

Adapting Human Facilities to Safeguard the Threatened Birds Species in Their Modern Homes in Macedonia



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Background

Many bird species are recently using the Man made facilities (such as power line poles, houses' roofs, rubbish dumps etc.) for nesting or roosting or feeding. Some of these species are globally threatened (IUCN Red List) and they need some special attention. These are Lesser Kestrel and the Imperial Eagle as well as Black Vulture etc. Some less priority species as White Stork, several species of owls and others are also using human facilities for breeding or roosting.

During my work in FWFF – Macedonia and during the Census of the Lesser Kestrel and the White Stork as well as analyzing the situation with the vultures and Imperial Eagle I found that all these species are related with the people frequently using human facilities (e.g. electric poles, house roofs, rubbish dumps etc.) for breeding, roosting or finding easy accessible food.

Recent three of the most threatened species of birds in Macedonia are breeding of such human facilities. The Lesser Kestrel (*Falco naumanni*) is breeding mainly under the roofs in the houses in the villages. Almost 50 % of the population of the Imperial Eagle (*Aquila heliaca*) in Macedonia is now breeding on electric poles, as well as several Lanner Falcons (*Falco biarmicus*) pairs too. The White Stork (*Ciconia ciconia*) is breeding on houses' roofs, electric poles, churches and many others. In most of the cases the Imperial Eagle, the Egyptian and the Griffon Vultures are feeding on rubbish dumps or slaughter houses dumps. This benefits their populations giving them a chance to adapt to the human way of live. But in the same time their choice to live close to the Man or using its facilities forms the biggest portion of threatening factors for their populations. For example many nests of Lesser Kestrels are depredated by cats and or rats. Also the renovation of the roofs is destroying their nests and they cannot breed under the new roofs anymore. This is also actual for number of other species among which several species of owls, swifts, doves and others. The electric poles are providing inaccessible place for building of a nest or for roosting, but are dangerous providing strong electric power. There is many cases of electrocuted storks, eagles, vultures and others. Also the nests of the Imperial Eagles often are falling down when a storm exist. In many cases the Electric Company remove (destroy) the nests of Imperial Eagles and Storks from the electric poles, because they make electric system problems. As well as the birds crash the system with their excrements. The rubbish dumps are providing easy accessible food for vultures, eagles, ravens, storks, corvids, foxes, jackals, wolves and others, but are also dangerous in the times of deratization, other poisoning contaminants placed there, or when the birds eat among the meat some metal or glass or plastic pieces.

Problems

- Electrocution and problems with the electric companies and power lines



Several of the most threatened species in Macedonia are nesting on human-made facilities, as power line poles (Imperial Eagle, Lanner Falcon, White Stork, and others) and house roofs (Lesser Kestrel, White Stork and others).



The electric poles are providing inaccessible and save place for building of nests or for roosting, but are dangerous providing strong electric power. With the privatization of the state electric distribution company, several different holdings become owners (Austrian company EVN) of the electro-distribution network. This made useless our previous commitment with the national electric company. In some areas the new owners has began to destroy the nests on the pylons, because they had made electric system problems, but without any consultation with the Ministry of Environment or other institutions. "It is because very often the birds crash the system with their excrements

and make big damage to the company", company's employees said. Thus at least 4 Imperial Eagle's nests were destroyed in the year of 2005 breeding season. This way 10 % of the Macedonian and 2 % of the active nests of Imperial Eagle in Europe have been destroyed and the offspring's died. Furthermore, much of the electric infrastructure in the country has been renovated in 2005-2006 as power poles constructed on prestressed concrete or metal with upright insulators, rank as the most dangerous of all types. The gap between the cables and the crossarm is small and it makes a big problem for the birds.

— Poisoning

The pesticide use and the official rodenticide use, as deratization of dump sites and the field rodents extermination is still leading to wildlife secondary and non- target poisoning. For the period of the project six cases of poisoned birds of prey were reported by local people as in two of them Imperial eagles were victims.



— Habitat loss and degradation

The habitat changes are limiting some species and probably are favourable for others. But most of the threatened species have specific habitat requirements. So many trees are planted by the forestry service and thus the areas covered by trees are rising, but the most suitable for nest placing old trees and forests are scarce. Thus the Imperial Eagle and the White Stork are trying to establish their nests on electric pylons and sometimes getting electrocuted or their nests just removed by the electric company. Stone queries are destroying the rocky habitats. More and more areas are getting urbanized.



Methods

The project aim was to adapt the human facilities making them safe for the birds. This used to be possible with combining the efforts of FWFF- Macedonia with these of the Electric Company of Macedonia, the Veterinary Service of Macedonia and the local Municipalities. Involving all these parties as well as the Ministry of the Environment in such a conservation project is success by itself, but good results regarding the globally threatened Lesser Kestrel and Imperial Eagle were also obtained. Also in the activities of the project were invited to participate local school students, university students, and other local people. By this way the project was practical and educational in the same time. Also the project was of big interest for the media and so it became popular and the conservation matter reached many people in central part of Macedonia.

Actions

- isolation of electric wires of dangerous electric poles, where storks and eagles are breeding with the help of Electricity Company of Macedonia



The new owner of the electro-distributing company in the area of Shtip started the renovation of the electric poles.



Most of the old ones were dangerous for the birds (especially the 20 Kw) but more or less isolated. The new trace was planned to be of "T" type with the isolators above that is most dangerous for the birds. Such poles were set in big area of Ovche pole, but mainly close to and in the villages, where they could be dangerous mainly for the Lesser Kestrels and the Storks. Being not supportive to our efforts in our early contacts the electric company let us to miss the opportunity to make insulations to the "T" type pylons. However after a long negotiation and press from our side we succeeded to convince the local electricity company to establish poles at least close to the Shtip slaughterhouse dump site, where about 5 to 12 Imperial Eagles Vultures– mainly juveniles permanently occur to feed on the slaughter offal.

- building and placing of artificial nesting platforms for White Storks and Imperial Eagles on electric poles with the help of Electricity Company of Macedonia

My team has organized few formal and informal meetings with employees of the electric company EVN and as a consequence they decided to allow the project to put nesting platforms at least at abandoned electric poles (without wires). As a result of changing in the infrastructure, some parts of the electric trace were abandoned and compensated with new segments. Even not many remained; these were satisfied substrate for our action. With the support of local groups of employees from the big company we placed 24 artificial platforms for Imperial Eagle and Lanner Falcon on abandoned electric poles.



Thanks to our efforts in communication with the electric companies and the Ministry of Environment and Physical Planning we came to agreement so that the electric companies would replace the problematic White Stork nests only on safe platforms that will be paid by the electricity company.

- Presenting a leaflet of different kinds of wind-generators that are less dangerous for the birds

In order to reduce the new coming threat for the birds – setting up wind generators in Macedonian countryside we have presented a leaflet with different kinds of wind generators that seem to be less dangerous for birds. The leaflet presents the problem with the conventional wind generators that are killing many birds, especially soaring raptors.



Pictures (above) of eventually safer for birds wind generators that our team presented to local authorities as an alternative of the conventional ones in Shtip area- source *Internet*.

- Preparation and placing of nesting boxes for Lesser Kestrels with the help and active participation of local school students, presenting a leaflet "How to make the house roofs for breeding of Lesser Kestrels and presenting them to local people and authorities



About 150 nesting boxes for Lesser Kestrels were placed in more than 30 villages and agricultural buildings in the area of Shtip and Sveti Nikole. More than 20 lectures of pupils in the schools of Shtip and Sveti Nikole were

provided and the most interested students were involved in the Lesser Kestrel nesting boxes preparation and Lesser Kestrels observation. There was established a connection with other NGOs in the area as Rainbow Society of Shtip, that are mainly active with school students education and general ecology work. They helped too much in our work and are open for future cooperation on the birds' conservation and biodiversity education fields, which for I am very grateful.



- Making a plan with Veterinary Service of Macedonia and the local vet services for deratization of the municipal rubbish and the slaughter houses' dumps with minimized possible secondary poisonings of vultures and eagles

At a first time we succeed to establish an agreement with the local veterinary services to make no deratization on certain dump sites that are frequently used by Imperial Eagles, Egyptian Vultures, Griffon Vultures and White Storks. We get in contact with the Regional Veterinary Service of Shtip and they were very much supportive and stated that any deratization on rubbish dumps in future will be advised with our team and the Ministry of Environment to avoid poisoning of protected species.

- Preparation of TV clip with the successful practices and the local participation and showing it by local TVs

A video material has been collected with the help of Iris TV-Shtip. Several times news spots were presented in the TV's news editions. More than 20 000 people have observed the news and we saw the effect when we met local people on the field almost all of them were informed about the project by the TV and the newspapers.

- Printing a poster with the birds living in our backyard, their style of life and the need and ways of their conservation

A poster presenting the threatened steppic habitat and beauty of the species presented was published in 2000 copies and distributed in Schools, and public buildings in the area of Shtip.



Results

In the current project isolation of about 350 electric poles was conducted by the electric company of Shtip with the expertise and isolation material provided by FWFF- Macedonia. Placing of 14 platforms for Imperial Eagles and about 60 for White Storks was done. More than 200 nesting boxes for Lesser Kestrels and Little owl have been placed in more than 20 villages in the area of the towns of Shtip and Sveti Nikole. Statement for collaboration in regard of non dangerous for the wildlife deratization of rubbish and slaughterhouses' dump sites was conducted with the local and regional vet services. About 2000 school students and local people involved in the project.

Expenditures

N	Item	Justification	RSG source	Other source
1.	Purchasing of materials for isolation of wires of dangerous for the birds electric poles	400 * 3 £	1,200.-	
1.1	Doing isolation of wires (Electricity Company)	400 * 2 £		800.-
2.	Preparation of nesting platforms for storks and eagles	95 * 12 £	1,140.-	
2.1	Placing of the nesting platforms for storks and eagles to the poles (Electricity Company)	95 * 2 £		190.-
3.	Preparation and placing of nesting boxes for Lesser Kestrels	200 * 8 £	1,000.-	600.-
4.	Leaflet editing	1000 * 0.2 £	200.-	Pictures and drawings
5.	TV clip	5 min* 20 £	0.-	Iris TV, Shtip
6.	Poster editing	2000 * 0.15 £	300.-	Pictures
7.	Fuel for field trips	4360 km* 0.1 £	436.-	112.-
8.	Per diems for team members	180 * 4 £	720.-	
	TOTAL		4,996.-	1812.-

Pictures



