

EuCan Conservation Trip to Los Picos de Europa
with the Fundación para la Conservación del Quebrantahuesos

By Poppy Catherine Wood

On 13th June 2011 I set off on trip to Picos de Europa in northern Spain, to work with the Fundación para la Conservación del Quebrantahuesos (FCQ), or Foundation for the Conservation of Lammergeiers. The trip was organised and funded by the European Conservation Action Network (EuCan), whose aim is for groups of British nationals to forge links with and work alongside other European conservation organisations. Our group consisted of seven people of various ages and backgrounds. We drove a minibus down through France so that we could visit another EuCan partner organisation in La Brenne on our way, and our return journey consisted of an 18 hour ferry crossing from Santander to Plymouth.



Our group of EuCan participants



Meadow in Llueves

During our short stay in France we were lucky enough to see some spectacular wildlife, including sparrow hawk, hoopoes, bee eaters, black kites, black necked grebes, whiskered terns, great white egret, purple herons, night heron, white storks, 17 species of butterfly, an emperor moth caterpillar and coypus, not to mention the beautiful flora, including field cow wheat, greater butterfly orchids and fragrant orchids.

From the low lying lakes of La Brenne, we reached the high peaks of the Asturian region of Picos de Europa on 16th June. We were met by Diego Martín and Jose Carlos González Ruíz from the FCQ; who were to be our knowledgeable, interesting and good humoured hosts and mentors; and were taken to a comfortable house in Llueves, near Cangas de Onís which would be home for the duration of our stay.

Shared between the provinces of Asturias, Leon and Cantabria; Picos de Europa has an area of 64,660 hectares. It was declared a National Park in 1995, encompassing the older National Park of Covadonga Mountain, Spain's first National Park dating from 1918. Situated 30km from the northern Iberian coastline, Picos de Europa's lowest point is the Deva River in Penamellera Baja at just 75 metres above sea level, and reaches an altitude of 2646 metres at its highest point, El Torrecerrado in the Macizo Central. This range of altitude across the national park provides a wide array of habitats and goes some way towards explaining the great diversity of wildlife that can be found, including around 1600 species of vascular plants and 212 species of vertebrates.

Picos de Europa National Park was home to the lammergeier, or bearded vulture, up until the 1950's when it became extinct in that area. As its Latin name, *Gypaetus barbatus*, suggests, the lammergeier is both part vulture (*gyps*) and eagle (*aetus*). This rare raptor has a wing span of up to

2.75 metres and weighs around 7kg. It is best known for its ability to digest bone: the mainstay of its diet, and to drop bones too large to swallow from a great height onto rocks, so that they smash in to more manageable pieces. While in English we have adopted the German misnomer 'lammergeier', or 'lamb killer' to describe this bird, the Spanish call it more appropriately the 'quebrantahuesos, or 'bone smasher'. The lammergeiers wait for the larger griffon vultures to locate carrion and devour the meat, before going in to clear up the bones. They do not kill prey or eat meat. They have therefore lived in harmonious symbiosis with Asturian shepherds for hundreds of years. The main reasons for the demise of the lammergeier in Picos de Europa were from hunting for trophies, poison that was in fact intended for wolves, and more recently, electrocution from power cables.



Lammergeiers or 'Bearded Vultures'

The Fundacion para la Conservacion del Quebrantahuesos (FCQ) was founded in 1995 with the aim of conserving the lammergeier and increasing its numbers. As seventy per cent of Europe's lammergeier population is located in the Pyrenees, there is the risk that this important majority will reach its population threshold for the habitat. The foundation therefore initiated a project in 2002 to expand their natural breeding area along the mountain corridor by reintroducing lammergeiers to Picos de Europa. Although young lammergeiers occasionally come to the area looking for food, they do not stay as they naturally return to where they fledged in order to breed. So the foundation has undertaken a reintroduction programme that will involve releasing lammergeier fledglings into the Picos de Europa area for 15 years, after which time the viability and necessity for the continuation of the project will be reassessed.

The success of the project is highly dependent upon collaboration between the FCQ, the local authorities and local farmers. The FCQ works closely with farmers in order to ensure the continuation of their farming traditions and to re-educate them about lammergeier behaviour and habitat requirements. An impressive Centre for Biodiversity and Sustainable Development, 'Las Montañas del Quebrantahuesos', in Benia de Onís, was created to disseminate information to local people, tourists and school groups. The cooperation of all relevant parties, and that of successive generations, is absolutely essential to the long term survival of the lammergeier in this area. After eight years of research, planning, development and training, the visitor centre was opened and in 2010 the first lammergeier fledglings were brought over from the Spanish Pyrenees to be reintroduced to Picos de Europa.

Lammergeiers reach sexual maturity at eight years old. They breed in the middle of winter, and use sheep wool in their nests to keep the eggs at the required 36°C. They lay two eggs together per breeding season, however the stronger chick always kills the weaker in the nest. Many eggs do not hatch at all and of the chicks that do survive, 40% die within the first year. The chicks eat meat for the first 15 days of life, after which time they eat solely bones. It takes just one hour for the bone to be digested and the energy is received not from the marrow, but from a protein in the bone itself. The birds therefore produce very chalky droppings.

In the Spanish Pyrenees there are around 500 individual lammergeiers over 118 territories. Since 1994 the birds have been ringed either as chicks in the nest or by using canon nets at the feeding station, with the aim of monitoring their numbers. In order to improve their success rate, the FCQ, funded by the local government, employ around 15 people to stock feeding stations near to the birds' nests. Some of the eggs are taken from the nests to the Lammergeier Breeding Centre in Zaragoza, where they are incubated and the chicks reared out of sight of humans to avoid human imprinting, before being returned to the wild. In order to do this, an artificial nest is created to imitate reality as closely as possible, and lifelike, life-sized lammergeier puppets are used to feed the chicks.



The lammergeier puppet which is used to feed the chicks

When the chicks are 30 days old they are moved out into the mountains to a nest within a semi enclosed cage, or release pen, replicating the caves in which they would normally have been reared, in order to teach them everything they need to learn in the natural environment. At 120 days old the fledglings leave the nest. Since 2010, some fledglings have been taken to release pens in Picos de Europa for the last two weeks before they leave the nest, in order to become accustomed to their new location and develop their homing instinct to that area. They are fitted with a tracking device and their movements and progress are monitored by the use of GPS and radio tracking. The mapping of the results shows the huge distances they cover, particularly at the start of their first winter when they explore much further afield.

One of the tasks our group carried out was reconstructing the lammergeier release pens that had been taken down after the previous year's fledgling release, ready for the new arrivals that were expected to arrive shortly from the Pyrenees. This was on a mountain of 1,100m called Cantón del Texéo, with views across to a nearby snowy peak of 2,500m. With griffon vultures circling overhead and to the sound of alpine and red-billed choughs, we set up the release pens under the guidance of

José Carlos González Ruíz. The pens consist of strong metal cages surrounded by rush matting on three sides for shade. A nest is built on a raised bed of rocks in one corner and a large rock is placed in the centre of the pen so that the lammergeier can stand on it without damaging its long tail on the ground. Once the birds are ready to fledge, they fly against the bars at the front and when released they will climb up on to a high rocky outcrop; in this case just behind the pen. The location of the release pen is therefore an important factor to be considered, as it requires both a nearby rocky outcrop from which to practice flying as well as suitable caves for nesting within the local vicinity.



Putting up the lammergeier release pens

Much of the work carried out by the FCQ involves integration with the work of local shepherds and actively supporting traditional farming. Up to around 2000 metres, the Picos de Europa landscape has been largely influenced by man over the course of thousands of years. The oak, birch and ash forests are used for hunting and gathering wood; the apple orchards are used to make traditional Asturian cider; hay is gathered from the beautiful and spectacularly diverse yet sadly declining wildflower meadows, in order to feed the livestock through the winter; while the enormous swathes of wild mountain pastures are used for grazing the sheep, goats and cattle. It is this landscape that provides the suitable habitat for the lammergeiers, and without it they could not survive in the area without massive efforts by conservationists to artificially recreate it through manual scrub clearance and artificial provision of their needs including bones and wool. Another of our tasks was therefore to work with a group of locals to take steel girders and wooden planks down a mountain side and construct a bridge across the river at the bottom, so that the shepherds could take their sheep over to graze on the other side and therefore keep it from scrubbing over.



The bridge we constructed to span the river for access to the adjacent mountain

This sustainable approach to conservation is of benefit both to the lammergeiers; in terms of maintenance of required habitat and availability of food; and to the shepherds; in terms of being able to continue to make a living from the land that has been used by their families for generations.

We also helped with worming and shearing the sheep, as there are now fewer shepherding families left in the area to help each other at this busy time of year. Unfortunately, as in many parts of Europe, the wool is now a waste product from the shearing process, as the local spinning and knitting industry has given way to cheaper foreign imports. The FCQ and the shepherds however are currently looking into new ways for the wool to become once again the valuable resource it used to be.



Shearing Sheep in the village of Bejes



With the mountain of wool from around 300 sheep

The FCQ have also assisted local farmers to set up a meat cooperative that sells their own brand of meat. The cooperative produces around 1400 lambs a year that are guaranteed to have spent at least 3 months on mountain pastures. Rather than buying in meat that is transported from elsewhere, local restaurants can buy local lamb that tastes better, and by selling more directly, the farmers can double what they receive for the meat. By taking this approach to conservation, the project not only helps the conservation of a rare and fascinating raptor, but it also helps to conserve the economy, culture and traditions on a local scale, as well as benefiting the environment on a global scale by cutting down on transportation emissions and unsustainable farming practices.

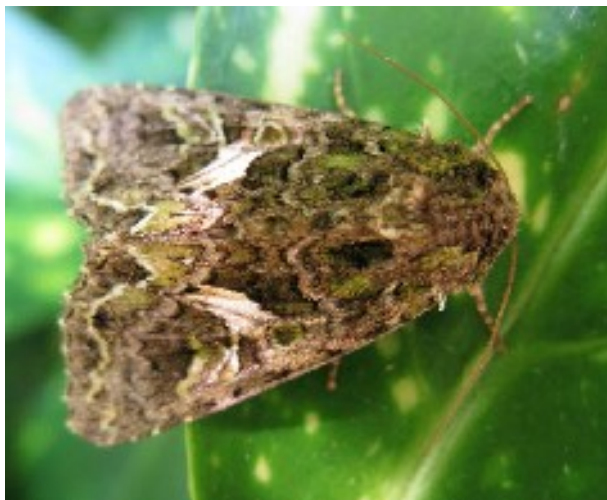
Cheese making is the foundation of the Picos de Europa local economy and the region boasts Spain's largest number of independent cheese makers. The cheeses are mostly made from a combination of the milk from sheep, goats and cows and are traditionally left to mature in limestone caves. On 1st June each year, whole farms move up the mountain to a 'majada' or summer residence for livestock grazing and cheese making, where they stay until 12th October. We visited the Majada de Belbín where there were around seven people living in simple stone houses. Due to the traditionally hard way of life of the shepherds, which the younger generations do not necessarily want to follow, they were mostly mature single men, with only one of them having a wife and child there.



The beautiful Majada de Belbín

An on-going initiative, now in its sixth year, to train young apprentices in this way of life does however offer some hope to the continuation of local cheese production in Picos de Europa, as well as the preservation of the landscape in its current state. We were shown around the Majada de Belbín by one of the shepherds and cheese makers, and saw the traditional way in which they make their famous Gamoneu cheese, smoking it in one of their tile roofed houses on shelves traditionally made from oak or yew which imbue a distinctive flavour before the cheese is left to mature in limestone caves for a minimum of two months.

The impressive landscape of the Picos de Europa also contains some spectacular wildlife. One of my highlights of the trip was watching nightjars flying above our heads each evening in the garden of the house we stayed in. The rich picking for the nightjars also meant that our moth trapping sessions brought in a wide variety of species for us to look at, many of which I had never seen before, including the beautiful orache moth.



Orache moth



Poplar hawk moths mating

The Picos de Europa National Park contains around 130 of Spain's 200 or so butterfly species. We were delighted to spend an afternoon walking with Georges Verhulst, who has written a book on the butterflies of the region and who was able to take us to a specific location to see the rare woodland brown butterfly which is declining in most of Europe.



Woodland Brown



Spanish Fritillary

On one occasion we came across a colony of greater horseshoe bats roosting in an old shepherd's hut and quietly watched from outside as one of them yawned before settling back down to sleep. We also had some very good views of birds during the trip. One member of our group was a keen and very knowledgeable birder with a good telescope, so we were able to see birds in such detail that on a particularly hot day we had a great view of a golden eagle panting. Other birds of note that we saw included: griffon vulture, Egyptian vulture, short-toed eagle, red-billed chough, alpine chough, rock bunting, crag martin, black redstart, spotted flycatcher, grasshopper warbler, water pipit and black-eared wheatear, to name just a few!

Our trip to the Picos de Europa gave us an enlightening insight into the complexity of the inter-relationships between humans, the landscape, and all the other species inhabiting it. Many of the issues we encountered, such as the loss of biodiversity, the moving of people away from the countryside and the loss of local traditional crafts, are the same as, or at least relevant to those in many other countries, including the UK. The conservation of certain protected species as well as the conservation of biodiversity as a whole, is far more likely to be successful when considered on the scale of a living and working landscape in which people are able to earn a decent living working alongside nature. We all took a great deal away with us from the experiences on this trip, and hope not only that the lammergeier reintroduction project will have a successful outcome, but also that the link that has been forged between the Fundación para la Conservación del Quebrantahuesos and the European Conservation Action Network continues to offer reciprocal benefits well into the future.



Cattle of Picos de Europa



Cangas de Onís – our nearest town