

Site Name: The Twelve Bens/Garraun Complex SAC

Site Code: 002031

This is an extensive site situated in the north-west of Connemara in Co. Galway and dominated by mountainous terrain. The site is bounded to the south by the Connemara Bog Complex, to the east by the Maumturk Mountains and to the north by Killary Harbour. Included within the site are the Twelve Bens mountain range, the mountains to the north of Kylemore (Doughruagh, Garraun and Benchoona), rivers including the Ballynahinch and Owenglin systems and an area of coastal heath and machair near Glassilaun. The site also includes some extensive tracts of lowland blanket bog which are continuous with the mountains. Most of the mountain summits reach a height in excess of 500 m, the highest being Ben Baun in the Twelve Bens which reaches 730 m. The site includes a large portion of the Connemara National Park and a Statutory Nature Reserve at Derryclare Wood.

Geologically, the site can be divided into two distinct parts. The Twelve Bens are composed of resistant quartzite with schists in the valleys, while the mountains north of Kylemore are composed of gneiss and various types of sandstones and mudstones. There are also areas of gabbro (Doughruagh and Currywongaun), mica schist (Muckanaght) and marble outcrops (south of Kylemore Lough). The main soil type within the site is peat.

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):

[3110] Oligotrophic Waters containing very few minerals

[3130] Oligotrophic to Mesotrophic Standing Waters

[4060] Alpine and Subalpine Heaths

[7130] Blanket Bogs (Active)*

[7150] Rhynchosporion Vegetation

[8110] Siliceous Scree

[8210] Calcareous Rocky Slopes

[8220] Siliceous Rocky Slopes

[91A0] Old Oak Woodlands

[1029] Freshwater Pearl Mussel (Margaritifera margaritifera)

[1106] Atlantic Salmon (Salmo salar)

[1355] Otter (Lutra lutra)

[1833] Slender Naiad (Najas flexilis)

The predominant vegetation type at this site is upland blanket bog/heath dominated by Heather (*Calluna vulgaris*), Deergrass (*Scirpus cespitosus*), Cross-leaved Heath (*Erica cinerea*) and the mosses *Racomitrium lanuginosum* and *Sphagnum capillifolium*. In places this vegetation can be rich in liverworts, with species such as *Adelanthus lindenbergianus* and *Bazzania pearsonii*. This unusual type of species-rich dwarf shrub heath is almost confined to the mountains of the west of Ireland and Scotland, and is particularly well developed in the Twelve Bens. Close to the mountain summits this blanket bog/heath is often developed on a very thin peat with a high proportion of outcropping bedrock.

Another important and widespread habitat is lowland blanket bog dominated by Purple Moor-grass (*Molinia caerulea*), Black Bog-rush (*Schoenus nigricans*), Crossleaved Heath and the liverwort *Pleurozia purpurea*. These areas of lowland blanket bog usually occur in the valleys between the mountains, e.g. the Gleninagh Valley. Rhynchosporion vegetation is well represented around pools, in wet hollows and in quaking and flush areas associated with the lowland blanket bog. White Beak-sedge (*Rhynchospora alba*) occurs in association with such species as Common Cottongrass (*Eriophorum angustifolium*), Bogbean (*Menyanthes trifoliata*), Black Bog-rush and a range of bog mosses, including *Sphagnum auriculatum* and *S. cuspidatum*.

The site contains a large range of others habitats, including upland grassland dominated by Sheep's-fescue (*Festuca ovina*) and Mat-grass (*Nardus stricta*), oak woodland, scree, oligotrophic (nutrient-poor) lakes, rivers, reedbeds, freshwater marshes, coastal heath, machair, sand dune and saltmarsh.

A number of rare, Red Data Book plant species are found within the site, many of which are associated with rocky scree habitats. These include Alpine Saw-wort (*Saussurea alpina*), Holly Fern (*Polystichum lonchitis*), Purple Saxifrage (*Saxifraga oppositifolia*), and the legally protected (Flora (Protection) Order, 2015) Parsley Fern (*Cryptogramma crispa*). These are generally confined to mountains cliffs above 400 m, where a number of other scarce plant species are also found (for example, Alpine Meadow-rue, *Thalictrum alpinum*). Other Red Data Book species have also been recorded from the site, including Corncockle (*Agrostemma githago*) and the legally protected species Marsh Clubmoss (*Lycopodiella inundata*) and Heath Cudweed (*Omalotheca sylvatica*). St. Dabeoc's Heath (*Daboecia cantabrica*), a species which in Ireland is restricted to Connemara and south Mayo, occurs commonly within the site.

Alpine and subalpine heaths are found in association with exposed rock and scree at high altitudes at this site. Typical species include Heather, Bilberry (*Vaccinium myrtillus*), Crowberry (*Empetrum nigrum*), Juniper (*Juniperus communis* subsp. *nana*), Bearberry (*Arctostaphylos uva-ursi*), Bell Heather (*Erica cinerea*), Tormentil (*Potentilla erecta*), Great Wood-rush (*Luzula sylvatica*), Tufted Hair-grass (*Deschampsia cespitosa*) and Common Bent (*Agrostis capillaris*). The community also holds important assemblages of oceanic montane bryophytes.

The suite of lowland lakes that encircle the mountains represent some of the finest oligotrophic lakes in the country and two rare, Red Data Book plant species, Slender Naiad (*Najas flexilis*) and Pillwort (*Pilularia globulifera*), occur. Slender Naiad is rare in Europe and is listed on Annex II of the E.U. Habitats Directive. Both of these species are listed on the Flora (Protection) Order, 2015.

The site contains several small areas of Sessile Oak (*Quercus petraea*) woodland, a habitat which is particularly rare in Connemara. The best examples on the site of this habitat are found at Kylemore and on the north shore of Derryclare Lough. Derryclare Wood, a Statutory Nature Reserve, has been particularly well studied. It is composed mostly of Sessile Oak, with some Rowan (*Sorbus aucuparia*), Downy Birch (*Betula pubescens*) and occasional Ash (*Fraxinus excelsior*) forming the canopy layer. There is a well-developed lichen and fungus flora present. The fungal parasite, *Hemigrapha astericus*, a native of Australia and South America, was first recorded in the northern hemisphere from this wood. The Kylemore woods, though heavily infested by Rhododendron (*Rhododendron ponticum*), still retain a diverse flora and support interesting communities of mosses and liverworts, including such species as *Radula voluta, Lejeunea holtii, L. hibernica, L. flava* subsp. *moorei, Cephalozia hibernica, Teleranea nematodes, Campylopus setifolius, Oxystegus hibernicus, Grimmia hartmanii* and *G. funalis*.

Irish Hare, Common Frog, Otter and Freshwater Pearl Mussel and have been recorded from the site. These species are protected under the Wildlife Act, 1976, and the latter two are listed on Annex II of the E.U. Habitats Directive. The Owenglin River supports an important population of Salmon, another Annex II species. Arctic Char, a species listed in the Irish Red Data Book as threatened in Ireland, has been recorded from Lough Inagh, Kylemore Lough, Lough Muck and Lough Fee.

Bird species reported from the site include Raven, Wheatear, Stonechat, Meadow Pipit, Red Grouse (a declining species of heather moorland), Snipe, Curlew, Woodcock, Hooded Crow, Twite, Ring Ouzel (the latter two both Irish Red Data Book species) and the E.U. Birds Directive Annex I species: Peregrine, Merlin, Golden Plover and Chough. The site provides excellent habitat for Peregrine and this species has traditionally bred at several locations within it.

The upland vegetation of the site is most threatened by over-stocking with sheep and by afforestation with coniferous species.

The Twelve Bens/Garraun Complex includes a wide variety of habitat types, nine of which are listed on Annex I of the E.U. Habitats Directive (including one with priority status), and populations of many rare or scarce plant and animal species. It is one of the largest and most varied protected sites in Ireland and so is of high conservation interest.