

National Parks and Wildlife Service

Conservation Objectives Series

Tory Island Coast SAC 002259



An Roinn
Ealaíon, Oidhreachta agus Gaeltachta

Department of
Arts, Heritage and the Gaeltacht



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Introduction

The overall aim of the Habitats Directive is to maintain or restore the favourable conservation status of habitats and species of community interest. These habitats and species are listed in the Habitats and Birds Directives and Special Areas of Conservation and Special Protection Areas are designated to afford protection to the most vulnerable of them. These two designations are collectively known as the Natura 2000 network.

European and national legislation places a collective obligation on Ireland and its citizens to maintain habitats and species in the Natura 2000 network at favourable conservation condition. The Government and its agencies are responsible for the implementation and enforcement of regulations that will ensure the ecological integrity of these sites.

A site-specific conservation objective aims to define favourable conservation condition for a particular habitat or species at that site.

The maintenance of habitats and species within Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and
- the conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Notes/Guidelines:

1. The targets given in these conservation objectives are based on best available information at the time of writing. As more information becomes available, targets for attributes may change. These will be updated periodically, as necessary.
2. An appropriate assessment based on these conservation objectives will remain valid even if the targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out. It is essential that the date and version are included when objectives are cited.
3. Assessments cannot consider an attribute in isolation from the others listed for that habitat or species, or for other habitats and species listed for that site. A plan or project with an apparently small impact on one attribute may have a significant impact on another.
4. Please note that the maps included in this document do not necessarily show the entire extent of the habitats and species for which the site is listed. This should be borne in mind when appropriate assessments are being carried out.
5. When using these objectives, it is essential that the relevant backing/supporting documents are consulted, particularly where instructed in the targets or notes for a particular attribute.

Qualifying Interests

** indicates a priority habitat under the Habitats Directive*

002259	Tory Island Coast SAC
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1150	Coastal lagoonsE
1170	Reefs
1220	Perennial vegetation of stony banks
1230	Vegetated sea cliffs of the Atlantic and Baltic coasts

Please note that this SAC overlaps with Tory Island SPA (004073). See map 2. The conservation objectives for this site should be used in conjunction with those for the overlapping site as appropriate.

Supporting documents, relevant reports & publications

Supporting documents, NPWS reports and publications are available for download from: www.npws.ie/Publications

NPWS Documents

Year :	1999
Title :	National Shingle Beach Survey of Ireland 1999
Author :	Moore, D.; Wilson, F.
Series :	Unpublished Report to NPWS
<hr/>	
Year :	2007
Title :	Inventory of Irish coastal lagoons (version 2)
Author :	Oliver, G.
Series :	Unpublished report to NPWS
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Year :	2011
Title :	National survey and assessment of the conservation status of Irish sea cliffs
Author :	Barron, S.J.; Delaney, A.; Perrin, P.M.; Martin, J.; O'Neill, F.
Series :	Irish Wildlife Manual No. 53
<hr/>	
Year :	2015
Title :	Tory Island Coast SAC (site code: 2259) Conservation objectives supporting document-coastal habitats V1
Author :	NPWS
Series :	Conservation objectives supporting document
<hr/>	
Year :	2015
Title :	Tory Island Coast SAC (site code: 2259) Conservation objectives supporting document-marine habitats V1
Author :	NPWS
Series :	Conservation objectives supporting document
<hr/>	
Year :	2015
Title :	Tory Island Coast SAC (site code: 2259) Conservation Objectives supporting document-coastal lagoons V1
Author :	NPWS
Series :	Conservation objectives supporting document

Other References

Year :	1997
Title :	The BioMar biotope viewer: a guide to marine habitats, fauna and flora in Britain and Ireland
Author :	Picton, B.E.; Costello, M.J.
Series :	Environmental Science Unit, Trinity College Dublin
<hr/>	
Year :	2012
Title :	Intertidal and subtidal reef survey of Tory Island Coast SAC
Author :	MERC
Series :	Unpublished report to the Marine Institute and NPWS
<hr/>	
Year :	2013
Title :	Monitoring and assessment of Irish lagoons for the purposes of the EU Water Framework Directive, 2009-2011. Parts 1 and 2
Author :	Roden, C.M; Oliver, G.A.
Series :	Unpublished report to the Environmental Protection Agency

Spatial data sources

Year :	Revision 2011
Title :	Inventory of Irish coastal lagoons. Version 3
GIS Operations :	Clipped to SAC boundary 1150 (map 3)
Used For :	1150 (map 3)
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Year :	Interpolated 2014
Title :	1995 BioMar survey; 2012 intertidal and subtidal reef surveys
GIS Operations :	Polygon feature classes from marine community types base data sub-divided based on interpolation of marine survey data. Expert opinion used as necessary to resolve any issues arising
Used For :	1170, marine community types (maps 4 and 5)
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Year :	2005
Title :	OSi Discovery series vector data
GIS Operations :	High water mark (HWM) and low water mark (LWM) polyline feature classes converted into polygon feature classes and combined; EU Annex I Saltmarsh and Coastal data erased out if present
Used For :	Marine community types base data (map 5)
<hr/>	
Year :	Revision 2012
Title :	National shingle beach survey
GIS Operations :	Clipped to SAC boundary. Expert opinion used as necessary to resolve any issues arising
Used For :	1220 (map 6)
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Year :	2011
Title :	National survey and assessment of the conservation status of Irish sea cliffs
GIS Operations :	Clipped to SAC boundary
Used For :	1230 (map 6)
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Conservation Objectives for : Tory Island Coast SAC [002259]

1150 Coastal lagoons

To restore the favourable conservation condition of Coastal lagoons in Tory Island Coast SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable, subject to slight natural variation. Favourable reference area 3.2ha. See map 3	Areas calculated from spatial data derived from Oliver (2007). Site code IL084 (Loch Ó Dheas). See lagoons supporting document for further details
Habitat distribution	Occurrence	No decline, subject to natural processes. See map 3 for mapped lagoon	Site IL084 in Oliver (2007). See lagoons supporting document for further details
Salinity regime	Practical salinity units (psu)	Median annual salinity and temporal variation within natural ranges	Loch Ó Dheas is recorded as a oligohaline lagoon. See lagoons supporting document for further details
Hydrological regime	Metres	Annual water level fluctuations and minima within natural ranges	Maximum depth of Loch Ó Dheas lagoon is recorded as 1.5m. See lagoons supporting document for further details
Barrier: connectivity between lagoon and sea	Permeability	Appropriate hydrological connections between lagoons and sea, including where necessary, appropriate management	Loch Ó Dheas is described as a natural sedimentary lagoon with a cobble barrier. See the conservation objective for perennial vegetation of stony banks (1220) and the lagoons supporting document for further details
Water quality: Chlorophyll <i>a</i>	µg/L	Annual median chlorophyll <i>a</i> within natural ranges and less than 5µg/L	Target based on Roden and Oliver (2013). See lagoons supporting document for further details
Water quality: Molybdate Reactive Phosphorus (MRP)	mg/L	Annual median MRP within natural ranges and less than 0.1mg/L	Target based on Roden and Oliver (2013). See lagoons supporting document for further details
Water quality: Dissolved Inorganic Nitrogen (DIN)	mg/L	Annual median DIN within natural ranges and less than 0.15mg/L	Target based on Roden and Oliver (2013). See lagoons supporting document for further details
Depth of macrophyte colonisation	Metres	Macrophyte colonisation to maximum depth of lagoon	Increased depth of colonisation increases both the extent and diversity of submergent macrophytes. Where a lagoon is less than 2m deep, it is expected that macrophyte colonisation would extend to the full depth. See lagoons supporting document for further details
Typical plant species	Number and m ²	Maintain number and extent of listed lagoonal specialists, subject to natural variation	Species listed in Oliver (2007). See lagoons supporting document for further details
Typical animal species	Number	Maintain listed lagoon specialists, subject to natural variation	Species listed in Oliver (2007). See lagoons supporting document for further details
Negative indicator species	Number and percentage cover	Negative indicator species absent or under control	Low salinity, shallow water and elevated nutrient levels increase the threat of unnatural encroachment by reedbeds. See lagoons supporting document for further details

Conservation Objectives for : Tory Island Coast SAC [002259]

1170 Reefs

To maintain the favourable conservation condition of Reefs in Tory Island Coast SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	The permanent habitat area is stable or increasing, subject to natural processes. See map 4	Habitat area estimated as 2,072ha from a 1995 BioMar survey and 2012 intertidal and subtidal reef surveys (MERC, 2012)
Distribution	Occurrence	The distribution of reefs is stable or increasing, subject to natural processes. See map 4 for mapped distribution	Based on information from a 1995 BioMar survey and 2012 intertidal and subtidal reef surveys (MERC, 2012)
Community structure	Biological composition	Conserve the following community types in a natural condition: Intertidal reef community complex; <i>Laminaria</i> -dominated community complex; Subtidal reef with echinoderms and faunal turf community complex. See map 5	Reef mapping based on information from a 1995 BioMar survey and 2012 intertidal and subtidal reef surveys (MERC, 2012). See marine supporting document for further details

Conservation Objectives for : Tory Island Coast SAC [002259]

1220 Perennial vegetation of stony banks

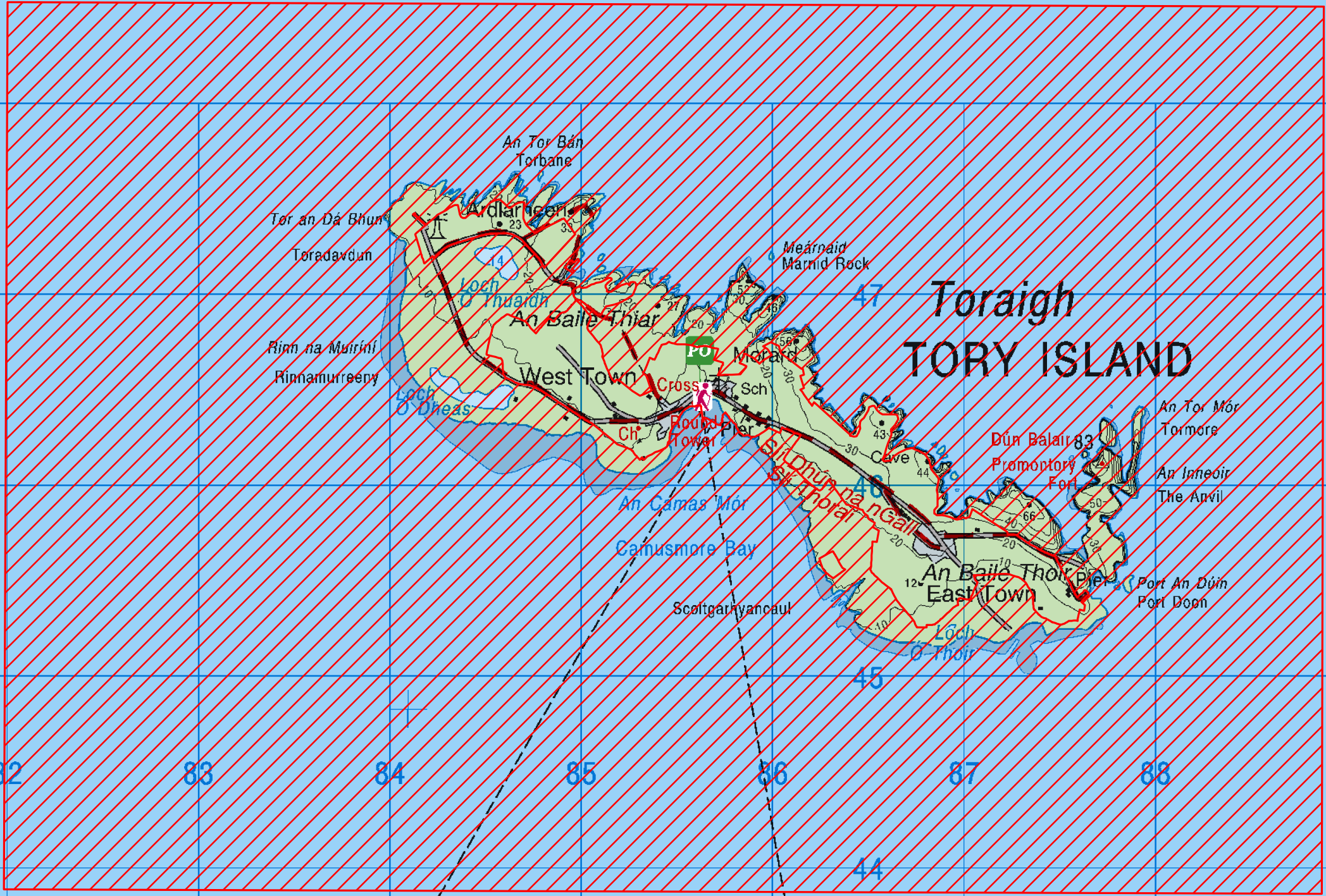
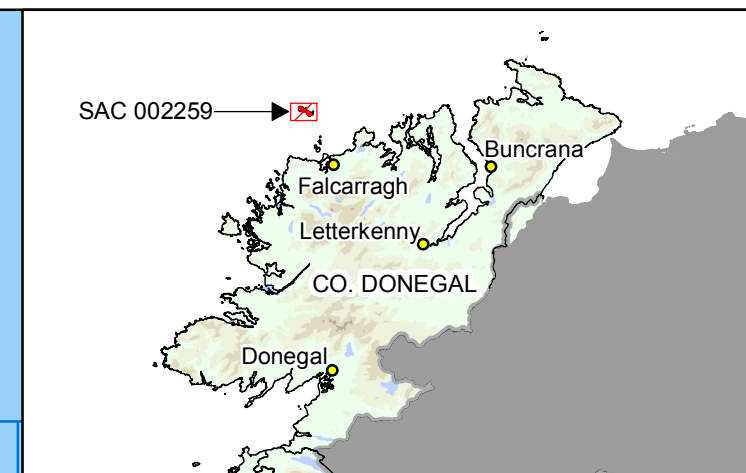
To maintain the favourable conservation condition of Perennial vegetation of stony banks in Tory Island Coast SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Hectares	Area stable or increasing, subject to natural processes, including erosion and succession	Current area unknown. It was recorded as being present but extent was not mapped from one sub-site (Tory Island) during the National Shingle Beach Survey (NSBS) (Moore and Wilson, 1999). NB further unsurveyed areas maybe present within the site. See coastal habitats supporting document for further details
Habitat distribution	Occurrence	No decline, or change in habitat distribution, subject to natural processes. See map 6 for survey site location	Based on data from Moore and Wilson (1999). See coastal habitats supporting document for further details
Physical structure: functionality and sediment supply	Presence/ absence of physical barriers	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	The shingle beaches within this SAC appear to be functioning naturally, with no artificial restrictions to beach dynamics (Moore and Wilson, 1999). Shingle features are relatively stable in the long term. See coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	Based on data from Moore and Wilson (1999). The vegetated shingle is associated with rocky shore. Lichens are present, indicating a degree of stability. See the conservation objective for coastal lagoons (1150) and the coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain the typical vegetated shingle flora including the range of sub-communities within the different zones	Based on data from Moore and Wilson (1999). Tory Island supports good quality vegetated shingle flora. See coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage cover	Negative indicator species (including non-natives) to represent less than 5% cover	Based on data from Moore and Wilson (1999). Negative indicators include non-native species, species indicative of changes in nutrient status and species not considered characteristic of the habitat. See coastal habitats supporting document for further details


1230 Vegetated sea cliffs of the Atlantic and Baltic coasts

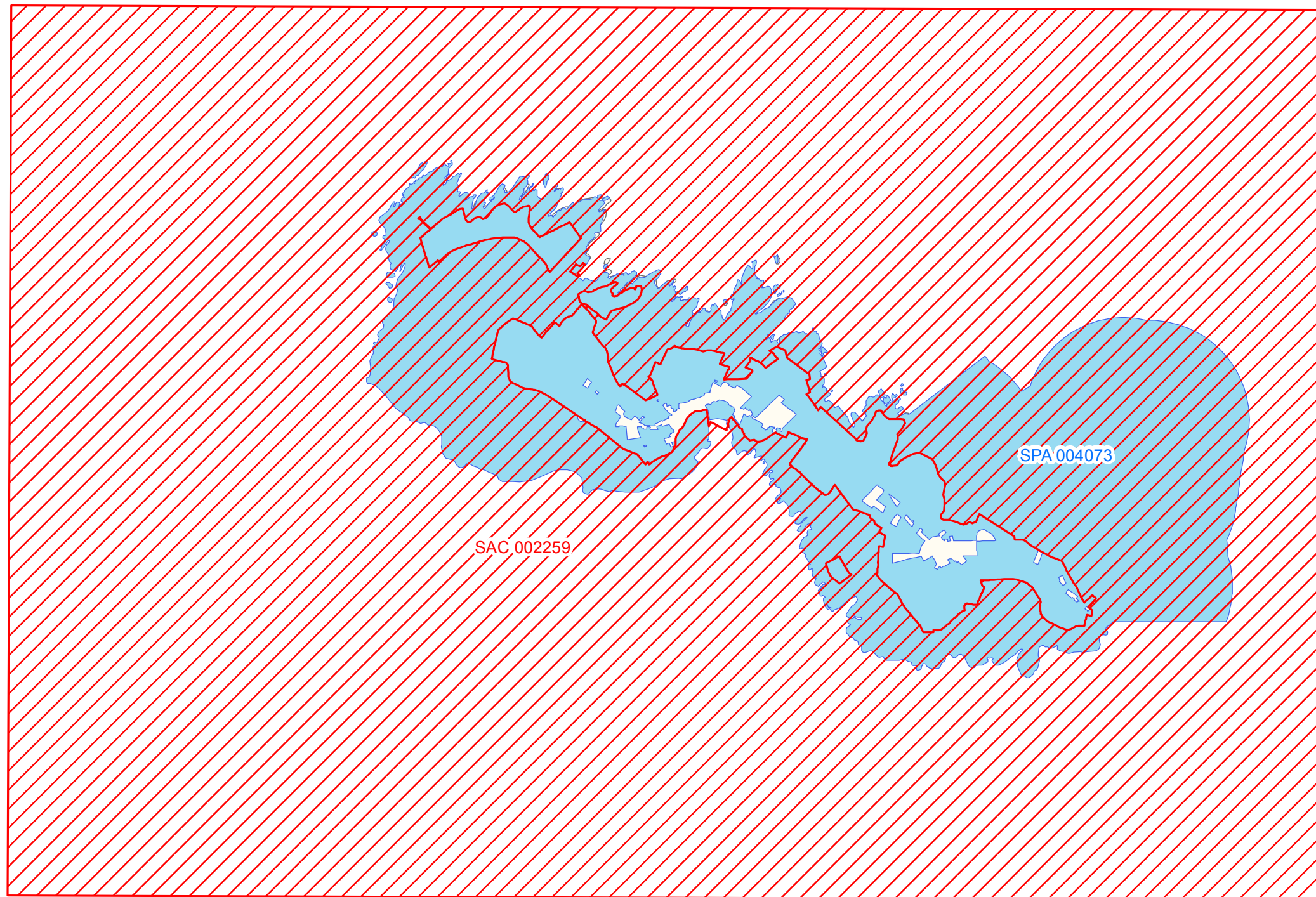
To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts in Tory Island Coast SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat length	Kilometres	Area stable, subject to natural processes, including erosion. For sub-site mapped: Tory Island - 9.49km. See map 6	Based on data from the Irish Sea Cliff Survey (ISCS) (Barron et al., 2011). Cliffs are linear features and are therefore measured in kilometres. One sub-site was identified using a combination of aerial photos and the DCENR helicopter viewer. The length of the cliff was measured (in sections) to give a total estimated area of 9.49km within the SAC. This is likely to be an under-estimate. See coastal habitats supporting document for further details
Habitat distribution	Occurance	No decline, subject to natural processes. See map 6	Cliffs are known to occur along the northern shore of Tory Island. Hard cliffs are the main cliff type within this SAC (Browne, 2005; Barron et al., 2011). See coastal habitats supporting document for further details
Physical structure: functionality and hydrological regime	Occurrence of artificial barriers	No alteration to natural functioning of geomorphological and hydrological processes due to artificial structures	Maintaining natural geomorphological processes including natural erosion is important for the health of a vegetated sea cliff. Hydrological processes maintain flushes and in some cases tufa formations that can be associated with sea cliffs. See coastal habitats supporting document for further details
Vegetation structure: zonation	Occurrence	Maintain range of sea cliff habitat zonations including transitional zones, subject to natural processes including erosion and succession	Based on data from Barron et al. (2011). See coastal habitats supporting document for further details
Vegetation structure: vegetation height	Centimetres	Maintain structural variation within sward	Based on data from Barron et al. (2011). See coastal habitats supporting document for further details
Vegetation composition: typical species and sub-communities	Percentage cover at a representative number of monitoring stops	Maintain range of sub-communities with typical species listed in the Irish Sea Cliff Survey (Barron et al., 2011)	Based on data from Barron et al. (2011). Scot's lovage (<i>Ligusticum scoticum</i>) was recorded at sea cliffs at this site. See coastal habitats supporting document for further details
Vegetation composition: negative indicator species	Percentage	Negative indicator species (including non-natives) to represent less than 5% cover	Based on data from Barron et al. (2011). See coastal habitats supporting document for further details
Vegetation composition: bracken and woody species	Percentage	Cover of bracken (<i>Pteridium aquilinum</i>) on grassland and/or heath less than 10%. Cover of woody species on grassland and/or heath less than 20%	Based on data from Barron et al. (2011). See coastal habitats supporting document for further details



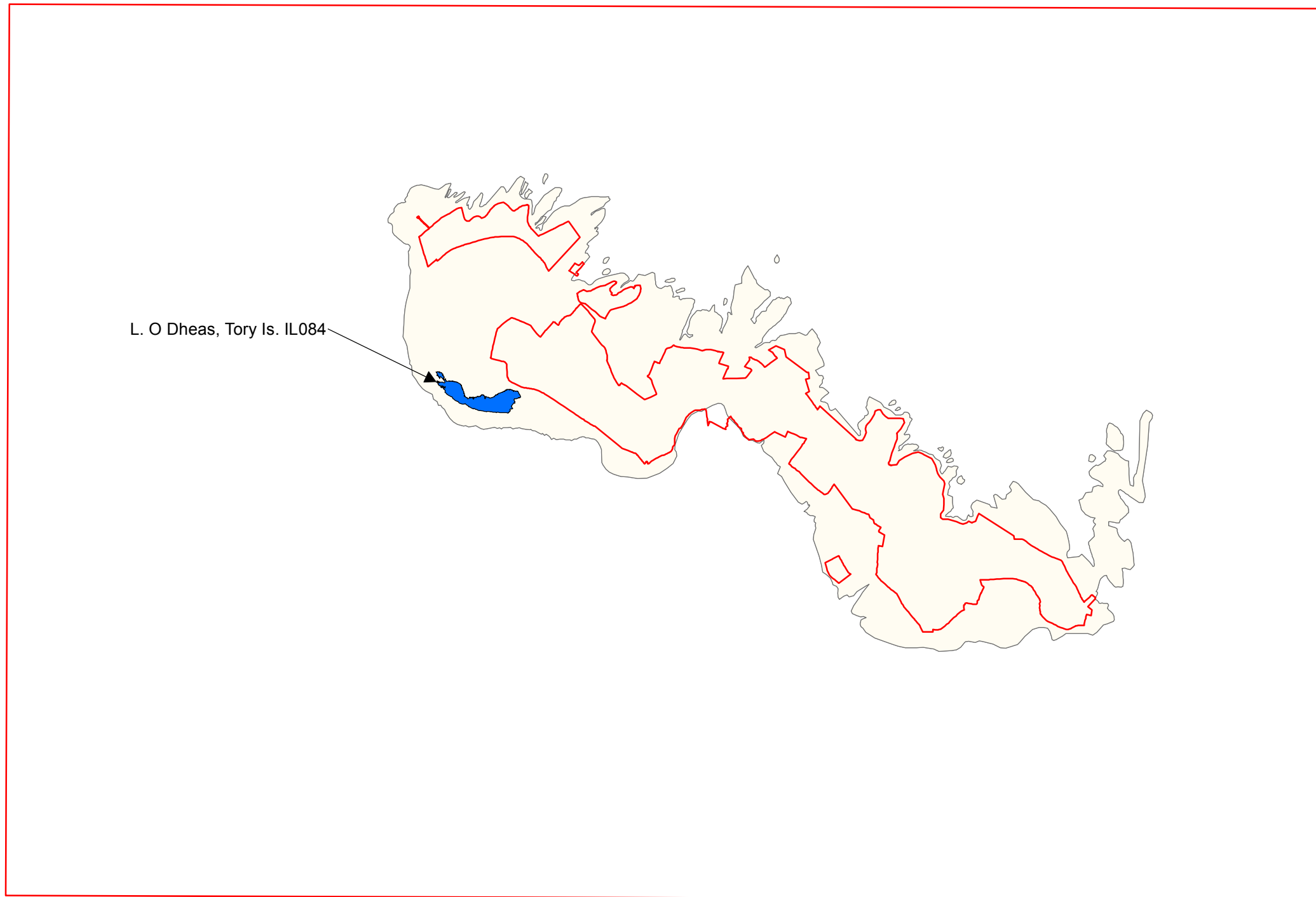
Legend

 Tory Island Coast SAC 002259



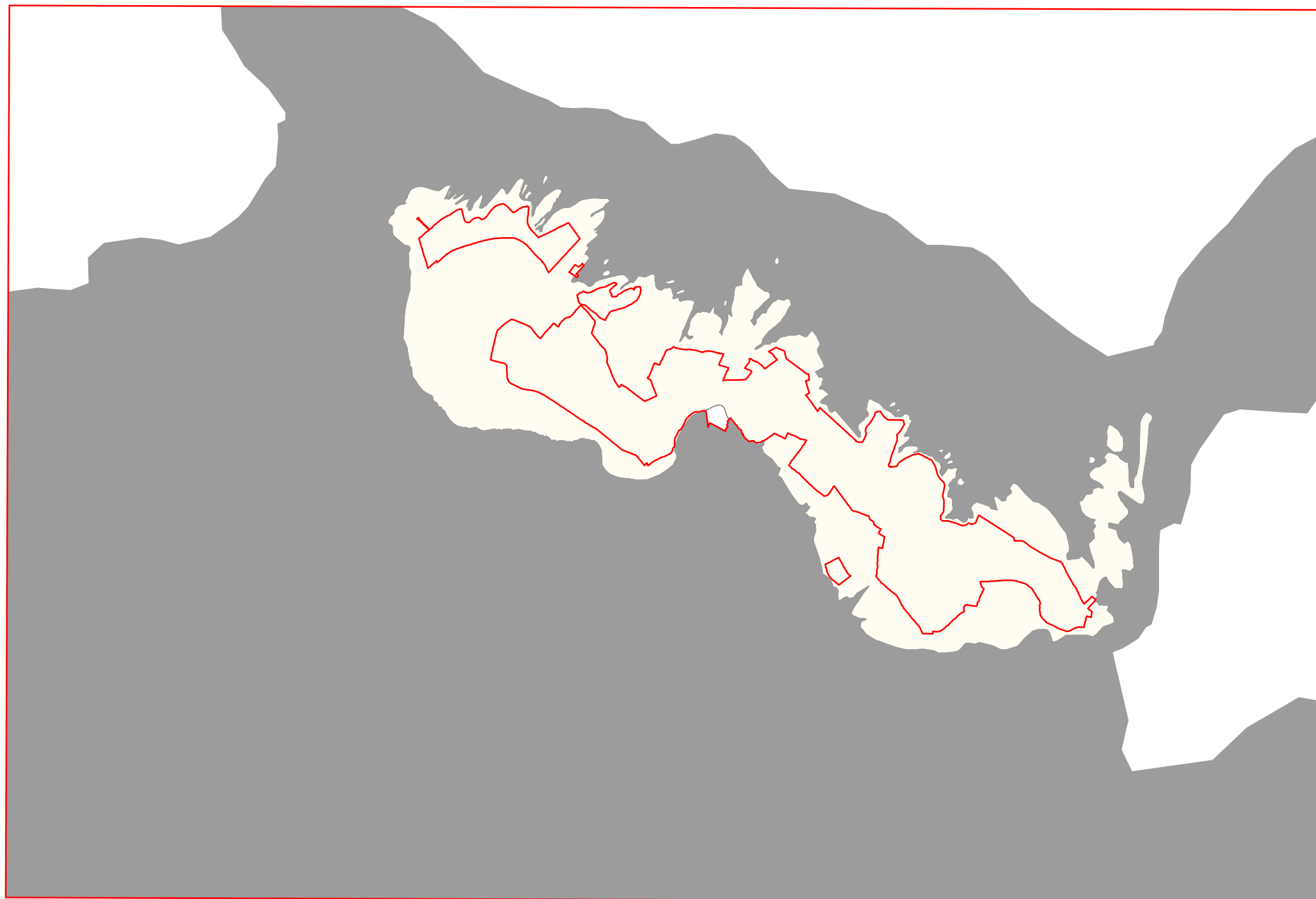
Legend

- Tory Island Coast SAC 002259
- Tory Island SPA 004073
- OSi Discovery Series County Boundary



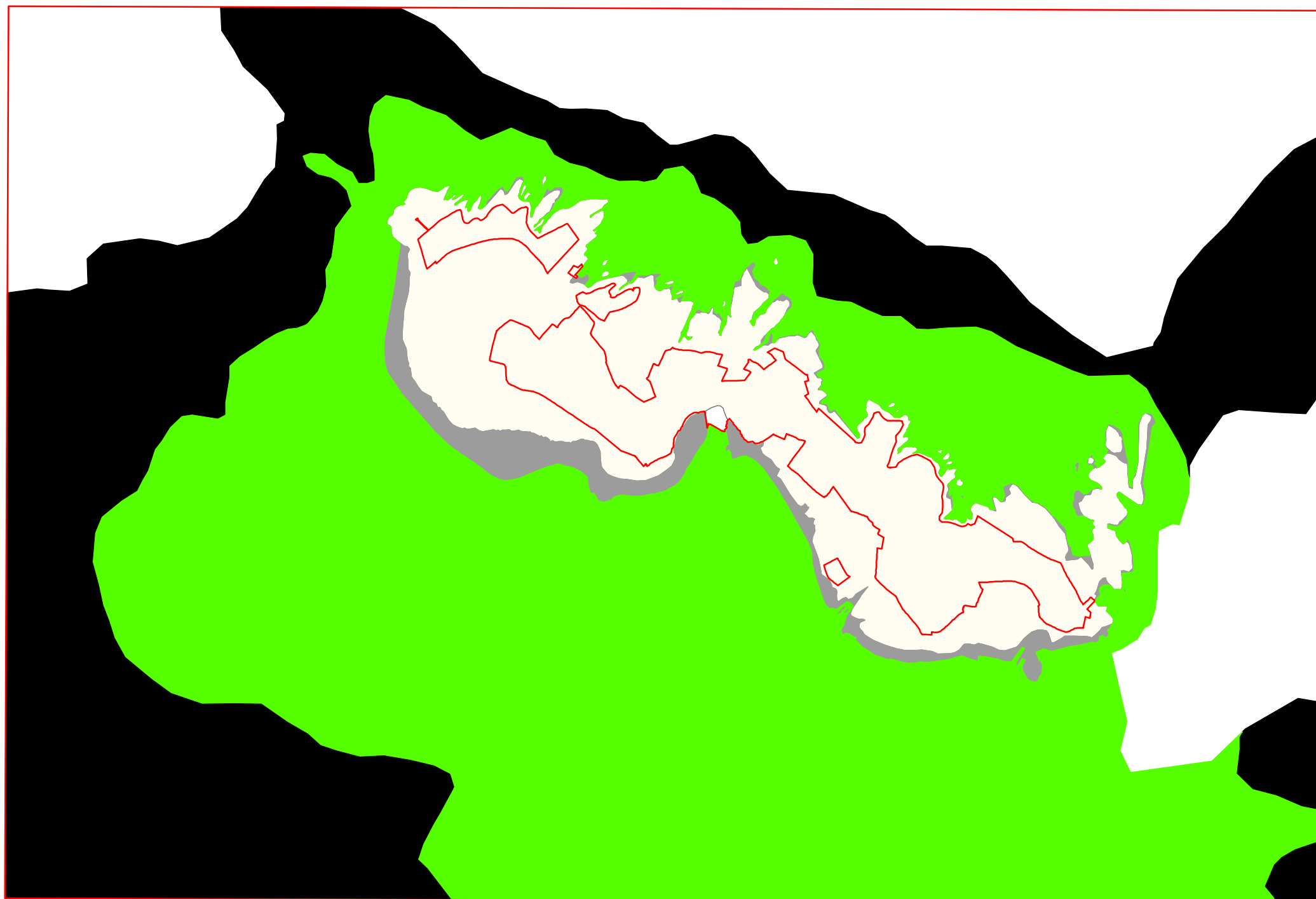
Legend

- Tory Island Coast SAC 002259
- 1150 *Coastal lagoons
- OSi Discovery Series County Boundary



Legend

- Tory Island Coast SAC 002259
- 1170 Reefs
- OSi Discovery Series County Boundary

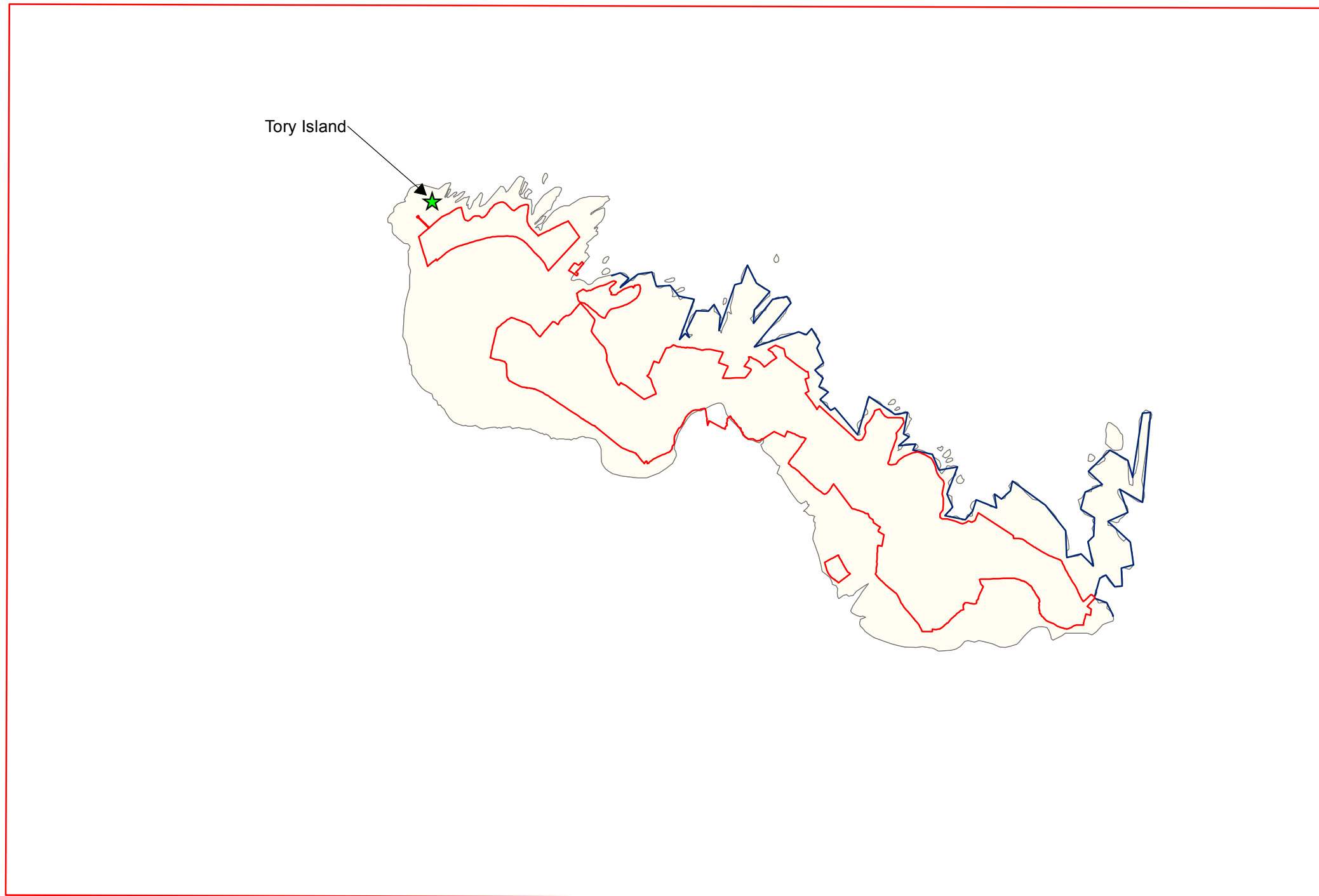


Legend

- Tory Island Coast SAC 002259
- OSi Discovery Series County Boundary

Marine Community Types

- Intertidal reef community complex
- Laminaria*-dominated community complex
- Subtidal reef with echinoderms and faunal turf community complex



Legend

- Tory Island Coast SAC 002259
- ★ National Shingle Beach Survey sub-sites
- 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts
- OSi Discovery Series County Boundary