

# "CONSERVATION OF BLACK AND GRIFFON VULTURES IN THE CROSS-BORDER RHODOPE MOUNTAINS"

LIFE14 NAT/NL/000901

## LAYMAN'S REPORT

Image: Stefan Avramov/Rewilding Rhodopes



[www.rewilding-rhodopes.com](http://www.rewilding-rhodopes.com)



# THE PROJECT

**Name:** "Conservation of Black and Griffon vultures in the cross-border Rhodope Mountains"

**Short Name:** "Conservation of Black and Griffon vultures in the Rhodope Mountains"

**Acronym:** LIFE RE-Vultures

**Reference code:**  
LIFE14 NAT/NL/000901

**Duration:** 5 years

**Start date:** 01.01.2016

**End date:** 30.06.2021

**Total budget:** 2,198,572 euros

**EU contribution:** 1,648,015 euros

## COORDINATING

**BENEFICIARY:**  
REWILDING EUROPE

### Associated beneficiaries:

Rewilding Rhodopes Foundation  
Bulgarian Society  
for the Protection of Birds  
WWF Greece  
Hellenic Ornithological Society  
Vulture Conservation Foundation

**Project Manager:**  
Annette Mertens



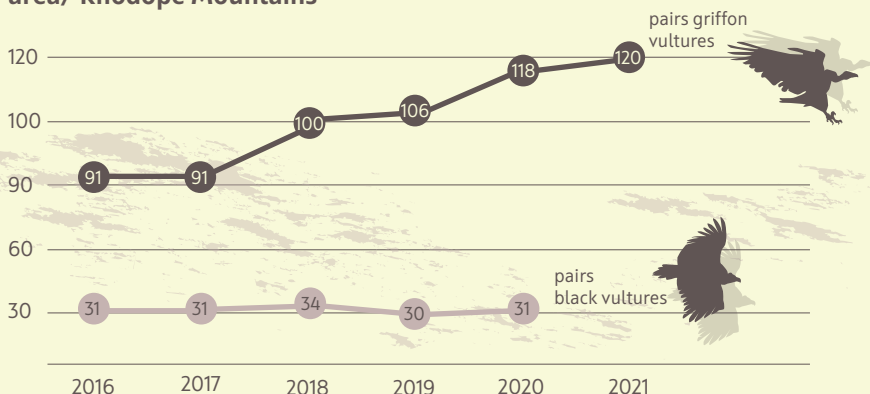
# INTRODUCTION

The Rhodope Mountains in Bulgaria are one of Europe's last biodiversity hotspots, a stronghold for vultures in south-eastern Europe, and a vital breeding area for the griffon and globally threatened Egyptian vultures. The range is also home to the last remaining breeding colony of black vultures in south-eastern Europe.

The 'Conservation of black and griffon vultures in the Rhodope Mountains' project focused on the recovery and further expansion of the black and griffon vulture pop-

ulations in the Bulgarian/Greek cross-border area of the eastern Rhodope Mountains, by reducing the acute threats. The project actions were planned to ensure stable or increasing populations of black vultures and griffon vultures. As a result of LIFE RE-Vultures project actions and activities, we have achieved and even exceeded the expected project results as the black vulture population remained stable while the griffon vulture pairs increased from 91 in the beginning of the project to 120 pairs in 2021.

**Number of pairs  
in LIFE RE-Vultures project  
area/ Rhodope Mountains**



Data for cinereous vultures "Management Body of the Dadia-Lefkimi-Soufli Forest National Park database, unpublished data".

## BLACK VULTURES



Common and widespread in the past, the black vulture is nowadays considered an irregular breeder in Bulgaria. The last confirmed breeding in the Eastern Rhodopes occurred in 1993. In 2021 the first breeding pair was registered after its reintroduction in the Eastern Stara Planina. In the Rhodope Mountains special artificial nests have been made in order to attract species from the neighbouring colony in Dadia National park.

The only indigenous breeding colony of the black vulture in the Balkans is located in the National Park of the Dadia-Soufli-Lefkimi forest. At the end of the 1970s the population in the Dadia NP was already low with only 4-5 pairs and 26 individuals. The largest number of breeding pairs recorded during the last 5 years was 34.

Image: Pilar Oliva-Vidal

## GRIFFON VULTURES



The griffon vulture was a numerous and widespread species in Bulgaria at the beginning of the 20th century. Within a few decades the species became very rare and almost extinct across its whole range within Bulgaria, mainly due to poisoning and deliberate persecution. Between 1960 and 1970 the last known breeding localities of the griffon vulture disappeared and some authors considered the species extinct in Bulgaria. Nowadays due to conservation efforts, the number of griffon vultures in the Arda River Valley continues to grow.

In Bulgaria 245 vultures of different ages were counted in the Eastern Rhodopes during monitoring of roosting griffon vultures in the Balkans at

the end of 2020, while the number of pairs increased from 81 to 111 for the last five years.

In Greece, the griffon vulture was considered the most common vulture species in the past. In the 1980s, the population was estimated at 400-450 breeding pairs. Now, there are only about 30 pairs spread in western and north-eastern continental Greece and the population is slightly increasing. Griffon vultures nest in two main sites in Thrace with six to twelve active pairs; but they forage and roost all over the mountainous area, especially around the border area where traditional livestock breeding is still supported by local people.

Image: (c) Bogdan Boev



# THREATS ADDRESSED



- Poisoning after illegal use of poison baits targeted at large carnivores (e.g. wolves, jackals) to protect livestock and game
- Lead poisoning by hunting ammunition, effect of veterinary drug contamination
- Reduced food availability
- Direct persecution, electrocution caused by contact with electric transfer networks and collisions with wind turbines



# THE PROJECT IN NUMBERS

- We released nearly **400 fallow deer and 50 red deer**
- We founded the **first anti-poisoning dog unit** in Bulgaria
- We insulated a total of **197 pylons** and installed diverters to 2.5 km of power lines (**152 diverters**)
- The griffon vulture population in Bulgaria increased from 81 pairs in 2016 to **111 griffon pairs** in 2021. **308 juveniles fledged** in the Bulgarian part of the Eastern Rhodopes in the last 5 years
- We **equipped 27 cinereous vultures and 34 griffon vultures** with GPS-satellite and GPS-GSM transmitters in Bulgaria and Greece
- We organised **571 feedings** in Bulgaria and Greece
- We built **15 artificial nests** for black vultures in the Bulgarian part of the Rhodope Mountains
- We established a network of **5 feeding places/vulture "restaurants"** in the Greek part of the mountains
- We built or refurbished **3 photo-hides**
- We organised **11 exhibitions** and marked 4 International Vulture Awareness Days

- We produced and placed **13 info boards** in project areas in Bulgaria and Greece
- **3 tourism** training carried out
- **Rhodope Mountains brand** designed and used to promote the area
- **18 videos produced** to promote the project and the Rhodope Mountains as a tourist destination
- More than **1,000 professional photos taken** and used to increase awareness
- **2 journalist visits** organised to present and promote the project results
- **68 press releases** sent to local/national media

## MAIN ACTIVITIES AND ACHIEVEMENTS



### Study the presence of black vultures in the Rhodopes and search for possible breeding pairs outside the known colony

In 2016 – 2019 a total of 215 observations of black vultures were made during organised feedings. 27 marked cinereous vultures were observed, with half recorded in Bulgaria more than once during the study period. The results, together with the telemetry data revealed most of the roosting sites of the species in Bulgaria. As a result of the studies, the main flight corridor of cinereous vultures between Bulgaria and Greece was identified.





### **Specially organised feedings to attract cinereous vultures to settle in the Bulgarian part of the Eastern Rhodopes**

During the project 446 specially organised feedings were conducted. More than 118,000 kg of offal and carcasses were offered from 282 animals that were collected from 71 settlements in the project area, providing a valuable service to the local communities. Up to 192 griffon vultures, 12 Egyptian vultures and 8 cinereous vultures have been observed simultaneously during feeding.

### **Mapping nests, identifying population numbers, age structure and patterns of movement for the griffon vulture in Bulgaria and Greece**

As a result of the conservation actions and the long-term conservancy in the region, the griffon vulture population increased considerably in the project territory. We recorded 81 pairs in 2016 and 111 pairs at the end of the project, and 378 juveniles fledged in the Bulgarian part of the Eastern Rhodopes. The annual griffon vulture roosting sites census recorded an increase in the pre-breeding season from 184 birds in 2016 to 245 in 2020.







### **Reduced the risk of electrocution mortality in the project area**

A survey carried out in the Eastern Rhodopes identified areas for powerline insulation, based on GPS telemetry data recorded. 20 km of powerlines were mapped, and over half of the pylons were two types considered among the most hazardous for birds. Ground teams retrieved 13 dead birds from under 11 powerlines, and all were found to have been electrocuted. We identified more than 200 pylons for insulation, insulating a total of 197, and installed 152 divertors to prevent collisions.

### **Promote establishment of black vultures in new areas by building artificial nests**

We developed a landscape model to identify optimal breeding sites to construct artificial nests. The analysis was based on black vulture nesting preferences, the availability of breeding habitat and also the results obtained during the GPS tracking of cinereous vultures in the Rhodopes. As a result, we built 15 artificial nests.







## Create and test mechanisms to secure safe nesting grounds of large vulture

We developed a system for evaluating the risk posed to each occupied nest of a griffon vulture, from human disturbance and other factors. We consequently organised guarding of the most vulnerable colonies in 2017 and 2018. Additionally, we made improvements to one tourist trail and installed and repaired 3 information signboards to make people aware of the vulture's presence and not to disturb them.

## Monitoring and reducing threats for vultures in Thrace

27 transmitters were placed on black vultures by the Management Body of the Dardia-Lefkimi-Soufli National Park. In addition to the local people's information, the telemetry provided important data for the main threats in Thrace, such as poisoning, collision and electrocution. Development of wind farms in Thrace is a growing threat for vultures. The telemetry data from both vultures species was used to demonstrate the risky areas for wind turbine installation, and inform WWF policy and future wind farm licensing resulting with the rejection of four wind farms by the administration.



## Vultures' feeding sites supported by the livestock breeders

The remote Kompsatos valley was selected to implement a feeding model supported by local livestock breeders. The activity aims to improve the food availability in an important Special Protection Area (SPA), providing a sustainable feeding model. A network of five feeding places was established at sites easily reachable for livestock breeders and accessible for vultures. Thirteen livestock breeders have provided carcasses, while WWF staff provided regular food remains for vultures. Twenty binoculars were donated to livestock breeders of Kompsatos valley to monitor their



animals, while 10 electric fences were donated to those who had wolf attacks on their farms. A 20-minute video was produced, which explored the ecological value of Kompsatos valley and the LIFE project activities.

## INNOVATIVE ACTIONS

### FIRST ANTI-POISON DOG UNIT IN BULGARIA

Over its four years of operation, the team conducted 153 searches and patrols. The majority of the patrols were executed in the Eastern Rhodopes; the core area of the vulture populations in Bulgaria. Of 310 findings, 40 illegally poisoned animals of 11 species





were found, as well as 7 animal remains and 10 poison baits.

Vultures comprise almost a fifth of all victims found, and in all cases, were unintentionally poisoned. The main causes of poison use were human-predator and human-human conflicts. Wolves and domestic dogs were the most

common victims comprising 20% of all poisoned animals. We made recommendations for combating the illegal use of poison, and initiated the development and endorsement of the National anti-poisoning strategy in Bulgaria, in partnership with another LIFE project in the country – Egyptian Vulture New Life.

*OVER ITS FOUR YEARS OF OPERATION,  
THE TEAM CONDUCTED 153 SEARCHES  
AND PATROLS.*

We promoted the anti-poisoning dog unit in over 20 presentations, to audiences that included livestock breeders, journalists from local and national media, NGOs, schools and teachers. We additionally organised 15 demonstrations for police dog units, nation-

al authorities, forestry services, courts and prosecutors, hunting clubs and veterinary services. Moreover, the work of the dog unit was presented in four workshops and training sessions with the participation of national authorities. Our team inspired the



National Police in Bulgaria and their canine department to take the first steps in acquiring dogs, building capacity for training anti-poison dogs in their facilities and operating their own units. The achievements were also presented in front of the national authorities in Albania in 2020 and in North Macedonia in 2019, at Bird Crime seminars. We also developed a National anti-poisoning plan that was endorsed by the Ministry of environment and water in Bulgaria.

### **RELEASE OF WILD PREY SPECIES TO INCREASE THE NATURAL FOOD BASE FOR VULTURES**

Large herbivores are a major food resource for vultures and predators in the Eastern Rhodopes. The reintroduction and restocking



of red and fallow deer plays an important role in the restoration of biodiversity in the Eastern Rhodopes.

*MORE WILD UNGULATES ALSO REDUCES  
ATTACKS ON DOMESTIC ANIMALS AND  
LESSENS HUMAN-WILDLIFE CONFLICT -  
PARTICULARLY WITH WOLVES.*

50 red deer were released in two project areas, resulting in the establishment of an increasing population. 398 fallow deer were released to three different regions in the Eastern Rhodopes. Accord-

ing to the LIFE RE-Vultures team estimates at least 130 Red Deer and at least 450 Fallow Deer are now living in the area as a result of the reintroduction and restocking actions.

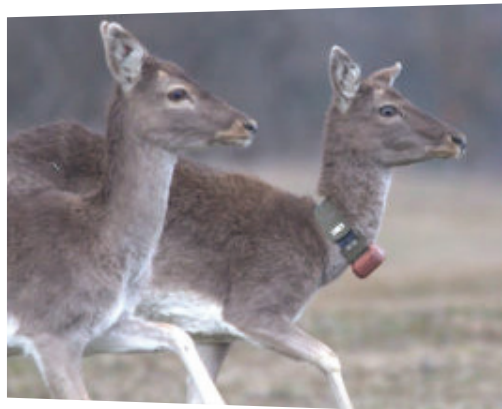




	<i>TRANSLOCATED/RELEASED</i>					
	2016	2017	2018	2019	2020	TOTAL
<b>RED DEER</b>	4	24	22	0	0	50
<b>FALLOW DEER</b>	41	57	54	165	81	398
<b>TOTAL</b>	<b>45</b>	<b>81</b>	<b>76</b>	<b>165</b>	<b>81</b>	<b>448</b>

## KEEPING TRACK

The released red and fallow deer were monitored in all project areas with camera traps. Eight red deer and fourteen fallow deer were equipped with GPS/GSM collars and monitored. Satellite tracking and monitoring helped the LIFE RE-Vultures team learn more about the distribution and movements of the deer, and the threats they face, thereby boosting measures to protect both species.



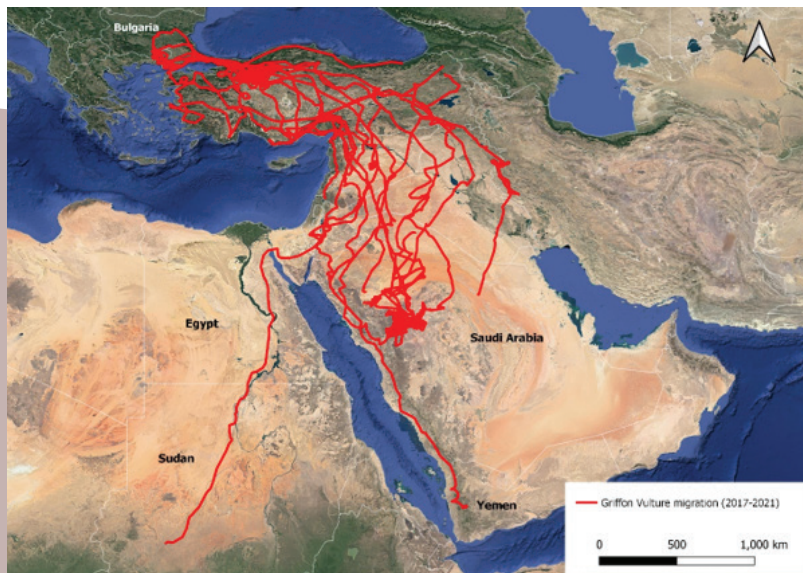
**Identifying threats, mortality factors, temporary settlement areas and dispersal patterns of black and griffon vultures using GPS-based telemetry**

We equipped 27 black vultures and 34 griffon vultures with GPS-satellite and GPS-GSM transmitters in Bulgaria and Greece. On migration the young griffon

vultures travel on average 3,600 km, following the flyway through Turkey, Syria, Lebanon, Jordan and Israel to reach their wintering destinations. They winter in vast areas of Saudi Arabia, Yemen and Israel. One individual spent the winter in Sudan and South Sudan, which is the first record of the species in the latter country.

Another interesting observation was that of a young black fe-

*FOR BOTH SPECIES, THE USE OF POISON BAIT WAS FOUND TO BE A MAJOR CAUSE - AFFECTING 23% OF GRIFFON VULTURE CASUALTIES AND 50% OF CINEREOUS VULTURE MORTALITIES.*





## COMMUNICATION, EDUCATION AND AWARENESS

Communication activities have played a key role in the LIFE RE-Vultures project. The team has been providing information, educating and raising awareness through a vast range of activities and initiatives, including: the project's website, social media, the production of leaflets and brochures, newsletters, information boards and exhibitions, working with national and regional media, and organising events.

- We made 2 exhibitions presenting the area organized or participated in 11 exhibitions-related events; plus 1 online exhibition
- organized marked 5 Vulture awareness days
- 3 wildlife photography workshops and photo expedition

male vulture from the Greek colony that made a Bulgaria flyover and wandered as far as Romania. We recorded 21 mortality cases of griffon vultures and 10 cases of black vultures.

We also found that electrocution, collision with wind turbines and illegal shooting and trapping are common causes of fatalities.



for aspiring young photographers carried out; including 1 online event

- 68 press releases connected to the project areas, results and activities were produced and distributed within the project period
- 18 videos promoting the project, project activities and Rhodope Mountains as a tourist destinations were made within the frame of the project. More than 1000 professional images were made and purchased within the frames of the project, 2 special photo-missions organized



- 2 journalist visits and individual journalist visit were organized and carried out
- 3 tourism trainings carried out
- Project website regularly updated and redesigned; nearly 100 000 views for the project period



## EDUCATION



We have developed a children and youth awareness programme of extra-curricular activities related to vulture conservation. Twenty-five schools in the project area were visited. Lectures about nature conservation and vultures in the Eastern Rhodopes were presented in front of 1,080 students from 1 to 9 grade during 43 classes. A list of environmental educational games was created and played in the Eastern Rhodopes Conservation Centre with 372 students.

- An animated booklet about all four European vulture species was created and printed in 500 copies.
- As part of the Kartali Nature Camp during 2016 to 2019, more than 160 university students were trained in biodiversity monitoring techniques and conservation, by experts in botany, entomology, herpetology, ornithology and mammals.





## AFTER LIFE RE-VULTURES

The LIFE RE-Vultures team is committed to continue with the conservation and rewilding efforts in the Eastern Rhodopes. Some of the planned activities include:

### FOR GRIFFON AND BLACK VULTURES

- Trapping and tagging more vultures
- Building a new feeding site in Madzharovo
- Monitoring and supplementary feeding
- Cinereous vulture restocking in the Eastern Rhodopes
- Obtaining permissions for and constructing cinereous vulture adaptation enclosure in the Bulgarian part of the Rhodopes
- Releases and intensive GPS and visual monitoring

- Installment of artificial nests
- Operation of dog units
- Decreasing the wildlife conflict by promoting measures to decrease the damages in farmer's productions
- Assessment of wind turbines impact on vultures
- Improving the water infrastructure for vultures

### FOR FALLOW AND RED DEER

- Continuing with the monitoring and research of the species, working with local stakeholders and partners
- Restoration of red and fallow deer to their natural habitat in the Eastern Rhodopes
- Connect existing fallow and red deer subpopulations

## COMMUNICATION AND AWARENESS

- Raising the awareness about the significance of the griffon and black vultures, Rhodope Mountains' biodiversity and Natura 2000 areas
- Working on branding and promotion of the Eastern

Rhodopes as a brand and tourist destination

- Organizing anti-poisoning campaigns
- Lobbying for appropriate site selection for wind farm development

## ACKNOWLEDGEMENTS

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