



LIFE RE-Vultures

Conservation of Black and Griffon vultures in the cross-border Rhodopes mountains



LIFE 14 NAT/NL/000901



After-LIFE Conservation Plan



www.life-vultures.com

Summary

The overall aim of the LIFE RE-Vulture Project was to reduce acute threats to the populations of Griffon and Black vultures, in order to enable the conservation and recovery of these species in the Bulgarian/Greek cross border area of the Eastern Rhodope Mountains. The project is very ambitious including 45 actions. This trans-border project included numerous research actions that were meant to entirely reveal the major threats for the target species and apply a wide range of conservation and awareness actions. After their implementation, a Swot analysis was conducted to assess the implementation of the project. A great improvement of the Griffon vulture status in the region was recorded and the project significantly improved the foraging habitat and secured the main breeding and foraging grounds of the Griffon vulture. At the same time, artificial nests and species-specific feedings were carried out to attract Black vultures to the Bulgarian side of the mountain. Significant success in fighting the illegal use of poisons was achieved with the introduction of the first anti-poisoning dog unit in Bulgaria and the endorsement of the National anti-poisoning plan in Bulgaria. In meantime, small operating feeding sites were established at the Greek side of the mountain to support the foraging of both species and minimize the chances of poisoning. Massive progress in GPS tracking of both species revealed vultures' home range, dispersion patterns, main threats and provided information to be used in their management and future planning.



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Introduction

Black and Griffon vultures are considered as umbrella species which conservation will also substantially benefit other raptor species the main diet of which is carrion and with which they share the same breeding and foraging habitats and main threats, especially susceptibility to poisoning. These species are an indicator for healthy, intact natural habitats. Black vulture selects its nesting habitat in undisturbed areas, in mature vegetation patches. It forages over many kinds of open terrain including forest, open grasslands, and bare mountains. Nests are built in trees, often aggregated in loose colonies or nuclei. Its diet consists mainly of carrion from medium-sized or large mammal carcasses (BirdLife International 2014). Griffon vulture inhabits open areas in a wide array of environments. The nest is usually built on cliffs, rocky outcrops with sheltered ledges or small caves. It feeds almost exclusively on carrions, mainly of large mammals.

The only colony of the Black vulture on the Balkans is located in the National Park of the Dadia-Soufli-Lefkimi forest (hereafter Dadia NP) in the Rhodope Mountains in Greece about 25 km from the border with Bulgaria. At the end of the 60's the population in the Dadia NP was already low with 4-5 pairs and 26 individuals (Hallman, 1979). During 1987-1993 the population increased from 6 pairs to 20 pairs breeding only in the Dadia NP, which was the only breeding population in Greece. In the period 1994- 2005 the population remained stable with 19 ± 2 pairs while since 2006 it increased to 28 ± 4 (Skartsi et al., 2008, Skartsi et al. 2010, Zakkak et al. 2014, DNP Management Body unpublished data).

The Griffon vulture was numerous and widespread species in Bulgaria in the beginning of the 20th century. However, within a short period of only some decades until the middle of the century 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 as extinct in Bulgaria. The species was rediscovered in 1978 in the Eastern Rhodopes - 28 birds and 1 breeding pair found. Significant conservation efforts of the Bulgarian Society for the Protection of Birds since 1989 lead to the slow increase of this last natal Griffon vulture population in Bulgaria. Within 25 years, the local population in the Eastern Rhodope reached 67 pairs in 2013, while 161 birds were counted during the roost count in November 2012. This Griffon vulture population in Eastern Rhodopes is the only

native population in Bulgaria and the sustainability of the increase is still uncertain and fragile. Considering the fact that the breeding success is close to the average in Europe, the slow increase rate comparing to Griffon vulture populations in France and Spain indicates that there is still significant mortality.

The overall aim of the LIFE RE-Vulture Project **is to reduce** acute threats to enable the maintenance and recovery of Black and Griffon vultures in the Bulgarian/Greek cross border area of Eastern Rhodope Mountains.



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Objectives of the project

The goal of the LIFE RE VULTURES After-LIFE conservation plan is to summarize the knowledge and main results during the implementation of the project and to propose the major management techniques to be continued in future in order to safeguard the target vulture species by implementing species-specific measures based on single species action plans, National anti-poisoning action plans, the Multi-species action plan for the conservation of vultures and other relevant planning documents.

The plan aims to address the main threats of the species at the project sites, highlighted from the results obtained in the frame of the project LIFE 14 NAT/NL/901. The After-Plan project partners, therefore, are currently proposing a list of the planned actions, a detailed description and outline the framework, timetable, and the suggested sources of funding for the implementation of the given actions. The After-Life plan addresses the following conservation issues of the target vulture species:

1. Population growth and decreased mortality
2. Major threats management
3. Policy and legislation
4. Monitoring and research

Given the established aim and the four main priorities resulted from the implementation of the LIFE 14 NAT/NL/901, we set the following objectives:

- a. To ensure future population growth of the target vulture populations;
- b. To minimize and/or halt the major threats to the Griffon and Cinereous vulture populations and thus to decrease mortality among different age classes;
- c. To apply species-specific actions and policy measures to support the direct conservation actions and reach thorough sustainability in time;

Description of the results achieved in the project

During the implementation of the project, the main conservation actions were fulfilled successfully and on time that brought a significant conservation value at the end of the project. Basically, in Bulgaria, the population of the Griffon vulture increased significantly – 81 pairs in 2016 versus 111 pairs in 2021. We further recorded a significant increase in the number of incubating pairs in the period – 64 at the beginning of the project versus 88 in 2021. Breeding success of the population remained very high – 0.78 chicks on average or 378 fledglings successfully left their nests. The Griffon vulture population in the Eastern Rhodopes (Bulgaria and Greece) increased as well – 88 pairs in 2016 versus 117 in 2021. Small supplementary feeding sites were successfully established and put in operation in Greece (C1). In Bulgaria, after a preliminary GIS and spatial analysis, 15 artificial nesting platforms for Black vultures have been installed in Krumovitsa and Byala Reka SPAs (C3). To enrich the natural foraging habitat 50 Red deer and 398 Fallow deers have been translocated to the project area and thus also contributing to minimizing the wildlife-human conflict (C2). Significant progress was made in Action C4, where the expected dog facility, trained dog and handler were available by the end of the first year. The dog unit has completed 153 anti-poison patrols in the frame of the project. The total number of all findings is 310 with 40 of them being illegally poisoned animals, 7 were animal remains and 10 were poisoned baits. Also, 5 workshops were held as planned initially. Numerous additional trainings of state authorities were organized. Moreover, a national anti-poisoning plan was developed, submitted and endorsed by the Ministry of Environment and Water in Bulgaria. Along with that special guideline for poisoning cases investigation was developed and printed to be used by the police authorities. Active communication with the Bulgarian National Police was started to initiate the foundation of anti-poison canine units in the Police. A special action to secure safe breeding of the griffon vultures (C5) projected a nest risk assessment report and management of the breeding success of the griffons above 0,65 fledglings/breeding pair that were fulfilled as planned and also 4 camera traps were installed to give information on the threats. A total of 197 pylons of two types were insulated and 2,5 km of it were additionally secured with diverters (C6).

SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> Increased knowledge and information on the major threats and mortality hot spots for both species; Very good collaboration and synchronization between experienced partners and conservation teams from the two sides of the border; The first anti-poisoning team in Bulgaria has been established in the Rhodopes; Greatly improved working capacity and expertise over the years; Good collaboration with the local communities; 	<ul style="list-style-type: none"> Limited access and possibilities to work along the Griffon vulture migration way and wintering sites; Bureaucracy and slow procedures in both countries jeopardize better progress; Limited staff capacity and lack of more experienced experts to support the very exhaustive project actions (though it has been overcome currently); COVID pandemic jeopardized numerous possibilities for meetings, events, training, etc.
Opportunities	Threats
<ul style="list-style-type: none"> Griffon and Cinereous vultures are very recognizable and endangered species at the country level, therefore easier to search funding; Species national action plans have been endorsed and in operation in both countries; The national anti-poisoning plan has been endorsed by the Bulgarian Ministry of the environment; The region of the Eastern Rhodopes is optimal for the target species conservation because of the positive attitude of the locals towards the Griffon and the Cinereous vultures; The area of the Eastern Rhodopes is one of the most attractive ones in terms of natural heritage and conservation, recreational tourism and is, therefore, the best place to apply conservation measures; 	<ul style="list-style-type: none"> Both target species are still fragile (the only one existing population of the Cinereous vulture on the Balkans) and in great danger due to the existing illegal use of poisons yet; The governmental authorities have not been entirely engaged with the most important conservation actions and this may cause some problems in the future if no full support is received; Lack of governmental wildlife inspectors to take over the anti-poisoning actions and the guarding of the vultures breeding colonies; Lack of knowledge and experience for the conservation of the Griffon vulture along its flyway and in the wintering and stopover sites;

Assessment of the problem situation faced and persisting problems in the project areas/for the Vulture population

Λ Monitoring population status and mortality

The monitoring of the Griffon and Black vulture populations in the long-term is the only tool to collect adequate information on the population status and main threats. The implementation of this action is crucial to supply information for the direct conservation measures. At first hand such information will provide basic data and on the other hand will trace the effect of the implemented conservation actions. The monitoring of the Griffon vulture has been implemented for more than 30 years in Bulgaria and the monitoring of both species for more than 34 years in Greece already and is the main tool to obtain information not only for the population changes, but also the main threats. Because, we have aimed at long-term effects, the monitoring in future will measure the implementation of the conservation measures and their effect on vulture populations. Hence, continuation of the monitoring is obligatory to conserve both target vulture species. The tagged individuals under the project are currently alive and devices are working and giving information on vulture movements, threats, breeding, habitats usage and foraging strategies. This information is constantly fed at the project Movebank account and needs permanent monitoring and field support.

Λ Anti-poisoning activities

The use of poisons has been pointed out as the single most important threat to vulture species worldwide. Therefore, actions preventing the use of poisons should be implemented permanently. The dog unit that has been founded within the LIFE 14 NAT/NL/901 project will have to operate constantly and more units to be formed in the rest of Bulgaria and Greece so that this threat is prevented entirely or halted significantly. Active involvement of the relevant authorities is crucial for the final success of this action. Hence, the active communication with the police, the forest and vet services, the ongoing of the current work and the implementation of the National anti-poisoning plans should proceed in time to reach the best results in fighting

poisons. Because eliminating of the poisons can take years and involve many authorities the implementation of this action will be directed by the endorsed Bulgarian and Greek National anti-poisoning action plans as far as the Greek Vultures National action plan that will guarantee its application in the countries.



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Λ Mitigation of mortality through powerlines

Currently, the most hazardous powerlines to vultures in the Eastern Rhodopes that coincide with the vulture core breeding, foraging and roosting areas have been insulated. However, the guarantee of the installed devices is 10 years. After this time, new insulation and/or mitigation measures should be considered. The project-initiated discussion on replacing overhead powerlines with underground which is the safest option. Despite this option was rejected by the grid operator other long-term solutions are still available – installation of PAS system to insulate the whole wires, change of the pylons design, etc. Because this action involves private companies and cost a lot of money, it takes years of planning and implementation. Besides, with the expansion of vulture populations and home range to new and neighbouring areas that

we established this threat should be closely monitored and considered in areas not surveyed up to now. Hence, this action should be implemented along with the vultures monitoring as part of the vulture and major threats monitoring program. However, in some of the neighbouring areas (Sakar mountains) significant part of the powerlines are insulated in the frame of other LIFE projects. Through active communication and collaboration this threat solution should be considered in future and prolonged to reach optimal results.

Λ Feeding

The supplementary feedings of vultures has been one of the main conservation tools in the past. The availability of food resources is a primary issue to vultures. Nowadays, the implementation of several EU regulations to handle the free disposal of animal by-products in the field and to fulfil sanitary regulations have put the need of strict control of feedings and acknowledged their importance for the conservation of vulture species across Europe. Therefore, this action must continue after the project end and thus ensure safe and quality food for vultures to preserve their fragile populations in the Eastern Rhodopes. Moreover, the continuation of the decrease of the free-grazing livestock breeding drives to the need to keep operating the feeding sites as in future the livestock breeders will quit this profession.



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\ Providing and maintenance of artificial nests

Artificial nests are built by natural materials such as branches, twigs, leaves, etc. Therefore, their active repairment throughout the years is needed to sustain them in nature. Once mounted at the suitable sites, they need only maintenance until being occupied by Cinereous vultures. Hence, they need to be repaired every 2-5 years depending on their condition. It will be monitored yearly to ensure the repairment when it is needed.

\ Lead poisoning/distribution of lead-free ammunition

Recently, the first case of lead intoxicated Griffon vulture from the Eastern Rhodopes was reported. This finding puts the need of more research on this topic and sampling more individuals to reveal the magnitude of this threat. Thus, more samples from either live and/or dead vultures need to be collected in future and analysed for lead presence.

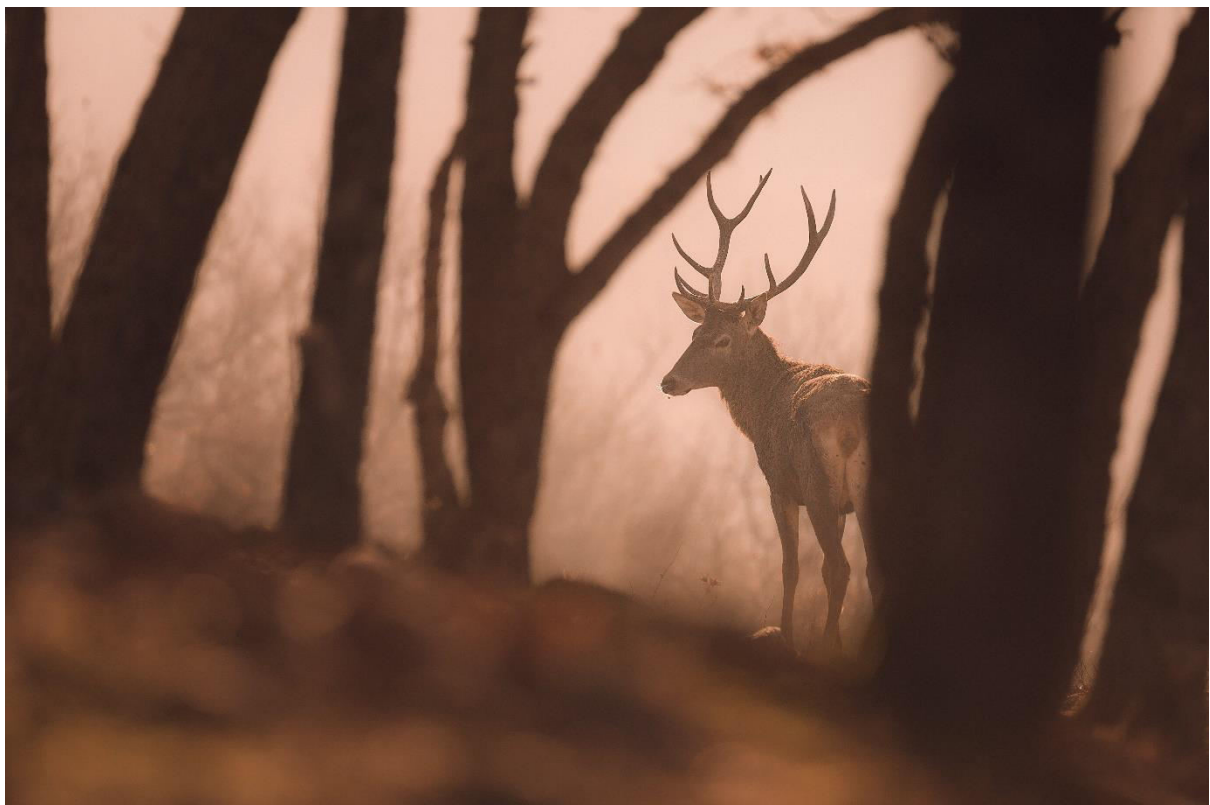
There are excellent lead-free alternatives for rifled rifles. They are widely used during the hunting of the wild boar which is the most popular hunting in Bulgaria. All hunting on Deer must be carried out only with rifled rifles. Significant part of the hunting on jackals, wolves and foxes is carried out with rifled rifles. The lead-free alternatives are not widely used because they are a little bit more expensive, new and the hunting society is rather conservative.

The approach to spread small amounts of lead-free ammunition among the active hunters worked very well. The lead-free ammunition for rifled rifle were very well accepted among the hunters which changed their perception and started to use it without any public conflicts. Even more the hunters were very happy with this collaboration, and they started to purchase lead-free ammunitions. More promotion of the lead-free ammunition will decrease the hunters' resistance against them and will ensure smooth transition to lead-free hunting with rifled rifles which are used for the most popular hunting of the wild boar in Bulgaria.

\\ Presence of wild ungulates

The Eastern Rhodopes have a huge potential for an increase of the number of the Fallow and Red Deer. More than 10 000 Fallow and Red Deer could inhabit the available semi open forests and pastures. Once restored these wild animals will form significant part of the food of the wolves and the vultures. They will also provide food for the vultures without any traces of different veterinary medicines.

In Greece, in the National Park of Dadia-Lefkimi-Soufli forest, the Management Body is preparing a fence to keep ungulates and progressively release them (in the frame of the Operational Program). More deer release sites could be established in other areas in the Greek part of Rhodopes where local authorities are positive to support the increase of ungulates. In future, this action has to be supported in relation with the guarding, the monitoring of the ungulates population and the sensitization of local stakeholders to support this action.



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Λ Communication activities

Enhance the local and general public understanding and support about the importance of the vulture conservation and return as well as raise awareness about the economical, ecological and social value of the birds; increase local pride and promote the area as tourist destination. Make the Rhodope Mountains brand and its signature species – the vultures - recognizable.

Λ Work with stakeholders to reduce disturbance and breeding failures

The active involvement of local communities to the protection of vultures and their habitats is a long-term process that needs permanent networking, continuous dispersion of information and lobby. Therefore, the collaboration of the local communities, stakeholders and caretakers in the vulture conservation activities is obligatory. It is extremely important to sustain good and permanent relationships with the local animal breeders who are the main suppliers of dead animals for the vultures as far as climbing/hiking clubs, woodcutters cooperatives and constructors of several public or private works. Such action cannot be operated only in a project lifetime. This action should be carried out permanently. Moreover, a constant care and support for local livestock breeders is needed in respect to the subsidies they get and the relevant documents they fill annually.

What activities have to be continued

Α Monitoring population status and mortality

The monitoring of the Griffon vulture population in Bulgaria will be continued through the activities of the Bulgarian Society for the Protection of Birds (BSPB). The Society has 30+ years of experience in the region with a local structure already established and functioning for over 25 years – the Nature Conservation and Information Centre in Madzharovo (The Vulture Center). BSPB maintains a species data base, manages the information for the species in Bulgaria and operates the GPS tracking of the birds. Therefore, it will have a major role in the monitoring of the species by providing relevant information to the authorities and other NGOs. The BSPB has already a trained staff and an expertise to implement the monitoring in the future. The project additionally contributed to this by providing jobs to new a staff, currently employed by BSPB. Throughout the years the needed capacity and infrastructure have been built, experts trained and proved very effective, especially during the roosting sites census when more than 15 experts in vulture monitoring from BSPB are involved yearly. A detailed DNA study was conducted in the frame of the project and its outcomes can be used to plan new conservation actions such as reintroductions and releases of birds in suitable areas based on the obtained results. The funding will be secured though the implementation of the single species action plan in Bulgaria with funding coming from LIFE program, EC operational programs and small funds provided by different donors. Besides this, BSPB is annually collecting donations at the Vulture conservation center in Madzharovo that aim to support vulture feedings and monitoring. In December 2020 BSPB conducted a very successful donation campaign for supporting the work of the anti-poison dog unit after the project end and this source of funding will be also applied in respect to vultures monitoring, feeding and marking. In Greece, the Management Body of the Dadia-Lefkimi-Soufli National Park will implement the vultures' monitoring in the National Park and support together with the Evros Regional Authority the Dadia feeding site. WWF GR and the Society for the Protection of Thrace¹ will continue the Griffon vulture monitoring in the 4 SPAs of Thrace and will secure the operation of the 5 feeding sites in Kompsatos in relation with feeding,

¹ The Society for the Protection of Thrace is the new NGO that will continue the WWF Greece long term project in Thrace after the completion of the 30years presence of WWF Greece in the area (December 2022).

support of livestock breeders to actively place their animals, restore the fences and monitor their use by the vultures.

\ Anti-poisoning activities

Anti-poisoning activities will be continued by BSPB and gradually implemented by the national authorities in Bulgaria. To ensure future implementation of these activities and establishment of anti-poisoning dog units, BSPB has already initiated negotiations with the National Police in Bulgaria and developed a national anti-poisoning plan where the operation of dog units and numerous activities to fight poisons use have been developed. The plan was endorsed by the Ministry of Environment and Water and will be funded through different government sources. Most of the activities have been recognized by the governmental authorities and funding will be sought through LIFE and operational programs, but also governmental budget that was included within the budget framework of the National anti-poisoning plan. New facilities and foundation of three new dog units are foreseen in the plan. Along with this, NGOs in Bulgaria will support the action and will ensure information will be collected and transferred to the institutions. In Greece, in Thrace, at least 1 new dog unit will be created under the Dadia National Park Management Body while WWF GR and the Society for the Protection of Thrace will have a 2nd trained dog at the end of 2021 in order to replace the existing one who will be enough old to work in near future.

\ Mitigation of mortality through powerlines

The long-term established partnership with the grid operator in the Eastern Rhodopes will guarantee the future mitigation measures related to electrocution and collision risks to vultures. The majority of the powerlines have been already mapped and along with the information from the monitoring and GPS telemetry will supply the information for the most hazardous ones. The partnership and collaboration between the grid operator and BSPB will ensure the research on future funding through different projects to insulate the most hazardous powerlines. A good example of this partnership is the continuing collaboration in other regions of Bulgaria where more than 5000 poles and 100 km of powerlines have been insulated in the last 10 years and thousands more are planned to be insulated in the next few years. The funding will be



secured in the frame of different LIFE projects, operational programs and where possible the budget of the grid operator.

In Greece, the Dadia National Park Management Body is preparing a study with the assessment of risky pylons and will insulate a part of them under state funding (in the frame of the Operational Program).

\ Feeding

Supplementary feeding of vultures is one of the most important conservation activities. Since the 80s this action has never been interrupted in the Eastern Rhodopes. The role of the local people is huge because of the animals they supply for the feeding. To support this collaboration BSPB licensed the activity and is now issuing animal disposal certificates to local people to be submitted to the veterinary authorities. Thus, local people can receive their subsidies. Furthermore, a new feeding site is going to be established in Madzharovo area. Because feeding sites are controlled by the veterinary authorities a good collaboration with them has been established to ensure the proper disposal of safe food for the vultures. Funding of this action will come from donations that BSPB collects at the Vulture conservation center in Madzharovo, small grants and partnership agreements with different donor organizations.

Supplementary feeding in the Dadia feeding station has never interrupted since 1987. Its operation will continue under the Dadia National Park Management Body in collaboration with the Evros Regional Authority. WWF GR and the Society for the Protection of Thrace will secure the operation of the 5 feeding station in Kompsatos that were created in the frame of the LIFE Re-Vultures.

\ Artificial nests

Maintenance and building of artificial nests is an action that needs an initial investment to build the nests. After that they only need to be maintained. BSPB has built 15 nests currently and therefore resources for their maintenance are needed. This preliminary number of nesting platforms is currently enough. BSPB will continue their monitoring and maintenance with its own funding. The repairment of the nests will

cost much less than their built and the relevant funding will come mainly from donations, but also funding might be provided through the national species single species action plan where this action is foreseen and budgeted.

Λ Lead poisoning/distribution of lead-free ammunition

Rewilding Rhodopes Foundation will continue with small scale promotion of the lead-free ammunitions in the Eastern Rhodopes involving new hunting communities in the promotions. We will look for collaboration with National Hunting Union in order to enlarge this activity in the area of the whole Eastern Rhodopes and to promote the results on national level.

Λ Presence of wild ungulates

Rewilding Rhodopes foundation will continue the collaboration with hunting societies to restore the Fallow and Red Deer on the whole territory of the Bulgarian part of the Eastern Rhodopes. Only in 2021 after the end of the Life project RRF will translocate more than 50 Fallow and Red Deer in the project area with the aim to connect all Fallow and Red Deer populations along river Arda.

RRF will collaborate with Greek authorities to ensure the protection of the dispersed Red and Fallow Deer in the Greek part of the Eastern Rhodopes.

Once the Dadia National Park Management Body will build the fence for ungulates, it will support in the future the survival of ungulates in the fence, their release, monitoring and guarding in collaboration with Forest Service.

Λ Communication activities

- Λ TV/Radio spots broadcasted on a national level drew attention to the biodiversity of Rhodope Mountains, it's biodiversity and the vultures as area signature species and the significant threats it faces, such as poisoning, electrocution.
- Λ The “Lord of the Rhodopean skies” exhibition consisting of 16 will be displayed at least once a year and will be used for educational activities

- ✎ Promotional materials such as calendars, sticker, online brochures and infographic, themed newsletters and information boards were aimed at specific target groups will be distributed to stakeholders, visitors in the area, and local people to maintain their interest
- ✎ Environmental education activities, mainly in the project area, aimed to raise awareness among the future protectors of the vultures
- ✎ The documentary presenting the project and the project achievement will be presented actively the first year after the project end. Additional videos with the future achievements thanks to the contribution
- ✎ Maintenance and update of website and social media
- ✎ Work with stakeholders to reduce disturbance and breeding failures

In Greece, in the frame of the implementation of Vulture National Multi-species Action Plan WWF GR will continue to implement informative actions with authorities, schools and local people, while it will continue the monitoring of threats increasing the networking and the motivation of local people. Moreover, the Dadia National Park Management Body will continue to operate the Information Center where local schools organize educational visits.

In Bulgaria BSPB team in the regional office in Haskovo and especially the Nature information and conservation centre “Eastern Rhodopes” (the Vulture Centre) will continue to work with local people and key stakeholders to ensure successful breeding of the colonies.

Regarding Greece, it should be underlined that in August 2021 the National Multi-species Action Plan was officially adopted by the Greek Ministry of Environment and Energy in the framework of the IP 4 Natura - LIFE16 IPE/GR/000002 project. Its implementation that has already started and is coordinated by HOS, includes all aforementioned activities and foresees close collaboration with WWF GR, the Society for the Protection of Thrace and Dadia National Park Management Body as well as all involved stakeholders.

A brief report on the direct connection of LIFE Re-Vultures and its After LIFE plan with the Greek National MSaP and LIFE IP 4 Natura can be found in Annex 1.

Legal framework

BSPB, WWF and HOS will continue to provide legal support to local people to establish feeding sites.

A number of actions in the project are associated with updates, endorsement and/or implementation of single-species action plans, governmental ordinances and veterinary regulations. In this respect BSPB fulfilled the obligatory Bulgarian ordinances dealing with the capturing and other manipulations of protected species in Bulgaria. This action is regulated by law No 8/12.12.2003 of the Ministry of Environment and waters. The process includes deposition of an official letter to the Ministry of Environment and Water (MoEW) according to the Ordinance No 8, explaining the purpose of catching and tagging, methods, timing, involved experts etc. This procedure is a must do in the vultures monitoring and conservation in Bulgaria and has to be strictly followed by any implementing body and controlled by the authorities.

Furthermore, according to Art.32 of the Animal welfare Act and Art. 161 (1) of the Veterinary Act (transposing EU Regulation 1066/2009) the transportation of animals in Bulgaria must be carried out by specially adapted vehicles. Hence, BSPB ensured a special car for the anti-poisoning dog unit which is the first ever operating in the country and therefore will be a model for the future establishment of more dog units.

During the process of vulture feedings, BSPB licensed two supplementary feeding stations in the Eastern Rhodopes and also issued special guidelines to direct future establishment of such feeding facilities and the supporting management techniques. The registration certificates that were consequently received and the procedure to account for the collection and deposition of dead domestic livestock is a unique one and according to the veterinary Act in Bulgaria and Regulations EU 1069/2009 and 142/2011. Despite these Regulations have been in charge since the entry of Bulgaria into the EU in 2007, concrete procedures and relevant permits to arrange the deposition of dead livestock have never been applied in Bulgaria before. Therefore, the established procedure within the frame of the project will put the grounds of future registration of similar vulture feeding sites and their operation. Thus any operator of feeding station will have to follow the guidelines developed in the frame of the project.

The need of urgent and large-scale actions to fight the illegal use of poisons urged the development of a National anti-poisoning plan in Bulgaria. The plan development was initiated in 2019 and was finally endorsed in 2021. Basically, the document provides a detailed plan to fight the illegal use of poisons in Bulgaria, defines the areas of implementation and the competent authorities to be involved. This is the first action plan of this kind that has ever been adopted by the Bulgarian Ministry of Environment and Waters and is one of the most outstanding project results that will direct and outline the implementation of any anti-poisoning actions in Bulgaria in the next 10 years. To support the implementation of the action plan, BSPB issued special guidelines for the authorities how to investigate and collect evidences on ground and thus to support the enforcement of the plan.

Regarding Greece, the National Multi-species Action Plan (MsAP) for Griffon, Bearded and Cinereous Vulture, which was very recently legally adopted in the form of a Ministerial Decision (Government Gazette 3663/B/9.8.2021) and will be elaborated in the following 6 years, mainly in the framework of LIFE IP 4 NATURA (LIFE16 IPE/GR/000002) “Integrated Actions for the Conservation and Management of Natura 2000 Sites, Species, Habitats and Ecosystems in Greece”, has specific provisions for the enhancement of vulture supplementary feeding in the country (among other activities).

One of the actions included, is the Spatial Planning and Technical Specifications of Vulture feeding stations that was recently completed and the respective deliverables were submitted to the Ministry of Environment by HOS. It should be noted, that experience gained from LIFE Re-vultures regarding the matter, mainly by WWF GR, was valuable and was widely used during its development. After the approval of the deliverables by the Ministry, these will be distributed as guidelines to all services involved in licensing and management of feeding stations (Protected Areas Management Bodies, Forest Service, Environmental NGOs, etc.). HOS as partner of the IP 4 Natura project and coordinator of the MsAP implementation, already collaborates with the entities that operate or plan to construct feeding stations and provides all necessary support, both before and after construction, in order to maximize the efficiency of this feeding stations network. At least 4 new feeding stations are expected to be constructed and operate within the next 2-3 years in Greece (added



to the existing ones), following the constructing and operating prescriptions of the aforementioned Study and the MsAP.

Moreover, MsAP foresees the thorough examination of exploiting EU regulations allowing the disposal of dead animals/corpses in predetermined SPAs, under a well-specified protocol. All related legal aspects of the issue will be examined, including the possibility of providing financial motives to breeders who will participate into this vulture supplementary feeding project.

Furthermore, a complete informative campaign for the significance of vulture conservation is foreseen in the MsAP, including targeted seminars for stakeholders (farmers, stock breeders, hunters etc.), as well as building capacity actions to involved public services and also open public events. For more information on the MSaP please also see Annex 1



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Summary table:

Action/activity	Description	Who/what organization	Involved cost per year	Resources	Timing
Monitoring population status and mortality	Monitoring of breeding success Monitoring at the feeding sites Monitoring of roosting sites Monitoring of GPS transmitters, DNA sampling	BSPB, WWF GR, Society for the Protection of Thrace, HOS Regional Inspectorates of Environment and Waters, Regional Forestry Service National Park Management Bodies	3000	LIFE, Operational programmes, Projects funding, donations	2022-2025
Anti-poisoning	Patrolling – between one and three per month	NGOs – BSPB, others, WWF GR, Society for the Protection of Thrace, HOS, Police, National Park Management Bodies	10000	LIFE, Operational programmes, State budget, donations	2022-2025
Powerline mortality mitigation	Insulation of powerlines (at least 200 pylons and 5 km of insulators) in vulture home range areas	Grid operator	5000	LIFE, Operational programmes	2022-2025
Feeding	Supplementary feeding – one per week rotating two feeding sites in Madzharovo and Studen kladenets areas	BSPB, Rewilding Rhodopes, local livestock breeders WWF Gr, Society for the Protection of Thrace, HOS, Dadia National park Management Body	4800	LIFE, Operational programmes, donations	2022-2025
Artificial nests	Maintaining artificial nests – 15 artificial nests. Building between 1 and 5 new nests depending on if a	BSPB	1000	Own funding, donations	2022-2025

	regularly used roosting sites of potential breeders are found in future				
Lead poisoning/distribution of lead-free ammunition	At least 400 cartridges spread for free annually among opinion makers in the hunting community	Rewilding Rhodopes Foundation, Hunting societies,	1000	Project funding, LIFE, National Hunting funds	2022-2025
Presence of wild ungulates	At least 50 Fallow and Red Deer translocated annually with the aim fully to restore both species on the whole territory of the Eastern Rhodopes in Bulgaria	Rewilding Rhodopes Foundation, Hunting societies, Forest authorities Dadia National park Management Body	35 000	Project funding, LIFE, private donors National hunting funds	2022-2025
Communication activities	Organizing regular communication and education activities and initiative; maintenance and update of website and social media	Rewilding Europe, BSPB, Rewilding Rhodopes, WWF GR, Society for the Protection of Thrace, HOS Regional Inspectorate of Environment and Waters, Municipalities, National parks Management Bodies	5000	Project funding, LIFE, private donors	2022-2025
Work with stakeholders to reduce disturbance and breeding failures	Personal meetings (min 10 per year), Stakeholders meetings and workshops (1-3 per year)	BSPB, Rewilding Rhodopes, WWF GR, Society for the Protection of Thrace, Environmental agencies, Forestry service, Veterinary service, National parks Management Bodies	2000	LIFE, Operational programmes	2022-2025

Annex 1

Report on the activities carried out by HOS in the framework of LIFE RE-Vulture, in order to ensure its connection with other vulture projects implemented in Greece.

The scope of this brief report is to highlight the activities carried out by HOS over the last two years of the RE-Vulture project, in order to maximize the inclusion of its deliverables and gained experience to other vulture related projects that are or will be implemented in Greece.

Two very important projects have been carried out in Greece over the last couple of years regarding Vulture conservation in the country and HOS was/is directly involved in both of them.

Specifically:

1. the Specifications for Construction and Operation of Feeding Stations (SCOFS) and
2. the national Multispecies Action Plan (MsAP) for three vulture species (Bearded, Griffon and Cinereous)

HOS personnel, and particularly the HOS Project Coordinator/ Conservation Officer, was assigned with the task of incorporating the results of LIFE RE-Vulture implementation into these two projects, in an effort to ensure the continuation of its actions and their replication to other – important for vulture conservation – areas of Greece.

A brief description on those projects and how the LIFE Re-Vultures was involved is given below.

1. SCOFS

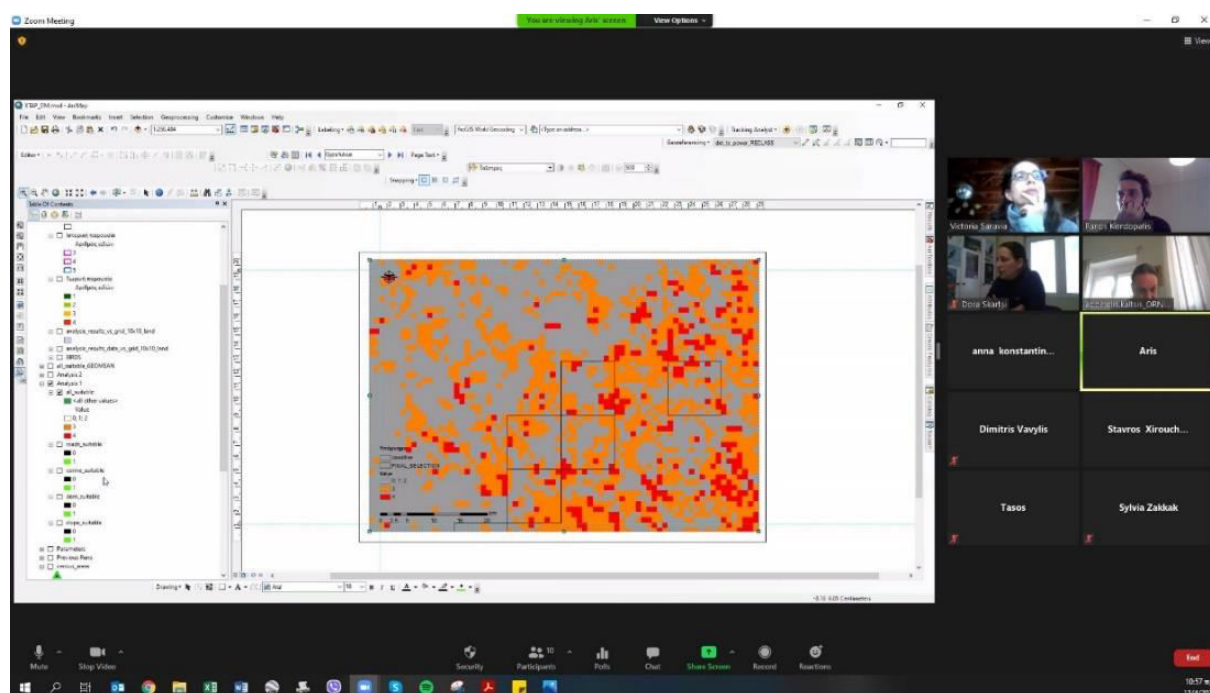
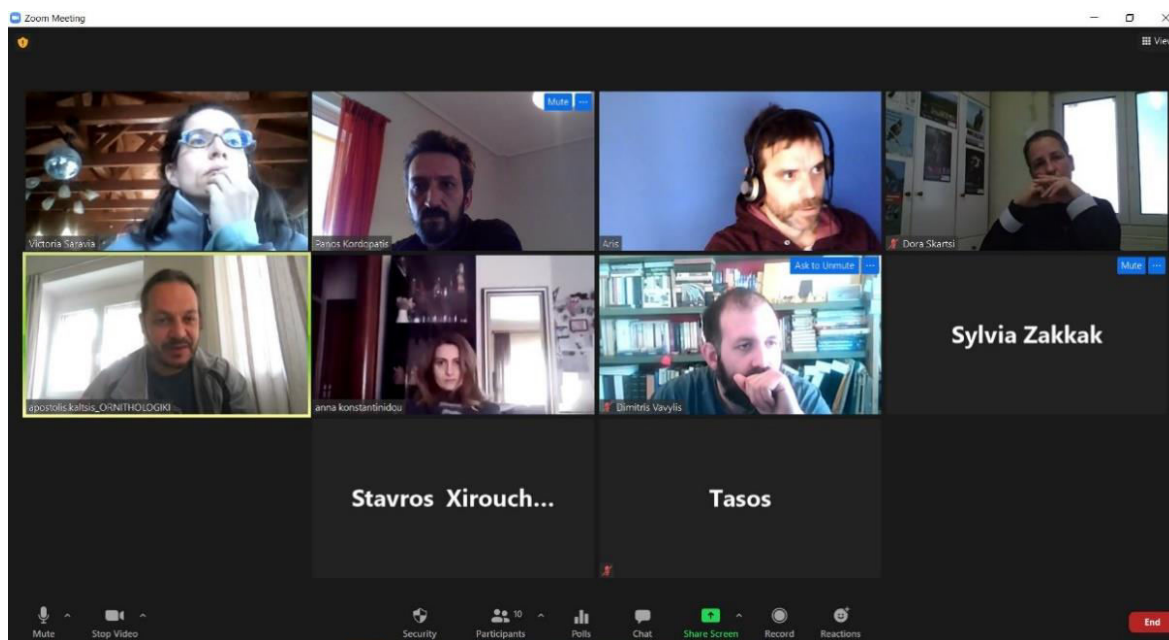
The SCOFS project's aims were (a) to define the optimum sitting of the feeding stations in Greece, (b) to provide with detailed specifications on their construction and (c) operation. All the deliverables concerning the above were submitted to the Greek Ministry of Environment in August 2021. Once they are officially accepted (which is expected by early October), they will comprise a guiding document on

feeding stations that will be distributed by the Ministry to all related public and private institutions related to vulture conservation (Protected Areas Management Bodies, Forest Service, Environmental NGOs, local Prefectures and Decentralized Administrations, etc.). HOS, with the valuable assistance of WWF-Greece, incorporated in this project all the expertise acquired by LIFE RE-Vulture and especially that of the construction operation of the 5 feeding sites in Kompsatos area.

Several communications took place for this purpose, including an online workshop in mid-March 2021, when the preliminary results of the SCOFS study were presented and discussed with experts. The participants and photos of this workshop are shown below.

Table 1. Participants in the SCOFS online workshop (13/03/2021):

Name	Institution/ Project
Aris Manolopoulos	Hellenic Ornithological Society - GIS expert/ Conservation Officer)
Sylvia Zakkak	Dadia-Lefkimi-Soufli Forest National Park
Apostolis Kaltsis	Hellenic Ornithological Society - LIFE IP 4 Natura (LIFE16 IPE/GR/000002)
Panos Kordopatis	Hellenic Ornithological Society - LIFE RE-Vulture (LIFE14 NAT/NL/000901)
Anna Konstantinidou	Dadia-Lefkimi-Soufli Forest National Park
Tasos Bounas	Ornithologist – Vulture Expert
Dimitris Vavylis	Ornithologist – Vulture Expert
Dora Skartsi	WWF Greece - LIFE RE-Vulture (LIFE14 NAT/NL/000901)
Stavros Xirouchakis	National History Museum of Crete – Vulture Expert
Victoria Saravia	Hellenic Ornithological Society –Egyptian Vulture New LIFE (LIFE16NAT/BG/000874)



Pictures 1 & 2: Screenshots of the SCOfS meeting, 13/03/2021

MsAP

In the framework of [LIFE IP 4 Natura](#) “Integrated Actions for the Conservation and Management of Natura 2000 Sites, Species, Habitats and Ecosystems in Greece” (LIFE16 IPE/GR/000002), HOS is responsible of the development and implementation of the national Multispecies Action Plan for three vulture species (Bearded, Griffon and Cinereous). After a long period of drafting and consultation, the MsAP was officially/legally adopted in the form of a [Ministerial Decision](#) (Government Gazette 3663/B/9.8.2021) and will be elaborated in the following 6 years.

The MsAP is expected to be a “game changer” for vulture conservation in the country, as it will be an “umbrella” project that will guide and coordinate all vulture related activities in the country. The actions foreseen to be implemented are aiming to improve the conservation status of vultures’ species in the country – following the international experience and similar Actions Plans – and include all the RE-Vulture activities that need to be continued in Greece, as mention in this ALP (population monitoring, antipoison activities, mitigation of mortality due to powerlines, feeding stations, communication and environmental education activities, etc.).

During the draw up of the MsAP, the drafting group consulted thoroughly with all stakeholders and experts of the country, in order to develop an Action Plan that would not only be scientifically sound, but widely accepted by everyone involved in vulture conservation as well. The partners of LIFE Re-Vultures in Greece played a very important role in this drafting stage, by transferring the experience gained from the project (monitor methodologies, stakeholders identification, infrastructure development, cost estimation of needed actions, etc.).

For this reason, a special consultation workshop took place in Alexandroupoli in February 2020, where the activities carried out in Thrace for RE-Vulture project and how they can be included in the MsAP was extensively discussed. The main goal of this approach was to transfer the expertise developed in this project, to other important areas for vultures in Greece. For this reason, the drafting group of the MsAP and the WWF Greece Re-Vultures team visited Kompsatos areas in the margin of this meeting ([see relevant press release of LIFE IP](#)).

In conclusion, the LIFE RE-Vulture took advantage of this great opportunity to ensure the continuation of its After LIFE activities, through their inclusion on the MsAP that was being drafted during the last years of the project. The MsAP implementation over the next 5 years is expected to have a great impact on vultures' conservation in Greece and LIFE RE-Vultures contributed significantly in its development.

