

## **Project Update: July 2018**

Although at the very beginning of the project I was faced with some technical difficulties, the planned project activities are successfully and fully implemented.

Like last year and this year too, using Rufford's funds, we have noticeable progress in achieving our goals for more effective protection of the imperial eagles in Macedonia.

The following is an explanation that has been achieved by each action separately.

### **Annual monitoring of the breeding population**

As every year the survey or monitoring of breeding success began in the middle of February. During the monitoring mission, all known sites in the region of Ovce Pole and Povardarie are surveyed for presence of eagles, and every formed pair known from earlier or newly formed is monitored from the start to the end of the breeding season. Monitoring were done directly on the nests of the Imperial eagles from safe distance (using telescopes and binoculars) to prevent any disturbance of the birds. We checked the nests known from the previous years and also visited those sites that seemed to be appropriate for the species

This year is successful for Imperial eagles. We found three newly formed couples. Two of them nest on power poles (in an artificial nest platform which is set last year) and one has build new nest on tree. The newly established couples are proof of the success of the conservation measures implemented so far. Unfortunately however it was not so great as we wanted to be. In November 2017, following notification from a local farmer, near the rubbish dump of city of Veles we found the body of poisoned imperial eagle. It was the female from the couple near the village of Mamutchevo. But she was not the only victim. We also found two poisoned foxes and three common buzzards. The case was reported to the Ministry of Environment and inspectors took to the inspection.



Also in two nests there is a change of adult birds with sub-adult, indicating death from unknown reasons in adults. The female of one of such couples, because of inexperience, left the egg in the nest and went hunting in the nearby field. Egg was predated from ravens. This was a clear example of why sometimes young couples are unsuccessful in raising the young.

In 2018 34 pairs were formed from which 32 started breeding. 17 nests are in poplar trees and other are on power line pylons. Four nests this season are vulnerable and

are guarded. Twenty-five pairs have one chick and five have two chicks in the nest. Two couples lose their young. Monitoring activities and nest guarding will continue until end of breeding season.

1	Negotino	old	21	Tripatanci	old	43	Zubovce	old
2	Crveni Bregovi	old	22	Vakaf	active	44	Nikuljane	active
3	Dzidimirci	old	23	SV Nikole 1	active	45	Burilovci	active
4	Luda Mara	old	24	SV Nikole 2	active	46	Popovica	old
5	Crna Reka	old	25	Zubovce	old	47	Lepopelci	active
6	Bregalnica	old	26	Makresh	old	48	Saramzalino	active
7	Gradsko	active	27	Mamutchevo 1	active	49	Nogaevci	old
8	Kochilari	active	28	Karatmanovo	active	50	Stip 2	active
9	Karaslari	active	29	Nogaevci	old	51	Bajlovce	old
10	Chuloshevo	old	30	Farma Chichevo	old	52	Sokolarci	active
11	Sojklari	active	31	Dubrovo	old	53	Kocilari 2	old
12	Kjoseleri	active	32	Dubrovo2	active	54	Dorfulija	old
11	Bogoslovec	old	33	Koreshnica	old	55	Dzidimirci	active
12	Erdzelija	old	34	Patetino	active	56	Krushevica	old
13	Sudic	active	35	Puzderci	active	57	MI.Nagoricane	active
14	Stamulovci	active	36	Crnilishte	old	58	Gradsko 2	old
15	Mechkuevci	active	37	Mamutchevo2	active	59	Topolnica	old
16	Orel	old	38	Novo Selo	active	60	Shtip	active
17	Dolno Djugance	active	39	vrba Gradsko	old	61	Klechevce	active
18	Preodski Nivi	active	40	Palikura	active	62	Murgash	old
19	Sveti Nikole	active	41	Mushinci	old	63	Makresh	active
20	Shupli Kamen	old	42	Kocilari 1	old	64	Lozovo	active

### Installation of artificial nests

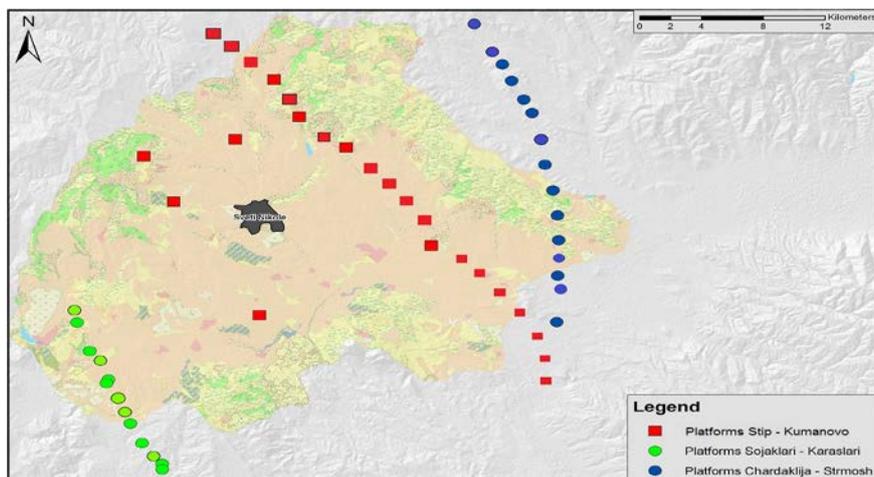
Artificial nests are composed of two parts. One part is a metal platform and the other part is a nest woven from branches and lianas which is reminiscent the natural nest. Our experiences have shown that such types of artificial nests are most acceptable to many different species of birds. Metal platforms are with size 900 X 900mm and height of 150mm, with specially made hooks for attaching the construction of the transmission line. In the autumn of 2017 the platforms and artificial nests were constructed. The platforms are made in mechanical workshop and wooden nests are made by local villagers. Involving local people in making nests has helped to increase the knowledge of locals about Imperial eagles, but also had an economic effect, which the villagers gratefully accepted.



Installation of platforms and nests on high-voltage pillars is carried out by workers of AD -Mepso that specialize in maintenance of high voltage pillars. The cooperation with this company is at a high level and this year the platform is being installed (due to experience from the previous projects) easy and fast, despite the bad weather. The installation was carried out in mid-April when the transmission line was disconnected for regular inspection.



This year, platforms with nests were placed on the new build transmission line which passes almost the center of the Ovce Pole region, where most of the Imperial eagles are located. I expect that the new platforms will help at least four pairs who have quite uncertain and unstable nests on trees and are in the immediate vicinity of the transmission line. Because the platforms were placed during the regular inspection of the transmission line that was going on at the end of April, this year I do not expect any of artificial nest to be occupied, because the nesting has already started.



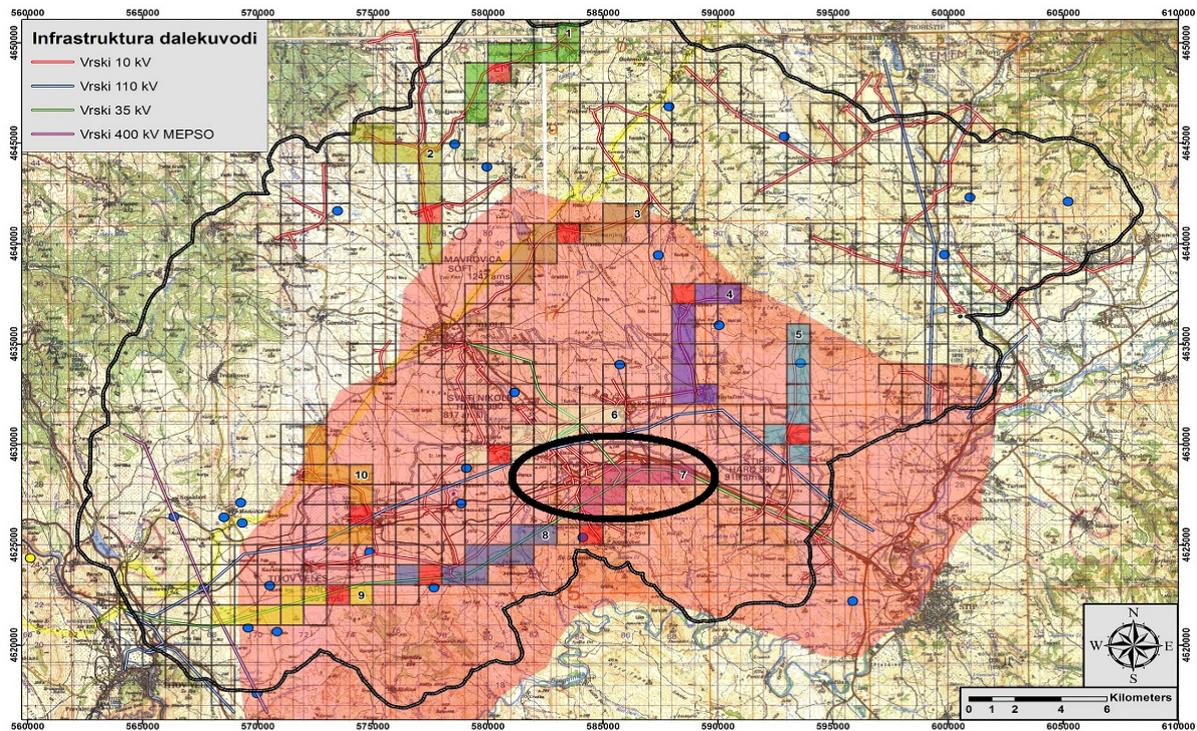
With the last installation, most of the territory of the steppe in Macedonia is covered with nesting platforms. It is necessary to set another about 20 platforms in the southern part of the steppes on the region called Povardarie, and on direction to the northern border of Serbia and Macedonia. This will allow an increase in the population of Imperial eagles and expanding of nesting territory.

### **Insulation of medium-voltage power lines**

The implementation of this action was accompanied by more difficulties, generally of a technical nature. Although I previously talked with representatives of the company EVN who are responsible for the department environment in their company, and in general I got the consent to install isolators on their side, when I asked to start the implementation of the action I got the answer that it is necessary to get permission from their directors. Due to summer vacations, originally the project was presented to the board of directors in late September 2017. At the end of October 2017, I received a response that the idea of installing isolators on hazardous conductors was accepted and approved, but with the requirement that the company itself will choose the equipment (insulators) that will be installed. It took another almost a month to finally select the isolators that will be installed, but also the company that will purchase and import them in Macedonia. It was selected equipment that is produced in Finland by the manufacturer Ensto (<https://www.ensto.com/products/overhead-line-networks/medium-voltage-overhead-line-solutions/ensto-covered-conductors/environmental-friendly-products/SP45.3>). The selected equipment are much more expensive than I expected and therefore, I bought less isolation equipment than I expect, for the available funds. Finally, the equipment arrived from Finland towards the end of January 2018 but in the middle of winter it was not possible to install it so the implementation of the action was postponed for spring.



Meanwhile, while I waited for the decisions of directors and orders, I decided to do a detailed survey of the entire medium-voltage network that stretches across the IBA Ovce Pole. On the map below, the transects on which we performed the survey are presented. After analysing the collected data, I decided that the most significant part that should be covered first with isolators is the 7th transect.



This region is quite important for wintering young imperial eagles. Because of the meat industry dump and a large pig farm in the immediate vicinity, almost all young imperial eagles (but also and some adults) spend most of their first year in this surrounding. Unfortunately, here is the densest network of low-voltage, medium-voltage and high voltage transmission lines that eagles and other bird species often use as roosting place.

The action for installing the insulators was carried out during May 2018 on several occasions. The bad weather was a problem, but at the end were completely isolated 230 pillars from the middle-voltage transmission network. The installation of the equipment was carried out by professional installers using special vehicles but also by climbing the pillars.





And this action attracted the attention of the public and was followed by journalists and television crews that regularly reported on the progress.

### **Nest guarding**

This season four nests were vulnerable and there was a need for their constant monitoring and guarding. Three of them, due to the unstable branches on which they are built (with the more recent use of the nest, become big and heavy, so there is a risk of collapse along with the branch on which it is built) and one because of the existence of the risk of robbery.

The experience of last year and this year too, has shown that the best guards are local stock breeders who spend all day with their flocks in the vicinity of vulnerable nests and are fully familiar with the comings and goings in each location. Most often they are simple people who know quite a lot about the surrounding environment, as well as the eagles. Last year these involved "guards" were provided with binoculars, owned by the Association Aquila.

This year, after the storm, one chick fell from the nest and, unfortunately, was taken from a strong torrent so that it could not be saved.

Monitoring and guarding continue until August 2018 when it is expected that all fledglings will leave the nests.