

Status of the Black Stork (*Ciconia nigra*) in Hungary in the year 2000



KALOCSA Bela & TAMAS Eniko Anna

ABSTRACT - Based on a systematic survey, an overall analysis of the nesting habits and breeding success of the Black Stork in Hungary is given, focusing on the densest population. Breeding data throughout the country are updated, the most preferred habitats are determined and population trends are investigated.

Based on data obtained till the end of the year 2000, we can estimate the number of breeding Black Stork pairs in Hungary at 250. In 1996 we estimated the number of breeding pairs at a maximum of 200. The number of known successful breedings in 2000 is 73, the known number of fledged youngs is 263. The average number of youngs per nest - considering successful breedings - in the year 2000 is 3.6. According to these figures one could conclude that the population has been increasing in the country since the mid 1990's, but this may also indicate an increased observers activity rather than an increase in the number of nesting pairs.

Introduction

The first legislation on the protection of birds and bird ringing issued in the beginning of the 20th century can be considered as the beginning of the protection of the Black Stork (*Ciconia nigra*) in Hungary. Several Black Stork surveys have been carried out in the country in 1940, 1975 and 1984. Specific conservation measures have been carried out in different parts of the country since the 1980's. The last population survey was initiated in 1995, and a national Black Stork conservation programme with the support of the Environmental Fund of the Ministry for Environment has run from 1998 to 2000.

Preliminaries

The basis of our conservation activities are the guidelines determined in the conservation programme of the Specialist Group for Raptors of the Hungarian Ornithological Society. Though the Black Stork is not a raptor, its nesting habits

and the similarity of the applicable conservation methods made us decide to treat it in this specialist group.

The specialist group started a 3-years national Black Stork conservation programme in 1998, and, to close it, we have organized the 1st Hungarian Conference on the Black Stork in the year 2000, where experiences were shared and following actions were decided.

During the three years of the programme, local conservation initiatives in major nesting regions were given financial support for the acquisition of the necessary equipment used in practical conservation actions. Artificial nests were built in different habitats, negotiation with land owners took place and the insulation of electric poles has been initiated in several places with the help of electricity distribution companies.

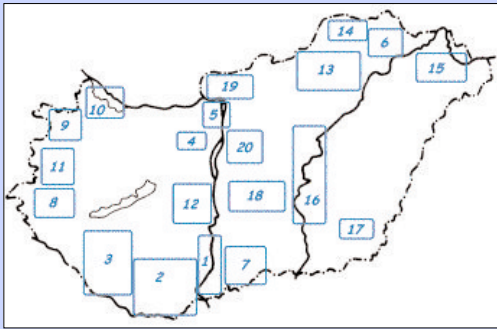


Fig. 1 - Locations of the last years' Black Stork conservation activities in Hungary. - Localisations des activités de conservation de la Cigogne noire de ces dernières années en Hongrie.

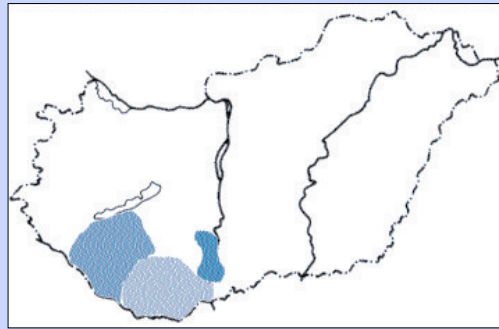


Fig. 2 - Somogy, Baranya and Gemenc regions. - Régions de Somogy, Baranya et Gemenc.

Locations

Locations of the last years' black stork conservation activities cover almost the whole country (Fig. 1). Conservation measures focused particularly on the areas most frequented by Black Storks. Three major regions contributed significantly to the 3-years national program (Fig. 2). They are the following:

Gemenc and lower Danube-valley

Located along the river, the main part of the area is a floodplain, covered by softwood and hardwood forests and wet meadows as well as river meanders and oxbow lakes. It constitutes a 20 km wide ribbon along the Danube south of the town of Szekszárd.

Baranya county

The area includes low hills and valleys with creeks, plains as well as part of the floodplains of the rivers Drava and Danube. It covers the south-eastern part of the country West of the river Danube.

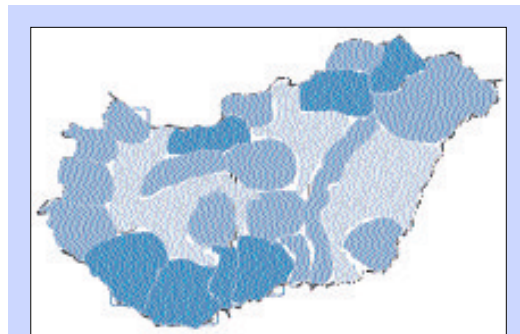


Fig. 3 - Breeding areas of Black Storks in Hungary, 2000 - Zones de nidification des Cigognes noires en Hongrie, 2000.
 Bleu foncé : données de l'année 2000.
 Bleu moyen : données de la période 1995-2000
 Bleu clair : pas de données ou zones non occupées, la plupart de ces zones n'ont pas d'habitats favorables à la Cigogne noire.

Somogy

Characteristics for the area are the low hilly landscapes with many creeks, small rivers and reservoirs as well as fishponds. It includes part of the floodplain of the river Drava. It covers the south-western part of the country West of the river Danube.

Table 1 - Breeding areas of Black storks in Hungary in 2000. - Aires de nidification de la Cigogne noire en Hongrie en 2000. - : no data / pas de donnée; * : partly estimated on previous year's data / partiellement estimé sur la base des données de l'année précédente.

No. on map N° sur carte	Region Région	known nests in 2000 nids connus en 2000	inhabited nests in 2000 nids occupés en 2000	known successful breedings nichées réussies connues	number of youngs in 2000 nombre de jeunes en 2000	nesting pairs couples nicheurs	data given by données fournies par
1.	Gemenc	100	30	19	77	35	Kalocsa Béla
2.	Baranya county	41	22	18	63	25*	Bank László
3.	Somogy	25	-	13	39	31	Horváth Zoltán
4.	Bakony-Vértes-Pilis Hills	20*	-	-	-	20*	Viszló Levente
5.	Komárom-Esztergom county	9	8	8	29	12	Csonka Péter
6.	Zemplén Hills	10	-	10	39	22	Frank Tamás
7.	Bácska	8	5	4	13	10	Kalocsa Béla
8.	Zala county	7*	-	-	-	7*	Palkó Sándor
9.	Ferto -Hanság NP	6*	-	-	-	6*	Dr Kárpáti L.
10.	Szigetköz	7*	-	-	-	7*	Horváth Gyula
11.	Orség	10*	-	-	-	10*	Barbácsi Zoltán
12.	Tolna county	15*	8*	-	-	15*	Kováts László
13.	Bükk and Mátra Hills	2	2	1	3	8	Szitta Tamás
14.	Aggtelek Hills	2*	-	-	-	2*	Horváth Róbert
15.	Nyírség and Szatmár - Bereg	10*	-	-	-	10*	Sándor István
16.	Tisza-valley	15*	-	-	-	15*	Lorinc I., Tajti L.
17.	Körös	2*	-	-	-	2*	Tóth Imre
18.	Kiskunság NP	5*	-	-	-	5*	Bíró Csaba
19.	Börzsöny Hills	4*	-	-	-	4*	Kazi Róbert
20.	Pest county	3*	-	-	-	3*	Csihar László
	Altogether / Totaux	301*	-	73	263	249*	

Results

As conclusion of the 3-years action programme and of the conference, we have detailed breeding data from 20 regions of Hungary (Fig. 3). On it, dark blue indicates the places where breeding took place in the year 2000. In middle blue are the areas where breeding occurred in the last five years. Light blue colour on the map indicate that no data are available or no breeding of Black Storks have been recorded yet - most of these areas are not typical Black Stork habitats indeed. The detailed list of breeding areas is shown in Table 1.

The number of known successful breedings in 2000 is 73, the known number of fledged youngs

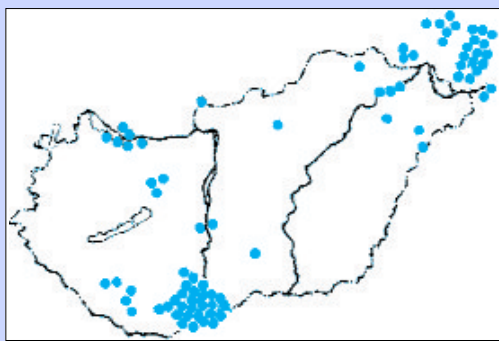
is 263. The average number of youngs per nest - considering successful breedings - in the year 2000 is 3.6.

The previous breeding records

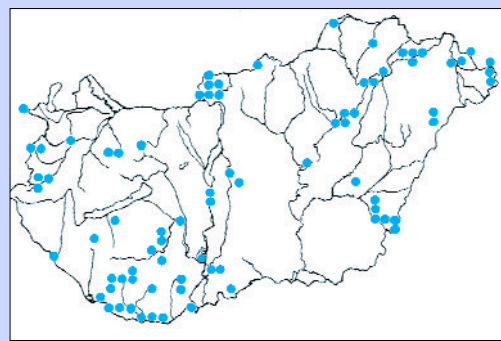
Comparing this map with the results of previous Black Stork surveys it can be seen that the areas occupied by Black Storks have been more or less the same throughout the past century (Fig. 4). Still the methods used for the different population surveys were different, as well as the surveying activity.

Summary

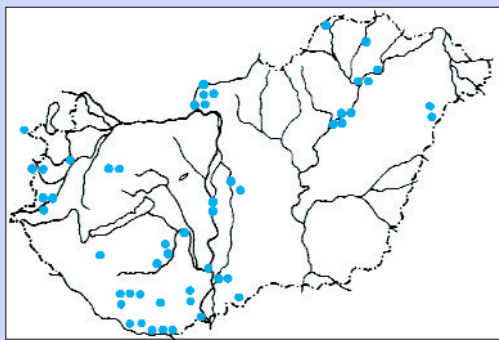
In the year 2000 the nesting places used by a



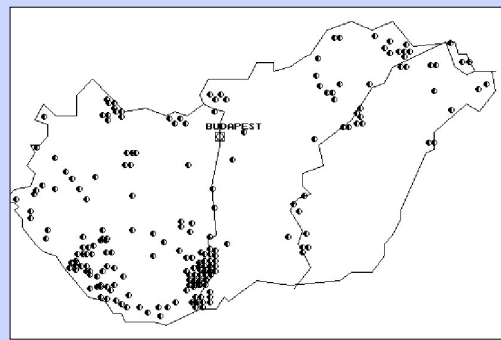
1940. Breeding pairs - Couples nicheurs.
HOMONNAY (1940).



1975. Breeding areas - Sites de nidification.
MOLNAR (1975).



1986. Breeding areas - Sites de nidification.
HARASZTHY (1986).



1992-95. Breeding pairs - Couples nicheurs.
KALOCSA & TAMAS (1996).

Fig. 4 - Previous Black Stork surveys in Hungary - Précédentes enquêtes sur la Cigogne noire en Hongrie.

total of 249 breeding pairs were known (Fig. 5).

Based on the surveys carried out until the end of the year 2000, one can estimate the number of breeding Black Stork pairs in Hungary to about 250. In 1996 we estimated the number of breeding pairs at a maximum of 200. According to these figures one could conclude that the population has been increasing in the country since the mid 1990's, but this may also indicate an increased observers activity rather than an increase in the number of nesting pairs.

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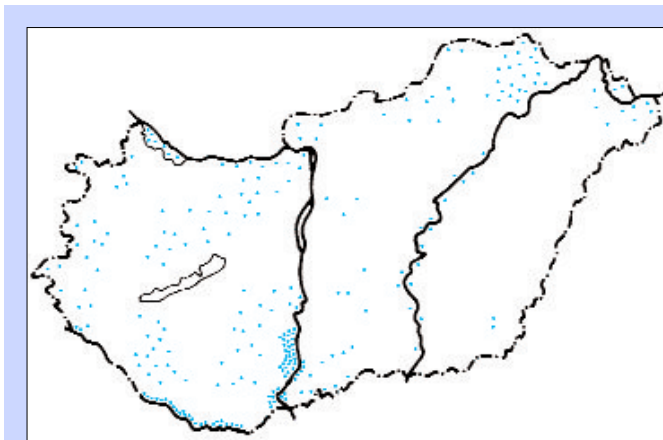


Fig. 5 - Breeding pairs of Black Storks in Hungary in 2000 - Couples nicheurs de Cigognes noires en Hongrie, en 2000.

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KALOCSA Béla
Nagy I. u. 15
H - 6500 Baja (Hungary)
kalocsa@baja.hu

TAMÁS Eniko Anna
Apáczai Csere J. u. 8
H - 6500 Baja (Hungary)
et@baja.hu

Résumé

Le statut de la Cigogne noire (*Ciconia nigra*) en Hongrie en 2000

La protection légale de la Cigogne noire commence en Hongrie au début du 20ème siècle. Des recensements ont eu lieu en 1940, 1975, 1984 et 1995 tandis qu'un programme national de protection s'est étendu entre 1998 et 2000, avec l'appui du Ministère de l'Environnement, et s'est terminé par un colloque international sur la Cigogne noire.

Trois régions ont particulièrement bénéficié des mesures de conservation :

le Gemenc et la basse vallée du Danube, une plaine alluviale longue de 20 km au sud de Szekszárd;

la Baranya, une zone alternant collines et plaines

et s'étendant au sud du pays, à l'ouest du Danube;

le Somogy, région caractérisée par un paysage vallonné avec de nombreux ruisseaux et étangs ainsi qu'une partie de la plaine alluviale de la Drava, et située à l'ouest du Danube, au sud du lac Balaton.

Sur un total de 73 nichées réussies et suivies en 2000, on compte 263 jeunes à l'envol, soit une moyenne de 3,6 jeunes par couple. On estime à 250 couples la population nicheuse en Hongrie alors qu'elle était évaluée à un maximum de 200 couples en 1996. L'accroissement apparent est peut-être dû en partie à l'intensification des recherches.