

Re-introduction of Griffon Vulture (*Gyps fulvus*) in Kresna Gorge of Struma River, Bulgaria

Annual Report 2011

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Summary

The news from the project for Re-introduction of the Griffon Vultures in Kresna Gorge is on the two extremities – good and bad in 2011. In the beginning of the year two to three pairs experienced breeding behavior and one pair laid an egg and succeeded to hatch a chick for first time in the area for more than 50 years. Following the dispersal of the group and after the loss of the chick (when it was nearly 60 days old) there were not Griffon Vultures in the hot months - late July, August and September. This was observed also in 2010 as the birds returned to the feeding site and the roosting cliff in late October and November. Although we expected this to happen in 2011 too, that was not that case. In October 2011 a group of minimum 8 exogenous Griffon Vultures from central and western Balkan Peninsula spent about a week at the feeding site. We used the opportunity to release 6 birds from the cage to use the experienced birds in the wild to teach the released ones. After the migration of the group of wild Griffons and after some dispersals and recaptures of the released ones in early November until the end of the year no Griffon Vultures were observed in the area. Only large flock of 50 to 130 ravens is present at the feeding site. Most probably the low number of the breeding group led to dispersal and according to the data for observed birds in FYR of Macedonia (nearest Griffon Vulture colony at about 90 km) and Eastern Rhodopi (nearest Griffon Vulture colony at Nestos Gorge is at about 150 km.) one can assume the birds released in Kresna Gorge joined these colonies.

Transfers

A team of GREFA organized the second transfer of Griffon Vultures for release in Bulgaria. On 14.06.2011 24 Griffon Vultures were transported to Kresna Gorge from the GREFA Centre in Majadahonda, Spain. All the birds were juveniles and immatures that arrived in the GREFA rehab center due to different kind of problems. Mainly lost and exhausted birds juveniles and immatures that got captured after suffering some trauma.

There were no adult birds in this transfer.

14 of the birds were immediately settled into the aviary in Kresna Gorge, while 10 were directed to Green Balkans' Rehab Center in Stara Zagora to be marked and used for the project in Balkan Mountain.

Releases

In 2011 in total 7 Griffon Vultures were released in Kresna Gorge. Two young immatures (F00 and G48) born in 2009 were released on 21 April 2011 (birds from the first group transferred to Kresna Gorge in 2010). They adapted well and joined the breeding couple in the area.

In October 2011, 6 immature birds were released (G48 that was recaptured in August 2011 and 5 birds from the second transfer).

Figure 1. Releases and observations of the released Griffon Vultures in Kresna Gorge in 2011.

N	ID of the bird\ month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	F00 imm., female	x	x	x	x	x				
2	G48 imm., male	x	x	x	x	recap		x	recap	
3	B31 imm.							x	recap	
4	B41 imm.							x	Dadia	
5	B40 imm.							x		
6	B30 imm.							x		
7	M60 imm.							x	Kerkini	Kerkini
Total number		2	2	2	2			6		

Figure 2. Previously released and exogenous Griffon Vultures observed in Kresna Gorge in 2011.

N	ID of the bird\ month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	F02 ad., male	x	x	x	x	x	x						
2	F07 ad., male	x	x										
3	G23 ad., female	x	x	x	x	x	x						
4	G28 ad., female										MK		
5	G29 ad., female											Dadia	
6	G31 subad., female	x		x									
7	G39 imm., male										BG		
8	G46 subad., male			x	x								
9	B18 subad., female	x	x	BG	BG	BG							
10	Exogenous Serbian S031						x						
11	Exogenous Croatian UA 3020										x		
12	Exogenous L02/E19/HB										x		
13	Exogenous Serbian I										x		
14	Exogenous non identified 1										x		
15	Exogenous non identified 2										x		
16	Exogenous non identified 3										x		
17	Exogenous non identified 4										x		
18	Exogenous non identified 5										x		
19	Exogenous non identified 6					x	x						
20	Exogenous non identified 7					x							
21	Exogenous non identified 8									x	x		
Number of identified birds (Table 1 and 2)		5	4	4	5	6	6	2	2	1	15	0	0
Highest number of birds observed at once		5	4	3	5	5	4	2	2	1	11	0	0
Total number of recorded birds		5	4	4	5	6	6	2	2	1	15	0	0

x – means observed in Kresna Gorge during the month.

Recap. – means recaptured in the cage, through the whole in the mesh.

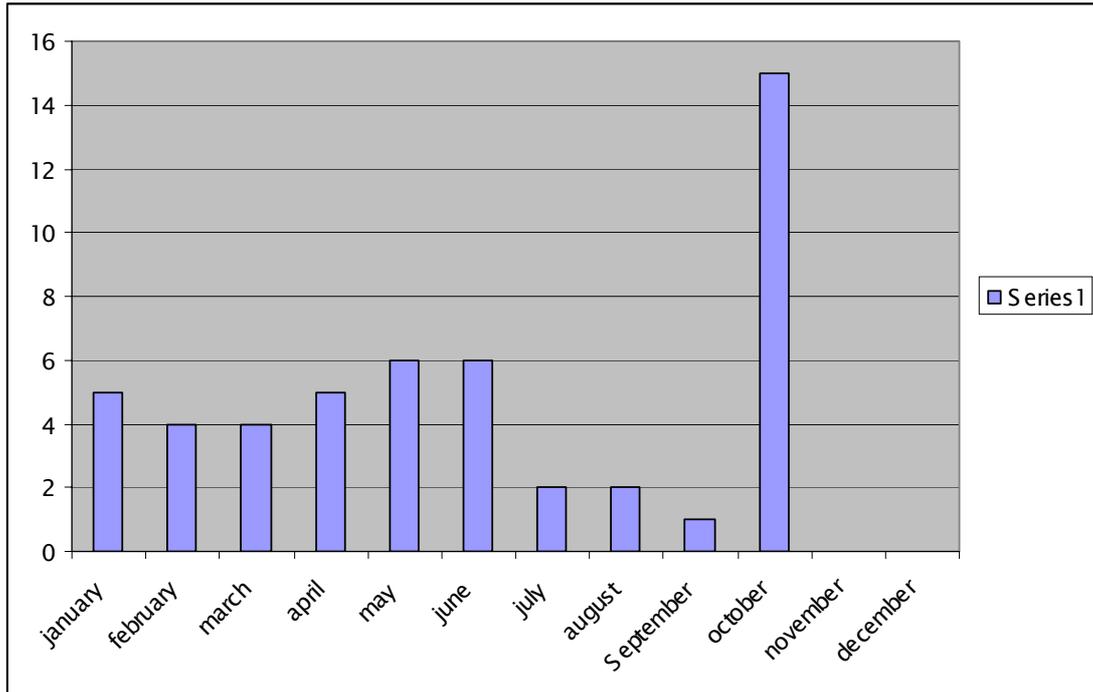
MK- means observed in FYR of Macedonia.

BG- means observed in other vulture place in Bulgaria.

Dadia – Means observed in Dadia National Park in Greece.

Kerkini – Means observed in Kerkini National Park in Greece.

Figure 3. Seasonal dynamic in number of Griffon Vultures in Kresna Gorge in 2011.



Monitoring techniques

The vultures were frequently observed at the feeding site and the known roosting sites.

In 2011 we introduced the use of wing tags for the released birds. As agreed in 2001 within the EGVWG, we use blue wing tag with orange code. Concerning the rings we used the original rings (red or blue with white codes) with which the birds were imported from Spain, assured that although the same colour scheme with other ringing projects in Spain, the codes are not used anywhere.

In case some of the birds in the cage lost its original ring, the EGVWG green rings with white letters were used.

Figure 4. The new marking scheme for Griffon Vultures released in Kresna Gorge.



In 2011 we tried to introduce GPS-GSM tracking of the released vultures. The two birds released in April 2011 were equipped with such transmitters. Unfortunately technical problem

let them stop to transmit just few days after the release. Latter on the producer provided us new devices with corrections, but we still have not placed them to birds, as we plan next releases for spring 2012.

We continued to use digiscoping and took pictures of all observed birds with 300, 450 and 600 mm lenses in RAW format. After that digitally enlarged on the screen and improved through Adobe PhotoShop we found the number of the photographed birds either pictured from a hide or in flight or anywhere. Taking pictures from a hide on the feeding site allowed us to read even a standard ornithological rings, as the one from Croatia.

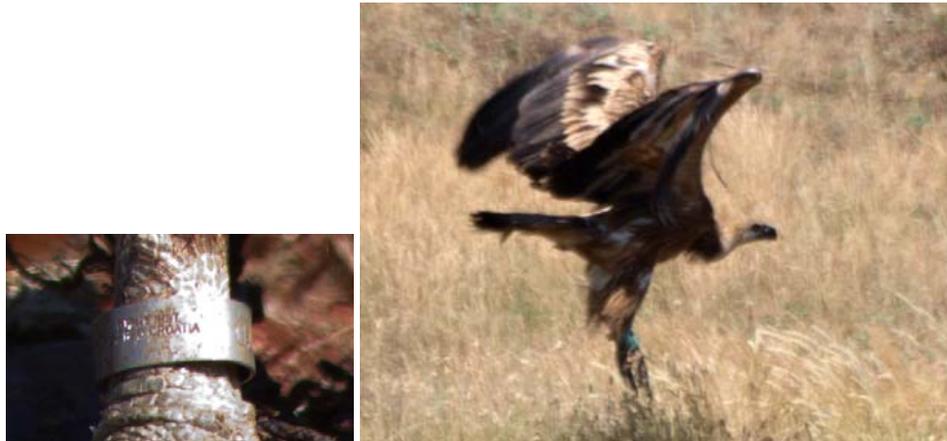


Figure 5 and 6. Picture of digiscoped standard ornithological ring from Croatia (left). Through digiscoping we succeed to read the green plastic ring **S031** of Serbian Griffon Vulture at the feeding site in Kresna Gorge (right)..

Mortalities

In 2011 only the disappearance of the chick from the nest in Kresna Gorge could be considered as a recorded mortality case, although the body was not found.

Dispersals

B18 was observed to return in its original area of release in Kotel Mountain on 26.03.2011 after spending about 10 months in Kresna Gorge from April 2010 to February 2011.

G39 was observed at Studen Kladenets feeding site in Bulgaria on 16.10.2011 – Reported by Ivaylo Angelov – BSPB.

G29 was observed in Greece at Dadia National Park feeding site on 14.11.2011 – Reported by Theodora Skartsi – WWF Greece. Most probably the same bird was observed on 26.10.2011 at Pelevun feeding site in Bulgaria – Reported by Gradimir Gradev – Green Balkans.

G28 was observed at Vitachevo feeding site in FYR of Macedonia on 03.10.2011, together with another Griffon Vulture with red ring and one with blue ring- Reported by Emanuel Lisichanets – NCA AQUILA.

B41 – **H** was observed in Greece at the feeding site in Dadia National Park feeding site from 01.11.2011 to 14.11.2011 – Reported by Theodora Skartsi – WWF Greece.

M60 – X was nearly exhausted three weeks after the release in Kresna Gorge when it was found in Kerkini National Park in Greece and fed up for few weeks by the Park authority. It was in the area from 18.11.2011 to mid December 2011 when was fully recovered and was flying better and better – Reported by Theodoros Naziridis – Kerkini National Park Authority, Greece.



Figure 7. November 2011 M60-X was nearly exhausted three weeks after the release in Kresna Gorge. It was found in Kerkini National Park in Greece and fed up for few weeks by the Park authority. Picture taken by Emilian Stoyanov.

Observation of 5 Griffon Vultures in February 2011 in Beles Mountain – Kerkini National Park in Greece (Birdwing.eu newsletter and Theodoros Naziridis –pers.com.) is most probably of the group of birds from Kresna Gorge. In Beles Mountain, especially at the FYR Macedonian site, there is a historical breeding site of the species. It should be checked, because several observations in the last two years could help one to suggest small breeding group formed from the birds released in Kresna Gorge to exist in that area.

Breeding

Although two to three breeding pairs performed breeding behavior the breeding of only one pair was documented. The female G23 was accompanied by the male G33 since the summer 2010 and they started nest building and copulations in December 2010. However in mid January 2011, the male F02 appeared for first time since spring 2010 in the area and chased away the male G33. F02 usurped the nest and the female G23 and started intensive copulations and nest building. An egg was laid on 20 February 2011. The pair remained alone to the breeding cliff, after F02 chased away all other birds from the traditional roosting place at the same cliff yet around 12 February 2011. The remaining 5 birds disappeared at two stages – first 2 birds (probably a breeding pair) and later on the remaining 3 birds that did not found a mate. In March 2010 B18 one of the birds from the last group, returned to its place of origin in Kotel Mountain, where it found a mate and is there until recently. One more bird was several times observed to visit the feeding site and to fly in south direction very much like having a nest and changing a partner, but another nest and or a roosting place was not found.

First hatching of a Griffon Vulture chick for the last 60 years in SW Bulgaria took place in Kresna Gorge on 18 April 2011.

The chick in the nest was present until mid June 2011 and on 20 June 2011 it was proven its absence from the nest. The reason for its disappearance is still unknown. However the chick disappeared after the parents started to leave it alone in the nest, so predation is a possible reason.



Figure 8. June 2011 Griffon Vultures nest in Kresna Gorge. Left picture the adult male staying with the chick. On the picture to the right the chick alone in the nest. The pictures are taken by Emilian Stoynov.

The male **F02** left the area soon after the disappearance of the chick, while the female continued to roost in the nest and to visit the feeding site at least until the first decade of July 2011. In late July 2011 only two young birds – released in April 2011 were present in the area. In mid August 2011 **G48** one of these two young birds entered the cage on its own and the other **F00** soon after disappeared, although the feeding site was always well supplied with food.

Attracted exogenous birds

Two Griffon Vultures ringed in Serbia, one ringed in Croatia and one in Israel were observed at the feeding site in Kresna Gorge in 2011.

On 27-th of June 2011 a Serbian Griffon Vulture ringed in Uvats Gorge was present at the feeding site – it wore a green plastic ring **S031**.

On 17-th of October 2011 a Croatian Griffon Vulture ringed on Island of Cres in 2010 was present at the feeding site. It wore an aluminum ring Ornit. Inst. Zagreb Croatia UA 3020. This bird was present in the area at least five days. This bird appeared in the area with a group of 6 other immature and juvenile birds (two of which identified as Serbian and potentially Serbian captured and marked in Israel).

On 17-th of October 2011 a Griffon Vulture ringed in Israel in 2009 was present at the feeding site. It wore a yellow ring **E19**, green ring **HB** and a black wing tag **L02**. This bird was

also observed in Vrachanski Balkan in October 2010 again together with a group of 6 immature and juvenile birds.

On 25-th of October 2011 a Serbian Griffon Vulture ringed in Uvats Gorge in 2010 was present at the feeding site. It wore a yellow wing tag with green number “1”. The same bird was two weeks earlier observed at Sinite Kamani Nature Park feeding site in Eastern Balkan Mountain at about 400 km to the NE from Kresna Gorge.

Two unidentified immature Griffon Vultures were present in the Kresna Gorge in May and June 2011. One was present in late September 2011. In total 8 different immature and juvenile Griffon Vultures were present at the feeding site in Kresna Gorge between 17-th and 25-th of October 2011. In total minimum 11 but may be 12 exogenous Griffon Vultures were recorded at the feeding site and spent some time in the Kresna Gorge.

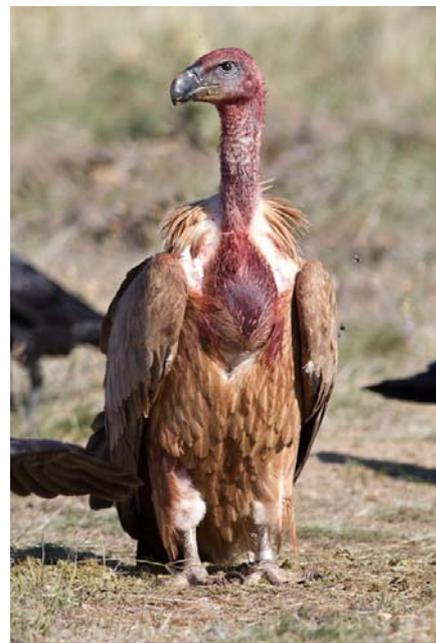


Figure 9 and 10. 18-th of October 2011 Griffon Vultures marked in Israel and Croatia present at the feeding site in Kresna Gorge. The pictures are taken by Hristo Peshev.

Other species

The Griffon Vultures presence and the feeding site became a reason for observations of other rare and threatened species that have not been recorded in the area for decades. Lanner and Eleonora’s Falcons are using the feeding site in summer to feed on insects flying above it. In winter Lanner and Peregrine falcons as well as Levant Sparrowhawk in summer hunt on birds that are gathering on and around the feeding site. A Black Kite was present for few days in June 2011. Golden eagles are still frequent visitors at the feeding site especially in winter.

Interspecific competition

In October 2011 about 130 ravens gathered at the feeding site in Kresna Gorge. It appeared that the group of wild vultures that was present at that time although chased from the ravens, they were quite experienced to find possibility to visit the feeding site and to feed. The new released at that time inexperienced young Griffon Vultures were heavily attacked by the

ravens and except the two that succeed to return and to enter the cage on their own the others dispersed.

The ravens very frequently attacked the Griffon Vulture in the nest, while incubating. In one occasion when a cow carcass appeared near the breeding cliff, the incubating bird was attacked by group of six ravens, that in turn were attacked by young golden eagle. The last also attacked and disturbed the incubating Griffon Vulture for about 10 minutes.

Recaptures

Through the whole in the mesh of the acclimatization aviary two Griffon Vultures were recaptured in 2011. **G48** that was released in April 2011 was recaptured in the beginning of August 2011 and after its second release in October 2011 it again re-entered the cage few days later. **B31** that was released in October 2011 re-entered the cage on its own in the first days of November 2011.

Research

In 2011 the dispersal of most of the released birds let us to visit and search most of the suitable areas for Griffon Vultures in SW Bulgaria and the close nearby areas in Greece. In Bulgaria the historical breeding site near the town of Sandanski, along the Sandanska Bistritsa River was checked three times. Observations of the cliffs were provided and local people interviewed. No vultures were observed, nor positive information for their presence obtained.

In Greece the area of Timio Podromu near the town of Serres was checked once in November 2011, when observations of the cliffs were provided and local hunters interviewed. Ravens, Golden eagles and Peregrine falcons were observed, but no signs of vulture presence detected.

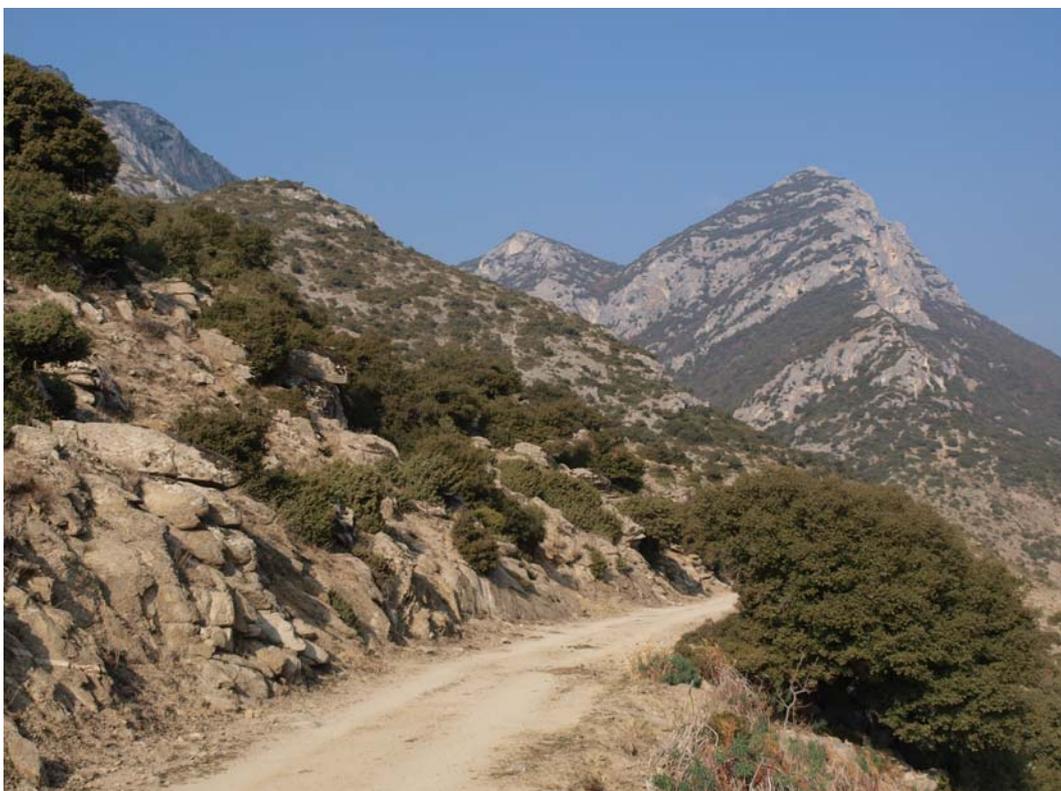


Figure 11. The area of Timio Podromu Monastery near the town of Serres in Greece is a historical breeding site for Griffon Vultures up to 1990-ies. A picture by Nadya Vangelova.

Overview

Unfortunately the good results from the beginning of the year 2011 with the successful incubation and hatching of the first chick from the new history of the Griffon Vultures in Kresna Gorge were not long lasting. The group of birds dispersed and joined other neighbour colonies in FYR of Macedonia and Eastren Rhodopi (Bulgarian – Greek border).

We consider that it was a mistake to stop or to delay the release of more birds, while the first nucleus was established. This returns the project almost to start from the beginning to create the first nucleus. Immature birds to be released in 2012 to form a group of well attached to the area individuals is planned as a next step. It still should be considered the potential of birds released in the area in the last two years that may return when a new big enough group of birds is settled.

This year the documented presence of Griffon Vultures ringed in Croatia, Serbia and Israel and the increase of exogenous birds migrating towards summer and wintering areas confirmed the potential importance of Kresna Gorge as a safe “stepping stone” for these birds during their migration.

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