



**Site Name: St. John's Point SAC**

**Site Code: 000191**

St. John's Point is a 10 km-long, narrow peninsula running south-west from Dunkineely into Donegal Bay. The site covers the most southerly 4 km of the peninsula and includes some of the surrounding marine waters. The underlying geology is limestone. Tournaisian Basal Clastics form the majority of the underlying rocks, while Calp limestone of the Visean era outcrop at the south-western end of the site.

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):

- [1160] Large Shallow Inlets and Bays
- [1170] Reefs
- [1230] Vegetated Sea Cliffs
- [6210] Orchid-rich Calcareous Grassland\*
- [6410] *Molinia* Meadows
- [7230] Alkaline Fens
- [8240] Limestone Pavement\*
- [8330] Sea Caves
- [1065] Marsh Fritillary (*Euphydryas aurinia*)

The grassland on the Calp limestone occurs on an undulating topography of low ridges with outcropping rocks and 'V' shaped valleys with peaty formations. The exposed limestone forms pavement where some unusual plants are found including Bloody Cranesbill (*Geranium sanguineum*), Northern Bedstraw (*Galium boreale*), Stone Bramble (*Rubus saxatilis*), Blue Moor-grass (*Sesleria albicans*) and English Hawkweed (*Hieracium anglicum*). More abundant plants on the thin soils and rocky clefts include Mountain Everlasting (*Antennaria dioica*), Broad-leaved Marsh-orchid (*Dactylorhiza majalis*), Burnet Rose (*Rosa pimpinellifolia*), Common Knapweed (*Centaurea nigra*) and Heath Spotted-orchid (*Dactylorhiza maculata*). On the steep slopes of the valley side, Blackthorn (*Prunus spinosa*), Bramble (*Rubus fruticosus* agg.) and Red Fescue (*Festuca rubra*) are abundant.

The wet valley bottoms contain flushes rich in Bogbean (*Menyanthes trifoliata*), Common Cottongrass (*Eriophorum angustifolium*), Marsh-marigold (*Caltha palustris*), Lesser Spearwort (*Ranunculus flammula*), Grass-of-parnassus (*Parnassia palustris*) and Common Scurvygrass (*Cochlearia officinalis*).

Heathy areas have developed on thin, peaty soils near the end of St. John's Point. Heather (*Calluna vulgaris*), Creeping Willow (*Salix repens*), Lousewort (*Pedicularis sylvatica*), Sweet Vernal-grass (*Anthoxanthum odoratum*) and Glaucous Sedge (*Carex flacca*) are all abundant. Dense swards of Buck's-horn Plantain (*Plantago coronopus*) also occur in this region.

Species-rich hay meadows are included within the site. Heath Spotted-orchid, Common Twayblade (*Listera ovata*), Common Spotted-orchid (*Dactylorhiza fuchsii*), Meadow Thistle (*Cirsium dissectum*), Primrose (*Primula vulgaris*), Yellow-rattle (*Rhinanthus minor*) and Ragged-Robin (*Lychnis flos-cuculi*) are all abundant meadow plants. Red Fescue and Sweet Vernal-grass are the dominant grasses.

Areas of *Molinia* meadow exist in the site, with Purple Moor-grass itself being a common component. Common Spotted-orchid (*Dactylorhiza fuchsii*), Early Marsh-orchid (*D. incarnata*) and Heath Spotted-orchid (*D. maculata*) have all been recorded in this habitat type at the site. Although relatively fragmented, and small in area, alkaline fen also exists at this site. It is not particularly species-rich, but the various areas support a good diversity of vegetation communities, and the habitat is generally undisturbed and mostly intact.

Brackish marshes, which are inundated with sea water during storms, occur within the site. Common Reed (*Phragmites australis*), Bottle Sedge (*Carex rostrata*), Thread-leaved Water-crowfoot (*Ranunculus trichophyllus*) and Bogbean are all abundant species here.

There is a colony of the E.U. Habitats Directive Annex II and red-listed Marsh Fritillary butterfly on the peninsula. Its foodplant, Devil's-bit Scabious (*Succisa pratensis*), is common in the grass and heath vegetation and the colony present there is one of the best documented in Donegal.

The marine component of this site is estimated at 64% of the site area, with 40% marine waters and 24% rocky shore/intertidal zone. The former falls largely within the E.U. Habitat 'Large shallow inlets and bays'.

The exposed bedrock shore and sea cliffs are outstanding features of the site. The rocks are richly fossiliferous. Some sections of the shore have a limestone pavement-type structure with Common Scurvygrass, Thrift (*Armeria maritima*), Sea-milkwort (*Glaux maritima*), Red Fescue and Buck's-horn Plantain growing in the rock clefts. The sea cliffs can reach heights of up to 20m and are composed of Carboniferous limestone with a series of crevice ledges and a splash zone. Typical species known from the cliffs include Thrift, Sea Spleenwort (*Asplenium marinum*), Common Scurvygrass, Sea Plantain (*Plantago maritima*), Buck's-horn Plantain, Sea Campion (*Silene maritima*), Rock Sea-spurrey (*Spergularia rupicola*), Sea Mouse-ear (*Cerastium diffusum*), Red Fescue and the lichens *Xanthoria parietina* and *Verrucaria* sp.

The subtidal reefs at this site comprise one of the best examples of reef habitat in the country. The reefs range from being vertical cliff faces with overhangs and small caves to gently sloping from horizontal platforms to large or medium sized boulders. In some areas sand overlies the bedrock. They are exposed to moderate wave action. There is a well developed kelp forest of *Laminaria hyperborea* extending to 19 m depth with an understory of diverse foliose red algae. *Delesseria sanguinea* and *Cryptopleura ramosa* are most abundant, and *Odontalia dentatum* occurs occasionally in the lower part of the forest. The latter is a northern species that is uncommon and has not been recorded any further south than Co. Mayo. The most conspicuous fauna are starfish (*Asterias rubens*), sea urchins (*Echinus esculentus*), sea cucumbers (*Holothuria forskali*) and the massive sponges *Cliona celata* and *Pachymatisma johnstonia*.

In the shallow water between 18 and 27 m there is a community characterised by a variety of red foliose algae including *Delesseria sanguinea* and *Bonnemaisonia asparigoides*, with occasional *Dictyota dichotoma*. Below 27 m the boulders are characterised by a community of hydroids, sponges and bryozoans. The cup coral *Caryophyllia smithii* is abundant, and both soft corals *Alcyonium digitatum* and *Alcyonium glomeratum* are occasional. On horizontal bedrock overlain by sand at 20 – 24 m there is a community comprising erect sponges, as well as the sea fan *Eunicella verrucosa* and the bryozoan *Pentapora foliacea*; here the sponges *Ciocalypta penicillus* and *Sphaerotyllus* sp. are common, and *Raspailia hispida* occasional. *Phakalia vermiculata* is also recorded in this community; this has only recently been recorded from shallow water where it is uncommon and is the most northerly shallow water record for this species. A second community influenced by sand scour and characterised by cushion sponges and *Ciocalypta penicillus* occurs at 18 – 20 m. The hydroid *Nemertesia antennina* and anthozans *Isozoanthus sulcatus* and *Epizoanthus couchii* are frequent. The hydroid *Corymorpha nutans* is common in this community, while the anemone *Aureliana heterocera*, an uncommon species in Ireland, is rare. A third community characterised by cushion sponges and hydroids occurs on gently sloping bedrock that rises out of a sand plain at 25 m. The crevice dwelling species of brittlestar, *Ophiactis balli*, and the sea cucumber *Aslia lefevrei* are also present.

A community of erect sponges with the sea fan *Eunicella verrucosa* and the sea slug *Tritonia nilsodhneri* occurs between 21 and 27 m. The soft corals *Alcyonium digitatum*, *Alcyonium glomeratum* and the tunicate *Diazona violacea* are all frequent and the gastropod *Gastrochaena dubia* is common. *Eunicella verrucosa* and the sea slug *Tritonia nilsodhneri* are close to their northern limits in north Donegal Bay.

An example of the deep water Axinellid sponge community occurs at 46 m on horizontal bedrock with raised ridges, with the Axinellid sponge occurring on the flat surfaces and the soft corals *Alcyonium digitatum*, *Alcyonium glomeratum* and the massive sponge *Pachymatisma johnstonia* on the ridges. The deepwater starfish *Stichastrella rosea* is frequent and the rare bryozoan *Reteporella beaniana* and uncommon anthozoan *Parazoanthus anguicomus* are found in this community.

The vertical cliff with ledges, overhangs and small caves show zonation from 6 - 21 m. Red foliose algae occur on the ledges, with the jewel anemone *Corynactis viridis*

being common at the top of the cliff and the cup coral *Coryophyllia smithii* common at the base. On the cliff under the overhang the anthozoan *Parazoanthus axinellae* and the sponge *Biemna variantia* occur. *Parazoanthus axinellae* reaches its northern limits in north Donegal Bay. An Axinellid sponge community is present on the ledges. The habitat is species-rich, with 93 species recorded.

There is an excellent fish community associates with the reefs.

Small marine caves are present in the cliff face described above and in areas of terraced bedrock with ledges and crevices. The caves support the soft coral *Alcyonium glomeratum* on the roof and the sea fan *Eunicella verrucosa* on the floor.

The subtidal sediments occur between 28 and 38 m depth and range from duned maerl gravel and live maerl to coarse sand to fine sand. A flat sandy plain is characterised by the burrowing sea cucumber *Neopentadactyla mixta*, the burrowing sea urchins *Spatangus purpureus* and *E. flavescens*, the sand mason worm *Lanice conchilega*, and the bivalves *Dosinia exoleta* and *Moerella donacin*. The latter is an uncommon species. An area of coarse rippled sand, with the sea urchin *Echinocardium cordatum* and unidentified polychaete tubes, is present at the base of a reef.

Two areas of maerl occur on the east side of St. John's Point. One is an area of duned maerl gravel with live *Lithothamnion corallioides* in the hollows. Numerous crustaceans are present, in particular *Atelycyclus rotundatus*, *Ebalia tuberosa*, and *Pisidia longicornis* and the northern starfish *Luidia sarai*. In deeper water high dunes of maerl gravel and live *Lithothamnion corallioides* occur and are characterised by the burrowing sea urchins *Spatangus purpureus*, *Echinocardium pennatifidum* and *E. flavescens*, the bivalves *Clausinella fasciata* and *Garia tellinella* and abundant small crustaceans including *Galathea intermedia* and *Liocarcinus marmoreus*.

A small rocky islet occurs close to the south end of the point. A Herring Gull colony occurs here. Other birds seen feeding around the coast include Fulmar, Greater Black-backed Gull, Cormorant and Gannet. The freshwater marshes and rushy fields hold Snipe, Lapwing and Ringed Plover. The brackish lakes are frequented by Shelduck, Mallard, Mute Swan and Grey Heron.

The main land uses within the site are grazing of cattle and sheep near the end of the peninsula, while small hay meadows are maintained further north-east. Diving and fishing are frequent activities around the Point.

This site is important for its rich and diverse calcicole flora. A remarkable marine flora and fauna enhances the interest of the site, as does the presence of richly fossiliferous sea cliffs. Species-rich hay meadows and brackish marshes add diversity to the site.