

ARDMEANACH SPECIAL AREA OF CONSERVATION (SAC)

CONSERVATION ADVICE PACKAGE



The Ardmeanach coast near Gribun ©Lorne Gill/SNH

Site Details

Site name:	Ardmeanach
Map:	https://sitelink.nature.scot/site/8190
Location:	Highlands and Islands
Site code:	UK0012958
Area (ha):	378.33
Date designated:	17 March 2005

Qualifying features

Qualifying feature	Assessed condition	SCM visit date	UK overall Conservation Status
Vegetated sea cliffs	Unfavourable Recovering	26 May 2009	Unfavourable – Bad
Species-rich grassland with mat-grass in upland areas*	Unfavourable Declining	9 June 2016	Unfavourable – Bad
Tall herb communities	Favourable Recovered	9 June 2016	Unfavourable – Bad

Notes:

Assessed Condition refers to the condition of the SAC feature assessed at a site level as part of NatureScot's [Site Condition Monitoring \(SCM\)](#) programme.

Conservation status is the overall condition of the feature throughout its range within the UK as reported to the European Commission under Article 17 of the Habitats Directive in 2019.

*Habitats Directive priority habitat

Overlapping Protected Areas:

Ardmeanach SSSI, Gribun Shore and Craggs SSSI and Cnuic Agus Cladach Mhuile (Mull Coast and Hills) SPA

More information for these protected areas can be found on [SiteLink](#).

Key factors affecting the qualifying features

Vegetated sea cliffs

This habitat occurs on steep slopes fringing hard or soft coasts, created by past or present marine erosion, and supporting a wide diversity of vegetation types with variable maritime influence. Exposure to the sea and wind, and in particular salt spray blown on to the cliff face and cliff top is a key determinant of the type of sea cliff vegetation. The most exposed areas support maritime vegetation dominated by a range of salt-tolerant plants. More sheltered cliffs support communities closely

related to those found on similar substrates inland, such as grassland and heath, with only a minor maritime element in the flora.

At Ardmeanach there are several kilometres of maritime cliff feature, made up of the component Gribun Shore and Crags and Ardmeanach SSSIs. The gentle angle of intercept for waves and sheltered nature of the coastline here contributes to a comparative lack of sea spray being generated. Maritime influence on species composition does not extend particularly far up the slopes.

The profile and stability of the cliff face is one of the major determinants of cliff vegetation. Near-vertical cliffs found at Ardmeanach support specialist crevice communities, while ledges occupied by breeding seabirds may develop specialist nitrophilous communities comprising plant species which are able to cope with heavy guano deposition. The cliff top vegetation included in this habitat comprises maritime grassland and maritime heath. At Ardmeanach SAC the cliffs to the north are a range of rock types and slopes; some areas highly calcareous and others made up of steep igneous rock contributing to the diversity of the site.

The habitat has been assessed to be in unfavourable condition because of the proliferation of ragwort and creeping thistle on the cliff slope, and bracken within the cliff-top vegetation.

Species-rich grasslands with mat-grass in upland areas

Ardmeanach is one of five sites representing the range of low-altitude sub-types of species-rich *Nardus* grasslands on the oceanic west coast of Scotland. Ardmeanach is one of the most westerly and maritime of the sites selected. The species-rich *Nardus* grasslands occur extensively as short swards on a large basalt escarpment. The feature is found on the steep talus slopes below the cliffs at the western end of the peninsula around the area called The Wilderness and below Fionn Aoineadh as well as in a very similar situation below the cliffs above Gribun and around to the north and east on the north-facing slopes Creag of Mhòr and Creag Brimishgan.

This habitat is particularly susceptible to over and under-grazing with changes in sheep, goat and deer numbers, invasive native species particularly bracken, and atmospheric nitrogen. It is in unfavourable condition on this SAC due to encroachment of bracken that has formed dense stands in some parts of the site.

Tall herb communities

Tall herb communities habitat is typically found on ungrazed upland cliff ledges, occasionally extending on to open ground, and is restricted to base-rich substrates and somewhat sheltered situations. It provides a refuge for rare, grazing-sensitive, montane plants.

The qualifying tall herb vegetation is restricted to the steep and inaccessible cliffs at the end of the Ardmeanach peninsular, above the Wilderness. It is representative of the more acid end of the spectrum for the habitat. Most of the stands seem to be inaccessible to grazing animals; they are therefore natural, or at least near natural, with soil conditions are more acid than usual and smaller patches of mesotrophic and base-rich soils.

Key management issues include ensuring only low/no grazing or trampling from domestic stock, deer, and goats, and invasion by vigorous species such as bracken (although bracken is having a negative impact on other parts of the SAC, it is not recorded as an issue with this habitat at present).

Further information about these habitats can be found on the [JNCC website](#).

Conservation Priorities

The qualifying habitats at Ardmeanach SAC are located in different areas of the site; as such management of one habitat should not impact the others.

This SAC overlaps with part of Cnuic Agus Cladach Mhuile (Mull Coast and Hills) SPA. Any management of the SAC, or assessment of plans or projects, will also need to take account of the SPA golden eagle interest.

Conservation Objectives

Overarching Conservation Objectives for all qualifying features

1. To ensure that the qualifying features of Ardmeanach SAC are in favourable condition and make an appropriate contribution to achieving favourable conservation status

Favourable Conservation Status (FCS) is considered at a European biogeographic level. When determining whether management measures may be required to ensure that the conservation objectives for this site are achieved, the focus should be on maintaining or restoring the contribution that this site makes to FCS.

When carrying out appraisals of plans and projects against these conservation objectives, it is not necessary to understand the status of the feature in other SACs in this biogeographic region. The purpose of the appraisal should be to understand whether the integrity of the site (see objective 2) would be maintained. If this is the case then its contribution to FCS across the Atlantic Biogeographic Region will continue to be met. Further details on how these appraisals should be carried out in relation to maintaining site integrity is provided by objective 2 (including parts a, b and c). If broader information on the feature is available then it should be used to provide context to the site-based appraisal.

Note that “appropriate” within this part of the conservation objectives is included to indicate that the contribution to FCS varies from site to site and feature to feature.

2. To ensure that the integrity of Ardmeanach SAC is restored by meeting objectives 2a, 2b and 2c for each qualifying feature.

The aim at this SAC is to restore the habitats to a favourable condition as a contribution to its wider conservation status. Therefore any impacts on the objectives shown in 2a, 2b, or 2c below must not persist so that they prevent the achievement of this overall aim.

When carrying out appraisals of plans or projects the focus should be on restoring site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c. If these are met then site integrity will be restored. Note that not all of these will be relevant for every activity being considered. Any impacts on the objectives shown in 2a, 2b or 2c below must not persist so that they prevent the restoration of site integrity. Temporary impacts on these objectives resulting from plans or projects can only be permitted where they do not prevent the ability of a feature to recover and there is certainty that the features will be able to quickly

recover.

This objective recognises that the qualifying habitat is exposed to a wide range of drivers of change. Some of these are natural and are not a direct result of human influences. Such changes in the habitat's extent, distribution or condition within the site which are brought about by natural processes, directly or indirectly, are normally considered compatible with the site's conservation objectives. An assessment of whether a change is natural or anthropogenic, or a combination of both, will need to be looked at on a case by case basis.

Conservation Objectives 2a, 2b, and 2c for Vegetated sea cliffs of the Atlantic and Baltic coasts [H1230] (Vegetated sea cliffs)

2a. Maintain the extent and distribution of the habitat within the site

Accurate measurement of the extent of this habitat is hard to achieve due to its location on vertical or near vertical slopes but does include, where appropriate, the clifftop maritime vegetation. The figure within the SAC standard data form is therefore used as a guide, and the objective is that there should be no loss of the habitat within the SAC.

The extent of this habitat is largely determined by topography, being found on vertical or steeply sloping cliffs with exposure to salt spray and the wind.

There has been no apparent loss of extent and distribution since baseline surveys. As the feature is largely on cliff slopes the habitat is subject to natural processes that limit the potential for expansion or loss of extent.

At the Gribun Shore and Craggs SSSI section of Ardmeanach SAC the main areas of maritime grassland occurred across steep inaccessible slopes where flowering is notable. At the Ardmeanach SSSI section of the SAC, maritime communities found across the main slopes and tops of the shore cliffs include heath and grassland communities not primarily maritime, but with a high degree of *Plantago maritima* in the composition. Purer stands of maritime grassland can be found across the rocky outcrops close to the shoreline.

2b. Restore the structure, function and supporting processes of the habitat

The structure of the habitat is influenced by the geomorphological processes, degree of exposure to the wind and sea, and the associated salt spray on the cliff face and cliff tops. Exposed stretches of coast support salt-tolerant vegetation, while more sheltered areas support plant communities similar to those found inland such as grassland and heath.

The profile and stability of the cliff face is dependent on whether it is a 'hard' or 'soft' cliff. At Ardmeanach the cliffs are made up of a diverse range of rock types including both hard and soft substrates, with basalt, sandstone, mudstone and limestone, and a Moine metamorphic rock complex present. 'Hard' rock with vertical or very steep faces are characteristic of hard igneous and metamorphic rocks. 'Soft' cliffs have a sloping or slumped profile, often with a distinct 'undercliff'; they occur on a range of soft rocks, or on hard rocks interspersed with softer deposits. The more mobile soft cliffs occur where there are unstable soft deposits such as mudstones or glacial drift deposits. They may be subject to mudslides or landslips.

The structure and function of this habitat are dependent on natural marine processes and weather.

However, the natural processes of the sea cliffs and transition to the clifftop areas can be disrupted by coastal defences, roads and /or extraction of rock.

Coastal protection is present along a short section (approximately 250m) of the eastern end of the maritime cliff feature at Gribun Shore and Craggs SSSI. The transition to littoral habitat at Gribun Shore and Craggs SSSI is interrupted by a single-track road (B8035). This is present along the entire length of the maritime cliff feature, i.e. approximately 3kms in length. Both of these factors are historical impacts that are unlikely to change and are taken into account when assessing overall condition of the habitat.

The key factor affecting the habitat is the abundance of bracken, ragwort and creeping thistle within the cliff slope and clifftop communities, which has led to an unfavourable condition assessment. This affects the structure of the habitat by out competing desirable species for nutrients; in particular dense bracken gradually smothers ground vegetation. Therefore the main aim for restoration of the habitat is to remove the bracken.

2c. Restore the distribution and viability of typical species of the habitat

Maritime cliff vegetation (slope and cliff top) varies according to a number of physical and biological factors, but most important among these are climate, degree of exposure to sea-spray, geology and soil type, level of grazing, and the amount of seabird activity.

Typical species on the cliff slope and clifftop maritime grassland all of which are at least occasional, are: Thrift *Armeria maritima*; Sea campion *Silene uniflora*; Yorkshire fog *Holcus lanatus*; Sea plantain *Plantago maritima*; Ribwort plantain *Plantago lanceolata*; buckshorn plantain *Plantago coronopus*; wild carrot *Daucus carota*;

Typical species on the clifftop maritime heath which is dominated by heather *Calluna vulgaris* and/or bell heather *Erica cinerea* is present, all of which are at least occasional are: Sheep's fescue *Festuca ovina*; sea plantain *Plantago maritima*; ribwort plantain *Plantago lanceolata*; kidney vetch *Anthyllis vulneraria*; birdsfoot trefoil *Lotus corniculatus*; catsear *Hypochoeris radicata*; wild thyme *Thymus praecox*; tormentil *Potentilla erecta*.

The rich and varied habitat provides hunting ground for both sea eagles and golden eagles. Fulmars and shags can also be found using the site.

Low to moderate grazing pressure is generally required to allow flowering and fruiting of cliff top vegetation and maintain the maritime grassland and maritime heath without scrub encroachment. Although there are localised areas that are overgrazed, grazing levels are low across the site.

Excessive tracking/trampling by livestock / visitors / vehicles can contribute to a deterioration in the habitat structure, leading to a reduction or loss in the typical/indicator species for this habitat and could lead to erosion of the cliff top vegetation.

At Ardmeanach, there is a path through the site, giving access to the Fossil Tree and is used by both visitors and stock; however this does not appear to be having a significant impact. Trampling by herbivores also occurs at other parts of the site, but is localised to access points.

Colonisation of the vegetated sea cliffs by invasive native species, such as creeping thistle *Cirsium arvense*; common ragwort *Senecio jacobaea*; stinging nettle *Urtica dioica*; bracken *Pteridium aquilinum* could result in loss of the typical species.

Large stands of bracken have been recorded across Ardmeanach, encroaching into all the grassland across the slopes including those with maritime influence. Ragwort, and less so creeping thistle, were also noted throughout the grassland sward across the site.

Restoration of this habitat is focused on bracken and scrub control. Recent monitoring has shown that bracken is recolonising and further control is required.

Conservation Objectives 2a, 2b, and 2c for Species-rich *Nardus* grassland, on siliceous substrates in mountain areas [H6230] (Species-rich grasslands with mat-grass in upland areas)

2a. Restore the extent and distribution of the habitat within the site

Restore the species rich *Nardus* grassland to approximately 47ha.

The area figure has been taken from the Standard Data Form, and is an estimate based on the fact that Species-rich *Nardus* grasslands can grade into sub-maritime, Alpine and subalpine calcareous grasslands or, next to limestone areas, form transitions to Semi-natural dry grasslands and scrubland on calcareous substrates. However the habitat extent and its distribution throughout the site should be restored.

The target for habitat extent was not met in 2016. Dense bracken was found throughout the site suggesting that the feature area may have declined. Removal of this will help to restore the extent of the habitat.

2b. Restore the structure, function and supporting processes of the habitat

As with many upland habitats maintaining Species-rich grasslands with mat-grass in upland areas is mainly reliant on appropriate levels of grazing. Reduction in grazing may cause a change towards tall herb communities or, at higher altitudes, towards *Dryas octopetala* vegetation. Overgrazing or burning/muirburn may cause increase in unpalatable species i.e. *Prunella vulgaris*, *Cirsium* spp and mosses and local trampling to communities with *Lolium*, *Plantago* and *Poa*. At Ardmeanach low to moderate grazing levels are required to allow fruiting and flowering of desirable species, avoid dominance of rank or tussock forming grasses and prevent scrub encroachment.

The key factor affecting the habitat is the abundance of bracken within both the Gribun and Wilderness areas of the site. This affects the structure of the habitat by out competing desirable species for nutrients; dense bracken gradually smothers ground vegetation, resulting in the loss of species rich grasslands. Therefore the main aim for restoration of the habitat is to remove the bracken.

Surveying of Ardmeanach in 2016 noted signs of both under and over grazing. Due to the range of fertility of the grasslands the site was differentially grazed by sheep, cattle, deer and goats. However, more recently, there has been a reduction in sheep, cattle and deer numbers with goats now the herbivore with the most influence on the site. Overall grazing levels are low and considered appropriate for the features of the site.

Some localised tracking by sheep was noted during 2016 monitoring, although disturbed ground was well below the target. Trampling is generally localised to access points and areas of palatable calcareous vegetation.

2c. Maintain the distribution and viability of typical species of the habitat

Species present in the grassland tend to be mesophilic. Swards are closely grazed and consist of a complex mosaic of grasses, small herbs and bryophytes.

The species composition of this habitat type will be affected by factors such as altitude and soil moisture levels. At Ardmeanach SAC there are pockets of the habitat across the site up to high altitude. Habitats are intact from coast to summit and are particularly influenced by

climate and geology.

At high altitude there is a greater representation of arctic-alpine plants, and the habitat can be transitional floristically to and grade into Alpine and subalpine calcareous grasslands. Floristically richer areas develop where there is a concentration of base-rich or calcareous strata, giving suitable conditions for the rarer base- or calcium-loving species. In such situations, especially where outcrops of limestone occur, transitions to Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) may develop.

At Ardmeanach where oceanic influences predominate, communities are characterised by the presence of Atlantic or sub-Atlantic species, including both vascular plants and bryophytes. Some examples contain maritime species, and show transitions to sub-maritime grasslands.

At Ardmeanach most of the species-rich *Nardus* grassland is represented by the *Festuca ovina-Agrostis capillaris-Thymus praecox* grassland (CG10) and in particular the *Trifolium repens-Luzula campestris* sub-community (CG10a). There are a few stands of the *Festuca ovina-Agrostis capillaris-Alchemilla alpina* grassland (CG11) present, but the low altitude of the site means that the *Alchemilla alpina* is often either scarce or absent. Most of this vegetation type is of the typical sub-community (CG11a).

The typical species for this habitat at Ardmeanach are:

<i>Alchemilla alpina</i>	alpine lady's mantle
<i>Alchemilla glabra</i>	smooth lady's mantle
<i>Angelica sylvestris</i>	wild angelica
<i>Campanula rotundifolia</i>	Harebell
<i>Carex panicea</i>	carnation sedge
<i>Cerastium fontanum</i>	common mouse-ear
<i>Danthonia decumbens</i>	heath-grass
<i>Filipendula ulmaria</i>	Meadowsweet
<i>Galium verum</i>	lady's bedstraw
<i>Geum rivale</i>	water avens
<i>Lotus corniculatus</i>	common bird's-foot-trefoil
<i>Pinguicula vulgaris</i>	common butterwort
<i>Succisa pratensis</i>	devil's bit scabious
<i>Thymus polytrichus</i>	wild thyme

Additionally the site supports the notable species Iceland-purslane *Koenigia islandica*. Here, in one of its two British localities, it grows abundantly on wind-ablated gravel spreads at the southerly limit of its western European distribution.

The UK population of the slender Scotch burnet moth *Zygaena loti* is confined to the islands of Mull and Ulva, with the largest colonies occurring at the Burg on the Ardmeanach peninsula. Colonies of the moth are found on south and south-westerly facing short calcareous grassland. Red deer and feral goats graze the site.

Conservation Objectives 2a, 2b, and 2c for Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [H6430] (Tall herb communities)

2a. Maintain the extent and distribution of the habitat within the site

Maintain the habitat to approximately 2.84 ha. The area figure has been taken from the Standard Data Form, and is an estimate based on the amount and complex, yet often limited, mosaic of several different high altitude communities. Fundamentally however there should be no measurable net reduction in the extent of the habitat and its distribution throughout the site.

At Ardmeanach SAC one small area was noted as being lost to rock fall in 2017; however this is an ongoing natural process with new ledges being formed as old ones are lost.

2b. Maintain the structure, function and supporting processes of the habitat

The extreme sensitivity of this habitat to grazing pressure is responsible for its scarcity. Whilst this habitat would have once been more abundant it is now largely confined to areas inaccessible to grazers. Introduction of additional grazing pressure, especially from highly agile species such as goats, has the ability to cause major losses. Direct management of grazing pressure has the ability to restore or extend this scarce habitat.

Grazing/browsing levels should allow survival of component species of the habitat the structure throughout the site, so that :

- Most of tall herb stems should be more than 20 cm tall, or there should be few observable signs of grazing on tall herbs or ferns, and most tall herb species should be flowering or showing signs of being able to flower.
- Less than 50% of live flowering shoots of indicator tall herbs (see below in 3 for list) should show evidence of grazing.
- In addition very low levels of disturbance should be in place to allow for survival of component species of the habitat, with less than 1% of the ground cover being disturbed or bare ground.

These targets were met during monitoring in 2017. Tall herb ledge communities are mostly inaccessible to grazing or exhibit only very light grazing. The habitat has suffered from overgrazing by goats in the past; however with the reduction in sheep numbers control of the goat population is not considered necessary. The goat population is thought to be stable and some grazing is required to maintain the mosaic of habitats.

The structure of this habitat can also be impacted by succession from tall-herb communities to woodland.

Furthermore, muirburn negatively impacts upon this habitat type. However muirburn is not an issue at Ardmeanach.

2c. Maintain the distribution and viability of typical species of the habitat

The Tall herb communities habitat is a species-rich habitat corresponding to NVC type *Luzula sylvatica* – *Geum rivale* tall-herb community.

It is characterised by the abundance of a species-rich mix of tall, broad-leaved herbs, most of which are otherwise rare in the uplands owing to their sensitivity to grazing.

Typical species for Tall-herb communities found at Ardmeanach are:

<i>Alchemilla</i> spp.	lady's-mantles
<i>Angelica sylvestris</i>	wild angelica
<i>Cirsium heterophyllum</i>	melancholy thistle
<i>Filipendula ulmaria</i>	meadowsweet
<i>Galium boreale</i>	northern bedstraw
<i>Geranium sylvaticum</i>	wood crane's-bill
<i>Geum rivale</i>	water avens
<i>Heracleum sphondylium</i>	hogweed
<i>Hieracium</i> spp.	hawkweeds
<i>Hypericum</i> spp.	St. John's-worts
<i>Leucanthemum vulgare</i>	ox-eye daisy
<i>Mercurialis perennis</i>	dog's mercury
<i>Oxyria digyna</i>	mountain sorrel
<i>Ranunculus acris</i>	meadow buttercup
<i>Rumex acetosa</i>	common sorrel
<i>Sedum rosea</i>	roseroot
<i>Silene dioica</i>	red campion
<i>Solidago virgaurea</i>	goldenrod
<i>Succisa pratensis</i>	devil's-bit scabious
<i>Trollius europaeus</i>	globe-flower

Conservation Measures

Ardmeanach is notified as a Site of Special Scientific Interest and management changes described on the list of Operations Requiring Consent must have prior consent from SNH (NatureScot).

Current and recommended management for:

- **Vegetated sea cliffs of the Atlantic and Baltic coasts**
- **Species-rich grasslands with mat-grass in upland areas**

Issue	Measure	Responsible party
Coastal defences	Ensure that coastal defences and/or linear features do not disrupt the natural mobility of the shingle foreshore.	Land managers, NatureScot
Grazing impacts	Ensure low to moderate grazing levels to allow fruiting/flowering of cliff top vegetation to prevent loss of typical species for maritime grassland and heath. This will also avoid dominance of rank or tussock forming grasses and prevent scrub encroachment. Grazing appears to be appropriate across the site. Localised areas can be overgrazed however this is limited to pinch points and calcareous areas.	Land managers, NatureScot
Excessive tracking/trampling	Ensure tracking/trampling is minimal to prevent loss of typical species. Levels are	Land managers, NatureScot

by livestock / visitors / vehicles	low at Ardmeanach with localised areas at pinch points and calcareous areas.	
Colonisation by vigorous native species such as bracken	Ensure colonisation of this habitat by vigorous native species, such as, bracken, ragwort and creeping thistle is minimal to prevent loss of the typical species. Bracken is having a negative impacts on the interests of the site. Management agreements include control of bracken and ragwort.	Land managers, NatureScot
Habitat Management	Grazing and bracken control is managed via agri-environment schemes. This should be continued in the future.	NatureScot landowners, land managers.
Research and monitoring	To identify emerging impacts on the habitat and their causes, in order to understand the long term issues, and to inform future management of the habitat across Scotland.	NatureScot

Current and recommended management for Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels

Issue	Measure	Responsible party
Grazing	Most of the habitat is inaccessible or lightly grazed. Deer are also managed under a local (SSSI - AECS) and Regional (Mull) deer management plans.	Land manager NatureScot Mull DMG
Muirburn	Burning should be avoided due to the fragile nature of the habitat and the presence of rarities. Consent would be required where muirburning is considered necessary e.g. for wild fire control. Any burning to be carried out in accordance with the Muirburn Code, and avoid burning in sensitive areas.	Land manager

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