What did the project involve?

LIFE+ Cantabrian capercaillie has started up a series of urgent actions for habitat conservation, captive breeding, strengthening the wild population, social involvement and outreach activities to stop the decline in population and work towards the recovery of this species native to the Cantabrian Mountains.

Where has it been working?

It has been in operation for six years in 16 Special Protection Areas (SPAs) in the Natura 2000 network throughout the Cantabrian Mountain in the regions of Cantabria, Asturias and Castilla y León.

What is the Natura 2000 Network?

The Natura 2000 Network is a European ecology network of areas for conserving biodiversity, aimed at ensuring the long-term survival of Europe's most pressured and threatened species and habitats. This model promotes the conservation of nature being paired up with benefits for locals and socio-economic development. The Natura 2000 Network is made up of Special Protection Areas (SPAs) and Sites of Community Importance (SCIs), which develop into Special Areas of Conservation (SACs) when the management plans have been approved. These protection areas are intended to ensure the lives of the natural treasures to which theses spaces are home and guarantee that the activities carried out there are sustainable.

Which organisations have taken part in LIFE+ Cantabrian capercaillie?

The project was coordinated by the Fundación Biodiversidad of the Spanish Ministry of Agriculture and Fishing, Food and Environment and is 50% co-financed by the European Union, through the LIFE+ funds. Other partners are the regions of Cantabria, Asturias and Castilla y León, the latter through the Fundación Patrimonio Natural de Castilla y León; Consorcio Interautonómico para la Gestión Coordinada del Parque Nacional de los Picos de Europa; SEO/Birdlife, Tragsa and Tragsatec, with co-financing from the Organismo Autónomo Parques Nacionales and Fundación Iberdrola España.

© José María Díaz Formentí

UROGALLO CANTÁBRICO

LIFE+ Cantabrian capercaillie project

Title	• Urgent action programme for the conservation of the Cantabrian capercaillie and its habitat. LIFE+09 NAT/ES/513.
Aim	• To halt the decline of this subspecies endemic to the Iberian Peninsula and promote recovery.
Length	• 6 years (2010-2016).
Budget	• €5.9m, 50% co-financed by the European Union.
Action Areas	• In 16 Special Protection Areas (SPAs), part of the Natura 2000 network, located in the Cantabrian Mountains.
Coordination	• Fundación Biodiversidad from the Spanish Ministry of Agriculture and Fishing, Food and Environment.
Partners	• Government of Cantabria. ***Directorate- General for Natural Environment.*** • Government of Asturias. ***Directorate-General for Natural Resources.*** • Fundación Patrimonio Natural de Castilla y León from the Government of Castilla y León. • Consorcio Interautonómico para la gestión coordinada del Parque Nacional de los Picos de Europa. • Sociedad Española de Ornitología (SEO/BirdLife). • Tragsa and Tragsatec.
Co-financing Partners	• Organismo Autónomo Parques Nacionales. • Fundación Iberdrola España.

www.lifeurogallo.es

Fundación Biodiversidad. C/ José Abascal 4 -28003 Madrid. 91 121 09 20 | comunicacion-urogallo@fundacion-biodiversidad.es

©Juan Carlos Muñoz

UROGALLO CANTÁBRICO

Urgent action programme for the conservation of the Cantabrian capercaillie and its habitat.

Project Outreach Summary. LIFE+09 NAT/ES/513

©José María Díaz Formentí

www.lifeurogallo.es

The Cantabrian capercaillie, at risk of extinction

The Cantabiran capercaillie (*Tetrao urogallus cantabricus*) is in a critical situation. This forest bird, only found in the Cantabrian Mountains, has disappeared from 70% of the places it inhabited only three decades ago. Because of this dire situation, the Cantabiran capercaillie has been listed as an "endangered species" in the National Catalogue of Endangered Species.

Threats

The population decline is a result of inter-related aspects, such as:

- Loss of habitat.
- Population fragmentation.
- Predators.
- Other herbivores competing for food.
- Risks caused by human activity: Collisions with unmarked electricity wires and fencing.
- Pressure from hunters until hunting it was banned in 1979.
- Climate change.
- Others.

Did you know?

The Cantabrian capercaillie is one of 12 subspecies of the western capercaillie (*Tetrao urogallus*).

On the Iberian peninsula we also have the *Tetrao urogallus aquitanicus*, which is also endangered.

A relic from the last ice age

It is an umbrella species. Its conservation is beneficial to other species.

It is a long-lived bird. It can live for up to **20** years

Where does it live?

It prefers quiet, mature and expansive forests with a wide variety of tree and bush species, such as beech, oak and birch.

What does it eat?

Bilberries are a key food. It eats the stalks, leaves, sprouts and fruit. Furthermore, bilberry bushes attract a lot of insects, on which it feeds its chicks in the first months of life. Capercaillies add to their diets, feeding from a wide range of species such as heather, beech, oak, birch, holly and various grasses.

How do they reproduce?

Mating takes place in leks, areas where the males come to present themselves in mating season. They fan out their tails and begin the song and strutting ritual to win over the largest number of females.

How many eggs do they lay?

The females lay between five and eight eggs in their nest, located on the floor in secluded areas. After four weeks of incubation, they hatch and lead the chicks to bilberry bushes, which are full of insects and where they are protected from predators.

What is the legal framework?

The actions implemented have followed the guidelines in the Strategy for the Conservation of the Cantabrian capercaillie in Spain, as approved in 2004 and those of the Cantabrian capercaillie Work Group and the Wild Flora and Fauna Committee of the Spanish Ministry of Agriculture and Fishing, Food and Environment. The activity has also been based around the conservation and recovery plans of the regional governments involved in the project.

How was the project implemented?

Participating experts and scientists have drawn up technical documents which make up the reference framework for conservation action regarding the habitat, controlling predators and competition, breeding in captivity, strengthening the population, land custody and genetic classification.

Furthermore, the project also has a Scientific and Breeding Committee to help implement this, with participation from partners and representatives from other scientific and academic institutions.

When it was being implemented, we took into consideration experiences of what had been carried out to encourage the Capercaillie's habitat and improve breeding in captivity in other regions and countries.

Before finishing the project, technical diagnostic reports have been drawn up on the activities implemented for habitat management, predator control and the effects of removing eggs from the wild population.

© Manuel Ángel Calvo

Aims	Activity	Results
Improving the Capercaillie's habitat	Manual and selective forestry treatment to encourage the Capercaillie's habitat, regarding food, shelter and serenity	• Obtaining forest areas with great varied in the woodland and thickets, with open, clear and grassland areas. • Presence of hatched eggs and specimens in the treated areas of the Alto Sil SPA. We have not registered any problems for the species. On the contrary, the capercaillies have remained in the areas where there were already specimen and have inhabited neighbouring treated areas. Of the 25 stands assessed, 18 have met the goals set for improving forest structures. Six of the stands could not be assessed for effectiveness due to the short amount of time elapsed.
Reducing natural threats and causes of death	Control of the predators in the specimen release areas	• 26 pine marten have been captured and relocated in Cantabria and eight more around the Picos de Europa release area in Castilla y León.
	Control of the excessive deer population to avoid negative effects on the bilberry and holly shrubs, a source of food and shelter for the Capercaillie	• Monitoring the deer population in Cantabria, Picos de Europa National Park, Castilla y León and Asturias. • Reducing the population density of deer through hunting plans. Work to improve the habitat has allowed us to identify the wild herbivores, particularly deer, which have a dire effect on the size and density of the bilberry shrubs.
Reducing threats and causes of death brought about by human action	Insulating the electric elements at the Puerto de Panderruedas substation, in the Picos de Europa SPA	The risk of electrocution has been removed.
	Installing acoustic screen around the outer perimeter of the Puerto de Panderruedas substation	The noise form the Panderruedas substation has been reduced by 50dBA.
	Marking the electric lines running through the Picos de Europa National Park	Installing deflectors on 3 km of an electricity cable in the Puerto del Pontón área.
	Marking or removing fencing that can kill the capercaillie due to collision	60km of fencing has been removed or marked.
Generating captive stock of Cantabrian capercaillie in the breeding and genetic reserve centre to strengthen the wild population and collect the greatest genetic variation possible	Breeding cantabrian capercaillie specimens to include them in the captive genetic stock, to release them naturally	• The capercaillie that has been released has been able to feed themselves self-sufficiently in the wild.
	Increasing the brood stock	• The breeding centre has 22 specimens in the town of Sobrescobio. The breeding in captivity programme has another specimen in the wild animal recovery centre in Cantabria.
	Investigating aspects related to the conservation of the species and the difficult study of wild birds	• Data of interest has been collated regarding the species, reproduction, behaviour, feeding and health-related aspects.

Aims	Activity	Results
Promoting involvement in society and various sectors in conservation activity for the capercaillie.	Developing a land stewardship programme in which voluntary agreements have been entered into with land owners, non-profit organisations and other public and private agents to promote the conservation of the Cantabrian capercaillie.	• Signing 28 agreements between organisations, neighbourhood associations and local agents has enabled the development of 19 projects in which the forest rangers, livestock farmers, hunters, young entrepreneurs and local residents have gotten involved, among others.
	Managing the habitat and promoting the initiatives connected to the traditional use of the land to stimulate the habitat of the Cantabrian capercaillie.	• We have acted on 148 hectares of the Cantabrian Mountains. • Within the scope of the actions to promote traditional activity, we have acted on 342 hectares and we have created instruments for forest and pastoral planning in the area that the capercaillie inhabited in the past to make the use of the land more compatible with the species.
Strengthening capercaillie populations in the Cantabrian Mountains with specimens raised in captivity for release into the wild	Building a release park for specimen in the Picos de Europa SPA in Castilla y León, where the capercaillie will get acclimatised before being released.	• The specimen have been released in the Picos de Europa SPA in Castilla y León.
	Reintroducing specimens from the breeding centre.	• Direct release of two females in a lek in the province of León. • The date obtained have provided information regarding how the specimen adapt to the wide, their movements and the use of some habitats over others.
Capture and tagging of specimen to monitor them and, where possible, partial collection of eggs for the breeding and genetic reserve centre.	Tagging 13 specimen with transmitters in the Alto Sil and Fuentes del Narcea, Degaña e Ibias SPAs	• The monitoring of the specimen and information analysis have provided relevant data regarding ecology and the distribution of the species. The tagged specimens in Asturias moved to the Alto Sil SPA.
	Partial collection of two eggs from the brood in the Alto Sil SPA from a tagged female as part of the capture programme.	• Hatching of chicks in the breeding centres from the collected eggs.
Awareness raising about the species and the action of the LIFE+ Cantabrian capercaillie and its conservation	Outreach, education and communication campaign	• Participation of 2000 school children in workshops held in 45 schools. • Participation of 72 volunteers in the three environmental volunteering campaigns. • Publishing awareness raising materials for local residents, school children and the business sector. • Holding information sessions aimed at the livestock, hunting and tourism sectors. • The travelling exhibition has had 120,000 in the 50 towns and villages that it covered. • Holding a press meeting in the Picos de Europa SPA and the Picos de Europa SPA in Castilla y León. • Holding four informative meetings open to the public. • Creating and updating the www.lifeurogallo.es website and promoting in on the Fundación Biodiversidad social media profiles. • Publishing over 100 news articles on the website and spreading them in the media. • Putting up 19 information panels in the Cantabrian Mountains regarding the species and the project. • Publishing four newsletters and creating a documentary on the product.
	Experience exchange with experts	• Meetings and technical visits with specialists in capercaillie conservation in Scotland, Poland, France and the Pyrenees which have provided in-depth knowledge on the species and how it is managed in other regions. • Meetings of the Scientific and Breeding Committee.

What about after LIFE+?

The LIFE+ Cantabrian capercaillie project is neither the beginning nor the end of the conservation of the species. The initiative has been a big step towards getting public and private organisations, civil society and the business sector involved in the same project. However, the conservation of endangered and emblematic species in Spain, such as the Cantabrian capercaillie, is and will continue to be one of the main focuses for action from the public authorities, through national strategies and regional conservation and recovery plans. The Fundación Biodiversidad from the Spanish Ministry of Agriculture and Fishing, Food and Environment, the regional and local authorities and land stewardship organisations, scientific organisations and companies, which have all contributed to the project, will continue to support the recovery of this emblematic species that is disappearing from Spanish forests.

© Manuel Ángel Calvo

LIFE+ Cantabrian capercaillie

The cantabrian capercaillie is one of the most endangered species on the Iberian Peninsula. The distribution area is divided between two population centre: East and West.

The cantabrian capercaillie inhabited a much greater area in the past than it does now. In the 18th and possibly up to the 19th century, the species covered most of the Cantabrian Mountains, between Lugo, Asturias, León, Palencia and Cantabria, and there were also isolated populations in the Demanda, Neila and Cebollera Mountains in the provinces of Burgos, Soria and La Rioja, in the Obarenes Mountains in Burgos, the Montes Aquilanos in the Teleno Mountains in León and in the Cabrera Mountains between León and Zamora.

From the first surveys conducted in the 1980s until now, their numbers are falling in all areas that it inhabits. Furthermore, this is an elusive species that lives in mountainous areas that are difficult to survey, which means it is difficult and requires a lot of effort to collect information on their populations.

As of today, the cantabrian capercaillie are only found in the mountainous areas of the Cantabrian Mountains, almost exclusively in Asturias and León. They have a very small centre and are heading towards extinction in Cantabria, they have already been deemed extinct in Lugo and Palencia.

The LIFE+ cantabrian capercaillie project has worked on over 16 Special Protection Areas (SPAs) in the Natura 2000 Network in the distribution area in the Cantabrian Mountains. We have also chosen to work in different scenarios: some already inhabited, with good capercaillie populations, such as Alto Sil in the province of León and some from which the capercaillie has recently disappeared, such as the Picos de Europa, in the mountains between León and Cantabria.

Improving their habitat

The capercaillie is a sign of well-preserved woodland. The most emblematic thing about the cantabrian capercaillie is that is prefers quiet, mature and extensive woodland, with a very variety of species both in trees and shrubbery.

However, in recent decades the woodland in the Cantabrian Mountains has undergone changes which have had a negative effect on the quality of the capercaillie's habitat. The abandoning of rural areas has changed the woodland structure and the strata of shrubbery into forested areas that are denser and bushier.

The LIFE+ cantabrian capercaillie project has developed a range of activities to promote a favourable habitat for the species. Overall, we have carried out selective forestry treatments to favour the development of key species for the capercaillie such as the bilberry and a achieve forest areas with a better variety of structures in which there are open spaces, clear, spaces, pastures, woodland and shrubbery.

With these actions, we have tried to increase the area of usable habitat for the species, regarding food, shelter and quiet, which is better for the survival of the specimens when faced with predators and could contribute towards greater procreation among the species.

Social implication

Land Stewardship is a tool that has built networks between land owners, non-profit organisations and the local residents to improve the cantabrian capercaillie's habitat and work towards its recovery.

The Land Stewardship programme in the LIFE+ cantabrian capercaillie project has managed to bring together Neighbourhood Associations, forest wardens, beekeepers, livestock farmers, hunters, young entrepreneurs, NGOs and rural people. All of their efforts have helped create 19 projects that have contributed towards improving the environment, creating jobs and boosting social involvement and traditional activities in the Cantabrian Mountains.

The various actions in the programme have been focussed on recovering and improving the habitat and promoting activities linked to traditional land use, for example beekeeping and livestock farming. As part of this, we have acted on around 150 hectares of the mountains in the Cantabrian Mountains, where we have helped towards there being more food and shelter for the capercaillie.

The collaboration network been set up along with the Land Stewardship programme will continue beyond the LIFE+cantabrian capercaillie project.

More than 100 people have participated in the project and 20 people have found direct employment.

Reducing threats

One of the main threats to the cantabrian capercaillie comes from the growing deer population, which is particularly prominent in the Eastern part of the mountain ranges. The effect they have on the quality of the bilberry and holly shrubs means there is less food available and changed the structure of supportive habitat that would protect it from predators.

As part of the project, we have been monitoring the deer population and it is under control in Cantabria, Picos de Europa National Park, Castilla y León and Asturias. Alongside this, we have evidence of its effect on the bilberry through fenced-off control areas in Picos de Europa.

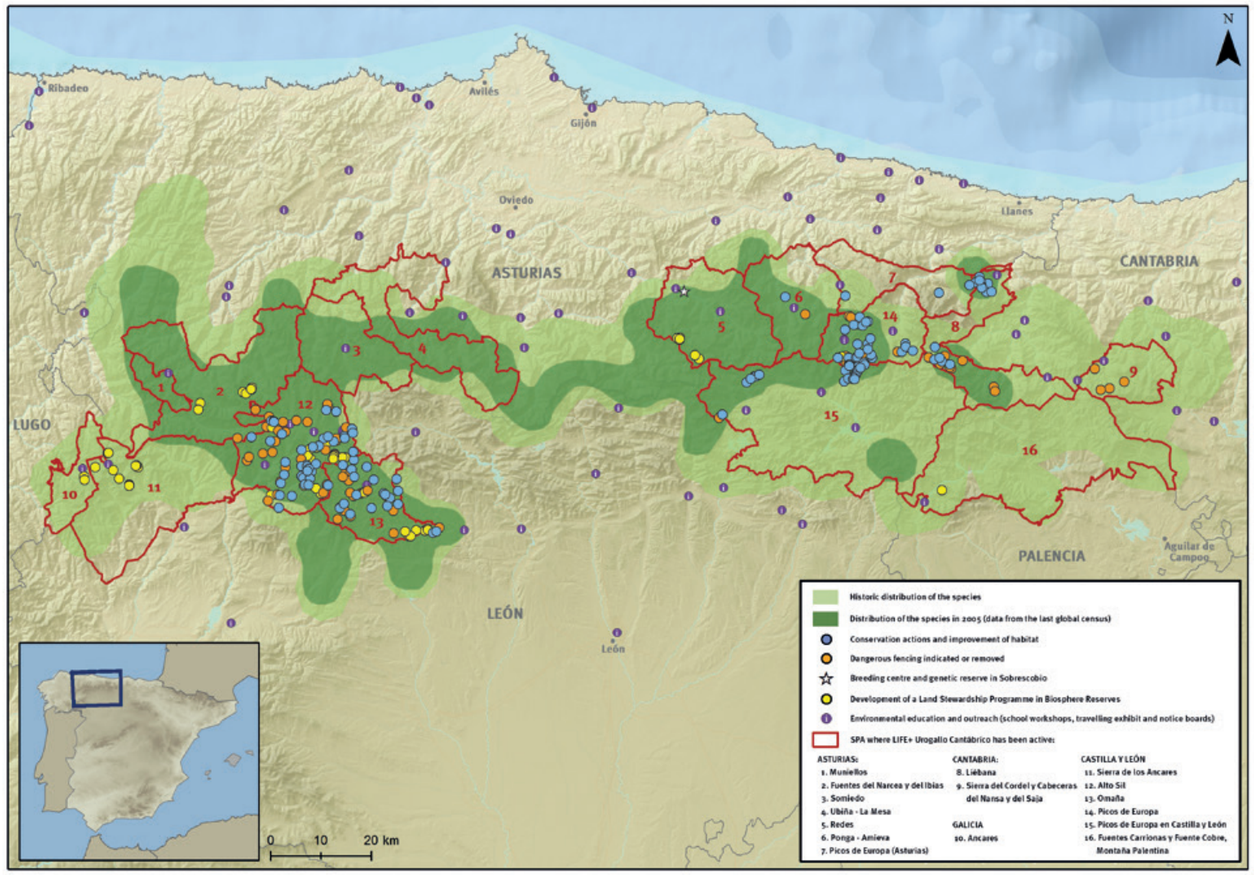
Furthermore, we have controlled the predators. Among other things, we have captured and relocated pine marten in Cantabria and around the release park in Picos de Europa and Castilla y León.

Fencing used in livestock farming can be a cause of death for the capercaillie as they run into it on days with poor visibility.

To avoid this tragedy, we have removed or marked 60 km of dangerous fencing as part of the LIFE+ cantabrian capercaillie project. Specifically, we have acted in Special Protection Areas: Liébana y Sierras del Cordel and Cabeceras del Nansa y Saja in Cantabria, Alto Sil, Omaña, Picos de Europa in Castilla y León, Picos de Europa and Ponga in Asturias.

Furthermore, the electrical infrastructure can be a nuisance and even a cause of death for the capercaillie and other bird species in the mountain range. Therefore, we have acted to reduce the risk of electrocution and the noise impact of the substation in Puerto de Panderruedas, León. We have also marked three kilometres of the electricity lines that go down from Puerto del Pontón towards the Sella river through beech groves that are a good quality shelter for the species.

The aim of these actions is for there to be a long-term favourable environment for the capercaillie in which it can recover and return to the areas that it had abandoned.



Environmental education and outreach

Promoting respect, knowledge and the protection of the cantabrian capercaillie among future generations is one of the pillars of the educational and awareness campaign of the LIFE+ cantabrian capercaillie project.

Over 2,000 school children have taken part in the workshops held as part of the LIFE+ cantabrian capercaillie project to raise awareness about this endangered subspecies and contribute towards its conservation. This educational campaign is met with a wide range of awareness-raising to get society involved in protecting the capercaillie.

Among these actions, there has been a volunteering campaign in which 72 volunteers were involved. We have also published material, including information panels located in each of the SPAs, informative manuals, videos, a story and an instructional unit, among other things. Furthermore, the travelling exhibition has had over 120,000 visits in the 50 towns and villages it has travelled through. We have also given informational talks for hunters, livestock farmers and the tourist industry and local residents in towns and villages throughout the Cantabrian Mountains.

The project has also given a certain importance to communication and outreach action. The webpage, www.lifeurogallo.es, has information about the project, outreach material and technical documents for reference.

Breeding in captivity

The dire situation in which the cantabrian capercaillie finds itself makes it difficult to recover it just from the naturally occurring population centres. Spain, much like other countries such as Poland, has opted for breeding in captivity as an additional measure to boost the wild population and contribute towards the recovery of this endangered subspecies.

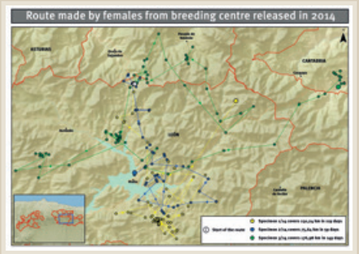
Breeding in captivity is part of the national strategy to conserve the subspecies; a key part of this is improving the cantabrian capercaillie's habitat. This also includes the commitment to set up a programme for breeding in captivity, the creation of a genetic reserve and a protocol for reintroducing or strengthening populations.

This pioneer programme is in its first stages. The breeding and genetic reserve centre for the cantabrian capercaillie in Sobrescobio, Asturias has been working since 2009 to achieve specimen that can adapt to life in the wild and that will be able to reproduce.

Since it was set up, its facilities have held around thirty specimen, most of them born in captivity. Over these early years, data of interest has been collated regarding the species, reproduction, behaviour, feeding and health-related aspects. Furthermore, the first experiences of releasing specimen has proven to us that the bird released from the breeding centre have been able to adapt and self-sufficiently feed in the wild.

Strengthening the local population

The LIFE+ cantabrian capercaillie project has a programme to strengthen the capercaillie project with specimen that have been raised in captivity, based on the guidelines in the Strategy for the Conservation of the cantabrian capercaillie in Spain. The first experience of releasing a specimen took place in the Picos de Europa SPA in Castilla y León, where the specimen was placed in a park for releasing specimen, aimed at acclimatising those that had been raised in captivity before being released. In the hacking, the capercaillies develop their sense of direction in the area and learn to feed and shelter from possible predators.



Three females from the Sobrescobio breeding centre were in the park before being released. Once it was confirmed that they had gotten acclimatised, the doors were opened and they were released calmly and on their own initiative. The specimen adapted to the environment and were able to feed themselves self-sufficiently for a minimum period of two months from being freed and covered large distances.

Apart from this experience, we have also directly released two females into the lek in the Alto Sil SPA, as a way of increasing the possibility of mating in the oestrus season. The process of capturing, relocating and releasing was a success. Once released, the specimen took flight and tried to adapt to the environment.

Despite the fact that four of the five females eventually died and the other one lost signal, the data obtained has provided information about the adaptation of the specimen to their new environment, their movement and their use of one habitat compared to others. With this activity, the project has been able to gain experience that will be key for future releases of capercaillie specimen in their natural environment.

Monitoring

The programme for capturing, tagging and collecting eggs as part of the LIFE+ cantabrian capercaillie project allows us to monitor the specimen that have been captured and tagged with transmitters to locate them and, where possible, collect eggs to bring them back to the breeding and genetic reserve centre in Sobrescobio. This is the best option for getting the greatest genetic variety of the subspecies, trying to get the impact on the wild population down to a minimum.

Since the LIFE+ cantabrian capercaillie project began, we have collected a partial brood. To be precise, two eggs were taken from the Special Protection Area in Alto Sil (León) from a female that was captured and tagged in Asturias. To implement this, we followed the protocol established by the cantabrian capercaillie in Spain Work Group, which was approved by the National Committee for the Protection of Nature on 18 October 2005.

As result of this collection, two chicks were hatched, both healthy. These specimen will allow us to increase the genetic variety of those born in captivity.

Furthermore, as part of this programme, we have collected relevant data about ecology and the distribution of the species. Overall, we have placed transmitters on a dozen specimen in Castilla y León and Asturias to monitor them via radio.