



# Travel documentation from network trip to north of Spain, in May 2016, with the project **LIFE Coast Benefit.**

Visiting: Biodiversity and Pollards LIFE 08/Nat/E/000075 and Sustainable Ordunte LIFE 11 NAT/ES/704





## Summary

On the evening of 23<sup>rd</sup> May, the whole project team of Life Coast Benefit gathered in Donostia-San Sebastián, without anyone being lost at different airports and with all the transport arrangements having worked!

On the morning of 24<sup>th</sup> May we headed to our first meeting with the project LIFE+ Biodiversity and Pollards (Gipuzkoa) at the Pagoeta Natural Park headquarters, called Iturraran. The rangers and officers from the Provincial Council of Gipuzkoa showed us what conservation activities they worked with there, including pollarding and managing local breeds of cattle and horses. Later on the same day we visited Aiako Harria Natural Park and the vast areas with ancient pollards, some of them managed with Life+ funding.

We also visited the rural landscape near the village of Leiza on the 25<sup>th</sup> May, when we met Jose Miguel Elosegui, who is working voluntarily to keep the cultural heritage of the area including pollarding with axes alive. We also managed a short visit to the stunning Aralar Natural Park, with mountain scenery and rich wildlife.

On the 26<sup>th</sup> we visited the Ordunte Mountain and the project LIFE+ Sustainable Ordunte (Bizkaia), working with reforestation and regeneration of beech woodland following removal of the non-native *Pinus radiata* and *Eucalyptus* plantations. On the way to Ordunte we caught a glimpse of Urbasa-Andia Natural Park.

The project team from Life Coast Benefit wish to send a special thanks to José María Fernández García at the Hazi organization who made our trip possible, guided us and helped us with all the contacts at the projects and sites we visited!



Map showing the areas visited on our trip.

## Travel documentation per day and the lessons learned.

**Day trip 24th of May 2016** From Donostia San Sebastian to Pagoeta Natural Park then to Aiako-Harria Natural Park and finally to Leitza and Hotel Loponea

Visiting: Biodiversity and Pollards LIFE 08/Nat/E/000075

### Natural Parks and other natural areas visited

**Name of the area visited:** Pagoeta Natural Park, situated just southwest of Donostia San Sebastian.

**Administrative information:** Pagoeta Natural Park is a 2800 hectare Natura 2000-area. The Natural Park is owned by the Government, the Municipality and by private landowners. The highest peak in the Natural Park reaches 678 meters above sea level. The annual rainfall is 1300 mm.

**History of area visited:** During the 19th century there was an extensive iron industry in the area which required large amounts of charcoal. This resulted in heavy exploitation of the beech forests in the area to produce charcoal. Grazing in the area increased during the latter stages of the 19<sup>th</sup> century which affected the forests in the area and resulted in deforestation and lack of regeneration.

Slash and burn was a method that was used to create and improve new pasture. Cutting of stumps and pollarding to get firewood and leaf fodder for the animals to feed on has a long history. During the 1960s and 1970s large reforestations of coniferous forest, mostly *Pinus radiata* from the west coast of California and Eucalyptus was implemented. During the 1990s reforestation of beech forest began. The shift from sheep to cattle as the dominating grazing animals has led to more comprehensive trampling damage.

**Ongoing management:** Parts of the area are grazed by cattle and horses and in other parts different kinds of silviculture are undertaken to benefit deciduous trees.

Our visit began at the Information center of the Natural Park. Here we first met our Spanish (Basque) guides, around ten people who represented the Municipality, the County Government and the Environmental Protection Agency. Our Spanish guide José María Fernández García (called Txema) and our Swedish guide Vikki Bengtsson were with us during the whole trip. In addition, local rangers and officers from the Provincial Council of Gipuzkoa guided us at each site we visited and Txema and Dra. Ainhize Butron Mota translated all the information from Basque to English.

### 1.1 Visitor centre Iturraran in Pagoeta Natural Park headquarters



The visitor center of the Natural Park had exhibitions describing the natural and cultural values of the area. The human activity and management of the land in the area was the main focus of the exhibition. Animals and plants from the Natural Park were presented and old agricultural tools were shown. At the time of our visit, the personnel at the visitor center were teaching and guiding school groups in the field.

After our visit to the visitor's center we were driven in jeeps further up in the Natural Park. The first stop was at a plateau at about 600 meters above sea level. Here the landscape was well grazed with relatively few trees and bushes. Some restoration work had been carried out previously in the area, according to Txema. The area was grazed by Pottoka (an old domestic breed of black Basque horses) and cattle.





1.2 The Basque horses in their pastures

We continued slowly down the wooded slopes and stopped several times to discuss management of deciduous forests. We visited some demonstration sites where recent management work had been carried out. Encroachment of conifers in the wooded slopes is obviously a recurring problem.



1.3 Planted conifer forest with species that do not belong in the landscape.





1.4 Removal of young conifers growing from seeds in cleared patches

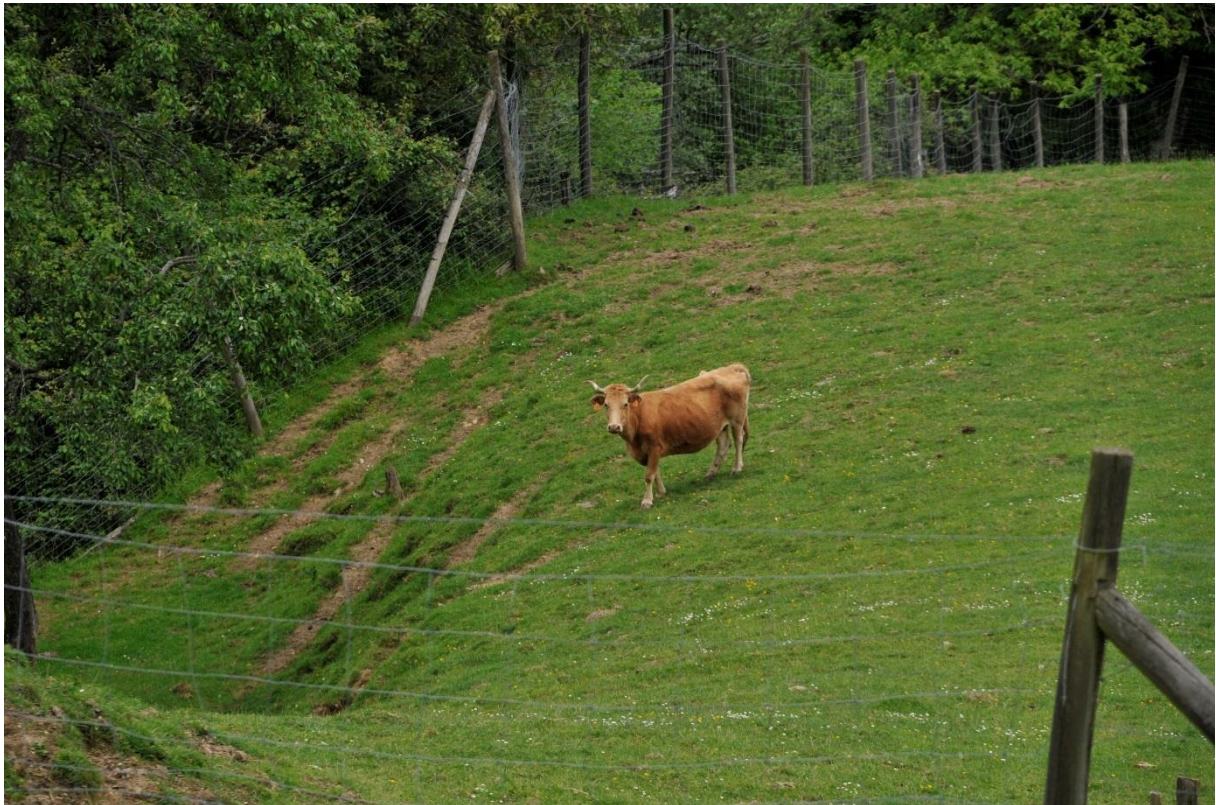




1.5 The flora which indicates that this area was once a rich deciduous forests, here a *Hellborus*

On the way to the next stop, a small farm was visited. At this farm they had an original Basque cattle breed named Betizu. This breed is very aggressive and can jump high. The fences were therefore particularly high at this farm. There are only about 500 individuals of this cattle breed left and 20 of these are found in Pagoeta. It is complicated to conserve this breed because it is so aggressive and the reproduction rate is low. This breed is however very important for the Basque culture and mythology. The Betizu was the ancestress to the Basque people in old myths and paintings.





1.6 Local breed of cattle the Betizu



1.7 Dinner conversation in four languages before moving on to the next Natural Park.



**Name of the area visited:** Aiako-Harria Natural Park, situated SE of San Sebastian.

**Administrative information:** Aiako-Harria is a Natura 2000-area and covers 6 913 hectares. It is situated at the foot of the Pyrenees about 10 kilometers from the sea. The proximity to the sea makes the 800 meter high mountains of the natural Park seem very impressive. This is the only granite massif in the Basque Country and it is the oldest mountain in the Basque Country. Two LIFE-projects have been conducted in the area: LIFE Trasmochos and LIFE Aiako Harria.

**History of the area visited:** In Aiako-Harria there are very many old mines and the mining assets in the area extend several kilometers. In the area there are still embankments (that were used for transportation during mining operations) and that are now used as hiking trails. In Aiako-Harria there are large areas with old pollards (mainly beech). The reason for the large amount of pollarded trees is because the branches were used for charcoal production. The charcoal was used in the Basque iron industry. There are many sites for charcoal production spread around the area. Under the leaves we could still see charcoal in the ground. When pollarding was active, it was carried out approximately every 15th year.



1.8 Dramatic mountain view from Aiako-Harria

**Ongoing management:** The largest parts of the area are grazed by cattle, sheep and horses. Within the area there are thousands of pollarded beech trees that are approximately 300-500 years old. Within an area of 200 hectares there are 25000 pollarded trees. There are also a few pollarded oak trees. Most of the trees in the area have not been pollarded since the early 20th century. In some areas beech trees have been planted and these will be pollarded when they are large enough.





1.9 Pollarded trees on the steep hills



1.10 Fantastic old trees and biologically important dead wood





1.11 The beetle, *Morimus funereus/asper*, inhabiting the forest of pollards.

We also visited an area where restoration of old pollarded trees had been carried out. Unfortunately many of these trees had died or had reduced vitality following the cutting. These areas can be replanted with young beech that can be pollarded when they are large enough. Red oak trees are also a problem in the area and this invasive tree species is spreading within the area. To reduce the red oak trees they have been ringbarked and felled.

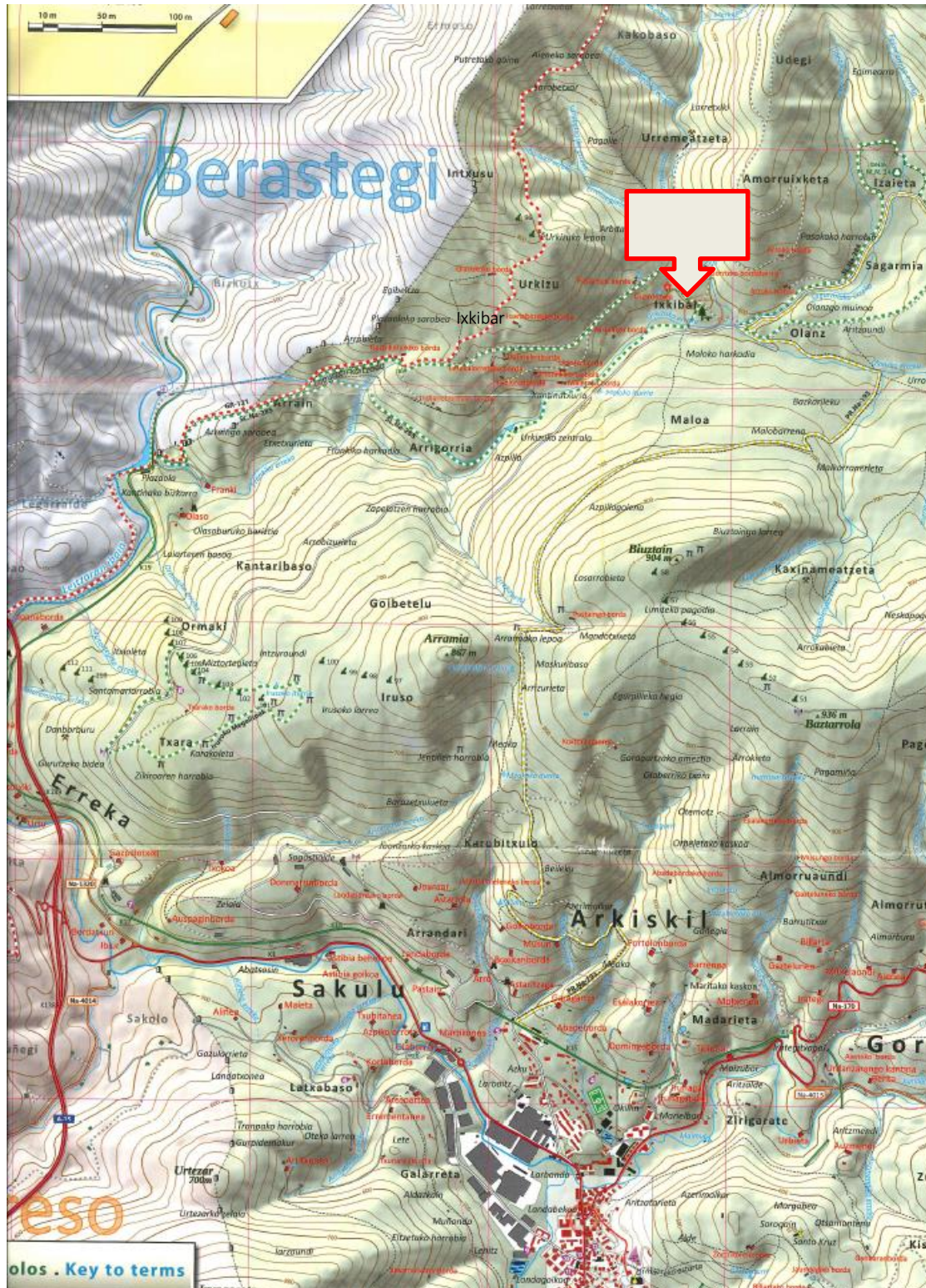
It is difficult to fill the age gap between the old pollarded trees and the young recently planted trees. There is therefore a big risk that several species associated with the old beech trees may be lost. The biggest challenge for the managers within the area is to make sure these big trees survive as long as possible and prevent them from falling apart. There is no particular plan for the tree management in the future and there is a significant risk of losing high conservation values. Large amounts of money would be required to save all of these pollarded trees.



1.12 The participants on the field trip in front of some of the trees managed in the LIFE-project, LIFE+ Biodiversity and Pollards. Thank You for sharing experiences from the After Life perspective when the results are in place and lessons learned!



**Day trip on 25th of May;** We travelled from Lietza to Ixkiba-Urkizu pasture, for the first stop and then to San Miguel de Aralar for a short visit and then back to Lietza



We stayed in Lietza where we met Jose Miguel Elosegui, a local enthusiast who is working voluntarily to keep the cultural heritage of the area including the pollards alive.





*2.1 Hotel Lopenea in the village of Leitza, where we stayed two nights and were well looked after with tasty meals and good service.*



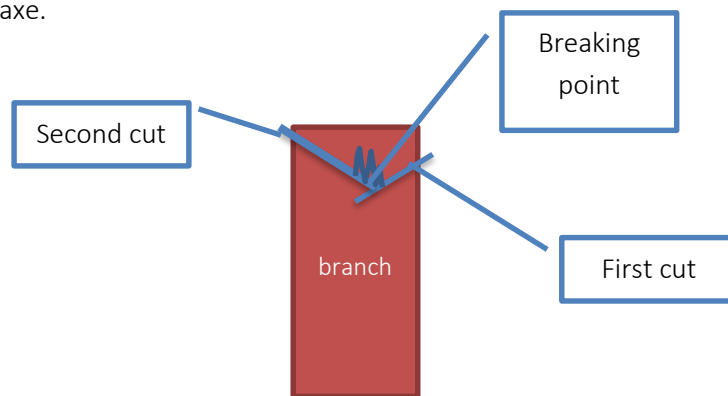
*2.2 Jose Miguel Elosegui and Vikki Bengtsson guiding us in the landscape.*



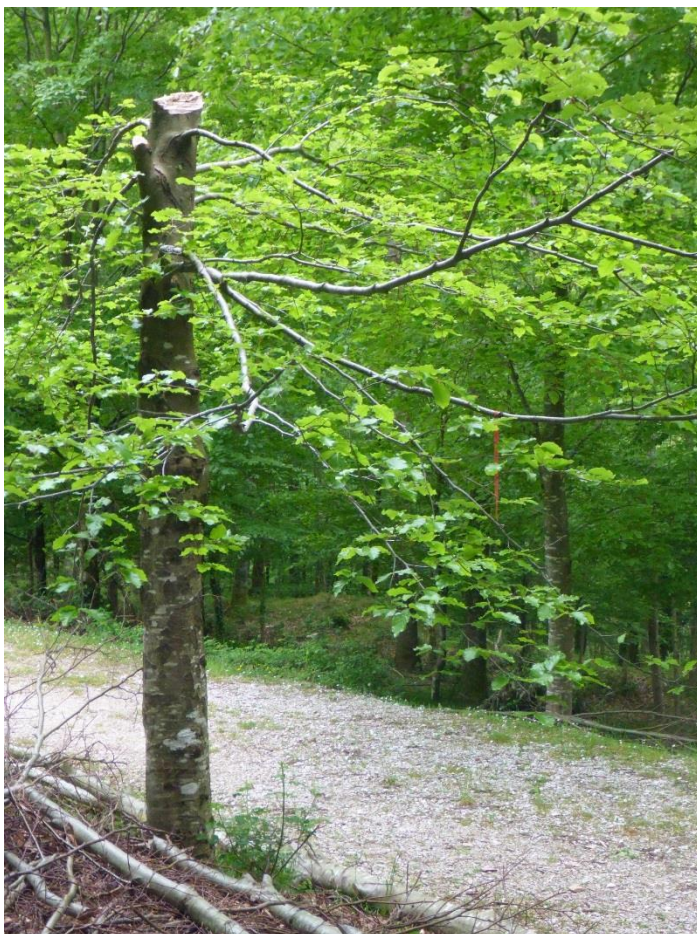
## Natural Parks and other natural areas visited

**Name of the area visited:** Urkizu rural landscape

After a short trip by car we stopped to look at the planted pollarded ash trees by the side of the road. Traditionally the trees are pollarded by axe but nowadays pollarding with a chainsaw is becoming more common. Vikki told us that studies have indicated that trees may respond better when pollarded using an axe.



*Sketch showing traditionally axe cut branches*



*2.3 Pollard managed by axe*





2.4 Branch cut by axe





*2.5 Gathering of thin and straight branches to support beans and other vegetables in cultivation.*

The branches that are taken are mainly used for supporting beans and other vegetables. The planted ash trees stand very close to one other and are quite young but due to the regular pollarding, they do not grow very fast either. Larger branches are used for firewood and some for axe handles. The ash trees are planted along countryside roads. Traditionally shepherds planted ash trees for fodder, but that is not so common anymore. Traditionally in the commons there were many different species of trees that were used for fruit, nuts, fodder and firewood. People were only allowed to pick fruit and nuts or take firewood and fodder by pollarding. It was forbidden to fell trees for timber which is why there are still large numbers of trees on the common grounds outside of the villages.

We left the car at Ixkibar and went for a walk through common pastures and grazed forests to Urkizu. There were both horses, cattle and sheep grazing in the common. On our walk we saw lots of pollarded beech and ash trees. Jose Miguel showed us a typical- *bordas*, a simple animal shed and a hut (txabola) for the shepherd and his animals.





2.6 Traditional *borda*, the animal shed at Urkizu





2.7 Tools used for managing the rural landscape



2.8 Signs put over the entrance to the *borda* to keep bad spirits out



In the old days the shepherds made cheese up here but nowadays the milk is transported down into the valley. Around the *bordas* there were ash trees and apple trees planted that are still in use for fodder and fruit. The ash trees are still pollarded by axe. The animal shed always has two doors where the animals, in the winter, can go inside and feed and a fenced area where they are not allowed to graze during the summer. At the *bordas* we could see a lot of different tools made of branches from the pollards. Bracken is harvested and used for animal bedding in the sheds- we looked closely at a stack of bracken outside the *bordas*. Bracken is well suited for bedding as it keeps parasites away. The compost is very good for gardening. Vikki told us that there are new entrepreneurs in Great Britain that are offering bracken compost for gardening. It could be a good idea to inspire bracken harvesting even in Sweden as there are quite a lot of pastures that have problems with bracken competing with several grassland species. See opportunities instead of problems!

We also learned that in this area where they have both very wet and dry periods they mainly use chestnut or robinia for fencing. According to their experience oak fences only work at sites where it is either dry or wet not both.



2.9 Grazing by horses and sheep in a common pasture area.





2.10 Fences with chestnut poles and some modern elements in the landscape



2.11 Lunch with the cows



At Urkiza Vikki and Miguel showed us old pollarded beeches which have been restored by British arborists 2006/2007. They had tried different methods both traditional Basque style with axes relatively low and British style with chainsaws at a greater height. They have been monitoring the measures since then and could see that the survival rate is a little higher here than in Oianleku.



2.12 Discussions about different pollarding styles





2.13 Recently pollarded ash tree





2.14 Area with abandoned pollards



2.15 Griffon vultures using thermal winds to gain height.

Suddenly about 15 griffon vultures circled above our heads- an impressive sight!





2.16 Landscape from the top of the hill

### **Restoration of old pollards according to Vikki's experience at Urkizu**

One important conclusion is that the decay process goes much faster if the restoration of the pollards (that are out of cycle) involves cutting them too hard. Vikki prefers therefore a more staged restoration of pollarded trees. Sometimes it is better to do nothing and let the natural processes take their course. A careful inventory of the trees has to be done before you can choose which trees are most likely able to survive. The survival rate is generally better if only up to 25% of the height is removed, but this is also dependent upon there being plenty of live growth below where you cut. This may often be enough to ensure the tree does not break apart because the weight of the crown is too large. Another aspect is time- it is important to have long term restoration plans where you can come back several times over a longer period if necessary.

Vikki explained that it is important to leave a stub when cutting the old pollards, particularly on beech. This improves the chances that new branches will grow below the cut and that these new branches will survive.

Nature conservation often has other aims than forestry or Park tree management.

On our way back we had a look at a little exhibition about Leitzalarreas nature and cultural traditions with information about grazing, ironworks and forestry



**Name of the area visited:** Aralar Natural Park

**Administrative information:** The Aralar Natural Park is located in the southeast of the province of Gipuzkoa and covers 10,956ha. This is a stunning beautiful mountainous area, with jutting limestone massif, rivers, streams, beech and oak forests and pasture land. The area is also home to an abundance of megalithic monuments such as dolmens, tumuli, cromlechs and menhirs.

**Other information about the area visited:** We then drove to San Miguel de Aralar and had a quick stop at a pasture near Baraibar, not included in the Natural Park but so very rich in species! We found several orchids and other species typical for calcareous pastures. Of course there were also bushes and pollarded ash trees.

On our way to San Miguel we also passed through more or less intensely grazed deciduous forests dominated by beech and oak. We saw more pollarded trees-mainly ash. At the monastery we had the chance to see both chough, alp gentian and other known and unknown species. The view was stunning!





2.17 Short stop at calcareous grassland with fabulous flora.





2.18 Euphorbia



2.19 Orchid



## Natural Parks and other natural areas visited

**Daytrip 26<sup>th</sup> of May 2016** From Leitzia - Urbasa-Andia Natural Park - Armañón visitor centre, Ordunte Mountains - Bilbao

**Name of the area visited:** Urbasa-Andia Natural Park

**Administrative information:** Natural Park included in the Natura2000 network. Area: 15 0000 hectare  
Altitude: Highest peak 1400 m. Precipitation: 1300 mm/year

**Ongoing management:** Partly Grazed. On our 10 minute stop we admired the view over the Andia mountain range and the flora of a semi-natural pasture on the calcareous bedrock.



3.1 Fantastic landscape high up in the mountains of Andia

**Name of the area visited:** Ordunte Mountains

### Visiting: Sustainable Ordunte LIFE 11 NAT/ES/704

**Administrative information:** Natura 2000 site since 2003. Area: 3800 hectares. Landowner: Mainly Caranza municipality. Situated in the most westerly part of the Basque Country. Altitude: Highest peak 1300 m. Precipitation: over 1300 mm/year.

**History of the area visited:** (Caranza part) During the 1840's the extensive iron industry in the area consumed lots of charcoal. This resulted in severe exploitation of the beech forests to get wood for charcoal. An increase in grazing during the first half of the 1900s caused further deforestation. Burning of land and forests to improve and create new pastures were part of the management alongside



pollarding to get firewood and leaf fodder. Increased exploitation of the land and extensive clear-cuts during the Civil War 1946-49 initiated erosion problems in the mountain area.

To prevent erosion problems extensive pine plantations (mainly *Pinus radiata* from California's west coast) were created during the 1960's and 70's. Eucalyptus (from Australia) were also planted. A shift in livestock farming from sheep to cattle as the predominant grazing animals has also led to more extensive trampling damage. The restoration of the beech forest started in the 1990s.

The southernmost blanket bog in Europe is also situated in the Ordunte Mountains. The area of the blanket bog has decreased, partly as a consequence of trampling damage by livestock.

### **Ongoing management:**

The project *Sustainable Ordunte LIFE* aims to:

- Restore the 3 hectare blanket bog habitat, by stabilising the perimeter area; bank regeneration; and the modification of certain impacts on the channels through which it drains.
- Promote sustainable pasture use, by introducing livestock management guidelines.
- Promote natural woodland recovery, by eliminating pine and eucalyptus plantations with less productivity, to allow the recovery of beech.
- Improve the structural complexity of the Pyrenean oak forest and its resilience.
- Promote the socio-economic development of the area, by boosting public use of the area, in ways compatible with the conservation of the SCIs natural resources
- Raise awareness about the natural values of the location and what is involved in becoming part of the Natura 2000 network.





3.2 Our guide Txema explains the natural values and tell us about the project management.



Stabilisation of the blanket bog has started, construction with a wood frame to stop the erosion have been made. Livestock has been fenced out from the bog and the peat has been stabilised with a wood framework to promote erosion. Since the bog is situated in a remote area of Ordunte Mountains we got to see the blanket bog through mist and clouds from the opposite side of the valley.



3.3 The landscape is hilly and it is easy to understand that erosion has been a major threat in the Ordunte Mountains

We visited some restored woodland areas. In some areas *Pinus radiata* had been removed and the open spaces were left to regenerate with new natural forests. In another area a eucalyptus plantation was removed and beech trees planted to regenerate a new beech-forest. We had an interesting discussion with our Basque colleagues regarding alternatives when restoring forests. How many trees need to be planted per hectare? Should plants be placed randomly or in groups?

Threats against nature: Overgrazing, trampling damage and uncontrolled fires that lead to erosion damage.





3.4 Plantation with deciduous forest restoring the natural landscape and species.



3.5 The steep slopes of the mountains can be seen here, the group discussing plantations and what is



a natural forest. The Swedish project team also had their mind in “how do they undertake this management when it is so steep?”



3.6 Between two management areas we had to stop, Vikki spotted a coppice wood! A kind of harvesting of wood from low tree stumps. This place is abandoned and it is unclear if it would be possible to start cutting the trees again or if the trees might die.

**Other information about the area visited:** We also visited the Armañón visitor centre situated in a former stone crusher.



3.7 View from the visitor center





3.8 Thank You project team from LIFE+ Sustainable Ordunte for having us and so generously sharing your experiences and challenges in performing the project actions.