

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Anton Abushin
<b>Project Title</b>	Research and Conservation of Steppe Eagle ( <i>Aquila nipalensis</i> ) in Kalmykia
<b>Application ID</b>	33606-1
<b>Date of this Report</b>	April 2022

**1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Steppe eagle nesting groups monitoring and research				<p>During 2-week field trips, a large area of territory was examined (7,7 % of the nesting range in Kalmykia) where 135 nesting plots of steppe eagles were detected. A large body of data on the propagation, nutrition and dangers to steppe eagles was collected. Moreover, the ringing of nestlings and marking them with satellite transmitters were done for studying the migration strategy of eagles from the westernmost point of the nesting range. Based on these data, a scientific paper was published and a programme for further eagle study and conservation measures was developed and submitted to a number of state authorities for their use when making management decisions.</p>
Study of the problem of bird deaths on distribution lines and its solution attempt				<p>43 sections of 6–10 kV distribution lines with the total length of 472.4 km were examined. The remains of 106 birds that died due to electrocution and five birds that collided with wires were found upon our examination of 407.7 km of distribution lines dangerous to birds. The hotbeds of massive bird kill were identified, among which two are especially dangerous to steppe eagles. Based on our data and the results of a claim by the RK Prosecutor's Office, the Elista City Court ordered Kalmenergo to equip all power lines in Sarpinsky and Harbinsky wildlife sanctuaries with bird protection devices.</p>
Installation of artificial nests				<p>10 artificial nests were installed in the territory of the Kharbinsky Nature Reserve. Nests were located according to the scheme of the potential distribution of steppe eagle breeding</p>

			<p>territories, in the places with rich food supply and away from human habitation. The nest structure fully ensures the nest safety in the case of steppe fire and attacks of land predators. The probability of their occupancy by steppe eagles depends on many factors, it will be possible to eventually check it in June 2022.</p>
<p>Raising public awareness measures</p>			<p>As part of this the project, we developed and distributed printing materials (booklets (500), posters (50), stands (nine)) among educational and state organisations. Together with biology teachers, ecological classes dedicated to the steppe eagle were given in six regional schools. We regularly published project updates, information slides, as well as the movement of an eagle tagged with a satellite transmitter, on social media (Facebook, Instagram, VK). This news was duplicated in major local public groups (over 20,000 subscribers). Several videos about the project were shown on local television, also popular scientific articles were published in six regional newspapers and one republic's journal for the population masses.</p> <p>We were also involved in active eco-awareness building with stockbreeders who have a direct effect on the success of steppe eagle nesting. During the talks, we talked about the endangered state of the species population in Kalmykia, the unacceptable disturbance during nesting, hunting for the ground squirrels, their basic food, and the danger of distribution lines to eagles. Based on positive feedback, now hundreds of people in Kalmykia will practice the techniques of eagle conservation on their own. It's important to continue this work in the future.</p>

## **2. Describe the three most important outcomes of your project.**

**a).** One of the main outcomes of our project is that the problem of bird death on Kalmyk distribution lines has re-emerged as one of the central ones on the conservation agenda. Our team managed to detect and inspect 407 km of distribution lines dangerous to birds in the territory of two key designated conservation areas of Kalmykia important for the conservation of the steppe eagle and other birds of prey. Covering the facts of mass bird death allowed, by winning the support of society and regulatory bodies, reaching a decision through the courts, based on which the distribution lines owner is obliged to take protective measures on all his lines in the Sarpinsky and Kharbinsky nature reserves within a short time (1 year).

**b).** The next important outcome is a renewal of steppe eagle research. During field work, a large body of data on the distribution, breeding biology, diet and other aspects of the life of steppe eagles in the territory of 3217 km<sup>2</sup> was collected.

Moreover, the ringing of nestlings and tagging them with satellite transmitters were done for studying the migration strategy of eagles from the westernmost point of the nesting range.

Due to this research, we could expand the idea of the modern state of this endangered species. In particular, the population of the steppe eagle in Kalmykia appeared a little bit higher (789 pairs) in comparison to the previous estimate (527). However, this comes from the intensification of research while there was no actual increase in the eagle number. On the contrary, the situation with this species steadily deteriorates, which we see from signs (Abushin, Erdnenov, 2022). That's why this yet again stresses the importance of the steep eagle population conservation in Kalmykia, which is impossible without obtaining accurate data on its state.

## **3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

Even though the members of my team were very helpful at all stages of the project implementation, there was a shortage of people motivated to achieve a greater result. In my opinion, with fewer people in the team united with common interests and willing to cope with difficulties for the sake of results, fieldwork could be done in a much greater volume with a slight increase in financial costs. Moreover, I didn't have enough specialists for running the raising public awareness campaign, as well as media content aimed at keeping up the interest of broad layers of society in our project.

The next difficulty is related to this. Though the coverage of the problem of bird deaths on distribution lines in media and on the internet had a strong impression on society, this effect was short. In our opinion, because of this and the lack of support on the part of local opinion leaders, bloggers, as well as authorities, the PJSC Rosseti-South distribution lines owner didn't engage with us and keeps resisting the need for taking bird-protective measures even despite the decision of the procurator's office and the courts of two instances binding them to do it as soon as possible.

#### **4. Describe the involvement of local communities and how they have benefited from the project.**

I take special pride in the fact that within the framework of the project we managed to build trust-based relations with the local population. The farmers and residents of settlements rendered us comprehensive assistance during field works: they not only helped in searching eagle nests but also offered hospitality in different ways. The sample interview found that out of 78 respondents, at least 28% worry for the future of steppe eagles and sincerely want to help them. For example, in the vicinity of the Sarpa settlement, there are 32 nest plots of the steppe eagle under stockbreeders' protection, and in the Kharbinsky Nature Reserve, local farmers promised to look after 10 installed artificial nests. Obviously, the sense of belonging to the common goal for conservation of one of the natural symbols of Kalmykia is no less important than some material benefits for many people.

#### **5. Are there any plans to continue this work?**

I will certainly continue the work on the study and conservation of steppe eagles considering the experience gained in the project. At the end of April 2022, another volunteer and I will take inventory and assessment of bird deaths on distribution lines in another part of Kalmykia where, according to my hypothesis, there's one of the major hotbeds of the mass death of steppe eagles and other birds. These materials will be used following the work we started to provide bird safety on distribution lines.

Moreover, several other volunteers offered me assistance in carrying out the monitoring of steppe eagle nesting this summer. Under conditions of deterioration in the country's political and business environment, the help of non-indifferent people will strongly allow continuing the important work on preserving this endangered species.

#### **6. How do you plan to share the results of your work with others?**

Our article based on the results of the steppe eagle study in Kalmykia was already published in the Raptors conservation journal (Abushin, Erdnenov, 2022). We are preparing the second article for publishing in this journal based on the results of studying the problem of bird deaths on distribution lines. A briefing note with these data and recommendations on the conservation of the steppe eagle was sent to state authorities (Kalmykia Government, Department of Environmental Resources, Environmental prosecutor's office, etc.) for their use in the further work when making management decisions. Later, we'll process and submit results on the occupancies of artificial nests and tracking the moving of steppe eagles marked with satellite transmitters when sufficient data accumulate.

Also, popular scientific articles were published in several journals and newspapers of Kalmykia for the broad population. Project updates were regularly published on the official pages of the Chyornye Zemli Nature Reserve, as well as in local public groups on social media (Facebook, Instagram, VK). Finally, I share my personal experience

in studying and conserving birds of prey on my Instagram account for those who want to know about it in more detail.

### **7. Looking ahead, what do you feel are the important next steps?**

This project became an important jumping-off point, gave me essential experience and allowed me to apply various methods of the study and conservation of steppe eagles. I consider the probability of obtaining tangible results high if this work is done on a continuing basis. In this regard it is important:

- To carry out a complete examination of the nesting range of the steppe eagle in Kalmykia in the coming years.
- To detect key nesting groups of the steppe eagle and monitor them annually.
- To carry out regular checks on distribution lines dangerous to birds (preferably, twice a year). The results should be made public after that to insist on carrying out bird-protective measures by distribution lines owners through regulatory bodies.
- It is important to study the migration strategy of steppe eagles from the western part of the range in detail using colour rings and satellite transmitters wintering mainly in Africa for initiating scientific and conservation programmes in the key migrating and wintering areas.
- To actively hold public awareness-building activities related to the steppe eagle situation. It is especially important to win the support of farmers and rural population in terms of nest monitoring and protection, identification of the sections of bird death on distribution lines, as well as prevention of little ground squirrel poaching – the basis of the food supply of eagles.
- To meet the previous goal, it is necessary to increase the volume of video content obtained using trail cameras or online cameras on nests, as well as satellite transmitters. These methods can help to increase the involvement and interest of the local population in the conservation of eagles in quality and quantity ways.

### **8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

Yes, we used the Rufford Foundation logo in printing materials produced in relation to this project (booklets, stands, posters, information slides). The Rufford Foundation was also mentioned in our publications on social media, local newspapers and academic journals.

### **9. Provide a full list of all the members of your team and their role in the project.**

**Anton Abushin** – project leader

**Gennady Erdnenov** – engineering support

**Sergey Bogun** – project information support, negotiations with interested organizations

**Rostislav Udaev** – driver

**Andrei Kurshaev** – nest monitoring

**Anna Mostovaya** – printing material design and layout

**Yevgeniya Samtanova** – methodologic support of educational classes

#### **10. Any other comments?**

I thank The Rufford Foundation for funding the project. I also thank the staff of the Chyornye Zemli Nature Reserve (Black Lands) and personally Bataar Ubushaev, the Director, for comprehensive assistance in the work on the project, and Valentin Muzaev, Igor Karyakin, Ilya Smelyansky and Michael McGrady, without whose support this project would not have been possible. This was my first environment project experience of such a scale, based on which result I gained invaluable experience. I hope that it will become the beginning of the long-standing programme for the conservation of steppe eagles in Kalmykia.