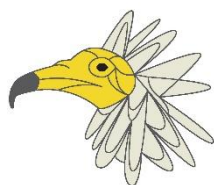


LIFE EGYPTIAN VULTURE

Measures for the conservation of the Egyptian vulture in Italy and the Canary Islands

Layman's report



LIFE
Egyptian
vulture



e-distribuzione



e-distribución



REGIONE PUGLIA



REGIONE BASILICATA

Foreword

The LIFE Egyptian vulture project aimed at improving the conservation status of the Egyptian vulture (*Neophron percnopterus*) in Italy and the Canary Islands, where both populations are vulnerable and need special conservation efforts.

The Egyptian vulture is listed as *Endangered* in the IUCN Red List of Threatened Species. In the Red list of Italian breeding birds, the E. vulture is listed among the critically endangered species (since 2012). In the Canary Islands breed a non-migratory subspecies (*N. percnopterus majorensis*) which is considered at risk of extinction in the Spanish List of threatened species (2011) and endangered in the Red book of Spanish Birds (2021).

The project enabled to carry out important conservation measures according with the guidelines defined by the actions plans drafted in Italy (2009) and the Canary Islands (2006).

The main expected project objective was the increase in the number of individuals and pairs by implementing best practices directly supporting the species (release of captive-born individuals in Italy and setting up of feeding sites) and reducing human-caused limiting and mortality factors (nest disturbance, poaching, poisoning and electrocution). Furthermore, the project aimed at increasing the knowledge on the threats affecting the populations and promoting the sharing of best practices for the conservation of the E. vulture in Europe.

Project areas

Italy

Apulia region: SAC/SPA Area delle Gravine; Basilicata region: SAC/SPA Gravine di Matera, SPA Appennino lucano; Calabria region: SPA Pollino Orsomarso, SAC Vallone S. Elia; Sicily region: SPA Parco delle Madonie, SPA Laghetti di Preola e Gorgi Tondi.

Canary Islands (Spain)

Islands of Fuerteventura and Lanzarote.



Conservation actions and results

Italy

Protection of strategic areas

During the project, surveillance was carried out in strategic areas for the species. It especially focused on the breeding areas, next to the sites where captive-bred E. vultures were released and the migration route. Thanks to a special agreement signed between ISPRA and CUFAA (Carabinieri forestali) special efforts were addressed to western Sicily, which is known to be a black spot for poaching.



Supplementary feeding

Six supplementary feeding sites were set up in the Italian mainland and supplied in the period March-September. All of them were frequented by wild and/or released E. vultures.

One more feeding site was set up in a strategic area of Western Sicily located along the main Italian migratory route. Close to this area another feeding site was managed by the CERM Association. In both sites food was spread inside reclaimed urban waste dumps. Released and wild E. vultures as well as hundreds of other birds of prey used the two feeding sites during the autumn and the winter (black kites, marsh harriers, lesser spotted eagles, etc.).



Fight against the illegal use of poison

Anti-Poison Dog Units (ADUs) of the Carabinieri forestali performed 15 inspections in strategic areas for the species such as release sites of captive-bred individuals and breeding areas. In one case they detected and removed poison baits. The ADUs also supported the search for missing vultures.

In 2019 a workshop on wildlife poisoning was held in Rome addressed to the personnel of the National and Regional Parks of Southern Italy. It enabled to deepen the knowledge on the topic and the possible measures for its prevention and tackling.



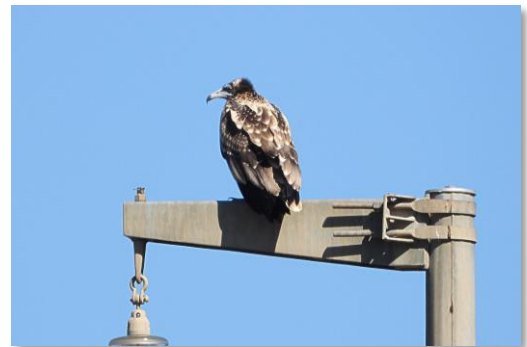


Insulation of power lines

E-Distribuzione S.p.A. carried out retrofitting interventions in all the project areas in order to reduce the risk of electrocution for the E. vulture and other bird species vulnerable to this threat. A total of 1.096 elements were insulated instead of the expected 500.

In 2018 a workshop on the retrofitting of power lines for the safety of birds was organized for training the personnel of E-Distribuzione and external companies.

A "Handbook for mitigating the risk of electrocution for birds" was drafted in 2018. It can be downloaded in the project website, page "Documents".



Captive-breeding of the E. vulture

Although the captive-breeding of the species is very challenging it can be useful to make available juveniles to be released into the wild and help restock the Italian population. The most important stock of captive E. vultures in the world is hosted at the CERM Endangered Raptors Centre (in Southern Tuscany). Here, 32 chicks were born in period 2018-2023.

In 2018 a workshop on the techniques for the captive breeding and the release into the wild of captive-born individuals took place in Semproniano (Italy). It involved the project beneficiaries and other subjects committed in the conservation of the species.

A "Technical handbook for the management of captive Egyptian vultures" drafted by the CERM Association was spread among the participants.



Release into the wild of captive-bred individuals

28 Egyptian vultures born at the CERM were released into the wild in the period 2018-2023 by two different methods: hacking (16) and delayed release (12). Hacking is to release of juveniles at the age of about 90 days (1CY). The delayed release includes the release of the juveniles in the first or second year after their birth (2CY/3CY).

27 out of the 28 juveniles were released in Basilicata region in two different sites, inside or close to a supplementary feeding site. In 2023 one fledgling was released in Sicily.

All the vultures spent an adaptation period of some days in a hack-box, monitored by a video-surveillance system. After the release, food was provided in strategic sites in order to support the birds and facilitate their adaptation to wildlife.



Monitoring and support of the released E. vultures

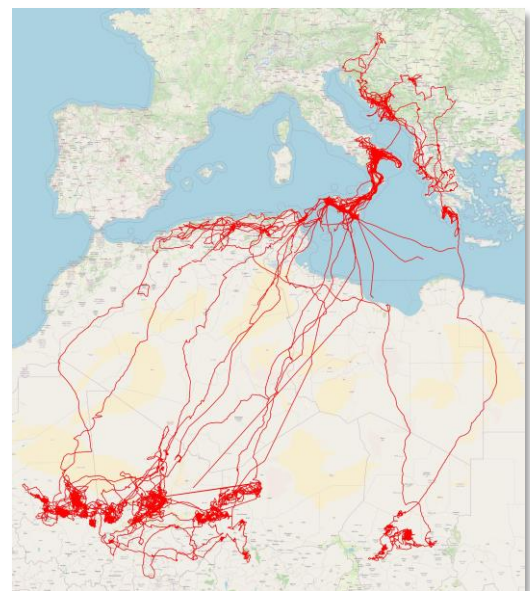
The monitoring of the released E. vultures was carried out mainly by the GPS /GSM dataloggers they had been fitted with. It was complemented by the work in the field of the project staff, the Carabinieri forestali and an effective network composed of 85-90 volunteers distributed in the release areas and along the flyway in Southern Italy (including Pantelleria and Linosa islands), Malta, Tunisia and Eastern Europe. The real-time sharing of the tracked vultures' position through WhatsApp groups enabled to address the guarding in dangerous areas during migration, to supply food, to rescue individuals in trouble and to detect quickly dead individuals (important to ascertain causes of mortality).

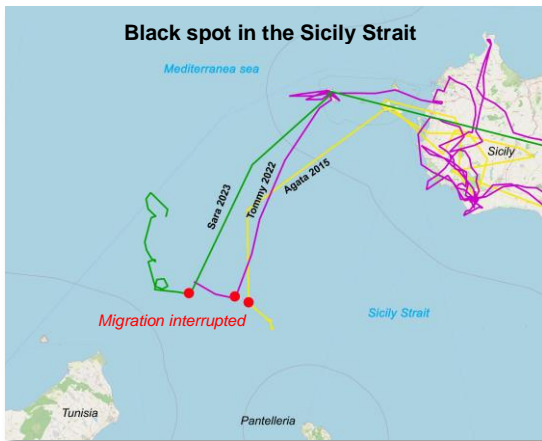


Results of the releases

Twelve released juveniles successfully reached the wintering grounds, three of them in southern Italy and nine in the sub-Saharan Africa (mainly Mali and Niger). Nine vultures died or were injured from human-related causes (60%), three juveniles were recaptured, two had the GPS signal interrupted so their fate is unknown, one died from an unknown cause (6.7%), five died due to natural causes (drowning during migration, 33.3%).

The main human-related causes of mortality were electrocution (4) and poaching (3). One E. vulture was shot in Western Sicily, one was killed in Basilicata (the harness cut was found by an ADUs) and one individual was shot in Malta Island.





Anyway, mortality induced by human related causes might be higher than 60% because one-two individuals considered to be drowned during the sea crossing from Sicily to Tunisia were most likely shot by poachers on board a ship (the same happened to other individuals released not under the LIFE project). One of them, Tommy, disappeared in the Sicily Strait during his first autumn migration (in 2022). The tracks provided by his GPS and the finding of his GPS device on a beach of Malta Islands five days later with the harness cut makes it more likely that he was shot at sea.

Poaching at sea along the most important Italian migration flyway is an alarming threat, unknown before, to many European migratory species in addition to the well-known risk of illegal shooting for the birds which make a stopover in Malta during migration.

The monitoring made possible to know that hacking is the most effective release technique: juveniles released by hacking showed higher post-release survival rates during the first six months after release (50%) than those released through delayed release (35.71%).

Status of the population

The annual count of individuals and monitoring of historical nest sites enabled to ascertain the steady trend of the population, with two-four pairs breeding in Basilicata and Calabria. In 2023 28 sightings of non-breeding adults/sub-adults, immatures and juveniles were recorded in Italy. Thanks to the cooperation with the CERM Association, the breeding in the wild of a captive-bred E. vulture was ascertained for the first time in Europe. Sara, released in 2015 in Apulia region by the CERM Association, successfully bred in Basilicata in 2022 and 2023 with a wild partner (three juveniles fledged). This proved definitively that the release of captive-bred fledglings can help restock the Italian population. Regrettably, Sara was probably shot at sea in the Sicily Strait during the 2023 autumn migration.



Canary Islands (Spain)

Protection of nesting sites

In the Canary Islands an intensive monitoring was carried out in 11 breeding territories vulnerable to different human disturbances. Photo-trapping and visits in the field enabled to identify the different human activities causing disturbance (mainly trekking and passing of vehicles and cycles) and assess their impact. It has been proved they have the most relevant impact during the pre-reproductive and incubation period. Nevertheless, the loss of clutches can be caused also by other factors. During the project the breeding success of the monitored nests significantly increased (30% in 2018, 63.63% in 2022).



Supplementary feeding

Two feeding sites were set up in Lanzarote Island. Each covers an area of 0.6 ha and is bordered by an anti-predator fence. A small wooden building enables to observe the birds while feeding, thus favouring the monitoring of the population.



Food was supplied once every 15 days by using entrails and slaughtering waste of pork and goat belonging to category 1 and 2 provided by the insular slaughterhouses. Hopefully, the two feeding sites will effectively contribute to the expansion of the species in Lanzarote.

Fight against the illegal use of poison

An Anti-poison Dog Unit (ADU) composed of a dog handler and two dogs (Menta and Duc) was created. It's based in Fuerteventura. In 2019-2022 the ADU performed 116 periodic and urgent inspections with the support of the Environmental Agents of Fuerteventura and Lanzarote. In three occasions poison baits and/or carcasses were detected and removed. A special inspection campaign was carried out in Fuerteventura in the wake of a serious poisoning event occurred in 2020 in the area of Cofete.

Two training courses were held on the topic of the illegal use of poison and wildlife poisoning addressed to the Environmental Agents and the agents of the local police.



Insulation of power lines

During the project, E-Distribución R. D. modified 220 pylons (177 in Fuerteventura and 43 in Lanzarote) to reduce the risk of electrocution for the E. vulture by applying different technical solutions, depending on the type of pylon. This work together with the one carried out in previous years enabled to minimize mortality due electrocution which posed a relevant threat until a few years ago, since the vultures use the pylons of the grid as nocturnal roosting sites.

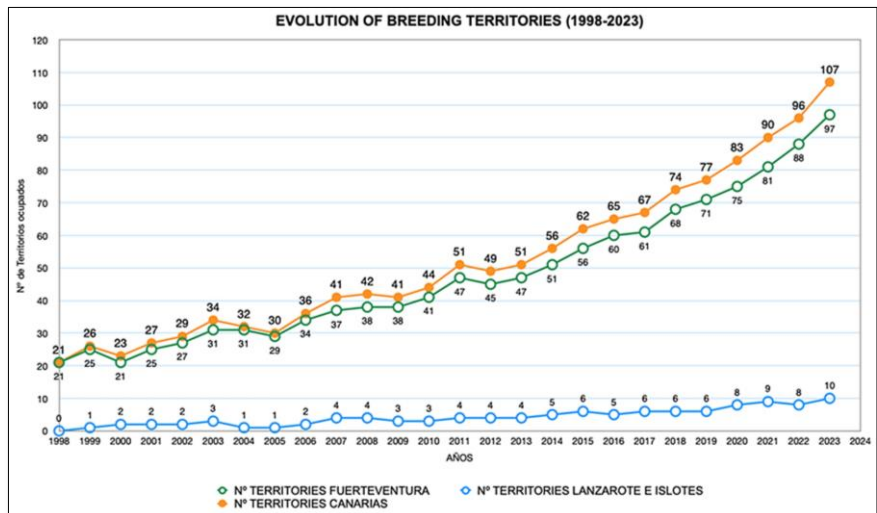


Captive-breeding of the E. vulture

In the Environmental Centre of La Oliva (Fuerteventura) the facilities and equipment for the management of captive E. vultures were improved. In particular a new big aviary was built in order to host two E. vulture pairs. Furthermore, a close cooperation has been established with the CERM Association (Italy), that have a great deal of experience in the captive breeding of the species.

Status of the population

In the Canary Islands a strict monitoring of the population is underway, based on the tagging of juveniles at nests, the use of GPS/GSM dataloggers and the monitoring of feeding and roosting sites. During the project 287 juveniles were tagged with metallic and PVC rings and 35 individuals were fitted with GPS dataloggers. Thanks to these efforts, the 90% of the individuals of the Canary Islands population is now marked. The population trend is positive and shows a continuous increase of the number of territories: 67 in 2017, 107 in 2023 (+ 59.7%). Most of them are located in Fuerteventura Island but their number increased also in Lanzarote, from six in 2018 to ten in 2023. The population registered an annual increase of 7,6% in the period 2017-2023: 311 specimens in 2017, 452 in 2023 (+ 45.33%). Nevertheless, the breeding parameters show a strong irregularity and breeding success is quite low, revealing some problems to be monitored further. Mortality rate is low. The ascertained causes of mortality include collision with wind turbines, poisoning and electrocution but this latter cause has been almost completely neutralized thanks to the insulation work carried out over the years.



Main information and awareness raising actions

Meetings were organized in Italy (8) and the Canary Islands (4) aiming at informing on the project and involving stakeholders relevant to the conservation of the species (administrators, managers of protected areas, environmental agents, NGOs, farmers, veterinarians, etc.).

An awareness campaign on wildlife poisoning targeted farmers, livestock breeders and other stakeholders. It included the implementation of effective door-to-door meetings (151 in Italy and 71 in the Canary Islands) and the distribution of information materials. Seven public meetings were also held. In the Canary Islands a survey submitted to farmers enabled to obtain information on the use and knowledge on pesticides products.



In Italy door-to-door contacts enabled to increase awareness among the owners/managers of tourist facilities of the project areas (136) and reach also a large number of tourists by the distribution of information materials.

An intensive education campaign was carried out in schools. Classroom lessons were performed, supported by a didactical notebook and a didactic kit specifically created and, in the Canary Islands, also by the participation of the Anti-Poison Dog Unit. Furthermore, a drawing contest was launched, which was finalized with the awarding of special prizes to all participants and the chosen winners. The campaign registered an enthusiastic participation, involving more than 5,100 students in Italy and 6,400 in the Canary Islands.



The main information materials produced within the project are: a general brochure, a leaflet on the Egyptian vulture, a leaflet on wildlife poisoning, a documentary film and a cartoon. They can be downloaded in the project website, pages "Documents" and "Video".



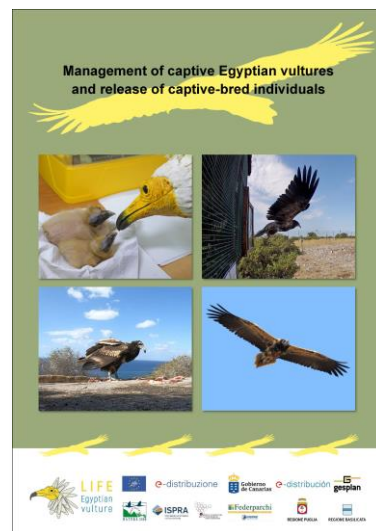
An ex-ante and ex-post survey addressed to the local population and some specific interest groups (school personnel, tourist facilities, livestock farms, hunters, etc.) was made to detect the impact from awareness-raising activities, find out the opinion on the project and identify critical issues to work on in the future. The document can be downloaded in the page "Documents" of the project website.



Transferability and sharing of best practice

In 2023 the paper “*Manual for the management of captive Egyptian vultures and release of captive-bred individuals*” was drafted. It presents updated directions on the two topics, providing a complete overview on the releases performed between 2003 and 2022 in Italy (including the ones carried out by the CERM Association before the LIFE project), the different methodologies used, the main results achieved and the lesson learnt. The document can be downloaded in the project website, page “Documents”.

The actions carried out within the project and the results achieved were presented in the framework of a final congress which took place in Matera (Italy) in September 2023 where many experts could deal with relevant topics related to the conservation of the species. The PDF presentations can be downloaded in the project website, page “Documents”.





Project data

Coordinating beneficiary: E-distribuzione S.p.A.

Associated beneficiaries: Gobierno de Canarias, GESPLAN, E-distribución R. D., Ferderparchi, ISPRA, Regione Basilicata, Regione Puglia.

Duration: 01/10/2017 - 30/09/2023

Budget: 5,084,605 €

CE Contribution: 3,813,146 (75%)

Beneficiaries' contribution: 1,271,459 € (25%)



www.lifegyptianvulture.it



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