



LIFE14 NAT/IT/000484

LIFE UNDER GRIFFON WINGS
 Implementation of best practices
 to rescue Griffon vultures in Sardinia

With the contribution of the LIFE financial instrument of the European Community

AFTER LIFE CONSERVATION PLAN





LIFE14 NAT/IT000484 Life Under Griffon Wings

Duration: 5 years (1 of September 2015 - 31 of August 2020)

Budget: 1.730.385,00 euros.

Life Programme Contribution: 1.039.985,00 euros.

Project Area:

- 1) SCI ITB011155 Lago di Baratz - Porto Ferro
- 2) SCI ITB010042 Capo Caccia (Isole Foradada e Piana) e Punta Giglio
- 3) SPA ITB013044 Capo Caccia
- 4) SCI SCI ITB020041 Entroterra e zona costiera tra Bosa, Capo Marrargiu e Porto Tangone
- 5) SCI ITB020040 Valle del Temo
- 6) SPA ITB023037 Costa e Entroterra di Bosa, Suni e Montresta
- 7) SPA ITB023050 Piana di Semestene, Bonorva, Macomer e Bortigali
- 8) SCI ITB211101 Altopiano di Campeda



Beneficiary Coordinator: Università degli Studi di Sassari (UNISS)

Partners: Agenzia Regionale Forestas, Corpo Forestale e di Vigilanza Ambientale (CFVA), Comune di Bosa

In collaboration with: Assessorati regionali alla Difesa dell'Ambiente e alla Sanità, Vulture Conservation Foundation (VCF), Parco naturale regionale di Porto Conte, Istituto Zooprofilattico Sperimentale della Sardegna, Servizi veterinari delle ASL di Sassari, Oristano e Nuoro.

Team project

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PROJECT

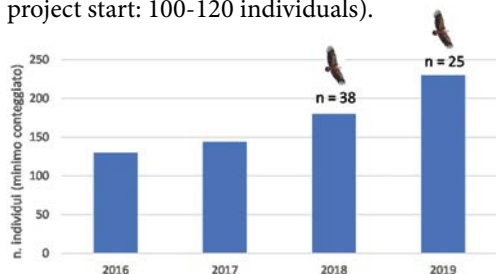
The objective of LIFE UNDER GRIFFON WINGS has been to increase the conservation status of the population of griffon vultures in Sardinia, rescuing the population from a critical demographic situation and mitigating the main threats that limit the vitality of the population.

To achieve this main objective we have:

- Mitigated the food shortage and increased the carrying capacity of the habitat by creating a network of feeding stations, which would guarantee the availability of trophic resources for the Griffon vultures and the healthiness of the carcasses;
- mitigated the risk of poisoning events by creating a Poison Control Dog Unit (NCA) and developing a dissemination strategy to raise awareness of the threat caused by the illegal use of poisoned baits;
- improved the vitality of the population through a repopulation programme;
- Strengthened the Wildlife Rescue Centre (WRC) in Bonassai by providing it with the necessary facilities for the care and rehabilitation of large vultures;
- mitigated the anthropic disturbance in the reproductive sites.

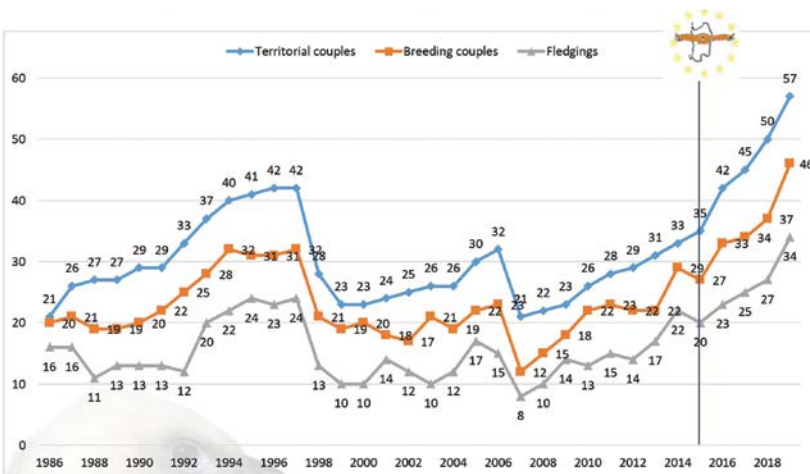
RESULTS

The conservation actions undertaken made it possible to reach a numerical consistency of the Griffon vulture population in Sardinia at the end of 2019 equal to an ascertained minimum of 230 individuals and a maximum estimated in 250 individuals. (population estimated at project start: 100-120 individuals).



Consistence (minimum counted) of the Griffon Vulture in Sardinia during the implementation of the LIFE Under Griffon Wings project (2016-2019). The Griffon Wings templates indicate the number of Griffon vultures released during the year as part of the restocking programme.

The increase in population was matched by an increase in productivity and reproductive success of the indigenous colony. The territorial pairs increased from 35 in 2015 to 57 in 2019.



Productivity: 0.56 ± 0.02 Reproductive success: 0.73 ± 0.02
(mean \pm SD, years 2015-2019)



ACTIONS AFTER LIFE

THREAT

MITIGATION
LACK
NUTRITION

SOLUTION

FEEDING
STATIONS



To deal with this threat during the course of the project, we built 34 company carnai and 2 set up carnai. At the end of LIFE these two actions will continue in this way:

FARM FEEDING STATIONS

The farm feed stations will continue to be stocked to ensure food availability for Griffon vultures.

As specified in the **Farm Feeding Stations Business Plan** carried out during the project*, the economic sustainability of this action is guaranteed by the intrinsic economic values of their creation compared to the costs related to other methods of carcass disposal.

The costs of running the carter to be borne by the farmer are reduced and amount to the cost of replacing the battery of the electric fence that delimits the feeding station (50,00 euro every two years) and the cost of the human resources needed for the carcass transport operations (estimated at 60,00 euro per year).

Data on the supply of carcasses will be monitored regularly in order to assess whether the kg of biomass supplied is sufficient to meet the nutritional needs of the Griffon vulture population.

In this way the coordination of the supply to the centralized feeding stations managed by **Forestas** will be ensured.

The staff needed to ensure this action will be provided by the University of Sassari and the time needed has been estimated at 1 hour of work every fortnight, equal **915 euros** per year. These costs will be covered by the use of structured teaching staff at the University.

Furthermore, in order to ensure that the expansion of the company's meat network progressively follows the increase in the numerical consistency of the population and its distribution area, the **University of Sassari** will continue to monitor the movement of griffon vultures through the spatial data provided by the GPS/GSM transmitters with which 24 griffon vultures released as part of the restocking action are equipped.

This activity will be ensured as long as the transmitters continue to send their data, i.e. for about 3 years after the end of the project. Also in this case, personnel costs will be covered by the University of Sassari and the time needed has been estimated at 1 hour of work every fortnight, equal to 915,00 euro per year. These costs will be covered thanks to the employment of structured teaching staff at the University.

* <http://www.lifeundergriffonwings.eu/export/sites/default/.galleries/doc-notizie/Business-Plan-Carnai-Aziendali-per-sito-web.pdf>



CENTRALIZED FEEDING STATIONS

Two feeding stations managed by the **Fo.Re.S.T.A.S. Agency** have been activated in Porto Conte and Monte Minerva that guarantee the food supply of Griffon vultures throughout the year.

Fo.Re.S.T.A.S will supply the two feeding stations in order to guarantee the availability of trophic resources in case of temporary insufficient supply by the company feeding stations.

It has been estimated that at the end of the project, the equipped carni will have to guarantee about 30% of Griffoni's food requirements, equal to approximately 13,000 kg per year.

Costs

The carcasses for the supply of the prepared meat will be provided free of charge by both private and public livestock farms already agreed during the project.

Fo.Re.S.T.A.S has the necessary personnel and vehicles for the management of the set up meat bakers. At the end of the project, the procurement costs will include the fuel costs necessary for the collection and transport of the carcasses and the costs of disposal of the carcass residues. These activities will be incorporated into the normal activities of the body. The costs are estimated at a total of €6 970,00 per year, equivalent to €5 720,00 staff costs (52 working days at a daily rate of €110,00) and the cost of waste disposal estimated at €1 250,00 per year. These costs will be covered by Forestas own resources.

AFTER-LIFE COSTS TO ENSURE FOOD SHORTAGE MITIGATION

Activities	Motivation	Annual costs	Cost coverage
Procurement of feeding stations	Ensuring food availability to the Griffon vulture population	€ 170, 00 every two years, on average € 85,00 per year	To be borne by livestock farms
Quantification kg of biomass supplied in the farm's meat network	Activate the refuelling of the set up meat bunkers managed by Forestas in case of reduced supply of the farm feeding stations	€ 915,00	To be paid by the University - working hours of the structured teaching staff (24 hours per year)
Analysis of the spatial data provided by the GPS/GSM transmitters with 24 Griffins released as part of the restocking action	Ensuring that the expansion of the farm feeding stations network progressively follows the expansion of the Griffon vulture distribution area	€ 915,00	To be paid by the University working hours of the structured teaching staff (24 hours per year)
Procurement of prepared centralized feeding stations	Ensuring food availability to the Griffon vulture population	€ 6.970,00	To be borne by Forestas - working hours of structured staff and own resources
TOTAL		€ 8.885,00	



THREAT

POISONING

SOLUTION

ANTI-POISON
DOG UNIT



In order to mitigate the risk of poisoning, considered the main threat to the conservation of vultures throughout Europe, a Anti-poison Dog Unit (NCA) has been established to prevent and suppress cases of poisoning.

The Unit is composed of

- agents of the **Forest and Environmental Surveillance Corps** of the Inspectorates of Sassari and Oristano (6 owners and 6 reserves);
- 4 dogs trained by the **Department of Veterinary Medicine of the University of Sassari**;
- 1 conductor of the Department of Veterinary Medicine of the University of Sassari;
- 3 conductors of the **Yellow Cross** of Ploaghe.

The activity of the Anti-Poison Dog Unit will continue after the end of the project.

The Department of Veterinary Medicine of the University of Sassari will continue to maintain and train the dogs of the Poison Dog Unit. In addition, it will take care of the training activities related to the NCA, promoting the opening of new areas of research in sports medicine, and behavioral studies, which will be funded as part of research programs.

The activities of the Anti-poison Dog Unit will be incorporated in the ordinary activities of the Forestry and Environmental Supervision Corps of the Autonomous Region of Sardinia (RAS-CFVA).





AFTER-LIFE COSTS TO ENSURE POISONING RISK MITIGATION

Activities	Motivation	Annual costs	Cost coverage
Maintenance of the Anti-Poison Dog Unit Dogs	Ensuring the continuation of the dog team's activities	€ 500,00	To be paid by the Department of Veterinary Medicine of the University of Sassari - own resources
Training of the Anti-Poison Dog Unit Dogs	Ensuring the continuation of the dog team's activities	€ 3.600,00	To be paid by the University - working hours of the structured teaching staff (10 hours per month for 12 months)
Preventive inspections of the Anti-poison dog unit	Ensuring the continuation of the dog team's activities	€ 2.280,00	To be paid by RAS-CFVA - working hours of forest agents (two agents for 6 annual trips) and fuel costs
On-call inspections of the Anti-poison dog unit	Ensuring the continuation of the dog team's activities	€ 2.280,00	To be paid by RAS-CFVA - working hours of forest agents (two agents for 6 annual trips) and fuel costs
TOTAL		€ 8.660,00	

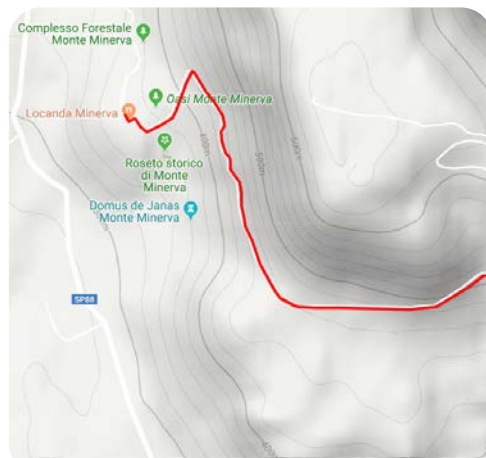


THREAT

HUMAN
DISTURBANCE

SOLUTION

- TRAILS GRIFFON
VULTURE
- INFOPOINT



In order to mitigate the anthropic disturbance in the nesting sites of the Griffon Vulture, a **"PROTECTED" SENTIERISTICS** has been created of 4.5 km around the equipped carnai of Porto Conte and Monte Minerva, culminating in two observation stations at safe distance from the Griffon vultures' meal places.

The hiking trails and birdwatching stations set up must be kept in operation after the end of the project.

The maintenance of the paths will be taken care of by the **Forestas Agency** as part of its institutional activities of care of the regional trails.

AFTER LIFE COSTS TO ENSURE THE MITIGATION OF THE HUMAN DISORDER

Activities	Motivation	Annual costs	Cost coverage
<u>Sentieristic maintenance</u>	Ensuring the enjoyment of the protected trails around the centralized feeding stations in Porto Conte and Monte Minerva	€ 840,00	Expenses borne by Forestas - working hours of structured personnel estimated at 27 hours per year
TOTALE		€ 840,00	





Per mitigare il disturbo antropico nei siti di nidificazione del Grifone, è stata creata una **SENTIERISTICA "PROTETTA"** di 4,5 km intorno ai carnai allestiti di Porto Conte e Monte Minerva, che culmina in due stazioni di osservazione a distanza di sicurezza dai luoghi del pasto dei Grifoni.

I sentieri escursionistici e le stazioni di birdwatching realizzate dovranno essere mantenuti in funzione anche dopo la fine del progetto.

La manutenzione dei sentieri sarà curata dall'**Agenzia Forestas** nell'ambito delle proprie attività istituzionali di cura della sentieristica regionale.

AFTER-LIFE COSTS TO ENSURE THE THE FUNCTIONING OF THE INFOPOINTS

Activities	Motivation	Annual costs	Cost coverage
Infopoint of Porto Conte	Ensuring the reception and orientation of tourists on the theme of the project	€ 0,00	Personnel of the entity managing the Oasis
Infopoint of Bosa	Ensuring the reception and orientation of tourists on the theme of the project	€ 0,00	Personnel of the Municipality of Bosa
TOTAL		€ 0,00	



life 
SOTTO LE ALI DEL
GRIFONE
under griffon wings



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