WILDLIFE TRAVEL

The Burren 2018

Day 1: 7th June: Arrive in Lisdoonvarna; supper at Rathbaun Hotel

Arriving by a variety of routes and means, we all gathered at Caherleigh House by 6pm, sustained by a round of fresh tea, coffee and delightful home-made scones from our ever-helpful host, Dermot. After introductions and some background to the geology and floral elements in the Burren from Brian (stressing the Mediterranean component of the flora after a day's Mediterranean heat and sun), we made our way to the Rathbaun, for some substantial and tasty local food and our first taste of Irish music from the three young ladies of Ceolan, and their energetic four-hour performance (not sure any of us had the stamina to stay to the end).

Day 2: 8th June: Poulsallach

At 9am we were collected by Tony, our driver from Glynn's Coaches for the week, and following a half-hour drive we arrived at a coastal stretch of species-rich limestone pavement which represented the perfect introduction to the Burren's flora: a stunningly beautiful mix of coastal, Mediterranean, Atlantic and Arctic-Alpine species gathered together uniquely in a natural rock garden. First impressions were of patchy grassland, sparkling with heath spottedorchids Dactylorhiza maculata ericetorum and drifts of the ubiquitous and glowing-purple bloody crane's-bill Geranium sanguineum, between bare rock. A closer look revealed a diverse and colourful tapestry of dozens of flowers - the yellows of goldenrod Solidago virgaurea, kidney-vetch Anthyllis vulneraria, and bird's-foot trefoil Lotus corniculatus (and its attendant common blue butterflies Polyommatus Icarus), pink splashes of wild thyme Thymus polytrichus and the hairy local subspecies of lousewort Pedicularis sylvatica ssp. hibernica, and the whites and creams of burnet rose Rosa pimpinellifolia, mountain-everlasting Antennaria dioica, and limestone bedstraw Galium sterneri. A few steps further, and the cool shade of the grykes (deep, shady cracks between the large slabs of limestone - clints) revealed its special flora: lush ferns including hart's-tongue Phyllitis scolopendrium and male-fern Dryopteris filix-mas, and our first small and leathery spleenworts. Then suddenly, a gleam of intense blue, and our first spring gentian, Gentiana verna, and nearby, the tightly packed rounded seed pods of dense-flowered orchid, Neotinea maculata: one of the most strictly Mediterranean species in the flora, known only from the Burren, Arran Islands and nearby Co Galway, otherwise found from Portugal and Spain to Cyprus and Turkey.

Flitting between the flowers, we enjoyed a Burren speciality among the moths - transparent burnet, *Zygaena purpuralis* ssp. *sabulosa*, a constant companion throughout the trip. Even more exciting was a handful of small blue butterflies, *Cupido minimus*, appearing brown at first, but with a soft powder-blue underside.

Casting our eyes upwards we saw and heard meadow pipits and skylarks which were proclaiming their territories, and a loud bubbling call from a nearby ridge drew our attention to a female cuckoo, in what was the first of several encounters with this iconic species over the course of the holiday.

Before boarding the coach again, a walk toward the low sea-cliffs revealed salt-tolerant plants such as sea aster *Aster tripolium*, sea-milkwort *Glaux maritima*, sea plantain *Plantago maritima* and sea campion *Silene maritima*. The grykes nearer the sea had the delicate feathery fronds of maidenhair fern, *Adiantum capillis-veneris*. The buzz of green-and-brown garden chafers *Phyllopertha horticola* and a single spectacular green-metallic rose chafer *Cetonia aurata* were also found in this coastal area, and we were accompanied by a vocal rock pipit that clearly had a nest somewhere nearby and was asking us to move on!

A second stop along the coast produced several gentians in full bloom, our first flowering mountain avens *Dryas octapetala*, and a tiny fawn plume-moth which turned out to be the western thyme plume *Merrifieldia tridactyla*, another Burren speciality. A common whitethroat sang from a nearby bush and a few sandwich terns flew past offshore here. As we drove onwards towards Ballyvaughan, one side of the bus was treated to great views of a kestrel which flew alongside and proceeded to keep pace with us for several seconds before veering off across the road. Along the coastline we also saw some impressive great northern divers, but alas the road we were driving along was narrow and we couldn't stop safely to take a closer look.

Ballyvaughan tea garden and harbour

Our first Irish lunch - tasty soups, generous sandwiches and some superb cakes - was in the beautiful setting of the tea garden, a mix of exotics and native flora, including bogbean *Menyanthes trifoliata* and Babbington's Leek *Allium ameloprasum*. Before setting off for the afternoon's walk, we browsed the edge of the harbour, with more sea-

milkwort, thrift, sea fern-grass *Catapodium marinum*, and one of the sea-spurries, *Spergularia*. Perched on an abandoned tyre, a hooded crow delicately preened her fledgling while allowing us to take photos.

Caher Valley

The Caher River is the only water course in the Burren which runs its full course above ground. Approaching via a rather too exciting small road over the hills from Ballyvaughan, we stopped by the bridge while the coach drove down to the chapel, and we spent the afternoon meandering down the valley. A delightful and varied walk, with hazel scrub and ash trees shading sweet woodruff *Galium odoratum* and sanicle *Sanicula vulgaris*, then revealing a semi-shaded bank of orchids and gentians! Here were a dozen or more gentians of the brightest blue, in perfect condition, at least a fortnight later than the morning's, then a bank starred with equally pristine mountain avens.

A song thrush sang from the scrub, whilst a willow warbler was much more accommodating and perched at close range atop a bush, delivering its delicate descending song for us to appreciate. Several butterflies were seen in the area including orange-tip *Anthocharis cardamines*, speckled wood *Pararge aegeria* and green-veined white *Pieris napi*, and we also noticed the destructive efforts of Green Dock Beetles *Gastrophysa viridula*, the larvae of which could be seen clearly enjoying the local dock plants.

On a sunny verge we came across the pure-white, frilly-edged O'Kelly's spotted-orchid, *Dactylorhiza fuchsia* ssp. *okellyi*, subtly distinct from the occasional white form of common spotted orchid. Strolling on, a pair of pale pink early purple orchids, *Orchis mascula*, confirmed that the valley was a couple of weeks behind coastal Burren; we alse found a thickset clump of dark red helleborine *Epipactis atrorubens*, still a month away from flowering but advanced enough to show its pointed leaves in two opposite ranks. And finally a landscape puzzle: were stripes on a hillside strip lynchets, sheepwalk, solifluction, or a mix of all three?

Back to Dermot's for the welcome cups of tea and piles of scones, a rapid revisiting of the day's species, and the short walk to the Roadside Tavern for another tasty dinner, this time with their own red beer or tangy Burren black, even more full and complex than the Guinness on its home range.

Day 3: 9th June: Keelhilla (Eagle's Rock and St Colman Mac Duagh's hermitage)

After less than an hour's drive via Lemaneah Castle and Kilfenora, we paused briefly on the hillside at Carran, to admire the broad, flat-bottomed valley which is the largest *polje* or flat limestone plain in Ireland, in this case a seasonally flooded glacial depression. It's capable of flooding to a depth of 6 feet or more, over several square miles almost overnight, and draining just as quickly. A little further on we stopped again to see a cuckoo fly up to and land on a telegraph wire; almost immediately a meadow pipit, recognising the bird as a threat, flew in and persistently mobbed the cuckoo until it was forced to vacate the wire and leave the area – it was impressive to see this small bird acting so fearlessly! At this same stop we also saw mistle thrush and a smart male bullfinch close to the bus. Next we meandered across the hazel-covered old pavement, and despite a delay for a Dublin driver apparently unable to reverse, we arrived at the small car park with the high cliffs of Eagle's Rock in the morning mist. A gap in the wall marked by an ancient hairy rocket *Arabis hirsuta*, growing there for at least 15 years, led us to the steady path across the pavement to the meadows, and then to the hermitage in the hazel woodland at the foot of the cliffs.

A few yards from the entrance we found a few more dense-flowered orchids, again as seedpods - a visit in April or mid May would be needed to find it in bloom. A pure-white heath spotted-orchid, lots of flowering burnet rose, twayblades *Neottinea ovata*, more dark red helleborines, and among a bed of wild thyme, the deep purple glossy leaves of the semi-parasitic Irish eyebright, *Euphrasia salisburgensis*, yet another species not found in Britain.

In addition to the widespread transparent burnet moths, we also found our first six-spot burnets of the trip Zygaena *filipendulae*, and a couple of the group were lucky enough to briefly see a narrow-bordered bee hawkmoth *Hemaris tityus* which flew in from out of nowhere and departed again almost as quickly.

We then passed through a belt of open hazel scrub into meadows with fewer flowers and deeper soils. Even here, there were new flowers to find: three species of lady's-mantle, the woolly, smooth and yellow-green, *Alchemilla filicaulis vestita*, *glabra* and *xanthochlora*, growing within a few yards of each other. Then a scatter of pink, this time

chalk fragrant orchid, *Gymnadenia conopsea*, and into the cool shade of the woodland, with the chapel, the saint's cell, the well and the stream. The very different local climate transforms the flora into true woodland, with masses of ferns - lady fern *Athyrium filix-femina*, male-fern, golden-scaled male-fern *Dryopteris affinis*, broad buckler-fern *D. dilatata*, soft shield-fern *Polystichum aculeatum*, and around the well, brittle bladder-fern *Cystopteris fragilis* and hart's-tongue. The wettest areas had patches of opposite-leaved golden-saxifrage *Chrysosplenium oppositifolium*, yellow pimpernel *Lysimachia vulgaris* and water avens *Geum rivale*. The most impressive feature however was the enormous ancient goat willow *Salix caprea*, with a trunk almost 2m in diameter, whose bark was thickly coated with the most pollution-sensitive of all lichens, the tree-lungworts, bright yellow-green of *Lobaria virens*, the blue-grey of *L. scrobiculata*, and smaller patches of the white-fringed grey lobes of *Pannaria conoplea*, and the slate-grey *Degelia atlantica* with black furry underside, and the gelatinous *Leptogium hibernicum*; such a rich assemblage of lichens is characteristic of humid ancient woodlands on the western fringes of Europe.

Despite hearing their piercing calls on the approach to the hermitage, the peregrine falcons of Eagle's Rock failed to reveal themselves to us, and so we started to head back to the coach. We took a slight detour to climb over a drystone wall and into another world - a species-rich calcareous fen. Dominated by black bog-rush *Schoenus nigricans,* the rare broad-leaved cottongrass, *Eriophorum latifolium,* waving in the light breeze hinted at more to come: common butterwort *Pinguicula vulgaris* and round-leaved sundew *Drosera rotundifolia* indicated a low-nutrient habitat where plants were desperate for additional nitrogen fertilisers. Among them, a good range of scarcer sedges including short yellow-sedge *Carex demissa,* long-stalked yellow-sedge *C. lepidocarpa,* and tawny sedge *C. hostiana,* a lovely lesser butterfly-orchid *Platanthera bifolia,* and sitting obligingly on a clump of its larval foodplant devil's-bit scabious *Succisa pratensis,* a fresh and colourful marsh fritillary *Euphydryas aurinia.* Nearby, the brightly coloured caterpillar with white and orange stripes and spots turned out to be a sweet gale moth *Acronicta euphorbiae myricae,* more frequent in the Burren than elsewhere, though also found in northern Scotland...so perhaps there was some bog myrtle in the amazing little wetland, too.

We had no sooner boarded the coach when Mike saw a thin spike of an orchid out the window - our first fly orchid *Ophrys insectifera*. Well worth disembarking for a few minutes, and the walk also produced the bright red stems of thyme broomrape *Orobanche alba* - well worth the emergency stop!

Linnane's Lobster Bar at New Quay

And so to lunch in the bar overlooking Galway Bay, where we were able to watch terns fishing and a grey seal swimming past while enjoying a relaxed lunch of seafood chowder, soup or salad. Before boarding the coach we paused to look over the harbour edge, to see a moon jellyfish *Aurelia aurita* pulsating elegantly, and an eel *Anguilla anguilla* swim sinuously past.

Corcomroe Abbey

Just a couple of miles from New Quay, on the outskirts of Ballyvaughan, the extensive remains of Corcomroe Abbey area good example of 15th century church architecture, with earthworks and ruins representing the wider Carthusian community. Among the carvings were two versions of bluebells in the capitols. The stone walls were greened with a lush display of pellitory-of-the-wall *Parietaria judiaca* and the creamy candelabras of navelwort *Umbilicus rupestris,* and the grounds of the church had some interesting annual plants including a small white-flowered form of field speedwell *Veronica persica*. The local birdlife had taken advantage of the Abbey ruins, with Jackdaws nesting in the stonework and swallows perching on the crosses in the graveyard outside the building.

Cappanawalla

Parking the coach at the Burren college of art, at the foot of Newtown Castle, we walked along a pleasant shady lane, lined with sweet woodruff and a range of ferns, and patrolled by weakly fluttering wood white butterflies *Leptidea sinapis*. We headed up the slope on to the hillside, with superb views of the castle and the surrounding limestone hillsides. Among the typical flora were flowering tutsan *Hypericum androsaemum*, and some of the tallest, least spleenwort-like black spleenworts *Asplenium nigrum*, till we reached a grassy, mossy horse-grazed slope which showed signs of a seepage or flush, recently dried up. Within seconds the group found the large bright blue, white-striped flowers of large-flowered butterwort *Pinguicula grandiflora*, with several dozen plants over the hillside. A closer look and there were several spring gentians, Irish lousewort, the distinctive little flea sedge *Carex pulicaris*,

and nearby several lesser butterfly orchids and a couple of showy bee orchids *Ophrys apifera*. Heading back along the track, a huge *Boletus* fungus looking rather like a Cep, *B. edulis*, turned a rather shocking blue when damaged, and was eventually identified as the surprisingly edible bay bolete, *Boletus badius*.

Having negotiated a couple of horses with the aid of a length of hurdles, it was back to Dermot's for the welldeserved tea and scones, before our second dinner at the Rathbaun Hotel.

Day 4: 10th June: Lough Gillain

Today we headed towards the concave massif of Mullaghmore, via Kilfenora and Corofin, and after an emergency stop to avoid an Irish hare on the road, we came down to Lough Gillain and into surprisingly heavy traffic, including the mountain rescue team and numerous cyclists. However as soon as we left the road and walked into the lough basin, we had the place to ourselves.

Lough Gillain (variously spelt Gullain and Gaillain) is one of the more stable turloughs or fluctuating lakes. Fed and drained by underground channels, it has a large draw-down zone covered in stable highly calcareous mud (thankfully safe to walk on), and a central area which remains wet. It's surrounded by high quality limestone pavement which slopes very gently into the lough, so there's a wide zone which floods in the winter and is dry by early summer. And in that zone, there was a large population of a characteristic new plant, shrubby cinquefoil *Potentilla fruticosa*.

Among the cinquefoil were low-lying areas of grass and sedge, among which we found our first marsh-orchids. These were mostly the purple-pink form of early marsh-orchid, *Dactylorhiza incarnata* ssp. *pulchella*, and the much rarer and restricted flecked marsh-orchid, *D. incarnata* ssp. *cruenta*, unique in having heavy spotting on both sides of its leaves, and typical of western Ireland and parts of western Scotland. We found a single northern marsh-orchid, *D. purpurella*, and one example of what appeared to be the hybrid between early and northern. They are beautiful plants, in a lovely setting, whatever names we attach to them.

Common gulls, mallard, hooded crows and a grey heron were all seen around the lough, and we also heard and then saw a common sandpiper at the water's edge. As it flew across the water we could see its distinctive flight action, low over the water surface with rapid bursts of shallow wingbeats. Several common snipe were flushed from the marsh, flying strongly up and out of sight across the lough. A few common frogs were noted, and several blue-tailed damselflies *lschnura elegans* were found clinging to the low vegetation.

As we moved across the mud on the lough margins, someone found a lovely three-petalled pink flower – our first lesser water-plantain, *Baldellia ranunculoides*, which turned out to be widespread and locally abundant on the drawdown zone. Among them stood the small white-flowered turrets of brookweed *Samolus valerandi*, and a huge bed of tall, rigid and sharply saw-edged great fen-sedge *Cladium mariscus*. Among the wetland habitats were areas of high quality pavement, supporting many of the species which had already become familiar, such as prostrate forms of juniper *Juniperus communis* and alder buckthorn *Frangula alnus*, and the tall and handsome northern bedstraw, *Galium boreale*, with its whorls of broad leaves rather like woodruff. As we left the lough, a striking and very approachable male reed bunting serenaded us from his favourite great fen-sedge perch.

Lough Bunny

A short drive took us to our next turlough, one of the largest in the Burren, with some superb limestone pavement running right into the water, Lough Bunny. Within a few yards of the coach we found a fly orchid for ourselves, and a damp shallow gryke had a stand of the very rare and rather elegant little variegated horsetail *Equisetum variegatum*. Although it had finished flowering, the leaf rosettes of turlough dandelion, *Taraxacum webbii*, an Irish endemic confined to seasonally flooded ground, were distinctive. Again we found O'Kelly's spotted-orchid, and northern bedstraw.

Trailing over the pavements were the thin red stems or stone bramble, *Rubus saxatilis*, and there was an abundance of freshly emerged damselflies, mainly common blue *Enallagma cyathigerum*, with some more blue-tailed, and while we had our picnic lunch, a fresh four-spotted chaser *Libellula quadrimaculata* was seen. Despite a thorough search, there were no lake-shore violets to be seen this year: but the winter strandline was high up on the

pavement, so perhaps all the mature plants had been flooded for too long, and a new generation had not yet appeared from seed.

Before leaving Lough Bunny we visited a small boggy basin at the eastern end, composed of black bog-rush, with a large stand of fragrant and sticky bog-myrtle *Myrica gale* in the middle. Close to the edges were scattered large, few-flowered spikes in a deep magenta - classic narrow-leaved or Pugsley's marsh-orchid, *Dactylorhiza traunsteinerioides*. This rare species is confined to western Ireland, western Scotland and a handful of top-class fens in northern England and perhaps East Anglia, always with black bog-rush and very clean ground-water. A specimen with very narrow flowers was probably the hybrid with early marsh-orchid, and a couple of pale-flowered individuals seemed likely to be the hybrid with heath spotted-orchid. While analysing the orchids themselves, we were treated to a rare combination - a marsh fritillary settled on a narrow-leaved marsh-orchid! And before we left, we checked out a small whitebeam bush next to the roadside stone wall, which proved to be the elusive Irish whitebeam, *Sorbus hibernica*, unlike the larger lake-shore bushes of common whitebeam, *S. aria*.

Kilfenora

Driving back to the characterful town of Kilfenora, we explored the superb collection of Celtic crosses in the grounds of the cathedral, including the wonderful carvings on the Doorty Cross, with birds or possibly angels as well as complex examples of Celtic strapwork. Beyond the cathedral, a single large cross could be seen in open fields, looking all the more striking in its natural habitat. And for the unceasing botanist, as well as the classic species of ancient stonework such as navelwort, pellitory-of-the-wall and rue-leaved saxifrage *Saxifraga tridactylites*, there were masses of lesser swinecress *Coronopus didymus* and the large liverwort *Marchantia polymorpha* with its parasol-like male fruiting bodies.

Next to the cathedral and crosses is the Burren Centre, with a small bookshop and a very efficient teashop, with an excellent selection of cakes, which some of us explored in more detail...

Bog near Lisdoonvarna

As we approached Lisdoonvarna, our coach parked next to the Stella Maris hospital, and we walked to a remarkable lowland bog. Along the path was a rich strip of wet woodland including alder *Alnus glutinosa* and several willow species. The bog had peat diggings of a variety of ages and technologies. The owner, who introduced himself as 'Paddy the Bog-man', a friend of Dermot's, came over for a chat, and explained the history of peat digging in the area, and the workings of his latest machine, the deep cutting extrusion or 'sausage' machine. The current and past scale of operations on this bog seemed to have done rather little damage, with many of the scarcer bog plants surviving and finding new habitats in previous peat diggings, quite a contrast to modern industrial peat extraction.

As we entered the bog, a huge stand of very handsome royal fern *Osmunda regalis*, was flanked by a thick bed of water horsetail *Equisetum fluviatile* among which grew the lovely pink-purple flowers of marsh cinquefoil *Potentilla palustris* and the tiny fragile bog stitchwort, *Stellaria uliginosa*. Nearby, among common cottongrass, *Eriophorum angustifolium*, were several bog-mosses including the big and chunky *Sphagnum papillosum*, the smaller denser and rather pinkish *S. capillifolium*, and the smooth-surfaced *S. compactum* indicating, if we had not seen the direct evidence, that the site had been disturbed recently. There were several plants of round-leaved sundews, and a range of sedges, including bottle-sedge *Carex rostrata*. The orchids included heath spotted and northern marsh, and at least one hybrid between them. Examining a handful of the 'sausage' peat revealed fragments of several millennia of vegetation - the early bog-forming *Sphagnum* mosses, twigs of birch *Betula* and heather *Calluna vulgaris*, and the silver-shining strands of Rannoch-rush *Scheuchzeria palustris*, most likely from the immediate post-Roman period when many British and Irish bogs were dominated by this water-demanding species.

Only a couple of minutes' drive from Caherleigh House, the bog was a demonstration of the quality of habitats in 'ordinary' Irish countryside. And to complete our 'set' of marsh-orchids, a hundred-yard stroll from the house before tea let us see Irish marsh-orchid *Dactylorhiza occidentalis*, in a rather lovely meadow which, in most of England, would have merited SSSI status!

After the customary tea and scones, a well-earned rest and a review of the day, dinner was at the Roadside Tavern.

Day 5: 11th June: Poulnabrone portal tomb

Today we gave more time to archaeology and prehistory, visiting sites in roughly chronological order. Starting at perhaps the most famous megalithic monument in the Burren, the portal tomb is now considered to be Neolithic in origin, and at least 6000 years old - older than the Pyramids. But it had been in use over a period of at least 600 years, and again at the beginning of the Bronze age, at least 1500 years after the first use. It was interesting to see how recent research had been incorporated in the interpretation: current thinking is that the stones of the tomb had been supported by the mound of soil which forms the cairn on which they stand, but had not been covered; previous explanations suggested that all or most of the tomb had been underground.

The tomb stands on high quality limestone pavement, with many of the classic plant species we had seen at other sites. Highlights included Irish eyebright, spring sandwort *Minuartia verna*, and heath speedwell *Veronica officinalis*.

Gleninsheen wedge tombs

Just a few miles south, we saw two wedge tombs from the roadside, about 4000 years old, on the cusp of the Neolithic and the Bronze Age. Less dominating of the landscape than the Poulnabrone tomb, but still quite impressive. Whilst contemplating these ancient features, our attention was drawn to the sight of at least three (possibly four) cuckoos in the air together at the same time, complete with attendant meadow pipits.

Caherconnell Ring Fort

Before exploring the site, we saw a 20-minute video explaining the landscape history of the area, and the archaeology and uses of the ring fort itself, before enjoying a hearty lunch in the restaurant. The ring fort is an impressive and well-preserved structure from the 10th-12th centuries, but the site has been occupied for very much longer. Post holes and a fire pit were dated to the early Bronze Age and modified in the middle ages, and the site was occupied and extended as recently as the 17th century - quite remarkable to think the same site had been used for over 4000 years.

We also found a range of flora at Caherconnell. The most exciting new species was mossy saxifrage *Saxifraga hypnoides,* growing on a mossy slope on the side of the fort, and the bright apple-green lichen, *Solorina saccata*, in crevices in the walls.

Cliffs of Moher

Next we drove the short distance to the coast, and to the huge new car park inland of the cliffs. For a midweek day outside of the summer holidays, the thousands of visitors made for a very different experience of the 'countryside' than anywhere else we visited, and a transformation for those who had visited 20 years ago or more, when you could walk the clifftop path and see no-one.

Despite the crowds, the cliffs themselves were awesome (in the traditional sense), and the wildlife was good, too. A brief glimpse of a peregrine speeding past, good views of fulmars gliding on stiff wings along the clifftop, and fairly distant views of guillemots, kittiwakes and a few razorbills and puffins were exciting. An early fly-past from a calling pair of choughs was reassuring: they were still around. But later in the afternoon, we watched the choughs mobbing a raven, presumably not far from their nest site, and then the pair walked up and down in the grass, perhaps looking for ants. Finally, just before we left, we were treated to another fly-past from the birds, this time a bit closer with their bright metallic call ringing in our ears as they drifted overhead.

The cliffs had some botanical interest too, with lots of thrift and sea campion, sea mayweed *Tripleurospermum maritimum*, small patches of bright blue sheep's-bit *Jasione montana*, and on the eroding cliff slopes, big stands of blue-grey roseroot *Sedum roseum* with flat heads of yellow flowers.

After such a good walk on a pleasantly cool and almost windless day, we were back at Caherleigh in good time to enjoy our tea and cakes, catch up on species lists, spend half an hour reviewing the marsh and spotted orchids we'd seen, and still be ready for dinner.

Ballynalackan Castle

As the final evening of the formal holiday, we headed by coach to Ballynalackan, on the way to our first stop on day 1, Poulsallach. The modern house, where we had dinner, dated from 1840 and provided a fine setting for a fine meal. The castle dates from 1390 and after dinner the owner showed us around and explained its history, as a defensive site built by the O'Brien family whose descendants had sold it to the current owner's grandfather last century. As we walked to the tower, the view to the Aran Islands was superb, and the rays of the setting sun broke through the clouds to provide a golden end to a splendid day.

Day 6: 12th June: formal end of trip; some leave while others head for Doolin and Aran Islands

After breakfast at the usual time, most of the party were ready for their coach to Doolin, and thence a boat trip to Inisheer, while Ken and Brian awaited their taxi to the airport, and the holiday moved to its close.



Top: Poulnabrone Tomb and Transparent Burnet on Bloody Crane's-bill Middle: Bee Orchid, Lesser Butterfly Orchid and Fly Orchid Bottom: Reed Bunting and Poulsallach limestone pavement

BIRDS	COLENTIETO NAME	NOTEC
ENGLISH NAME	SCIENTIFIC NAME	NOTES
Family Anatidae (Swans,	geese and ducks)	
Mute Swan	Cygnus olor	√ 9 th
Mallard	Anas platyrhynchos	✓ 10 th
Family Phasianidae (Phea	asants and Partridges)	
Pheasant	Phasianus colchicus	√ 9 th
Family Gaviidae (Divers)		
Great Northern Diver	Gavia immer	✓ 8 th (along coastline near Ballyvaugh)
Family Procellariidae (Sh		
Fulmar	Fulmarus glacialis	\checkmark 11 th (Cliffs of Moher)
Family Phalacrocoracidae		
Cormorant	Phalacrocorax carbo	√ 9 th
Family Ardeidae (Herons)		
Grey Heron	Ardea cinerea	$\checkmark 8^{\text{th}}, 10^{\text{th}}$
Family Falconidae (Falcon		
Kestrel	Falco tinnunculus	√ 8 th
Peregrine	Falco peregrinus	\checkmark 9 th (heard at Keelhilla), 11 th (seen
		briefly at Cliffs of Moher)
Family Rallidae (Rails and		
Moorhen	Gallinula chloropus	√ 11 th
Family Scolopacidae (Sar		
Common Sandpiper	Actitis hypoleucos	\checkmark 10 th (Lough Gillain)
Common Snipe	Gallinago gallinago	✓ 10 th (Lough Gillain)
Family Laridae (Gulls)	Chucing and halve width under	< Oth 1 Oth
Black-headed Gull	Chroicocephalus ridibundus	$\frac{\checkmark 8^{\text{th}}, 10^{\text{th}}}{\checkmark 10^{\text{th}}}$
Common Gull	Larus canus	✓ 10 ^{cl} ✓ 8 th , 9 th , 11 th
Herring Gull Lesser Black-backed Gull	Larus argentatus	$\checkmark 8^{\text{tr}}, 9^{\text{tr}}, 11^{\text{tr}}$
Great Black-backed Gull	Larus fuscus Larus marinus	✓ 0°, 9°, 11° ✓ 8 th
Kittiwake	Rissa tridactyla	\checkmark 0 \checkmark 11 th (Cliffs of Moher)
Family Sternidae (Terns)	Rissa thuactyla	
Sandwich Tern	Thalassache sandvicensis	√ 8 th , 9 th
Family Alcidae (Auks)		, 0, 9
Puffin	Fratercula arctica	$\checkmark 11^{\text{th}}$ (Cliffs of Moher)
Guillemot	Uria aalge	\checkmark 11 th (Cliffs of Moher)
Razorbill	Alca torda	\checkmark 11 th (Cliffs of Moher)
Family Columbidae (Pige		
Woodpigeon	Columba palumbus	✓ 8 th , 9 th , 10 th
Collared Dove	Streptopelia decaocto	√ 9 th , 11 th
Family Cuculidae (Cuckoo		· · · · · · · · · · · · · · · · · · ·
Cuckoo	Cuculus canorus	✓ 8 th , 9 th , 10 th , 11 th
Family Apodidae (Swifts)		
Swift	Apus apus	√ 11 th
Family Alaudidae (Larks)		
Skylark	Alauda arvensis	✓ 8 th , 9 th , 10 th , 11 th
Family Hirundinidae (Swa		
House Martin	Delichon urbica	✓ 8 th , 9 th , 10 th , 11 th
Swallow	Hirundo rustica	✓ 8 th , 9 th , 10 th , 11 th
Family Motacillidae (Pipi	ts and Wagtails)	
Meadow Pipit	Anthus pratensis	✓ 8 th , 9 th , 10 th , 11 th
Rock Pipit	Anthus petrosus	✓ 8 th , 11 th
Pied Wagtail	Motacilla alba yarelli	✓ 8 th , 9 th , 11 th

ENGLISH NAME	SCIENTIFIC NAME	NOTES
Family Troglodytidae (Wrens)	
Wren	Troglodytes troglodytes	✓ 8 th , 9 th , 10 th , 11 th
Family Prunellidae (Ac		
Dunnock	Prunella modularis	✓ 8 th , 9 th , 10 th
Family Turdidae (Thru	shes)	
Blackbird	Turdus merula	✓ 8 th , 9 th , 10 th , 11 th
Song Thrush	Turdus philomelos	✓ 8 th (Caher Valley)
Mistle Thrush	Turdus viscivorus	✓ 9 th (on telegraph wire near Keelhilla
Family Muscicapidae (Flycatchers and Chats)	
Robin	Erithacus rubecula	√ 8 th , 9 th
Northern Wheatear	Oenanthe oenanthe	\checkmark 8 th (Poulsallach area)
Family Sylviidae (Sylvi	id Warblers)	
Whitethroat	Sylvia communis	√ 8 th , 9 th
Blackcap	Sylvia atricapilla	√ 9 th , 11 th
Family Phylloscopidae	(Leaf Warblers)	
Chiffchaff	Phylloscopus collybita	✓ 8 th , 9 th
Willow Warbler	Phylloscopus trochilus	✓ 8 th , 9 th , 10 th , 11 th
Family Corvidae (Crow	vs)	
Magpie	Pica pica	✓ 8 th , 9 th , 10 th , 11 th
Jay	Garrulus glandarius	✓ 9 th (heard at Keelhilla)
Jackdaw	Corvus monedula	✓ 8 th , 9 th , 10 th , 11 th
Rook	Corvus frugilegus	✓ 8 th , 9 th , 10 th , 11 th
Hooded Crow	Corvus cornix	✓ 8 th , 9 th , 10 th
Raven	Corvus corax	✓ 9 th , 11 th
Red-billed Chough	Pyrrhocorax pyrrhocorax	✓ 11 th (Cliffs of Moher)
Family Sturnidae (Star	lings)	
Starling	Sturnus vulgaris	✓ 8 th , 9 th , 10 th , 11 th
Family Passeridae (Spa	arrows)	
House Sparrow	Passer domesticus	✓ 8 th , 11 th
Family Fringillidae (Fir	iches)	
Chaffinch	Fringilla coelebs	✓ 8 th , 9 th
Goldfinch	Carduelis carduelis	✓ 10 th (Lough Bunny)
Linnet	Carduelis cannabina	\checkmark 8 th (Poulsallach)
Bullfinch	Pyrrhula pyrrhula	✓ 9 th (at roadside near Keelhilla)
Family Emberizidae (B	untings)	
Yellowhammer	Emberiza citronella	✓ 9 th (Keelhilla)
Reed Bunting	Emberiza schoeniclus	✓ 10 th (Lough Gillain)

MAMMALS Family Leporidae (R	abbits and Hares)	
Irish Hare	Lepus timidus hibernicus	\checkmark 9 th , 10 th (on the road near Lough
		Gillain)
Family Phocidae (Se	als)	
Grey Seal	Halichoerus grypus	\checkmark 9 th (in bay at Linnanes, New Quay)
AMPHIBIANS		
Common Frog	Rana temporaria	✓ 9 th (Keelhilla), 10 th (Lough Gillain)

ENGLISH NAME	SCIENTIFIC NAME	NOTES
BUTTERFLIES		
Large White	Pieris brassicae	$\checkmark 11^{\text{th}}$ (Caherconnell)
Green-veined White	Pieris napi	\checkmark 8 th (Caher Valley)
Wood White	Leptidea sinapis	√ 9 th (Cappanawalla)
Orange Tip	Anthocharis cardamines	✓ 8 th (Caher Valley)
Common Blue	Polyommatus icarus	✓ 8 th , 9 th , 10 th
Small Blue	Cupido minimus	✓ 8 th (Poulsallach)
Peacock	Inachis io	✓ 8 th (larvae seen in Caher Valley)
Small Tortoiseshell	Aglais urticae	✓ 8 th (larvae seen in Caher Valley)
Marsh Fritillary	Euphydryas aurinia	✓ 9 th (Keelhilla), 10 th (Lough Bunny)
Speckled Wood	Pararge aegeria	✓ 8 th (Caher Valley)
Small Heath	Coenonympha pamphilus	✓ 8 th (Poulsallach), 9 th (Cappanawalla)
MOTHS		
6 spot Burnet	Zygaena filipendulae	✓ 9 th (Keelhilla)
Lackey	Malacosoma neustria	✓ 8 th (larvae seen in Caher Valley)
Transparent Burnet	Zygaena purpuralis ssp sabulosa	\checkmark 8 th , 9 th , 10 th , 11 th (common in limestone
		pavement areas)
Cinnabar	Tyria jacobaeae	✓ 9 th (in guesthouse, Lisdoonvarna)
Narrow-bordered Bee Hawkmoth	Hemaris tityus	\checkmark 9 th (seen briefly at Keelhilla)
White-spotted Sable	Anania funebris	✓ 9 th (Cappanawalla)
Drinker	Euthrix potatoria	✓ 9 th , 10 th (larvae seen at Cappanawalla & at the bog near Lisdoonvarna)
Least Minor	Photedes captiuncula tincta	✓ 9 th (Cappanawalla)
Western Thyme Plume	Merrifieldia tridactyla	\checkmark 8 th (Poulsallach)
Sweet Gale Moth	Acronicta euphorbiae myricae	\checkmark 9 th (larva seen at Keelhilla)
DRAGONFLIES	nerometa capitorbiae myneae	
Blue-tailed Damselfly	Ischnura elegans	✓ 10 th (Lough Gillain & Lough Bunny)
Common Blue Damselfly	Enallagma cyathigerum	\checkmark 10 th (Lough Bunny)
Four-spotted Chaser	Libellula quadrimaculata	✓ 10 th (Lough Bunny)
OTHER INVERTEBRATES		
European Black Slug	Arion ater	$\checkmark 8^{\text{th}}, 9^{\text{th}}$
Rose Chafer	Cetonia aurata	$\sqrt{8^{\text{th}}}$ (Poulsallach)
Garden Chafer	Phyllopertha horticola	\checkmark 8 th (Poulsallach)
Pyramid Snail	Pyramidula rupestris	√ 9 th (Keelhilla)
Garden Snail	Cornu aspersum	√ 9 th (Keelhilla)
Brown-lipped Snail	Cepaea nemoralis	✓ 9 th (Keelhilla), 10 th (Lough Bunny)
Heath Snail	Helicella itala	✓ 8 th , 9 th , 10 th
Orchid Beetle	Dascillus cervinus	√ 8 th , 9 th
Green Dock Beetle	Gastrophysa viridula	✓ 8 th (larvae & adult seen in Caher Valley)
Moon Jellyfish	Aurelia aurita	\checkmark 9 th (in bay at Linnanes, New Quay)

Corrections and clarifications to identifications, The Burren, 7-12 June 2018

Wood White: the only species recorded from The Burren is the same as in southern England, *Leptidea sinapis.* A second species, now called Cryptic Wood White, *Leptidea juvernica,* is known from much of Ireland but not the Burren. It has a stronger greenish caste to the underside.

PLANTS

Date/Location codes us	ed in the plant li	st	
	7 th -11 th June	0	Lisdoonvarna
	8 th June	2A	Pollsallach
		В	Ballyvaghan Saltmarsh
		2C	Caher Valley
	9 th June	3A	Keelhilla, Eagle's Rock
		3B	Corcomroe Abbey
		3C	Cappanawalla, above Newtown Castle
	10 th June	4A	Lough Gillain
		4B	Lough Bunny
		4C	Kilfenora
		4D	Bog near Lisdoonvarna
	11 th June	5A	Poulnabrone Portal Tomb
		5B	Glenisheen Wedge Tombs
		5C	Caherconnell Ring Fort
		5D	Cliffs of Moher

C – seen from moving coach

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Pteridophytes - non seed plants			
Polypodiales (Ferns)			
Adiantum capillus-veneris	Maidenhair Fern		2A
Asplenium adiantum-nigrum	Black Spleenwort		3C
Asplenium marinum	Sea Spleenwort		2A
Asplenium ruta-muraria	Wall-rue	fleshy leaves	2A
Asplenium trichomanes	Maidenhair Spleenwort		2A
Athyrium filix-femina	Lady-fern		3A
Ceterach officinarum	Rustyback		2A
Cystopteris fragilis	Brittle Bladder-fern		3A
Dryopteris affinis	Scaly Male-fern		4D
Dryopteris dilatata	Broad Buckler-fern		3A
Dryopteris filix-mas	Male-fern		2A
Osmunda regalis	Royal Fern		4D
Phyllitis scolopendrium	Hart's-tongue		2A
Polypodium vulgare	Polypody		2C
Polystichum aculeatum	Hard Shield-fern		3A
Polystichum setiferum	Soft Shield-fern		2C
Pteridium aquilinum	Bracken		2A
Equisetaceae: horsetail			
Equisetum arvense	Field Horsetail		3C
Equisetum fluviatile	Water Horsetail		2C
Equisetum palustre	Marsh Horsetail		4D
Equisetum telmateia	Great Horsetail		0
Equisetum variegatum	Variegated Horsetail		4B
Spermatophytes - seed plants	Gymnosperms		
Cupressaceae: cypress			
Juniperus communis	Common Juniper		2C

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Angiosperms	Flowering Plants		
Dicotyledons			
Aceraceae: maple	Order Sapindales		
Acer pseudoplatanus	Sycamore	IN	2C
Adoxaceae	Order Dipsacales		
Sambucus nigra	Elder		5C
Viburnum opulus	Guelder Rose		2C
Amaranthaceae	Order Caryophyllales		
Atriplex portulacoides	Sea-purslane		2B
Beta vulgaris subsp. maritima	Sea Beet		2A
Apiaceae: carrot	Order Apiales		
Angelica sylvestris	Wild Angelica		2C
Anthriscus sylvestris	Cow Parsley		5D
Conopodium majus	Pignut		2A
Crithmum maritimum	Rock Samphire		2A
Daucus carota	Wild Carrot		2C
Heracleum sphondylium	Hogweed		5D
Oenanthe crocata	Hemlock Water-dropwort		5D
Sanicula europaea	Sanicle		2C
Smyrnium olusatrum	Alexanders		3B
Aquifoliaceae: holly	Order Aquifoliales		
Ilex aquifolium	Holly		2A
Araliaceae: ivy	Order Apiales		
Hedera helix	Ivy		2A
Hedera helix subsp. hibernica	Atlantic Ivy		3A
Asteraceae: daisy	Order Asterales		
Achillea millefolium	Yarrow		2C
Antennaria dioica	Mountain Everlasting		2A
Aster tripolium	Sea Aster		2A
Bellis perennis	Daisy		2A
Carlina vulgaris	Carline Thistle		2A
Centaurea nigra	Common Knapweed		2A
Centaurea scabiosa	Greater Knapweed		3A
Cirsium arvense	Creeping Thistle		2C
Cirsium dissectum	Meadow Thistle		2A
Cirsium vulgare	Spear Thistle		3C
Eupatorium cannabinum	Hemp-agrimony		2A
Hieracium agg.	Hawkweeds		2A
Lapsana communis	Nipplewort		2C
Leontodon hispidus	Rough Hawksbit		4B
Leucanthemum vulgare	Oxeye Daisy		2A
Matricaria discoidea	Pineappleweed		2C
Mycelis muralis	Wall Lettuce		3A
Pilosella officinarum	Mouse-ear-hawkweed		2A
Senecio jacobaea	Common Ragwort		2A

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Senecio vulgaris	Groundsel		3B
Solidago virgaurea	Goldenrod		2A
Sonchus arvensis	Perennial Sow-thistle		2A
Sonchus asper	Prickly Sow-thistle		2C
Sonchus oleraceus	Smooth Sow-thistle		2A
Taraxacum agg.	Dandelions		2A
Taraxacum webbii	Turlough Dandelion		4B
Tripleurospermum maritimum	Sea Mayweed		5D
Tussilago farfara	Colt's-foot		2A
Betulaceae: birch	Order Fagales		
Corylus avellana	Hazel		2A
Boraginaceae: borage	Order Boraginales		
Myosotis arvensis	Field Forget-me-not		4C
Brassicaceae: cabbage	Order Brassicales		
Arabis hirsuta	Hairy Rock-cress		2C
Barbarea vulgaris	Winter-cress		2C
Cardamine hirsuta	Hairy Bitter-cress		4C
Cardamine pratensis	Cuckooflower		3B
Coronopus didymus	Lesser Swine-cress		4C
Rorippa nasturtium-aquaticum agg.	Water-cress		2C
Sinapis arvensis	Charlock		2C
Sisymbrium officinale	Hedge Mustard		3B
Campanulaceae: bellflower	Order Asterales		
Campanula rotundifolia	Harebell		3A
Jasione montana	Sheep's-bit		5D
Caprifoliaceae: honeysuckle	Order Dipsacales		
Centranthus ruber	Red Valerian		5B
Knautia arvensis	Field Scabious		4B
Lonicera periclymenum	Honeysuckle		2A
Succisa pratensis	Devil's-bit Scabious		2A
Valeriana officinalis	Common Valerian		2C
Caryophyllaceae: carnation	Order Caryophyllales		
Arenaria serpyllifolia subsp. serpylli.	Broad Thyme-leaved Sandwort		2B
Cerastium arvense	Field Mouse-ear		5C
Cerastium fontanum	Common Mouse-ear		2C
Lychnis flos-cuculi	Ragged-Robin		4D
Minuartia verna	Spring Sandwort		2A
Silene uniflora	Sea Campion		2A
Spergularia marina	Lesser Sea-spurrey		2B
Stellaria media	Common Chickweed		2C
Stellaria uliginosa	Bog Stitchwort		4D
Celastraceae: spindle	Order Celastrales		
Euonymus europaeus	Spindle		2A
· · · · ·	Grass-of-Parnassus		4B

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Cistaceae: rock rose	Order Malvales		
Helianthemum oelandicum subsp.			2A
piloselloides	Hoary Rock-rose		
Convolvulaceae: bindweed	Order Solanales		
Calystegia sepium	Hedge Bindweed		3C
Crassulaceae: sedum	Order Saxifragales		
Sedum acre	Biting Stonecrop		2C
Sedum anglicum	English Stonecrop	white flowers	2C
Sedum roseum	Roseroot		5D
Umbilicus rupestris	Navelwort		3B
Droseraceae: sundew	Order Caryophyllales		
Drosera rotundifolia	Round-leaved Sundew		3A
Ericaceae: heather	Order Ericales		
Calluna vulgaris	Heather		2A
Erica cinerea	Bell Heather		2A
Erica tetralix	Cross-leaved Heath		4D
Euphorbiaceae: spurge	Order Malpighiales		
Euphorbia helioscopia	Sun Spurge		2C
Fabaceae: pea	Order Fabales		
Anthyllis vulneraria	Kidney Vetch		2A
Lathyrus linifolius	Bitter-vetch		2A
Lathyrus pratensis	Meadow Vetchling		2C
Lotus corniculatus	Common Bird's-foot-trefoil		2A
Lotus pedunculatus	Greater Bird's-foot-trefoil		4D
Medicago lupulina	Black Medick		3A
Trifolium dubium	Lesser Trefoil		4D
Trifolium pratense	Red Clover		2A
Trifolium repens	White Clover		2A
Ulex europaeus	Gorse		4D
Vicia cracca	Tufted Vetch		2A
Vicia sepium	Bush Vetch		2A
Gentianaceae: gentian	Order Gentianales		1
Blackstonia perfoliata	Yellow-wort		3C
Gentiana verna	Spring Gentian		2A
Geraniaceae: geranium	Order Geraneales		
Geranium lucidum	Shining Crane's-bill		3B
Geranium robertianum	Herb-Robert		2A
Geranium sanguineum	Bloody Crane's-bill		2A
Hypericaceae: St Johns wort	Order Malpighiales		
Hypericum androsaemum	Tutsan		2A
Hypericum perforatum	Perforate St John's-wort		3A
Hypericum pulchrum	Slender St John's-wort		2A
Hypericum tetrapterum	Square-stalked St John's-wort		2C
Lamiaceae: mint	Order Lamiales		
Mentha aquatica	Water Mint		2A

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Prunella vulgaris	Selfheal		2C
Stachys sylvatica	Hedge Woundwort		3C
Teucrium scorodonia	Wood Sage		2A
Thymus polytrichus	Wild Thyme		2A
Lentibulariaceae	Order Lamiales		
Pinguicola grandiflora	Large-flowered Butterwort		3C
Pinguicula vulgaris	Common Butterwort		3A
Linaceae: flax	Order Malpighiales		
Linum catharticum	Fairy Flax		2A
Malvaceae: mallow	Order Malvales		
Lavatera arborea	Tree-mallow		С
Menyanthaceae	Order Asterales		
Menyanthes trifoliata	Bogbean	Introduced	2B
Myricaceae	Order Fagales		
Myrica gale	Bog-myrtle		4B
Oleaceae: olive	Order Lamiales		
Fraxinus excelsior	Ash		2A
Ligustrum ovalifolium	Garden Privet		4A
Onagraceae: willowherb	Order Myrtales		
Circaea lutetiana	Enchanter's-nightshade		2C
Epilobium ciliatum	American Willowherb	IN	3B
Epilobium hirsutum	Great Willowherb		3C
Epilobium montanum	Broad-leaved Willowherb		3C
Fuchsia magellanica	Fuchsia	IN	С
Lythrum salicaria	Purple-loosestrife		4A
Orobanchaceae: broomrape	Order Lamiales		
Euphrasia confusa	Small-flowered Eyebright		4A
		On wild	3A
Euphrasia salisburgensis	Irish Eyebright	thyme	
Odontites verna	Red Bartsia		2C
Orobanche alba	Thyme Broomrape		3A
Pedicularis sylvatica	Lousewort		2A
Rhinanthus minor	Yellow-rattle		2A
Oxalidaceae: oxalis	Order Oxalidales		
Oxalis acetosella	Wood-sorrel		3A
Plantaginaceae: plantain	Order Lamiales		
Cymbalaria muralis	Ivy-leaved Toadflax		3B
Digitalis purpurea	Foxglove		С
Littorella uniflora	Shoreweed		4A
Plantago coronopus	Buck's-horn Plantain		2B
Plantago lanceolata	Ribwort Plantain		2C
Plantago major	Greater Plantain		2C
			2A
	Sea Plantain		
Plantago maritima Veronica arvensis	Sea Plantain Wall Speedwell		3B

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Veronica chamaedrys	Germander Speedwell		2A
Veronica montana	Wood Speedwell		3B
Veronica officinalis	Heath Speedwell		5A
Veronica persica	Common Field-speedwell		3B
Plumbaginaceae: plumbago	Order Caryophyllales		
Armeria maritima	Thrift		2A
Polygalaceae	Order Fabales		
Polygala vulgaris	Common Milkwort		2A
Polygonaceae: dock	Order Caryophyllales		
Fallopia japonica	Japanese Knotweed		4D
Rumex acetosa	Common Sorrel		2C
Rumex acetosella	Sheep's Sorrel		4D
Rumex crispus	Curled Dock		2A
Rumex obtusifolius	Broad-leaved Dock		2C
Rumex sanguineus	Wood Dock		3B
Primulaceae: primula	Order Ericales		
Anagallis arvensis	Scarlet Pimpernel		2C
Anagallis tenella	Bog Pimpernel		3A
Glaux maritima	Sea-milkwort		2A
Lysimachia nemorum	Yellow Pimpernel		3A
Lysimachia vulgaris	Yellow Loosestrife		4A
Primula veris	Cowslip		2C
Primula vulgaris	Primrose		С
Samolus valerandi	Brookweed		4A
Ranunculaceae: buttercup	Order Ranuncuales		
Caltha palustris	Marsh-marigold		2C
Ranunculus acris	Meadow Buttercup		2C
Ranunculus ficaria	Lesser Celandine		3A
Ranunculus flammula	Lesser Spearwort		2A
Ranunculus repens	Creeping Buttercup		3B
Thalictrum minus	Lesser Meadow-rue		4A
Rhamnaceae: buckthorn	Order Rosales		
Frangula alnus	Alder Buckthorn		4A
Rhamnus cathartica	Buckthorn		2A
Rosaceae: rose	Order Rosales		
Alchemilla filicaulis subsp. vestita	Woolly Lady's-mantle		3A
Alchemilla glabra	Smooth Lady's-mantle		3A
Alchemilla xanthochlora	Yellow-green Lady's-mantle		3A
Crataegus monogyna	Hawthorn		2A
Dryas octopetala	Mountain Avens		2A
Filipendula ulmaria	Meadowsweet		2C
Filipendula vulgaris	Dropwort		3A
Fragaria vesca	Wild Strawberry		2C
Geum rivale	Water Avens		2C
			2C

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Potentilla anserina	Silverweed		2A
Potentilla erecta	Tormentil		2A
Potentilla fruticosa	Shrubby Cinquefoil		4A
Potentilla palustris	Marsh Cinquefoil		4D
Prunus spinosa	Blackthorn		2A
Rosa canina	Dog-rose		2C
Rosa pimpinellifolia	Burnet Rose		2A
Rubus caesius	Dewberry		2A
Rubus idaeus	Raspberry		3A
Rubus saxatilis	Stone Bramble		4B
Sorbus aria	Common Whitebeam		4B
Sorbus aucuparia	Rowan		3A
Sorbus hibernica	Irish Whitebeam		4B
Rubiaceae: madder	Order Gentianales		
Asperula cynanchica	Squinancywort		2A
Galium aparine	Cleavers		2C
Galium boreale	Northern Bedstraw		4A
Galium odoratum	Woodruff		2C
Galium palustre	Common Marsh-bedstraw		4A
Galium sterneri	Limestone Bedstraw		3A
Galium verum	Lady's Bedstraw		2A
Rubia peregrina	Wild Madder		2A
Salicaceae: willow	Order Malpighiales		
Salix alba	White Willow		2C
Salix aurita	Eared Willow		2C
Salix aurita x cinerea	Hybrid Sallow		4D
Salix caprea	Goat Willow		3D
Salix caprea x cinerea	Sallow-Osier Hybrid		2C
Salix cinerea	Common Sallow		2C
Salix cinerea subsp. oleifolia	Grey Sallow		2C
Salix repens	Creeping Willow		2A
Salix viminalis	Common Osier		4D
Saxifragaceae	Order Saxifragaceae		
Chrysosplenium oppositifolium	Opposite-leaved Golden-saxifrage		3A
Saxifraga hypnoides	Mossy Saxifrage		5C
Saxifraga tridactylites	Rue-leaved Saxifrage		2C
Scrophulariaceae: foxglove	Order Lamiales		
Scrophularia auriculata	Water Figwort		2C
Scrophularia nodosa	Common Figwort		2C
Urticaceae: nettle	Order Rosales		
Parietaria judaica	Pellitory-of-the-wall		3B
Urtica dioica	Common Nettle		2C
Violaceae: violet	Order Malpighiales		
Viola palustris	Marsh Violet		4D
Viola riviniana	Common Dog-violet	1	2C

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First see
Monocotyledons			
Alismataceae	Order Alismatales		
Baldellia ranunculoides	Lesser Water-plantain		4A
Amaryllidaceae: daffodil	Order Asparagales		
Allium ampeloprasum	Wild Leek		2B (INT)
Allium ursinum	Ramsons		3A
Araceae: arum	Order Alismatales		
Arum maculatum	Lords-and-Ladies		2C
Cyperaceae: sedge	Order Poales		
Carex echinata	Star Sedge		4D
Carex elata	Tufted-sedge		4A
Carex flacca	Glaucous Sedge		2A
Carex hirta	Hairy Sedge		3A
Carex hostiana	Tawny Sedge		3A
Carex otrubae	False Fox-sedge		4d
Carex panicea	Carnation Sedge		2A
Carex pendula	Pendulous Sedge		С
Carex pulicaris	Flea Sedge		2A
Carex remota	Remote Sedge		3A
Carex rostrata	Bottle Sedge		4A
Carex sylvatica	Wood-sedge		3A
Carex viridula subsp. oedocarpa	Small Yellow-sedge		2A
Carex viridula subsp. viridula	Tall yellow-sedge		2A
Cladium mariscus	Great Fen-sedge		4A
Eleocharis multicaulis	Many-stalked Spike-rush		4A
Eleocharis palustris	Common Spike-rush		4A
Eriophorum angustifolium	Common Cottongrass		3B
Eriophorum latifolium	Broad-leaved Cottongrass		3A
Schoenus nigricans	Black Bog-rush		2A
Iridaceae: iris	Order Asparagales		
Crocosmia aurea x pottsii	Montbretia	IN	2C
Iris pseudacorus	Yellow Iris		С
Juncaceae: rush	Order Alismatales		
Juncus acutiflorus	Sharp-flowered Rush		4D
Juncus articulatus	Jointed Rush		3A
Juncus bufonius sens. str.	Toad Rush		3A
Juncus effusus	Soft-rush		3A
Luzula sylvatica	Great Wood-rush		4D
Orchidaceae: orchid	Order Asparagales		
Anacamptis pyramidalis	Pyramidal Orchid		2C
Dactylorhiza fuchsii	Common Spotted Orchid		2A
Dactylorhiza fuchsii var. o'kellyi	Irish Spotted orchid		2C
Dactylorhiza fuchsii x maculata	Common x Heath Spotted Orchid		2C
Dactylorhiza incarnata subsp. cruenta	Flecked Marsh Orchid	spots below/ above leaves	4A

SCIENTIFIC NAME	ENGLISH NAME	NOTES	First seen
Dactylorhiza incarnata subsp. pulchella	Purple Early Marsh Orchid	acid bogs	4A
Dactylorhiza incarnata x purpurella	Early x Northern Marsh Orchid		4A
Dactylorhiza incarnata x			4B
traunsteinerioides	Early x Narrow-leaved Marsh Orchid		
Dactylorhiza maculata subsp. ericetorum	Heath Spotted Orchid	frilly lip	2A
Dactylorhiza macula x purpurella	Heath Spotted x Northern Marsh Orchid		4D
Dactylorhiza maculata x traunsteinerioides	Heath Spotted x Narrow-leaved Marsh Orchid		4B
Dactylorhiza majalis subsp. occidentalis	Irish Marsh Orchid		0
Dactylorhiza majalis subsp.traunsteinerioides	Narrow-leaved Marsh Orchid (Pugsleys)		4B
Dactylorhiza purpurella	Northern Marsh Orchid	diamond shape lip	4A
Epipactis atrorubens	Dark-red Helleborine	leaves	2C
Epipactis helleborine	Broad-leaved Helleborine	leaves	3A
Gymnadenia borealis	Heath Fragrant Orchid	(flowers not open)	4D
Gymnadenia conopsea	Chalk Fragrant Orchid		3A
Neotinea maculata	Dense-flowered Orchid		2A
Neottia ovata	Common Twayblade		2A
Ophrys apifera	Bee Orchid		3C
Ophrys insectifera	Fly Orchid		3A
Orchis mascula	Early-purple Orchid		2A
Platanthera bifolia	Lesser Butterfly Orchid		3A
Poaceae: grass	Order Poales		
Briza media	Quaking-grass		2A
Catapodium marinum	Sea Fern-grass		2A
Cyosurus cristatus	Crested Dog's-tail		2A
Koeleria cristata	Crested Hair-grass		2A
Molinia caerulea	Purple Moor-grass		2A
Phragmites australis	Common Reed		4A
Sesleria caerulea	Blue Moor-grass		2A
Typhaceae	Order Poales		
Sparganium erectum	Branched Bur-reed		2C
Typha latifolia	Reedmace		2C

Corrections and clarifications to identifications, The Burren, 7-12 June 2018

Large Hook-moss, *Pseudocalliergon lycopodioides:* the abundant large brown moss on the mud at Lough Gillain was this species, which I confused with *Drepanocladus aduncus*, a smaller species which was also present in the area. It is extremely local in Britain and Ireland, and has declined because it requires low-nutrient water. The bryophyte field guide says: 'Its fat shoots form spongy carpets in suitable conditions'. The species name reflects its resemblance to a club-moss.

Bay Bolete, *Boletus badius:* the unusually large and much slug-eaten bolete on the path up Cappanawalla which looked like *Boletus edulis* from above, but revealed strongly and instantly blue-staining flesh when damaged, turned out to be the bay bolete, *Boletus badius*, which is usually rather smaller. Despite the shocking blue colour, it's supposedly edible and good to eat.