



Site Name: Bricklieve Mountains and Keishcorran SAC

Site Code: 001656

The Bricklieve Mountains and Keishcorran are located west of Lough Arrow and approximately 6 km north-west of the town of Boyle, and are in Co. Sligo. The site is a large isolated block of carboniferous limestone that reaches a height of approximately 300 m. Typical landscape features associated with a karst topography are present, including caves, dry valleys and limestone pavement. A striking feature of the Bricklieve Mountains is that they are cut into four slices by narrow rift valleys which run north-west and south-east. The walls of these valleys are vertical cliffs which vary between 10-30 m in height. During the last ice age retreating ice deposited morainic debris across the rift valleys. This helped to form lakes, which subsequently developed into bog.

Botanically this site is extremely rich and varied. This is primarily due to the very different floras of the limestone and peat areas (i.e. the calcicole and calcifuge element of the flora). In places leaching has facilitated the development of an interesting calcifuge flora.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

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| [3180] Turloughs* |
| [6210] Orchid-rich Calcareous Grassland* |
| [6510] Lowland Hay Meadows |
| [8120] Calcareous Scree |
| [1065] Marsh Fritillary (<i>Euphydryas aurinia</i>) |
| [1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>) |

The dominant habitats on the site include upland grassland on peaty soil, blanket bog, heath, upland grassland on mineral soil and scrub woodland. Calcareous dry grassland occurs on the lower slopes, bogland on the upper slopes above 200 m and scrub woodland by the cliff walls of the rift valleys.

The most widespread community throughout the site is calcareous grassland dominated by bent grasses (*Agrostis* spp.), Sheep's-fescue (*Festuca ovina*) and Crested Dog's-tail (*Cynosurus cristatus*). Associated species are Blue Moor-grass (*Sesleria albicans*), Heath-grass (*Danthonia decumbens*), False Oat-grass (*Arrhenatherum elatius*), Quaking-grass (*Briza media*), Lady's Bedstraw (*Galium verum*), Mouse-ear Hawkweed

(*Hieracium pilosella*), Pignut (*Conopodium majus*), Great Wood-rush (*Luzula sylvatica*), Selfheal (*Prunella vulgaris*), Yellow Rattle (*Rhinanthus minor*) and Fairy Flax (*Linum catharticum*). The legally protected (Flora (Protection) Order, 1999) Small-white Orchid (*Pseudorchis albida*) has recently been recorded from the site. These grasslands correspond to the E.U. Habitats Directive Annex I priority habitat orchid-rich calcareous grassland.

Lowland hay meadows are present in small isolated locations at the north and south of the valleys. They generally occur on the valley floors, and drainage is sometimes impeded. In these areas there is a gradation from dry grassland to damp grassland to fields dominated by rushes. There is a very high species diversity brought about by the close proximity of the wet and dry meadows, and also by the calcicole and calcifuge elements. The wet grassland in these areas supports Soft Rush (*Juncus effusus*), Meadowsweet (*Filipendula ulmaria*), Ragged-Robin (*Lychnis flos-cuculi*), Marsh-marigold (*Caltha palustris*), Marsh Bedstraw (*Galium palustre*), Star Sedge (*Carex echinata*) and Lesser Spearwort (*Ranunculus flammula*).

The peatland areas are either dry, as on the upland slopes where Heather (*Calluna vulgaris*) is dominant, with Mat-grass (*Nardus stricta*), Green-ribbed Sedge (*Carex binervis*) and Bilberry (*Vaccinium myrtillus*) being common, or wet, such as in the bog areas in the rift valleys. Some areas of cut-away bog are also found. Here Common Cottongrass (*Eriophorum angustifolium*), Deergrass (*Scirpus cespitosus*) and Purple Moor-grass (*Molinia caerulea*) are abundant, with Bog Asphodel (*Narthecium ossifragum*), Carnation Sedge (*Carex panicea*), Cross-leaved Heath (*Erica tetralix*) and Bulbous Rush (*Juncus bulbosus*) also present.

The scrub woodland occurs mostly on the steep slopes beside the cliffs. Hazel (*Corylus avellana*) is the most common species, with Ash (*Fraxinus excelsior*), Rowan (*Sorbus aucuparia*), Downy Birch (*Betula pubescens*), Goat Willow (*Salix caprea*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*) and Wych Elm (*Ulmus glabra*) also occurring. The ground flora is rich, with Ramsons (*Allium ursinum*), Hart's-tongue (*Phyllitis scolopendrium*), Primrose (*Primula vulgaris*), Bramble (*Rubus fruticosus* agg.) and other common woodland herb species. The abundance of woodland species in open situations is striking at this site also.

Other habitats found on the site include cliff bases and ledges, bare rocks, scree slopes and aquatic habitats associated with Lough Availe, Lough na Leibe, Lough Gowra, Greenan Fen and a number of small springs. The cliffs on the site support a distinctive flora with Common Valerian (*Valeriana officinalis*), Nipplewort (*Lapsana communis*), Common Figwort (*Scrophularia nodosa*), Mossy Saxifrage (*Saxifraga hypnoides*), Harebell (*Campanula rotundifolia*), Hairy Rock-cress (*Arabis hirsuta*), Brittle Bladder-fern (*Cystopteris fragilis*) and the Red Data Book plant Hoary Whitlowgrass (*Draba incana*). The site is also notable for the good population of the Irish endemic species, Basalt Hawkweed (*Hieracium basalticola*), that it supports.

Lough Gowra is an excellent quality turlough that supports good populations of several rare or uncommon plant species, e.g. the two Red Data Book species

Northern Yellow-cress (*Rorippa islandica*) and Fen Violet (*Viola persicifolia*), the uncommon Adder's-tongue (*Ophioglossum vulgatum*) and Small Water-pepper (*Polygonum minus*), as well as the charophyte *Chara vulgaris* var. *papillata*. The recent record for *Chara vulgaris* var. *papillata* is the first from a turlough, and one of the few for the taxon in Ireland. Lough Gowra is of additional significance for being one of the most elevated turloughs in the country (112 m), as well as being close to the northern edge of the range of the habitat.

Lough na Leibe (Lough Labe), a small lake situated within the site, has been noted for its naturally spawning stock of Rainbow Trout, one of the only such sites in Ireland. The lake also supports a good population of White-clawed Crayfish (*Austropotamobius pallipes*), a species listed on Annex II of the E.U. Habitats Directive.

The site is notable for supporting an excellent population of the scarce butterfly, Marsh Fritillary (*Euphydryas aurinia*), a species that is listed on Annex II of the E.U. Habitats Directive. Marsh Fritillary is particularly associated with areas supporting good stands of its food plant, Devil's-bit Scabious (*Succisa pratensis*).

The site is also of archaeological interest. The area has many megalithic tombs, some of considerable size, erected by Neolithic farmers some 4,500 years ago. In caves within the site the bones of extinct bears and other animals have been found.

The main threats to the diverse flora of this site are the application of artificial fertilizers, over-grazing by domestic stock, burning, quarrying, turf-cutting and afforestation. The area has probably been grazed since prehistoric times and so is in equilibrium with the present prevailing land use. However, this equilibrium needs to be maintained as a reduction in grazing pressure would result in the spread of scrub vegetation and over-grazing would lead to poaching and loss in vegetation cover and diversity. Turf-cutting resulted in the drainage of Lough Availe in 1946.

The Bricklieve Mountains and Keishcorran are exceptionally diverse in habitats and species and form a discrete unit of scenic and amenity value. The site is also of geomorphological, geological and archaeological importance. Overall, this site is of high conservation importance.