

SHORT COMMUNICATIONS, NOTES AND REPORTS

Five years overview of the reintroduction of Griffon Vulture *Gyps fulvus* in Kresna Gorge, Bulgaria

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Introduction

On 20.02.2015 we acknowledged the fifth anniversary of the first release of the Griffon Vultures *Gyps fulvus* in Kresna Gorge with which the re-introduction of the species has started. It was initiated and performed in 2010 by Fund for wild flora and fauna (FWFF) – a local nature conservation NGO. This report provides an assessment and analysis of the achievements.

Background

The Kresna Gorge of Struma River is found in southwest Bulgaria,

between Pirin Mountain on the east and Maleshevska Mountain to the west (UTM, FM73). It represents rough terrain of silicate rocky habitats and degraded deciduous forests with Mediterranean climate influence. It is in close proximity to the Bulgarian border with Greece and FYR of Macedonia, where suitable vulture habitats and small populations are still present.

The species used to breed in the area until the end of 1950s, when was extirpated by massive, long-lasting and well organized on state level campaign for poison baits use for eradication of terrestrial predators – mainly the wolf *Canis lupus*.

On 18.02.2010 following a several years of preparation (e.g. preventive against-poison campaign, public information and involvement, feeding site establishment and acclimatization aviary construction) the first group of 26 Griffon Vultures arrived at Kresna Gorge with the support of the Spanish GREFA.

Two days after the birds' arrival a strong wind partly opened the cage and 15 birds succeeded to escape – all subadults and adults. Intensive food provision let about 10 of the birds to keep close contact with the release site. Three days later the first exogenous, an immature Griffon Vulture, was recorded, which marked the start of permanent visits from migrating, wintering, vagrant and summering individuals native to Balkans.

A poisoning incident in June 2010, related to the provision of poisoned wild boar as food for the vultures at the feeding site killed two birds and one was observed to be sick, but recovered on its own. All the others also fed from the same carcass, but only those three, mentioned above that probably ate the gut of the boar and its contents became acutely affected.

Until the end of the year after some dispersal and immigrations of wild birds eight Griffon Vultures

overwintered and 2-3 pairs were formed. The nest of one pair was documented, where an egg was laid on 17.02.2011 and hatched in mid-April 2011. The chick was observed in the nest until mid-June 2011, when it disappeared. The reason remains unknown.

In 2012 the project almost started from the beginning again, as the first group dispersed, before the release of the next group of birds. This same year the LIFE for Kresna Gorge project started and funding was secured for the basic things related to the reintroduction program. Releases of a second large group of 12 birds took place in July-August 2012 – this time being immature birds, which settled in the area and formed a stable nucleus. This same year the first Egyptian Vultures were attracted to the area. It seems the release of Griffon Vultures and a feeding site in operation at the same time is a good tool for attracting floaters of Egyptian Vultures, described also by Stoynov & Grozdanov (2010) for Kotel Mountain in Bulgaria.

In 2013, the next large group of 15 birds was released (escaped) again in a storm accident with the aviary. But it was in time, and despite the ruining of the aviary, there was not any problem for the

Griffon Vultures, which spent several months in acclimatization. Thus the local group reached more than 20 birds in Kresna Gorge. Two Black Vultures, three Egyptian Vultures and more than 70 different Griffon Vultures were attracted in the area and identified and monitored thanks to newly developed version of the visual marking method (Hristov & Stoynov 2002, Stoynov & Peshev 2014, Stoynov *et.al.* 2015). The method includes frequent and year-round photographing of the vultures in flight and distinguishing different birds based on individual plumage characteristics (scratches, missing feathers etc.), downloaded in Adobe Light Room software, which allows synchronic movements of two comparable pictures/birds in flight and searching the matches/dismatches. The visual marking method seems to be a very important tool for small vultures populations, where all individuals could be photographed and visually marked. This way maximum numbers, dynamics and individuals' presence could be monitored.

In 2012 and 2013 four vultures were electrocuted on 20 kV power lines, two of which were close to the release site in Kresna gorge. We immediately initiated mounting of perch discouragers to eight most

important pylons and the problem was solved.

In 2014 Griffon Vulture presence continued to increase in the area with record numbers of simultaneously present individuals at the roosting site - 28 on 02 October 2014 and again registered presence of more than 70 exogenous individuals for some time in different periods of the year. Thus in total nearly 100 different Griffon Vultures have been observed in Kresna Gorge in 2014, including those released within the project, but also migrating, summering, wintering and vagrant birds from other parts of the Balkan Peninsula. Marked birds from Israel, Greece, Serbia, Croatia and other parts of Bulgaria have been observed. Birds released in Kresna Gorge were observed in Serbia, Italy, Greece, and FYR of Macedonia, as well as other parts of Bulgaria (Vrachanski Balkan, Sinite Kamani, Central Balkan, Kotel, and Eastern Rodopi). This year the Griffon Vultures spent even more time in the National Parks of Rila and Pirin (at altitudes above 2500 m) during the hot summer months, where they have been recorded by their transmitters, but also they were directly observed and photographed by tourists and park authorities in the area of Vihren and Todorka peaks, Koncheto, Orlite

and Spano Pole in Pirin National Park.

This year for the second year in a row, Black Vultures (*Aegypius monachus*) were observed in the area of Kresna Gorge. This time two different birds were photographed and their presence well-documented.

For the first time feeding and presence for more than 15 days of an Imperial Eagle *Aquila heliaca* was documented at the feeding site and nearby area in Kresna Gorge.

No mortality cases of vultures were recorded in 2014 in Kresna Gorge, nor for birds released within the project.

Conservation measures for improving the habitat for vultures in Kresna Gorge are still underway – providing food for the vultures, anti-poison activities, compensation for farmers and prevention program against livestock depredation, eco-tourism promotion, insulation of dangerous power-lines, introduction of rare breeds of cattle, Fallow deer, etc.

In 2015 the colony plus wintering Griffon Vultures from Serbia and Croatia numbers 22-25 birds and at the start of the breeding season six pairs formed, of which four built nests and two laid eggs. One of the pairs failed in incubation ten days after the laying, while the other left

the non-hatched egg 72 days after laying. Although an unsuccessful attempt, we hope that this is because most of the birds in the pairs are still young at 4-5 years old.

So in five years the area of Kresna Gorge, where vultures were very rarely observed in the last few decades turned to be one of the most important places for the vultures in Bulgaria. It is now an important stepping stone for the migrating, wintering, summering and vagrant Griffon Vultures on the Balkans, as well as a safe refuge for non breeding Egyptian and Black Vultures. Such stepping stones are very important in the Balkans now, because with the wolf *Canis lupus* population recovery, and increasing conflict with farmers, the threat of poison bait use is beginning to emerge.

FWFF continues to work in the frame of the project “Conservation of birds of prey in Kresna Gorge, Bulgaria” supported by LIFE+ financial instrument of EC and co-funded by private donors such as Friends of Vienna Zoo, Austria and Bioparc Zoo de Doue, France.

Post script

In 2015, after the initial submission of this article, some new data were

obtained for the vultures and the feeding site in Kresna Gorge that is worth mentioning. The number of observed Griffon Vultures at once reached 47 on 15.10.2015 and we had a record of 14 juveniles of the year seen together on 20.10.2015. An increase in the number of the group that overwinters in the area was also recorded and reached more than 40 birds. An increase was also noted in the number of Black Vultures (4 different individuals present for more than 60 days) and Egyptian Vultures (2 adults observed together for 15 days) that spent time in the area.

Two new species for the area were also attracted to the feeding site - White-tailed Sea Eagle *Haliaeetus albicilla* (1 adult bird photographed by camera trap at the feeding site on 14.10.2015) and a Steppe Eagle *Aquila nipalensis* (photographed by camera trap at the feeding site on 20.05.2015).

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Key words: Griffon Vulture, *Gyps fulvus*, Kresna Gorge, Bulgaria, reintroduction.

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