

Site Name: North Inishowen Coast SAC

Site Code: 002012

The North Inishowen Coast SAC stretches from Crummies Bay in the west up to Malin Head and back down to Inishowen Head to the east. It encompasses an excellent variety of coastal habitats including high rocky cliffs, offshore islands, sand dunes, saltmarsh, a large intertidal bay, and rocky, shingle and sand beaches. There are excellent raised beaches along the east coast including the oldest and best preserved late-glacial fossil coast in Ireland (between Ineuran Bay and Eskey Bay). Indeed it is the only well preserved such coast in Europe and so is of international importance. Also of geomorphological interest is the small area of stone polygons near Malin Tower.

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):

- [1140] Tidal Mudflats and Sandflats
- [1220] Perennial Vegetation of Stony Banks
- [1230] Vegetated Sea Cliffs
- [2130] Fixed Dunes (Grey Dunes)*
- [21A0] Machairs*
- [4030] Dry Heath

- [1014] Narrow-mouthed Whorl Snail (*Vertigo angustior*)
- [1355] Otter (*Lutra lutra*)

Sea cliffs are a feature of the site, with the best examples found in the west of the site (Dunree to Leenan Head and Dunaff Head) and in the area to the north-west of Glengad Head. Cliffs are often less than 50 m in height, though they reach over 200 m at Dunaff and to the north-west of Glengad Head. The dominant rock type is quartzite which is particularly hard and unyielding. The vegetation cover of the cliffs is variable, depending on factors such as underlying geology, aspect and the degree of exposure to winds and sea spray. Common plant species of the rocky cliffs are Thrift (*Armeria maritima*), sea-spurrey (*Spergularia* spp.), Sea Aster (*Aster tripolium*), Red Fescue (*Festuca rubra*), Common Scurvygrass (*Cochlearia officinalis*), Sea Campion (*Silene vulgaris* subsp. *maritima*) and Buck's-horn Plantain (*Plantago coronopus*). In addition to the higher plants, the saxicolous lichen *Ramalina siliquosa* is a very characteristic feature of cliffs throughout the site. The cliffs contain a number of rare plant species, notably Scots Lovage (*Ligusticum scoticum*), a legally protected species. Two other scarce species recorded at the site, Moss Campion (*Silene acaulis*) and

Purple Saxifrage (*Saxifraga oppositifolia*), are listed in the Red Data Book. Ivy Broomrape (*Orobanche hederæ*), a locally rare species that is parasitic on Ivy (*Hedera helix*), has been recorded from sea cliffs to the north of Leenan Bay. The striking succulent species Roseroot (*Rhodiola rosea*), which is largely restricted to high mountain cliffs and sea cliffs in the west and the north of the country, is frequent throughout the site. In many parts of the site sea cliff areas support dry heath and grassland vegetation.

Shingle beaches are well represented at the site, with the best examples at Rockstown harbour/Tullagh Point and along the north-western shoreline of Malin Head promontory. These areas contain good examples of raised beaches, characterised by large mounds of shingle, which may be interspersed by low cliffs (as seen at Tullagh Point). Although the vegetation of these shingle areas is usually quite sparse, plant species such as Sea Sandwort (*Honkenya peploides*), Sea Mayweed (*Matricaria maritima*) and Curled Dock (*Rumex crispus*) are locally frequent. The rare species Oysterplant (*Mertensia maritima*), which is listed in the Flora (Protection) Order, 1999, has been recorded growing on shingle substrate within the site.

Sand dune systems occur within the site at several locations, with good examples of fixed dunes and machair. The dune habitat at the Isle of Doagh is by far the most extensive. Typical species of the fixed dunes include Marram (*Ammophila arenaria*) and Red Fescue, accompanied by Common Bird's-foot-trefoil (*Lotus corniculatus*), Sand Sedge (*Carex arenaria*), mouse-ears (*Cerastium* spp.), Wild Thyme (*Thymus praecox*), Smooth Meadow-grass (*Poa pratensis*) and Mouse-ear Hawkweed (*Hieracium pilosella*). Bryophyte cover is usually well developed, with species such as *Rhytidiadelphus squarrosus*, *Hypnum cupressiforme* and *Calliergon cuspidatum* being frequent. Although much of the botanical character of the machair habitat at Doagh Isle has been modified due to agricultural reclamation, re-seeding and over-grazing, significant areas with a typical machair flora remain. The sward is typically dominated by low herb species such as Red Fescue, Ribwort Plantain (*Plantago lanceolata*), Daisy (*Bellis perennis*), Red Clover (*Trifolium repens*) and Lady's Bedstraw (*Galium verum*).

Shifting dunes and fixed dunes also occur above the rocky shore at Meallalaghtra/Lenan Head. This area also contains marsh with Mare's-tail (*Hippuris vulgaris*), Brookweed (*Samolus valerandi*) and sedges (*Carex* spp.). *Hygrocybe* species, fungi that are indicators of unimproved grassland, occur in the coastal grassland sward.

Significant areas of dry heath occur in the site at both low and high altitudes. The best-developed and most extensive areas are to be found at Dunaff Head, Binnion Hill and in the Urris Hills from Mamore Gap, south-west to Lough Fad and beyond to Crockfadda. However the habitat is also encountered at sea level where it tends to form a mosaic with grassland vegetation. Typically the vegetation develops on shallow peats less than 50 cm deep and is dominated by Heather (*Calluna vulgaris*). Other frequent shrub species include Bell Heather (*Erica cinerea*), Cross-leaved Heath (*Erica tetralix*), Crowberry (*Empetrum nigrum*) and Bilberry (*Vaccinium myrtillus*). Fir Clubmoss (*Huperzia selago*) and the diminutive Lesser Twayblade (*Listera cordata*) are

present in the heath on the Urris Hills. In addition to the dwarf ericoid component, acid grassland species such as Mat-grass (*Nardus stricta*), Velvet Bent (*Agrostis canina*), Tormentil (*Potentilla erecta*) and Heath-grass (*Danthonia decumbens*) are frequent components. This combination of plant species gives rise to a mosaic of dwarf heath and acid grassland, the relative proportion of which depends on factors such as degree of exposure, grazing intensity and the frequency of fire. Often there is much outcropping rock present and invasion by Bracken (*Pteridium aquilinum*) is a frequent feature of the habitat (as seen at Binnion Hill). At Dunaff Head the habitat forms a mosaic with blanket bog, containing Common Cottongrass (*Eriophorum angustifolium*), Hare's-tail Cottongrass (*E. vaginatum*), Cross-leaved Heath and Eared Willow (*Salix aurita*). The main threats to the heath habitat at present are over-grazing and uncontrolled burning.

A diverse fern flora is found on damp, north-facing rock outcrops in the Urris Hills, including Wilson's Filmy-fern (*Hymenophyllum wilsonii*), Broad Buckler-fern (*Dryopteris dilatata*), Hay-scented Buckler-fern (*D. aemula*), Black Spleenwort (*Asplenium adiantum-nigrum*) and polypody ferns (*Polypodium* spp.). The Urris Hills also contain the oligotrophic lakes Crunlough and Lough Fad, and on their lower slopes dry and wet acid grassland, Hazel (*Corylus avellana*) scrub, dense Bracken, blanket bog and wet heath occur.

Trawbreaga Bay is a very sheltered sea bay with a narrow strait to the open sea at the north end. It is fed by a number of small rivers or streams. An estimated 80% of the bay area is exposed at each low tide to expose a mixture of mudflats, sandbanks and stony/rocky substrates. In the inner reaches of the bay, the substrate consists of muddy sand and coarse sediments with an infaunal community of polychaetes, oligochaetes and crustaceans. Within the narrow strait, the community is comprised of bivalves and polychaetes within a sandy substrate. The polychaete *Arenicola marina* is a conspicuous species within the intertidal soft sediments of the bay. Beds of Dwarf Eelgrass (*Zostera noltii*) display temporal variation in occurrence within the bay; they were recorded on the shore at Doaghmore and currently present south west of Glassagh Point. Mats of green algae occur on the open flats. Some areas of saltmarsh fringe the bay.

Throughout the site, exposed sandy beaches occur in embayments and in coves bordered by bedrock and in the outer reaches of Trawbreaga Bay. Here a sand community with crustaceans and polychaetes occurs. Where the intertidal reef is present on exposed shores the community consists of the bivalve *Mytilus edulis* and barnacles. In such areas where reef extends into the subtidal the kelp *Laminaria hyperborea* occurs. In the less exposed areas and within Trawbreaga Bay the brown algae *Pelvetia canaliculata*, *Fucus vesiculosus*, *F. spiralis* and *Ascophyllum nodosum* are found.

Otter are regularly seen along the shoreline and may breed within the site. Otter is a species listed on Annex II of the E.U. Habitats Directive. Another Annex II species, the tiny whorl snail *Vertigo angustior*, is also known from this site.

This site has important bird interests. An internationally important population of Barnacle Goose occurs in the area, with Trawbreaga Bay their most important haunt. For the four winters 1994/95 - 1997/98 the mean peak count was 673 birds. Barnacle Goose is listed on Annex I of the E.U. Birds Directive. A range of other waterfowl species winter at Trawbreaga Bay, with an internationally important population of Brent Goose (338 in winters 1994/95-97/98). Other species which occur in regionally or locally important numbers include Wigeon, Mallard, Oystercatcher, Ringed Plover, Dunlin, Curlew and Redshank.

Two Annex I E.U. Birds Directive species breed within the site. There are up to 12 breeding territories of Peregrine and 12 pairs of Chough. Both of these species are associated with the rocky sea cliffs, with the Choughs utilising the heath and sandy habitats for feeding.

Several species of seabird breed on the cliffs and islets. These include Fulmar (150+ pairs), Cormorant (270+ pairs), Shag (330+ pairs), Kittiwake (<500 pairs), Guillemots (approx. 1,000 individuals), Razorbills (approx. 1,000 individuals) and Black Guillemots (approx. 80 individuals) (All data from 1970s). The machair and dunes at Doagh Isle and elsewhere support breeding waders. In 1996 the following were recorded: Oystercatcher (2+ pairs), Ringed Plover (7 pairs), Lapwing (15 pairs) and Snipe (3 pairs).

This northern site is of high conservation value because of the extensive area of relatively unspoilt coastal and heath habitats and the range of plant and animal species that these habitats support. Of particular note is the presence of good examples of two E.U. Habitats Directive Annex I priority habitats, fixed dunes and machair. Very good examples of several other Annex I habitats are found, notably sea cliffs, vegetated shingle banks, dry heath and intertidal sand and mudflats. There are two legally protected plant species and a range of scarce species. The diversity of bird species is of particular note, with wintering waterfowl, breeding seabirds and breeding waders. Important populations of three E.U. Birds Directive Annex I species occur - Barnacle Goose, Peregrine and Chough.