

Site Name: Inishmaan Island SAC

Site Code: 000212

Inishmaan is the middle of the three Aran Islands, situated approximately 15 km off the west coast of Co. Clare (though the Aran Islands are part of Co. Galway). Geologically, the island is an extension of the Burren. The shallow soil is, in many places, a man-made combination of sand and seaweed built up over the centuries. Pockets of rendzina are also found. This site is of major scientific importance owing to the range of outstanding karstic Carboniferous limestone and coastal habitats, many of which are listed as priority and Annex I habitats under the E.U. Habitats Directive. The site is dominated by limestone pavement and its associated calcareous grasslands. Other Annex I habitats which occur include dry heath, lowland hay meadows and orchid-rich calcareous grassland.

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):

- [1170] Reefs
- [1220] Perennial Vegetation of Stony Banks
- [1230] Vegetated Sea Cliffs
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [21A0] Machairs*
- [4030] Dry Heath
- [6210] Orchid-rich Calcareous Grassland*
- [6510] Lowland Hay Meadows
- [8240] Limestone Pavement*

A network of small, stone-walled fields dissect the island. Many fields enclose areas of limestone pavement and/or fine examples of species-rich, dry calcareous grasslands. In places, the rocky grasslands support rare plant species such as Hairy Violet (*Viola hirta*) and Wood Small-reed (*Calamagrostis epigejos*). Both species are legally protected under the Flora (Protection) Order, 1999. Common species in grasslands on the island include Blue Moor-grass (*Sesleria albicans*) and eyebrights (*Euphrasia* spp.), along with Knapweeds (*Centaurea nigra* and *C. scabiosa*), Orchids (Orchidaceae), Bloody Crane's-bill (*Geranium sanguineum*) and Spring Gentian (*Gentiana verna*). The southern part of the island supports the highest proportion of these calcareous grasslands. Orchid species recorded include: Pyramidal Orchid (*Anacamptis pyramidalis*), Common Spotted-orchid (*Dactylorhiza fuchsii*), Heath Spotted-orchid (*D. maculata*), Broad-leaved Marsh-orchid (*D. majalis*), Fragrant

Orchid (*Gymnadenia conopsea*), Common Twayblade (*Listera ovata*), Dense-flowered Orchid (*Neotinea maculata*), Bee Orchid (*Ophrys apifera*), Early-purple Orchid (*Orchis mascula*), Lesser Butterfly-orchid (*Platanthera bifolia*) and Autumn Lady's-tresses (*Spiranthes spiralis*). There is an excellent diversity of limestone pavement formations and an outstanding associated variety of rare and protected flora. At the north of the site striking sheets of bare pavement are found. Throughout the site there is an intimate mosaic between pavement and other habitat and vegetation types.

Dry limestone heath has developed in places, and while scattered, it is often species-rich. It is often found associated with Juniper (*Juniperus communis*) heath and limestone pavement. The most common species include Heather (*Calluna vulgaris*) and Bell Heather (*Erica cinerea*), with Purple Moor-grass (*Molinia caerulea*), Blue Moor-grass (*Sesleria albicans*), Bloody Crane's-bill and Bracken (*Pteridium aquilinum*) frequent. Hoary Rock-rose (*Helianthemum canum*), a species listed in the Irish Red Data Book, occurs regularly throughout the dry heath and alpine heath habitats on the Island. Elsewhere on rocky crevices are found two other Red Data Book species, Pyramidal Bugle (*Ajuga pyramidalis*) and Musk Thistle (*Carduus nutans*).

The range of Annex I coastal habitats present includes sea cliffs, embryonic dunes, Marram dunes, shingle and stony beaches, and machair. The latter is characterised by a species-rich, dry calcareous grassland, with a short turf and a low abundance of sand-binding species such as Marram (*Ammophila arenaria*). Machair is also an important invertebrate and breeding bird habitat. The coastal habitats play host to a number of rare plant species, including Purple Milk-vetch (*Astragalus danicus*) and Hairy Violet, both of which are legally protected under the Flora (Protection) Order, (1999). In Ireland, Purple Milk-vetch is confined to Inishmaan and Inishmore, where it occurs on machair and sandy places close to the sea.

The embryonic shifting dunes are typically dominated by Sand Couch (*Elymus farctus*), with other species such as Sandwort (*Honkenya peploides*), Hairy Rock-cress (*Arabis hirsuta*) and Sea Spurge (*Euphorbia paralias*) also occurring. The dominant species in the Marram dunes is, unsurprisingly, Marram, though species such as Sea Bindweed (*Calystegia soldanella*) and Sea-holly (*Eryngium maritimum*) are also found. The vegetation of stony banks consists of such species as the rare Red Data Book species Sea-kale (*Crambe maritima*), along with Spear-leaved Orache (*Atriplex prostrata*), Curled Dock (*Rumex crispus*), Sea-milkwort (*Glaux maritima*) and Sea Beet (*Beta vulgaris* subsp. *maritima*).

The reef habitats found at this site show good zonation of benthic communities of algae and fauna. The substrate is highly porous, which is generally indicative of a rich and varied algal flora, however the high wave action at this site reduces the diversity of communities present somewhat. There are excellent examples of vegetated sea cliffs at this site, particularly at the south-west, where sheer vertical cliffs are found. The vegetation on cliffs of Inishmaan includes species such as Rock Samphire (*Crithmum maritimum*), Sea Spleenwort (*Asplenium marinum*), Rock Sea-spurrey (*Spergularia rupicola*), Thrift (*Armeria maritima*) and Roseroot (*Rhodiola rosea*).

Traditional farming practices, in the form of rye cultivation for thatching, has maintained suitable habitat for a number of Rare and threatened arable weeds. Darnel (*Lolium temulentum*), Smooth Brome (*Bromus racemosus*), Cornflower (*Centaurea cyanus*) and Bristle Oat (*Avena strigosa*) all occur on Inishmaan. All four species are listed in the Irish Red Data Book and, prior to their discovery on the Aran Islands, some of these species were thought to have been extinct in Ireland. These lowland hay meadows are excellent examples of this rare and floristically diverse habitat.

Six pairs of flocking Chough were sighted off the cliffs to the west of the Island. Two breeding pairs of this species are known to be present on the island. The island is also important for breeding terns, with seven pairs of Arctic Tern and three pairs of Little Tern known to occur. All three species are listed under Annex I of the E.U. Birds Directive.

Seabirds which can be regularly seen around the island include Cormorant, Shag, Fulmar and a range of gull species. Inland habitats support Sparrowhawk, Kestrel, Raven, Dunnock, Wren, Pied Wagtail, Stonechat and Wheatear. In all, 39 species of bird were recorded during the NHA survey in 1993.

Agricultural intensity is lowest on Inishmaan, compared with the other two Aran Islands. The majority of the land is used as winterage for cattle, sheep and, in some places, goats. The fields located close to the houses are used for summer grazing. This low-impact farming, combined with the absence of fertiliser, has maintained the species-richness and high diversity of the island flora. A move towards agricultural intensification would see the deterioration of this unique environment. The survival of the complement of rare arable weeds which occur here depends on continuation of the current traditional practice of rye cultivation for thatching. Plans to develop the island for tourism and amenity require close monitoring, in order to safeguard the wildlife and scientific value of Inishmaan.

Inishmaan is of considerable scientific interest primarily for the wide range of good quality habitats which occur, and the floristic richness of many of these habitats. The island supports an impressive array of critically rare and threatened plant species. The cultural heritage of Inishmaan (and in particular the continuation of traditional, low-intensity farming practices) is intrinsically linked with its scientific interest. The island is also of high scenic and amenity value.