

## RUFFORD SMALL GRANT THE RUFFORD FOUNDATION



*Edward Mongin*

***Habitat inventory, identification of sites following the IBA criteria and development of National Conservation Action Plan for the Great Snipe in Belarus***

## FINAL REPORT

*Project: Habitat inventory, identification of sites following the IBA criteria and development of National Conservation Action Plan for the Great Snipe in Belarus*

**Edward Mongin, Ph.D.**

Institute of Zoology of the National Academy of Sciences of Belarus, Academicheskaya St. 27, 220072 Minsk, BELARUS

The main objectives of this project were to carry out an inventory of Great Snipe habitats in Belarus during 2004, identify key breeding sites following IBA criteria, and analyze major threats to this species on the territory of Belarus. On the basis of gathered and analyzed data we planned to develop and publish the National Conservation Action Plan for Great Snipe. Such Plan was seen as first and important step in stopping a destruction of the Great Snipe habitats and decline in the population of this species. It was expected that identified key breeding areas for the Great Snipe would be included in the net of protected territories. We also planned to publish and distribute a special poster about the Great Snipe in order to increase public awareness about the dangers facing by this important species in Belarus. We intended to target such poster to workers of forestry branches and National Parks, and hunters.

## RESULTS

Financial support from the Rufford Foundation and the Flagship Species Fund (DEFRA/FFI) allowed us to significantly extend our field studies of the Great Snipe on the territory of Belarus. As a result of expanded research we have identified several new important breeding sites for the Great Snipe following the IBA criteria. Compiled data on the declining numbers of the Great Snipe in Belarus finally allowed including this species in the list of protected birds on 17 June 2004. This has been done in spite of substantial hunter opposition.

Our field studies were conducted in 30 administrative districts of Belarus in early May through early July of 2004. During this time, 10 new territories for the Great Snipe have been identified in different districts of Belarus according to the IBA criteria (Fig. 1). Additionally, we have found 5 potential IBA territories in 4 districts. As a result of our field studies, 4 new territories have acquired a protected status. Newly identified IBA territories and their status are presented in the Table. Two new key breeding sites received the protected status and two additional sites have been included in the protected areas of the Berezinsky Reserve. We also plan to advocate creation of six additional reserves, which will protect other identified IBA territories beginning in 2006.

The Great Snipe species and several of its breeding areas are included in the State programme "National System of Environment Monitoring in the Republic of Belarus". Based on our recommendations, 5 additional sites have been included in the State Register of monitoring points in 2005.

Financial support from the Rufford Foundation and the Flagship Species Fund allowed us to develop the National Conservation Action Plan for the Great Snipe in Belarus. The National Action Plan, containing recommendations for the Great Snipe conservation and habitat management, has been submitted for consideration to the

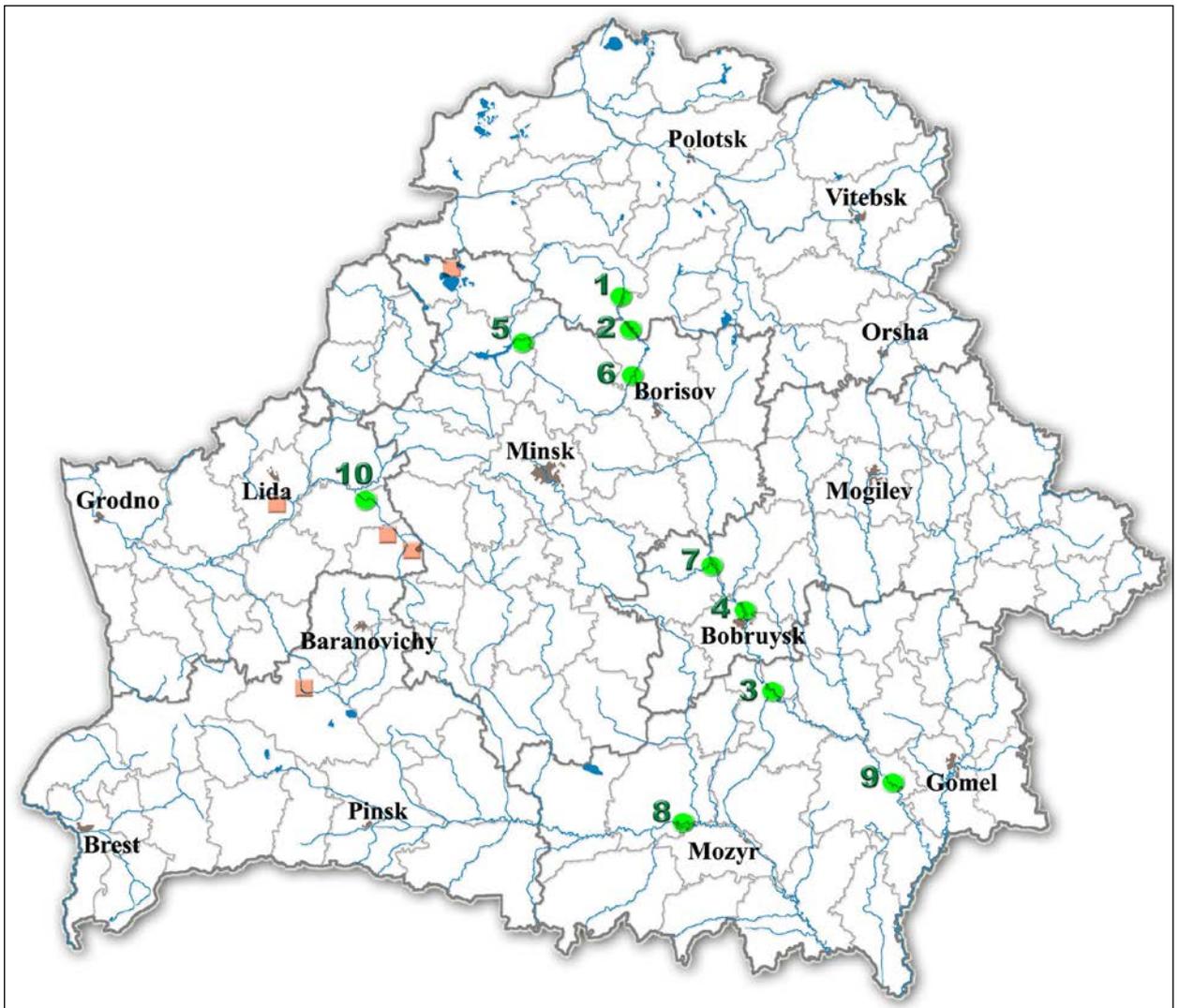


Fig. 1. Newly identified IBA territories for the Great Snipe (green circles) and potential IBA territories (orange squares). The IBA territories are numbered as in the Table.

Ministry of Natural Resources and Environmental Protection of Belarus in March 2005. A special law concerning action plans for three endangered species, *Acrocephalus paludicola*, *Aquila clanga*, and *Gallinago media*, is expected to be approved in 2005-2006. This has happened due to development of the conservation action plans for these species.

The National Conservation Action Plan for the Great Snipe characterizes factors affecting the species, and contains a framework for management and conservation of the Great Snipe population and its habitats in Belarus.

Table: New key territories for the Great Snipe in Belarus identified according to the IBA criteria.

	<b>Key habitats</b>	<b>Protected status</b>	<b>Current threats</b>
1.	Floodplain of the Berezina River, Brodi village vicinity	Included in the Berezinsky Reserve, 2005	Overgrown by high grasses
2.	Floodplain of the Berezina River, Berezino town vicinity	Included in the Berezinsky Reserve, 2005	Drainage
3.	Floodplain of the Berezina River, Parichi village vicinity	Local Reserve is created, 2004-2005	Disturbance in nesting areas
4.	Floodplain of the Berezina River, Bobruisk town vicinity	Local Reserve will be created, 2006	Disturbance in nesting areas, natural enemies
5.	Floodplain of the Dvinosa River	Local Reserve is created, 2004-2005	Drainage, disturbance in nesting areas
6.	Floodplain of the Gaina River	State Reserve will be created in 2005	Endangering mowing regime, drainage
7.	Floodplain of the Svisloch River	Local Reserve will be created, 2006	Disturbance in nesting areas
8.	Floodplain of the Pripyat River, Petrikov town vicinity	State Reserve will be created in 2005-2006	Disturbance in nesting areas
9.	Floodplain of the Dnepr River, Rechitsa town vicinity	State Reserve will be created in 2005	Disturbance in nesting areas
10.	Valley of the Neman River, Zelto-Nemansky Channel vicinity	Local Reserve will be created, 2006	Drainage, unstable water level, natural enemies

### **Threats for the Great Snipe population in Belarus**

#### **(a) Drainage and flood control.**

The flood control drainage is the main factor affecting floodplains in the studied areas. Drainage and flood-control operations result in substantial habitat loss for the Great Snipe. Peat extraction often involves drainage and such drainage frequently makes affected areas unsuitable for the Great Snipe lekking and nesting. The Great Snipe typically populates floodplain meadows and reach fens. The species is stenotopic and its distribution is associated with these types of habitats in Belarus. The large-scale drainage activity that resulted in the substantial loss of fen mires and floodplain meadows was the principal reason of the Great Snipe population decline. According to the official data, the total area of floodplain meadows and fens reduced not less than 50% over the past 40 years (Fig. 2).

We estimate that the habitat loss only during this period of the past 40 years caused 2-2.5-fold decline of the breeding population of the Great Snipe. At the present time, the drainage and flood control have moderate but potentially increasing impact on the Great Snipe in Belarus. We have documented new drainage projects in several habitats of the Great Snipe.

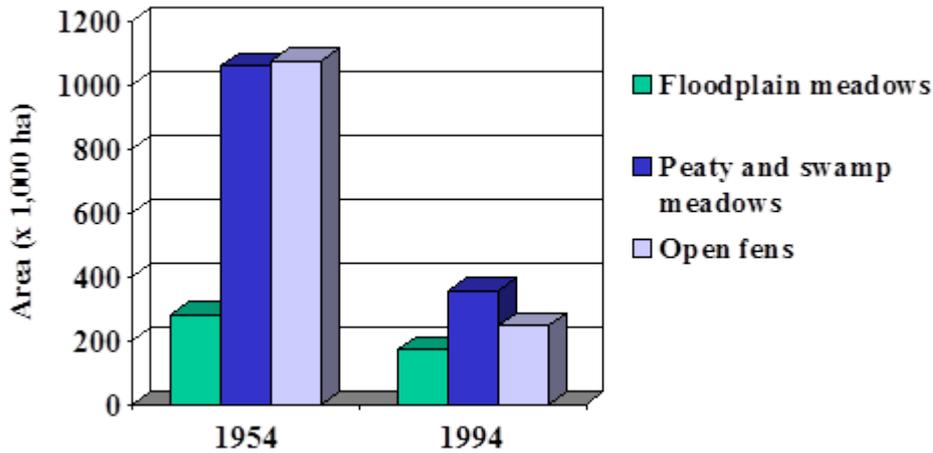


Fig. 2. Dynamics of the Great Snipe habitats during the last forty years in Belarus.

### (b) Land abandonment and overgrowing of meadows.

Floodplains are traditionally used for hay collection and low intensity grazing. These activities maintained the ideal habitat for the Great Snipe. However, recent economic changes in Belarus have resulted in many areas being abandoned, thus causing floodplains being overgrown by high grasses and bushes.

We have recorded that several Great Snipes leks in floodplains of small rivers have disappeared as a result of overgrowing of the meadows. This factor should be considered of the medium importance.

### (c) Untimely mowing on meadows.

Period of manual and mechanized mowing of floodplain meadows begin in the end of June to the first half of July. Our data indicate that only 45% of broods are fledged by the end of June (Fig. 3). At this time agricultural activity may promote nest destruction and death of chicks. Taking into account the phenology of the Great Snipe, optimal time for mowing should be considered to be the second half of July. At this time, an untimely mowing should be considered as a threat factor of the small importance, as only a few floodplain meadows are mowed with machines

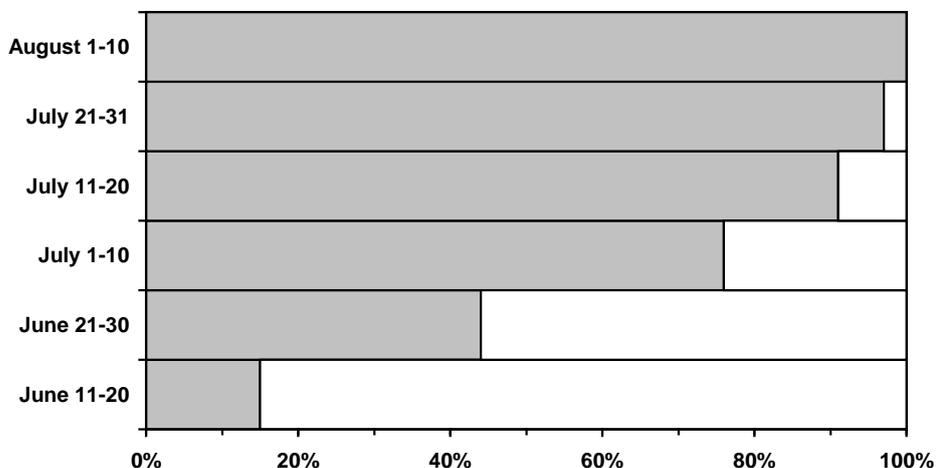


Fig. 3. Average percentage of the fledged Great Snipe broods according to the hatching state of brood or age of chicks (n=34).

#### **(d) Agricultural activity and the disturbances at nesting**

The relation between the Great Snipe and human activities is not exclusively negative. As the species needs open fertile areas for breeding, some types of agricultural activity seem to facilitate breeding condition (e.g. grazing of floodplain meadows). At the same time agricultural activity may increase death of chicks, promote nest destruction and increase the predation rate. We collected the data on breeding success in the grazing floodplain meadows. About 70% of all nests were unsuccessful, although we tracked down the fate of rather small number of nests (n=9). The most clutches were destroyed by grazing cattle (75%) and *corvidae* species (25%).

Agricultural activity and the disturbance at nesting sites may also increase the level of predation by facilitating the discovery of nests or increasing the number of predators on nests and chicks in several types of habitats. Recreational activities (e.g. tourism, fishing) may interfere with lekking and disturb breeding birds.

#### **(e) Hunting and the accidental shooting while hunting on other species.**

In the past, hunting practice had a major negative impact on the Great Snipe population in Belarus. For example Vladyshevsky (1966) noted that the intensive hunting in August was extremely harmful not only for migratory birds, but also for local breeders, which usually stay in the same sites until the third decade of August. The assumption that some of the hunted Great Snipes settle close to the hunting sites was confirmed by several recoveries of locally ringed birds. For example, a juvenile male ringed on the 15th of July 2000 during migration was captured next year in the lek situated at a distance of 1 km from the ringing site. A female captured on the nest on the 24th of May 2001 (the Pripyat River floodplain) was shot on the 26th of July 2001 on the same spot. According to our data on migratory dynamics, the main waves of the Great Snipe passage occur during the last decade of July and the first decade of August, while hunting season in Belarus starts on about 20th July.

Currently the Great Snipe is legally protected on the territory of Belarus. The species is included in Red Data Book of Belarus (2004). The Red Data Book of Belarus defines the Great Snipe as endangered species (Category II). However hunter polls have shown that some people were not aware about the protected status of the Great Snipe in Belarus and shoot the birds in 2004. Majority of the hunters mistake Great Snipe for the Common Snipe (*Gallinago gallinago*) at the beginning of the hunting season. Importantly, the numbers of foreigner hunters in Belarus hunting the Common Snipe are increasing, and therefore accidental shootings of the Great Snipe may increase as a result.

We have disseminated a special poster dedicated to the Great Snipe among hunters (using network of the Belarusian Hunter and Fisherman Society), among forestry workers, and in all National Parks during 2004 – early 2005. This poster includes the Great Snipe species identification, and describes problems of its protection, and the conservation status of the species.

### **Recommendations for further conservation (submitted to the Ministry of Natural Resources and Environmental Protection of the Republic of Belarus)**

#### **(a) Protection of species**

- Stop disturbance by pointing dogs during the breeding season;
- Postpone start of the Common Snipe hunting season until 15 August.

**(b) Conservation of habitats**

- Establish new Important Bird Areas for the Great Snipe and create reserves;
- Improve protection status of the IBA territories;
- Develop a proper management system for protected sites;
- Initiate restoration of breeding habitats of the Great Snipe;
- Enforce conservation of open fens and meadows.

**(c) Monitoring and research**

- Implement monitoring of the Great Snipe breeding population and habitats;
- Perform a large-scale inventory of key breeding sites and determine major habitat threats;
- Continue studies on the species ecology;
- Develop and test management practices.

**(d) Public awareness and education**

- Publish an abbreviated version of the National Conservation Action Plan for the Great Snipe in national journals;
- Publish popularized materials about the Great Snipe protection and advocate creation of short TV shows to be aired on national public TV.

**Publications:**

Results of the project were presented at the IX Zoological Conference in Minsk (October 2004). Gathered data including sponsor acknowledgements are published in:

**Mongin, E. (2004)** Current population status and ecology peculiarities of the Great Snipe - endangered species. *Proceedings of the IX Zoological Conference "Dynamics of Fauna Biodiversity, Problems and Perspectives of Sustainable Use and Conservation in Belarus"*. Minsk: pp. 106–107 [in Russian].

**Mongin, E. (2004)** Progress report for the project "Habitat Inventory, Identification of Sites Following the IBA Criteria and Development of National Conservation Action Plan for the Great Snipe in Belarus". *Wetlands International – Woodcock and Snipe Specialist Group Newsletter* **30**: 22–23.

**Future work**

The results of our work sponsored by the Rufford Foundation and the Flagship Species Fund (DEFRA/FFI) are the first step on the path to conservation and restoration of the Great Snipe population on the territory of Belarus. We have developed and printed the National Conservation Action Plan for the Great Snipe. Additionally, we have published and disseminated a poster dedicated to biology of the Great Snipe to increase awareness about this endangered species among hunters and national forestry workers. However, the effective conservation of the Great Snipe population requires the involvement and coordinated effort of a number of governmental and non-governmental organizations. We need to continue monitoring the dynamics of Great Snipe population, searching for new breeding sites, examining conditions of the already established breeding sites, and checking on how protection of breeding sites on the territories of national and local reserves is implemented and enforced. Obviously, it will take at least several years before the efficacy (or lack of thereof) of such work will be apparent. Our main objectives during this time will be:

- (i) to continue the Great Snipe research,
- (ii) to maintain and extend a network for this species protection,
- (iii) do not let national conservation agencies to lose their focus on Great Snipe under the burden of other objectives and responsibilities,
- (iv) to continue educational campaign in the mass-media to increase public awareness about the Great Snipe and its endangered status.

## **Acknowledgments**

This work has been supported by the Rufford Foundation and the Flagship Species Fund (DEFRA/FFI). I extend my special thanks to Alexis Tribis, Nicolay Chercas, Victor Lyahovsky, Yriy Bogutsky, Alexander Kashtalyan and Helen Davidyonak for their invaluable help in conducting the fieldwork. I am also grateful to D. Zuravlev, V. Dombrovsky, V. Yurko, V. Fenchuk, I. Ralko, Dr. A. Derunkov, O. Pareyko, Dr. A. Kozulin, Dr. M. Nikiforov, A. Skuratovich for their help and practical advices in organizing this study.