in the steppe zone. One third of pairs in the breeding season are connected with fish ponds.

The main limits for a further increase in numbers are illegal shooting, forestry activity, human disturbance and, in some places, shortage of nest sites.

INTRODUCTION

The White-tailed Eagle *Haliaeetus albicilla* is rare in Ukraine and included in the national Red Book (1994). Numbers decreased rapidly during the 19th century and the first half of the 20th century reaching an all time low in the 1950s-70s. Numbers started restore gradually at the beginning of the 1980s on the Middle Dnieper (Griščenko & Gavrilyk, 1996) but continues to decrease in the southern part of the country (Ardamatskaja 1991). The population size was previously estimated as "some pairs" (Fedorenko *et al.* 1990) or "5-8 pairs" (Ardamatskaja & Zhezherin 1988). We now know of 12 pairs of eagles at this time though 20-30 pairs were probably actually nesting. During the 1980s due to the insufficient research on the Ukrainian population, some authors continued to assert that the population was decreasing.

MATERIAL AND METHODS

The scientific and propaganda campaign "The year of the White-tailed Eagle" was conducted in Ukraine in 1989 (Grischtschenko 1992). One of the aims was the census of nesting places. There were 800 questionnaires distributed among ornithologists, foresters, hunters and naturalists. Information about the action was sent also to newspapers. Ninety-six questionnaires with answers were received back. These data served as a basis for further monitoring of the population.

From 1990 to 2000 these authors conducted monitoring of known pairs and search for new nesting places at the Middle Dnieper. Information from other regions was obtained from ornithologists and literature.

RESULTS AND DISCUSSION

In 1989, there were 24 nests and 12 possible nesting sites reported from 18 regions and the total population in Ukraine was estimated as at least 30-40 breeding pairs (Grishchenko *et al.* 1991, 1993).

In 1991 the population of the eagle in the country according to the I. Gorban's data, was 45-50 (Brewka *et al.* 1993) or 40-45 pairs (Tomialovich & Folkestad 1994) but in our opinion, 50-60 pairs were nesting.

During the 1990-s, the numbers nesting in Ukraine continued to increase rapidly, although the Red Book of Ukraine (1994) contained a lower estimate – 20-22 pairs. By the end of 1990s, the number of nesting pairs estimated as 45-50 (Gorban *et al.* 1999a) or 60-70 pairs (Gorban *et al.* 1999b).

In 1997 we estimated the nesting population to be at least 50-70 pairs (Grishchenko & Gavrilyuk 1998).

The continued increase together with new investigations suggests a current population of 80-100 pairs. During 1988-2000 we knew of 85 nesting pairs of White-tailed Eagle in 18 regions (Figure 1). During this period 5-7 pairs abandoned nest sites so we know at least 78-80 nest sites. Nesting was proven in 56 cases, and assumed in others. There were insufficient coverage of the whole of Ukraine, especially the lower part of Dnieper and its tributaries, Polissya (the northern forest part of Ukraine). That aside, the population showed a steady increase over two decades. These facts together with analysis of the area of nesting habitat, suggest the breeding population is 80-100 pairs.

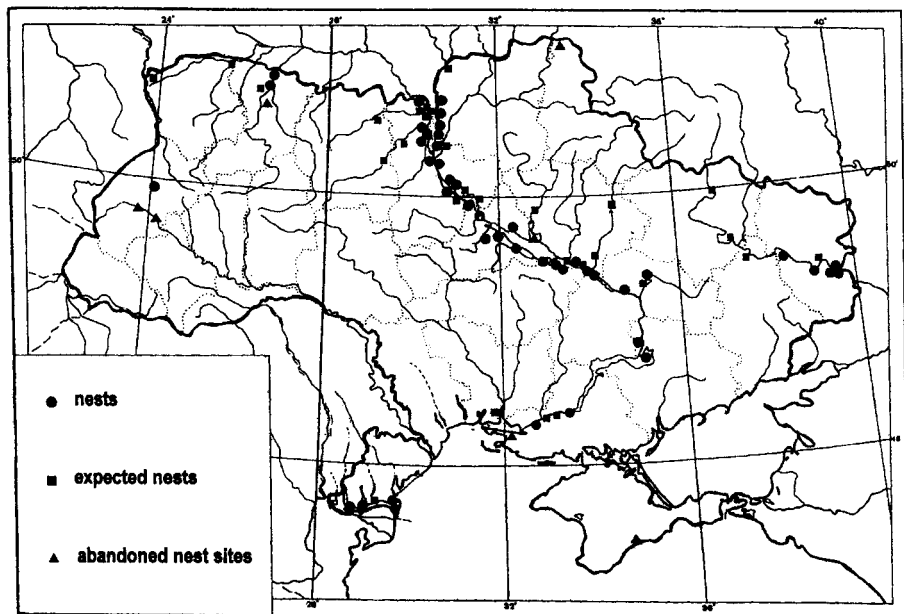


Figure 1. Distribution of the White-tailed Eagle in Ukraine in 1988 - 2000.

Near 70% of population lies in the Dnieper valley, were the species never disappeared. This was the foundation for the increasing number of eagles in this area. With no ringing data, we do not know how isolated this subpopulation is from others.

The eagles nesting at the Siversky Donets River undoubtedly belong to the subpopulation from Don River as their sequence of settling is consistent with this. At first they renewed nesting on the lower part of Don, then, from the beginning of the 1980s, they appeared in Siversky Donets in Rostov region (Russia) and in then began nesting in Lugansk region (Ukraine) (Belik *et al.* 1993, Vetrov & Belik, 1996).

The appearance of the eagle in the Ukrainian part of the mouth of the Danube is more consistent with their origin being on the Romanian side, where White-tailed Eagles have long persisted; in 1963, 10-12 occupied nests were registered on the Romanian side (Puskaru & Filipascu 1975). In 1981-1984 an occupied nest of the eagle was located 500 m from the border of Ukraine and finally in 1989, the White-tailed Eagle began to nest on Ukrainian territory at the Danube reserve (Zhmud 1994).

The White-tailed Eagle is unevenly distributed in Ukraine. The overall population density is 0.17 pairs / 1000 km², whereas the highest density is 0.63 pairs / 1000 km² in the Kiev region. Almost 9% of the population is nesting in the Polissya area, 41% in the forest-steppe zone and 50% in the steppe zone.

The main feeding places of most pairs are large Dnieper reservoirs, although 27% from its also use fish ponds (Table 1). As a whole one third of pairs of white-tailed eagles in Ukraine in the breeding season are more or less connected with fish ponds.

Table 1. Feeding places of the White-tailed Eagle in Ukraine.

Main feeding places	Number of pairs	%
Large Dnieper reservoirs	30	42.3
Flooded areas of rivers	16	22.5
Fish ponds	14	19.7
Little rivers and its valleys	11	15.5
Total	71	100

Recently the eagles have adapted to the changing environment (Grishchenko & Gavrilyuk 1994) enabling future increase. The White-tailed Eagles are tolerant to minor disturbance near fields, pastures, or rarely used roads. The distance from such places is 0.5-1.5 km (average 0.56 ± 0.3 [S.E.], n=24). In contrast, the eagles nest further away from permanent sources of disturbance such as villages and regularly used roads (average 2.38 ± 0.1 km, n=24). Also recently eagles started to nest in low trees (Gavrilyuk & Grishchenko, 1999b).

Another reason for population growth is the improvement of the protection of birds of prey. The important event was the prohibition of shooting of birds of prey. In Ukraine bounties for the destruction of "harmful raptors" were paid up to 1969. Killing is still a problem, albeit on a smaller scale. From 1973 to 2000 we know of 20 White-tailed Eagle deaths from illegal shooting and another in a snare.

The prohibition of broad-scale pesticide' use also must have had a role in the population increase, but the level of influence of these substances in Ukraine was never investigated.

At present, the protection of nest sites remains unsatisfactory. White-tailed Eagles are nesting in only 5-6 nature reserves. They also nest probably in only one of six National Parks. Ukraine has no protection zones around nests of the White-tailed Eagles so only about 10% of nesting eagles are formally protected there.

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