

# Rare, threatened and characteristic plants of the Burren and the Aran Islands

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### Introduction

This project aims to determine the current distribution, abundance and conservation status of the rare, threatened and characteristic plants of the Burren and the Aran Islands. The results of the project will be available in both hard copy and electronic format to be used as an educational resource for interested parties and the general public. In doing this, attention will be drawn to the very special nature of the flora of these internationally important regions, and the need for ongoing monitoring to ensure the conservation of these species for future generations.



The information gathered during this project could form the foundation for a County Clare Rare Plant Register, as outlined by the Botanical Society of Britain and Ireland. To date only one county (Co Waterford) in the south of Ireland has completed this (National Biodiversity Data Centre)

### Methodology

#### Criteria for Species selection

Plants surveyed during 2021 were selected in accordance with a number of different criteria:

1. Species listed on the Irish Red List No 10: Vascular Plants (NPWS, 2016)

2. Species that are restricted to the Burren and the Aran islands within Ireland
3. Species that have their stronghold in the Burren
4. Characteristic Burren species with a Mediterranean-Atlantic distribution
5. Characteristic Burren species with an Arctic- Alpine distribution

A number of websites, research papers and publications were consulted for relevant data pertaining to the location and conservation status of each plant selected for surveying, (see references) . Ethnobotanical information was taken from Wyse-Jackson (2014). The selection of categories was based on Wyse Jackson et al (2016) and Cabot and Goodwillie (2018)

All plant records were obtained within the following SAC's (Special Areas of Conservation) see below:

East Burren Complex SAC (001926)

Moneen Mountain SAC (000054)

Dromore Woods and Lough SAC (000032)

Inisheer SAC (001275)

Black Head-Poulsallagh Complex SAC (00020)



### Field work

A field work sheet was designed to record relevant data, include the following: date recorded, GPS location, name of the recording area, frequency of species, habitat type, other species present, threats and conservation status.

### Photography

All plants were photographed by the author, using an iPhone 11 Pro Max.



### Results

A unique database was established for the purpose of this survey (see Table 1). This database will be expanded as more species are added in 2022.

More than 30 species were recorded this year (2021). Data relating to location, abundance, conservation status and threats were noted for each species. Exact location for each species was recorded using a hand-held GPS (Satmap active twenty with ROI 1:50k (OSI)). A photographic record for each species was taken, detailing plant characteristics and the habitat in which it occurred.

TABLE 1: FLORA OF THE BURREN AND ARAN ISLANDS 2021

Latin name	English name	Irish name	Location	Grid reference	Date	Abundance	Habitat	Ethnobotany	Conservation	Threats	Native	Listing
<i>Allium ampeloprasum</i> var. <i>hastington</i>	Wild Leek	Cainneam	Kilnaboy	N52.97.W009.02	05/07/2021	occasional	roadside verge	yes	good	limited Irish distribution	yes?	limited Irish distribution
<i>Arctostaphylos uva-ursi</i>	Bearberry	Lus na stailóg	Murrrough	N53.14.W009.27	07/09/2021	occasional	limestone heath	yes	high	limited Irish distribution	yes	limited Irish distribution
<i>Asperula cynanchica</i>	Squinancywort	Lus na haincise	Lough Bunny	N53.01.W008.92	23/09/2021	occasional	limestone pavement	none noted	good	none noted	yes	headquarters in the Burren
<i>Campanula rotundifolia</i>	Harbell	Mearachan gorm	Rockforest	N53.00.W008.98	22/07/2021	present	limestone grassland	none noted	high	none noted	yes	limited Irish distribution
<i>Carlina vulgaris</i>	Carlina thistle	Feochadán mí	Inis Oírr	N53.06.W009.53	01/08/2021	present	roadside verge	none noted	high	none noted	yes	limited Irish distribution
<i>Centaura scabrosa</i>	Greater Knapsweed	Mínscoth mhór	Rockforest	N53.00.W008.98	21/07/2021	present	limestone grassland	none noted	good	none noted	yes	red list, near threatened
<i>Circium dissectum</i>	Bog Thistle	Feochadán móra	Mullach Mór	N52.99.W009.02	23/06/2021	present	limestone heath	none noted	high	none noted	yes	25% of EU pop
<i>Coeloglossum viride</i>	Frog orchid	Magairín an tioscáin	Inis Oírr	N53.06.W009.52	01/08/2021	present	limestone grassland	none noted	moderate	trampling	yes	red list, near threatened
<i>Dactyloctenium aegyptium</i>	O'Kelly's spotted orchid	Nuacht bhiallach	Mullagh Mór	N52.99.W009.02	26/06/2021	present	roadside verge	yes	good	pickling	yes	>25% EU nos in IRL
<i>Dryas octopetala</i>	Mountain avens	Leathín	Gleninagh	N53.14.W009.27	07/09/2021	frequent	limestone heath	none noted	high	none noted	yes	headquarters in the Burren
<i>Euphrasia salisburgensis</i>	Irish eyebright	Glarosc gaelach	Inis Oírr	N53.06.W009.53	01/08/2021	present	limestone heath	yes	high	none noted	yes	headquarters in the Burren
<i>Filipendula ulmaria</i>	Dropwort	Lus broanach	Lough Bunny	N53.01.W008.93	23/09/2021	occasional	limestone heath	yes	good	none noted	yes	limited Irish distribution
<i>Frangula alnus</i>	Alder buckthorn	Draighean fearna	Lough Bunny	N53.01.W008.92	23/09/2021	present	turfough edge	yes	good	none noted	yes	limited Irish distribution
<i>Galium boreale</i>	Northern bedstraw	Rú crua	Lough Bunny	N53.01.W008.92	07/04/2021	present	limestone heath	yes	high	none noted	yes	headquarters in the Burren
<i>Gentiana verna</i>	Spring gentian	Lus an criúbáin	Ballard	N52.97.W009.00	07/04/2021	present	calcareous heath	none noted	moderate	grazing	yes	headquarters in the Burren
<i>Gentiana amarella</i>	Autumn Gentian	Mullicheam	Mullach Mór	N53.00.W009.03	22/08/2021	present	limestone grassland	none noted	good	trampling	yes	red list, near threatened
<i>Geranium sanguineum</i>	Bloody Crane's Bill	Croth dearg	Inis Oírr	N53.06.W009.53	17/05/2021	present	limestone pavement	yes	high	none noted	yes	headquarters in the Burren
<i>Helleborum oelandicum</i> spp	Hoary Rock-rose	Grianór ílath	Ballyvyan	N53.05.W009.36	26/09/2021	frequent	limestone heath	unlikely	good	none noted	yes	red list, near threatened
<i>Juniperus communis</i>	Juniper	Aitéal	Moreen Mt.	N53.14.W009.27	07/09/2021	occasional	limestone pavement	yes	high	none noted	yes	headquarters in the Burren
<i>Lathraea squamaria</i>	Toothwort	Slánu fiacal	Dromore Woods	N52.92.W008.96	28/03/2021	present	hazel woodland	none noted	good	pickling	yes	limited Irish distribution
<i>Neottia maculata</i>	Dense-flowered orchid	Magairín glás	Mullagh Mór	N53.00.W009.02	01/05/2021	present	limestone grassland	none noted	high	none noted	yes	red list, near threatened
<i>Neottia nidus-avis</i>	Bird's-nest orchid	Magairín na mbeach	Tubber	N53.01.W008.90	17/06/2021	present	beech woodland	none noted	moderate	pickling	yes	red list, near threatened
<i>Ophrys apifera</i>	Bee orchid	Magairín na mbeach	Mullach Mór	N52.99.W009.03	26/06/2021	present	limestone grassland	none noted	moderate	trampling	yes	Schedule 8 (NI) wildlife order
<i>Ophrys insectifera</i>	Fly orchid	Magairín na gcuilearna	Mullagh Mór	N52.99.W009.03	23/06/2021	present	limestone quarry	none noted	good	trampling	yes	red list, near threatened
<i>Potentilla fruticosa</i>	Shrubby cinquefoil	Tor gúighnhearach	Mullagh Mór	N52.99.W009.02	17/07/2021	frequent	turfough edge	yes	high	none noted	yes	vulnerable, red data list 2016
<i>Rubia perigrina</i>	Wild madder	Garbhús na Boirne	Inis Oírr	N53.06.W009.53	30/07/2021	frequent	limestone pavement	yes	high	none noted	yes	headquarters in the Burren
<i>Rubia caecius</i>	Dewberry	Eithreog	Mullaghmore	N52.99.W009.03	06/09/2021	present	turfough edge	yes	high	none noted	yes	headquarters in the Burren
<i>Sabulina verna</i>	Spring sandwort	Gaineamhlús earrálgh	Lough Bunny	N53.02.W008.92	21/07/2021	present	limestone pavement	none noted	good	none noted	yes	headquarters in the Burren
<i>Saxifraga rosacea</i>	Irish saxifrage	Móran gaelach	Inis Oírr	N53.06.W009.53	02/08/2021	present	roadside verge	none noted	high	none noted	yes	red list, near threatened
<i>Spiranthes spiralis</i>	Field madder	Deang fáille	Mullach Mór	N52.99.W009.02	23/06/2021	present	limestone grassland	yes	high	none noted	yes	red list, near threatened
<i>Spiranthes spiralis</i>	Autumn Lady's Tresses	Cúlin Muire	Inis Oírr	N53.06.W009.52	01/08/2021	present	limestone grassland	none noted	moderate	trampling	yes	red list, near threatened
<i>Thalictrum minus</i>	Meadow rue, lesser	Ru leana beag	Mullagh Mór	N52.99.W009.02	27/09/2021	present	limestone pavement	none noted	high	none noted	yes	limited Irish distribution
<i>Viola persicifolia</i>	Fen violet	Saithchach uisce	Mullagh Mór	N52.99.W009.03	26/06/2021	present	turfough edge	none noted	fair	pickling	yes	red list, near threatened

Two species, Pyramidal bugle and Arctic sandwort, searched for in their previously recorded sites, were not located this year (2021) due to seasonal constraints.

Precise location data will be forwarded to the local BSBI recorders and the National Biodiversity Centre

A hard copy report and electronic format will be presented to the Local Heritage Officer, Clare Co Council.

### **Future Work**

A list of a further 50 species has been drawn up for future field work. (see below) These are listed under various categories. Consultation with NPWS, local BSBI recorders and other interested individuals and organisations may add to this list.

### **Species searched for in 2021, but not found:**

Pyramidal bugle (*Ajuga pyramidalis*)

Arctic sandwort, (*Arenaria norvegica* spp. *norvegica*)

### **Species restricted to the Burren and the Aran Islands, occurring nowhere else in Ireland:**

Sea lavender (*Limonium recurvum* spp. *pseudotranswallianum*)

Purple-milk vetch (*Astragalus danicus*)

### **Species regarded as true Arctic-Alpine species, mostly confined to montane habitats as defined by Webb (1983)**

Roseroot (*Sedum rosea*)

Arctic sandwort (*Arenaria norvegica* spp. *norvegica*)

### **Species classified as Mediterranean-Atlantic species**

Navelwort (*Umbilicus rupestris*)

Portland spurge (*Euphorbia portlandica*)

Tree-mallow (*Malva arborea*)

Sea-purslane (*Atriplex portulacoides*)

Large-flowered butterwort (*Pinguicula grandiflora*)

### **Species with their headquarters in the Burren and are more numerous here than anywhere else in Ireland**

Maiden-hair fern (*Adiantum capillus-veneris*)

Field mouse-ear (*Cerastium arvense*)  
 Thyme broomrape (*Orabanche alba*)  
 Dark-red helleborine (*Epipactus atrorubens*)  
 Turlough dandelion (*Taraxacum palustre*)  
 Stone bramble (*Rubus saxitailis*)  
 Limestone bedstraw (*Galium sternerii*)

### **Other interesting species to be surveyed in 2022**

Burnet saxifrage (*Pimpinella saxifrage*)  
 Common cudweed (*Filago vulgaris*)  
 Cornflower (*Centaurea cyanus*)  
 Crowberry (*Empetrum nigrum*)  
 Darnell (*Lolium temulentum*)  
 Dodder (*Cuscuta epithymum*)  
 Dog's mercury (*Mercurialis perennis*)  
 Dwarf spurge (*Euphorbia exigua*)  
 False oxlip (*Primula x polyantha*)  
 Field gentian (*Gentianella campestris*)  
 Green field-speedwell (*Veronica agrestis*)  
 Hairy violet (*Viola hirta*)  
 Hop trefoil (*Trifolium campestre*)  
 Irish Lady's tresses (*Spiranthis romanzoffiana*)  
 Ivy broomrape (*Orabanche hederæ*)  
 Knotted hedge parsley (*Torilis nodosa*)  
 Marsh violet (*Viola palustris*) – (food plant of the rare Pearl- bordered fritillary, found only in Clare and Galway)  
 Meadow -rue (*Thalictrum flavum*)  
 Mossy saxifrage (*Saxifraga hypnoides*)  
 Mountain pansy (*Viola lutea*)  
 Mudwort (*Limosella aquatica*)  
 Narrow-leaved helleborine (*Cephalanthera longifolia*)  
 Pennyroyal (*Mentha pulegium*)  
 Petalwort (*Petalophyllum ralfsii*)  
 Sand pansy (*Viola tricolor ssp. curtisii*)  
 Sharp-leaved fluellan (*Kickxia elatine*)  
 Small white orchid (*Pseudorchis albida*)  
 Strawberry clover (*Trifolium fragiferum*)  
 Sweet violet (*Viola odorata*)  
 Verbena (*Verbena officinalis*)

Wild pansy (*Viola tricolor spp.tricolor*)

Wood small reed grass (*Calamagrostis epigejos*)

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**Recommended conservation measures:**

Ongoing monitoring of species and habitats is recommended to ensure the conservation and protection of these species of high botanical value. Data gained in this way can enhance our knowledge of species ecology and in so doing make a positive difference to the conservation and protection of the rare and threatened flora of the Burren and the Aran Islands.

Funding on a three year cycle is recommended as consistent and sustainable monitoring cannot be guaranteed on a voluntary basis.

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