

Detailed report on the project 14503-2

# Detailed report on the project 14503-2 Conservation of agricultural landscapes for protection of rare meadow waders

supported by

# The Rufford Small Grants Foundation carried out by Tatiana Sviridova in 2013-2014





#### Background

The north of the Moscow Region (Russia, Taldom and Sergiev-Posad districts of the Moscow Region, 56°41'N, 38°00'E) is an area known as the <u>Homeland of the Crane</u>.

It represents a complex of various wetland types including nearly intact raised sphagnum bogs, birch and black alder forests, willow swamps and oxbow lakes overgrown with reeds in the Dubna floodplain. Wetlands alternate with agricultural lands such as floodplain meadows, hayfields, arable lands, pastures and fallows.

For a highly developed region it is an unique locality with



still existing suitable habitats for Common Cranes *Grus grus* and many other rare birds, including 9 rare waders. Homeland of the Crane is an <u>Important Bird Area</u>, included also in the shadow list of <u>Ramsar Sites</u>. A system of Specially Protected Areas (SPAs) has covered there approximately 350 sq.km and is managed by the Taldom Administration of Protected Natural Areas (TAPNA, local environmental agency). However, a single reserve (Apsaryovski Site) includes farmlands (50 sq.km) in the Homeland of the Cranes. According to official governmental "Scheme of Perspective SPAs of Moscow region" existing SPAs and all adjacent farmlands (300 sq.km) should be included by the 2020 into regional Nature Park with view of protecting rare birds, in particular waders. However, implementation of these plans has been suspended and conservation community has made efforts to maintain the value of the area until establishment of Natural Park there.

One of important objectives of this work is conservation of agricultural landscapes for protection of rare meadow waders, because new threats to this group of birds has appeared recently in the area. Large scale grassland ploughing and new drainage activities have started after a previous long period of land abandonment. These threats were compounded by appearance of new landowners in the area, who had no appropriate information about biodiversity value of their lands. Also, vast areas of farmlands became subject to reclamation for building country houses for Moscow residents.

Thus, immediate measures were required to prevent destructive management and loss of valuable wader habitats on farmlands, planned for inclusion in the Nature Park.

#### Acknowledgements

I would like to thank the Rufford Small Grants Foundation on behalf of our entire team. This grant allowed us to make the next significant step towards nature-friendly agriculture in the "Homeland of the Crane" and other aspects of long-term conservation of agricultural landscapes for rare waders as well as meadow' biodiversity in whole. Results of this project will allow us to plan the next steps for elaboration and implementation of needed conservation actions and to design new projects for this purpose.

I am grateful to all the team members, who helped in a variety of ways to me and Olga Grinchenko (Director of the TAPNA) to conserve valuable for rare waders grasslands and to develop nature-friendly agriculture in the "Homeland of the Crane" area. Significant contribution to the implementation of this project in its part on habitat mapping and satellite imagery interpretation was made by Dmitri Koltsov (expert of Transparend World) and Innokentiy Smetanin (aerial photography). Assistance in the Great Snipe investigation was provided by Dr. Alexander Sharikov and his students Anna Bazhanova and Olga Smirnova from the Moscow State Pedagogical University, volunteers Vadim Avdanin, Svetlana Korkina, Ksenia Lyubimova, Victor Golovnuyk and Mikhail Soloviev. Special thanks to nature-photographers Igor Bartashov, Mikhail Ivanov and Vyacheslav Zabugin. My sincere thanks to Pavel Tomkovich from the Zoological Museum of the Lomonosov Moscow State University, Ian Burfield from the BirdLife International and Nikolai Sobolev from the Institute of Geography of the Russian Academy of Sciences who supported the project idea at a stage of its infancy.



### Gathering of information on wader numbers and distribution.

Monitoring of wader numbers and distribution was carried out on 2 permanent model plots. In particular, up-to-date data on breeding localities of rare wader species were collected and then used for developing required conservation measures at lands of new landuser in the reserve.

Breeding populations of rare farmland waders and of Lapwings were fluctuating, but generally stable during the last decade, with a certain decrease in 2014 due to dry spring, especially in the floodplain (fig. 1).





# Fig. 1. Dynamics of wader breeding numbers at Apsaryovski Site (A) and Nushpoli floodplain (B) in 2004-2014.

#### Distribution and ecology of globally threatened Great Snipe.

In 2012 assessment of numbers and distribution of rare waders at the territory of proposed Nature Park (350 sq.km of farmlands) showed that 80% of globally threatened Great Snipes were counted on unprotected floodplain meadows. Thus, in 2014 the first stage of a study of Great Snipe ecology was started with the aim of further development of species-specific conservation recommendations.

In total over 130 Great Snipes on several leks were counted in the study area in 2014. This number is close to the number of Great Snipes found in 2012 (fig. 2).



Fig. 2. Locations of the Great Snipe leks found in 2012 and 2014.



35 birds were banded on 4 leks in 2014.

The first data on impacts of agricultural activities on Great Snipes were collected.



Many volunteers were involved in this part of work (fig. 3). In particular, students from the Moscow State Pedagogical University helped to count and catch birds and made small independent studies on certain aspects of Great Snipe ecology at leks.



Fig. 3. Investigations of the Great Snipe.





# Habitat mapping and Geographic Information System (GIS)

Both suitable (haylands) and unsuitable (ploughed lands and shrublands) for rare waders habitats were mapped in 2014 in the reserve (Apsarevski Site), including farmlands of new land user (fig. 4).



Fig. 4. Haylands, shrublands and ploughed lands (tillage, potato and rape) in the reserve.



Overgrowing of vast areas with shrubs on farmlands of new landowner turned out to be more important problem for breeding meadow waders compared with ploughing of grasslands, as initially expected. Accordingly, we started to prepare detailed map of shrublands at the Apsarevski Site on the basis of field data, satellite imagery and aerial photography combined in GIS (fig. 5).

In addition, detailed geobotanical data were gathered for all grasslands of the Apsarevski Site in 2014. This data will allow to compare current situation on meadows (after many years of land abandonment) with the situation in 2004 (when similar geobotanical mapping was undertaken). In particular, geobotanical data will also allow to assess changes in habitat wetness during the last 10 years and to make some prognosis of future changes.



Fig. 5. Habitat mapping

## Hot-spots and negotiations with farmers on the problem of conservation of rare waders.

In 2013 a threat of grassland transformation to arable fields on 2000 ha at the Apsarevski Site (agricultural part of the "Homeland of the Crane" Nature Reserve) appeared as a management plan was developed by principal landowner, holding 70% of lands in the reserve.

Fortunately, a single hot-spot of 45 ha was discovered at grasslands ploughed in 2013-2014 by this land user. In the framework of the current project an agreement was achieved with the landowner on re-cultivation of grasslands on these 45 ha and on abolition of ploughing for cultivating non-grasslands crops in 2014-2015.



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Another and very different threat to meadow waders emerged on lands of the same principal landowner as vast areas of farmlands were overgrowing there with shrubs. Thus, we reached an agreement on annual mowing of not less than 100-150 ha of grasslands in the reserve (in autumn 2014 realized on 480 ha, fig. 6) and on initiation of activities on shrub elimination on abandoned lands (to be implement starting from winter 2015).



Fig. 6. Abandoned lands mowed in autumn 2014 (former and potential breeding places for Eurasian Curlews).

All these measures should prevent crash of breeding population of Eurasian Curlews in the Apsarevski Site, a core breeding area for this species in the Homeland of the Crane and in entire Moscow Region.



We also reached an agreement with another land user on changing certain stages of rape cultivation on field where a pair of extremely rare in the Moscow Region Eurasian Oystercatchers nested in 2014 (fig. 7).

Negotiations with other agricultural enterprises and farmers on needs of conservation of rare meadow waders were carried out throughout the project duration and will be continued in the future.

Fig. 7. Negotiations with director of agricultural enterprise.

### Prevention of transformation of valuable farmlands into lands for country houses for Moscow residents



The new threat to waders in the Homeland of the Crane has appeared during last 3 years. Vast areas of agricultural lands have become a subject of reclamation for building country houses for Moscow residents. This activity will irreversibly destroy habitats of all farmland birds. Accordingly, already in 2012 we initiated a public campaign against this threat under the TAPNA (local environmental agency) coordination.

In the course of the second RSF project we attended all public hearings and other meetings related to this objective in 2 districts of the

Moscow Region (Taldom and Sergiev-Posad), which include most of land area to be incorporated into developed Nature Park. This campaign has involved broad circles of conservationists (several national NGOs with focus on conservation of birds and environmental issues, mass media, etc.).



Letters with recommendations on area development in the proposed Nature Park with the focus on conservation of valuable for biodiversity, and waders in particular, farmlands were prepared and officially send by the TAPNA, Russian Bird Conservation Union, BirdsRussia to concerned parties.



As a results threats of building country houses and other constructions on extensive (900 ha, fig. 8) areas of farmlands near the borders of the current reserve and inside the territory of proposed Nature Park were excluded from the official plan of the area development for the next 20-25 years.

In addition, collaboration with agricultural enterprises and local authorities was revitalized in the course of the campaign against reclamation of farmlands for construction of country houses.

Fig. 8. Distribution of rare breeding waders and other rare birds and areas threatened by reclamation for construction purposes in the proposed Nature Park. All territories initially planned for reclamation were excluded from final plan of the region development (the final plan was submitted for approval to the government).

# Education

Educational activities were undertaken throughout entire project duration. They were realized in the course of contacts of the project executor with local authorities and agricultural landholders. Also, local teachers and schoolchildren, students from Moscow universities and volunteers of the Homeland of the Crane recruited for the project were involved.



Colourful booklets on conservation of meadow waders (remains of publication in 2012 in the framework of the 1<sup>st</sup> RSG) and newly printed stickers with rare waders was used for education and promotion of an idea of sustainable agriculture and conservation of rare waders. Copies of the booklet were distributed, attendants to annual Spring Crane Field Sowing Fest and to annual Crane Festival carried out by the TAPNA in 2014, and among the project volunteers. Remaining stickers will be used for conservational and educational purposes in 2015.







### Sharing of information.

Information about the project results and problems of conservation of meadows for rare waders was published and presented by the project leader, TAPNA Director and the project team volunteers at 4 conferences, in several interviews to mass media and in articles on the website of the Homeland of the Crane. In 2012-2014 10 scientific and related to conservation articles, abstracts and other materials were published on the problem of meadow wader conservation in the target area.

In the framework of the second RSG project approximately 25 volunteers contributed to different types of research, educational activities and activities against building of country-houses on agricultural lands.



Thus, the executed project makes an important contribution to a comprehensive conservation management plan for the Homeland of the Crane area.



We plan to continue our work on conservation of meadow waders during several next years as certain objectives could not be achieved in one or two field seasons. In particular, we plan to continue broad public campaign against destruction of farmland habitats for construction of country houses in the area.

In spite of the start of agricultural rehabilitation wide areas of farmland are still abandoned in the Homeland of the Crane area, a scenario of polarization of agriculture. Both large-scale ploughing and land abandonment result in highly unfavourable conditions for meadow waders. Thus, in the nearest years a focused study of impacts of ploughing of meadows and of land abandonment on breeding waders is needed. In particular, the following objectives have high priority:

1. To carry out focused study of populations and distribution of globally threatened Great Snipe.

2. To carry out in the nearest years studies of breeding success of rare waders at lands with different agricultural use.

3. To expand the project scope to conservation of other than waders wildlife of agricultural landscapes.

Additional information about the project is available at the Homeland of the Crane website (in Russian): <u>http://www.craneland.ru/?p=3775;</u> <u>http://www.craneland.ru/?p=3866;</u> <u>http://www.craneland.ru/?p=3919;</u> <u>http://www.craneland.ru/?p=4285;</u> <u>http://www.craneland.ru/?p=6230;</u> <u>http://www.craneland.ru/?p=6292;</u> <u>http://www.craneland.ru/?p=6406;</u> <u>http://www.craneland.ru/?p=6537;</u> <u>http://www.craneland.ru/?p=6663</u>).