



Enhancing Habitat for the Iberian Lynx and Black Vulture in the South-east of Portugal

(LIFE08 NAT/P/000227)

Layman's Report



LIFE-Nature Project “Enhancing Habitat for the Iberian Lynx and Black Vulture in the South-east of Portugal”

LIFE08 NAT/P/000227

<http://habitatlinceabutre.lpn.pt/en>

Coordinating Beneficiary: LPN - Liga para a Protecção da Natureza

Associated Beneficiaries: CEAI (Centro de Estudos da Avifauna Ibérica), ANPC (Associação Nacional de Proprietários Rurais, Gestão Cinegética e Biodiversidade), AJAM (Associação dos Jovens Agricultores de Moura), DGAV (Direcção-Geral de Alimentação e Veterinária), ICNF (Instituto da Conservação da Natureza e das Florestas) and CIS-IUL (Centro de Investigação e Intervenção Social – Instituto Universitário de Lisboa)

Area of Intervention of the Project: Moura/Barrancos pSCI, Gadiana pSCI, Caldeirão pSCI; Mourão/Moura/Barrancos SPA and Gadiana Valley SPA

Co-financers: FFI (Fauna & Flora International) and ICNF (Instituto da Conservação da Natureza e das Florestas)

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Did you know that...
Answer your doubts

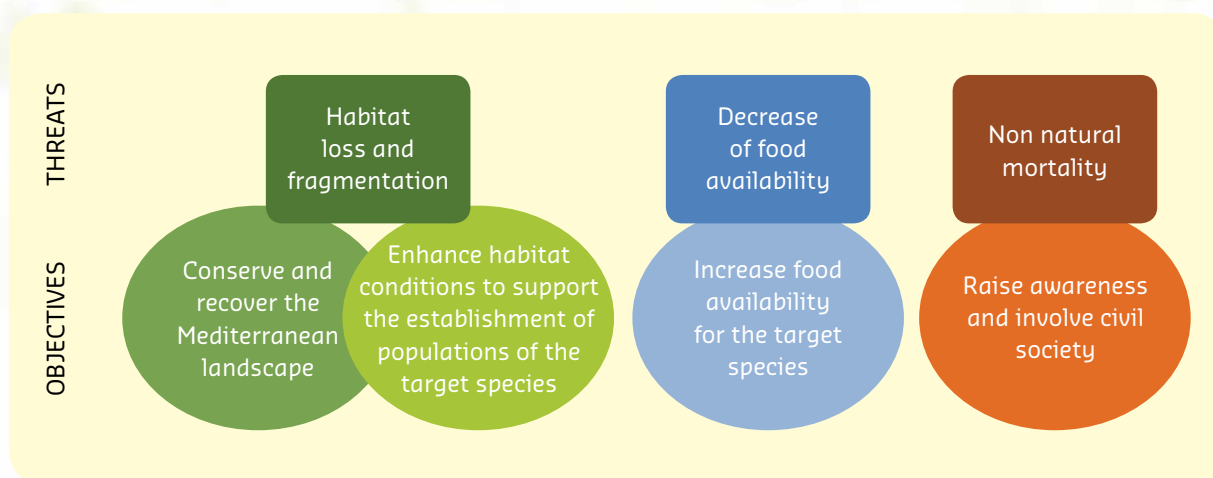


What have we done?
Activities developed by the project

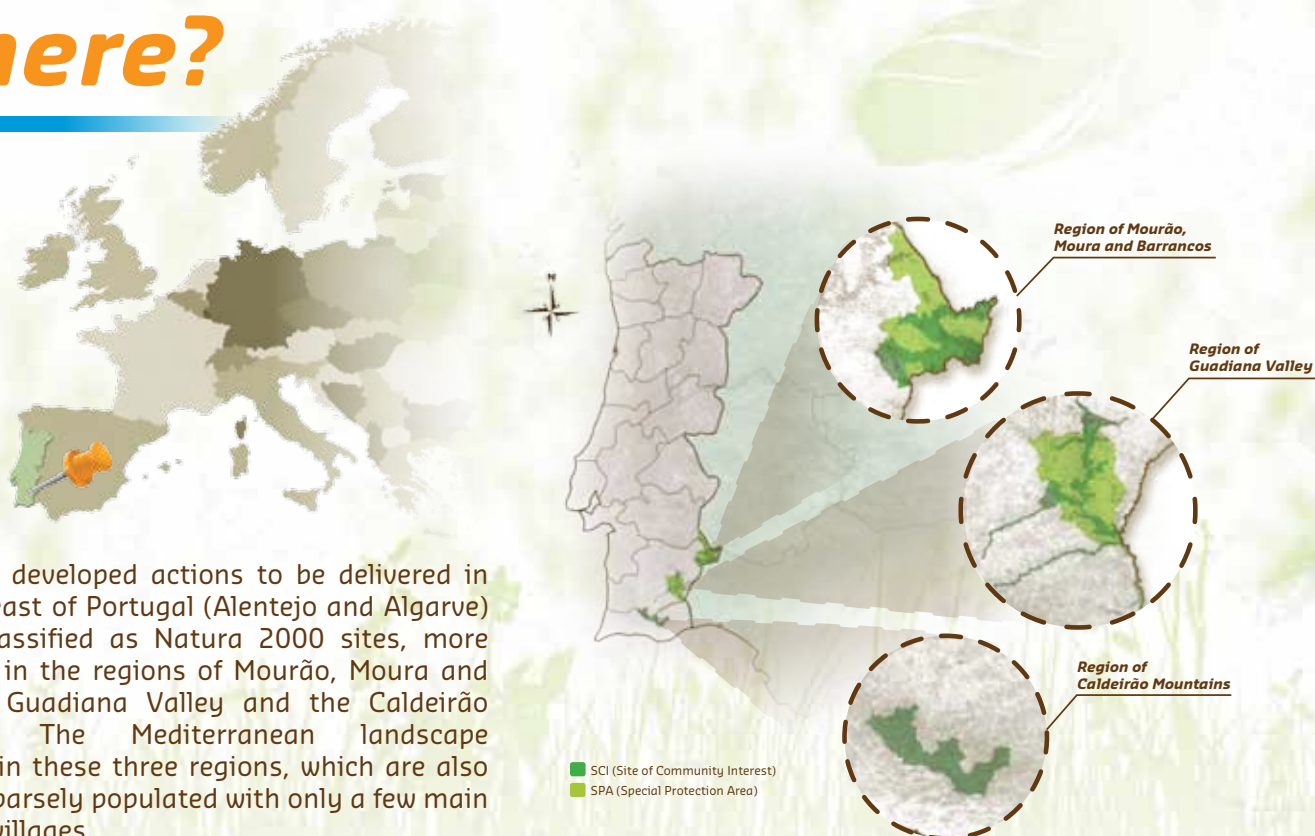
The challenge

The Iberian Lynx and the Black Vulture are two species characteristic of the Mediterranean landscape and the Iberian Peninsula, being a part of the region's history and natural values. However, since the start of the 20th century they have become very rare and are now considered to be endangered in Portugal. Although the lynx and the vulture are very different animals, the causes of their decline are very similar including the loss and fragmentation of the Mediterranean landscape, food scarcity and human-caused mortality. For these reasons, we took up the challenge to start a project that combined the really important need to continue working to conserve the Iberian Lynx and the Mediterranean landscape, with additional measures to conserve the Black Vulture. The result was the project LIFE Habitat Lince Abutre, which aimed to mitigate the main threats to both the Iberian Lynx and the Black Vulture and to improve conditions to help these species re-establish themselves in the region in the long-term.

At the same time, the project aimed to contribute to the management of Natura 2000 sites by demonstrating that activities such as agriculture, forestry and game hunting, can be compatible with the aims of nature conservation and can maintain the type of Mediterranean landscape that is essential for the future of the Iberian Lynx, Black Vulture and many other species.



Where?



The project developed actions to be delivered in the South-east of Portugal (Alentejo and Algarve) in areas classified as Natura 2000 sites, more specifically in the regions of Mourão, Moura and Barrancos, Guadiana Valley and the Caldeirão Mountains. The Mediterranean landscape dominates in these three regions, which are also relatively sparsely populated with only a few main towns and villages.

The species

The Iberian Lynx (*Lynx pardinus*)

How it looks?

A middle-sized mammalian carnivore with a yellowish brown coat with dark spots; each individual coat pattern is unique. A grown adult weights between 9-14kg and has three distinctive characteristics: short tail with black tip, long hairs at the base of the snout (the "beard") that grow with age and stiff black hairs on the tip of the ears (the "brushes").

Where it lives?

It lives in the Mediterranean landscape and uses a mosaic of habitat including scrubland and forest for shelter and clearings and pastures for feeding.

It feeds on what?

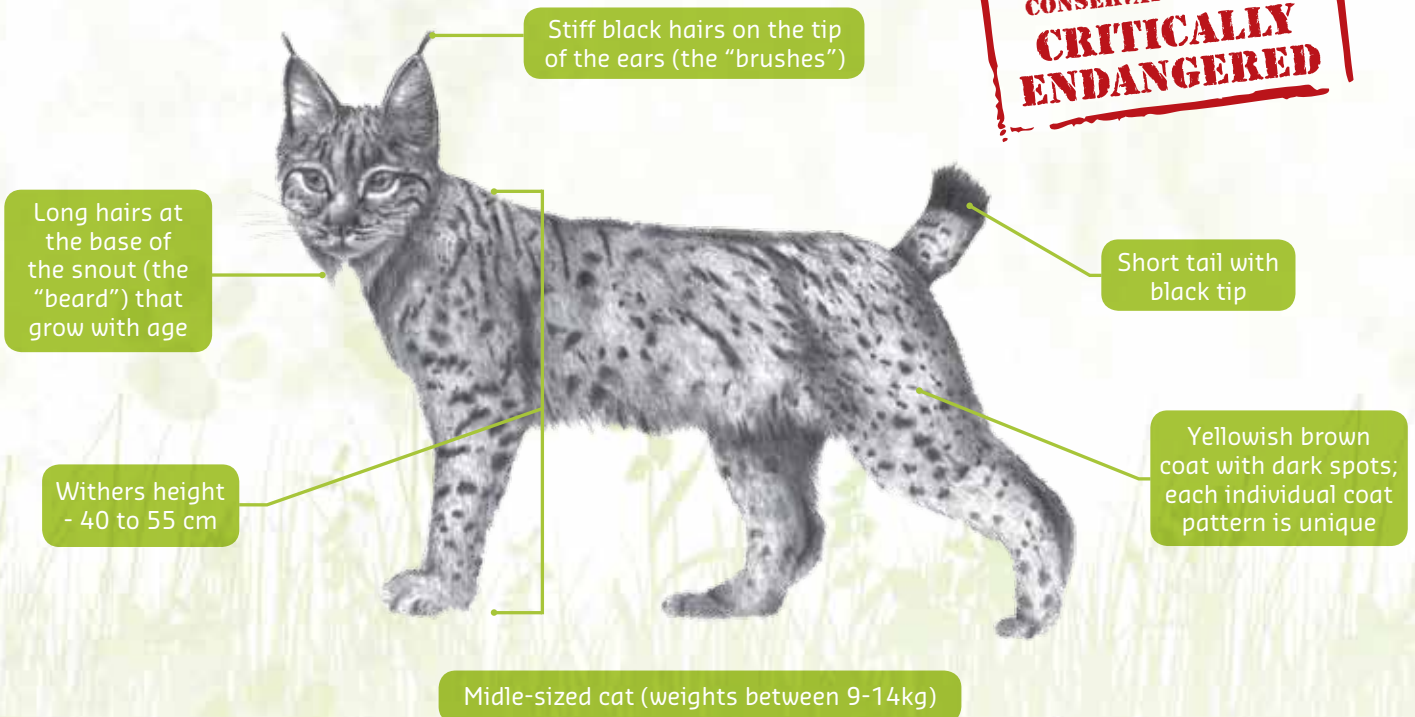
A specialist species that feeds almost exclusively on wild rabbit (*Oryctolagus cuniculus*).

Rare species...

Occurring only in Portugal and Spain, the Iberian Lynx is endemic to the Iberian Peninsula. There are around three hundred individual lynx surviving in the wild; the two main known breeding populations being located in the Spanish region of Andalusia. In Portugal over the past years several people reported seeing a lynx but most of these sightings were not confirmed. However, recently two of these sightings, the first in 2010 (in the region of Moura/Barrancos) and the second in 2013 and 2014 (the same individual in the area of Vila Nova de Milfontes) have been confirmed, proving the presence of the species in Portugal. Since the end of 2009 lynx bred in captivity are being reintroduced in the Iberian South-west.



CONSERVATION STATUS
**CRITICALLY
ENDANGERED**



The Black Vulture (*Aegypius monachus*)

How it looks?

With a 270 to 310cm wingspan and weighing between 7 and 13kg it is the largest bird of prey in Europe. Its plumage is dark brown and almost uniform around the body. Its head is covered with downy feather that become whiter with age. It has large wings, a rectangular silhouette and short tail that sometimes looks wedge-shaped when seen from below.

Where it lives?

Preferring Mediterranean woodlands and shrublands it nests in large trees (cork oaks, holm oaks and/or pine trees) located on steep slopes with a dense shrub layer and little or no human disturbance. For feeding it prefers areas of montado but will also use pastures and steppe/grasslands.

It feeds on what?

A scavenger that feeds on the carcasses of dead animals. In the South-west of the Iberian Peninsula it prefers to feed on wild rabbit carcasses, but with the increasing scarcity of this animal it now also feeds on domestic livestock (e.g. sheep, goat) and wild ungulates (e.g. wild boar, red deer).

Rare species...

It occurs mainly in the South of Europe (Portugal, Spain, France, Greece, Bulgaria, Turkey and FYR Macedonia). It is regularly present in Portugal in a narrow territory along the border with Spain, between Beira Alta and Baixo Alentejo. Since 2010 it has started successfully nesting and breeding in Portuguese territory. There are around 2.000 nesting pairs in Spain and about 12 pairs in Portugal.



Its head is covered with downy feather that become whiter with age

From below it has large wings with a rectangular silhouette



Short tail that sometimes looks wedge-shaped when seen from below

Its plumage is dark brown and almost uniform around the body

Males and females are very similar, although juveniles are darker than adults

CONSERVATION STATUS
**CRITICALLY
ENDANGERED**

What have we done?

Conserving and recovering the Mediterranean landscape

In the past decades, one of the main factors for the decline of many Iberian species has been the loss and fragmentation of the Mediterranean landscape, mainly as a result of human activities including the construction of transport and other infrastructure, abandonment of agricultural land, intensification of agriculture and overgrazing. As a consequence, important habitats have been lost, including areas of dense vegetation such as cork and holm oak woodlands and shrublands, that are very important for shelter and breeding for species such as the Iberian Lynx. Many of the features within the landscape that connect good habitat and help species move around including wooded streams and tree and shrub belts have also been lost, further fragmenting the landscape.



Ecological corridors are areas in which the regeneration of natural scrub vegetation is promoted (e.g. rock-rose, mastic, strawberry tree). They are important as refuges for the Iberian Lynx and its prey. The Project created corridors in cooperation with olive producers in the mountains of Adiça and Ficalho (municipalities of Moura and Serpa) to link natural habitats on mountain ridges through olive groves devoid of vegetation.



Negotiation and signing of agreements



- Identified priority areas for implementation of conservation measures
- Signed **28 cooperation agreements** with landowners, farmers and hunting managers
- Intervened on more than **18.000ha** of land with conservation measures and adequate management of the Mediterranean landscape
- Created **56ha of ecological corridors for the Iberian Lynx** across olive groves to improve the connectivity conditions between favourable habitat areas
- **Regular presence** in the intervention regions and maintained **contact with dozen of rural landowners and promoters of all-terrain competitions/tours** in order to detect, minimize and prevent potential sources of disturbance to the Mediterranean landscape and to the target species

Enhancing habitat conditions to support the establishment of populations of the target species

The ongoing loss and fragmentation of the Mediterranean landscape combined with increasing human disturbance, results in fewer areas of suitable breeding habitat for the Iberian Lynx and the Black Vulture.



For breeding, the Iberian Lynx uses large old hollow trees, cavities in rocks, dense shrubs and/or piles of tree trunks (resulting from forest management) to make a den.



Artificial den for the Iberian Lynx



Stone marten using an artificial den



The Black Vulture nests in large cork oaks, holm oaks and/or pine trees located on steep slopes with dense shrubby undergrowth. The nests, which are built with branches, twigs and other vegetation, can reach almost 2m wide and weight around 200kg.



- Carried out a **study to assess the health of animals that share habitat with the Iberian Lynx** including identifying the type and prevalence of diseases that they carry within the project area. This provides an important basis for future work, including diseases surveillance (monitoring of the patterns, causes, and effects of diseases), which are critical to ensure the success of future programmes to reintroduce Iberian Lynx back into Portugal
- Constructed **8 experimental artificial dens** for Iberian Lynx in areas that have good conditions for the species but lack suitable breeding places. The dens have been used by other mammalian carnivores that also prefer trees for denning including the stone marten and the common genet
- Installed **30 artificial nests** for the Black Vulture (with no occupation evidence by Black Vulture up until the end of the project)

Increasing food availability for the Iberian Lynx and the Black Vulture

The abandonment of traditional agricultural activities, which provided food and shelter for many game species, and the introduction by humans of two serious infectious diseases (myxomatosis and viral hemorrhagic disease), has led to a sharp decline in wild rabbit populations. This is one of the main food sources for the Iberian Lynx and the Black Vulture. Furthermore, the application in Portugal of health and hygiene rules introduced by the European Union requiring animal carcasses to be removed from fields, combined with the trend towards the year round housing of livestock, has reduced the food available for scavengers such as the Black Vulture.



Feeding stations are small fenced areas designed to provide access only to vultures and other birds. Each station is licensed by the competent national authorities. Food for vultures is provided regularly at each station including the carcasses of domestic cattle (rejecting animals recently medicated) and/or the economically worthless remains of wild game animals. Each station is under permanent veterinary supervision to ensure that public health standards are maintained.



Feeding station gateway



Electric fences to protect seeded pastures



- **Created a network of 10 feeding stations** which provide food for scavenger birds in a legal, clean and healthy way. More than 30 tons of food has been provided in more than 300 supplies during the project. As consequence, the network is being regularly used particularly in the region of Mourão, Moura and Barrancos. Eight species of raptors have been seen scavenging at the stations, six of which are threatened species including the Black Vulture, the Egyptian Vulture and the Spanish Imperial Eagle
- **25ha of soil has been managed and seeded** to improve the quality of pastures for wild rabbit. This work was delivered together with local hunting managers (who provided the seeds) and included the fertilization and correction of soil acidity levels in areas before sowing with grass seed
- **Installed and maintained 10 electric fences** to protect seeded pastures for wild rabbit from other grazing animals including red deer, wild boar and domestic cattle
- **Constructed 3 protection enclosures** for wild rabbit and **improved 1 breeding enclosure** to minimize the predation on this species. This protection infrastructure allows the rabbit to breed safely and faster. The rabbits then move out into surrounding areas thereby increasing the amount of food available for the lynx and vulture



Protection enclosure for wild rabbit

Black Vulture eating a carcass on a feeding station

Raising awareness and involving civil society

The lack of knowledge regarding the ecological importance of the Iberian Lynx and Black Vulture means that people do not value them and, as a result, many individuals from these species are killed due to human actions such as poisoning, road-kill and/or direct persecution. With such small population numbers the impact of the death of one individual of Iberian Lynx or Black Vulture is very high.



Participation in fairs



Environmental educational activities



Participation of volunteers

Information meetings



Public participation sessions



Participation in scientific meetings



- Held **4 thematic workshops** (on the construction of artificial nests, feeding stations, sustainable management of olive groves and the Mediterranean landscape).
- **Participated in dozens of regional and national fairs**
- **Organized visits** for local stakeholders and students to see the project's activities in the field
- Held **19 information meetings** with the participation of more than 500 residents and local stakeholders
- Held around **180 environmental educational activities** reaching more than **3.000 children and teenagers** and **170 teachers and other staff** from **40 schools**
- Conducted **surveys and public participation sessions** to get to know the perceptions and attitudes of residents and specific interest groups regarding the two target species and the management of habitat for them. The results allowed the project team to better understand and take into account inherent social conditions when applying the project's conservation objectives. This social understanding and engagement contributed to the project's success, enabled the more effective involvement of local people in project actions and identified future needs for actions involving local people in the post-project period
- Participation of around **70 volunteers** in the actions developed (eg. monitoring of vulture's populations)
- **Contacted almost 100 landowners, hunting managers, farmers and olive producers** and engaged, half of them directly in the project
- Presented the project and its results at **24 national and international scientific meetings**

Communication and dissemination of the project

The communication and dissemination activities of the project also helped to decrease the lack of knowledge of the population. Activities included a dedicated project website, various publicity and information materials for dissemination, a touring exhibition and notice boards (which were placed in locations close to where the conservation measures were implemented). Whenever possible information on the project was disseminated through national and local media including interviews, documentaries and press releases.



More than two hundred articles in media



Notice boards of the project



Awareness materials produced by the project



Touring exhibition produced by the project

Our main achievements

- Increase of public's knowledge about the Iberian Lynx, the Black Vulture and the Mediterranean landscape, as well as of the importance of their preservation, promoting everyone's involvement in their conservation
- Contributed to the standardization of the process of creation and management of feeding stations for scavenger birds of prey
- Created the first network of feeding stations for scavenger birds of prey in the South of Portugal
- Integrated the "Regional Action Plan for the Conservation of Black Vulture", completed under this project, within the process developing the "National Scavenger Birds' Conservation Strategy in Portugal"



- Completed a proposal for implementation by the national authority for nature conservation (ICNF) of the "Mitigation Plan of the Use of Poison"
- Completed the first study and assessment of the health and prevalence of diseases within wild and domestic animals that could share diseases and habitat with the Iberian Lynx
- Established ecological corridors in the mountains of Adiça and Ficalho increasing the connectivity and the availability of habitat for the Iberian Lynx in this region
- Involved several public and private entities in the conservation of the Iberian Lynx, the Black Vulture and its habitats

The Future...

A great deal has been achieved but much more remains to be done. LPN and the associated beneficiaries of the project intend to continue their work primarily by strengthening activities in three key areas:

- **Social:** Seeking to further improve local attitudes towards conservation by improving the knowledge and awareness of people and actively involving them in the implementation of best management practices to conserve the Iberian Lynx and Black Vulture and the Mediterranean landscape
- **Ecological:** Promote the conservation and recovery of the Mediterranean landscape and the monitoring of target species' populations and the threats they face
- **Conservation and land management policy:** Maintain and strengthen policy to ensure it contributes to the preservation and recovery of the Iberian Lynx, the Black Vulture and the Mediterranean landscape

To learn more about this project and its actions please visit: <http://habitatlinceabutre.lpn.pt/en>

Coordinating Beneficiary:



Associated Beneficiaries:



Associated Beneficiary and Co-financer:



Co-financers:



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