

**Tory Island Coast SAC (site code 2259)
Conservation objectives supporting document
-coastal habitats**

NPWS

Version 1

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Please note that this document should be read in conjunction with the following report: NPWS (2015). Conservation Objectives: Tory Island Coast SAC 002259. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

1 Introduction

Achieving Favourable Conservation Status (FCS) is the overall objective to be reached for all Annex I habitat types and Annex II species of European Community interest listed in the Habitats Directive 92/43/EEC (Commission of the European Communities, 2007). It is defined in positive terms, such that a habitat type or species must be prospering and have good prospects of continuing to do so.

Tory Island Coast SAC is a remote rocky island lying approximately 11km to the north of Bloody Foreland in County Donegal. The island is 4km long and 1km wide. The underlying geology consists in the main of igneous granite and a few dolerite intrusions. The extreme eastern section, however, is made up of more erosion-resistant Ards quartzite and high, dramatic coastal cliffs occur here, rising to 86m. The cliffs continue along the northern coastline.

Tory Island Coast SAC (site code: 2259) is designated for a range of marine and coastal habitats. The following two coastal habitats are included in the list of qualifying interests for the site:

- Perennial vegetation of stony banks (1220)
- Vegetated sea cliffs of the Atlantic and Baltic coasts (1230)

This backing document sets out the conservation objectives for the two coastal habitats listed above in Tory Island Coast SAC, which is defined by a list of parameters, attributes and targets. The main parameters are (a) Range (b) Area and (c) Structure and Functions, the last of which is broken down into a number of attributes, including physical structure, vegetation structure and vegetation composition.

The targets set for the **shingle** are based primarily on the findings of the National Shingle Beach Survey (NSBS), which was carried out in 1999 on behalf of the National Parks and Wildlife Service (NPWS) (Moore & Wilson, 1999). The distribution of known shingle sites in Tory Island Coast SAC is presented in Appendix I.

The NSBS surveyed one sub-site within Tory Island Coast SAC:

- Tory Island

Profiles and transects were recorded from each shingle beach and each site was assigned a crude High/Medium/Low interest ranking. A 'high interest' ranking denotes a site that is of high conservation value. The site may be of interest botanically or geomorphologically. A 'medium interest' ranking implies the site may be extensive but not of particular interest either botanically or geomorphologically. A 'low interest' ranking is reserved for small sites, highly

damaged sites or sites that are of a very common classification. Tory Island is rated a site of 'medium interest' as it is an interesting formation with good vegetation as well as a little tern (*Sterna albifrons*) nesting site (Moore & Wilson, 1999).

The targets set for **vegetated sea cliffs** are based on the findings of the Irish Sea Cliff Survey (ISCS) (Barron *et al.*, 2011) and this document should be read in conjunction with that report.

The distribution of vegetated sea cliffs within Tory Island Coast SAC is presented in Appendix II. This site was included in the desk survey conducted by the ISCS. The ISCS carried out a detailed assessment as per the methodology outlined in Barron *et al.* (2011). This included dividing the cliff length into a series of sections to reflect the variation within the site and to give a more accurate measurement for area. This was carried out for the following cliff sub-site:

1. Tory Island

The conservation objective for the vegetated sea cliff habitat within the entire SAC is extrapolated from Barron *et al.* (2011) and the sea cliff database, which was produced as part of that project.

2 Conservation Objectives

A conservation objective aims to define the favourable conservation condition of a habitat or species at a particular site. Implementation of the objective will help to ensure that the habitat or species achieves favourable conservation status at a national level.

3 Perennial vegetation of stony banks

Perennial vegetation of stony banks is vegetation that is found at or above the mean high water spring tide mark on shingle beaches (i.e., beaches comprised of cobbles and pebbles). It is dominated by perennial species (i.e. plants that continue to grow from year to year). The first species to colonise are annuals or short-lived perennials that are tolerant of periodic displacement or overtopping by high tides and storms. Level, or gently-sloping, high-level mobile beaches, with limited human disturbance, supports the best examples of this vegetation. More permanent ridges are formed by storm waves. Several of these storm beaches may be piled against each other to form extensive structures.

Shingle on Tory Island coast is well represented along the south-west shoreline and forms an effective barrier to impound a small lagoon, Lough O'Dheas. It consists of an extensive, unvegetated boulder ridge which forms an embankment between the lagoon and the intertidal rocky shoreline. This becomes a mixed deposit containing cobbles, pebbles and boulders on a fine angular grit at the eastern end of Lough O'Dheas (Moore & Wilson, 1999).

3.1 Overall Objective

The overall objective for 'perennial vegetation of stony banks' in Tory Island Coast SAC is to 'maintain the favourable conservation condition'. This objective is based on an assessment of the recorded condition of the habitat under a range of attributes and targets. The assessment is divided into three main headings (a) Range, (b) Area and (c) Structure and Functions.

3.2 Area

3.2.1 Habitat extent

Habitat extent is a basic attribute to be assessed when determining the condition of a particular habitat. The target for favourable condition is '*no decrease in extent from the established baseline*'. Bearing in mind that coastal systems are naturally dynamic and subject to change even within a season, this target is assessed subject to natural processes, including erosion and succession.

The exact current extent of this habitat in Tory Island Coast SAC is unknown. The National Shingle Beach Survey recorded vegetated shingle from one sub-site: Tory Island, but did not map the extent (Moore & Wilson, 1999).

The target is that the area should be stable or increasing, subject to natural processes, including erosion and succession.

3.3 Range

3.3.1 Habitat distribution

The distribution of known shingle sites is presented in Appendix I.

The southern shore of Tory is generally composed of boulder beach, with shingle and cobbles at the higher levels. The habitat is best developed along the south-western part of the island's shoreline and especially at Lough O'Dheas, a sedimentary lagoon, which is impounded by the cobble/shingle bar. The lagoon is also a qualifying interest for the SAC.

The target is that there should be no decline or change in the distribution of this habitat, unless it is the result of natural processes, including erosion and succession.

3.4 Structure and Functions

A fundamental aim of shingle conservation is to facilitate natural mobility. Shingle beaches are naturally dynamic systems, making them of geomorphological interest as well as ecological interest. They are constantly changing and shingle features are rarely stable in the long term.

3.4.1 Functionality and sediment supply

The health and ongoing development of this habitat relies on a continuing supply of shingle sediment. This may occur sporadically as a response to storm events rather than continuously. Interference with the natural coastal processes, through offshore extraction or coastal defence structures in particular, can interrupt the supply of sediment and lead to beach starvation.

The target is to maintain, or where necessary restore, the natural circulation of sediment and organic matter, without any physical obstructions.

3.4.2 Vegetation structure: zonation

Ecological variation in this habitat type depends on stability; the amount of fine material accumulating between the pebbles; climatic conditions; width of the foreshore and past management of the site. The ridges and lows also influence the vegetation patterns, resulting in characteristic zonations of vegetated and bare shingle. In the frontal less stable areas of shingle, the vegetation tends to be dominated by annuals and short-lived salt-tolerant

perennials. Where the shingle is more stable the vegetation becomes more perennial in nature and may include grassland, heathland and scrub, depending on the exact nature of the site. The presence of lichens indicates long term stability of the shingle structure. Transitions to rocky shore occur at this site, where lichen-encrusted boulder deposits on rocky scree merge with an expanse of intertidal, irregularly shaped granite boulders up to 1m wide. (Moore & Wilson, 1999).

The target is to maintain the range of coastal habitats, including transitional zones, subject to natural processes including erosion and succession.

3.4.3 Vegetation composition: typical species & sub-communities

The degree of exposure, as well as the coarseness and stability of the substrate determines species diversity. The shingle at Tory Island is known to support a typical flora for this habitat.

Moore & Wilson (1999) recorded the following species,

<i>Glaux maritime</i>	<i>Ammophila arenaria</i>	<i>Cochlearia officinalis</i>
<i>Plantago lanceolata</i>	<i>Atriplex prostrata</i>	<i>Plantago maritima</i>
<i>Rumex acetosella</i>	<i>Beta vulgaris</i>	<i>Rumex acetosella</i>
<i>Trifolium repens</i>	<i>Stellaria media</i>	<i>Tripleurospermum maritimum</i>
<i>Festuca rubra</i>	<i>Armeria maritima</i>	<i>Cirsium sp.</i>

Praeger (1934) notes that there is an old record of sea kale (*Crambe maritima*) from Tory Island.

The target for this attribute is to ensure that the typical flora of vegetated shingle is maintained, as are the range of sub-communities within the different zones.

3.4.4 Vegetation composition: negative indicator species

Where the shingle becomes more stabilised negative indicator species can become an issue. Negative indicator species can include non-native species (e.g. *Centranthus ruber*, *Lupinus arboreus*); species indicative of changes in nutrient status (e.g. *Urtica dioica*) and species not considered to be typical of the habitat (e.g. *Pteridium aquilinum*).

The target for this attribute is that negative indicator species (including non-native species) should make up less than 5% of the vegetation cover.

4 Vegetated sea cliffs

Sea cliffs can be broadly divided into two categories: hard (or rocky) cliffs and soft (or sedimentary) cliffs, both of which are covered by Annex I habitat 'vegetated sea cliffs of the Atlantic and Baltic coasts'. Hard cliffs are composed of rocks such as limestone, sandstone, granite or quartzite which are hard and relatively resistant to erosion. Soft cliffs are composed of softer rock such as shale or unconsolidated material such as glacial till. Vegetation of hard sea cliffs in exposed situations exhibits a strong maritime influence and is relatively stable. Soft cliff habitats are more prone to slope failure which results in the presence of fast-colonising pioneer species.

Defining the limits of what constitutes a sea cliff is problematic and a number of different interpretations have been used in the past (Fossitt, 2000; JNCC, 2004; Browne, 2005; Commission of the European Communities, 2007). In order to address any inconsistencies, the following definition for sea cliffs was developed and used during the Irish Sea Cliff Survey (Barron *et al.*, 2011):

"A sea cliff is a steep or vertical slope located on the coast, the base of which is in either the intertidal (littoral) or subtidal (sublittoral) zone. The cliff may be composed of hard rock such as basalt, or of softer substrate such as shale or boulder clay. Hard cliffs are at least 5m high, while soft cliffs are at least 3m high. The cliff top is generally defined by a change to an obvious less steep gradient. In some cases the cliff may grade into the slopes of a hillside located close to the coast. In these cases the cliff is defined as that part of the slope which was formed by processes of coastal erosion, while the cliff top is where there is the distinct break in slope. Both the cliff and the cliff top may be subject to maritime influence in the form of salt spray and exposure to coastal winds. A cliff can ascend in steps with ledges, and the top of the cliff is taken to occur where erosion from wave action is no longer considered to have been a factor in the development of the landform. The cliff base may be marked by a change in gradient at the bottom of the cliff. Where the base is exposed it can be characterised by scree, boulders, a wave-cut platform or sand, among other substrates. During this survey where cliffs occur within the subtidal zone the base was considered to be the high water mark. A cliff is considered to have reached its end point where it is no longer over 5m high (hard cliffs) or 3m high (soft cliffs), or no longer has a steep slope. To be considered in this study, a cliff had to be a minimum of 100m in length. Sea cliffs may support a range of plant communities such as grassland, heath, scrub and bare rock communities, among others."

Cliffs are known to occur along the northern shore of Tory Island. They are mainly low cliffs, especially in the north-west where the height at Ardlarheen is 35m. The cliffs are highest at the north-east end, with a maximum of 86m at Tormore Bay. The Tormore cliffs are steep

and relatively inaccessible. Bedrock shoreline occurs beneath the cliffs in places. Sea stacks and islets are frequent off the north coast. All of the cliffs are of the hard type.

The sea cliffs in this SAC are also important for sea bird colonies particularly Fulmar, Storm petrel, Shag, Common gull, Kittiwake, Razorbill, Guillemot, Black Guillemot and Puffin (Lloyd, 1982). Choughs and Peregrine Falcon also nest within the site.

4.1 Overall Objective

The overall objective for 'vegetated sea cliffs of the Atlantic and Baltic coasts' in Tory Island Coast SAC is to 'Maintain favourable conservation condition'. The objective is based on an assessment of the current condition of the habitat under a range of attributes and targets. The assessment is divided into three main headings, (a) Area, (b) Range and (c) Structure and Functions.

4.2 Area

4.2.1 Habitat extent

Habitat extent is a basic attribute to be assessed when determining the condition of a particular habitat. The target is 'no decrease in extent from the established baseline'. Bearing in mind that coastal systems are naturally dynamic and subject to change even within a season, this target is assessed subject to natural processes, including erosion and succession.

The distribution of vegetated sea cliffs as identified during the Irish Sea Cliff Survey (ISCS) (Barron *et al.*, 2011) is shown on a map in Appendix II

The Sea cliffs in Tory Island Coast SAC occur along most of the northern shore of the island. They are mainly low cliffs, especially in the north-west where the height at Ardlarheen is 35m. The cliffs are highest at the north-east end, with a maximum of 86m at Tormore Bay (Browne, 2005; Barron *et al.*, 2011).

As cliffs are linear features on maps, their extent is measured in kilometres rather than hectares, as you would with other habitats. During the ISCS (Barron *et al.*, 2011), each cliff was divided in to sections based on physical characteristics and vegetation cover. Breaks (i.e. non-cliff areas) of between 80m and 500m along a length of cliff were discounted from the calculations. The total length of the cliff sections within the sub-site in Tory Island Coast SAC is presented in the following table. The small difference in length is explained by the fact that the county boundary line was used to draw the line for the ISCS, which is a different mapping

dataset to that used to draw the SAC boundary. As a result, the length of cliff inside the SAC boundary is underestimated. The total length of cliff sections for the ISCS site was 9.49km. However, when this dataset was clipped to the SAC boundary 9.48km was included in the boundary..

Site name	Total area/length (km) of sea cliff sections assessed by ISCS	Total area/length (km) of sea cliff within SAC boundary
Tory Island	9.49	9.48
Totals	9.49	9.48

4.3 Range

4.3.1 Habitat Distribution

The distribution of sea cliffs throughout Tory Island Coast SAC as identified by the Irish Sea Cliff Survey is presented in Appendix II.

Sea cliffs occur along most of the northern coastline coastline of Tory Island Coast SAC. Hard cliffs being the cliff type throughout. The hard cliffs in Tory Island Coast SAC are unlikely to be redistributed through natural processes, unlike more dynamic coastal systems such as sand dunes and saltmarshes.

4.4 Structure and Functions

A fundamental aim of sea cliff conservation is to facilitate some degree of natural mobility through slumping. Sea cliffs can be of geomorphological interest as well as ecological interest and erosion can also expose geological features of interest.

4.4.1 Functionality and hydrological regime

Coastal protection works can disrupt the natural integrity of a sea cliff. The health and ongoing development of vegetated sea cliffs relies on natural processes such as erosion continuing without any impingement. This is generally a bigger issue for soft cliffs which require a degree of slumping and erosion to expose bare soil for pioneer species to colonise; otherwise the vegetation is replaced by hardy grasses and scrub of little conservation value can develop. In addition, cliff erosion provides an important sediment source to sites elsewhere on the coast (e.g. sand dunes). Preventing erosion at a cliff site can lead to beach starvation at another site.

Flushes can be associated with cliffs in areas where the groundwater seeps out onto the cliff face. This is more usually associated with soft cliffs where these flushes contribute to the natural instability of the ground and provide patches of wetland habitat.

The target is to maintain, or where necessary restore, the natural geomorphological processes without any physical obstructions, and the local hydrological regime including groundwater quality.

4.4.2 Vegetation structure: zonation

Ecological variation in this habitat type depends on a number of physical and biological factors, in particular climate, degree of exposure to sea-spray, geology and soil type, as well as the level of grazing and seabird activity. The rocky cliff flora often grades naturally into coastal heath vegetation and maritime grassland. At this SAC site, adjacent habitats to the sea cliffs include, lakes and ponds (FL), improved grassland (GA) and littoral rock (LR) (Barron *et al.*, 2011).

The target is to maintain the sea cliff habitat, as well as transitional zones, including those to terrestrial communities.

4.4.3 Vegetation structure: vegetation height

A varied vegetation structure is important for maintaining species diversity and is particularly important for invertebrates and birds. Grazing increases the species diversity and is particularly important for maritime grasslands and coastal heath, which are often associated with sea cliffs. The target is to maintain the structural variation in the sward height.

4.4.4 Vegetation composition: typical species & sub-communities

Different sea cliff communities develop in a number of habitat zones related to the degree of maritime influence (exposure to wind and sea spray), geology and soil type. In general, Irish sea cliffs display a range of zones running in a series of horizontal bands up the cliff face, each of which has its own distinct sub-communities including:

- Splash zone
- Pioneer zone
- Rock crevice/cliff ledge zone
- Maritime grassland zone
- Maritime heath zone
- Maritime slope flush zone

There is considerable variation but the general pattern would be that the maritime influence is strongest near the base of the cliff and becomes gradually less dominant towards the cliff top. At the cliff base, vegetation is naturally very open and the species present have a high tolerance to salinity. The splash zone generally has a well-developed lichen flora dominated by species such as *Verrucaria maura*, *Ramalina* spp. and *Xanthoria* spp. These plant communities are dependent on rock crevices for rooting. Moving up the cliff, between the splash zone and the cliff top, vegetation on the cliff ledges is less open and can support some species which are not exclusively associated with coastal conditions. Closer to the cliff top maritime grasslands can occur. The plant communities and physical characteristics of maritime grasslands vary depending on the degree of exposure and whether or not grazing is a factor. Plant communities typical of seabirds and maritime therophyte communities are exceptions to this horizontal zonation and can occur as a mosaic with the other plant communities. The following tables presents lists of species that are considered typical of the different zones associated with hard cliffs by Barron *et al.* (2011), such as those found in Tory Island Coast SAC.

At the hard cliffs at Tory Island, cliff face features such as ledges, crevices, scree slopes, stepped slope, overhangs and undercuts were recorded. A significant population of the rare plant species scot's lovage (*Ligusticum scoticum*), a Red Data Book species, has also been recorded on sea cliffs within this site.

Typical splash zone species on hard cliffs		
<i>Ramalina spp</i>	<i>Verrucaria maura</i>	<i>Xanthoria spp</i>
Typical crevice and ledge species on hard cliffs		
<i>Anthyllis vulneraria</i>	<i>Asplenium marinum</i>	<i>Armeria maritima</i>
<i>Aster tripolium</i>	<i>Atriplex prostrata</i>	<i>Beta vulgaris ssp. maritima</i>
<i>Catapodium marinum</i>	<i>Cerastium diffusum</i>	<i>Crithmum maritimum</i>
<i>Festuca rubra</i>	<i>Inula crithmoides</i>	<i>Lavatera arborea</i>
<i>Ligusticum scoticum</i>	<i>Limonium sp</i>	<i>Plantago coronopus</i>
<i>Plantago maritima</i>	<i>Sedum anglicum</i>	<i>Sedum rosea</i>
<i>Silene uniflora</i>	<i>Spergularia rupicola</i>	

Typical coastal heath species		
<i>Calluna vulgaris</i>	<i>Daboecia cantabrica</i>	<i>Empetrum nigrum</i>
<i>Erica cinerea</i>	<i>Erica tetralix</i>	<i>Scilla verna</i>
<i>Ulex gallii</i>	<i>Vaccinium myrtillus</i>	

Typical maritime grassland species on hard cliffs		
<i>Anthyllis vulneraria</i>	<i>Armeria maritima</i>	<i>Crithmum maritimum</i>
<i>Daucus carota</i>	<i>Festuca rubra</i>	<i>Hyacinthoides non-scripta</i>
<i>Plantago coronopus</i>	<i>Plantago maritima</i>	<i>Scilla verna</i>
<i>Sedum anglicum</i>	<i>Silene uniflora</i>	<i>Spergularia rupicola</i>

The target for this attribute is to ensure that the typical flora of vegetated sea cliffs is maintained, as are the range of sub-communities within the different zones.

4.4.5 Vegetation composition: negative indicator species

Negative indicator species can include non-native species (e.g. *Hebe* sp., *Carpobrotus edulis*, *Gunnera tinctoria*), species indicative of changes in nutrient status (e.g. *Urtica dioica*) and species not considered to be typical of the habitat (e.g. *Pteridium aquilinum*).

The target for this attribute is that negative indicator species (including non-native species) should make up less than 5% of the vegetation cover.

4.4.6 Vegetation composition: bracken and woody species

Encroachment of bracken (*Pteridium aquilinum*) and woody/scrub species on cliffs, particularly the maritime grasslands and coastal heath leads to a reduction in species diversity.

The target for this attribute is that in the case of maritime grassland and/or heath, bracken should make up less than 10% of the vegetation cover, while woody species should make up no more than 20% of the vegetation cover.

5 References

Barron, S., Delaney, A., Perrin, P., Martin, J. and O'Neill, F. (2011). National survey and assessment of the conservation status of Irish sea cliffs. *Irish Wildlife Manuals*, No. 53. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

Browne, A. (2005). *National inventory of sea cliffs and coastal heaths*. Unpublished report to the National Parks and Wildlife Service, Dublin.

Commission of the European Communities (2007). *Interpretation Manual of European Union Habitats – EUR 27*. DG Environment-Nature and Biodiversity, Brussels.

Fossitt, J.A. (2000). *A guide to habitats in Ireland*. The Heritage Council, Kilkenny.

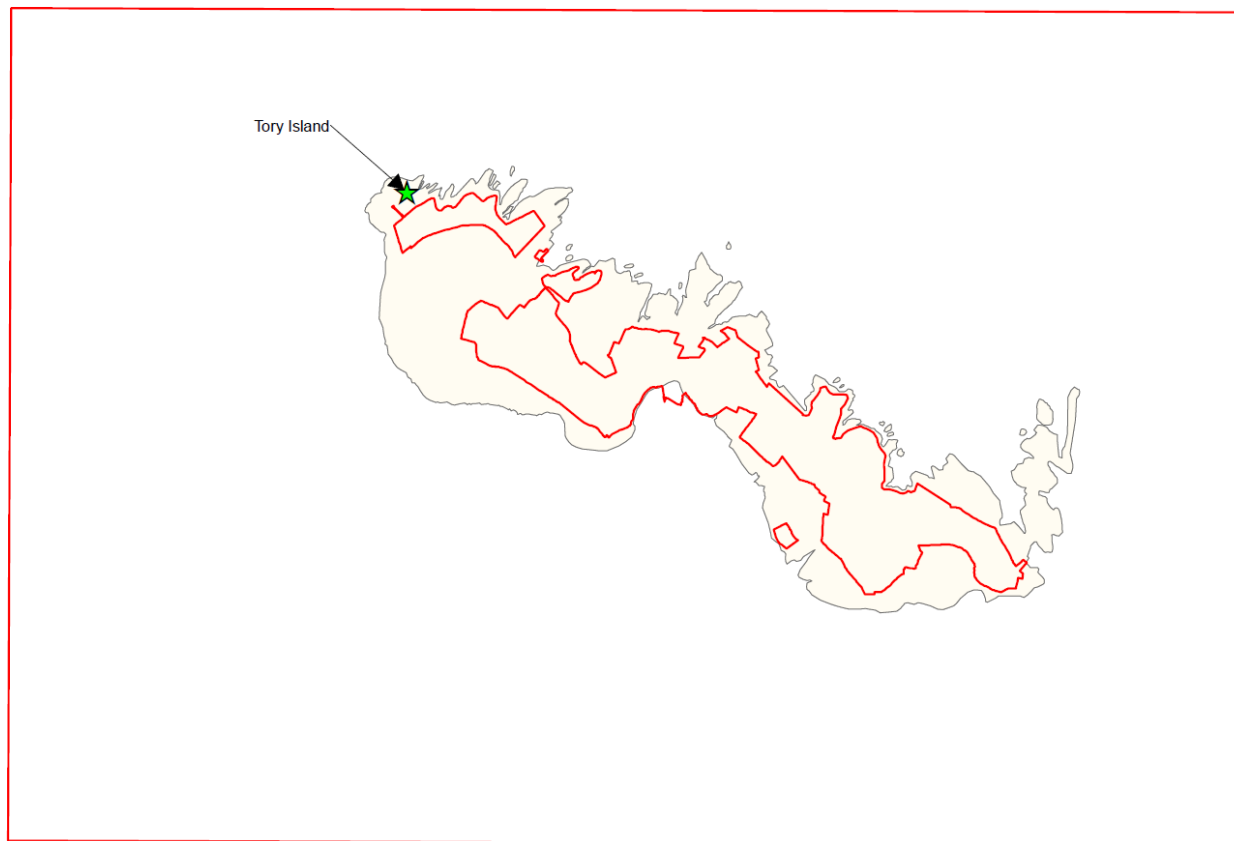
JNCC (2004). *Common standards and monitoring guidance for maritime cliff and slope habitats*. Joint Nature Conservation Committee, Peterborough, UK.

Lloyd, C. (1982). Inventory of sea bird breeding colonies in Republic of Ireland. Unpublished Report, Forestry & Wildlife Service, Dublin.

Praeger, R.L. (1934). *The Botanist in Ireland*. Hodges & Figs. Dublin.

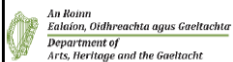
Moore D. and Wilson, F. (1999). *National Shingle Beach Survey of Ireland 1999*. Unpublished report to National Parks and Wildlife Service, Dublin.

Appendix I – Distribution map of shingle survey site within Tory Island Coast SAC



Legend

- Tory Island Coast SAC 002259
- ★ National Shingle Beach Survey sub-sites
- OSi Discovery Series County Boundary



**TORY ISLAND COAST SAC
CONSERVATION OBJECTIVES
PERENNIAL VEGETATION OF STONY BANKS**

Map to be read in conjunction with the NPWS Conservation Objectives
Coastal Supporting Document.

SITE CODE:
SAC 002259; version 3.01. CO. DONEGAL

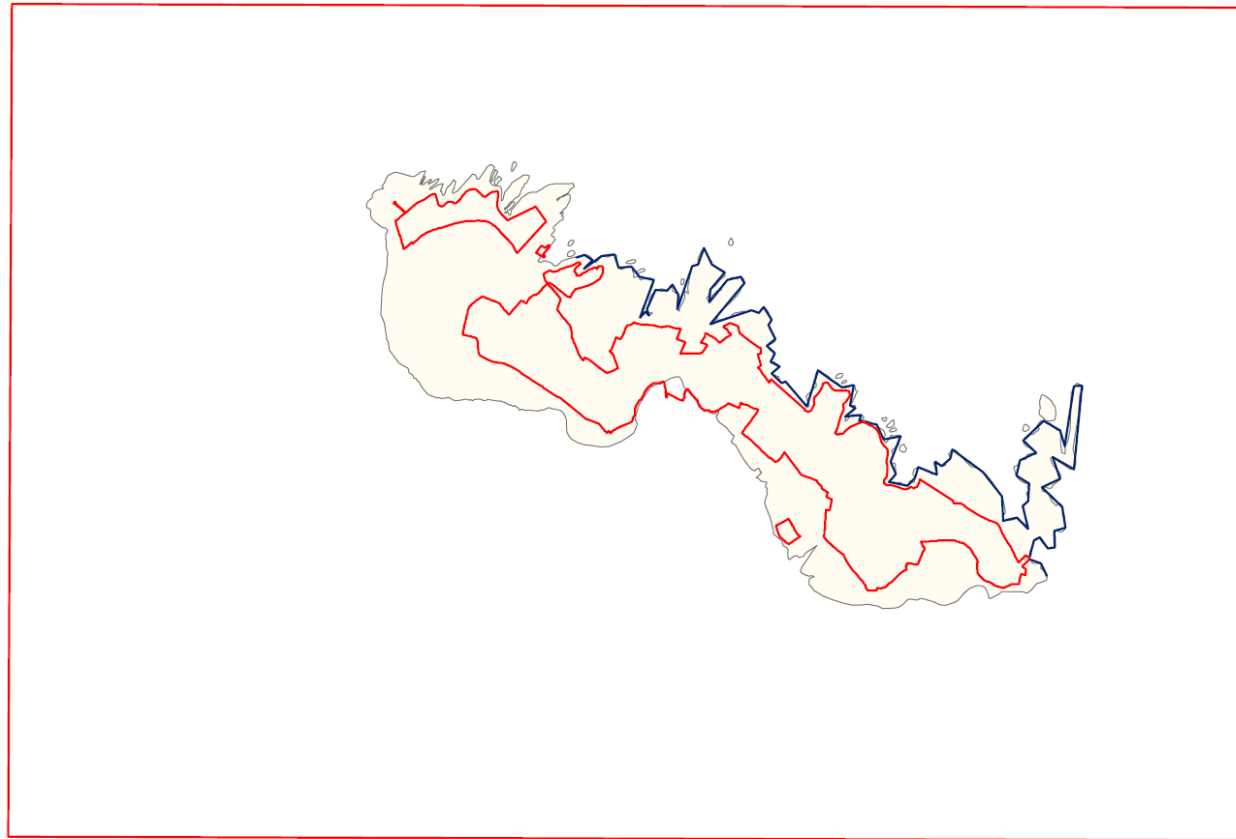
0 0.25 0.5 0.75 1 km

The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
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Níl sna teorainneacha ar na léarscáileanna ach nod garshuíomhach ginearálta. Féadfar athbhreithniú a déanamh ar theorainneacha na gceantar comharthaíthe. Suirbhéaracha Ordois na hÉireann Ceadóinas Uimh EN 0059214. © Suirbhéaracha Ordois na hÉireann Rialtas na hÉireann



Appendix II – Distribution map of sea cliffs within Tory Island Coast SAC



Legend

- Tory Island Coast SAC 002259
- 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts
- OSi Discovery Series County Boundary

An tOtan
Ealaíon, Oidhreacht agus Gaeltacht
 Department of
Arts, Heritage and the Gaeltacht


TORY ISLAND COAST SAC CONSERVATION OBJECTIVES VEGETATED SEA CLIFFS

Map to be read in conjunction with the NPWS Conservation Objectives
 Coastal Supporting Document.

SITE CODE:
 SAC 002259; version 3.01. CO. DONEGAL

0 0.25 0.5 0.75 1 km

The mapped boundaries are of an indicative and general nature only. Boundaries of designated areas are subject to revision.
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 Map Version 1
 Date: March 2015