

NPWS

**Inishmaan Island SAC
(site code: 212)**

**Conservation objectives supporting document -
Marine Habitats**

**Version 1
November 2014**

Introduction

Inishmaan Island SAC is designated for the marine Annex I qualifying interest of Reefs (Figure 1).

Intertidal and subtidal surveys were undertaken in 2012 (MERC, 2013) and these data were used to determine the physical and biological nature of this SAC.

Aspects of the biology and ecology of the Annex I habitat are provided in Section 1. The corresponding site-specific conservation objective will facilitate Ireland delivering on its surveillance and reporting obligations under the EU Habitats Directive (92/43/EC).

Ireland also has an obligation to ensure that consent decisions concerning operations/activities planned for Natura 2000 sites are informed by an appropriate assessment where the likelihood of such operations or activities having a significant effect on the site cannot be excluded. Further ancillary information concerning the practical application of the site-specific objective and targets in the completion of such assessments is provided in Section 2.

Section 1

Principal Benthic Communities

Within Inishmaan Island SAC two marine community types are recorded. Their occurrence in the Annex I habitat is presented in table 1; a description of the community types is given below.

	Habitat
	Reefs (1170)
Intertidal reef community complex	✓
Sand community complex	

Table 1 The community types recorded in Inishmaan Island SAC and their occurrence the Annex I habitat for which the site is designated.

Estimated areas of each community type within the Annex I habitat, based on interpolation, are given in the objective targets in Section 2.

The development of a community complex target arises when an area possesses similar abiotic features but records a number of biological communities that are not regarded as being sufficiently stable and/or distinct temporally or spatially to become the focus of conservation efforts. In this case, examination of the available data from Inishmaan Island identified a number of biological communities whose species composition overlapped significantly. Such biological communities are grouped together into what experts consider are sufficiently stable units (i.e. a complex) for conservation targets.

INTERTIDAL REEF COMMUNITY COMPLEX

This community complex is recorded extensively on all shores in this site (Figure 1). It occurs largely on wave cut platforms with crevices and ledges; at An Chaonach, in the south of the island the substrate is a boulder beach behind pitted limestone pavement. The exposure regime is largely exposed reef with moderately exposed reef occurring on the western side of the island.

Within this community complex the barnacle *Semibalanus balanoides* and the gastropods *Patella vulgata* and *Littorina* spp. occur along with the algal species *Fucus vesiculosus* and *Fucus serratus*. On very exposed shores the bivalve *Mytilus edulis* and unidentified barnacles dominate.

Species associated with the Intertidal reef community complex	
<i>Fucus vesiculosus</i>	<i>Semibalanus balanoides</i>
<i>Fucus serratus</i>	<i>Patella vulgata</i>
<i>Littorina</i> spp.	Barnacles indet.
<i>Mytilus edulis</i>	

Table 2 Species associated with the Intertidal reef community complex.

The non-native invasive species, *Sargassum muticum*, was recorded east of the pier at An Caladh Mor.

SAND COMMUNITY COMPLEX

This community complex is recorded on the north-eastern shore of the island at An Caladh Mor and at Ceann Gainimh and on the eastern shore at Tra Leitreach (Figure 2). These shores are exposed and flanked by reefs.

The exposed and open nature of the complex is expected to result in a barren habitat with a low diversity of the distinguishing species; these species are likely to include polychaetes and/or amphipod species.

Section 2

Appropriate Assessment Notes

Many operations/activities of a particular nature and/or size require the preparation of an environmental impact statement of the likely effects of their planned development. While smaller operations/activities (i.e. sub threshold developments) are not required to prepare such statements, an appropriate assessment and Natura Impact Statement is required to inform the decision-making process in or adjacent to Natura 2000 sites. The purpose of such an assessment is to record in a transparent and reasoned manner the likely effects on a Natura 2000 site of a proposed development. General guidance on the completion of such assessments has been prepared and is available at www.npws.ie.

Annex I Habitats

It is worth considering at the outset that in relation to Annex I habitat structure and function, the extent and quality of all habitats varies considerably in space and time and marine habitats are particularly prone to such variation. Habitats which are varying naturally, i.e. biotic and/or abiotic variables are changing within an envelope of natural variation, must be considered to have favourable conservation condition. Anthropogenic disturbance may be considered significant when it causes a change in biotic and/or abiotic variables in excess of what could reasonably be envisaged under natural processes. The capacity of the habitat to recover from this change is obviously an important consideration (i.e. habitat resilience) thereafter.

This Department has adopted a prioritized approach to conservation of structure and function in marine Annex I habitats.

1. Those communities that are key contributors to overall biodiversity at a site by virtue of their structure and/or function (keystone communities) and their low resilience should be afforded the highest degree of protection and any significant anthropogenic disturbance should be avoided.
2. In relation to the remaining constituent communities that are structurally important (e.g. broad sedimentary communities) within an Annex I marine habitat, there are two considerations.
 - 2.1. Significant anthropogenic disturbance may occur with such intensity and/or frequency as to effectively represent a continuous or ongoing source of disturbance over time and space (e.g. effluent discharge within a given area). Drawing from the principle outlined in the European Commission's Article 17 reporting framework that disturbance of greater than 25% of the area of an Annex I habitat represents unfavourable conservation status, this Department takes the view that licensing of activities likely to cause continuous disturbance of each community type should not exceed an approximate area of 15%. Thereafter, an increasingly cautious approach

is advocated. Prior to any further licensing of this category of activities, an inter-Departmental management review (considering *inter alia* robustness of available scientific knowledge, future site requirements, etc) of the site is recommended.

- 2.2. Some activities may cause significant disturbance but may not necessarily represent a continuous or ongoing source of disturbance over time and space. This may arise for intermittent or episodic activities for which the receiving environment would have some resilience and may be expected to recover within a reasonable timeframe relative to the six-year reporting cycle (as required under Article 17 of the Directive). This Department is satisfied that such activities could be assessed in a context-specific manner giving due consideration to the proposed nature and scale of activities during the reporting cycle and the particular resilience of the receiving habitat in combination with other activities within the designated site.

The following technical clarification is provided in relation to specific conservation objective and targets for Annex I habitat to facilitate the appropriate assessment process:

Objective **To maintain the favourable conservation condition of Reefs in Inishmaan Island SAC, which is defined by the following list of attributes and targets**

Target 1	The permanent area is stable or increasing, subject to natural processes.
	<ul style="list-style-type: none">▪ The area of this habitat represents the minimum estimated area of reef at this site and underestimates the actual area due to the many areas of sheer and steeply sloping rock within the reef habitat.▪ This target refers to activities or operations that propose to permanently remove habitat from the site, thereby reducing the permanent amount of habitat area. It does not refer to long or short term disturbance of the biology of a site.▪ Early consultation or scoping with the Department in advance of formal application is advisable for such proposals.

Target 2	The distribution of reefs is stable or increasing, subject to natural processes.
	<ul style="list-style-type: none">▪ The likely distribution of reef habitat in this SAC is indicated in figure 1.▪ This target refers to activities or operations that propose to permanently remove reef habitat, thus reducing the range over which this habitat occurs within the site. It does not refer to long or short term disturbance of the biology of reef habitats.▪ Early consultation or scoping with the Department in advance of formal application is advisable for such proposals.

Target 3	Conserve the following community type in a natural condition: Intertidal reef community complex.
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- A semi-quantitative description of the community has been provided in Section 1.
- An interpolation of its likely distribution is provided in figure 2.
- The estimated area of the community within the Reefs habitat given below is based on spatial interpolation and therefore should be considered indicative:
 - Intertidal reef community complex - 70ha
- This target relates to the structure and function of the reef and therefore it is of relevance to those activities that may cause disturbance to the ecology of the habitat.
- Significant continuous or ongoing disturbance of communities should not exceed an approximate area of 15% of the interpolated area of each community type, at which point an inter-Departmental management review is recommended prior to further licensing of such activities.
- Proposed activities or operations that cause significant disturbance to communities but may not necessarily represent a continuous or ongoing source of disturbance over time and space may be assessed in a context-specific manner giving due consideration to the proposed nature and scale of activities during the reporting cycle and the particular resilience of the receiving habitat in combination with other activities within the designated site.

Bibliography:

MERC (2013). Intertidal survey of Inishmaan Island SAC. Carried out by MERC on behalf of the Marine Institute in partnership with National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

Figure 1. Extent of Reefs in Inishmaan Island SAC

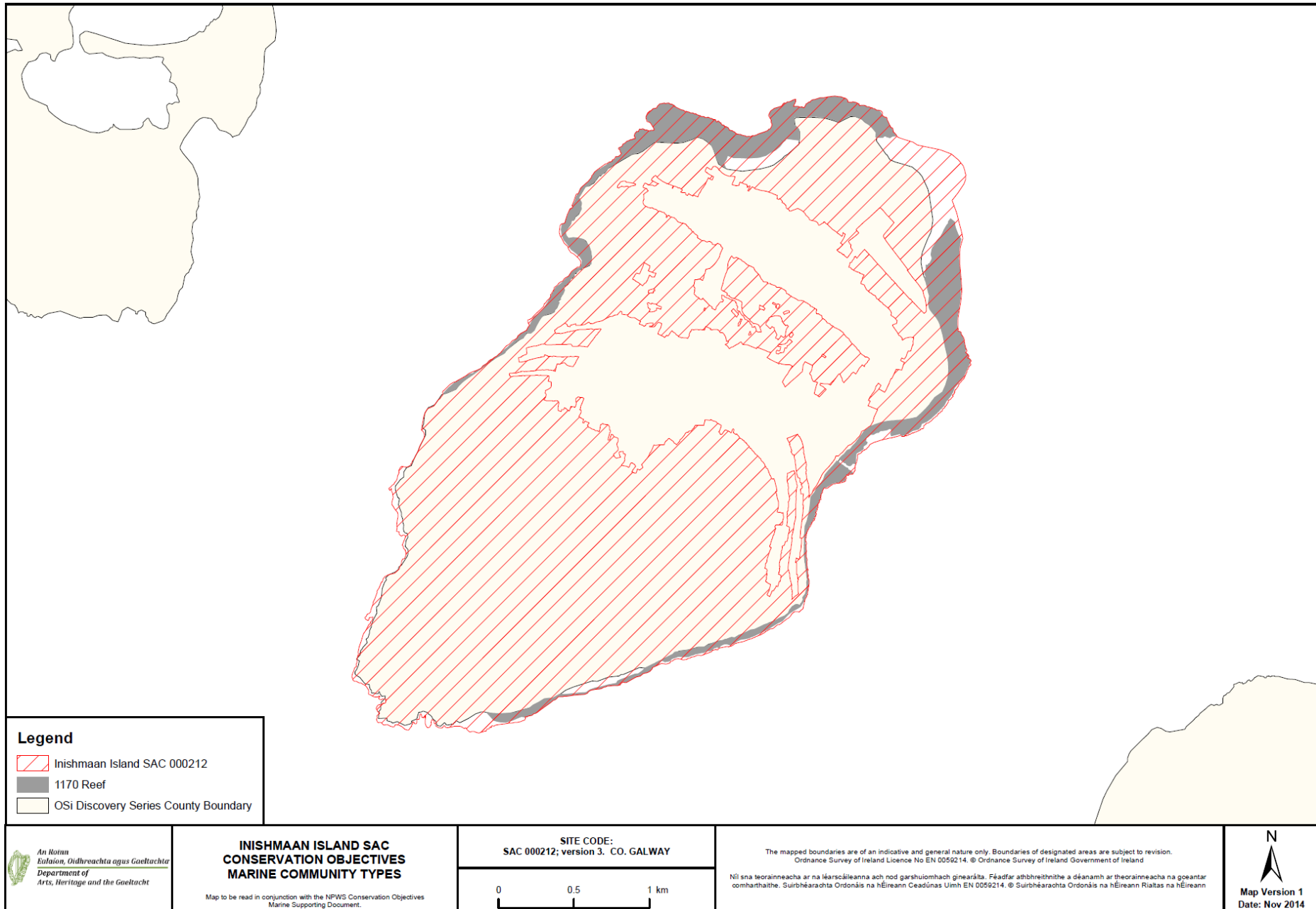


Figure 2. Distribution of community types in Inishmaan Island SAC

