SITE SYNOPSIS

SITE NAME: BERTRAGHBOY BAY

SITE CODE: 001234

Bertraghboy Bay is a south-west facing bay on the Connemara coast. It is a complex bay with a relatively narrow opening (*c*. 3km). Depths of over 30m occur near the entrance. Offshore reefs close to the entrance give it some protection from the prevailing southwesterly winds. The complex nature of the bay ensures that much of the bay is very sheltered from wave action. Many areas in the inner part of the bay are at a higher elevation than the mid area of the bay and these areas drain through a complex set of channels. The bay receives the flows of the Owengowla and Owenmore rivers, along with a number of smaller rivers.

The site is a candidate Special Area of Conservation selected for large shallow inlets and bays, and reefs, habitats that are listed on Annex I of the E.U. Habitats Directive.

The shores of Bertraghboy Bay generally vary from gently sloping platforms of rocks to shores of mixed boulders, cobbles, pebbles, gravel and sand. In some areas the shores may be steep. All the shores within the bay are sheltered to very sheltered from wave action. On gently sloping shores, the upper shore is characterised by a lichen zone of grey and yellow lichens with the black lichen *Verrucaria maura*. This is followed by a zone of Channel Wrack (*Pelvetia canaliculata*) and then a zone of Spiral Wrack (*Fucus spiralis*). In some areas these zones are quite extensive i.e. 10m in width, but in other areas they are narrow, i.e. 1-3m in width. The snails *Osilinus* (=*Monodonta*) *lineata* and *Littorina saxatilis* may be common and barnacles are occasional. Boulders in the upper mid shore may be colonised by dense barnacles with the limpets *Patella vulgata* and the dogwhelk *Nucella lapillus.* The low mid shore has a canopy of Bladder Wrack (*Fucus vesiculosus*) followed by Knotted Wrack (*Ascophyllum nodosum*). In some parts of the bay the *Ascophyllum nodosum* band is very wide i.e. 100m or greater with 100% cover of *Ascophyllum*. The *Ascophyllum* is colonised by the hydroid *Dynamena pumila* and bryozoan *Flustrellidra hispida* indicating the presence of a current. A tideswept *Ascophyllum* community is considered to be scarce in Ireland and Britain. Where boulders are present there is generally a species rich under-boulder fauna. Under the algal canopy in the low shore the sediment binding red algae *Audouinella* spp. occurs. In areas where there is strong tidal flow the sublittoral fringe is characterised by the brown alga *Laminaria saccharina*, occasional *Halidrys siliquosa*, with some *Fucus vesiculosus* and *Fucus serratus*. The understory in areas with sand scour is characterised by the red algae *Furcellaria lumbricalis*, *Polyides rotundus* and *Plocamium cartilagineum*, but these species are generally absent when there is no sand scour. Boulders in the sublittoral fringe may have an extremely species-rich under-boulder fauna of ascidians and sponges indicating that the area is tideswept (124 species have been recorded at one site in the bay). Such tideswept communities are considered to scarce in Ireland and Britain.

Where the shore is composed of boulders and has strong tidal currents the mid to low shores are species-rich (75–90 spp.) and again the tideswept communities present are considered to be scarce. The under-boulder fauna is characterised by sponges, hydroids, encrusting bryozoans and occasional ascidians.

The *Ascophyllum nodosum* of Bertragboy Bay is harvested on 3-5 year cycle and this harvesting has been carried out for at least the last 40 years and probably for the past century. Finfish farming take place in the outer part of the bay.

In very sheltered areas where there is some tidal current the uncommon brown alga *Ascophyllum nodosum* var. *mackii* is found.

In the shallow subtidal on the north-west side of the bay maerl beds mixed with Eelgrass (*Zostera marina)* occur. The maerl is a mixture of *Phymatolithon calcareum* and *Lithothamnion corallioides* with scattered plants of the rare *Lithophyllum dentatum*.

Elsewhere in the bay the sediments are sands, with muds in the more sheltered areas. Lobsters (*Homarus gammarus*) occur in most areas of the bay, along with other crustaceans such as Crawfish (*Palinurus elephas*) and Edible Crab (*Cancer pagurus*). Spider Crab (*Maia squinado*) also occurs. The molluscan fauna is well-represented and includes Great Scallop (*Pecten maximus*), otter clam (*Lutraria* spp.), razorfish (*Ensis sp*) as well as Smooth Cockle (*Laevicardium crassum*), Whelk (*Buccinum undatum*), Venerid Clam (*Venus verrucosa*) and European Oyster (*Ostrea edulis*). Intertidal areas are limited in extent, occurring mainly in the sheltered areas of the bay.

Other habitats present within the site include a salt marsh on Inishnee Island, which is dominated by Sea Rush (*Juncus maritima*). A short stretch of low sea cliff composed of boulder clay also occurs on Inishnee Island, and supports typical species such as Thrift (*Armeria maritima*), Red Fescue (*Festuca rubra*) and Common Scurvygrass (*Cochlearia officinalis*).

Terns breed on some of the islands in the site. In 1984, Greens Island had a sizable colony of Sandwich Terns (30 pairs) and Common Terns (45 pairs). In 1995, however, none were recorded on Greens Island but Inishlacken had 4 pairs of Little Terns and 1 pair of Arctic Terns. A few pairs of Common Terns have bred on Greens Island in the last few years. Sandwich Tern, Common Tern, Little Tern and Arctic Tern are all listed on Annex I of the E.U. Birds Directive.

Bertraghboy Bay is of high conservation importance due to the presence of very good examples of shallow bay and reef habitats, both of which are listed on Annex I of the E.U. Habitats Directive.