



### Site Name: Gweedore Bay and Islands SAC

### Site Code: 001141

Gweedore Bay and Islands is an extensive coastal site situated between Burtonport in the south, Bloody Foreland in the north, near the towns of Derrybeg, Bunbeg and Annagary, and stretching eastwards to Bunaninver. It includes a large stretch of coastline, many islands (including Inishsirrerr, Inishmeane, Gola, Umfin, Inishfree Lower and parts of Cruit Island) and areas of marine water between the islands and the coast. The terrain is generally undulating with knolls of exposed rock. The site is underlain by Granodiorite, a basic igneous rock. Areas of machair and sand dunes occur in several places along the coast, and large areas of sandflats are exposed off the coast at low tide. The site is of great ecological interest and importance.

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\*
- [1170] Reefs
- [1220] Perennial Vegetation of Stony Banks
- [1230] Vegetated Sea Cliffs of the Atlantic and Baltic coasts
- [1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- [1410] Mediterranean Salt Meadows
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)\*
- [2140] Decalcified *Empetrum* Dunes\*
- [2150] Decalcified Dune Heath\*
- [2170] Dunes with Creeping Willow
- [2190] Humid Dune Slacks
- [21A0] Machairs\*
- [3130] Oligotrophic to Mesotrophic Standing Waters
- [4030] Dry Heath
- [4060] Alpine and Subalpine Heaths
- [5130] Juniper Scrub
- [1065] Marsh Fritillary (*Euphydryas aurinia*)
- [1355] Otter (*Lutra lutra*)
- [1395] Petalwort (*Petalophyllum ralfsii*)
- [1833] Slender Naiad (*Najas flexilis*)

Machair grasslands are frequent within this site, being most extensive at Derrybeg, Bunlack, Carnboy, Kincaslough and west of Keadew. Machair occupies the central area of the tombolo joining Carnboy to the mainland and supports a species-rich vegetation, with hummocky areas colonised by Marram (*Ammophila arenaria*), Thrift (*Armeria maritima*), Sea Campion (*Silene vulgaris* subsp. *maritima*) and Common Sorrel (*Rumex acetosa*), and flat areas between the hummocks with a grassy vegetation dominated by a variety of grass species and with an abundance of small herbs. The vegetation of the other areas of machair in the site is broadly similar.

Sand dunes are frequently found in association with machair. Embryonic dunes are well represented, with particularly good examples to be found at Magheraclogher and to the west of Keadue strand. Lyme Grass (*Leymus arenarius*), Sand Couch (*Elymus farctus*) and Sand Sedge (*Carex arenaria*) are characteristic species of the embryonic dunes. The embryonic dunes often merge with white dunes dominated by Marram.

Fixed dunes are frequent throughout the site, with some of the best examples occurring at Lunniagh, to the north of Mullaghderg Lough, Gola Island and Cruit Island. The habitat is normally found behind the embryonic and/or Marram dunes, and these dunes can reach a height of 20 m or more. Important species of the habitat include Red Fescue (*Festuca rubra*), Lady's Bedstraw (*Galium verum*), Marram, Pyramidal Orchid (*Anacamptis pyramidalis*), Burnet Rose (*Rosa pimpinellifolia*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Wild Carrot (*Daucus carota*) and Wild Thyme (*Thymus praecox*). The most frequent and conspicuous bryophytes are *Tortula ruraliformis*, *Homalothecium lutescens* and *Rhytidiadelphus squarrosus*. At least three separate populations of the Red Data Book plant Hoary Whitlowgrass (*Draba incana*) have been recorded growing in this habitat. Another unusual species associated with the habitat is the diminutive fern, Moonwort (*Botrychium lunaria*), a nationally scarce plant species.

Fixed dunes with heath vegetation, including a specific type with Crowberry (*Empetrum nigrum*), are a feature of the site. This habitat has developed on thin, well-drained sandy soils often with outcropping rock, along the contact zone between dune grassland and coastal heath. At certain sites the habitats have developed in areas where sand is blown up onto coastal heath by strong onshore winds. This mixing of sand and peat soils result in the co-occurrence of dune grassland species such as Red Fescue, Common Birds'-foot-trefoil, Burnet Rose and Wild Thyme, with dry heath species such as Heather (*Calluna vulgaris*), Bell Heather (*Erica cinerea*), Heath-grass (*Danthonia decumbens*), Slender St. John's-wort (*Hypericum pulchrum*) and Tormentil (*Potentilla erecta*). Crowberry is an occasional species.

Also associated with the dune systems are dune slacks. These occur in both small, seasonally flooded depressions interspersed between areas of high fixed dune and as well as in more extensive flat areas. Creeping Willow (*Salix repens*) is a characteristic species, and is often accompanied by a range of wetland species, including Common Bent (*Agrostis stolonifera*), Marsh Bedstraw (*Galium palustre*), Silverweed (*Potentilla*

*anserina*), Marsh Pennywort (*Hydrocotyle vulgaris*), Marsh Cinquefoil (*Potentilla palustris*), Trailing Tormentil (*Potentilla anglica*) and Autumn Hawkbit (*Leontodon autumnalis*), as well as a range of small sedge species (e.g. *Carex demissa*, *Carex nigra* and *Carex flacca*). Species typical of well-drained dune grassland occur in the drier areas of the slacks.

At several areas within this site shingle bank vegetation is well represented. Of particular note is a stretch from Port ui Chuirean to Bunabinver, and an area at Port bun an Inbhir. These are highly exposed shores, with boulder and stony beaches which are unvegetated in some parts but have a well-developed flora in other parts, including stabilized zones with lichens. Species present include Spear-leaved Orache (*Atriplex prostrata*), Thrift, Common Scurvygrass (*Cochlearia officinalis*), Red Fescue, Buck's-horn Plantain (*Plantago coronopus*), Silverweed, Curled Dock (*Rumex crispus*), Sea Campion and Sea Mayweed (*Matricaria maritima*). The rare Sea Pea (*Lathyrus japonicus*), a species protected under the Flora (Protection) Order, 2015, has been recorded from the site.

The largest area of saltmarsh at the site occurs in the shallow bay north of Derrybeg. A substantial area of Mediterranean salt meadow, dominated by Sea Rush (*Juncus maritimus*), occurs where the Cathleen river enters Derrybeg bay. Other species present include Red Fescue, Creeping Bent (*Agrostis stolonifera*), Sea Arrowgrass (*Triglochin maritima*), Common Scurvygrass, Sea-milkwort (*Glaux maritima*) and, unusually, Purple Moor-grass (*Molinia caerulea*) and Black Bog-rush (*Schoenus nigricans*).

Atlantic salt meadow occurs as two separate areas; one located behind the relatively sheltered headland of Keadew Point, the second located in the south-eastern or uppermost part of Keadew Strand inlet. Both sections of saltmarsh are characterised by the presence of the large intertidal sand flats that occupy much of the inlet. The most frequent species is Sea Milkwort, although its abundance is variable. Pioneer vegetation is dominated by Common Saltmarsh-grass (*Puccinellia maritima*), although smaller abundances of Thrift, Sea Plantain (*Plantago maritima*) and Glasswort (*Salicornia* spp.) also occur. This pioneer vegetation is highly dynamic and it is likely that the vegetation is regularly reshaped with changes in extent of the saltmarsh and embryonic dunes. Low marsh vegetation is typically characterised by species such as Sea Aster (*Aster tripolium*), Thrift, Common Scurvy-Grass, Sea Plantain and Sea Arrow-Grass (*Triglochin maritimum*), with Distant Sedge (*Carex distans*), Extended Sedge (*Carex extensa*) and Saltmarsh Rush (*Juncus gerardii*). One notable species is Flat Saltmarsh sedge (*Blysmus rufus*), an occasional component of the upper marsh, in vegetation transitional to the sand dune habitats.

The site has at least two lagoons. Kincas Lough, which lies opposite Cruit Island, is a saline lake lagoon with a sluiced artificial outlet. Seawater enters on most tides but the lake also receives large volumes of freshwater from small streams and the channel which drains from Lough Mullaghderg to the north. Moorlagh, which lies just south of Annagary, is a saline lake lagoon with an artificial barrier formed by a causeway and road bridge, with a natural outlet modified by sluices. Seawater enters

on most tides but large streams enter from the south. A range of typical lagoonal plants occur, including the charophyte *Chara aspera*, Tasselweed (*Ruppia cirrhosa*), Saltmarsh Flat-rush, and the green alga *Chaetomorpha linum*. The number of faunal species present is quite high but many of these are species which can move easily between marine and freshwater systems and may not be resident species. However, four lagoonal specialists have been recorded, i.e. *Jaera nordmanni*, *J. ischiosetosa* (both Order Isopoda), *Neomysis integer* (Order Mysida) and *Cordylophora caspia* (a hydrozoan, Phylum Cnidaria).

Reef communities occur along much of the rocky shore from the Rutland area (where fine examples have been documented) to Bloody Foreland. The rocky shore rises to form both soft and hard cliff faces at several points along the shore, with intact transitions to both coastal and terrestrial habitats.

Areas of dry heath are common along the exposed rocky shores of this site which are not dominated by sand-dunes or related habitats. Typically, areas of heath occur interspersed between rocks outcrops and patches of acid grassland vegetation. However, the habitat may occasionally occur as a mosaic with dune grassland, giving rise to a species-rich mixture of plants, such as at Rinnalea Point north of Kincaslough. The typical species encountered in the habitat are Heather (often dominant), Bell Heather, Cross-leaved Heath (*Erica tetralix*), Purple Moor-grass, Tormentil and Mat-grass (*Nardus stricta*). Locally, more unusual species such as Bearberry (*Arctostaphylos uva-ursi*) and Crowberry can occur, indicating the presence of alpine/subalpine heath, while in other areas the habitat forms a mosaic with heath dominated by Juniper (*Juniperus communis*).

The lakes at this site are good examples of oligotrophic lakes, of which Mullaghderg Lough is the largest and most interesting. Typical plant species present include Water Lobelia (*Lobelia dortmanna*), Pipewort (*Eriocaulon aquaticum*) and Quillwort (*Isoetes lacustris*). The Annex II aquatic species Slender Naiad (*Najas flexilis*) occurs in at least one of the lakes. This species is listed in the Flora (Protection) Order, 2015.

The site includes many other coastal habitats, i.e. areas of sandflats, saltmarsh, sandy beaches, boulder beaches, rocky foreshore and sea cliffs, inlets, bays, open marine water, reefs, islets, brackish water lakes/inlets and Sea Buckthorn (*Hippophae rhamnoides*) scrub, amongst others. This diverse site also includes areas of grassland, lakes, freshwater marsh, cut-away bog and Sessile Oak (*Quercus petraea*) woodland.

The site is notable for the presence of a number of rare plants species, including Slender Naiad, mentioned above, and Petalwort (*Petalophyllum ralfsii*), both of which are listed on Annex II of the E.U. Habitats Directive. Scarce bryophytes recorded from the site include *Distichium inclinatum* and *Rhodobryum roseum*. Also found on the site is Small-white Orchid (*Pseudorchis albida*), a species protected under the Flora (Protection) Order, 2015, and the threatened, Red Data Book species, Hoary Whitlowgrass.

Otters are present at this site and are considered to be common and breeding. Otter is listed on Annex II of the E.U. Habitats Directive.

The Marsh Fritillary (*Euphydryas aurinia*), an Annex II and red-listed butterfly (VU), is present in several parts of the SAC. There is a long-established population centred on the heaths and dune grasslands of Cruit Island and it is also recorded from Inishsirrerr and Inishmeane. It may also occur in other localities in habitats with its foodplant Devil's-bit Scabious (*Succisa pratensis*). Cruit Island is considered one of the richest butterfly sites in western Donegal. There have been records of 21 species including the additional red listed and near threatened species Small Blue (*Cupido minimus*), Dark Green Fritillary (*Argynnis aglaja*), Grayling (*Hipparchia semele*) and Small Heath (*Coenonympha pamphilus*).

The habitats in the SAC support a notable assemblage of bees especially bumblebees which are increasingly confined to large areas of flower-rich habitat. The red-listed and near threatened species *Bombus rupestris*, *Bombus campestris*, *Bombus ruderarius*, *Bombus lapidarius* and *Bombus muscorum* have all been recorded. The small solitary bee *Colletes floralis* is also recorded from several sites within the SAC. This is red listed in Ireland and in Europe and the Irish population is considered globally highly significant. Records of terrestrial and freshwater molluscs from the following red listed and near threatened species include *Helicella itala*, *Radix auricularia*, *Vertigo antvertigo*, *Vertigo pygmaea* and *Vertigo substriata*.

Many of the islands in the site are used by breeding seabirds (e.g. Common Gull, Herring Gull, Black-headed Gull, Lesser Black-backed Gull, Common Tern and Arctic Tern). All but the latter species also breed at Mullaghderg Lough. In 1995, 18 pairs of Common Tern and 28 pairs of Arctic Tern were recorded. Cormorant, Shag and Storm Petrel also use some of the islands in the site. Barnacle Goose winter on islands in the bay, with more than 300 individuals recorded in some years, e.g. 388 in spring 1994. Choughs are found in many areas of the site, e.g. on Cruit Island and Gola Island - a total of 6 pairs of Chough bred within the site in 1992. Nationally important numbers of Long-tailed Duck occur in Inishfree Bay, with an average maximum of 53 individuals over the five year period 1994/95-1998/99. An important population of Great Northern Diver also occurs in Inishfree Bay (average maximum of 36 individuals). The site has important populations of breeding waders, especially on the machairs. In a 1996 survey, the following were recorded: Oystercatcher 23 pairs, Ringed Plover 7 pairs, Lapwing 43 pairs, Dunlin 6 pairs and Redshank 5 pairs. Several of the bird species that use the site are listed on Annex I of the E.U. Birds Directive, i.e. Barnacle Goose, Chough, Great Northern Diver, Storm Petrel and the tern species.

The sand dunes and areas of machair on the site are particularly vulnerable to being overused for recreational activities and to unfavourable grazing regimes. Machair is best maintained as an open, evenly-grazed sward. A number of caravan sites are found on the margins of the site. Removal of sand and seaweed occurs at several locations, while some areas of saltmarsh are being reclaimed.

The site is of high ecological value for the occurrence of a wide range of coastal habitats, including areas of well-developed machair, sand dunes and shingle banks. It contains seventeen habitats that are listed, five with priority status, on Annex I of the E.U. Habitats Directive and, as such, is of considerable conservation significance. The presence of populations of three E.U. Habitats Directive Annex II species and of several E.U. Birds Directive Annex I species adds significantly to the overall importance of the site.