SITE SYNOPSIS

Site Name: Slyne Head Peninsula SAC

Site Code: 002074

This site comprises the peninsula west of Ballyconneely, Co. Galway. It extends northwards to Errislannan Point to include the shallow waters of Mannin Bay. The peninsula is low-lying and undulating, reaching a maximum height of only 64 m (Doon Hill). The underlying rock is predominantly gneiss, except for schist along the northern shores of Mannin Bay, a granite ridge along the western edge of the peninsula and a conspicuous basalt exposure which forms Doon Hill. The peninsula is fringed with rocky shores and sandy beaches, with some extensive areas of machair and several brackish lakes and lagoons. Inland, the site is a maze of small fields, supporting a mosaic of habitats dominated by grassland and heath, interspersed with numerous lakes and associated swamp, marsh and fen. An important feature of the site is the influence of windblown calcareous sand on these habitats.

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):

[1150] Coastal Lagoons*
[1160] Large Shallow Inlets and Bays
[1170] Reefs
[1210] Annual Vegetation of Drift Lines
[1220] Perennial Vegetation of Stony Banks
[1330] Atlantic Salt Meadows
[1410] Mediterranean Salt Meadows
[2110] Embryonic Shifting Dunes
[2120] Marram Dunes (White Dunes)
[21A0] Machairs*
[3110] Oligotrophic Waters containing very few minerals
[3130] Oligotrophic to Mesotrophic Standing Waters
[3140] Hard Water Lakes
[4030] Dry Heath
[5130] Juniper Scrub
[6210] Orchid-rich Calcareous Grassland*
[6410] *Molinia* Meadows
[6510] Lowland Hay Meadows
[7230] Alkaline Fens

[1395] Petalwort (*Petalophyllum ralfsii*)
[1833] Slender Naiad (*Najas flexilis*)

Mannin Bay is an excellent example of a large shallow bay, with a wide range of sediment types. The islets and rocks at the mouth of the bay give some shelter from Atlantic swells. Conditions become more sheltered towards the head of the bay and are extremely sheltered in Mannin Creek. Tidal streams are weak. There are a very high number of sediment communities for such a small area. Mannin Bay is almost unique as a very large proportion of the bay is dominated by a combination of maerl debris and living maerl. Maerl is free living red calcareous algae generally called 'coral'. The two species that are most abundant in Mannin Bay are *Lithothamnion corallioides* and *Phymatolithon calcareum*. In addition *Lithophyllum fasclatum* and *L. dentatum* have also been recorded. In shallow water, Eelgrass (*Zostera marina*) and maerl are found together, an uncommon combination known only from two other locations in Ireland. Mannin Bay has excellent examples of communities characterised by the burrowing brittlestars *Amphiura brachiata* and *A. filiformis.* The brittle star *Ophiopsila annulosa* is present and is an uncommon species. In addition there is an unusual community characterised by the tubeworm *Sabella pavonina* in Mannin Creek. The shores on the south side of Mannin Creek are known to have bivalve communities with unusually high species diversity. The beaches of Mannin Bay are unusual as they are composed of maerl debris.

Mannin Bay has good examples of littoral reef communities that are sheltered from wave action and subject to moderate tidal streams. Shoreline communities follow a zonation of lichen zones followed by *Pelvetia canaliculata* and then barnacles and limpets with *Fucus spiralis*. The zones are narrow (1-1.5 m), which is typical of sheltered shores. Most of the shore is composed of flat bedrock and boulders characterised by dense *Ascophyllum nodosum* and *Fucus vesiculosus*. The dogwhelk *Nucella lapillus* is common. On the lower shore is a band of *Fucus serratus* on boulders and bedrock, with sponges, anemones and red algae. In the sublittoral fringe is a mixed flora of kelps (*Laminaria saccharina*, *L. digitata*, *Saccorhiza polyschides* and *Himanthalia elongata*) and red algae, with areas of sand and gravel with maerl. Sponges, anemones, tunicates and bryozoan crusts are common on the vertical sides and under the boulders. In the shelter of Mannin Creek the uncommon community characterised by *Ascophyllum nodosum* var. *mackii* is found on the north side of the creek.

Machair is particularly well developed and forms extensive plains at Mannin Beg and Aillebrack. The machair has a typically herb-rich sward dominated by species such as Red Fescue (*Festuca rubra*), Wild Thyme (*Thymus praecox*), Lady's Bedstraw (*Galium verum*), Daisy (*Bellis perennis*), clovers (*Trifolium* spp.) and plantains (*Plantago lanceolata* and *P. coronopus*), with damp areas of Creeping Bent (*Agrostis stolonifera*), Silverweed (*Potentilla anserina*) and small sedges (*Carex* spp.). The rare liverwort *Petalophyllum ralfsii*, a species listed under Annex II of the E.U. Habitats Directive,

occurs within damp hollows in the machairs. The population at this site is the largest known in both Ireland and the world.

The machair gives way to bare sand in places with embryonic shifting dunes. These areas are characterised by the presence of Sand Couch (*Elymus farctus*) and Sand Sedge (*Carex arenaria*). Some Marram (*Ammophila arenaria*) dunes occur west of Mannin and towards the tip of the Slyne Head headland. Sandy beaches occur at the seaward side of the machair systems, some of which are 'coral' strands composed of the chalky skeletons of red seaweeds (*Lithothamnion* sp. and *Phymatolithion* sp.). Above the beaches typical drift line vegetation and shingle is found with species such as Prickly Saltwort (*Salsola kali*), Frosted Orache (*Atriplex lacinata*) and Sea Rocket (*Cakile maritima*). Parts of the shoreline, particularly east of Mannin machair, are fringed with saltmarsh vegetation developed on peat. Typical species found here include Common Saltmarsh-grass (*Puccinellia maritima*), Sea Plantain (*Plantago maritima*), Sea Milkwort (*Glaux maritima*) and Thrift (*Armeria maritima*). Saltmarsh dominated by dense stands of Sea Rush (*Juncus maritimus*) occur at the entrance to Salt Lough.

Brackish lakes and lagoons are a feature of this site. These include Ballyconneelly Lake, Lough Silverhill, Lough Aillebrack South and Lough Athola. These lakes are shallow, with sandy bottoms and shores, and may be directly connected to the sea. They all receive sea spray and during storms may be flooded by the sea. Characteristic species are pondweeds (*Potamogeton* spp.), stoneworts (*Chara* spp.) and Tasselweed (*Ruppia maritima*).

The largest freshwater lake is Lough Anaserd, a typical oligotrophic (nutrient-poor) lake surrounded by heathland. It has a stony shore and numerous rocky islands, some covered with heath vegetation. Aquatic species noted from here include Quillwort (*Isoetes lacustris*), Bulbous Rush (*Juncus bulbosus*), Pipewort (*Eriocaulon aquaticum*), Alternate Water-milfoil (*Myriophyllum alterniflorum*) and Awlwort (*Subularia aquatica*). The rare Slender Naiad (*Najas flexilis*), a species protected under the Flora (Protection) Order, 2015, and listed on Annex II of the E.U. Habitats Directive, is also found here. Truska Lough is another oligotrophic lake and Manninmore Lake is also probably of this type. Other lakes within the site are more nutrient-rich in character, possibly due to a brackish influence (e.g. Dereen Lough), and are fringed with Common Reed (*Phragmites australis*) and Many-stalked Spike-rush (*Eleocharis multicaulis*). Also of importance are the associated areas of species-rich marsh (e.g. Ballyconneely and Bunowen marshes) and fen (e.g.Triska), the latter dominated by Black Bog-rush (*Schoenus nigricans*), Blunt-flowered Rush (*Juncus subnodulosus*) and sedges (*Carex elata*, *C. lasiocarpa*). A scarce orchid, *Dactylorhiza traunsteineri*, typically found in calcareous marshes and fens, is recorded from this site.

Lough Aillebrack is considered to be a good example of a hard water lake with *Chara* formations. Species present which are particularly characteristic of hard water lakes include *C. contraria, C. desmacantha* and *C. globularis*.

Much of the inland peninsula consists of small fields which contain a complex mosaic of habitats ranging from dry grassland, hay meadow and heath through to wet grassland and marsh. The heath occurs mainly in areas of outcropping rock and is dominated by Western Gorse (*Ulex gallii*), Bell Heather (*Erica cinerea*), Cross-leaved Heath (*Erica tetralix*) and St. Dabeoc's Heath (*Daboecia cantabrica*). Juniper (*Juniperus communis*) is also a frequent component of the heath communities here. The dry grassland supports vegetation rich in orchid species, including Early Purple-orchid (*Orchis mascula*), the two butterfly orchids (*Platanthera bifolia* and *P. chlorantha*) and the Red Data Book species Green-winged Orchid (*Orchis morio*). Two further Red Data Book species, Pyramidal Bugle (*Ajuga pyramidalis*) and Pale Dog-violet (*Viola lactea*), occur amongst the heath/grassland mosaic. Pale Dog-violet is legally protected under the Flora (Protection) Order, 2015.

The habitat type '*Molinia* meadows' has been recorded in a number of places within this site, often in association with other habitats, such as fen, wet grassland or heath. Typical species include Purple Moor-grass (*Molinia caerulea*), Common Sedge (*Carex nigra*), Carnation Sedge (*C. panicea*), Common Knapweed (*Centaurea nigra*), Meadow Thistle (*Cirsium dissectum*), Tormentil (*Potentilla erecta*), Meadowsweet (*Filipendula ulmaria*) and Devil's-bit Scabious (*Succisa pratensis*).

Species-rich lowland hay meadows are also known from this site, supporting species such as Red Fescue, Yorkshire-fog (*Holcus lanatus*), Crested Dog's-tail (*Cynosurus cristatus*), Smooth Meadow-grass (*Poa pratensis*), Wild Carrot (*Daucus carota*), Common Knapweed and White Clover (*Trifolium repens*).

Three Annex I E.U. Birds Directive species are known to breed at the site - Chough (8 pairs in 1992), Sandwich Tern (31 pairs in 1995) and Common Tern (5 pairs in 1995).

The main land use within the site is grazing by cattle, along with some sheep and horses. This is mostly of low to moderate intensity though parts of the machair may be over-grazed. Part of the machair and dune system at Aillebrack has been damaged by the construction of a golf course and this area is excluded from the site. Leisure and tourist related activities may also be damaging parts of the machair system.

This site is of ecological importance for the range and diversity of its semi-natural habitats, many of which are listed on Annex I of the Habitats Directive. The interface between calcareous sand dunes, machair, heath and grassland communities is of particular note. The site is also important for a number of rare and scarce species, especially the liverwort *Petalophyllum ralfsii*.