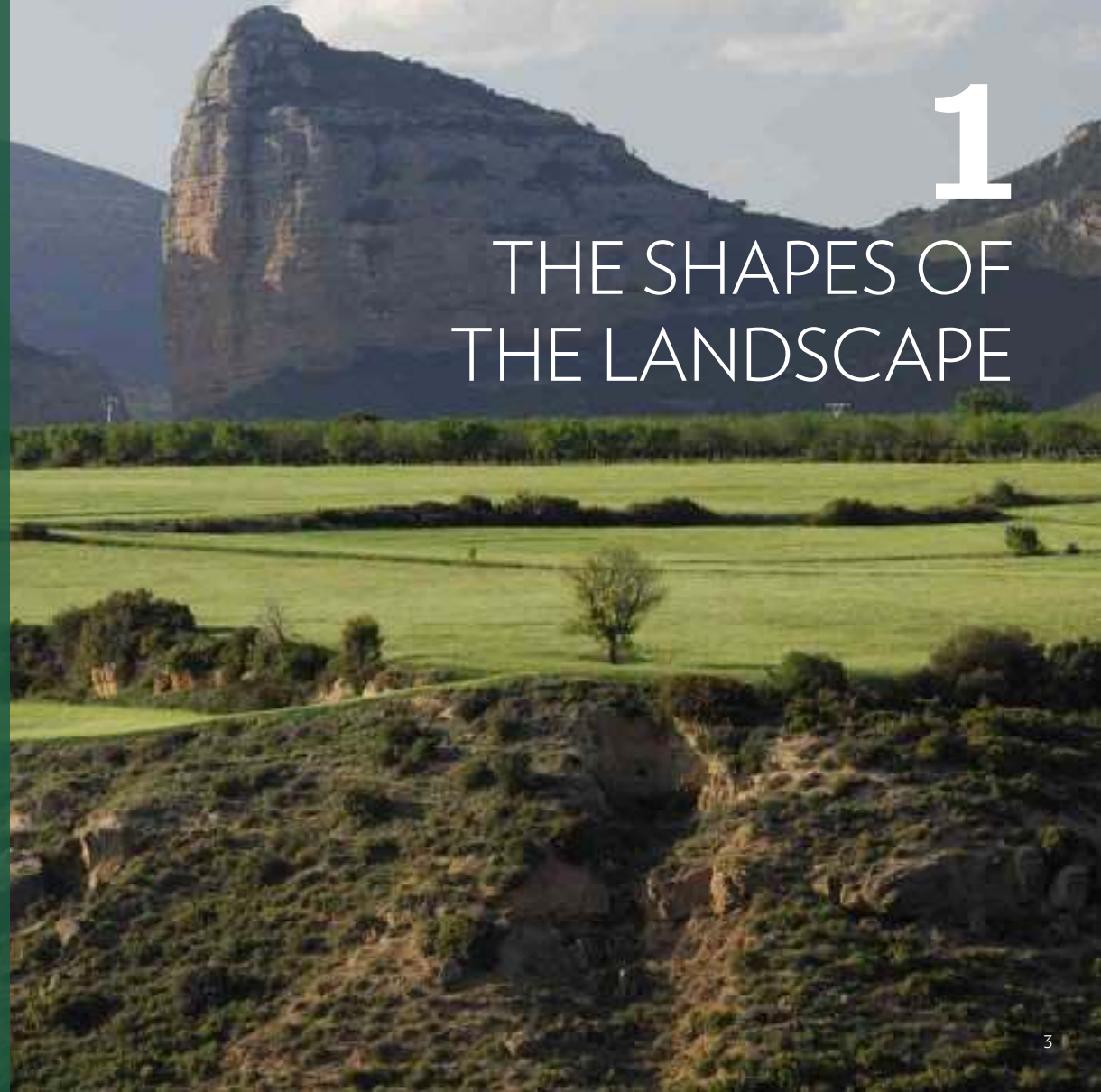
hoya de huesca

Come and See

NATURE

hoya de huesca



1
THE SHAPES OF THE LANDSCAPE

1.1 Location

The region of La Hoya de Huesca, encased between the pre-Pyrenean mountain ranges and the Ebro depression, is located in the north of the autonomous region of Aragon, in the central-western sector of the province of Huesca. Huesca, the capital of La Hoya and the second most important city in Aragon, is located practically in the centre of the region and stands as a pivotal communication hub, in an area that has traditionally accommodated cultural convergence and socio-economic exchange in the foothill by the foot of the Pyrenees.

Sandstone

The pre-Pyrenean mountain ranges are the Pyrenees' southernmost mountainous border. The sharp, steep hills, often accompanied by abrupt façades outlined by spectacular mallos, tower up over the prairies of the Ebro depression. A plain that spreads out under a stunning backdrop: the last Pyrenean foothills. The mountain-plain ensemble appears regularly throughout the whole of the territory in La Hoya de Huesca, since these landforms are the genuine trademark of the region both for its inhabitants and for tourists. However, this stability does not stand for simplicity. La Hoya de Huesca accommodates a diverse ensemble of landscapes and ecosystems, noted for their excellence and geographic relevance. Consequently, some of the most emblematic elements in the region, such as **Mallos de Riglos (Riglos cliffs) or the canyons of the Sierra de Guara (Guara Mountain Range), are known all over the world.**

Mallos de Riglos

1.2 Relief. Landscape and geodiversity

Three large natural units shape Aragon's outline from north to south –the Pyrenees, the Ebro depression and the Iberian System–; the first two are located in the region of La Hoya de Huesca. Their main features appear repeatedly throughout this territory in the shape of foothills and mountain ranges, as a prelude to the plains and to the mountains.

Learning about the geology of a territory, in other words, learning how the relief is formed and shaped, reveals thrilling secrets that attract both researchers and students, and also the host of visitors that travel to the region. Therefore, our range of quality tourist activities has recently expanded to include the geological and geomorphologic resources of our land. Most importantly, our geodiversity acts as the backbone of the landscape that surrounds us, delights us and provides us with a way of life.

Marls

Foz de Salinas

1.3 Pre-Pyrenean mountain ranges and mallos

The northernmost section of La Hoya de Huesca accommodates a long, continuous line of pre-Pyrenean mountain ranges, mainly with a WNW-ESE orientation.

This steep mountain structure is formed by calcareous marine rocks that rise up over 1500 m above sea level: **Santo Domingo, Loarre, Caballera, Gratal, Águila, Gabardiella and Guara.** The latter towers at 2077 m, making it not only the highest peak in the region, but also the highest summit in the whole of the Exterior Pyrenean Mountain Ranges.

Limestones

Sierra de Guara is the paradigm of pre-Pyrenean mountain ranges in the region, a unique mountain enclave with stunning geological value. The main lithology consists of a mass of folded Eocene limestone rocks, which originated from a shallow warm water marine platform. Evidence of its origin appears in the numerous fossils that have been found in the area. These limestones show intense karstification –dissolution of the carbonate rock due to superficial or subterranean water–, which has led to recognisable formations such as the spectacular fluviokarstic canyons of rivers Flumen, Guatizalema, Calcón and Formiga, and the bare limestone pavements that have appeared on summits and slopes –such as the large Paco Adriana formation in Belsué–, the sinkholes in the Cupierlo plains, the poljes or large depressions between Tozal and Cabeza de Guara –Abeles and Fenales–, and an endokarst that accommodates magnificent subterranean stalactites and stalagmites –chasms and pits such as the caves of Los Murciélagos, Toro, Esteban Felipe, San Clemente, Grallera Alta, Chaves or Solencio de Bastarás, the latter being the largest cavity in La Hoya, with an 8 km itinerary.

This area of climatic and bio-geographic transition acted as a historical border during the Upper Middle Ages. The aesthetic, historical and natural value of the pre-Pyrenean mountain ranges attracts visitors to the region with a host of tourist, sport and recreational offers.

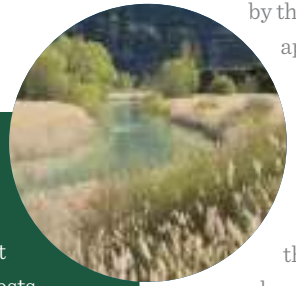
As they flow towards the Ebro depression, several rivers cut through the pre-Pyrenean mountain ranges from north to south, creating deep valleys and narrow fluviokarst canyons which have acquired well-deserved fame in Sierra de Guara. **The courses of rivers Gállego –celebrated by white water enthusiasts–, Isuela, Flumen and Guatizalema** are the most important in terms of their presence in the region; although many other tributary rivers and ravines have eroded the territory creating pivotal formations and stunning carvings –**gorges in Salinas and Escalete, river Sotón, Calcón and Formiga,** the latter is the setting for one of La Hoya de Huesca's busiest ravine descents.

River Flumen

Circular route around the Santa María reservoir in Belsué

Distance: 14.3 km
Positive slope: 853 m
Negative slope: 853 m
Maximum altitude: 1180 m
Minimum altitude: 841 m
Itinerary: Santa María reservoir in Belsué-Belsué Dolmen-Toro Cave-Santa María reservoir in Belsué. Circuit around the Cienfuens cliffs, in the Parque Natural de Sierra y Cañones de Guara (Sierra de Guara Nature Park).

1.3 Pre-Pyrenean mountain ranges and mallos



River Gállego measures 203 km and is one of the Ebro's most important tributaries on the left margin. The river source is located by the Portalet mountain pass, next to the borderline crests of the Pyrenees, and its estuary is located in the city of Saragossa itself. The river course traverses the mountains of the Tena and the Serrablo Valleys, in the region of Alto Gállego; the pre-Pyrenean mountain ranges, Galliguera and La Violada, in La Hoya de Huesca; and Bajo Gállego in the territorial region of Zaragoza. After entering La Hoya through the contemporary La Peña reservoir, river Gállego continues towards the mountain ranges of Santo Domingo and Loarre, perforating the stunning La Gorgocha pass between the aforementioned reservoir and Mallos de Riglos. From the Carcavilla station to the Ardisa reservoir, river Gállego presents a very natural state, with a white water section which annually attracts thousands of people that enjoy rafting, canoeing or hydro-speeding the waves, whirls and currents.

Immediately north of the calcareous line formed by the pre-Pyrenean mountain ranges appears a series of monoclinal reliefs, i.e. reliefs with considerable slopes. They differ greatly in their lithologic nature: detrital material –lutite, sandstone and conglomerate– which creates the intermediate pre-Pyrenean depression (Jaca-Sabiñánigo). The horizontal brown and ochre rocks, which stand out on the landscape by the busy Monrepós mountain pass, rise up to moderate heights north of the La Peña reservoir –slightly over 1000 m–, and reach considerable heights near Monrepós, where the **Javierre, Bonés and Belarra** mountain ranges climb to around 1500 m. These mountain ranges and the pre-Pyrenean systems (Santo Domingo, Loarre, Gratal, Guara...) are separated by a series of parallel depressions, corridors excavated by the grey-blue marls of the **valley of river Asabón, La Peña reservoir, Garona valley, the reservoirs of Arguis and Belsué, and the Nocito-Bara depression.**

River Gállego. La Gorgocha Pass

1.3 Pre-Pyrenean mountain ranges and mallos

The erosion and deterioration of the pre-Pyrenean mountain ranges has created an enormous amount of sediments that have been pushed towards the border of the mountain range by the Ebro depression and modelled into very peculiar shapes: the mallos. These spectacular towering conglomerates are one of the most interesting attractions of La Hoya's landscape and are known as **Agüero, Peña Rueba, Riglos, San Cristóbal, San Julián de Lierta, Salto de Roldán, Val d'Onsera, Vadiello, San Cosme and San Damián, and Santa Cilia de Panzano.**

Circular route around Mallos de Agüero

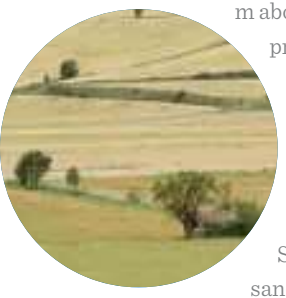
Distance: 2.75 km
Positive slope: 300 m
Negative slope: 300 m
Maximum altitude: 857 m
Minimum altitude: 717 m
Itinerary: Agüero-Collado de Pedro-Agüero.

Mallos de Agüero

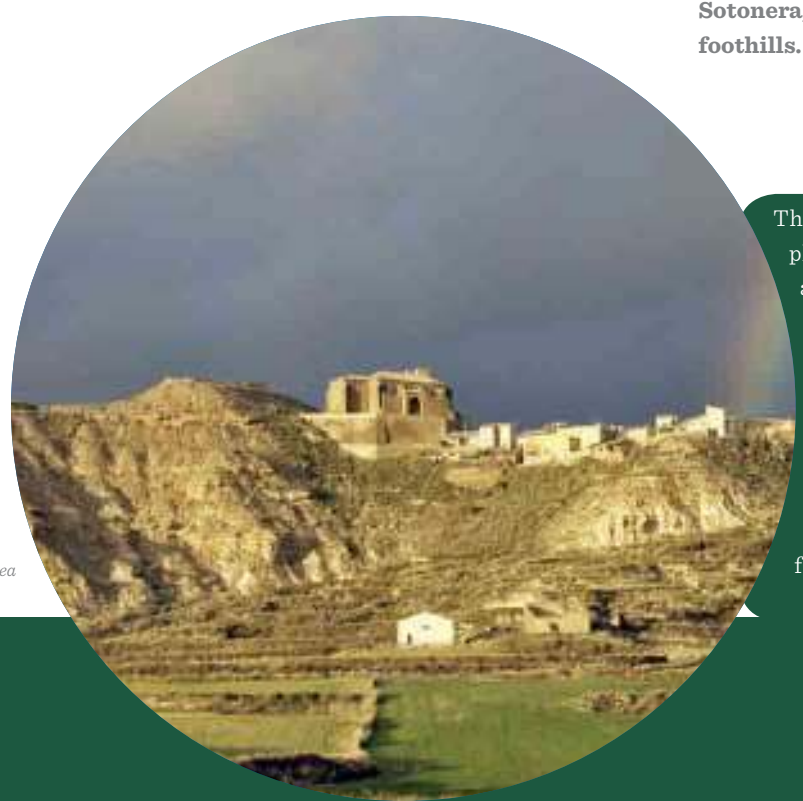
Mallos de Riglos are one of La Hoya's most famous landmarks. The mallos were formed as torrential rivers deposited large amounts of blocks, gravel and sand when the Pyrenees were created after the Alpine folding. They stand witness to nature's huge patience. It has only taken 6 million years to create these spectacular forms. The vertical structures rise up over 300 metres, three times taller than the towers in the Pilar Basilica in Zaragoza, making them a genuine delight for mountain climbers from all over the world. The mallos also have individual names: Firé, Pisón and Puro, Visera, Cuchillo, Colorado, etc.
When equipped with a good pair of binoculars, the mallos are the perfect location to catch sight of birds of prey. Mallo "Arcaz" or "Pared de los Buitres" are the best places for bird-watching.

1.4 The Flat Land. Foothills, *sasos* (uplands), *vales* (ravines with flat bottoms and steep hillsides) and sandstones

South of the mountain ranges and of the border outlined by the picturesque mallos, the relief drops in altitude and vigour. In the mountains of Huesca, the plains of the Ebro depression are known as **"Tierra Plana"** (The Flat Land). Apart from the mountain ranges around Santa Eulalia de Gállego (Sierra Mayor stands around 1000 m), the area located east of the valley and the terraces of river Gállego rarely exceeds 700 m above sea level, and shows a predominance of smooth, wavy topographies. Oligocene and Miocene sedimentary material filled this large basin located between the Pyrenees and the Iberian System. Conglomerates and sandstones appear in the margins, and chemical precipitates –such as marls, plaster and different calcareous strata– can be found in the centre of the depression.



The different lithologies and shapes, the climatic contrasts and the dryness, the scarce vegetation and the secular uses of the soil have configured different landscapes in an area that presents homogeneous physiographic characteristics and has been used mainly for farming and cattle breeding.



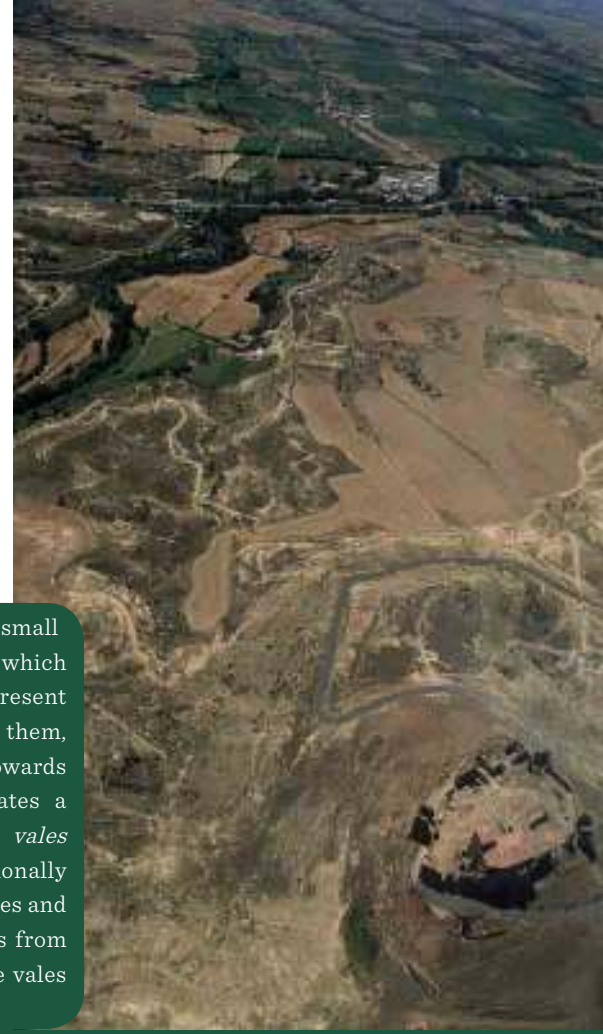
Outlier crowned by the Collegiate Church of Bolea

Vast plains spread out from the Pyrenean foothill and gently descend towards the centre of the depression or towards the valleys created by the Ebro's main tributaries, including river Gállego.

These *glacis* or *sasos* (uplands) –vast ramps or plains with a gentle upward inclination– were formed by elements deposited after floods. These characteristic geoforms appear frequently in **La Sotonera, around Huesca and in the Guara foothills.**

Sasos at the foot of Montearagón

The river water dissects and reveals small plains and characteristic outliers, which are mostly barren although some present Mediterranean shrubbery. Beneath them, the rocky *glacis* (uplands) stagger towards the background, which accommodates a network of flat-bottom silt-filled *vales* (ravines). *Glacis* (uplands) are traditionally used for woody crops –vines, olive trees and almond trees–, as the soils suffer less from frost and thermal inversion, whilst the vales are used for cereal crops.



1.4 The Flat Land. Foothills, *sasos* (uplands), *vales* (ravines with flat bottoms and steep hillsides) and sandstones

The most resistant rocks outline the region's few escarpments, with small slopes appearing in the sandstones along the Cuesta de Almudévar (Saso Plano, Torre Lierta), and the pre-Monegros structural platforms (the small mountain ranges of Piracés and Tramaced), or the limestones atop the mounds located southwest of La Hoya de Huesca, where the region borders with the Pedrosas mountain range and Montes de Zuera **(La Lomaza de Gurrea de Gállego).**

This physical structure also accommodates several high salinity endorheic enclaves, most notably in the **La Violada plains.** The introduction of irrigation and the promotion of the villages by the National Institute of Rural Development and Colonization –Artasona, Valsalada– carried out over the last few decades has changed the landscape's original appearance in terms of the crops and the road networks, but also its physiology, since the soil has been levelled and drained to adapt it to this new function.

The Flat Land, south of the pre-Pyrenean mountain ranges

Sandstone hills and banks predominate the southwest of the region, in an almost imperceptible transition towards the Monegros steppes, where differential erosion has modelled capricious and extremely photogenic morphologies in the small mountain ranges of **Piracés and Tramaced.** Sandstone is a sedimentary rock formed by clasts of sand, predominantly grains of quartz. It abounds in the natural environment and varies greatly in colour. Landscapes dominated by this stone show a palette of different shades: from red in El Rodeno in Teruel to ochre or yellow in La Hoya de Huesca.

Small mountain ranges of Piracés and Tramaced

1.4 The Flat Land. Foothills, *sasos* (uplands), *vales* (ravines with flat bottoms and steep hillsides) and sandstones

Sandstone acquires great resistance when accompanied by layers of clay, in which case it pushes through the soft rocks, often quite whimsically. However, this grainy rock is quite porous and is affected easily by erosion and sanding. Among other morphologies, sandstone experiences cavernous alterations which lead to the appearance of numerous cavities, called tafonis, cells or honeycombs. This phenomenon also affects the sandstone ashlars used to construct many of the monuments in the region, and has been denominated **"stone illness."**

Tafonis

Route to Peña Mediodía

Distance: 0.32 km
Positive slope: 32 m.
Negative slope: 7 m
Maximum altitude: 494 m
Minimum altitude: 469 m
Itinerary: Road to Piracés-Peña Mediodía. This is a side trip from the Serreta de Tramaced Bird Watching Route.

TRANS-PYRENEAN GEOLOGICAL ROUTE

La Hoya de Huesca offers excellent itineraries that promote the protection and the dissemination of the geodiversity, such as the Aspe-Alto Aragón Trans-Pyrenean Geological Route, which consists of three rest areas with information panels in the region. Namely:

The Eocene sea: foraminifera soup. The panel is located at the La Peña reservoir, by the lake, next to the entrance to the tunnel by road A-132. The sediments and fossils in this location make it easy to reconstruct the environment in which the Eocene limestones were deposited during the formation of Guara: a shallow warm water sea bottom with accumulations of foram shells (nummulites and foraminifera).

The Sierras Exteriores (outer mountain ranges): the gateway to the Pyrenees. Parking at road A-132, between Mallos de Riglos and La Peña reservoir. The Sierras Exteriores de los Pirineos (Pyrenean Outer Mountain Ranges) are the southernmost hills generated by the clash of two tectonic plates: the Iberian and the European plates. The Alpine orogeny that generated these pre-Pyrenean mountain ranges created a strange fan-like structure.

Conglomerate giants. The rest area and the panel are located at the top of the locality of Murillo de Gállego, in a kiddie play area. Major alluvial fans appeared during the Tertiary Period caused by the destruction of the Outer Mountain Ranges. The conglomerate deposits were eroded during the Quaternary and gave way to spectacular morphologies: the mallos.

1.5 R 1. From Villalangua to Foz de Salinas and Agüero

The route coincides with trail PR-HU 97 which departs from the village of Villalangua (642 m). After crossing river Asabón, the trail heads towards Foz de Salinas, a stunning structure that is visible at all times. After crossing the ravine that descends from Foz, the trail climbs up along the left bank of the torrent. The route connects with the trail that comes from Salinas de Jaca under the vertical limestone strata. It soon leads to an old bridge, located under an exceptional waterfall. After several bends, the itinerary enters a Portuguese oak grove and reaches the ruins of Salinas Viejo (910 m; 1 h 10 min), whose population moved to the new village of Salinas de Jaca in the 1950s.

The trail turns left (SW) and upwards through a pine forest to Portillo d'a Osqueta (1175 m; 1 h 50 min). There is a signpost for Fuencalderas and Biel indicating W (right), but the PR trail continues E (left) along a rock corridor and then descends to a track, by Rasiello hill. The trail continues along the track to an intersection, there the trail continues right along an old path to Picha hill (1085 m; 2 h 30 min).

This classical trail crosses the eastern end of the Santo Domingo mountain range, visiting locations as emblematic and spectacular as Foz de Salinas, the unique Portillo d'a Osqueta and Mallos de Agüero.

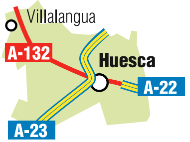
The landscape is subsequently a succession of low hills, pine forests and the charred remains of a forest fire. Descending down the summit of Articas de Claudio, the trail reaches a crossing on the right that descends towards a track. The trail continues leftwards to the Corral de Blasico (3 h 5 min).

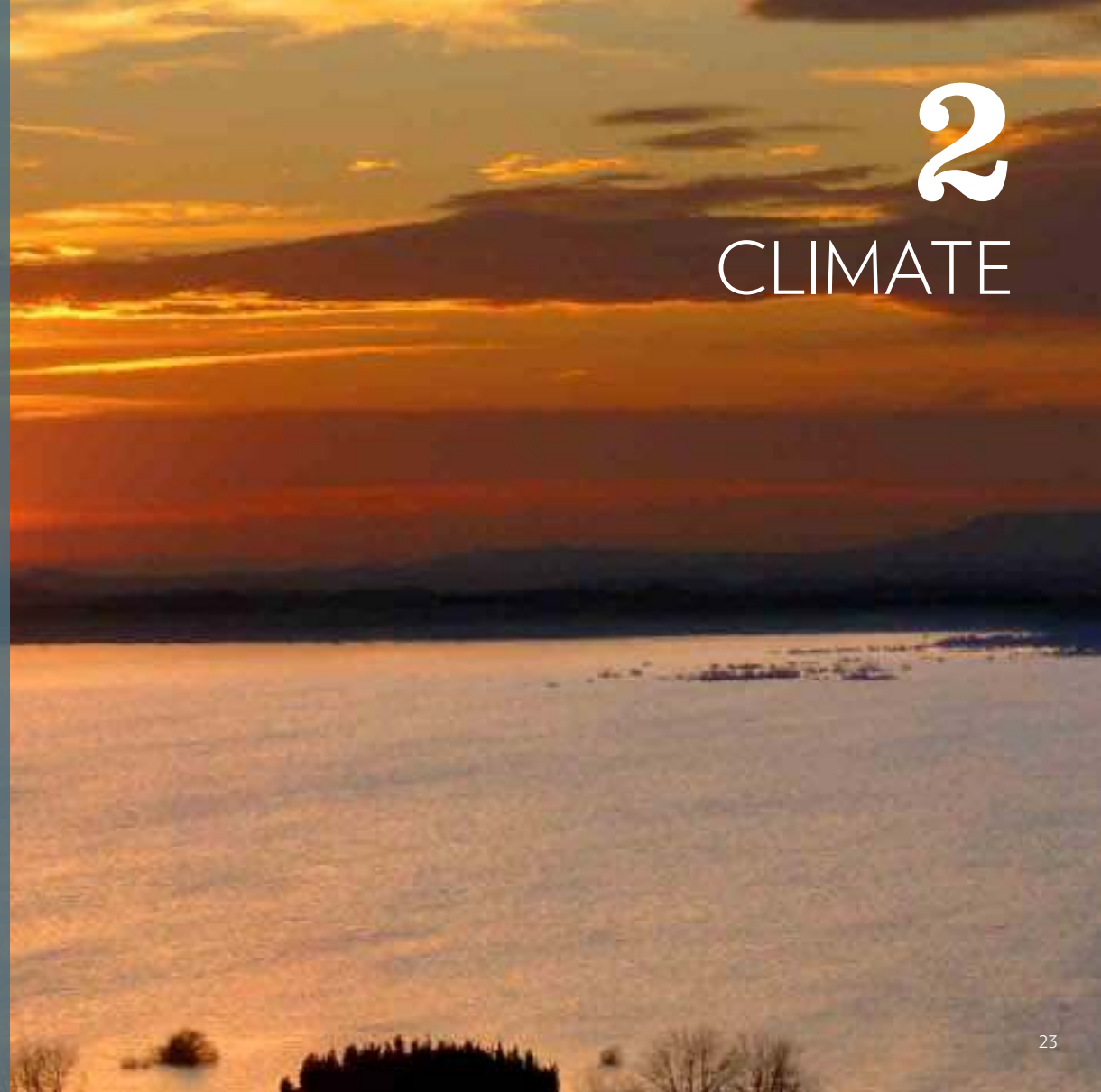
Further down, the trail reaches and crosses the Castillo Mango ravine. The trail passes by Al Foraz cave, located on a straight, and then connects with a track that loops up from the Pituelo ravine. A destroyed tile factory appears to the left (4 h). The trail continues on and intersects with the circular route around Mallos de Agüero. The trail follows the path that surrounds the mallos and leads to the top of Agüero (720 m; 4 h 25 min).

Distance: 12.7 km
Positive slope: 770 m
Negative slope: 610 m
Maximum altitude: 1175 m
Minimum altitude: 610 m

Salinas Viejo

Dog roses





2
CLIMATE

2.1 From the Atlantic to the Mediterranean

Aragon is located in a climatic crossroads, being the southern limit of the mild European area, but still in contact with subtropical masses. This superficial outline determines seasonal weather swings which, from October to May, bring rainy fronts typical of Northern Europe, although during the summer months the Azores High brings heat and atmospheric stability, which is only interrupted by stormy episodes caused by the warm soil. The preponderance of one or another situation determines the appearance of genuine Atlantic weather conditions (high relative dampness and heavy rainfall, inherent to the north of the province of Huesca) or Mediterranean conditions (dry summer and irregular rainfall, typical of the south of the province of Huesca and the rest of Aragon).

The rainfall in the region decreases gradually from north to south

The Atlantic influence that affects the Pyrenean valleys located near France is dispelled gradually towards the south of the province of Huesca, until it disappears completely at the gateway to the capital of the region. This is caused by the "Foehn effect" which creates major rainfall differences between the windward and leeward slopes, which leads to progressive moisture reduction in the masses of air as they cross the mountain peaks from north to south.

Overall, La Hoya de Huesca acts as a border, or a meeting point, between the two aforementioned environments. These weather conditions divide the region into two main areas, as if it were an Aragonese microclimate: a northern mountainous area that is cool and quite damp (pre-Pyrenean mountain ranges) and a predominantly flat southern area (Ebro depression) with scarce rainfall and higher temperatures, particularly during the summer.

2.2 Rainfall decreases from north to south

The rainfall gradient changes spectacularly in a few kilometres: whilst the rainfall readings in Candanchú, by the border, range around 2000 mm/year, the La Peña reservoir does not reach 800 mm/year (Nocito, at the foot of the top of the region in Tozal de Guara recorded slightly over 900 mm/year). These two values, which are typical of the shady side of the pre-Pyrenean mountain ranges located to the north of La Hoya de Huesca, are still higher than those recorded in La Sotonera and the city of Huesca, south of this mountain line, with figures around 500 mm/year.

The Pyrenean foothills, the prelude to the steppes in the centre of the Ebro depression, already start to show traces of the continental Mediterranean climate typical of Aragon's flat, semi-dry lands, with summer droughts, low rainfall and contrasting temperatures.

This dramatic transition underlines the major role of the region's pre-Pyrenean mountain ranges as genuine islands of dampness.

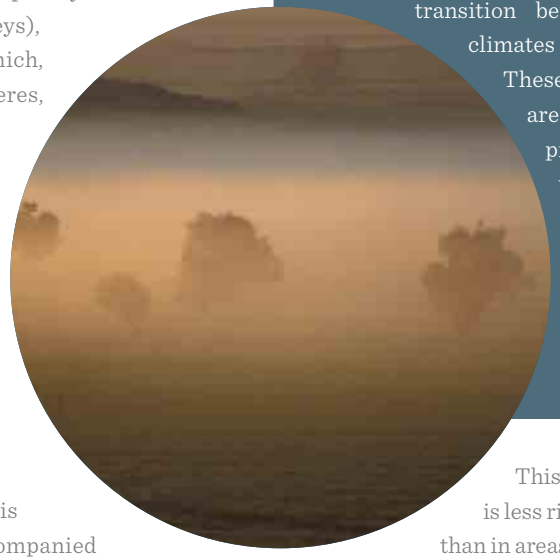
Rainbow in Loporzano

As the last obstacle to ocean dampness, the pre-Pyrenean mountain ranges accommodate small beech forests, typical Atlantic forests, in the shady sides of the mountain ranges of Santo Domingo, Peiró-Gratal or Guara, which are exposed to rainy fronts and fog banks.

The pre-Pyrenean mountain ranges are genuine islands of dampness.

2.3 Fog and ice

The partition of the relief topographically defines the presence of dolines and basins (Ebro depression and pre-Pyrenean mountain range valleys), depressed sectors which, with stable atmospheres, cause cold air damming at night in late autumn and during the winter months. This creates **thermal inversions,** which can make temperatures drop to values lower than in the surrounding mountain ranges. This inversion can be accompanied by nocturnal **radiation fog,** which is particularly stunning when observed from above, such as from the summits of mallos or mountain ranges.



The foothills of the mountain ranges mark the transition between the two major climates in La Hoya de Huesca. These south-facing lands are bright and are actually protected from north winds by the mountain ranges, which prevent the thermal inversions that, predominantly, affect the Ebro depression.

This Mediterranean climate is less rigorous or continental than in areas located more to the south and at lower altitudes, as noted, for instance, in the vegetation and crops in the foothills in Agüero, Bolea and Guara which experience shorter and fewer frost falls.

Frozen fog or "dorondón" (frost)

2.4 Temperature and wind

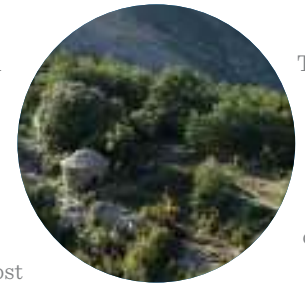
Temperatures are also divided by the same general structure that distinguishes the two main geographical units in the region: mountain ranges (N) and plains (S). The peaks of the mountain ranges in the northern sector present an average annual isotherm reading of 7°C, whilst a good part of the plains record average temperatures above 12 and 13°C. July is the hottest month, with average temperatures above 20°C in most of the territory. The average maximum temperature exceeds 25°C in July, and even reaches 30°C in the areas of the Ebro depression. January is the coldest month, but values always stand above 3°C. Although frost is frequent in winter, the average minimum temperature is not too extreme: temperatures only drop below 0°C north of the pre-Pyrenean mountain ranges and in some areas of river Flumen that experience thermal inversions.

In Fornillos, the coldest month records average temperatures above 3°C

Storm at Salto de Roldán

Wind is another important element. It has two main sources or components: WNW and ESE, which coincide with the main direction of the topography of the pre-Pyrenean mountain ranges and the other mountainous reliefs in the region. The Cierzo wind blows in the first direction. This dry wind is cold during the winter and cool in the summer, and can exceed 100 km/h. The wind with the latter component is called *bochorno*, and appears typically during the summer months and brings high temperatures and a suffocating sensation.

2.5 R 2. Sierra de Bonés

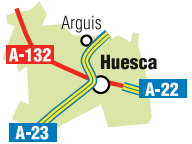


The route commences in Arguis, and should include a visit to the Nature Park Interpretation Centre. The trail departs from the old Monrepós road, to the west of the locality. About 1.1 km from the village, before reaching Casa de Fondanito, a signpost to Bonés appears on the left, marked as S-10 (1120 m). The route climbs up between boxes and Portuguese Oaks, and preserves part of the old cobbled paving. As the trail climbs along the old road it intersects with the Serralbo gas pipe line. The path soon comes to the hill of the Bonés mountain range, covered in boxes, juniper trees and shrubs (echinospartum horridum) (1421 m; 1 h from the road).

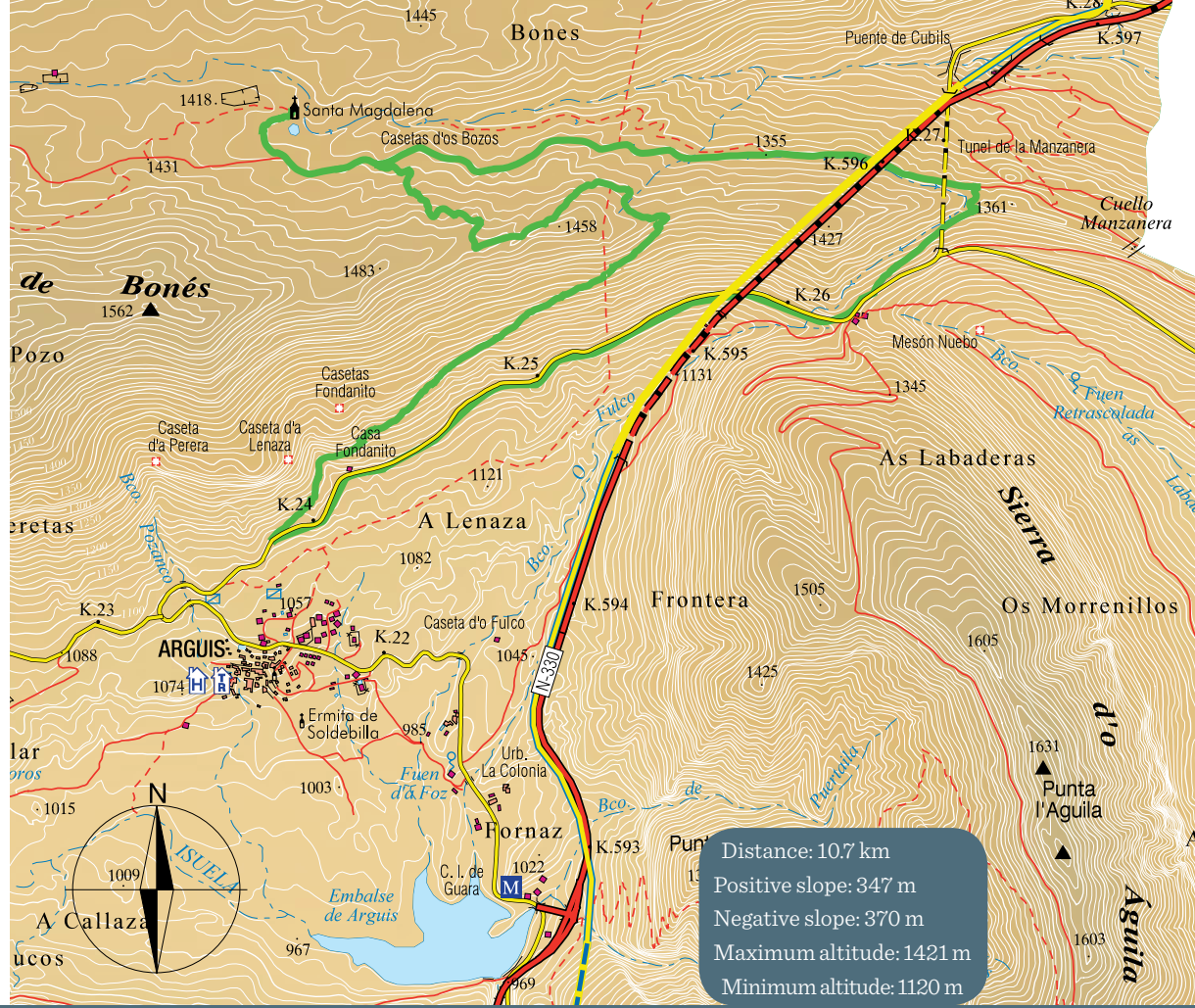
The descent towards the Bonés valley is a pleasant walk, along a shady pine forest dotted with beech trees, and a large Scots pine tree located by the path. The trail then reaches the Bonés trail, after a 30-minute walk from the top of the mountain range. The itinerary climbs the trail leftwards.

The hermitage of La Magdalena (1400 m) appears after 10 minutes. River Flumen flows under the hermitage, with a considerable water level thanks to contributions from several springs.

The route then continues down the valley along the Bonés path to return to Arguis. A 15-minute walk from Santa Magdalena leads back to the gas pipe line and then to a small marker that identifies the irrigation ditch that transfers water from the Flumen to the Isuela. Without reaching the high-voltage transmission line, the trail turns right along a path which was formerly an important thoroughfare towards the interior of the Pyrenees. Some sections are very well preserved, including the one down to the La Manzanera pass or Mesón Nuebo (1260 m). The route then turns back to the point of departure along the road.



This pleasant route leads to Bonés, a small valley where river Flumen is born. The itinerary reveals the contrasting vegetation between the sunny locations and the shady areas. The views over the Arguis basin and the Águila Guara and Gratal mountain ranges are stunning.



Distance: 10.7 km
Positive slope: 347 m
Negative slope: 370 m
Maximum altitude: 1421 m
Minimum altitude: 1120 m

hoya de huesca

3
VEGETATION

3.1 Bioclimatic border

La Hoya de Huesca also presents a bioclimatic transition between the Pyrenees and the Ebro depression. As noted in the weather section, the pre-Pyrenean mountain ranges present a unique combination of Atlantic and continental environments, between the Pyrenean (Alpine) and Mediterranean species, a phenomenon that populates the region with a stunning ensemble of ecosystems. Furthermore, the intricate orography, the high mountain altitudes and the steep slopes that appear between hill tops and plains have fuelled the appearance of peculiar micro-climates and ecological niches that have favoured the appearance of interesting endemisms. In addition, the mountain ranges in the region sometimes stand as the southern border for the distribution of some Pyrenean species.

King's Crown flower

Plants exclusive to rocks.

For instance, the area accommodates two highly specialised and exclusive small plants, which are both included in the Aragon list of endangered species: the gleras on the northern side of Tozal de Guara and Gabardiella mountain range accommodate the flower *Aquilegia pyrenaica guarensis*; whilst the *Petrocoptis montserratii* hangs literally from the walls and projections of Mallos de Riglos and Agüero, with pretty white or pinkish flowers which do not have a common name. Other more popular species include the bear's ear and **King's Crown,** two plants that appear frequently in the mountain gorges.

Honeysuckle

The predominant vegetation includes Holm oak groves and strawberry tree groves at the foot of the mountain ranges and sunny areas, whilst the Portuguese oak or Scots pine flee from high temperatures and draughts and appear above the Holm oak groves or in the fresher hillsides. Some shady mountain areas accommodate small beech groves, which are very valuable in this geographical context, alongside two extraordinary habitats: *gleras* (stony areas) and the walls of *foces* (gorges) and canyons. These biotypes, which are the most inaccessible, isolated and extreme, accommodate endemic and singular species, which are few and far between in the Iberian Peninsula.

Globularia repens

Rusco

3.2 Pre-Pyrenean shades

The pre-Pyrenean mountain ranges present intense bioclimatic contrasts on both sides, with a sharp dissymmetry between the north (shady) and the south (sunny).

The "Foehn effect" heats the dry air that descends from the south more than the cool damp air that climbs north.

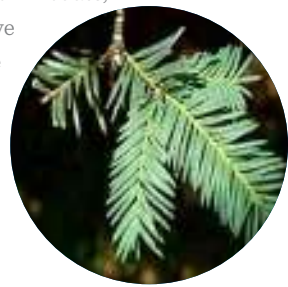
In these conditions, some northern shady areas accommodate small beech groves (Santo Domingo, Loarre, Peiró, Águila, Gabardiella, Guara), in locations with a stronger Atlantic influence (rainfall of over 900 mm/year). These verdant groves stand alongside Betosa de Guara or Betosa de los Fenales, a fir grove located between 1400 and 1600 m above sea level, NE of the pre-Pyrenean ceiling.

Beech leaves

Shady area with pine forests and beech groves

These beech groves and fir groves stand south of the mountain range, i.e. near its border. Their location is quite exceptional, and exposes them to the uncertainties of the climate change. The *gleras* and quarries on the northern side of Tozal de Guara also accommodate, between 1600 and 1900 m above level, a valuable mountain pine forest, the first tree to populate the sub-Alpine terraces of the highest Pyrenees mountains.

Fir trees



Yew tree

Ascent to Pico Peiró

Distance: 6.46 km
Positive slope: 562 m
Negative slope: 562 m
Maximum altitude: 1567 m
Minimum altitude: 1101 m
Itinerary: The ascent to Peiró departs from the Arguis - Bentué de Rasal road. The summit's ubac accommodates a stunning beech grove.

3.3 Oak groves

Below these altitudes, the most prominent vegetation are **Portuguese oaks** (notably in the valleys of Rasal, Arguis, Belsué and Nocito), much reduced by felling, ploughing and charcoaling although the sprouts will allow for a gradual recuperation.

The Portuguese oak, with marcescent leaves that do not drop until the new leaves sprout in spring, is a transition oak which appears between the northern deciduous oaks and the evergreen holms of typical Mediterranean environments.

Box groves

Common box is very abundant in the Pyrenees, appearing in limestone soil and covering the undergrowth in Holm oak groves, oak groves, pine forests and beech groves, or forming dense shrubs (box shrubs). These shrubs are usually no taller than 2-3 metres, although some have been known to reach 8-10 m high. Common box has numerous ritual and medicinal uses. Box wood is very hard and quite easy to carve and polish, on account of which it has been used frequently to make everyday utensils, such as spoons and forks, handles and cowbell clappers. The wood is carved when the branches are still green, since when it dries, box wood becomes very brittle.

Some monumental oaks like the one in the sanctuary of San Úrbez in Nocito, towering almost 22 metres high, or Virgen de Fabana, south of Guara, with a 5.5 m trunk perimeter, reveal the splendour of Portuguese oaks in past times when they were venerated in locations that were first considered magical and then holy. The Scots pine (most suited to shady areas) –which appears in natural forests or in areas repopulated in the 1950s and 1960s– and the European black pine forests (more suited to sunny areas) often replace the former oak groves and cover a good part of the intermediate altitudes in the whole region. Box and bearberry appear in the undergrowth of the oak groves and pine forests, whilst the degradation and openness of these forests accommodates vast amounts of shrubs *(echinospartum horridum)*. Other species that appear alongside mountain trees in La Hoya include snowy mespilus, viburnum tinus, blackthorn or sloe, honeysuckle and vernal flowers as typical as the hepatica nobilis and primroses.

Large oaks in the valley of Nocito

3.3 Oak groves

Echinospartum horridum

The echinospartum horridum is a small cushion-like shrub which is very dense and spiky, and is typical of the pre-Pyrenean mountain ranges. In fact, this is the only location where it appears in the Iberian Peninsula. It inhabits windy hills –such as the summits of Sierra de Guara–, extremely sunny areas and grooved, eroded or repeatedly charred soil, sharing the land with pine forests and Portuguese oak groves. The echinospartum horridum resists frost and drought and protects the soil. The yellow flowers bloom in June and create a spectacular vision when visiting Monrepós pass. In Spanish, the shrub also goes by a host of jocular names, such as "nun's seat" or the "shepherd's seat," "the mother-in-law's seat"... or a "seat" for anyone you want to "put" in an uncomfortable position.

Vernal plants

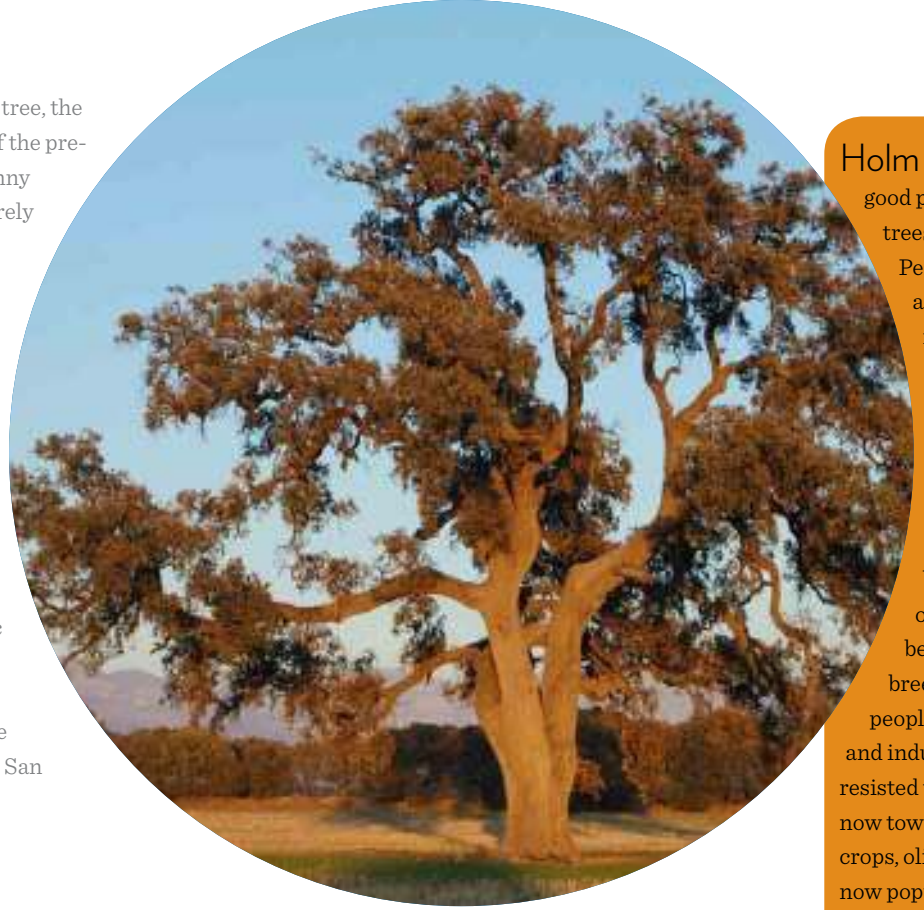
As of February a series of little plants flourish in the pre-Pyrenean mountain forests (Portuguese oak, pine and beech forests), usually sheltered by the abundant box, and sometimes sprouting up through the thawing ice. They announce the arrival of spring and are generically called vernal plants. These plants require specific light conditions: they need to bloom and complete their life cycle before the forest trees sprout their leaves and the atmosphere becomes too shady. Typical vernal plants include daffodils, hepatica nobilis, primrose and violets.

Daffodils

3.4 Holm oak groves

The quintessential Mediterranean tree, the Holm oak, appears in lower parts of the pre-Pyrenean mountain ranges, the sunny areas and the foothill. This land barely records a rainfall of 600 mm/year. However, some Holm oak groves appear in odd damp and shady locations, such as the Huevo ravine, in San Cosme and San Damián (Vadiello) or San Martín de la Val d'Onsera.

The typical Holm oak undergrowth includes common box, although Spanish cedars, viburnum tinus, privets and mastic trees appear more frequently. There is a notable strawberry tree population, which appear alongside the Holm oak groves in Agüero and San Felices.



Carrasca Becha (Becha Kermes oak)

Holm oaks or Kermes oaks populate a good part of the Mediterranean region. These trees appear almost throughout the Iberian Peninsula, even in the northern damper areas. Holm oaks can withstand altitudes ranging from sea level to 1400 m. These characteristics make it the most frequent tree in the rural environment of the Iberian Peninsula. Its location in areas that now accommodate villages and human activities has led to a drastic reduction of the tree population. Kermes oaks have been used to obtain fire for homes and for other human activities. The forests have been felled to make way for farming and cattle breeding. The acorns have fed generations of people and animals. The wood was sent to cities and industries as charcoal. The Holm oaks that have resisted the variations brought about by progress now tower up at 20 or 25 m. high. In Aragon, cereal crops, olive groves, vineyards and almond groves now populate a good part of the Kermes oak groves. Holm oaks now appear in Iberian and Pyrenean mountain ranges. The landscape has differed greatly in the course of a few hundred years.

Holm oaks used to populate the descent towards the plain from the mountain ranges, covering a good part of the south of the region. However, in the plains and prairies, the Mediterranean forests gives way to almond, olive and cereal crops and even to irrigated crops in the SE of La Hoya. Outside the abrupt mountain ranges, there are still valuable Kermes oak groves in the plain of Lierta and Nisano, Igriés, Loporzano, Pebredo, the *saso* (upland) in Lupiñén, Ortilla, Blecua and Pertusa.

The monumental **Carrasca Becha,** surrounded by cereal crops, stands 18.5 metres tall and has a 27 m diameter crown. It is one of the most extraordinary trees in La Hoya de Huesca, a silent witness to the evocative and remote vegetation.

Road A-132 (Huesca-Ayerbe) leads to "Carrasca Becha". The route to the tree continues along the road until kilometre 9.6 where an intersection appears to the right, towards the house of Castillo Castejón. A track appears behind the building, which leads to the ruins of the Castle of Becha after the Mesoné reservoir (3 km from the A-132). The tree is located in a nearby field. It is located in private property. Do not tread on the crops.

3.5 Steppes

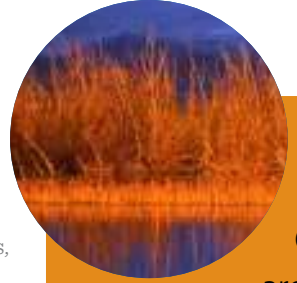
The counterpoint to the luxuriant landscape of the Ebro depression appears in a scarce and disperse, albeit interesting, vegetation that anchors to watershed areas or to soil with little or no arability –escarpments, uncultivated land, salt marshes, slopes, gullies. These areas accommodate different steppe species: thyme, rosemary, Gypsophila communities (Baby's-breath), ononis tridentata and larrea appear in the borders and the marl-gypseous terrain; salsola vermiculata and esparto in silt depressions; tamarix inhabits saline soil and some water courses, and natural or repopulated Aleppo pine forests appear on the slopes of the mounds and hillsides.

Aleppo Pine

The almond tree is a medium-size tree, which has been grown since time immemorial on dry, warm lands. It is very typical of our villages and the fruit of the trees, almonds, are usually harvested at the end of the summer. Almonds appear frequently in the Mediterranean diet and have high energy content. The edible part of the almond is the seed, which is located within the characteristic fleshy fruit with a stone. Almond trees populate the foothills in almost all of Aragon's mountain ranges. The flowers appear particularly early, between January and March, defying the frost falls. Almond trees covered in white or pinkish flowers are one of the most amazing sights in La Hoya de Huesca.

3.6 River banks, reservoirs and lakes

Fluvial thickets and wetlands stand out in this brief overview of the vegetation in La Hoya. Although they present a range of structures, the forests along the banks of the main rivers in the region consist of black poplars, white poplars, willow trees, ash trees and elms. The thickets by river Guatizalema, as it passes through Arbaniés, Siétamo, Fañanás, Novales and Sesa, present a notable population of alders, which are very rare and scarcely appear in the rest of Aragon. Some mid-mountain courses, like Garona, present hoary willow shrubs that are suited to gravel and withstand the torrentiality of the pre-Pyrenean rivers. As regards the, permanent or temporary, wetlands –Alboré, reservoirs Cortés, Castilla and Loreto, reservoirs in La Peña, Arguis, Las Navas and Valdabra–, the marst vegetation, basically Aleppo grass and typha, alongside tamarix around La Sotonera, create fundamental habitats for the water fauna.



Circular itinerary around the Loreto Reservoir

The Loreto Reservoir is accessed along trail PR-HU 141 which departs from an area located near the San Jorge camp site, in Huesca. This 8.2 km circular route visits the famous sanctuary of Nuestra Señora de Loreto and the eponymous wetland without bothering the numerous birds that populate the area.

Grey heron in the Alboré Reservoir

Cortés Reservoir

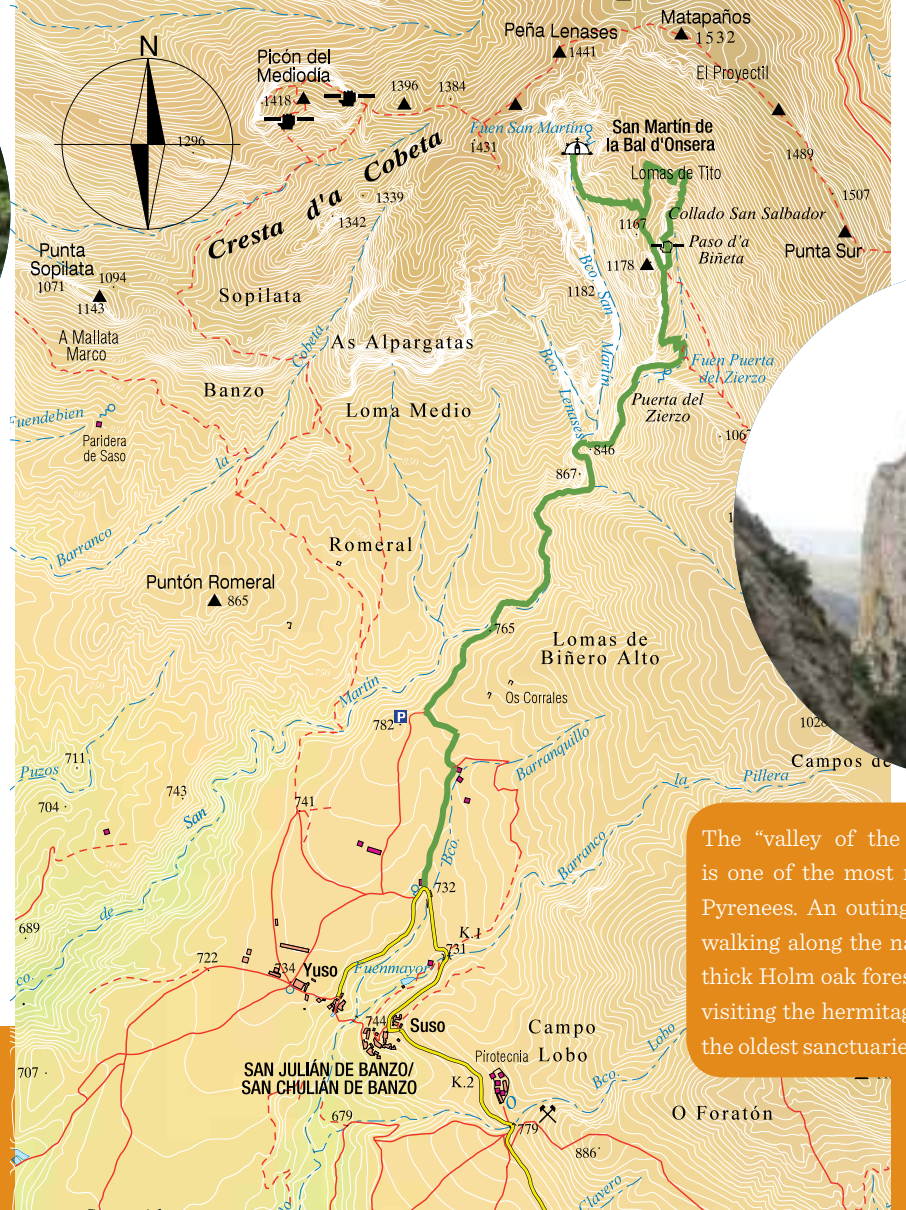
3.7 R 3. San Martín de la Val d'Onsera hermitage

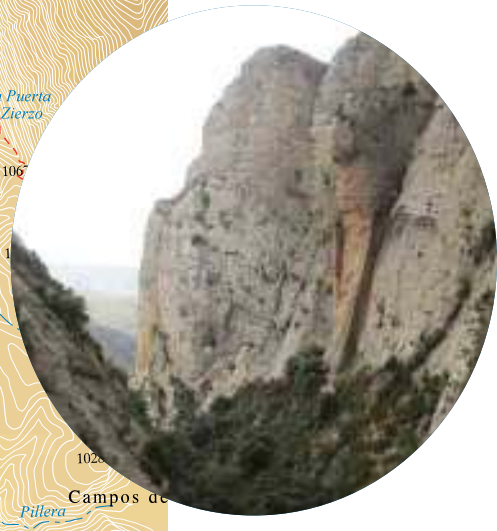
San San Julián de Banzo is a little village that is divided by the ravine of San Julián. The road between both districts takes a long detour along approximately 1.5 km. To the right of a sharp bend in the road, the track to San Martín de la Val d'Onsera appears sign-posted as S-6. The itinerary, surrounded by crops and Kermes oaks, leads to an esplanade that is used as a car park.

The road descends towards the ravine of San Martín and continues up along the river bank or very close by. The tall walls of conglomerates become gradually narrower until they shape a tight, winding canyon. After 35 minutes on foot, the route departs from the main ravine and takes the tributary to a narrow mountain pass, "Puerta d'o Zierzo" (870 m). The trail passes a fountain and zigzags climbing up a limestone to a small opening among the vegetation and an intersection (900 m.). To the right, the "Sendero Histórico" (Historical Route) GR-1 leads to the Ziano crops and reaches Santa Eulalia la Mayor. To the left, this route starts up the hillside, climbing within a thick Kermes oak grove.

The itinerary soon comes to the base of the tall conglomerate wall that accommodates Paso d'a Biñeta (1030 m; 1 hour 15 min from the start). Albeit slightly exposed, this pass was traditionally used as a short cut to reach the hill of San Salvador. At present, there are tow ropes as well as the old steps and the iron rungs. Instead of going past La Biñeta, an alternative is the old Los Burros path, a route formerly used by the cavalry. This leads to the hill of San Salvador (1166 m; 1h 30 min from the car park, 2 h along the Los Burros path). It is a 20 minute walk down from the hill to the ravine of San Martín and, after another 10 minute climb to the top, the route finally gets to the hermitage of San Martín de la Val d'Onsera (1,100m).

Distance: 11 km
Positive slope: 619 m
Negative slope: 182 m
Maximum altitude: 1166 m
Minimum altitude: 760 m





The "valley of the bears" (Val d'Onsera) is one of the most remote locations in the Pyrenees. An outing to this valley involves walking along the narrow pass, through the thick Holm oak forest, climbing the cliff and visiting the hermitage of San Martín, one of the oldest sanctuaries in Aragon.

hoya de huesca

4
FAUNA

4.1 Invertebrate

The wealth and variety of a region's fauna is directly proportional to the diversity of habitats and their level of preservation, and in our region these two factors excel in terms of Spanish and European readings. Given its location between mountains and plains, our territory presents an extensive representation of the biotopes that populate the Ebro valley, all clustered within a few kilometres. Unirrigated cereal crops and irrigated areas, dry Holm oak groves and shady pine forests, lakes and fluvial groves, pre-Pyrenean mountain ranges with different orientations, alongside ecotones and transition areas accommodate a host of animal species. Some are rare and very site specific, enclosed in some of the last favourable spots. Other appear frequently and abundantly all over the territory, as they have adapted to the presence of humanity.

The invertebrates encompass thousands of species from a vast array of families as varied as insects, arachnids and crustaceans. It is important to note the symbolical presence of the autochthonous crab in the few courses that have not been populated by the red crab, imported from America.

The lepidoptera (butterflies and moths) category includes genuine gems, such as **the giant peacock moth,** the Spanish moon moth or Graellsia isabellae, the Apollo or mountain apollo and the European beak or nettle-tree butterfly. As regards coleoptera, the most stunning and endangered species include the stag beetle, the European rhinoceros beetle and the great Capricorn beetle.

A whole world waiting to be discovered. Just look around, it's right there.

Mantis religiosa or European Mantis

The green tiger beetle is a coloptera that feeds on other insects

4.2 Amphibian, reptiles and fish

Ophidia (snakes) and lacertidae (lizards) are the most famous reptiles. The European asp appears in the high regions of the mountain range, whilst the Aesculapian snake, the ladder snake, the Montpellier snake and the ocellated lizard and the large psammodromus populate the foothills, and the natrix maura and the grass snake appear in rivers and pools. The slow worm, the Western three-toed skink and the tarentola mauritanica are some of the more unknown species. La Sotonera accommodates an important European pond terrapin population.

Among the amphibia, the common toad and the natterjack toad (both from the Bufo family) are the most abundant species in dry areas, and the Perez's frog abounds in water surfaces. Other species include the European tree frog, which lives in trees, as evidenced by its name, the common parsley frog, the common midwife toad and the Western spadefoot toad.

Montpellier snake

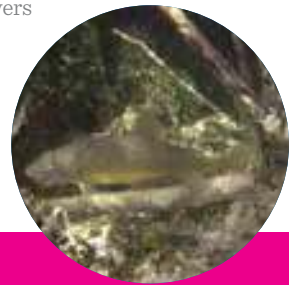
European tree frog

European pond terrapin

Salamanders are a very different group of amphibia, which are represented by a Pyrenees endemism, **the Pyrenean brook salamander** or Pyrenean newt, which lives in clean and oxygenated water in the remotest locations of the mountain range.

Two other species, the palmate newt and the marbled newt have become rare, driven out by the fish population and by water pollution.

Fish have suffered the most extreme conditions among the vertebrate groups that inhabit the region. Common trout, barbel, Southwest European nase and other species have suffered the pollution and dirt of our rivers, and then withstood the introduction of predatory fish which have reached these waters from all over the world. Pike, catfish, perch and carps now inhabit rivers and reservoirs, creating an imbalance in the ecosystem that could have unforeseeable consequences.



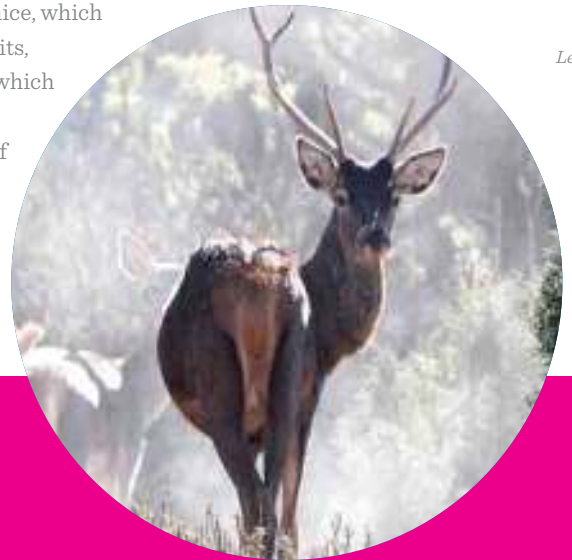
4.3 Mammals

The Iberian Peninsula accommodates around 90 mammal species, in seven taxonomic ranks, all of which appear in La Hoya de Huesca. After the large carnivores, bear and wolf, became extinct over a century ago, the mustelidae family (European badger, beech marten or stone marten, least weasel and otter), the common genet, wildcat and the fox became the most abundant predatory mammals in our environment.

As regards herbivores, at present and due to a range of causes, the region currently accommodates deer, roe deer and Spanish ibex. The latter, a tourist and hunting attraction, has colonized the whole of Sierra de Guara.

Hedgehogs, moles and shrew mice, which feed on insects, and hares, rabbits, squirrels, rats, mice and voles, which have a vegetarian diet, appear abundantly around the whole of the territory.

Chiroptera, commonly known as bats, the world's only flying mammals are a genuine prodigy in terms of their adaptation capabilities. Our region accommodates over twenty different species that populate all types of habitats, from urban centres in cities and villages to forests and caves in the remote mountain locations. Although they are frowned upon as carriers of rabies and for their mysterious customs, which aren't really all that strange, they are currently considered an endangered species given their direct persecution and the destruction of the colonies in which they breed and hibernate.



Deer

Lesser horseshoe bat

4.4 Birds

As opposed to other vertebrates, most birds are easily sighted in the region. Birds have always attracted us for their customs, the diversity of their feathers and their mobility. The region is outstanding in the variety and number of birds, some of which are rare and endangered species. Throughout the seasons and habitats, our region accommodates some 250 different species. The most important appear listed hereunder.

1 Water birds.

Although they belong to different ranks and families, they share the common factor of living in damp areas at some point during their biological cycle.

Herons. Popularly known as herons, this population has increased with the creation of irrigated lands and reservoirs, and the expansion of the red crab or American crab.

Stork

Nine different heron species can be sighted in many areas of the region. Grey herons, purple herons, large egrets, little egrets, squacco herons and cattle egrets, black-crowned night herons, bitterns and little bitterns. La Sotonera reservoir accommodates an abundant reproduction colony.

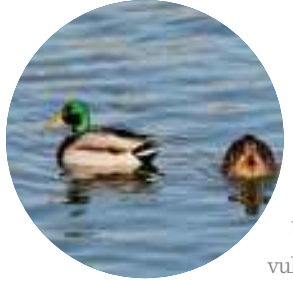
Stork. The white stork inhabits bell towers, silos and other less recommendable locations, whilst the black stork only visits the region during the spring and autumn migrations.

Gulls. The black-headed gull was the sole representative that inhabited pools and reservoirs.

For the last 30 years, the **yellow-legged gull** has expanded spectacularly from the Mediterranean, and hundreds of these birds currently inhabit the area between La Sotonera reservoir and Fornillos dump.

Waders. Many different species visit the region during long migrations between the tundra and the African Atlantic. Black-winged stilts, common sandpipers and little ringed plover nest in our wetlands.

4.4 Birds



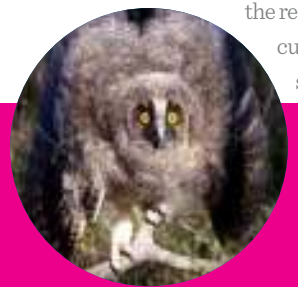
Wildfowl. This category includes different ranks and orders including geese, pochards and ducks. The **Mallard** is the most abundant and frequent species, and is present throughout the whole year. Others such as the common teal, garganey, Northern shoveler, Eurasian wigeon, Northern pintail and gadwall, red-crested pochard, common pochard, tufted duck and large greylag goose spend the winter with us.

There are important duck concentrations in Valdabra, Loreto, La Sotonera and Las Navas reservoirs.

Other species. This section includes all other water species. Great crested grebes, with one of the most peculiar and beautiful nuptial rituals in our bird fauna, little grebes, Eurasian coots and common moorhens or common gallinules, great cormorants, kingfishers, white-throated dippers and white wagtails, cattle egrets and grey wagtails.

2 Raptors. The most noted, for the international relevance of Huesca's populations, live in rupicolous habitats: bearded vulture, griffon vulture, Egyptian vulture, golden eagle, Bonelli's eagle and peregrine falcon. Other birds such as the northern goshawk, Eurasian sparrow hawk, booted eagle, short-toed eagle, red kite and black kite live in forest areas. The Guara and Caballera mountain ranges are matchless locations from which to contemplate these birds. Common buzzards, common kestrels, lesser kestrels, Eurasian hobbies, merlins, Montagu's harriers, hen harriers and Western marsh harriers inhabit farming regions.

3 Owls and nightjars. Generally given a bad reputation, owls have been living with us since the Neolithic. The Eurasian eagle-owl is the largest species, and usually inhabits ravines and other steep areas. The long-eared owl and the tawny owl live in forest areas. The number of barn owls, little owls and Eurasian scops-owls is dropping increasingly in our cities and villages. The European nightjar and the red-necked nightjar, with peculiar customs, appear in country areas in spring and summer.

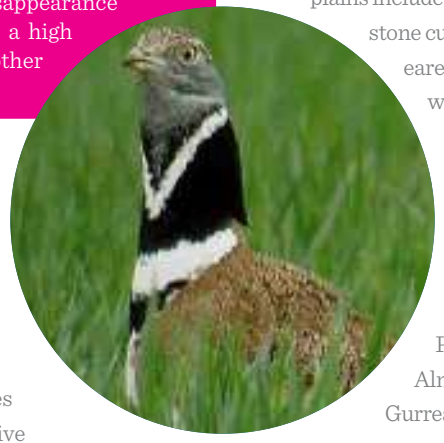


The Lammergeier. The etymology of its Latin name, *Gypaetus barbatus,* actually means bearded vulture-eagle. This scavenger feeds on bones, which it digests easily. In full flight, the wings on this beautiful bird of prey measure 235-285 cm. Albeit frequent in Asia and Africa, the bird is very rare in our continent. In Aragon it is listed as an endangered species. Therefore, a Recovery Plan has been implemented with 72 reproduction units, over 50% of all the couples in Europe.

Pin-tailed sandgrouse

4 Steppe birds. This section groups different birds that live in cereal areas.

Some of the birds that live in steppes are considered endangered species in Europe given the fragmentation and disappearance of their habitats, and attract a high number of visitors from other countries.



The great bustard only visits the plains of La Violada and La Sotonera occasionally. There is a small **little bustard** colony. This bird is a smaller replica of the previous bird, which lives in areas that still use extensive farming and cattle breeding, as do the pin-tailed sandgrouse and the black-bellied sandgrouse, which have similar behaviours and customs. Calandra larks, short-toed larks, skylarks and crested larks are some of the specimens that liven up the spring season with their birdsong.

Other birds typical of the plains include the stone curlew, roller, bee-eater, black-eared wheatear and the spectaded warbler, all very beautiful specimens that attract foreign ornithologists. Small ravines and outliers are home to the blue rock thrush and the black wheatear. The areas most suited to these species are Piracés, dry lands in Huesca and Almudévar and the scrubland in Gurrea.

5 Forest birds. This section includes many bird species that find shelter and resources in fluvial thickets, Holm oak groves and pine forests, and even in locations dominated by Mediterranean scrubland.

Great Spotted Woodpecker

Woodpeckers, golden oriol, European penduline tits, great and blue tits, nightingal and Cetti's warbler, robin, Subalpine, orphean, Sardinian and garden warblers, blackcap, blackbirds and thrushes, finches, goldfinch, greenfinch, bullfinch and hawfinch, among others. The valleys of Nocito, Belsué and La Garona, the Kermes oak grove in Nisano and the thickets of rivers Gállego, Isuela and Flumen are perfect places for catching sight of these species.

4.5 R 4. Bird-watching route.

Huesca-Somontano-Sierra de Guara

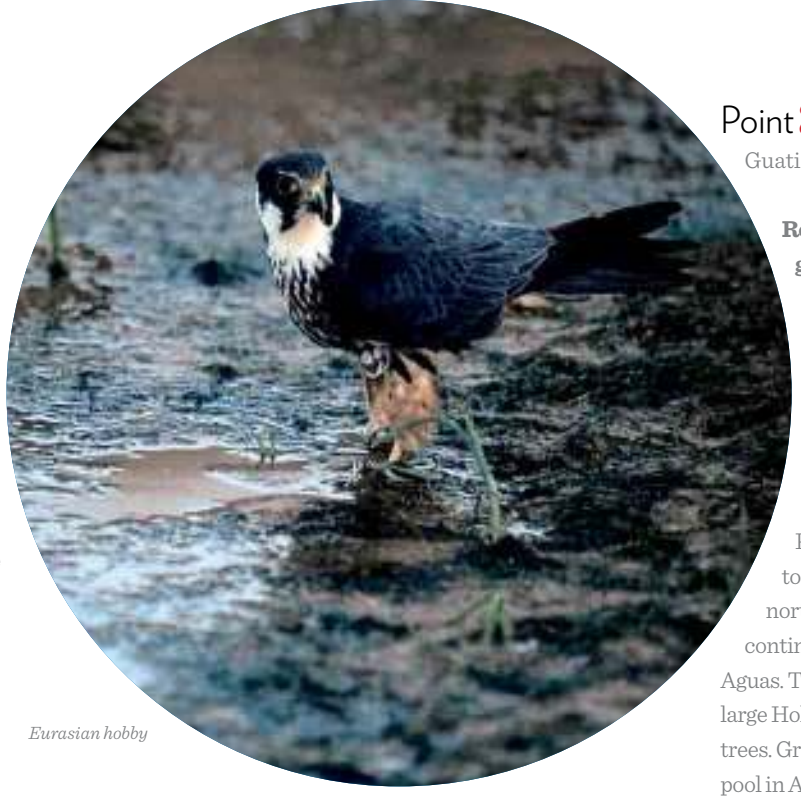
Depart from Huesca along road A-131 towards Sariñena and Fraga, cross Monflorite and Albero Alto to the Piracés intersection (15 km).

Point 1 Visit to the La Sarda viewpoint and the sandstones over the village.

Eurasian eagle-owl, raven, red-billed chough, red-legged partridge, Thekla lark, blue rock thrush, Egyptian vulture, Eurasian hobby, black, black-eared and Northern wheatear, orphean and Subalpine warbler.

Northern wheatear

Return to road A-131 and continue to Novales and Sesa.

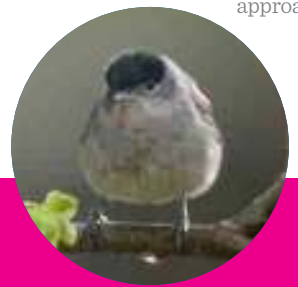


Eurasian hobby

Point 2 Visit to the thickets around river Guatizalema.

Red-legged partridge, green woodpecker, great spotted woodpecker, black kite, short-toed eagle, booted eagle, Eurasian hobby, common cuckoo, golden oriol, little bustard, Montagu's harrier, stone curlew, Southern grey shrike.

Follow the track near the Roman road to Pueyo de Fañanás. Then take HU-V-8402 to Torres De Montes and then continue north along the A-1222. Cross road N-240 and continue through Liesa, Ibieca until approaching Aguas. Typical Guara foothill landscape, with large Holm oak groves, cereal crops and almond trees. Great variety of bird species. The spring and pool in Aguas is the perfect place for a rest. Then continue along road A-1227 towards Huesca, until approaching Loporzano.



Blackcap

Red-legged partridge

Distance: 70 km.
Duration: 1 day.
Vehicle: Normal car, 4x4 recommended.
Period: Year round.

Point **3** On reaching the intersection with the road from Huesca, turn right and continue along the road crossing Loporzano, Sasa del Abadiado and the exits for Viñedo, Castilsabás and Santa Eulalia to the Vadiello reservoir (12 km). Park opposite the reservoir, then walk towards it and follow a track towards San Cosme until the cross. Forests, limestone and conglomerate mallos and cliffs.

Red kite, lammergeier, griffon, golden eagle, Northern goshawk, Eurasian sparrow hawk, peregrine raven, crow, red-billed chough, booted and short-toed eagle, Egyptian vulture, Alpine swift, hen harrier, Alpine accentor, ring ouzel, wallcreeper, hawfinch, Eurasian bullfinch.

Bonelli's eagle

Return along the road to Sasa del Abadiado and detour to Barluenga. Holm oak-Kermes oak grove and small river bank forests. Then continue along the new road that crosses river Flumen over the Montearagón dam and reaches Huesca.

Point **4** Walk up to Fornillos booster station, at the peak above the municipal dump. Large concentration of scavengers, from **vultures, eagles and kites, to storks and yellow-legged gulls, including corvidae.**

Continue along the track that crosses the Kermes oak grove in Fornillos to the road and the village of Apiés, and continue until just before Sabayés to take a tarmac track that climbs between almond trees and Mediterrean shrub to Belsué shelter.

Golden eagle

Griffon vulture

Point **5** Peak of Peña San Miguel, the western side of Salto de Roldán.
Ascent to the top of La Peña along the Eastern side of the hill, including a small via ferrata or a peek over "La Visera" on the Western side. The viewpoint is located 1 km. further on along the path to Belsué.

Red kite, lammergeier, griffon, golden eagle, Bonelli's eagle, Northern goshawk, Eurasian sparrow hawk, peregrine raven, crow, red-billed chough, booted eagle, short-toed eagle, Egyptian vulture, Alpine swift, hen harrier, Alpine accentor, ring ouzel, wallcreeper, rock thrush and blue rock thrush.

Red kite

4.6 R 5. Bird-watching route. Huesca-Sierra Caballera-Plains and wetlands

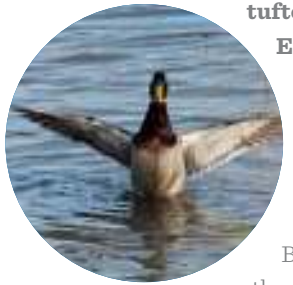
Depart from Huesca Norte along A-132 towards Ayerbe, to the locality of Esquedas, and detour towards Bolea along the A-1206.

Point **1**. Cross Bolea and continue towards Aniés. Cross the village and continue along an earth track that leads to the base of the gorge that accommodates the hermitage of Virgen de la Peña.

Lammergeier, Egyptian vulture, Griffon, peregrine, golden eagle, short-toed eagle, booted eagle, northern goshawk, kites, red-legged partridge, blue rock thrush and rock thrush, wallcreeper, Alpine accentor, red-billed chough.

Return along road A-1206 and continue towards Loarre and Sarsamarcuello. Pass Loarre and five minutes later, the detour leads to Las Navas reservoir, on the left, and to Sarsamarcuello, on the right.

Point **2**. The route visits the small Las Navas reservoir along a route that leads to the lake.

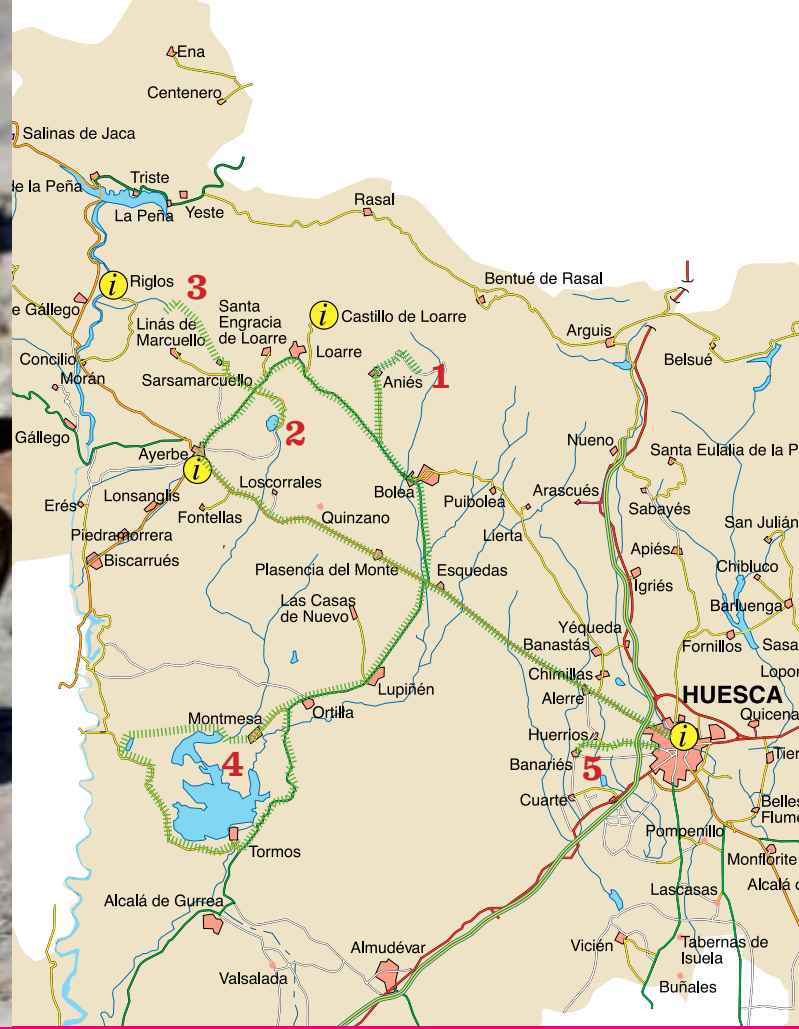


Great crested grebe, little grebe, black-necked grebe, common pochard, tufted duck, Eurasian coot, great cormorant and grey heron.

Back on the road to Ayerbe, the route continues ahead towards Sarsamarcuello.

Distance: 150 km.
Duration: 1 day.
Vehicle: Normal car, 4x4 recommended.
Period: Year round.

Griffon vulture



4.5 R 5. Bird-watching route. Huesca-Sierra Caballera-Plains and wetlands

Point 3 Cross the village and continue

along the forest path that appears at the end, and continue for five kilometres until the ruins of Marcuello Castle. Leave the track to Foz de Escalete and La Peña to the right, continue for one kilometre to the Mirador de los Buitres (Vulture Viewpoint).

Lammergeier, Egyptian vulture, Griffon, peregrine, golden eagle, short-toed eagle, booted eagle, northern goshawk, kites, red-legged partridge, blue rock thrush and rock thrush, wallcreeper, Alpine accentor, red-billed chough. During the migration season, cranes, large birds of prey, flocks of doves and water birds.

Return to the road and turn right to the village of Ayerbe. Back on the A-132, continue towards Huesca until Esquedas and turn right along the A-1207. Cross Lupiñén, Ortilla and reach Montmesa.

Point 4 La Sotonera reservoir.

Follow the road that appears north of Montmesa for about 500 m. until the bridge over river Astón. After crossing the bridge turn left towards the observatory that provides views over the north-eastern part of the Alboré pond. Many birds use this calm area as a roost.

Rook, Western marsh-harrier, hen harrier and specially crane, during the spring migration season.

Return to the bridge and continue north along the main route towards Puendeluna by Puipullín, crossing a plain of pasture land and cereal crops where **cranes and others birds such as Northern lapwing, Eurasian golden plover, Eurasian stone-curlew, etc.** feed. The route starts to climb up to another crossing. Continue left following the sign towards Gurrea and Puendeluna.

Crane

Take the turning that appears on the left towards the Castle of Antonié, an observation point that is highly recommended in the late afternoon, since the sun is head on during the morning hours. This area accommodates **golden eagle, short-toed eagle and booted eagle, common buzzard, kites and other birds of prey** that use the pylons as a roost. The path towards Gurrea leads to the reservoir's water inlet, the Gállego Canal.

The road to Almudévar appears 100 m. after the canal. Take the left turning, heading south. Return along the road to Almudévar, cross the turning to the sailing school and several estates until reaching the western end of the reservoir and the nautical club. Excellent views of the reservoir and the **black-headed gull and yellow-legged gull** colonies that populate several islets.

To return to Huesca, take the **turning for Esquedas again** and head towards Ortilla and Lupiñén without entering Montmesa.

4.6 R 5. Bird-watching route. Huesca-Sierra Caballera-Plains and wetlands

Point 5 Loreto reservoir.

From Huesca take a turning on the left, right before Huerrios, towards the hermitage of Loreto. Two paths lead towards the eponymous reservoir creating a circular route around the dam located on the southern side.

Purple heron, little grebe, great crested grebe, common pochard, tufted duck, mallard, common teal, garganey, Northern shoveler, Eurasian wigeon, Northern pintail, gadwall, great cormorant, Eurasian coot, Western marsh-harrier, black-winged stilt, Northern lapwing, Eurasian golden plover and other waders, white wagtail.

Black-winged stilts

Purple heron

Northern pintail

Western marsh-harrier

Edita: Comarca Hoya de Huesca/Plana de Uesca. Coordinación y textos: José Luis Acín, Miguel Ángel Acín y Fernando Lampre (Ituero Gestión Ambiental y Cultural). Textos de fauna y rutas ornitológicas: Juan Carlos Albero. Fotografía: Esteban Aniá, Miguel Bellosta, Juan Carlos Albero, Ignacio Pardinilla, Marisa Tartera y Jon Izeta - archivo fotográfico Comarca Hoya de Huesca/Plana de Uesca. Diseño: www.quelinka.com Impresión: Ino Reproducciones. I.S.B.N.: 978-84-614-6956-7 D.L.: Z-837-2011

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