

NPWS

**Aran Island (Donegal) Cliffs SAC
(site code: 0111)**

**Conservation objectives supporting document -
Marine Habitats**

**Version 1
November 2016**

Introduction

Aran Island (Donegal) Cliffs SAC is designated for the marine Annex I qualifying interest of Submerged or partially submerged sea caves (8330) (Figure 1).

No site-specific survey has been undertaken for the sea caves in this SAC. The distribution shown on Figure 1 is derived from an oblique aerial survey, counting the presence of large or apparent indentations in the cliff face in the flight path. Therefore, the number of caves recorded is subjective and represents potential rather than actual caves.

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 Aran Island (Donegal) Cliffs SAC, sea caves are associated with the sea cliffs on the northern and western coasts of the island. Vegetated sea cliffs are also a qualifying Annex I habitat for the SAC.

The distribution of intertidal or subtidal sea caves has not been the subject of scientific investigation in Ireland. The ecology and extents of a very few individual subtidal caves have been mapped. Whilst surveys undertaken in the UK indicate the structure and functions of sea caves are largely influenced by hydrodynamic forces and water quality, no such information is yet available for Ireland.

The composition of cave communities will reflect to a large extent that of the local reef. Where there is intertidal reef, barnacles and bivalves would be expected and possibly anemones and algae where exposure and light allow. Subtidally, algae may be present at the entrance; on hard surfaces soft corals, sponges, hydroids and anthozoans are likely to occur. Echinoderms such as *Echinus esculentus* and *Holothuria forskali* can also be expected. Ledges and overhangs within cave may provide refuges for crustaceans such as *Homarus gammarus*, *Maja squinado* and *Necora puber*.

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 targets for the Annex I habitat to facilitate the appropriate assessment process:

Objective **To maintain the favourable conservation condition of Submerged or partly submerged sea caves in Aran Island (Donegal) Cliffs SAC which is defined by the following list of attributes and targets**

Target 1	The distribution of sea caves is stable, subject to natural processes.
	<ul style="list-style-type: none">▪ The distribution of all sea caves in this SAC has not yet been fully evaluated (Figure 1).▪ This target refers to activities or operations that propose to permanently remove sea cave 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 sea cave habitats.▪ Early consultation or scoping with the Department in advance of formal application is advisable for such proposals.

Target 2	Conserve the community types in a natural condition
	<ul style="list-style-type: none">▪ The community types have not yet been described in this SAC. See Section 1.▪ This target relates to the structure and functions of sea caves 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 a community 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.

Target 3 Human activities should occur at levels that do not adversely affect the ecology of sea caves at the site.
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- This target relates to proposed activities or operations that may result in the deterioration of key resources (e.g. water quality) that are likely to drive or influence community structure of sea caves in the site. In the absence of complete knowledge on these elements in this site, such considerations should be assessed where appropriate on a case-by-case basis.

Figure 1. The potential distribution of sea caves in Aran Island (Donegal) Cliffs SAC

