

# Honeyguide

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## SPRING IN THE SPANISH PYRENEES 24 APRIL – 3 MAY 2014

#### **Participants**

Peter and Elonwy Crook David and Stephanie Bennett Marie Watt

#### Leader

Chris Gibson Our hosts: Melanie and Peter Rich at Casa Sarasa <u>www.casasarasa.com</u> Photos by Chris Gibson, all taken during this holiday. Front cover: Berdún and the high Pyrenees. Below: lunch at La Virgen de la Peña.



This holiday, as for every Honeyguide holiday, also puts something into conservation in our host country by way of a contribution to the wildlife that we enjoyed, in this case for La Sociedad Española de Ornitología (SEO), the Spanish Ornithological Society, and its work in Aragón. The conservation contribution this year of £40 per person was supplemented by gift aid through the Honeyguide Wildlife Charitable Trust, leading to a total of £250 / €300. This donation brings the total given to SEO since the first Honeyguide holiday in Spain in 1991 to £15,885 (through all Honeyguide holidays, mostly the Spanish Pyrenees and Extremadura).

The total for all conservation contributions through Honeyguide since 1991 was £94,787 to May 2014.

#### **Daily Diary**

#### Thursday 24 April: The journey there...

Leaving behind the lovely English spring at Stansted with some trepidation given the latest Pyrenean weather forecast, we arrived in Biarritz in mid-afternoon (with a glimpse for some of a flock of gannets offshore as we lined up to land) – and the forecast wasn't wrong! It was raining, and clearly had been for some time. And the rain stayed with us as I collected the minibus, and set off down the motorway, at which point it got even heavier.... At least we got to see some dramatic cloudscapes, even though the skies were not darkened by soaring raptors. Although construction works for the motorway, which is due to extend right across northern Spain, had reached Yesa reservoir, thankfully for the moment (and given the current financial climate it may be a long moment) our immediate environs remained untouched. So it was to the tranquillity of Casa Sarasa we rolled up at 18.30 to be met by our welcoming hosts Peter and Melanie. Time to unpack, quickly ascertain that nightingales were around in force, competing for attention with numerous chattering house sparrows, before we sat down for the first of many exceptional meals. A glass or two of wine later, bedtime beckoned...

#### Friday 25 April: local walks around Berdún – Río Veral and Aragón Valley; Martés

Despite (or perhaps because of?) the insistent early morning serenade from the pesky nightingales, an almost full house for the pre-breakfast walk headed out in cloud and drizzle, and a cool, strong north-westerly breeze, the latter being a near-constant feature of our entire stay. Nevertheless, the walk introduced us to the common birds of the area – showy serins, spotless starlings, great tits, black redstarts and corn buntings, and a few tastes of summer, including a pair of northern wheatears, subalpine warblers and a willow warbler. A couple of Sardinian warblers appeared in the low scrub – although a common Mediterranean species, this area appears to be on the edge of their range, as we don't see them every year. Overhead five griffon vultures and two ravens were already on the wing, and close to the village, the verges abounded in henbane, its khaki-green flowers with deep purple centres and veins presenting a suitably funereal touch to such a poisonous plant.

After breakfast, with freshly-baked local bread and croissants, we got no further than the car park before the griffons rose up above the village in wave after wave, more than fifty in total, taking advantage of the updraughts from the wind hitting the hill. We drove up to the village for an orientation session, consisting of stops at each of the lookout points, necessarily brief because of the increasingly blustery wind making it very cool despite the welcome sunshine. The views were spectacular: up to the high Pyrenees (although the very high tops were shrouded in cloud), either way along the Canal de Berdún, and south to the Pre-Pyrenees, the Tolkeinesque triangular peak of Oroel rapidly becoming a familiar landmark. Although most of the vultures had moved on (or been blown away) by the time we reached the top, a few remained and were joined by black kites, a pale morph booted eagle and a couple of Egyptian vultures, over the rubbish dump.



Griffon vultures over Berdún.

Badlands in the Veral valley.

Walking slowly down onto the Badlands, the skeletal, eroded marl landscape was at first glance lifeless but far from the case in reality: bold splashes of yellow from Berdún broom and barberry; white-flowered snowy mespilus; pink shrubby thyme; and the bronze-tinged foliage of box. Between the shrubs, there were white rock-roses, red Montpelier milk-vetch, bright blue shrubby gromwell and acid-green serrated spurge, and lady orchids just coming into full flower, mostly gaining protection against browsing by growing in and around the spiny shrubs. The wind was keeping all small birds out of sight and earshot, but an unfamiliar yelping call drew our attention to a superb displaying booted eagle, although the object of its attentions never appeared.

But down by the Río Veral we at last found some shelter, in which some insect life revealed itself – wall brown, common heath moth, marmalade hoverfly and a paper wasp attending its nest.

We bumped into local artist Josie, whose father was one of the original owners of the Painting School in which Honeyguide used to stay, and she showed us the local drinking spring (with purple toothwort flowering beside it). Cetti's warblers, blackcaps and northern chiffchaffs were in song, and the surrounding bushes of fly honeysuckle were in full flower, with those of dogwood and wayfaring-tree about to undergo bud-burst. Then it was the long slog uphill back to Casa Sarasa, pausing only for beautiful flax, a scarce swallowtail and basking fire-bugs (in fact several species of black-and-red bug), though the prospect of lunch made it a relatively easy trek!

After lunch, a short drive then took us into the main Aragón valley, turning west on the north side of the river and heading on (reasonably) comfortable unmade tracks towards the confluence with the Veral. But immediately we drew to a halt as dark shapes scythed over the rushing waters. Two hobbies were making inroads into the local insect populations, catching and eating them on the wing, in a wonderful display of aerobatics, and even a couple of kingfisher flypasts were unable to unrivet our attention from the hobbies. Our main purpose of this route was to see if some of the special flowers were out, and we were not disappointed. Purple gromwell was a strikingly-blue feature of the shaded verges; wild tulips were just opening their starry yellow flowers further along; and the Lusitanian fritillaries on a Badlands spur were flowering with an abundance that I have never seen before. A scarce swallowtail performed admirably, resting in front of and on the photographers, and several iridescent green tiger-beetles scurried and flew out of our way as we walked along the old river bed gravels among the yellow ground-pine.



Wild tulips, Tulipa sylvestris.

Lusitanian fritillary.

Scarce swallowtail.

With a little time to spare, we then drove slowly across vast plains of arable cultivation, enlivened by many corn buntings and a few red-legged partridges, here in their natural home. A stop by a stream, with dragon's-teeth and blue aphyllanthes on the bank and Iberian water frogs calling, proved very fortuitous when Peter noticed a large shape quartering the scrubby hill slopes, with barely a twitch of the wing. Though just how big only became apparent through binoculars when one realised the 'bushes' were in fact trees – yes, it was a lammergeier, in all its 3-metre-wingspan glory, a superb view of a near-adult bird.

Finally, we drove up to the 'Council depot' next to the former tip, a useful parking area for a short walk onto a superbly floriferous section of Badlands, with sombre bee-orchid, Pyrenean spurge and sad stock, all framing the most glorious sunny views across the Canal to Berdún – the photos don't do justice to the persistent cool wind!

#### Saturday 26 April: Santa Cruz de la Serós, San Juan de la Peña and Berdún Marsh

Despite a forecast of sun and wind, the day dawned wet and calm! It took us several days to get on top of the variance between predicted and actual weather. In reality the only way was to prepare for anything every day...

We headed back down to the Aragón before breakfast, getting great views of numerous rock sparrows on the bridge and a pair of grey herons on the gravelly banks. Moving into the poplar plantation, a stunning male redstart proved the main prize, while a wryneck broke into 'song' rather distantly.

Our first destination of the main part of the day was the historic village of Santa Cruz de la Serós, at the foot of La Peña. From the village, griffon vulture nests could be picked out on the towering cliffs, although given the drizzle and low cloud it was not surprising that few of them were flying. Crag martins have taken full advantage of the external niches on the church, and the owners of the nests were feeding in their almost swift-like manner overhead. A short walk up the hill soon produced some new plants: patches of blue and white hepaticas (with just a few pink ones) rather past their best; cowslips and possible hybrids with other *Primula* species; bold splashes of blue milkwort; and pines which were very heavily infested with mistletoe, in its conifer-parasitising subspecies *austriaca*.

We were passing a patch of cream-flowered comfrey when the sun broke through for a short while and immediately the insects sprang into action, one particularly smart orange bumblebee being identified as probably a well-coloured subspecies (there are many!) of the common carder-bee. Everywhere there was the trilling song of Bonelli's warblers: normally reluctant to show themselves, one male in particular put on a whole-body shivering show, displaying its subtly beautiful grey and yellow plumage to all. But a singing male orphean warbler very close to the track was not so obliging, and all we managed to see were a few fleeting glimpses.

As the drizzle had now restarted, we opted for a coffee break in a local bar, before returning to the bus and heading uphill. A brief stop at the viewpoint should have given tremendous views across to the high Pyrenees, usefully interpreted (in understandable Spanish) on the geological trail boards provided. However, as we were now in the cloud, the drizzle had turned to rain, the breeze was gathering strength and it became a very brief stop. Ever onward and upward, we drove then to the car park by the new monastery at the top, where at least the conifer woodland provided some shelter. Shelter, but not many birds – coal tits, robins and goldcrests were in song, but everything else was pretty subdued, so we took a stroll across the plateau grassland, admiring the grape-hyacinths on the way, through the woods, with carpets of hepatica and violets, and out to the ruined hermitage of St Teresa. Although again the views where far from spectacular due to the low cloud, the flowers were simply stunning, the open grassland completely clothed in the dainty scented flowers of rock daffodil, interspersed with a few elder-flowered orchids.

By now we were ready for lunch, and we were not going to let the damp put us off, so we colonised one of the picnic tables and tucked in. A great spotted woodpecker soon joined in, watching from a nearby table, and then just as we were about to pile into the bus and leave, a small group of crested tits hove into view above us, one of which managed to make itself seen by everyone.

With no sign of an improvement in the weather, we decided to drive (if only for the sake of the occupants' afternoon nap!) along the back of La Peña, and eventually home via Jaca. Diverting briefly off the tarmac road to Berdún Marsh, we were soon immersed in the resounding song of nightingales and Cetti's warblers, although it seemed the expected golden orioles had not yet arrived. A wryneck was calling in the distance, and we managed to track it down to the very bush it was singing from. But still we couldn't see it! The final drive along the track towards home allowed us good views of corn buntings, crested larks and serins, and a little owl perched atop a broken-down barn. By now the clouds were growing ever darker, with heavy drizzle whipped by a rising wind, and the prospect of good food, drink and shelter was hugely appealing...

#### Sunday 27 April: Arbayún, Lumbier and Yesa

In contrast, the next day dawned bright and sunny, with scattered cloud, and still a keen wind. But it was cold, just 5°C as we headed back to the marsh for our pre-breakfast ramble. Well, more of an amble actually, as once were parked we could hear yesterday's wryneck, calling from a slightly different position. Patience paid off: eventually we pinned it down, and all managed to get good 'scope views of its wonderfully cryptic plumage. Then while we were enjoying that, a static crackle started up from the marsh, modulating in tone with a throbbing and ventriloquial quality. It was a singing Savi's warbler, presumably a bird on migration as the marsh is on the small side, and it is not known to breed in this part of Spain.

We headed west after breakfast, taking advantage of the new motorway where possible, along the banks of Yesa Reservoir. The milky blue waters were typically devoid of birds but provided a scenic backdrop to our drive to Arbayún. This magnificent limestone gorge is not accessible, apart from visually from the cantilevered viewing platform at its head, and the lack of disturbance means it is one of the best places in the area to watch raptors, from below, above and eye-to-eye. Imagine my disappointment then when we arrived – the skies were empty, and apart from a couple of disconsolate griffons and Egyptian vultures, so too were the cliffs. But at last the weather played ball and the sun came out. The results were almost instantaneous with griffons appearing from nowhere, red and black kites, and then single booted and short-toed eagles for good measure. A singing male cirl bunting posed well and parties of migrating alpine swifts started to hurtle through every few minutes.

At Lumbier Gorge, the weather had stepped up a gear, from warm to hot, and with it out came the crowds, not surprising for one of the first summery Sundays of the year. Notwithstanding the crowds, birds were still much in evidence, protected from the masses by the inaccessibility of the gorge walls, and no doubt to some extent habituated to disturbance at this justifiably popular site. Crag martins flittered around the rock faces, choughs called incessantly and floated buoyantly around, and of course we were followed every inch of the way by griffons, drifting overhead or perched on the cliff edges and ledges. Mediterranean buckthorn, as usual, was in a confusing mix of stages, from buds to ripe fruit, while St Lucie's cherry had just finished flowering, and spindle just started. The latter two species often came festooned with the silken webs of their respective small ermine micromoth caterpillars. In fact, the whole gorge was bursting into flower, with wild jasmine, snapdragon, kidneyvetch and little-robin, naturally attracting various insects, including a smart bloody-nosed beetle, and several butterflies – Cleopatra, brimstone, southern speckled wood, and orange-tip for example. Flowering and insect life were at their most abundant just at the exit from the second tunnel, where the rock faces have a southerly aspect and act as one giant solar reflector – walking through that tunnel was like advancing by two weeks.

Kermes oak was particularly noticeable here, rather than the more familiar, less-Mediterranean holm oak, although its identity is not always obvious from its shrubby habit, holly-like leaves, and the red berry-like galls of a bug *Coccus ilicis* which were very numerous on some plants. A (hungry) meadow tick on a spurge leaf looked beautiful in close up, though at the same time repellent, especially for those like me who have experienced Lyme disease...

Lunchtime again! And again a suitable picnic site, with tables. The quality (and quantity) of food needs no further comment as it was consistently outstanding throughout the trip.

A little patch of grassland and woodland next to Yesa Reservoir was our destination for the afternoon, and with the weather remaining warm and sunny, it proved excellent for insects and flowers. Several species of *Ophrys* orchid were encountered, including sombre bee, yellow bee, early spider and mirror orchids, while the lepidopteran delights included narrow-bordered bee-hawk and four-spotted moths and common blue, brown argus and violet fritillary butterflies. A red-thighed grasshopper *Calliptamus italicus* remained stationary despite the close attentions of the photographers, but the real stars were the Spanish festoons, clearly freshly emerged, and very happily allowing us extended views of what can be a very flighty butterfly.



Mirror orchid.

Yellow bee orchid.

Spanish festoon.

Another off-piste adventure on the final leg home took us onto the old airfield, and a fine collection of Champagne orchids (a close relative – or maybe variety – of our green-winged orchid), together with the glorious sight of hot Badlands slopes turning pink under shrubby rest-harrow.

#### Monday 28 April: Portalet to Formigal; Río Aragón

Dawn broke with scattered cloud in the lowlands, presenting the pre-breakfast crew with the wonderful sight of the first rays of sun stealing across the Badlands landscape, the low angle casting long shadows from every bush, rock and runnel. A snatch of (not very) melodious warbler song suggested a new arrival, and both black and red kites were up and about early. Migrating parties of swallows were moving through, heading into the still keen wind, and a tassel hyacinth had burst into flower since our previous walk there three days ago. But up in the high mountains to the west, it looked very murky, leading to a rethink of my planned itinerary for the day.

So instead we headed east, to Sabiñanigo and thereafter up to the border crossing at Portalet. Up the road, the high level reservoirs were typically birdless, but a short stop there gave us some splendid views of the mountains, albeit partly enveloped in cloud, and the bizarre sight of a cormorant flying high overhead, down the valley to presumably better feeding grounds in the lowlands.

Higher and ever higher, towards Formigal, then Portalet, was like peeling back the seasons: early summer in the lowlands, to the very first inkling of spring at five thousand feet, with snow lying thickly all around us, and at the top it started to snow, at times quite heavily. A coffee and retail therapy stop was in order, before we ventured out into the weather, unable to see anything apart from a few splashes of colour on the vertical rocks in the form of the earliest of all spring flowers, purple mountain saxifrage. Red-billed choughs called from the cloud-blanketed rock faces, and swallows were still moving in some numbers, small groups heading over the pass, skimming the ground as they approached the watershed. A hobby did likewise – presumably it could have had rich pickings among the tired swallows, but it was more intent on migrating. And then, remarkably, the same migratory path was followed by a high-flying group of 16 lesser black-backed gulls (mostly immatures and sub-adults), a quite incongruous sight.

Moving gradually downhill, our first stop was in the huge empty car park for the ski facilities. A skylark sang in the snow, and northern wheatears were active by the snowmelt streams, along with several water pipits, one of which posed perfectly on a head of cleared snow, showing its subtly beautiful plumage to perfection.



Water pipit.

The slopes below Portalet.

It isn't often that 'beautiful' is used in the same sentence as 'pipit'! A little further down, a vantage point among the wild daffodils was ideally placed to watch a splendid male rock thrush, typically perched atop a jumble of boulders. And Steph, in an attempt to get closer to the daffodils, drew our attention to several bundles of fur waddling across the slopes – alpine marmots, no doubt just emerged from hibernation. Indeed, after a short while a number of the prominent 'rocks' started to move and whistle, as the marmots set about establishing territories while keeping watch for hungry predators. With good reason, it turned out, as an immature golden eagle swept along the opposite slopes, its wingtips almost brushing the ground. Still further down, spring was more advanced, and even in the overcast conditions, the spring gentians were blooming profusely, their intense blue complementing the yellow kingcups, orange-yellow Gouan's buttercups, and elder-flowered orchids of both cream and purple colour forms. However, spring clearly still had some way to go: rock buckthorn was still to come into leaf, its bare twigs closely adpressed to the south-facing rocks, trying gecko-like to get the maximum heat from this extreme environment.

Our final mountain stop was at Escarrilla, a short side valley providing at least a modicum of shelter from the increasingly cool and blustery wind, where we could enjoy our al fresco lunch. At least the hummingbird hawkmoth visiting dandelion flowers must have thought so! Then a short potter around the valley in which I have seen wallcreeper in the past. Alas not this year though, but the dramatic slate geology (covered in the nonflowering rosettes of Pyrenean saxifrage), numerous orange-tips, and a vertical, dripping wall of large-flowered butterwort in bloom were some compensation.

Back in the lowlands with time to spare we decided to head down to the Aragón again, to walk the southern banks and stabilised river shingles on the off chance that the breeding bee-eaters had arrived. It was not to be, but sudden and dramatic passages of common and alpine swifts suggested that the migratory urge was overriding the adverse winds. And the two hobbies were still at it, hawking over the rushing waters, while Marie's sharp eyes picked out the tiny orange discs of the eyelash fungus growing on the ground.

In the evening, we were treated to a visit and talk from Luis Tirado, the regional officer of SEO Aragón, the recipients of this trip's donation. As always with those who benefit from Honeyguide visits, he was entertaining, informative and simply excellent, as well as inordinately grateful for our support. In the UK we become accustomed to major NGOs being well-funded, largely through their vast base of supporters, but on the continent, well that is all too often not the case. And to the shame of all other tour companies, Honeyguide is still the only one which regularly supports conservation in the places we visit and get so much out of... And just to prove that the grapevine works well abroad as well as at home, Luis had already heard about our Savi's warbler the previous morning!

#### Tuesday 29 April: Alastuey Valley, Santa Cilia, La Virgen de la Peña; Biniés Gorge

Another cool night, but the early starters were rewarded with yet more signs of birds moving. As we arrived at the Aragón bridge at first light, we caught an exciting few minutes of waterbirds heading down the river valley. In total, some ten grey herons, four little egrets and 14 cormorants headed over us in just a few minutes, though whether this represented true migration or just local roost dispersal is unclear. Otherwise, the rock sparrows were present in noisy force, and a little ringed plover showed well on a gravel shoal.

In an addition to the usual Honeyguide itinerary, we decided to take in the nearest vulture feeding station, near Santa Cilia in the foothills of La Peña, as a delivery was expected at around 11am. While waiting for the appointed time, we drove to Bailo (as always, getting lost in the side streets!), and thence to Alastuey, through a side valley of the Canal de Berdún. Attractive scenery abounded, enriched by the warming sun, and at one particular stop a tawny pipit 'sang' for us on a prominent box bush.

Then it was off into the hills on the unmade forest roads, and after a bumpy ride (and even more interesting parking experience) arrived at the feeding station. Other birders were already there, and indeed so were the vultures, with at least 160 circling above us. We made our way out to the hide, introduced ourselves to the local birders, and waited for lunch to arrive. And waited. And waited … assuming that the carcass would arrive Spanish-style sometime, if not on time. But the vultures thought otherwise, and we were surprised when the skies above us cleared. Then and only then did our friends get the phone call – the delivery was off…leaving us wondering how the vultures could possibly have known before we did through the marvels of modern technology. But all was not lost, as outside the hide we found tuberous meadow-rue, burnt orchid and several pristine fly orchids blooming, and as we wandered back to the van, everyone managed good views of a green hairstreak, at least once they could find it at rest.

On the recommendation of Peter and Mel, we then headed further up the forest roads to the picnic site at La Virgen de la Peña. Perhaps their assessment of the capabilities of the minibus (or my driving) was a little ambitious, but it proved to be an 'interesting' journey, particularly the steep, loose last couple of hundred metres to the car park.... Anyway, we made it, and after watching a narrow-bordered bee hawk-moth flying around our feet, headed off on the waymarked trail towards the isolated white chapel, built into the rock walls below the summit of La Peña. What a lovely walk it proved to be, with butterflies everywhere in the very pleasant sunshine, including Cleopatra and Duke-of-Burgundy. Where the path enters open rocky clearings, with hot south-facing slopes covered in stonecrops, this looks an ideal spot later in the summer for the majestic Apollo. Bird-wise, the woods were full of song – great tits, chaffinches and Bonelli's warblers especially – while a black woodpecker could be heard (but not seen) demolishing a rotten tree down the slope, and a very noisy peregrine wheeled around the cliff tops. And then the picnic site made an ideal lunch site, under the shade of a wild service-tree, the temperature now having risen to 20°C and driven Peter and myself into shorts.





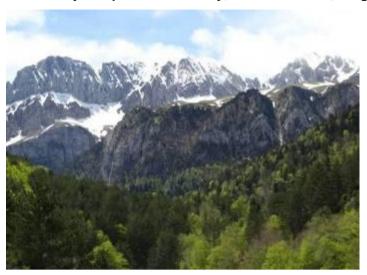
Biniés Gorge, where a bryony ladybird was found on white bryony.

For the afternoon, we then headed out (via a splendid short-toed eagle hovering over a Badlands slope) to the nearby Foz de Biniés, where I left the group, before moving the van down to the bottom of the gorge. By the time we regrouped in mid-gorge, they had seen numerous griffon vultures low overhead, including several on nest ledges, as well as grey wagtails. But no dippers in the river; once a very reliable site for this species, the population in the gorge seems to have declined substantially in recent years, much as it has in the uplands of Britain. The rosettes of *Ramonda*, clinging to the north face of a large rock, were showing no signs of flowering, nor indeed most of the rosettes of Pyrenean saxifrage, and the patches of yellow garlic were still in bud, pregnant with the promise of golden stars in a few days' time. But some of the botanical specialities were flowering well, including rock petrocoptis, rock soapwort, Nottingham catchfly, Pyrenean hyacinth, bedstraw broomrape, bastard-balm and large Mediterranean spurge.

In the sheltered sunny stretches, butterflies abounded, with both brimstone and Cleopatra, and other insects and invertebrates provided interest every step of the way. We saw bryony ladybird (where it should be, on white bryony, which was helpfully growing alongside the unrelated black bryony for comparison and contrast), shield bugs, a crab spider eating a bee, and a giant, almost shrimp-like, bristletail.

But the lingering memory of the gorge is its geology, and the evidence it provides of the Pyrenees' turbulent past. Fault lines in the cliffs; the carpet folds of stratified rocks, sometimes through nearly 180°; the dramatic dolerite sills injected through the landscape, running counter to the underlying strata – all tell tales of continental collisions, the birth of a mountain chain, and its subsequent modification through erosion, seismic events and vulcanism.

#### Wednesday 30 April: Hecho Valley, to Selva de Oza; Aragón Valley



The upper Hecho valley.

Another windy start, so we headed before breakfast down to the marsh, to try and find some shelter. And wherever a little shelter was to be found, we came up with new migrant birds. including grasshopper warbler, olivaceous warbler and several sedge warblers. The wryneck was in its usual area, and singing much more prominently than on previous days. Mindful of the dodgy forecast for the rest of the week (not that we believed in forecasts any more!), another re-jig of the planned programme saw us heading, via a refuelling stop, up the Hecho Valley, and through the dramatic rocky gorge, the Boca de lo Infierno (the aptly-named Hell's Mouth). We stopped first at a reported site for Pyrenean desman, but (as ever) no sign, although there was a dipper in the river and goldcrests in the fir trees. Green hellebore was just past flowering, and both yellow and wood anemones provided colour to the woodland floor. Onwards, beyond

Selva, we headed through mixed natural forest into the open vistas of the upper valley. The scenery in the high valley was stupendous, further enhanced by stonechats and yellowhammers taking advantage of the few bushes (including red-berried elder just coming into flower), and a lammergeier patrolling the skyline cliffs and screes. We parked in the top-most car park, deep into the heart of the mountains, and almost immediately noticed a couple of isards gambolling around the valley bottom. We watched for several minutes, before they sloped off uphill and joined the rest of the herd, maybe 14 in all, which had been grazing unobtrusively all the time. As we walked up the track, marsh tits put in an appearance and a crested tit was tugging at a lichen-encrusted rock, presumably trying to collect lining for its nest. This high up the flowers were few and far between, but included some dramatic blue patches of spring gentian, and the rather less showy, but still

delightful, Corydalis solida. A huge group of alpine choughs rose over the mountainside, some 150 in all, producing all sorts of whistles and trills, quite different from their redbilled cousins feeding on invertebrates across the for river. But some. including me, one of the holiday highlights came on our walk back to the bus. when Steph pointed out an unfamiliar poo on the path at our feet. It was huge,



Spring gentians and Corydalis solida.

12cm or so long, thickly cylindrical, and stuffed full of plant fibres. After due deliberation we realised it could only have come from a brown bear – the area is used by a small number of wanderers from the reintroduction scheme in France – and it was certainly very fresh.

We adjourned for lunch in the picnic site on the edge of the forest, a truly dramatic location overlooking cliffs with drifts of wild daffodils perched on every substantial ledge. Then a short walk through the woods produced a good range of common birds, mostly heard only, together with our first early purple orchids of the trip. But the real excitement came again from excrement, this time horse droppings on the road which were being devoured with relish by hordes of dung beetles, which eventually proved to be the Pyrenean dor beetle *Geotrupes pyrenaeus*. The drive back took us once more through the drama of Hell's Mouth, thence down to our usual stamping grounds on the banks of the Aragón. Here, swifts were still passing through in force, and at least two singing lberian chiffchaffs allowed us to compare their distinctive, more irregular and less onomatopoeic songs with the northern chiffchaffs we had been hearing thus far. A clump of sword-leaved helleborines in flower added to our orchid list, and a black-headed gull resting in the middle of the river was a new bird, both for the trip and for me in this location, while a couple of common sandpipers fed busily along the stony banks.

Back at Casa Sarasa, both Peter and myself were independently treated to the sight and sound of a flock of eight bee-eaters flying low overhead, raising our hopes that the stopper had finally been removed from the migration bottleneck, notwithstanding the fact that the adverse wind was still apparent.

#### Thursday 1 May: Ansó valley to Linza; Roncal and Belagua, to San Martin; Fago Gorge

A welcome clear and calm start saw us once again down by the Aragón, where the usual suspects – grey herons, little egrets, yellow-legged gulls, common sandpipers and little ringed plovers – were all performing. A stunning male pied flycatcher in the poplar plantation suggested that the promise of the previous evening may be being realised.

Heading back to the high mountains, we progressed through Biniés Gorge and into the Ansó valley. Reaching the upper valley, in a short stop to survey the scene, a singing orphean warbler proved impossible to see clearly, although a chequered blue butterfly was much more obliging. We didn't look into the vulture restaurant above Ansó – although it was feeding day, it had been suggested that being May Day, a delivery would be unlikely, and the lack of birds hanging overhead suggested this was indeed the case. Then it was up to the head of the valley, through Zuriza, arriving eventually at the refuge at Linza. After a welcome coffee stop amidst the 'interesting' décor (is naked mountaineering really a recognised – and sensible – pastime?!) a walk into the beech woods was in order. Ringing with bird song, mistle thrush was a new bird for the week, and no sooner had I suggested that woods at this altitude could be suitable for common treecreeper, a treecreeper duly appeared. And then it sang, and revealed itself as a short-toed... The forest floor was bursting into flower, with purple toothwort and seven-leaved bittercress, and most dramatically drifts of Pyrenean squill, presenting an aspect not dissimilar to the bluebell woods black home, one of the most obvious differences being the beard lichens which festooned the branches of the trees, indicative of the lack of air pollution in this area.



And so to lunch, taken at a convenient stopping point on the forest road between Zuriza and Isaba. Although most attention was on the delightful spread, we did lift our eyes long enough to see a stack of griffons above, and having seated himself away from the noise of the tumbling stream, Peter managed to pick up a couple of crossbills flying over.

Then it was back to the hairpins, over into the Roncal-Belagua valley, and then up to the (unmarked) border crossing at San Martin. Unfortunately, we were by now in thick cloud and heavy rain, and the vast, dramatic landscape could only be imagined, so we didn't linger. Instead we headed back down the hairpins, down the Roncal valley, and over to Fago (during which we encountered our only hoopoe of the trip), and to the dramatic viewpoint overlooking the gorge. Griffons sailed around, and just as we were about to leave, an adult golden eagle swept past over the mountainside. But sadly, and surprisingly, no amount of searching could produce a blue rock thrush on a pinnacle – for some reason, they seemed few and far between this year.

The final passage down the Fago Gorge to Berdún completed a wonderful day of hairpins, gorges, weather and wildlife!

#### Friday 2 May: Santa Cruz; Peña Reservoir; Riglos; Aragón Valley

Overnight the wind got even stronger and colder, and as dawn broke there was evidently a lot of rain around, particularly to the west. Fortunately, that is where it stayed for most of the day. We headed down to Berdún Marsh for a final pre-breakfast birdwatch, and we were not disappointed. In just five minutes, five new migrants for the holiday put in appearance, again with purposefully-moving flocks of swallows. A yellow wagtail and two turtle doves headed over us, single garden warbler and spotted flycatchers were feeding among the willows and poplars, and at last the call of a golden oriole rang out in the early morning air. David spotted it perched on a skyline bush on the distant Badlands slope, before it swept gracefully into its more familiar habitat, the poplar plantation. As we returned for breakfast, our familiar little owl was standing sentinel on its favoured tumbledown barns.

In an addition to our planned itinerary, Peter and Mel had arranged for us to visit the home of their friends in Santa Cruz, friends who regularly report large moths attracted to their outside lights. Sadly we were probably too early for the main emergence of one highly desirable species, the Spanish moon moth, but the lights came up trumps with four giant peacock moths, along with several smaller species including dagger, early thorn, Hebrew character and whitepoint.

On with the planned day, to the southernmost reaches of the pre-Pyrenean range, the first stop was next to the Peña Reservoir. It was cold, with a strong wind and heavy cloud as we crossed the reservoir on a wobbly concrete slab bridge, and water birds were restricted to a very distant great-crested grebe. Greater yellow-rattle was flowering well in the meadow on the far shore, and out of the wind, a burnet companion moth put in an appearance.



Giant peacock moth.

Then a short drive to the dam, across which we made our way to pay homage to a veritable rock garden, covered in saxifrages and other plants, including some superb flowering examples of Pyrenean saxifrage and the iconic Pyrenean endemic *Ramonda*. Then it was eyes skyward as a lovely pale short-toed eagle circled overhead, harried by a yellow-legged gull, both set off against what was now a deep blue sky. And an abiding multi-sensory image was the powerful spout of water issuing from the hydroelectric plant, and the rainbow it created as spray rose from the rocks below.



Pyrenean saxifrage.

Short-toed eagle.

Passing then through the dramatic rock formations which mark the last bastion of the Pyrenees, we entered an area of lower-lying land, with agriculture, olives and gentle relief – the start of the Ebro Basin. Fortunately close to a point I could park safely, I spotted a flock of bee-eaters on the roadside wires, and we were all treated to a few minutes' display of the aerial mastery of these flying jewels. And as it was now lunchtime, and our parking spot was in a relatively sheltered olive grove, it seemed the ideal spot to picnic. The scrub community around us was markedly different from those we had seen hitherto, with a dominance of rosemary, kermes oak and turpentine bush, indicating we had entered the Mediterranean zone proper. Likewise, the rose garlic and Cantabrian bindweed on the road verge represented two plants we had not seen previously.

From there to Riglos, its economy apparently intimately linked with Los Mallos, a series of hugely impressive red conglomerate cliffs with the village nestled at the bottom of them. Walkers, birders, climbers and sightseers were in evidence everywhere, though it has to be said the same did not apply to the birds. Yes, there were griffons around, and some evidence of nests on the cliffs, but to judge from the well-worn climbing trails there are few parts of the cliffs closest to the village which do not suffer from considerable disturbance. Of course, another factor in the lack of vultures was probably the high winds. We perhaps were not aware of just how strong they were until we turned into the natural amphitheatre and almost literally blown off our collective feet: H&S considerations at that point dictated we turn back! As well as a refreshment break, the potter back through Riglos produced fleeting views of nettle-tree butterfly among the nettle-tree groves, blue scarlet pimpernel, a sheltering Egyptian locust and an impressive large green spider *Micrommata virescens*.

If yesterday had been characterised as a day of gorges, valleys and hairpins, perhaps the theme of this day had been the immense power of nature – the geological processes which created and deformed the Pre-Pyrenees into their majestic form; the power of water which eroded them into the shapes we now see, and which was so obvious at the dam; and the power of wind which could quite easily have seen us merging with the landscape a little too closely.

With a little time in hand, we visited the Aragón again before returning home. Alas no bee-eaters, but a female pied flycatcher was good to see, and a chiffchaff was good to hear. Although in the same place as the Iberian chiffchaff a couple of days ago, and northern chiffchaff at the start of the holiday, this was clearly different to



Los Mallos at Riglos.

either. Intermediate in song in many ways, this was a so-called 'mixed singer', the true identity of which is still open to debate. A hybrid? Or an example of one or other species mimicking elements of the song of the other?

And so back to Casa Sarasa before settling down for our last, excellent meal and a review of the past few days of wildlife and landscape delights.

#### Saturday 3 May: the way home...

Given the revised flight time, we had a more leisurely start than originally anticipated. Time to pack after breakfast, load the minibus and bid farewell to Peter and Mel, the dogs and Berdún (with griffon vultures overhead) by 11.00, and that still gave us a brief opportunity to explore a Badlands valley which was previously unknown to me, where Peter had 'the nightingale experience of all time' while walking the dogs that morning. And what a lovely sight and sound: numerous nightingales in song, along with several melodious warblers and cirl buntings....surely one to explore on the next trip!

And so homewards. It was all very pleasant at first, with bright sunshine as far as Pamplona, but then as the motorway weaved its way through the mountains, the cloud bubbled up and soon we were in it, in torrential rain and severely limited visibility. Not what you want with a plane to catch! However, we got through it, unscathed and on schedule, with even enough time to eat our picnic in the open air rather than in the airport.

#### The Best Bits

As is customary on a Honeyguide trip I asked the group to tell me their favourite parts and sightings of the trip:

- **Marie** Griffon vultures rising majestically over Berdún on the first morning; the enchanting globularias, almost wherever we went; the fantastic scenery and drives; and of course (shared by everyone) the food and hospitality at Casa Sarasa.
- **Peter** Aerobatic perfection: the hobbies over the river; ranks of daffodils flowering on the Hecho valley cliffs; the giant peacocks; and the intimacy of Biniés Gorge.
- **Elonwy** Our day touring the gorges and valleys (and hairpins!); gentians, such a rich colour in the turf; and Spanish festoons at Yesa, beautiful and co-operative.
- David That first sight of griffons 'in our back yard'; Biniés Gorge again (interesting this, it seems to have shown itself in a very good light this year); and the sights and sounds of migration as it happens.
   Steph Griffons again, but this time the larger number waiting (in vain) to be fed; flowers in abundance, including such delights as the wild tulips; and the undoubted winner her bear poo.

For my part, the real highlights have largely all been taken by others (including the bear poo – one of the most exciting things I have seen for a long time!), but to continue on a scatological theme, the dung beetles demolishing the horse deposits. Where had they all come from? And at the risk of eclipsing the rest of our food, the best pea soup I have ever had the privilege of wrapping myself around – a texture like liquid silk, and unsurpassable freshness and fragrance.

By common consensus, one of the highlights of every day was the mealtimes, and the delights, always fresh and tasty, we were served by Melanie and Peter (despite our diverse range of dietary constraints), which completed the perfect triumvirate of wildlife, weather and food!

My thanks to all involved in what was another outstanding Honeyguide trip, which I feel privileged to have led.

#### SYSTEMATIC LISTS

#### **KEY TO LOCALITIES**

In the following lists, specific locality codes are given only for the more interesting species found in a small number of localities. Otherwise if any code is given, it is the generalised zone code.

> Especially for the plants, the list below concentrates on those seen in flower, with just a few more distinctive non-flowering species.

> > BRYOPHYTES (Mosses)

#### Canal de Berdún (CB)

B – Berdún, including the banks of the Veral and Berdún Marsh
Ar – Río Aragón, between Puente la Reina and the confluence with the Veral
Y – Yesa Reservoir

#### Lower gorges (LG)

Bi – Biniés gorge Fa – Fago gorge L – Lumbier and Arbayún gorges

#### Pre-Pyrenees (PP)

J – San Juan de la Peña and Santa Cruz de la Seros V – Virgen de la Peña

R - Riglos and the 'Ramonda rock'

### High Pyrenees (HP)

P - Portalet and Formigal

- E Escarilla
- H Hecho Valley
- SM San Martin and Belagua
- An Upper Ansó Valley

	(NOSSES)	
Grimmia pulvinuta		
	ERIDOPHYTES (Ferns)	
Asplenium adiantum-nigrum A. ruta-muraria A. trichomanes Ceterach officinarum Polypodium interjectum P. vulgare Pteridium aquilinum	Black Spleenwort Wall-rue Maidenhair Spleenwort Rustyback Fern Intermediate Polypody Common Polypody Bracken	Bi B Bi B Bi Bi L Bi J
	INOSPERMS (Conifers)	
Abies alba Cupressus sempervirens Juniperus communis J. communis ssp. nana Pinus nigra P. sylvestris P. uncinata Taxus baccata	Silver Fir Cypress Juniper Alpine Juniper Black Pine Scots Pine Mountain Pine Yew	HP R CB PP HP PP HP PP HP SM Bi
	DICOTYLEDONS	
Aceraceae Acer campestre A. monspessulanum A. opalus Anacardiaceae Pistachia lentiscus P. terebinthus Apiaceae Bupleurum rigidum Eryngium campestre Foeniculum vulgare Scandix pecten-veneris Aquifoliaceae Ilex aquifolium Araliaceae Hedera helix	Maple Family         Field Maple         Montpelier Maple         Pistachio Family         Lentisc         Turpentine Bush         Carrot Family         Field Eryngo         Fennel         Shepherd's-needle         Holly Family         Holly         Ivy Family         Ivy	Bi Bi <b>LG</b> R Bi Ar B
H. hibernica Asteraceae Artemisia absinthium A. campestre Bellis perennis Carduus tenuiflorus Centaurea calcitrapa	Irish Ivy Daisy Family Wormwood Field Southernwood Daisy Slender thistle Red Star-thistle	Bi B Ar <b>CB</b>
Helichrysum stoechas		UD

Lactuca perennis	Blue Lettuce	L
Onopordon acanthium	Scotch Thistle	L
Pallenis spinosa	Spiny Fleabane	R
Rhagadiolus stellatus	Spiriy Lieaballe	R
Santolina chamaecyparissus	Lavender Cotton	СВ
Silybum marianum	Milk Thistle	B
Taraxacum sp.	Dandelion	HP
Tussilago farfara	Colt's-foot	HP
Berberidaceae	Barberry Family	•••
Berberis vulgaris	Barberry	CB PP
Betulaceae	Birch Family	•=••
Betula pendula	Silver Birch	
Boraginaceae	Borage Family	
Borago officinalis	Borage	В
Buglossoides purpuro-caerulea	Purple Gromwell	Ar Bi L
Cynoglossum creticum		BL
Échium plantagineum	Purple Viper's-bugloss	R
Lithodora fruticosum	Shrubby Gromwell	СВ
Pulmonaria affinis	Lungwort	H An
Symphytum officinale	Comfrey	ВJ
Brassicaceae	Cabbage Family	
Aethionema saxatile	Burnt Candytuft	L
Alliaria petiolata	Garlic Mustard	
Alyssum alyssoides	Small Alison	СВ
Arabis turrita	Towercress	LG PP
Capsella bursa-pastoris	Shepherd's-purse	
Cardamine heptaphylla	Seven-leaved Bittercress	An
Cardaria draba	Hoary Cress	
Erophila verna	Whitlow-Grass	
Lepidium heterophyllum	Smith's Pepperwort	В
Lunaria rediviva	Perennial Honesty	J
Matthiola fruticulosa	Sad Stock	СВ
Nasturtium officinale	Watercress	В
Buxaceae	Box Family	
Buxus sempervirens	Box	CB PP
Caprifoliaceae	Honeysuckle Family	
Lonicera etrusca	Perfoliate Honeysuckle	LG
L. xylosteum	Fly Honeysuckle	В
Sambucus ebulus	Dwarf Elder Elder	В
S. nigra S. racemosum	Red-berried Elder	Н
Viburnum lantana	Wayfaring-tree	J
V. opulus	Guelder-rose	BJ
Caryophyllaceae	Pink Family	DJ
Cerastium fontanum	Common Mouse-ear	
Paronychia argentea		СВ
Petrocoptis pyrenaica	Rock Petrocoptis	Bi
Saponaria ocymoides	Rock Soapwort	Bi An
Silene alba	White Campion	2
S. nutans	Nottingham Catchfly	Bi
Celastraceae	Spindle Family	
Euonymus europaeus	Spindle	
Cistaceae	Rock-rose Family	
Fumana ericoides		CB LG
Helianthemum apenninum	White Rock-rose	CB PP
H. canum	Hoary Rock-rose	СВ
H. nummularium ssp. pyrenaicum	Pyrenean Rock-rose	L
Convolvulaceae	Bindweed Family	
Convolvulus cantabricus	Cantabrian Bindweed	R
Cornaceae	Dogwood Family	
Cornus sanguinea	Dogwood	
Crassulaceae	Stonecrop Family	<b>D</b> .
Sedum dasyphyllum	Thick-leaved Stonecrop	RJ
Umbilicus rupestris	Navelwort	Bi

Cucurbitaceae	Cucumber Family	
Bryonia dioica	White Bryony	B Bi L
Ericaceae	Heather Family	
Arctostaphylos uva-ursi	Bearberry	J
Vaccinium myrtillus	Bilberry	J
Euphorbiaceae	Spurge Family	
Euphorbia amygdaloides	Wood Spurge	CB PP HP
E. chamaebuxus	Pyrenean Spurge	СВ
E. characias	Large Mediterranean Spurge	PP Bi
E. flavicoma		HP
E. helioscopia	Sun Spurge	_
E. lathyrus	Caper Spurge	В
E. serrata	Serrated Spurge	СВ
Fabaceae	Pea Family	
Anthyllis vulneraria ssp. pyrenaica	Kidney Vetch	LG PP
Argyrolobium zanonii		Ar
Astragalus monspessulanus	Montpelier Milk-vetch	СВ
Cercis siliquastrum	Judas Tree	В
Coronilla emerus	Scorpion Vetch	CB LG
Dorycnium hirsutum		R
D. pentaphyllum		R
Echinospartium horridum		J
Genista hispanica	Spanish Gorse	Ar
G. scorpius	Berdún Broom	CB PP
Hippocrepis comosa	Horseshoe Vetch	СВ
Lathyrus setifolius		В
Ononis fruticosa	Shrubby Rest-harrow	СВ
Psoralea bituminosa	Pitch Trefoil	LG
Robinia pseudoacacia	False Acacia	BR
Tetragonolobus maritimus	Dragon's-teeth	СВ
Fagaceae	Oak Family	
Fagus sylvatica	Beech	PP HP
Quercus coccifera	Kermes Oak	CB PP
Q. ilex	Holm Oak	CB LG PP
Q. ilex Q. petraea	Holm Oak Sessile Oak	CB LG PP PP
• -		
Q. petraea	Sessile Oak	PP
Q. petraea Q. pyrenaica	Sessile Oak Pyrenean Oak <b>Fumitory Family</b>	PP
Q. petraea Q. pyrenaica <b>Fumariaceae</b>	Sessile Oak Pyrenean Oak	PP PP
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida	Sessile Oak Pyrenean Oak <b>Fumitory Family</b>	PP PP HP
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata	Sessile Oak Pyrenean Oak <b>Fumitory Family</b> Ramping Fumitory	PP PP HP L
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis	Sessile Oak Pyrenean Oak <b>Fumitory Family</b> Ramping Fumitory Fumitory	PP PP HP L
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b>	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family	PP PP L B
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis	Sessile Oak Pyrenean Oak <b>Fumitory Family</b> Ramping Fumitory Fumitory <b>Gentian Family</b> Trumpet Gentian	PP PP L B
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna	Sessile Oak Pyrenean Oak <b>Fumitory Family</b> Ramping Fumitory Fumitory <b>Gentian Family</b> Trumpet Gentian Spring Gentian	PP PP L B
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b>	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family	PP PP L B
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill	РР РР Ц В НР НР
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium E. moschatum	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill	<b>РР</b> <b>РР</b> L B <b>НР</b> <b>НР</b> <b>НР</b>
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium E. moschatum Geranium lucidum	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Shining Crane's-bill	<b>РР</b> <b>РР</b> L B <b>НР</b> <b>НР</b> <b>НР</b>
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium E. moschatum Geranium lucidum G. molle	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill	PP PP L B HP HP LG
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin	PP PP L B HP HP HP
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert	PP PP L B HP HP HP
Q. petraea Q. pyrenaica <b>Fumariaceae</b> Corydalis solida Fumaria capreolata F. officinalis <b>Gentianaceae</b> Gentiana acaulis G. verna <b>Geraniaceae</b> Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. rotundifolium	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill	PP PP L B HP HP HP
Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. rotundifolium Gesneriaceae	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family	РР РР Ц В НР НР В LG LG
Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill	РР РР Ц В НР НР В LG LG
Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi Globulariaceae	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family	PP PP L B HP HP LG LG Bi R
Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi Globularia cordifolia	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family	<b>РР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>Н</b> <b>Н</b> <b>Н</b> <b>Н</b> <b>Н</b> <b>Н</b> <b>Н</b> <b>Н</b>
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Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi Globularia cordifolia G. punctata G. repens	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family Globularia Family	РР РР Ц В НР НР НР НР НР НР НР НР НР НР
Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi Globularia cordifolia G. punctata G. repens Lamiaceae	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Shining Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family Globularia Family Creeping Globularia Labiate Family	<b>РР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>НР</b> <b>В</b> <b>СВ</b> <b>В</b> <b>СВ</b> <b>НР</b> <b>РР</b> <b>СВ</b> <b>НР</b>
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Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi Globularia cordifolia G. punctata G. punctata G. repens Lamiaceae Ajuga chamaepitys Lamium amplexicaule L. purpureum Melittis melissophyllum	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Dove's-foot Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family Globularia Family Creeping Globularia Labiate Family Ground-pine Henbit Dead-nettle Red-Dead-nettle	PP PP L B HP HP B LG LG Bi R Bi R PP CB HP Ar Bi
Q. petraea Q. pyrenaica Fumariaceae Corydalis solida Fumaria capreolata F. officinalis Gentianaceae Gentiana acaulis G. verna Geraniaceae Erodium cicutarium E. moschatum Geranium lucidum G. molle G. purpureum G. robertianum G. robertianum G. rotundifolium Gesneriaceae Ramonda myconi Globularia cordifolia G. punctata G. repens Lamiaceae Ajuga chamaepitys Lamium amplexicaule L. purpureum Melittis melissophyllum Phlomis lychnitis	Sessile Oak Pyrenean Oak Fumitory Family Ramping Fumitory Fumitory Gentian Family Trumpet Gentian Spring Gentian Crane's-bill Family Common Stork's-bill Musk Stork's-bill Musk Stork's-bill Dove's-foot Crane's-bill Dove's-foot Crane's-bill Little-Robin Herb-Robert Round-leaved Crane's-bill African-violet Family Globularia Family Ground-pine Henbit Dead-nettle Red-Dead-nettle Bastard Balm	PP PP L B HP HP HP B LG L LG Bi R Bi R PP CB HP Ar Bi CB

Stachys recta	Yellow Woundwort	R
Thymus vulgaris	Shrubby Thyme	CB PP
Lentibulariaceae	Butterwort Family	
Pinguicula grandiflora	Large-flowered Butterwort	E
Linaceae	Flax Family	<b>D</b>
Linum bienne	Pale Flax	R
L. narbonense Loranthaceae	Beautiful Flax Mistletoe Family	CB PP
Viscum album ssp. album	Mistletoe	СВ
Viscum album ssp. austriacum	Misticioe	PP HP
Malvaceae	Mallow Family	
Malva sylvestris	Common Mallow	
M. neglecta	Dwarf Mallow	
Moraceae	Fig Family	
Ficus carica	Wild Fig	LG
Oleaceae Fraxinus excelsior	Olive Family Ash	Bi
Jasminum fruticans	Wild Jasmine	BL
Olea europaea	Olive	R
Orobanchaceae	Broomrape Family	
Lathraea clandestina	Purple Toothwort	B Ar An
Orobanche amethystea		Bi
O. caryophyllacea	Bedstraw Broomrape	Bi
O. gracilis		Y
Oxalidaceae	Wood-sorrel Family	
Oxalis acetosella	Wood-sorrel	HP
Papaveraceae Chelidonium majus	Poppy Family Greater Celandine	Bi
Papaver rhoeas	Common Poppy	
Plantaginaceae	Plantain Family	
Plantago sempervirens	Shrubby Plantain	R
Polygalaceae	Milkwort Family	
Polygala comosa	Tufted Milkwort	PP
P. vulgaris	Common Milkwort	СВ
Polygonaceae	Dock Family	<b>.</b> .
Oxyria digyna	Mountain Sorrel	Bi
Primulaceae Anagallis arvensis	Primrose Family Scarlet Pimpernel	
Coris monspeliensis	Scallet Filliperner	Ar
Primula elatior	Oxlip	HP
P. hirsuta		Р
P. veris	Cowslip	J HP
Ranunculaceae	Buttercup Family	
Anemone nemorosa	Wood Anemone	Н
A. ranunculoides	Yellow Anemone	H
Aquilegia vulgaris	Columbine March maricald	
Caltha palustris Clematis vitalba	Marsh-marigold Traveller's-joy	HP
Helleborus foetidus	Stinking Hellebore	CB PP
H. viridis	Green Hellebore	HP
Hepatica nobilis	Hepatica	PP HP
, Ranunculus aquatilis	Common Water-crowfoot	J
R. arvensis	Corn Buttercup	В
R. ficaria	Lesser Celandine	
R. gouanii	Gouan's Buttercup	HP
R. gramineus	Grass-leaved Buttercup	
R. pyrenaeus Resedaceae	Pyrenean Buttercup Mignonette Family	HP
Reseda phyteuma	Corn Mignonette	Ar
Rhamnaceae	Buckthorn Family	
Rhamnus alaternus	Mediterranean Buckthorn	LG
R. pumilus	Dwarf Buckthorn	HP
Rosaceae	Rose Family	
Amelanchier ovalis	Snowy Mespilus	CB PP
Crataegus monogyna	Hawthorn	

Fragaria vescaWild StrawberryJMalus sylvestrisCrab ApplePotentille tabernæmontaniSpring CinquefoilCB PPPrunus aviumWild CherryBi LP. apinosaBlacktromRubus futicosusBrambleSorguisorba minorSalad BurnetCBSorbus ariaWhitebearnPPStorminalisWild Scruce-treeVSybreae hypericitoliaBridal-wreathLRubus futicosusEdstarw FamilyCuciata laevipesCruciata laevipesCrosswortJRuba ceregrinaWild MadterShararcia arvensisField MadderSalta cabaSantalaceaeWillowSaltrage cabaSantalaceaeSaltrage cabaSantalaceaeSaltrage corbariensisPyrenean SaxifrageS ongolofiaPyrenean SaxifrageS ongolofiaPyrenean SaxifrageS ongolofiaPyrenean SaxifrageS ongolofiaPyrenean SaxifrageS ongolofiaPyrenean SaxifrageS ongolofiaLG PP HPSoronica austriacaLage SpeedwellV hedorifolaHyy-leaved ToadtaxHendsanBiLinara ajninaAlpine ToadtaxHPPurple WillowSolaradoCormon Field SpeedwellV hedorifolaLage SpeedwellV hedorifolaLage SpeedwellV hedorifolaSurge-SpeedwellV hedorifolaSurge-SpeedwellV hedorifolaSurge-SpeedwellV hyperaicaSpeedw			_
Potentilia tabemaemontani       Spring Cinquefoil       CB PP         Prunus avium       Wild Cherry       Bi L         P. spinosa       Blackthom       Bi L         Rubus fruitocsus       Brambie       Structe's Cherry       Bi L         Sanguisorba minor       Salad Burnet       CB         Sorbus aria       Wild Service-tree       Y         Spinae Inpencifulia       Birdat-wreath       L         Rubia pregrina       Wild Madder       Y         Rubia pregrina       Wild Madder       J         Starardia avensis       Field Madder       J         Spiraea Inpencifulia       Black Poplar       Ar         Saliacecee       Willow Family       Populus nigra       Black Poplar         Spurpurea       Purple Willow       Ar       Saliafagaceae         Saxifrage corbaniensis       Purple Mountain Saxifrage       P         S. oppositiona       Purple Mountain Saxifrage       P         Songrationium majus       Greater Yellow-ratile       R         Sundardo corbaniensis       Ty-leaved Toadflax       B         S. oppositiona       HP       Pieaved Toadflax       B         Marinthus angustionus       Greater Yellow-ratite       R <td< td=""><td>Fragaria vesca</td><td>Wild Strawberry</td><td>J</td></td<>	Fragaria vesca	Wild Strawberry	J
Pr.mahelab     Wild Čherný     Bi L       P. mahelab     St. Luciés Cherny     Bi L       P. spinosa     Blackthorn     Bi L       Sanguisorba minor     Salad Burnet     CB       Sorbus aria     Whitebeam     PP       St. torminalis     Wild Čherný     V       Strominalis     Wild Červice-tree     V       Strominalis     Wild Červice-tree     V       Strominalis     Brdstraw Family     L       Cruciata lævipes     Crosswort     J       Statarada arvensis     Field Madder     Staticacea       Saltacacea     Willow Family     Ar       Salta aba     Wille Willow     Bi       Satifrage corbaniensis     Satifrage Family     Ar       Satifrage corbaniensis     Purple Willow     Ar       Startirage corbaniensis     Pyrenean Saxifrage     LG PP       Songitolia     Pyrenean Saxifrage     LG PP       Songitolia     Pyrenean Saxifrage     LG PP       Stromina anualis     Ivy-leaved Toadflax     B       Chaenorthium origanifolium     Craed Speedwell     Y       V. hoderifolia     Large Speedwell     Y       V. hoderifolia     Ly-leaved Speedwell     Y       V. hoderifolia     Lime Family     D       Dap			
P. maheleb     St Lucie's Cherry     Bit       P. spinosa     Blackthorn     Blackthorn       Rubus fruticosus     Bramble     CB       Sanguisorba minor     Salad Burnet     CP       Sorbus aria     Whitebearn     PP       S. torminals     Wild Service-tree     V       Spiraea hypericitolia     Bridat-wreath     L       Rubiaceae     Bedstraw Family     Crosswort     J       Cruciata laevipes     Crosswort     J     Stardia avensis       Sherardia avensis     Field Madder     Stardia avensis     Field Madder       Salicaceae     Willow Family     Populus rigra     Black Poplar     Ar       Saliraga corbariensis     Field Madder     Startingaceae     Salirage Family     R       Saxtiragaceae     Saxifrage Corbariensis     R     LG PP       Sartificagaceae     Saxifrage Corbariensis     R     CG P       Sopostifolia     Pyrenean Saxifrage     LG CP       Chanorchinum origanifolium     Ly-leaved Toadflax     B       Chanorchinum origanifolium     Ly-leaved Speedwell     Y       V hoderifolia     Ly-leaved Speedwell     Y       V hoderifolia     Ly-leaved Speedwell     Y       V hoderifolia     Line Family     Field Madde       Chano			CB PP
P. spinosa       Blackthorn         Rubus futicosus       Bramble         Sanguisorba minor       Salad Burnet       CB         Sorbus aria       Wild Service-tree       V         Spinosa       Bridst-wreath       L         Rubis futicosus       Bridst-wreath       L         Rubia concert       Bedstraw Family       J         Cruciata lacvipes       Crosswort       J         Rubia concertina       Wild Mader       Starradia arvensis         Salicaceae       Willow Family       Ar         Salicaceae       Willow Family       Ar         Salix alba       White Willow       Bi         Santalaceae       Saxifrage Family       R         Saxifrage.caeae       Saxifrage Family       R         Saxifrage.caeae       Saxifrage Family       R         Sarifrage.caeae       Saxifrage Family       R         Sarifrage.caphulariaceae       Figwort Family       P         Chenorthium origanifolium       Ly-leaved Toadflax       B         Chaenorthium origanifolium       Ly-leaved Speedwell       Y         V. hoderifolia       Ly-leaved Speedwell       Y         V. hoderifolia       Ly-leaved Speedwell       Y			
Rubus fruitoosus     Bramble       Sanguisorba minor     Sala Burnet     CB       Sorbus aria     Whitebeam     PP       S. torminalis     Wild Service-tree     V       Surase inypericitolia     Bridat-wreath     L       Rubia peregrina     Wild Madder     J       Rubia peregrina     Wild Madder     J       Sheardia alevipes     Crosswort     J       Salcaceae     Willow Family     Populus ingra       Populus nigra     Black Poplar     Ar       Sakratba     White Willow     Bi       S. pupurea     Purple Willow     Ar       Sarifragaceae     Sauffrage Family     R       Scorphulariaceae     Sauffrage Corbainsis     R       Scorphulariaceae     Flyorenan Saxifrage     P       Scorphulariaceae     Flyorenan Saxifrage     P       Scorphulariaceae     Flyorenan Saxifrage     P       Chaenorhinum organifolium     LG PP     P       Chaenorhinum organifolium     Vy-leaved Toadflax     H       Veronica austraca     Large Speedwell     Y       V hederifolia     Vy-leaved Speedwell     Y       V hederifolia     Ly-leaved Speedwell     Y       V hederifolia     Ly-leaved Speedwell     Y       V hederifolia		,	Bi L
Sanguisorba minor     Salad Burnet     CB       Sorbus aria     Wild Service-tree     Y       Sorbus aria     Wild Service-tree     Y       Spirasea hyperioliolia     Bridal-wreath     L       Rubiaceae     Bedstraw Family     J       Cruciata laevipes     Crosswort     J       Rubia pergrina     Wild Madder     J       Salacacee     Wild Wadder     Sistanta       Salat atioa     Wite Wilow     Bis       Spurpurea     Purple Willow     Ar       Salat atioa     Wite Wilow     Ar       Salat atioa     Sandatwood Family     Ar       Satifragaceae     Sauffrage Family     R       Satifragaceae     Sauffrage Family     R       S. oppositilolia     Pyrenean Saufrage     LG PP HP       S. oppositilolia     Pyrenean Saufrage     LG PP HP       S. oppositilolia     Pyrenean Saufrage     LG PP       Crubalaria muralis     Nay-leaved Toadflax     HP       Anitrinium majus angustifolius     Greater Yellow-rattle     R       V. persica     Common Field Speedwell     Y       V. presica     Common Field Speedwell     Y       Violaceae     Violateae     PP       Violaceae     Violacoorat     Sweet Violet     PP </td <td></td> <td></td> <td></td>			
Sorbus aria     Whitebeam     PP       S. torminalis     Wild Service-tree     V       S. torminalis     Bridal-wreath     L       Rubiaceae     Bedstraw Family     L       Rubia peregrina     Wild Madder     J       Sheardia alevipes     Crosswort     J       Salicaceae     Wild Madder     J       Salicaceae     Wild Madder     Ar       Salicaceae     Wild Willow     Bi       S purpurea     Black Poplar     Ar       Satifagaceae     Saufrage Family     K       Satifagaceae     Saufrage Family     R       Scoppositifolia     Pyrenean Saxifrage     P       S popositifolia     Pyrenean Saxifrage     P       S coppositifolia     Pyrenean Saxifrage     P       Solaraceae     Figwort Family     LG PP       Wrinica alpina     Alpine Toadflax     H       Rhinantinus angustfolus     Greater Yellow-ratile     R       V persica     Common Field Speedwell     Y       V chederifolia     Lurge Speedwell     Y       V prensica     Common Dog-vi			
S. torminalis     Wild Service-tree     V       Spiraea hypericifolia     Bidal-wreath     L       Rubiaccae     Bidal-wreath     L       Cruciata laevipes     Crosswort     J       Rubia pergrina     Wild Madder       Salicaccae     Wild Watder       Populus nigra     Black Poplar     Ar       Salicacae     Wild Willow     Bi       S. purpurea     Purple Willow     Ar       Santalaceae     Santalaceae     Salitrage Family       Saxifrage corbariensis     R     LG PP       S. oppositiola     Purple Muntain Saxifrage     LG PP HP       S. oppositiola     Purple Mountain Saxifrage     LG PP HP       S. oppositiola     Purple Mountain Saxifrage     R       S. oppositiola     Purple Mountain Saxifrage     R       S. oppositiola     Purple Mountain Saxifrage     R       Veronica austriaca     Large Speedwell     Y       V. hederifolia     Ivy-leaved Toadflax     HP       Rimanthus angustifolus     Greater Yellow-rattle     R       Veronica austriaca     Large Speedwell     Y       V. hederifolia     Ivy-leaved Speedwell     Y       Violacaee     Common Field Speedwell     Y       Violacaee     Violate Family     J			
Spiraea hypericifolia       Bridat-wreath       L         Rubiaceae       Bedstraw Family       J         Cruclata laevipes       Crosswort       J         Rubia peregrina       Wild Madder       J         Sheardia arvensis       Field Madder       Ar         Saficaceae       Willow Family       Populus nigra       Black Poplar       Ar         Salicaceae       Wille Willow       Bi       Spurpurea       Purple Willow       Ar         Satifagaceae       Sauffrage Family       K       K       Sairtagaceae       Sauffrage Corbariensis       R       LG PP         Savifragaceae       Sauffrage Corbariensis       R       LG PP       Sopositifolia       Pyrenean Savifrage       P       Sople Willow       B       LG PP       Sopositifolia       Pyrenean Savifrage       P       Sopositifolia       Pyrenean Savifrage       P       Sopositifolia       Pyrenean Savifrage       P       Sopositifolia       LG PP       Sopositifolia       LG PP       Sopositifolia       Soprohu-traite       R       LG PP       P       Portole Austriace       LG PP       Sopositifolia       LG PP       Sopositifolia       LG PP       Sopositifolia       LG PP       P       P       P       P       Sopositifolia			
Rubiacceia       Bedstraw Family         Cruciate laevipes       Crosswort       J         Rubia peregrina       Wild Madder         Sherardia arvensis       Field Madder         Salicaceae       Wild Wild Madder         Populus nigra       Black Poplar       Ar         Salix aba       White Willow       Bi         S. purpurea       Purple Willow       Ar         Santalaceae       Saxifrage corbariensis       LG PP         S. oppositiola       Purple Mountain Saxifrage       P         S. oppositiola       Purple Mountain Saxifrage       P         S. oppositiola       Purple Mountain Saxifrage       P         S. oppositiola       Purple Mountain Saxifrage       LG PP HP         Creater Yellow-rattle       R       R         Veronica austriaca       Lag Speedwell       Y         V. hederifolia       Ivy-leaved Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Solanaceae       Nightshade Family       J         V. hederifolia       Ivy-leaved Speedwell       Y         V. hederifolia       Vy-leaved Speedwell       Y         V. hederifolia       Surge-laurel       J H			
Cruciatia laevippes     Crosswort     J       Rubia peregrina     Wild Madder       Salicaccae     Willow Family       Salicaccae     Willow Family       Populus nigra     Black Poplar     Ar       Salicaccae     Willow Family     Black Poplar     Ar       Salitaccae     Purple Willow     Bi       S. purpurea     Purple Willow     Ar       Salitaccae     Saxifrage Family     R       Salitaccae     Saxifrage Cae     Saxifrage Family       Salitaccae     Saxifrage Cae     R       S. longflolia     Pyrenean Saxifrage     P       S. longflolia     Purple Mountain Saxifrage     P       Scoppositifolia     Purple Applace     CG PP HP       S. oppositifolia     Purple Applace     B       Creater Yellow-rattle     R     B       Chaenorhirum origanifolium     Vy-leaved Speedwell     Y       Veronica austriaca     Large Speedwell     Y       V. persica     Common Field Speedwell     Y       Solanaccae     Nightshade Family     HP       Hyoscyamus niger     Henbane     B       Thymelaeaceae     Daphne Family     J H       Violaccae     Violet Family     J       Violacotata     Sweet Violet     PP			L
Rubia peregrina       Wild Madder         Sherardia arvensis       Field Madder         Saficaceae       Willow Family         Populus nigra       Black Poplar       Ar         Salix siba       White Willow       Bi         S. purpurea       Purple Willow       Ar         Santalaceae       Santalaceae       Santalaceae         S. Iongifolia       Purple Willow       Ar         S. oppositifolia       Purple Mountain Saxifrage       LG PP HP         S. oppositifolia       Purple Mountain Saxifrage       P         S. oppositifolia       Alpine Toadflax       HP         Chaenorhinum origanifolium       Ivy-leaved Toadflax       HP         Chaenorhinum aging       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. persica       Common Field Speedwell       Y         V. persica       Souraleacee       Daphne Family       H         Tiliaceae       Lime Family       H       H         Tiliaceae <td></td> <td>Bedstraw Family</td> <td></td>		Bedstraw Family	
Sherardia arvensis       Field Madder         Salicaceae       Willow Family         Populus nigra       Black Poplar       Ar         Salix alba       White Willow       Bi         S. purpurea       Purple Willow       Ar         Santalaccee       Sandalwood Family       Ar         Sarif age corbariensis       LG PP         Saxifrage corbariensis       R       LG PP HP         S. longfiola       Pyrenean Saxifrage       LG PP HP         S. congfiola       Purple Mountain Saxifrage       P         Scrophularlaceae       Figwort Family       R         Antirrhinum majus       Snapdragon       LG         Combaria muralis       Lvy-leaved Toadflax       B         Linaria alpina       Alpine Toadflax       HP         Rhinanthus angustifolus       Greater Yellow-rartle       R         V. hederifolia       Large Speedwell       Y         V. hederifolia       Large Speedwell       Y         V. hederifolia       Samal-leaved Lime       B         Thiaccae       Lime Family       P         Japhne laureola       Spurge-laurel       J H         Tiliaccae       Lime Family       P         Violaccae       V		Crosswort	J
SalicaceaeWillow FamilyPopulus nigraBlack PoplarArSaix albaWhite WillowBiS. purpureaPurple WillowArSantalaccaeSantalaccaeCB PPSaxifragacceaeSaxifrage FamilyRS. oppositioliaPurple Moutain SaxifragePS. oppositioliaPurple Moutain SaxifragePS. oppositioliaPurple Moutain SaxifragePS. oppositioliaPurple Moutain SaxifragePAntirhinum majusSnapdragonLGChaenorhinum origanifoliumLarge PpVernoica austriacaLarge SpeedwellV. hederifoliaNy-leaved ToadflaxWorncica austriacaLarge SpeedwellV. hederifoliaLiy-leaved SpeedwellV. hederifoliaLiy-leaved SpeedwellV. hederifoliaSpurge-laurelJ. HouseDaphne FamilyHyoscyamus nigerHenbaneHuinea austriacaLime FamilyHyoscyamus nigerLime FamilyHyola corataSweet VioletV. prenacaPrenean VioletHPNarcissus sp. pseudonarcissus sp. alpestrisN. pseuconarcissus sp. alpestrisAlpine DaffodilN. rupicolaPurple Itis FamilyNarcissus pseudonarcissus sp. pseudonarcissusArN. rupicolaPurple Itis FamilyN. rupicolaPurple Itis FamilyN. rupicolaPurple Itis FamilyN. rupicolaPurple Itis FamilyItig semanicaPurple Itis FamilyI. graminea	Rubia peregrina	Wild Madder	
Populus nigraBlack PoplarArSaix albaWhite WillowBiS. purpureaPurple WillowArSantalaceaeSandalwood FamilyCG PPSaxifraga corbariensisSaxifrage FamilyRS. longifoliaPyrenean SaxifrageLG PP HPS. oppositifoliaPyrenean SaxifrageLG PP HPS. oppositifoliaPurple Mountain SaxifrageLG PPS. oppositifoliaSnapdragonLGAntirrhinum majusSnapdragonLG PPCheenorhinum origanifoliumLy-leaved ToadflaxBLinaria alpinaAlpine ToadflaxHPRhinanthus angustifoliusGreater Yellow-rattleRV. nederfioliaLy-leaved ToadflaxBV. persicaCommon Field SpeedwellYV. nederfioliaLine FamilyHVijatshade FamilyJHJHTiliaceaeLine FamilyJHTiliaceaeLine FamilyJHTiliaceaeSourge-laurelJHTiliaceaeLine FamilyPPViolat donarcissus ssp. alpestrisApine DaffodilHPNarcissus pseudonarcissus ssp. alpestrisApine DaffodilJHNarcissus pseudonarcissus ssp. alpestrisApine DaffodilHPNarcissus pseudonarcissus ssp. alpestrisApine DaffodilHPNarcissus pseudonarcissus ssp. alpestrisApine DaffodilHPNarcissus pseudonarcissus ssp. alpestrisApine DaffodilHPNoscoraceaeYam FamilyTiaseA RyonyBi </td <td>Sherardia arvensis</td> <td>Field Madder</td> <td></td>	Sherardia arvensis	Field Madder	
Saik alba     White Willow     Bi       S. purpurea     Purple Willow     Ar       Santalaceae     Sandalwood Family     LG PP       Osiris alba     Saxifrage Family     R       Saxifragecae     Saxifrage Family     R       S. longitolia     Pyrenean Saxifrage     LG PP HP       S. oppositifolia     Purple Mountain Saxifrage     P       S. oppositifolia     Purple Mountain Saxifrage     CG       Antirrihum majus     Snapdragon     LG       Chaenorhinum origanitolium     LG PP HP       Cymbalaria muralis     Ivy-leaved Toadflax     B       Linaria alpina     Alpine Toadflax     HP       Rhirnhum agius     Greater Yellow-rattle     R       Veronica austriaca     Large Speedwell     Y       V. hederifolia     Ivy-leaved Speedwell     Y       V. hederifolia     Ivy-leaved Lime Family     B       Daphne Family     Henbane     B       Thymelaeaceae     Daphne Family     B       Daphne Iaureola     Spurge-laurel     J H       Tiliacceat     Sumali-leaved Lime     PP       Violat Family     Violat Family     P       Violaceae     Violet Family     P       Violaceae     Sweet Violet     PP       Violacodorata<	Salicaceae	Willow Family	
S. purpurea Santalaceae Santalaceae Santalaceae Santalaceae Santalaceae Santalaceae Santalaceae Santalaceae Santalaceae Satifrage Family LG PP Satifraga corbariensis S. Iongifolia Pyrenean Saxifrage LG PP HP S. oppositifolia Pyrenean Saxifrage P Scrophulariaceae Figurot Family Antirrhinum majus Snapdragon LG PP Cymbalaria muralis Ivy-leaved Toadflax B Linaria alpina Alpine Toadflax HP Cyrnolaaria muralis Ivy-leaved Toadflax B Sangdragon LG PP Cymbalaria muralis Ivy-leaved Speedwell Y Ivy-seaved Speedwell Y Ivy-seaved Speedwell Y Ivy-seaved Speedwell Solanaceae Nightshade Family Hyoscyamus niger Henbane B Thymelaeacceae Daphne Family Tilia cordata Sueet Violet Family Viola odorata Spurge-laurel J H Violaceae Violet PP Ivy renean Violet PP Violaceae Violet PP Ivy renean Violet HP Violaceae Violet PP Ivy renean Violet HP Violaceae Violet PP Ivy renean Violet HP Roscoraecee Tamily Tranus communis Back Bryony Bi Iris germanica Purple Iris Grass-leaved Iris Ar Sparagus acutifolius View Garlic R Asparagus acutifolius Hits Sprange Iris Grass-leaved Iris Ar Sparagus acutifolius HP Pyrenean Hyacinth Bi L Arsee Hyacinth Bi L Muscari comosum Grassien Sprange Hyacinth J View Garlic Hyacinth Bi L Muscari comosum Grassien Sprange Hyacinth Bi L Muscari comosum Grassien Sprange Intervention Spra	Populus nigra	Black Poplar	Ar
SanciacceeSanciacceeSanciacceeOsiris albaLG PPSaxifraga corbariensisRS. longifoliaPyrenean SaxifrageLG PP HPS. oppositifoliaPurple Mountain SaxifragePS. congifoliaPurple Mountain SaxifragePS. congifoliaPurple Mountain SaxifragePS. congifoliaPurple Mountain SaxifragePS. congifoliaPurple Mountain SaxifragePScrophulariaceaeFigwort FamilyLGCymbalaria muralisIvy-leaved ToadflaxHPCymbalaria muralisIvy-leaved ToadflaxHPRhinanthus angustifoliusGreater Yellow-rattleRVeronica austriacaLarge SpeedwellYV. hederifoliaIvy-leaved ToadflaxBSolanaceaeNightshade FamilyHenbaneHymelaeaceaeDaphne FamilyHenbaneDaphne laureolaSpurge-laurelJ HTiliaceaeLime FamilyPPViolaccaeViolet FamilyPPViolaccaeViolet FamilyPPViolaccaeNoncocryttebootsJMarciszus sep. alpestrisAlpine DaffodilJN. ngeiodaRock DaffodilPPViolaccaeYan FamilyFiJoscoraceaeYan FamilyJViolaccaePrenean VioletPPViolaccaeNoncocryttebootsFAnaryllidaccaeRock DaffodilJN. negicolaRock DaffodilHPViolaccaeYan Family <td>Salix alba</td> <td>White Willow</td> <td>Bi</td>	Salix alba	White Willow	Bi
Osris alba       LG PP         Saxifraga corbarionsis       Saxifrage Family         S. longifolia       Pyrenean Saxifrage         S. oppositifolia       Purple Mountain Saxifrage         Scophulariaceae       Figwort Family         Antirrhinum majus       Snapdragon         Chaenorhinum origanifolium       LG PP         Cymbalaria muratis       Ivy-leaved Toadflax         Binaria alpina       Alpine Toadflax         Weronica austriaca       Large Speedwell         V. hederifolia       Ivy-leaved Speedwell         V. nederifolia       Vy-leaved Speedwell         V. presica       Common Field Speedwell         Solanaceae       Nightshade Family         Hyoscyamus niger       Henbane         Tiliacceae       Lime Family         Tiliaccaea       Sweet Violet         Volat adorata       Sweet Violet         V. pyrenaica       Common Dog-violet         V. riviniana       Common Dog-violet         Manylidaceae       Daffodil Family         Violat Adorata       Sweet Violet       PP         Viola dorata       Sweet Violet       PP         V. riviniana       Common Dog-violet       J         Marcissus pseudonarcissus ssp. pseudonarcissus	S. purpurea	Purple Willow	Ar
Saxifrage corbariensis       Saxifrage Family       R         S. longifolia       Pyrenean Saxifrage       LG PP HP         S. oppositifolia       Purple Mountain Saxifrage       P         Scrophulariaceae       Figwort Family       LG         Antirrhinum majus       Snapdragon       LG         Chaenorhinum origanifolium       Vy-leaved Toadflax       B         Cymbalaria muralis       Ivy-leaved Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederitolia       Ivy-leaved Speedwell       Y         V. hederitolia       Ivy-leaved Speedwell       Y         V. persica       Common Field Speedwell       Y         V. hederitolia       Ivy-leaved Speedwell       Y         V. hederitolia       Ivy-leaved Speedwell       Y         V. persica       Daphne Family       D         Daphne laureola       Spurge-laurel       J H         Tiliaceae       Lime Family       Violet Family         Viola corata       Sweet Violet       PP         V. preniaca       Pyrenean Violet       HP         V. riviniana       Common Dog-violet       J	Santalaceae	Sandalwood Family	
Savifraĝe corbariensis       R       LG PP HP         S. longifolia       Pyrenea Saxifrage       P         S. oppositibila       Purple Mountain Saxifrage       P         S. oppositibila       Purple Mountain Saxifrage       P         S. oppositibila       Snapdragon       LG         Antirrhinum majus       Snapdragon       LG         Cheenorhinum origanifolium       Vy-leaved Toadflax       B         Chanorhinum angustifolius       Greater Yellow-rattle       R         Veronica austraca       Large Speedwell       Y         V. hederfiolia       Vy-leaved Speedwell       Y         V. nederfiolia       Vy-leaved Speedwell       Y         V. nederfiolia       Nightshade Family       HP         Papone laureola       Spurge-laurel       J H         Tiliaceae       Lime Family       PP         Violat donata       Sweet Violet       PP         V. prenaica       Sweet Violet       PP         V. riviniana       Common Dog-violet       J         Marcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       HP         N. rupicola       Paudonarcissus ssp. seudonarcissus       Ris Gras-leaved Iris       Ar         Dioscoreaceae       Yam Family </td <td>Osiris alba</td> <td>-</td> <td>LG PP</td>	Osiris alba	-	LG PP
Savifraĝe corbariensis       R       LG PP HP         S. longifolia       Pyrenea Saxifrage       P         S. oppositibila       Purple Mountain Saxifrage       P         S. oppositibila       Purple Mountain Saxifrage       P         S. oppositibila       Snapdragon       LG         Antirrhinum majus       Snapdragon       LG         Cheenorhinum origanifolium       Vy-leaved Toadflax       B         Chanorhinum angustifolius       Greater Yellow-rattle       R         Veronica austraca       Large Speedwell       Y         V. hederfiolia       Vy-leaved Speedwell       Y         V. nederfiolia       Vy-leaved Speedwell       Y         V. nederfiolia       Nightshade Family       HP         Papone laureola       Spurge-laurel       J H         Tiliaceae       Lime Family       PP         Violat donata       Sweet Violet       PP         V. prenaica       Sweet Violet       PP         V. riviniana       Common Dog-violet       J         Marcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       HP         N. rupicola       Paudonarcissus ssp. seudonarcissus       Ris Gras-leaved Iris       Ar         Dioscoreaceae       Yam Family </td <td>Saxifragaceae</td> <td>Saxifrage Family</td> <td></td>	Saxifragaceae	Saxifrage Family	
S. longitolia       Pyrenean Saxifrage       LG PP HP         S. coppositivitia       Purple Mountain Saxifrage       P         Scrophulariaceae       Figwort Family       P         Antirrhinum majus       Snapdragon       LG         Cymbalaria muralis       Ivy-leaved Toadflax       B         Linaria alpina       Alpine Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. persica       Common Field Speedwell       Y         Solanaceae       Nightshade Family       HP         Hyoscyamus niger       Henbane       B         Thymelaeaceae       Daphne Family       H         Daphne laureola       Spurge-laurel       J H         Tiliacordat       Sweet Violet       PP         Violaceae       Violet Family       Violaceae         V. prenaica       Pyrenean Violet       HP         V. riviniana       Common Dog-violet       J         MoNOCOTYLEDONS       Amaryllidaceae       Yan Family         N. rupicola       Daffodil Family       Family         N. rupicola		0 9	R
S. oppositifolia       Purple Mountain Saxifrage       P         Scrophulariaceae       Figwort Family       Snapdragon       LG         Antirrhinum majus       Snapdragon       LG         Cymbalaria muralis       Ivy-leaved Toadflax       B         Linaria alpina       Alpine Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. hederifolia       Solanaceae       Nightshade Family         Hyoscyamus niger       Henbane       B         Thila cordata       Spurge-laurel       J H         Daphne laureola       Spurge-laurel       J H         Violaceae       Violet Family       Violaceae         Violaceae       Violet Family       Violaceae         Violaceae       Violet Family       J         Via codrata       Sweet Violet       PP         Violaceae       Pyrenean Violet       HP         Narcissus sps. pseudonarcissus sp. alpestris       Alpine Daffodil       J         N. repicola       Rock Daffodil       PP		Pvrenean Saxifrage	
Scrophulariaceae       Figwort Family         Antirrhinum majus       Snapdragon       LG         Chaenorhinum origanifolium       Vy-leaved Toadflax       B         Linaria alpina       Alpine Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. persica       Commo Field Speedwell       Y         Solanaceae       Nightshade Family       H         Hyoscyamus niger       Henbane       B         Thiaceae       Lime Family       J H         Tiliaceae       Lime Family       Y         Viola dorata       Sweet Violet       PP         V. pyrenaica       Pyrenean Violet       HP         Narcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       J         N. rupicola       Black Bryony       Bi       Bi         N. pseudonarcissus sp. pseudonarcissus       Black Bryony       Bi       Fir Family         Tamus communis       Black Bryony       Bi       Fir Family         Iridaceae       Lily Family       Valicacea       Ar         Muricissus pseudonarcissus       Black			-
Antirininum majus       Snapdragon       LG         Chaenorhinum origanifolium       LG PP         Cymbalaria muralis       Ivy-leaved Toadflax       B         Linaria alpina       Alpine Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. hederifolia       Surge-laurel       J H         Hyoscyamus niger       Henbane       B         Tiliaceae       Surge-laurel       J H         Tiliaceae       Lime Family       P         Violet Family       Violet Hermily       P         Viola doorata       Sweet Violet       PP         V. riviniana       Common Dog-violet       J         Marcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       J         N. rupicola       Rock D			
Chaenorhinum'origanifolium       LG PP         Qymbalaria muralis       Ivy-leaved Toadflax       B         Linaria alpina       Apine Toadflax       HP         Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. hederifolia       Common Field Speedwell       Y         V. persica       Common Field Speedwell       Y         Solanaceae       Nightshade Family       Henbane         Hyoscyamus niger       Henbane       B         Thilaceae       Daphne Family       J H         Daphne laureola       Spurge-laurel       J H         Tiliaceae       Lime Family       PP         Violaceae       Violet Family       PP         Viola odorata       Sweet Violet       PP         V. pryenaica       Daffodil Family       J         Narcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       J         N. rupicola       Daffodil Family       J         Narcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       PP         N. rupicola       Rock Daffodil       PP         Dioscoreaceae       <			LG
Cymbalaria muralisIvy-leaved ToadflaxBLinaria alpinaAlpine ToadflaxHPRhinanthus angustifoliusGreater Yellow-rattleRVeronica austriacaLarge SpeedwellYV. hederifoliaIvy-leaved SpeedwellYV. hederifoliaIvy-leaved SpeedwellYV. persicaCommon Field SpeedwellYSolanaceaeNightshade FamilyHHyoscyamus nigerHenbaneBThilaceaeDaphne FamilyJ HDaphne laureolaSpurge-laurelJ HTiliaceaeLime FamilyYViolaceaeViolet FamilyYViolaceaeViolet FamilyYViolaceaeViolet FamilyYViolaceaeViolet TeamilyJViolaceaeDaffodil FamilyJN. ryprenaicaCommon Dog-violetJN. rypicolaDaffodil FamilyJNarcissus pseudonarcissus ssp. alpestrisAlpine DaffodilHPN. rupicolaPreceaeYam FamilyTamus communisBlack BryonyBiIridaceaeIris FamilyFamilyIris germanicaPurple IrisII. gramineaGrass-leaved IrisArAspordelus albusWhite AsphodelJ LGAprine laureolWhite AsphodelJ LGFritillaria lusitanicaLusitanian FritillaryArHyaointhus amethystinusPyrenean HyacinthBiMuscari comosumTasel HyacinthBiMarcia Substri		Chaparagon	
Linaria alpina       Alpine Toadflax       HP         Rhimanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. persica       Common Field Speedwell       Y         Solanaceae       Nightshade Family       H         Hyoscyamus niger       Henbane       B         Thymelaeaceae       Daphne Family       J H         Tiliaceae       Lime Family       F         Violaceae       Violet Family       PP         Violaceae       Violet Family       PP         Violaceae       Daffodi I Family       F         V. rymiana       Common Dog-violet       J         Monocorty       J       HP         N. rupicola       Pseudonarcissus ssp. alpestris       Alpine Daffodil       J         N. rupicola       Rock Daffodil       PP       P         Dioscoreaceae       Yam Family       F       F         Tamus communis       Black Bryony       Bi       F         Iridaceae       Lily Family       Iris germanica       Purple Iris       A		lvv-leaved Toadflax	
Rhinanthus angustifolius       Greater Yellow-rattle       R         Veronica austriaca       Large Speedwell       Y         V. hederifolia       Ivy-leaved Speedwell       Y         V. persica       Common Field Speedwell       Y         Solanaceae       Nightshade Family       B         Hyoscyamus niger       Henbane       B         Thymelaeaceae       Daphne Family       J         Daphne laureola       Spurge-laurel       J H         Tiliaceae       Lime Family       PP         Violaceae       Violet Family       Violet family         Viola odorata       Sweet Violet       PP         V. prenaica       Pyrenean Violet       HP         V. riviniana       Common Dog-violet       J         Marcissus pseudonarcissus ssp. alpestris       Alpine Daffodil       J         N. repicola       Rock Daffodil       HP         Dioscoreaceae       Yam Family       Family         Tarus communis       Black Bryony       Bi         Iridaceae       Iris Family       Family         N. rupicola       Grass-leaved Iris       Ar         J       Yam Family       Family       Family         Iridaceae       Iris Family			
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	Ominogalum umpelialum	Star-Or-Delinenen	

Ruscus aculeatus	Butcher's-broom	
Scilla lilio-hyacinthus	Pyrenean Squill	H An
Tulipa sylvestris	Wild Tulip	Ar
Orchidaceae	Orchid Family	
Cephalanthera longifolia	Sword-leaved Helleborine	Ar
Ophrys fusca	Sombre Bee-orchid	СВ
O. insectifera	Fly Orchid	V
O. lutea	Yellow Bee Orchid	Y
O. speculum	Mirror Orchid	Y
O. sphegodes	Early Spider-orchid	СВ
Dactylorhiza sambucina	Elder-flowered )rchid	PP HP
Orchis champaneuxii	Champagne Orchid	B <b>LG</b>
O. mascula	Early Purple-orchid	Н
O. purpurea	Lady Orchid	CB LG
O. militaris	Military Orchid	Ar
O. ustulata	Burnt Orchid	V
Poaceae	Grass Family	_
Phragmites australis	Common Reed	В
Poa bulbosa	Bulbous Meadow-grass	СВ
Typhaceae	Reedmace Family	
Typha latifolia	Greater Reedmace	В
	LICHENS	
Cladonia foliacea		
Usnea sp.	Beard Lichen	
Xanthoria parietina	Starburst Lichen	
	FUNGI	
Scutellinia scutellata	Eyelash fungus	
Phragmidium tuberculatum	A rust on wild rose	
Gymnosporangium clavariiforme	A rust on hawthorn	
Puccinia alnetorum	A rust on wild clematis	
Puccinia malvacearum	A rust on common mallow	
Uromyces graminis	A rust on fennel	
Melampsora epitea	A rust on spindle	
Colletotrichum trichellum	A brown spot on ivy leaves	
Phyllosticta cornicola	A red leaf spot on dogwood	
Taphrina deformans	A red leaf gall on almond	
	BACTERIA	
Xanthomonas campestris pv. hederae	A ring blotch on ivy leaves	
BLUE	E-GREEN ALGAE	

Nostoc commune



Eyelash fungus.

### BIRDS

	BIRDS
Great Crested Grebe	Single birds on Yesa and Peña Reservoirs
Little Egret	Up to 4 on the Aragón, and some dawn movement; Yesa (1)
Grey Heron	Small numbers in the Aragón, with some early morning movement, maximum 10 birds
Cormorant	Early morning movement along the Aragón (14 birds) on one day; one in flight over the Búbal Reservoir
Gannet	Several birds offshore of Biarritz as the plane approached the runway
Mallard	Aragón; Yesa
Black Kite	Numerous, especially lower down
Red Kite	Less numerous than black kite, though widespread; the most frequent kite at montane levels
Lammergeier	Martés; upper Hecho valley
Egyptian Vulture	1-3 birds at Santa Cruz, Berdún, Arbayún
Griffon Vulture	Widespread, with notable concentrations at Santa Cilia feeding centre (160+), and over Berdún (up to 50)
Short-toed Eagle	Singles at Arbayún, Biniés and Peña Reservoir
Golden Eagle	Ansó (adult); Portalet (immature)
Common Buzzard	Widespread, especially on journeys, perched on telegraph poles; not common
Booted Eagle	Singles at Berdún, Arbayún and Riglos
Peregrine	La Virgen de la Peña, one noisy male
Kestrel	Berdún, Lumbier, Formigal
Hobby Red-legged Partridge	Aragón (2, perhaps 3) and one migrating over Portalet in the snow Pairs observed on several days in the lowlands
Little Ringed Plover	Aragón, at Martés Bridge (2)
Common Sandpiper	Aragón, at Martés (up to 3)
Black-headed Gull	Single adult on the Aragón
Yellow-legged Gull	Aragón, and Peña Reservoir
Lesser Black-backed Gull	Flock of 16 migrating north over Portalet
	Widespread around settlements; some reasonably convincing Rock
Feral Pigeon	Doves at Riglos
Woodpigeon	Frequent in pairs and small groups
Collared Dove	Abundant in built-up areas
Turtle Dove	Berdún
Little Owl	Berdún Berdún la Virgen de la Baña
Cuckoo Kingfisher	Berdún; La Virgen de la Peña
	Aragón at Martés Migrants only, none yet settled; numerous toward the end of the
Common Swift	week, though moving in pulses
Alpine Swift	Arbayún; Aragón Valley
Bee-eater Hoopoe	Berdún (8), Riglos (c10) Fago
Great Spotted Woodpecker	Berdún, St Juan de la Peña, Lumbier
Green Woodpecker	Berdún, Arbayún, Hecho, Fago
Black Woodpecker	La Virgen de la Peña
Wryneck	Martés Bridge (1-2), Berdún Marsh (one seen and heard well)
Crested Lark	Lowlands
Skylark	Portalet, in song, but less usually also at Berdún
Woodlark	Berdún; Santa Cilia
Crag Martin	Gorges and cliff habitats; nesting on Santa Cruz church
Swallow	Common; considerable migration still taking place
House Martin	Common; settled on territories
Water Pipit Yellow Wagtail	Portalet; Upper Ansó valley One yellow wagtail, not sub-specifically identified, flying over
Grey Wagtail	Upland and gorge rivers
White Wagtail	Common
Dipper	Upper Hecho valley
Wren	Mainly upland forest and gorges
Dunnock	Upper Hecho and Ansó Valleys
Robin	Very vocal especially at higher levels, although still some lower down where they are typically mainly winter visitors
Nightingale	Became abundant in the lowlands during the course of the week

Black Redstart	From lowland to mountain tops, a wide altitudinal range around cliffs,
Redstart	rocks and buildings Berdún
Stonechat	Thinly spread, from Badlands to high pastures
Northern Wheatear	Berdún; Portalet
Blue Rock Thrush	Biniés; surprisingly infrequent this year
Rock Thrush	Portalet
Blackbird	Common
Mistle Thrush	
Song Thrush	Ansó valley
Song mush Savi's Warbler	Berdún; Ansó and Hecho valleys Berdún Marsh
Grasshopper Warbler	Near Berdún Marsh
Cetti's Warbler	
Sedge Warbler	Common in the valleys; not always close to water Berdún Marsh
Melodious Warbler	
Western Oliveaceous Warbler	Strong arrival at the end of the week One near Berdún Marsh
Sardinian Warbler	Berdún; Riglos
	, 0
Western Subalpine Warbler Whitethroat	Frequent, Berdún and elsewhere, more so than in previous years Berdún
Western Orphean Warbler	Santa Cruz; Hecho valley
Blackcap Garden Warbler	extremely abundant at low and mid-altitudes
Western Bonelli's Warbler	Berdún Marsh Very obvious in mid-level forests, as at Santa Cruz and Santa Cilia
Northern Chiffchaff	• ·
Iberian Chiffchaff	Frequent
	Two in the Aragón valley (and a mixed singer on a second visit)
Willow Warbler	Aragón valley
Goldcrest	San Juan de la Peña; Ansó and Hecho valleys
Firecrest	Santa Cruz; San Juan de la Peña; Hecho valley
Spotted Flycatcher	Berdún Marsh
Pied Flycatcher	Aragón valley
Long-tailed Tit Crested Tit	Riverine woodland to montane forests
	San Juan de la Peña; Upper Ansó valley
Marsh Tit	La Virgen; Upper Ansó valley
Coal Tit Blue Tit	Conifer forest and plantations everywhere
Great Tit	Common
Nuthatch	Common
Short-toed Treecreeper	San Juan de la Peña; Arogán: Angá Vallay: Santa Cilia
Golden Oriole	Aragón; Ansó Valley; Santa Cilia Berdún Marsh
	Frequent in forests
Jay Magpie	Common in the lowlands
Alpine Chough	
Red-billed Chough	Large groups seen at very high levels
Carrion Crow	Portalet; Lumbier and Arbayún; Ansó Valley; Fago Common in Iowlands
Raven	Seen regularly at all levels
Spotless Starling	Common in urban habitats
House Sparrow	Common around houses, bridges etc
Rock Sparrow	Numerous at Berdún and Martés Bridge
Chaffinch	Common, especially in mountain forests
Serin	Very common in the lowlands
Greenfinch	Common at lower levels
Goldfinch	Very common in the lowlands
Linnet	Small groups in the Badlands and the higher valleys
Crossbill	Forests between Ansó and Roncal
Yellowhammer	Higher mountain valleys
Cirl Bunting	Frequent in the lowlands
Corn Bunting	Abundant at low levels

Total – 110 species and that was without seeing several expected species, including quail, scops owl, shrikes, black-eared or black wheatears, rock bunting, or Dartford warbler.

#### MAMMALS

Northern Mole	molehills only
Red Squirrel	H (seen); evidence in all conifer areas
Alpine Marmot	HP
Stone Marten	B (droppings)
Red Fox	B (droppings)
Brown Bear	H (droppings) <i>(right)</i>
Wild Boar	PP (rootings only)
Roe Deer	СВ НР
Izard	HP



Sadly, though not surprisingly given the lack of warm, still evenings, no bats were seen this year.

	AMPHIBIANS AND	REPTILES		
Iberian Water Frog Ar	Iberian Wall Lizard	CB PP	Green Lizard	Fa
	BUTTERFL	IFS		
	DUITERFL	.123		
Red-underwing SkipperRScarce SwallowtailSpanish FestoonY BiLarge WhiteY BiSmall WhiteY BiGreen-veined WhiteY BiOrange-tipY BiMoroccan Orange-tipVClouded YellowLG	Brimstone Cleopatra Peacock Comma Red Admiral Small Tortoiseshel Violet Fritillary Nettle-tree Butterfly Southern Speckled Wall Brown	Y y R	Duke-of-Burgundy Brown Argus Common Blue Chequered Blue Panoptes Blue Green-underside Blue Holly Blue Small Blue Green Hairstreak	V Y An B R R
	MOTHS	i		
Stigmella aurella Adela australis Adela croesella Adela reaumurella Psyche casta Yponomeuta cagnagella Yponomeuta mahalebella Schiffermuelleria grandis Orthopygia glaucinalis Oak Hook-tip Giant Peacock Small Eggar Fox Moth Common Heath Grey-bordered Bloom Early Thorn Brown-tail Moth Pine Processionary Moth Hummingbird Hawk-moth Narrow-bordered Bee Hawk-moth Hebrew Character Bright-line Brown-eye White-point Delicate Dagger sp. Knot-grass Four-spotted Burnet Companion Silver Y	Caterpillars in co Eggs on bramble Larval webs arou	on spindle on St Lucie's cherr ommunal web	°γ ere were pine trees	B B B B B J B B B B B B B J B B C C B J B C C B J B B C C C B J B B B B

#### **OTHER INVERTEBRATES**

R

Bi L

R B

Bi **CB PP** Y R

L

Ar

L

Bi L H L

B Ar

	OTHER INVERTEBRATES
Cepaea hortensis	A banded snail
Rumina decollata	A sawn-off snail
Arion ater	Large Black Slug
Aceria monspessulani	A mite pouch-gall on Montpelier maple
Dermacentor reticulatus	Meadow Tick
Heliophanus sp.	A black and white jumping spider
Salticus scenicus	Zebra Spider
Eris nidicolens	A jumping spider
Micrommata virescens	A large green spider
Misumena vatia	Ghost Crab-spider
Synaema globosum	A crab-spider
Xysticus erraticus	A black-and-white crab-spider
Araniella cucurbitina	Cucumber Spider
Mangora acalypha	An orb-web spider
Nigma puella	A mesh-web spider
Machilus sp?	A large bristletail
Oedipoda germanica	Red-winged Grasshopper
Calliptamus italicus	A red-thighed grasshopper
Anacridium aegyptiacum	Egyptian Locust
Pholidoptera griseoaptera	Dark Bush-cricket
Gryllus campestris	Field Cricket
Macrosiphonella absinthii	Aphid on wormwood
Macrosiphon jasminii	Aphid gall on wild jasmine
Aphis fabae	Black Bean-aphid
Dysaphis crataegi	Aphid gall on hawthorn
Spanioneura buxi	A psyllid gall on box
Cacopsylla sp.	A large stripy psyllid
Pyrrhocoris apterus	Fire-bug
Corizus hyoscyami Asiraca clavicornis	A red-and-black bug A thick-horned bug
Issus coleoptratus	Toad Bug
Coccus ilicis	Berry gall on kermes oak
Graphosoma italicum	A red-and-black shield-bug
Palomena prasina	Green Shield-bug
Rhapigaster nebulosa	A brown shield-bug
Dolycoris baccarum	Hairy Shield-bug
Piezodorus lituratus	Gorse Shield-bug
Eurydema oleracea	Brassica Shield-bug
Eurydema ornata	A red-and-black shield bug
Eurydema ventralis	Another red-and-black shield bug
Coreus marginatus	A squash-bug
Capsodes sp. (nymph)	A plant-bug
Closterotomus fulvomaculatus	A plant-bug
Dicranocephalus agilis	A spurge-bug
Melanocoryphus albomaculatus	A red-and-black seed-bug
Cicindela campestris	Green Tiger-beetle
Gerris lacustris	Common Pond-skater
Aquarius najas	Large Pond-skater
Timarcha tenebricosa	Bloody-nosed Beetle
Coccinella septempunctata	Seven-spot Ladybird
Henosepilachna argus	Bryony Ladybird
Geotrupes pyrenaeus	Pyrenean Dor-beetle
Oxythyrea funesta	Spotted Flower-chafer
Phyllobius pyri	A green weevil
Rhynchites auratus Malachius bipustulatus	A purplish weevil A malachite beetle
Malachius bipustulatus	
Nephrotoma submaculosa	A golden-spotted crane-fly Marmalade Hoverfly
Episyrphus balteatus Helophilus pendulus	Marmalade Hoverfly A hoverfly
Eristalis tenax	Drone-fly
Gymnosoma sp.	A tachinid fly
Anthomyia pluvialis	Root-maggot Fly
Phytomyza vitalbae	A leaf-mining fly on wild clematis
Contarinia acerplicans	A leaf-edge-roll gall on Montpelier maple

Arge pagana Apis mellifera . Formica rufa Messor barbara Camponotus vagas Bombus pascuorum Xylocopa violacea Polistes gallicus Ancistrocerus sp. Diplolepis rosae Blennocampa phyllocolpa

Rose Sawfly Honeybee Wood Ant A large black ant A large ant Common Carder-bee Violet Carpenter-bee A paper wasp A solitary wasp Robin's Pincushion gall A leaf-roll sawfly gall on wild rose



Micrommata virescens.



Meadow tick.



Bloody-nosed beetle.