WILDLIFE TRAVEL

The Burren May 2013





#	DATE	LOCATIONS & NOTES
1	22 nd May	Dublin City; Train from Heuston to Galway
2	23 rd May	Poulsallach; Fanore Sands, the Rines; Ballyvaghan; Newtown
3	24 th May	Innisheer and Cliffs of Moher from the boat
4	25 th May	Mullach Mor; Lough Bunny; Kilfenora/ Corcomroe Abbey
5	26 th May	Keelhilla (Slieve Carran or Eagle's Rock) National Nature Reserve; Poulnabrone
6	27 th May	Cliffs of Moher and centre; Fanore Sands; Caher valley; Green Road
7	28 th May	Return to Dublin

Leaders

Charlie Rugeroni

Day 1 Wednesday 22 May

Meet in Dublin, National Museum, train to Galway

Both Margarets and I met up at the ABC Guesthouse. A breezy and bright day. Took the bus to Dublin city-centre and walked along O'Connell Street, visiting the General Post Office, the site of the Easter Rebellion of 1916 when Irish Republicans set about ending British Rule and attempted to establish an Irish Republic – the bullet holes, visible on the external colonnades, powerful reminders of the events at the time. Continuing on our way to the National Museum we passed a statue to Molly Malone outside Trinity College.

A brief stop at the National Library of Ireland to marvel at its impressive domed Reading Room. The archaeological exhibitions at the National Museum superbly traced the development of Irish civilisations, and the collections included the Cloth of Gold from Glenisheen - a wedge tomb we'd see later in the week in the Burren. After a coffee at the museum's café we made our way to Heuston to catch our train to Galway and meet up with our luggage, and Ken and Gillian. The train journey allowed us to enjoy the Irish landscape and to work up a botanical appetite perusing the various books and guides we'd brought along.

Peter Mooney our driver during our stay in the Burren was waiting for us on a dry, sunny but cool afternoon at Galway. The ride south to Lisdoonvarna skirted Galway Bay with its muddy saltmarsh inlets and creeks and the odd commanding castle such as Dunguaire Castle, outside Kinvara. It was after Kinvara that in the distance we saw the karstic topography that we'd inhabitat over the next few days — the bedded mass of Slieve Carran loomed ahead of us. Corkscrew Hill provided a good vantage point to appreciate the Bay and village of Ballyvaughan.

On arrival at Caherleigh Guesthouse a welcoming and effervescent Dermot Dooley produced for us a tray of hot, homemade, buttered scones and biscuits, by an open peat fire; Irish hospitality at its best!

Day 2 Thursday 23 May

Poulsallach; Fanore Sands, the Rines; Ballyvaughan; Newtown

Bright and sunny, light breeze. At Poulsallach we came face to face with our first limestone pavements. The heavy erosional work during the Ice Age being evident as the limestone met the sea in a series of irregular pavements and wave-cut platforms; this would become our stomping ground for the next few hours.

We sallied forth from the bus and onto the landward stretching grey clints. Heath Spotted and Early Purple Orchids were plentiful in the grassy areas in between the pavements, while mats of Wild Thyme, the character species of these parts the Burnet Rose, one of the Burren's 'Alpine' plants the Hoary Rock-rose (in flower), and Creeping Willow (with the catkins present) hugged the rock surfaces, as did an Oak Eggar caterpillar as it made its way to shelter amongst the Hoary Rockrose.







Mountain Everlasting was evident in various stages of growth and here and there was the striking motif of the Burren's flora, the Spring Gentian, together with the elegant Mountain Avens – the intermingling of these two plants (and others) at sea level, puzzles and delights and makes this area special. One uncommon and noteworthy plant, not often spotted but found today, was the very pubescent Pyramidal Bugle.

It was clear that the season was late by at least a couple of weeks (this was later confirmed by a regular visitor to the Burren from Natural History Society of Dublin), nevertheless other plants seen here before we crossed the road to the seaward facing pavements included: Hawthorn, Spindle, Tutsan, Bloody Cranesbill, Honeysuckle, Goldenrod, Meadow Thistle, Lousewort, Maidenhair Spleenwort, Wood Sage, Wild Madder, Blue Moor-grass, Bird's-foot Trefoil, Herb Robert, Carline Thistle, Northern Bedstraw, Hart's Tongue Fern and Hemp-agrimony. An interesting feature on the limestone pavements were the solution holes occupied by globules of nostoc, a blue-green algae and responsible for the rocks' slow dissolution.

Tourist coaches had now arrived and new visitors commandeered the rocks whilst we searched for the leathery, glossy leaved Sea Spleenwort (bearing linear sori) - we found it within a short distance from the sea, tucked into a scailp, as was Scurvey Grass. Birds seen here included: Rock and Meadow Pipits, Black Guillemot and also a Northern Wheatear. Inisheer was clearly visible on the horizon as we set off in search of Frog Orchids just a little further up the coast. Unfortunately, a late season conspired to deny us this orchid, however, some intelligence gathered by Ken and Gillian before the trip, enabled us to find some Dense-flowered orchids (or Burren Orchid, mainly seen in Spain) discretely growing between fence posts at Fanore.





On our way to lunch we stopped briefly at Pinnacle Well to view the non-native but naturalised, Fairy Foxglove, clothing the 19th century folly in florid tinsel. We rounded Black Head and pulled up at Ballyvaughan before diving into Monk's restaurant for some soup and crab sandwich. We looked for seals

in the mid-distant rocks but none was forthcoming – we settled instead for Wall Rue, Sea Fern Grass, Rusty-back Fern and White Stonecrop on the harbour walls. Doubling back on ourselves, after lunch, we made our way to a low spit of land jutting into Ballyvaughan Bay, the Rine. Walking down the lane to the spit, and just before encountering a False Oxlip, we came upon Rue-leaved Saxifrage growing amongst some sprawling Parsley Piert. Shining Crane's-bill, Sanicle, Thyme-leaved and Germander Speedwell, were in flower as was Field Mouse-ear. From here we took the back road behind Ballyvaughan to Newtown where we parked and began our ascent of Cappanawalla – as we climbed we got better views of the Bay to the north and Ailwee mountain to the east, bathed in mid afternoon sunshine. Trailing Tormentil and Columbine, the garden escape, providing colour on our climb. Wall Lettuce managed to be growing from out of the screes on the hillside. Spring Gentian, singletons or groups of four and five flowering plants, were growing here in profusion with Bird's-foot Trefoil amongst them.

We had come to this spot, to a wet flush on Cappanawalla, for what is arguably one of the Burren's most beautiful flowers. Behind a rock, over the brow of a hillock, there lay limestone outcrops, bathed in spring water and smothered in moss, and here and there purplish-violet flowers flecked this wet flush. The Large-flowered Butterworts were looking their best with their fly-paper like, star-shaped, fleshy leaves dotted with hapless insects. Water-cress and Brooklime squatted in the deeper pools and puddles. On our way down Gillian spotted several Twayblade. So ended our first full day on the Burren.





Day 3 Friday 24 May

Innisheer and Cliffs of Moher from the boat

0830 found us waiting in Doolin for Garrihy's Doolin Discovery to ferry us across to Inisheer, the closest of the Arran Isles. House Martins and Swallows circled above us. The tide was ebbing and for this reason when we climbed aboard we were asked to make our way to the bow to ensure the propeller shaft was clear of the sea-bed! Several small rafts of Guillemot and Razorbill were observed as we left port and cross the South Sound. Adult Gannets soon made an appearance close to the boat as did Kittiwake and Sandwich Tern – the visibility was good enough to spot The Twelve Pins (or Bens) of Connemara. On arrival, coffees were most welcome after fun and games with Margaret's walking pole and a concrete post. With the sun out and a Song Thrush singing its heart out, we headed towards the north-western shore of the island. The first of the plant sightings were two examples of Lusitanian specimens (with origins in the Iberian Peninsula), namely Rock Samphire and Sea Spurge. Sea Campion, Ivy-leaved Toadflax, Thrift, Common Bird's-foot-trefoil and Red Clover were in full flower and looked striking against the grey, shoreline limestone rocks, and in the background Sandwich Terns dived into Galway Bay.





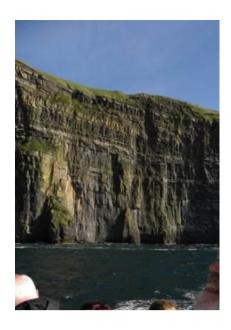
There are a couple of plants which are more plentiful on the Aran Islands than on the Burren - one is the Irish Saxifrage and the other is Babington's Leek; one was in flower the other looking most unappealing. We spotted several Common Seals loafing among offshore rocks, before we headed back through the houses and dry-stone walled enclosures, one of which was completely full of Alexanders. Lackey Moth caterpillars fed on Cotoneaster and Hawthorn creeping over a garden wall and an early flying Small Copper (scarce/local status in the Burren) put an appearance as we walked to lunch.

Other wildflowers seen along the tracks between the houses, lanes and sandy paths on our way to St Caomhán's (the patron saint of Inisheer) Church, a 10th century building now below ground level, included: Tree Mallow, Dove's-foot Crane's-bill, Scurvey Grass, Maidenhair Spleenwort, Field Mouse-ear, Sea Raddish, Cowslip, Thyme Broomrape (the Burren is the HQ for this plant in the British Isles), Sea Holly, just emerging Yellow Rattle, Wall Rue, Mouse-ear Hawkweed, Buck's-horn and Sea Plantains, Sea Beet, Early Purple Orchid



and Silverweed. We came across the leaves of Bee Orchid on our return from an open water site on the eastern end of the island. Green-veined White, Wall Brown, Grizzled Skipper were on the move as where Hooded Crows, Linnets and a Northern Wheatear. As we walked over the limestone substrate, the warmth rising from the rocks seemed to concentrate the scent of Bird's-foot-trefoil. As we strolled back to the harbour, we noticed that numerous leaves of the Marram growing on the shifting back dunes on the beach were bedecked with the caterpillars of a Zygaenid moth – most probably the Six-spot Burnet. Ken and Gillian came back with news that they had spotted an Irish Marsh Orchid alongside Early Purple Orchids.

We boarded our ferry at 17.00hrs and, escorted by Fulmars, Kittiwakes and the odd Black Guillemot, we returned to Doolin where we picked up more passengers before heading to the Cliffs of Moher. The brown cliffs, of shale, mudstones and siltstones, rose high from the boiling waters of the Atlantic Ocean and in the early evening sunlight resembled a large chocolate brownie, not unlike the one some of us enjoyed for lunch. One appreciated their size from the boat. The stacks and cliff ledges were stocked full with birds – Kitiwake, Razorbill, Guillemot, Shag, Cormorant, Puffin, Fulmar and an assortment of Gulls. Thousands of seabirds bobbed up and down on the water as they either rested or fed on its surface. The auks kept zipping past us as if on a must-do-mission.





Shaken but not too stirred we disembarked back at Doolin at 18.00 and Peter collected us shortly after that – the local Bottlenose Dolphin kept us entertained while we waited. Back at Caherleigh, Dermot mindful of the fact that the sea air had opened up our appetites, laid on fresh tea and a lemon drizzle cake, our aperitif before a sumptuous supper at the Roadside Tavern, the local micro-brewery. Near the Lisdoonvarna Spa, whilst on an evening stroll, we came across Coltsfoot emerging from the shale outcrop.

Day 4 Saturday 25 May

Mullach Mor; Lough Bunny; Kilfenora/ Corcomroe Abbey

Lightly overcast. Our first stop of the day, just east of Lisdoonvarna, was a roadside ditch in a conifer plantation; this was on our way to Loch Gailain (Gortlecka) which runs along the foothills of Mullach Mor, in the Burren National Park. In the ditch we looked for Marsh Cinquefoil and found its woody creeping rhyzomes; it should have been in flower but the late season conspired against our seeing it thus. Bogbean was in flower, alongside Lousewort, Common Milkwort and Slender St John's-wort. A fairly non-descript place but it threw up several other species: Eared Willow, Bilberry, Wilson's Honeysuckle (now naturalised), Golden Scaly Male Fern, Southern Polypody, Hare's-tail Cotton grass and Field Woodrush – a Cuckoo provided a background tune.





At the Kilfenora Centre we viewed a video on the Burren National Park, purchased maps and downed a coffee before wandering over to see the High Crosses, in particular the Doorty Cross, at Kilfenora Cathedral (1189). On the cathedral walls Navelwort (another Lusitanian plant), Hairy Bitter-cress and Maidenhair Spleenwort were recorded. Just before we reached Lough Ghailain we decided to stop at an

The Burren trip report, 22nd to 28th May 2013

abandoned quarry, with Early Purple Orchids, Early Dog Violet, Wood Anemones and Cowslips brightening up an otherwise dull day. Amongst these we spotted a white flowering *Ajuga reptans* (*f albiflora*, which has acquired horticultural significance) and nearby a white variant of an Early Purple Orchid (variety alba, with yellow polinia and green stem, rather scarce) – what are the chances of this occurring cheek by jowl?





In the field next door lay one of our quarries: Fly Orchid. Gillian came across the leaves of Broad-leaved Helleborine on the road through the dwarf hazel wood. We moved on to the first of our loughs for the day, Loch Gailain, and the first thing we did was to have lunch – we saw the heavy shower coming and the greyness enveloped us. The water level was high and some of the Early Purple Orchids were growing in the water.





Nevertheless, Shrubby Cinquefoil was in flower and sure enough the Turlough (Marsh) Dandelion was here too, in its habitat – sticky, grey mud on the lake shore. The Hawkweeds, *Hieracium* agg.,sometimes deserve a closer look and there was one example, in flower, with magnificent dark mottled, hairy leaves and purple undersides; possibly *H. maculatum* but who knows, it was worth a photograph! The scailps in the grey pavements always surprise and growing out of one was a delicate Lesser Meadow Rue, with its Maidenhair Fern-like leaves. Here too we came upon our first Flecked Marsh Orchid and the beautiful Thurlough Violet, another true Burren speciality. Juniper, Guelder Rose, Spindle, Bloody Cranesbill, Rueleaved Saxifrage and Burnet Rose were among other plants here. Latticed Heath Moth, Bullfinch and Heron were on the wing as we were, onto Loch Bunny.







Here too the water levels were very high and made walking along the lough shore a little tricky. We agreed with Peter to meet us at Lough Bunny's north eastern end and we set off with a following wind. Common Spotted Orchid were present (mostly in leaf), Tway Blades and Common Butterwort with feet pretty much in the water. A Common Sandpiper was quartering the shoreline, bobbing and skipping the waves and once again a cuckoo kept us company. At Corcomroe Abbey, a 13th century Cistercian monastery, looked and felt very atmospheric in the late afternoon drizzle; we couldn't quite decide if the carvings on the pillars near one of the transepts were of Bluebells or Water Avens. Cappanawlla was enveloped in a veil of mist and back at base, Dermot's tea and scones were to die for – as was supper at Ballynalachan Castle.

Day 5 Sunday 26 May Keelhilla (Slieve Carran or Eagle's Rock) National Nature Reserve; Poulnabrone



Fresh with sunny spells start to the day. With coffee in flasks we set off to Keelhilla. Swallows were around and as we drove along roads which became narrower with each bend taking, we realised, like Hansel and Gretel we'd momentarily lost our way. Easily done, when driving along tiny back roads enveloped by extraordinary dwarf hazel stands, coppiced many a year ago and covered in coats of moss and lichen. Peter found his desired lane and we reached our first destination at 1015.

That ubiquitous orchid, the Early Purple was everywhere mixing in well with Cowslips, Mountain Avens, Mountain Everlasting, Hawthorn, Burnet Rose, Spring Gentian, the occasional first year rosettes of Carline Thistle and, tucked away under a limestone pavement, surprising us this time, a Dense-flowered Orchid looking rather smart - then came the cry, 'Here's another!' 'And another'..... By the end of our walk we'd seen around a dozen between us. A European Black Slug heaved itself out of a gryke which housed some Rusty-back Fern, as moody skies with heavy clouds threatened and we took our coffee there and then. We picked our way along the pavements and grassy paths towards a hazel woodland at the foot of Eagle's Rock. Just before getting to the wood we spotted Mossy Saxifrage and Pale Lady's-mantle.





The open pavements contrasted strongly with the inside of the wood, with its scent of crushed Ramsons underfoot, Soft Shield Fern and the remains of a hermitage, sacred well and St Colman Mac Duagh's cave. In the woods we picked out Sanicle, Wood Avens, Twayblades, Hairy Rockcress (growing off the ruins alongside the remains of votive offerings), Barren Strawberry, Yellow Pimpernel, Brittle Bladder and Broad Buckler Ferns, and another first for the trip, Opposite-leaved Golden Saxifrage. A pair of Ravens called as we left this spot. On our way back we stopped to view a fulachta fiadh (Neolithic open-air cooking mound) with Spring Gentian on its southern side and Round-leaved Sundew and informal gatherings of Common Butterwort in a nearby bog. At Cassidy's, tartlets, chowder and fish-pie kep us going. On our way to Poulnabroune Dolmen Peter kept us amused by providing the answers to Irish car-number plates. One particulalry tricky one was TN – Peter soon put us out of our misery, 'Tipperary North'. Before getting to Poulnabroune we pulled over at a nearby wedge tomb where the Glenisheen Cloth of Gold necklace was found; we recalled seeing this in Dublin's National Museum. Singing Whitethroat and Skylark welcomed us at the dolmen and Mallard and Moorhen were spotted in a pond with Amphibuous Bistort and Watermint.

At the Roadside Tavern Moroccan lamb, crab fish-cakes, Irish stew, lemon meringue pie and memories of at c12 different Dense-flowered Orchids, provided a memorable exclamation mark to end the day; a couple of us remained behind to listen to Tumbling Bones, a band playing a superb mix of Blue Grass/Country music.

Day 6 Monday 27 May

Cliffs of Moher and centre; Fanore Sands; Caher valley; Green Road
Today got off to some drizzle and by the time we'd arrived at the Cliffs of
Moher the light breeze had metamorphosed into a strong one. As we
approached the cliff-top walkways we could hear the cries of Fulmars,
Kittiwakes carried in the wind and between sunny intervals we surveyed
the sea and the tops of stacks below us. Unsurprisingly, we got caught
out in a heavy shower but fortunately found shelter behind O'Brien's
Tower which is near the cliffs' highest point at 214m. Puffins where
beginning their nesting season in their penthouse burrows which had
been dug into the thin soils on the tops of stacks; they could be seen
coming back and forth from the Atlantic with sand eels in the bills.

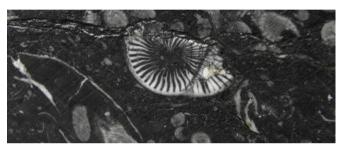
Interestingly, the steps up the cliffs illustrated the numerous fossils found in the local rocks; bivalves and corals were the most common. The Lotus and Anthyllis plants stood out brilliantly on the cliff slopes against the grey sea/sky backdrops. A Rock Pipit appeared behind O'Brien's Tower and



further along the local warden pointed out where a Peregrine Falcon was watching and waiting. Much of the Sea Campion here had not yet come into flower but was not far from bringing colour to its fleshy, waxy, grey-green leaves. The interpretative centre was immensely informative and the building was pleasingly set into the landscape. Peter returned to take us to Fanore Sands for a more in depth perusal.







The sun shone brightly as we approached Fanore, its relict dunes, covered in a grass sward, contained plenty of Spring Gentian. There was also Blackstonia, leaves of Common Spotted and Pyramidal Orchid, Yellow rattle, Bulbous Buttercup, Wild Thyme. Sea Bindweed was not in flower but we picked up Sea Mayweed (one particular flower head showing intriguing fasciation) and Sea Sandwort with its greenish-white small and inconspicuous flowers, and Shelduck. Quaking Grass was just flowering amongst the Marram grass.







For lunch we popped into the Tea and Garden Rooms where we enjoyed a superb lunch – some of the dishes looking not unlike a slice of the pavement flora on a plate!





www.wildlife-travel.co.uk

Our post lunch constitutional was taken up the Caher Valley at Carl Wright's garden, lovingly created alongside the Caher River, where we picked some horticultural tips from Carl – we couldn't help but admire the effort and determination to create such a thoughtful oasis in keeping with its surroundings.



Just before we got to the end of the valley, we stopped to admire a clutch of Greater Butterwort before heading off along a back-road to Lisdoonvarna. A patch of Mountain Avens mingled with Early Purple Orchids provided another photographic moment and after negotiating a fence we were soon taking our last few shots when, the little orchid which had made its presence felt at a number of locations did so one last time alongside Spring Gentian and the aforementioned species – the Dense-flowered Orchid: creating a 'classic' Burren combination, a Mediterranean orchid, an Alpine Gentian and an Arctic avens.

We said our goodbyes to Peter who had excelled as our driver and kept us entertained with local stories and folklore. Did we stump him with 'RN....' vehicle registration plates? Supper, after another of Dermot's delightful teas, was taken at Sheedy's accompanied by an eclectic discussion on chimeras, tetraploids and orchids.





During our time here we came across references to the 'Burren Way' (the long distance trail). Our own memories of the Burren Way might have gone something like this:

Peter's Papal-like wave to each and every friend we met as we drove from site to site.

That hidden floral gem in a scailp, behind a fence post or beside an Early Purple Orchid.

The pewter like skies, floaty misty drizzle on the pavements or the bright sunshine on Inisheer.

The friendly pub landlord who came to our table to talk to us about Tolkein.

A beer-can seen at the start of our holiday on a street bench opposite Caherleigh - still there at the end of our stay.

The ubiquitous and delicious soda bread and stout.

And finally, Dermot's teas at 17.00hrs

Acknowledgement

My thanks to you all for making the trip such a memorable and successful holiday. Hope to see you again soon on another Wildlife Travel trip.

Charlie Rugeroni

SCIENTIFIC NAME	ENGLISH NAME	NOTES	SEEN
Pteridophytes - non seed plants			
Polypodiales (Ferns)			
Asplenium adiantum-nigrum	Black Spleenwort		KH
Asplenium marinum	Sea Spleenwort		PS
Asplenium ruta-muraria	Wall-rue		
Asplenium trichomanes	Maidenhair Spleenwort		
Athyrium filix-femina	Lady-fern		StCM
Ceterach officinarum	Rustybach		
Cystopteris fragilis	Brittle Bladder-fern		StCM
Dryopteris affinis	Scaly Male-fern		RD
Dryopteris dilatata	Broad Buckler-fern		StCM
Phyllitis scolopendrium	Hart's-tongue		
Polypodium cambricum	Southern Polypody		RD
Polystichum setiferum	Soft Shield-fern		StCM
Pteridium aquilinum	Bracken		
Equisetaceae: horsetail			
Equisetum agg			RD
Spermatophytes - seed plants	Gymnosperms		
Cupressaceae: cypress			
Juniperus communis	Common Juniper		LG
Angiosperms	Flowering Plants		
Dicotyledons			
Aceraceae: maple	Order Sapindales		
Acer pseudoplatanus	Sycamore		
Apiaceae: carrot	Order Apiales		
Anthriscus sylvestris	Cow Parsley		
Conopodium majus	Pignut		
Crithmum maritimum	Rock Samphire		
Daucus carota	Wild Carrot		
Eryngium maritimum	Sea-holly		I, F
Sanicula europaea	Sanicle		R, StCM
Smyrnium olusatrum	Alexanders		I
Aquifoliaceae: holly	Order Aquifoliales		
Ilex aquifolium	Holly		
Araliaceae: ivy	Order Apiales		
Hedera helix	lvy Order Asterales		
Asteraceae: daisy			KH
Achillea millefolium	Yarrow Mayataia Everlantian		PS, CV, F
Antennaria dioica	Mountain Everlasting		1 0, 0 v, 1
Bellis perennis	Daisy Carling Thickle		LG
Carlina vulgaris	Carline Thistle		LB
Circium dissectum	Meadow Thistle		
Cirsium vulgare	Spear Thistle		PS
Eupatorium cannabinum	Hemp-agrimony Printly Oytongue		RD
Helminthotheca echioides	Bristly Oxtongue		1,12

Hieracium agg.	Hawkweeds	
Hieracium maculatum	Spotted Hawkweed	LG
Leucanthemum vulgare	Oxeye Daisy	
Mycelis muralis	Wall Lettuce	С
Pilosella officinarum	Mouse-ear-hawkweed	I
Senecio jacobaea	Common Ragwort	
Solidago virgaurea	Goldenrod	PS
Taraxacum agg.	Dandelions	
Taraxacum palustre	Turlough (Marsh) Dandelion	LG
Tripleurospermum maritimum	Sea Mayweed	F
Tussilago farfara	Colt's-foot	L
Betulaceae: birch	Order Fagales	
Betula pendula	Silver Birch	
Brassicaceae: cabbage	Order Brassicales	
Arabis hirsuta	Hairy Rock-cress	StCM
Cardamine pratensis	Cuckooflower	LG
Lobularia maritima	Sweet Allison	PS
Raphanus raphanistrum subsp. maritimus	Sea Radish	1
Rorippa nasturtium-aquaticum	Water-cress	С
Sisymbrium officinale	Hedge Mustard	
Caprifoliaceae: honeysuckle	Order Dipsacales	
Lonicera periclymenum	Honeysuckle	PS, LG
Lonicera nitida	Wilson's Honeysuckle	RD
Sambucus nigra	Elder	R
Viburnum opulus	Guelder Rose	LG
Caryophyllaceae: carnation	Order Caryophyllales	
Cerastium arvense	Field Mouse-ear	R, I
Cerastium diffusum	Sea Mouse-ear	В
Cerastium fontanum	Common Mouse-ear	
Minuartia verna	Spring Sandwort	PS
Honckenya peploides	Sea Sandwort	F
Silene uniflora	Sea Campion	I, CM
Stellaria media	Common Chickweed	
Celastraceae: spindle	Order Celastrales	
Euonymus europaeus	Spindle	PS, KH
Chenopodiaceae: goosefoot	Order Caryophyllales	
Beta vulgaris subsp. maritima	Sea Beet	I
Cistaceae: rock rose	Order Malvales	
Helianthemum oelandicum subsp.	Heems Book was	PS
Piloselloides Convolvulaceae: bindweed	Hoary Rock-rose Order Solanales	
		F
Calystegia soldanella Corylaceae: hazel	Sea Bindweed Order Fagales	1
-		LG, BNP
Corylus avellana Crassulaceae: sedum	Hazel Order Saxifragales	
		В
Sedum album	White Stonecrop	K
Umbilicus rupestris	Navelwort	13

Droseraceae: sundew	Order Caryophyllales		
Drosera rotundifolia	Round-leaved Sundew		KH
Ericaceae: heather	Order Ericales		
Calluna vulgaris	Heather		RD
Vaccinum myrtillus	Bilberry		RD
Euphorbiaceae: spurge	Order Malpighiales		
Euphorbia paralias	Sea Spurge		F, I
Fabaceae: pea	Order Fabales		
Anthyllis vulneraria	Kidney Vetch		PS
Lotus corniculatus	Common Bird's-foot-trefoil		PS
Trifolium pratense	Red Clover		I
Ulex europaeus	Gorse		LG
Gentianaceae: gentian	Order Gentianales		
Blackstonia perfoliata	Yellow-wort		F
Gentiana verna	Spring Gentian		
Geraniaceae: geranium	Order Geraneales		
Geranium lucidum	Shining Crane's-bill		R
Geranium molle	Dove's-foot Crane's-bill		I
Geranium robertianum	Herb-Robert		
Geranium sanguineum	Bloody Crane's-bill		PS, LG, KH
Hypericaceae: St Johns wort	Order Malpighiales		
Hypericum androsaemum	Tutsan		PS, LG
Hypericum pulchrum	Slender St John's-wort		RD
Lamiaceae: mint	Order Lamiales		D.0
Ajuga pyramidalis	Pyramidal Bugle	in alredia a alleitla sa	PS PND
Ajuga reptans	Bugle	including albiflora	PS, BNP
Mentha aquatica	Water Mint		Р
Prunella vulgaris	Selfheal		
Teucrium scorodonia	Wood Sage		
Thymus polytrichus	Wild Thyme		
Lentibulariaceae	Order Lamiales		LD
Pinguicula vulgaris	Common Butterwort		LB
Pinguicola grandiflora	Large-flowered Butterwort		С
Liliaceae	Order Asparagales		
Allium ampeloprasum var.babingtonii	Babington's Leek		StCM
Allium ursinum	Ramsons		SICIVI
Malvaceae: mallow	Order Malvales		
Lavatera arborea	Tree-mallow		
Menyanthaceae	Order Asterales		RD
Menyanthes trifoliata	Bogbean Order Mystales		עט
Onagraceae: willowherb	Order Myrtales		
Fuchsia magellanica	Fuchsia Order Lamiales		I
Orobanchaceae: broomrape			
		1	I
Orobanche alba	Thyme Broomrape		DC BND E
Pedicularis sylvatica	Lousewort		PS, BNP, F
			PS, BNP, F

Plantaginaceae: plantain	Order Lamiales	
Cymbalaria muralis	Ivy-leaved Toadflax	K
Plantago coronopus	Buck's-horn Plantain	I
Plantago lanceolata	Ribwort Plantain	BNP
Plantago maritima	Sea Plantain	I
Veronica chamaedrys	Germander Speedwell	R
Veronica persica	Common Field-speedwell	
Veronica serpyllifolia	Thyme-leaved Speedwell	R
Plumbaginaceae: plumbago	Order Caryophyllales	
Armeria maritima	Thrift	I, PS
Polygalaceae	Order Fabales	
Polygala vulgaris	Common Milkwort	KH, RD
Polygonaceae: dock	Order Caryophyllales	
Rumex acetosa	Common Sorrel	
Persicaria amphibia	Amphibious Bistort	P pond
Primulaceae: primula	Order Ericales	
Anagallis arvensis	Scarlet Pimpernel	F, I
Lysimachia nemorum	Yellow Pimpernel	StCM
Primula veris	Cowslip	I
Primula vulgaris	Primrose	
Primula x polyantha	False Oxlip	R
Ranunculaceae: buttercup	Order Ranuncuales	
Anemone nemorosa	Wood Anemone	BNP
Aquilegia vulgaris	Columbine	С
Caltha palustris	Marsh-marigold	Pond
Ranunculus bulbosus	Bulbous Buttercup	F
Ranunculus repens	Creeping Buttercup	
Thalictrum minus	Lesser Meadow-rue	LG
Thalictrum flavum	Common Meadow-rue	KH
Rhamnaceae: buckthorn	Order Rosales	
Rhamnus cathartica	Buckthorn	LG
Rosaceae: rose	Order Rosales	
Alchemilla xanthochlora	Pale Lady's-mantle	KH
Aphanes arvensis	Parsley Piert	R
Crataegus monogyna	Hawthorn	
Cotoneaster agg.	Cotoneaster	
Drugo cotonotolo	Mountain Avona	PS, CV, KH
Dryas octopetala	Mountain Avens Wild Strawberry	StCM
Fragaria vesca Potentilla sterilis	Barren Strawberry	StCM
Geum rivale	Water Avens	StCM
Geum urbanum	Wood Avens	StCM
Potentilla anglica	Trailing Tormentil	C
Potentilla erecta	Tormentil	KH
Potentilla anserina	Silverweed	KH
Potentilla fruticosa		LG
	Shrubby Cinquefoil	LG
Prunus spinosa	Blackthorn	

Rosa pimpinellifolia	Burnet Rose	PS, LG
Rubus fruticosus agg.	Brambles	
Rubus saxatilis	Stone Bramble	LG
Sambucus nigra	Elder	
Sanguisorba minor subsp. minor	Salad Burnet	BNP
Sorbus aria	Whitebeam	LB
Viburnum opulus	Guelder-rose	LG
Rubiaceae: madder	Order Gentianales	
Asperula cynanchica	Squinancywort	PS
Galium boreale	Northern Bedstraw	KH
Galium verum	Lady's Bedstraw	KH
Rubia peregrina	Wild Madder	PS, KH
Salicaceae: willow	Order Malpighiales	
Salix aurita	Eared Willow	RD
Salix caprea	Goat Willow	
Salix repens	Creeping Willow	PS, LG
Saxifragaceae	Order Saxifragaceae	
	Opposite-leaved Golden-	StCM
Chrysosplenium oppositifolium	saxifrage	0.014
Saxifraga hypnoides	Mossy Saxifrage	StCM
Saxifraga rosacea subsp. rosacea	Irish Saxifrage	1
Saxifraga tridactylites	Rue-leaved Saxifrage	R
Scrophulariaceae: foxglove	Order Lamiales	DW
Erinus alpinus	Fairy Foxglove	PW
Veronica beccabunga	Brooklime	С
Urticaceae: nettle	Order Rosales	
Parietaria judaica	Pellitory-of-the-wall	Со
Urtica dioica	Common Nettle	
Valerianaceae: valerian	Order Lamiales	and deliber
Centranthus ruber	Red Valerian	roadsides
Valeriana officinalis	Common Valerian	roadsides
Violaceae: violet	Order Malpighiales	DND
Viola canina	Heath Dog-violet	BNP
Viola persicifolia	Fen Violet	LG
Viola riviniana	Common Dog-violet	LG
Araceae: arum	Order Alismatales	
Arum maculatum	Lords-and-Ladies	
Cyperaceae: sedge	Order Poales	- 5
Carex flacca	Glaucous Sedge	LB
Eriophorum angustifolium	Common Cottongrass	RD
Eriophorum vaginatum	Hare's-tail Cottongrass	RD
Schoenoplectus lacustris	Common Club-rush	I D
Schoenus nigricans	Black Bog-rush	LB
Iridaceae: iris	Order Asparagales	nan-l-
Iris pseudacorus	Yellow Iris	ponds
Juncaceae: rush	Order Alismatales	DD
Luzula campestris	Field Wood-rush	RD

Orchidaceae: orchid	Order Asparagales		
Anacamptis pyramidalis	Pyramidal Orchid	leaves	F
Dactylorhiza fuchsii	Common Spotted Orchid		LB
Dactylorhiza incarnata subsp. incarnata	Early Marsh Orchid		
Dactylorhiza incarnata subsp. cruenta	Flecked Marsh Orchid		LG
Dactylorhiza maculata subsp. ericetorum	Heath Spotted Orchid		PS
Dactylorhiza majalis subsp. occidentalis	Irish Marsh Orchid		1
Epipactis helleborine	Broad-leaved Helleborine	leaves	BNP
Neotinea maculata	Dense-flowered Orchid		F, KH, PS
Neottia ovata	Common Twayblade		
Ophrys apifera	Bee Orchid	leaves	1
Ophrys insectifera	Fly Orchid		BNP
Orchis mascula	Early-purple Orchid	incl.var. alba	
Poaceae: grass	Order Poales		
Ammophila arenaria	Marram Grass		F, I
Briza media	Quaking-grass		F
Catapodium marinum	Sea Fern-grass		В
Lolium perenne	Perennial Rye-grass		
Phragmites australis	Common Reed		LB
Sesleria caerulea	Blue Moor-grass		LG, LB
Nostocaceae	Order Nostocales		
Nostoc agg.	Nostoc alga		PS, KH

ABBREVIATIONS - sites

B - Ballyvaughan

BNP - Burren National Park

C - Cappanawalla

CM - Cliffs of Moher

Co - Corcomroe Abbey

CV - Caher Valley

F - Fanore

I - Inisheer

K - Kilfenora

KH - Kielhilla (Slieve Carran)

L - Lisdoonvarna

LB - Lough Bunny

LG - Lough Gailain

P - Poulnabrone

PS - Poulsallach

PW - Pinnacle Well

R - Rine Peninsula

RD - Roadside Ditch nr Lisdoonvarna

StCM - St Colman Mac Duagh's hermitage

BIRDS

Cygnus olor Mute Swan
Tadorna tadorna Shelduck
Anas platyrhynchus Mallard

PhaisanuscolchicusCommon PheasantFulmarus gracialisNorthern FulmarMorus bassanusNorthern GannetPhalacrocorax carboGreat Cormorant

Phalacrocorax aristotelis Shaq Ardea cinerea Grey Heron Peregrine Falcon Falco peregrinus Gallinula chloropus Common Moorhen Actitis hypoleucos Common Sandpiper Numenius arguata **Eurasin Curlew** Chroicocephalus ridibundus Black-headed Gull Larus argentatus European Herring Gull Larus marinus Great Black-backed Gull Rissa tridactyla Black-legged Kittiwake

Sterna sandvicensisSandwich TernFratercula arcticaAtlantic PuffinCepphus grylleBlack GuillemotUria aalgeCommon Guillemot

Alca torda Razorbill

Columba palumbusCommon Wood PigeonStreptopelia decaoctoEurasian Collared DoveCuculus canorusCommon CuckooAlauda arvensisCommon SkylarkHirundo rusticaBarn Swallow

Delichon urbicum Common House Martin

Anthus petrosusRock PipitAnthus pratensisMeadow PipitMotacilla albaPied WagtailPrunella modularisDunnock

Erithacus rubeculaEuropean RobinOenanthe oenantheNorthern WheatearTurdus philomelosSong ThrushTurdus merulaCommon BlackbirdSylvia communisCommon Whitethroat

Troglodytes trogodytes Winter Wren Parus major Great Tit

Cyanistes caeruleus European Blue Tit Corvus cornix **Hooded Crow** Corvus corax Common Raven Pica pica Common Magpie Corvus monedula Western Jackdaw Corvus corone Carrion Crow Sturnus vulgaris Common Starling Passer domesticus House Martin Fringilla coelebs European Chaffinch Carduelis cannabina Common Linnet Pyrrhula pyrrhula Eurasian Bullfinch Emberiza citrinella Yellowhammer

BUTTERFLIES

Pyrgus malvaeGrizled SkipperPieris brassicaeLarge WhitePieris rapaeSmall White

Pieris napi Green-veined White

Anthocharis cardamines Orange Tip
Lycaena phlaeas Small Copper
Lasiommata megera Wall Brown

MOTHS

Zygaena filipendulae6-spot BurnetlarvaeLasiocampa quercusOak EggarlarvaMalacosoma neustriaLackeylarvae

Semiothsia wauaria Latticed Heath

MAMMALS

Tursiops truncatus Common Bottlednose Dolphin Phoca vitulina Common Seal/Harbour Seal

OTHER

Rana temporaria Common Frog
Arion ater European Black Slug

Cetonia aurata Rose Chafer