6th International White Stork Census - results in Russia

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Zusammenfassung

Der 6. Internationale Weißstorchzensus 2004/05 in der Russischen Föderation wurde vom Vogelschutzbund der Russischen Föderation durchgeführt. Es wurden in sechs Regionen insgesamt 2.427 Weißstorchpaare gezählt. In fünf Regionen können die Ergebnisse mit den Daten des 5. Internationalen Weißstorchzensus (1994/95) verglichen werden. Innerhalb von 10 Jahren hat der Weißstorchbestand in diesen Regionen um 1.091 Paare bzw. 90% zugenommen. Der Gesamtbestand des Weißstorchs in der Russischen Förderation kann auf 10.200 Paare (HPa) hochgerechnet werden. Die Verbreitungsgrenze des Weißstorchs hat sich weiter nach Nordosten und Osten verschoben, aber weniger stark als zwischen 1980 und 1990.

Summary

The 6th International White Stork Census 2004/05 was organised in Russia by the Russian Birds Conservation Union. In 6 regions 2,427 White Stork pairs were found. In five Regions the results could be compared with the results of the 5th International White Stork Census. In this region's the number of White Storks increased by 1,091 pairs (90%) since 1994. The breeding population of the White Stork in Russia can be estimated about 10,200 pairs (HPa). The breeding range of the White Stork has further moved to northeast and east. But the expansion is smaller than in the period between 1980 and 1990.

Introduction

In 2004-2005, the 6th International White Stork Census was held in Russia. The Russian Birds Conservation Union organised the census. In some parts of European Russia, the census failed due to a lack of regional coordinators and centralised funding.

Quantitative data were obtained in the Bryansk, Kursk, Kaluga, Leningrad, Moscow and Orel regions, where censuses were coordinated by S.M. Kossenko, V.I. Mironov, Yu.D. Galchyonkov, V.G. Pchelintsev, M.V. Kalyakin and S.V. Nedossekin respectively.

Different survey methods were used in the following regions: in the Kaluga region – phone inquiries to rural administrations, schools and post offices, plus inspection of a significant part of the territory; in the Kursk region – questionnaires to schools, forestry and hunt district departments, notices in regional and district newspapers; in the Moscow region – territory inspection in northern and western districts, appearance at meetings, seminars, broadcasts, notices in newspapers, questionnaire.

Results

Data on 2,427 nesting pairs of White Stork were obtained from the areas listed above (and in Tab. 1). In addition, counts and breeding records of White Storks were obtained from several parts of the Volga basin and Dagestan. Taking into account expert opinion and current trends, the total breeding population of White Stork in Russia may amount to 10,200 pairs (HPa).

Most breeding pairs are found in the westernmost regions of Russia: Kaliningrad – ca. 3,000, Pskov – ca. 2,500, Smolensk – at least 1,000 (all based on expert evaluations). Together with Kursk (929 pairs), Bryansk (844 pairs), Novgorod (ca. 500 pairs – expert evaluation), Tver (ca. 400 – expert evaluation) and Kaluga (285 pairs). These regions account for more than 90% of the total Russian breeding population.

The largest population increases were recorded in the regions that are in the process of becoming occupied by White Stork: numbers of breeding pairs in the Kursk, Moscow and Leningrad regions have increased by a factor of 2 or 3 times. Increases have also been noticed in the regions settled by storks during last 10-30 years, but here numbers have increased by between a third and one half. Similar increases were recorded in the Bryansk and Kaluga, Pskov and Smolensk regions.

The total number of White Storks recorded in north-west Russia by the 5th International census in Russia in 1994/95 (ca. 8,400 pairs - CHEREVICHKO *et al.* 1999) is an overestimate by at least 1,000 pairs. In our opinion, no more than ca. 7,000 pairs were counted, and it is unlikely on the basis of the known distribution of White Storks that as many as 1,400 additional pairs were present in areas not covered by the 1994/95 census. Extrapolation of the results from three regions of north-west Russia in order to derive a population estimate for the whole of Russia is unlikely to have been a reliable method, because of differences in population dynamics, natural conditions and the population period. The esti-



mate made by DELYUK (2000) of 6,750 nesting pairs, seems to be more robust, if possibly a slight underestimate.

On that basis, the number of breeding White Storks in Russia increased by ca. 3,200 pairs (46%) between the two most recent censuses. In the six regions covered by both the 5th (GALCHYON-KOV 2000; KOSSENKO 2000; CHEREVICHKO *et al.* 1999; DE-LYUK *et. al.*, 1999) and 6th International censuses, numbers increased by 1,091 pairs (90%) over the 10-year period.

The north-eastern edge of the breeding range has moved further to north-east and east. This is particularly noticeable in the Moscow and Kursk regions, although not to the same degree as the pronounced expansion wave noted in the late 1980s and 1990s.

Breeding performance has been specially investigated only in the Kaluga region, which is situated in the center of the White Stork's breeding range in Russia (Tab. 2). Breeding performance in 2005 was even worse than in the catastrophic year of 1997.

Most White Stork nests in Russia are built on water towers (Tab. 3, Fig. 1). The proportion of nests on man-made structures has increased in recent decades. In the Kaluga region, in 1984, 35% of nests were situated on water towers and 61% in trees, in 1999 – 73% and 17% respectively. A similar trend was observed in the Kursk region, where tree-nesting declined from 49% in 1994 to 40% in 2004, while the proportion on water towers increased from 43% to 48% over the same period (MIRONOV 2000).

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Tab. 1 Numbers of White Stork pairs recorded in regions of Russia by the 6^{th} International White Stork Census.

Anzahl der Weißstorchpaare die in den Regionen Russlands während des 6. Internationalen Weißstorchzensus erfasst wurden.

Region	Pairs 2004 [HPa]	Pairs 1994 [HPa]	Increase [%]
Bryansk	844	643	31
Kaluga	285	180	58
Kursk	929	325	186
Leningrad	160	36	344
Moscow	80	23	248
Orel	129	_	?

Tab. 2 White Stork breeding performance in the Kaluga region in 2004-2005. Reproduktionserfolg des Weißstorchs in der Region Kaluga 2004 und 2005.

Year	JZa	JZm	% HPo	
2004 (n=115)	2.89	3.35	14	
2005 (n=84)	1.42	2.70	48	

Tab. 3 Nest locations of the White Stork in different regions of Russia in 2004 Neststandorte des Weißstorchs in verschiedenen Regionen Russlands 2004.

Nest location	Kursk	Orel	Moscow	Yaroslavl	Kaluga*
Water tower	48%	83%	90%	46%	73%
Tree	40%	9%	6%	27%	17%
Post	9%	5%	3%	0%	5%
Another building	3%	3%	1%	27%	5%



Fig. 1. White Stork nest on water-tower in the village of Zimnitsy, Kaluga region, July 2006.

Weißstorchnest auf einem Wasserturm in der Gemeinde Zimnitsy, Region Kaluga, Juli 2006.

