

OLDSHOREMORE AND SANDWOOD SPECIAL AREA OF CONSERVATION (SAC)

CONSERVATION ADVICE PACKAGE



Image: ©Sue Agnew, NatureScot

Site Details

Site name:	Oldshoremore and Sandwood
Map:	https://sitelink.nature.scot/site/8344
Location:	Highlands and Islands
Site code:	UK0013055
Area (ha):	446.20
Date designated:	17 March 2005

Qualifying feature	Assessed condition on this site	SCM visit date	UK overall Conservation Status
Shifting dunes with marram	Favourable Maintained	19 July 2013	Unfavourable - Bad
Dune grassland*	Favourable Maintained	19 July 2013	Unfavourable - Bad
Machair	Favourable Maintained	16 June 2013	Favourable

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.

* Indicates a Habitats Directive Priority Habitat

Overlapping Protected Areas:

Oldshoremore and Sandwood SAC is a two-part site. The part that covers the bays at Oldshoremore, Oldshorebeg and Sheigra overlaps with Sheigra - Oldshoremore Site of Special Scientific Interest (SSSI) <https://sitelink.nature.scot/site/1419>. The part at Sandwood Bay overlaps with Southern Parphe SSSI <https://sitelink.nature.scot/site/1459>.

Key factors affecting the qualifying features

Shifting dunes with marram

This habitat encompasses the vegetation of unstable dunes where there is active sand movement. This is a dynamic vegetation type maintained only by change. It can occur on both accreting and eroding dunes, and can rapidly change and disappear if stability is imposed. Under these conditions sand-binding marram *Ammophila arenaria* is the dominant plant.

On this site, this habitat is found most extensively at Sandwood Bay and in smaller areas close to the beach at Oldshoremore and Oldshorebeg. Moving further inland, the shifting dunes with marram habitat becomes more stable, gradually transitioning into dune grassland habitat.

Key factors affecting this habitat include cycles of erosion and accretion related to weather conditions, potential future changes in sea level and the severity/frequency of storms and trampling (by visitors and vehicles).

A fuller account of the shifting dunes with marram habitat can be found [here](#).

Dune grassland

On this site, this Habitats Directive Priority habitat is found at Sandwood Bay, Oldshoremore and Oldshorebeg. It occurs inland of the zone dominated by marram *Ammophila arenaria* (the 'shifting dunes with marram' habitat), and represents the vegetation that replaces marram as the dune stabilises and the organic content of the sand increases. At both Oldshoremore and Oldshorebeg there are also transitions in vegetation where the dune grassland merges into machair vegetation.

Key factors affecting this habitat on this site include grazing/trampling levels (by sheep and cattle), grazing/burrowing by rabbits and damage from vehicles.

A fuller account of the dune grassland habitat can be found [here](#).

Machair

The site has one of the largest and least-disturbed examples of machair on mainland Scotland. Machair grassland is thought to have been modified by man throughout its development. It forms when sand with a high shell content is blown onshore by the westerly winds that prevail in the north and west of Scotland, onto a low-lying coastal plain. Vegetation develops that is typical of calcareous to neutral sandy grassland. Traditionally, machair supports extensive grazing regimes and unique forms of cultivation that rely on low-intensity systems of rotational cropping. This traditional agriculture sustains a rich and varied dune and arable weed flora.

This feature is found at Sheigra, Oldshoremore and Oldshorebeg on this site where the habitat is currently mostly uncultivated but is grazed. At Oldshoremore and Oldshorebeg there are gradual transitions between machair and dune grassland vegetation, and these habitats are found in mosaics further inland on the site.

Key factors affecting this habitat on this site include grazing/trampling levels (by sheep, cattle and horses/ponies), grazing/burrowing by rabbits, fire places, development (tourism), sand extraction and damage from vehicles.

A fuller account of the habitat can be found [here](#).

Conservation Priorities

Dune grassland is a Habitats Directive Priority habitat, so this habitat should have priority if any conflict between management of different habitats were to arise. In practice, there is unlikely to be any conflict between management of the different features of this site because habitat distribution is determined mainly by environmental conditions and all three features would benefit from similar management.

Conservation Objectives

Overarching Conservation Objectives for all features of Oldshoremore and Sandwood SAC

1. To ensure that the qualifying features of Oldshoremore and Sandwood 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 improving 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 assessment 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 assessments 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 assessment.

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 Oldshoremore and Sandwood SAC is maintained by meeting objectives 2a, 2b and 2c for all qualifying features

The aim at this SAC is to maintain all qualifying features in a favourable condition as a contribution to their wider conservation status. Therefore any impacts on the objectives shown in 2a, 2b, or 2c below for each qualifying feature 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 maintaining site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c for each qualifying feature. If these are met then site integrity will continue to be maintained. 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 maintenance of site integrity. Temporary impacts on these objectives resulting from plans or projects can only be permitted where there is certainty that the features will be able to quickly recover.

This objective recognises that each 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 for Shifting dunes along the shoreline with marram *Ammophila arenaria* (white dunes) [H2120] (Shifting dunes with marram)

2a. Maintain the extent and distribution of shifting dunes with marram habitat within the site

This habitat, by its very nature, is restricted in the area it can occupy at Oldshoremore and Oldshorebeg because there is a narrow band of mobile sand dunes between the beach and the beach and the dune grassland. As dune systems are dynamic, the extent of this habitat will be subject to change. There is a larger area of shifting dunes at Sandwood Bay, but again the extent of the habitat is subject to change due to natural cycles of erosion and accretion as well as potential future losses due to rising sea level and the severity/frequency of storms.

The extent of the shifting dunes with marram feature was estimated at 15 ha on the Standard Data form when the site was designated. This should be maintained within a reasonable range taking into account that changes are likely to be caused by the action of the sea.

2b. Maintain the structure, function and supporting processes of the shifting dunes with marram habitat

This habitat can occur on both accreting and eroding dunes, and can rapidly change. Cycles of erosion followed by stability are part of the natural development of shifting dunes with marram and are essential to the maintenance of diversity. It does not occur in isolation because of its dynamic nature and because the inland edge of this habitat transitions into dune grassland and machair habitats on this site.

A supply of new sand is vital for the continued existence of the shifting dune community and the long-term survival of the dune ecosystem. Dunes form a natural buffer against coastal erosion, performing best when they are allowed to adjust themselves to changing natural forces. The sand supply from the beach and from offshore can fluctuate naturally over periods of years, and the dunes react to this by advancing or retreating. This process should not be interfered with as that may lead to consequences for sediment movement over a wider area. An appreciation of the behaviour of sediment is thus essential to the understanding of the dune habitat. Dune dynamism should not be confused with coastal erosion.

The natural mobility and transition of the shifting dunes with marram and continuity with associated habitats should be maintained and not disrupted by track construction or extraction of sand.

This habitat is particularly vulnerable to trampling by beach users and vehicles and this should be avoided, as this can cause accelerated erosion in localised areas which has the potential to spread uncontrollably leading to loss of habitat structure and extent.

2c. Maintain the distribution and viability of typical species of the shifting dunes with marram habitat

The species composition of shifting dunes is constrained by the harsh conditions and consists mainly of marram *Ammophila arenaria* with a high proportion of bare sand in the narrow zones of this habitat at Oldshoremore and Oldshorebeg. Marram is also the dominant plant in the much larger areas of this habitat at Sandwood Bay although other species have been able to colonise here with increasing distance from the sea.

These include red fescue *Festuca rubra*, smooth meadow-grass *Poa pratensis*, common mouse-ear *Cerastium fontanum*, ribwort plantain *Plantago lanceolata* and lesser meadow-rue *Thalictrum minus*. Zonation is a fundamental attribute of a dynamic sand-dune

ecosystem with different species able to colonise areas at different distances from the sea, for example the sea rocket *Cakile maritima* and sea sandwort *Honckenya peploides* are typically found only in the harsh environmental conditions of the strandline.

Excessive tracking/trampling by visitors/vehicles should be avoided as this can lead to erosion of the shifting dunes and therefore a reduction or loss in the typical species.

Conservation Objectives for Fixed coastal dunes with herbaceous vegetation (“grey dunes”) [H2130] (Dune grassland)

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

This habitat occurs when the dunes become more stabilised, or ‘fixed’ and represents a zone where sand deposition decreases, inland of the ‘shifting dunes with marram’ habitat. This does not preclude an element of mobility, but such mobility should be minor.

The extent of the dune grassland feature was estimated at 150 ha on the Standard Data Form when the site was designated, however more a more recent survey (2016) of the part of the site within Sheigra-Oldshoremore SSSI suggests that there may be less of this habitat than previously thought, but a correspondingly greater area of machair. As there can be subtle transitions between dune grassland and machair, and parts of the site contain mosaics of these habitats, the objective should be that the extent of both habitats combined should be maintained within a reasonable range, taking into account natural changes. The recorded area of machair on this site is estimated at 52 ha, meaning that the total combined area for these habitats is 202 ha.

Due to the gradual transitions to machair on this site, there should be no fixed inland limit to the dune grassland habitat.

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

This habitat occurs inland of the zone dominated by marram *Ammophila arenaria* on coastal dunes. It represents the vegetation that replaces marram where accretion is no longer significant and the dune stabilises, or becomes ‘fixed’, and the organic content of the sand increases. The largely closed swards are maintained by grazing, domestic stock, and/or rabbits. It occurs in a mosaic with machair habitat on this site.

Although dune grassland is classed as ‘fixed’ this should not preclude an element of mobility, but such mobility should be minor.

This habitat should have a low level of grazing to maintain the short, closed sward. Grazing should not be removed entirely, as this can lead to the development of taller, coarser, species-poor vegetation of lower botanical interest, such as coarse grassland, and loss of sensitive species. Equally, levels of grazing in summer should be low enough that typical species can flower and set seed.

Excessive trampling by beach users, use by livestock in concentrated areas, vehicles and burrowing by rabbits should be avoided as these can cause localised destabilisation through loss of surface vegetation. Occasional, small areas of bare ground are desirable as some of the typical plant species need these conditions. However large areas of bare ground are created unnaturally, this can lead to large-scale destabilisation via blowouts, loss of structure and extent within the system, followed by fragmentation of the habitat and loss of continuity with adjacent associated habitats.

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

The dune grasslands on this site all have a calcareous influence from blown shell sand which has helped to create the sandy soil. Most of the dune grassland on this site is NVC community type SD7, with some SD8 at Sandwood Bay. In addition to marram *Ammophila arenaria* and red fescue *Festuca rubra* (which should always be present in SD7), typical species should include lady's bedstraw *Galium verum*; glaucous sedge *Carex flacca*; ribwort plantain *Plantago lanceolata*; white clover *Trifolium repens*; birdsfoot trefoil *Lotus corniculatus*; wild thyme *Thymus polytrichus*; common mouse-ear *Cerastium fontanum*; self-heal *Prunella vulgaris*; wild pansy *Viola tricolor*; common dog violet *Viola riviniana*; springy turf-moss *Rhytidiadelphus squarrosus*; big shaggy-moss *Rhytidiadelphus triquetrus*; and fairy flax *Linum catharticum*.

Excessive colonisation of this habitat by vigorous native species, common ragwort *Senecio jacobaea*; creeping thistle *Cirsium arvense*; perennial ryegrass *Lolium perenne*; or bracken *Pteridium* should be avoided as this can cause irreversible losses in the longer term, through loss of typical species and eventually conversion to other habitats.

Whilst burrowing and grazing by large numbers of rabbits can damage this habitat, this is also an important habitat for rabbits due to the ease of borrowing.

Conservation Objectives for Machairs [21A0] (Machair)

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

This habitat occurs when the soil becomes more stabilised, richer in organic content, and has much less influence from the sea than shifting dunes with marram. Periodic cultivation involving traditional methods of low-intensity rotational cropping and seasonal low-intensity grazing are thought to have helped to create this habitat. The area and distribution of machair has been determined both by environmental and human influences on this site.

The extent of the machair feature was estimated at 52 ha on the Standard Data Form when the site was designated, however a more recent survey (2016) suggests that there may be more of this habitat than previously thought (with a correspondingly reduced area of dune grassland). As there can be gradual transitions between machair and dune grassland habitats, and they are found in mosaics on some parts of the site, the objective should be that the extent of both habitats combined should be maintained within a reasonable range, taking into natural changes. The recorded area of dune grassland on this site is estimated at 150 ha, meaning that the total combined area for these habitats is 202 ha.

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

This habitat occurs inland of the zone dominated by marram *Ammophila arenaria* at Sheigra, Oldshoremore and Oldshorebeg. The area that is now machair is thought to have been either grazed or cultivated using traditional methods over many years, and this has helped to create the current structure of the habitat. This habitat should continue to have low intensity grazing by livestock and/or rabbits to prevent vigorous species from dominating the sward or a dense 'thatch' of dead vegetation from building up. Equally, the combined grazing pressure from livestock and rabbits should be low enough that typical plants can flower and set seed.

Cultivation on the machair should follow traditional practices i.e., be in small patches, occasional, temporary and only use traditional fertilisers such as seaweed. This will help to maintain the varied structure of machair habitat.

The current drainage conditions should also be maintained to support the varied machair plant communities that are currently found in both damp and dry parts of the site.

Excessive trampling by beach users or vehicles, or use by livestock in concentrated areas, should be avoided as this can compact the soil and make conditions unsuitable for the typical species of this habitat.

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

The machair on this site is mainly NVC type SD8 with some CG10, MG11 and SD17. A key difference in the vegetation from the dune grassland habitat is that marram *Ammophila arenaria* is either absent or rare in machair.

The commonest type of machair habitat on this site (SD8) includes 'climbing dunes' on steeper slopes with rocks and stones near the surface. This should remain a particularly species-rich community with a short sward. Red fescue *Festuca rubra* should remain the dominant grass with smaller amounts of Yorkshire fog *Holcus lanatus*. The following typical species should be present throughout the habitat: white clover *Trifolium repens*; birdsfoot trefoil *Lotus corniculatus*; ribwort plantain *Plantago lanceolata* and lady's bedstraw *Galium verum*. Other typical species should include wild thyme *Thymus polytrichus*, glaucous sedge *Carex flacca*, lesser meadow-rue *Thalictrum minus*, field gentian *Gentianella campestris* and autumn gentian *G. amarella*, sand sedge *Carex arenaria*; common mouse-ear *Cerastium fontanum*; mouse-ear hawkweed *Pilosella officinarum*; common dog violet *Viola riviniana*; springy turf-moss *Rhytidiadelphus squarrosus*; big shaggy-moss *Rhytidiadelphus triquetrus* and fairy flax *Linum catharticum*. CG10 machair should have similar species to SD8, with the addition of plants such as heather *Calluna vulgaris* and tormentil *Potentilla erecta*.

Damper parts of the machair areas should have a significant cover of self-heal *Prunella vulgaris* (if in SD8). In SD17 the damp hollows should include stands of common sedge *Carex nigra*; silverweed *Potentilla anserina*; marsh marigold *Caltha palustris*; water horsetail *Equisetum fluviatile* and the nationally scarce Baltic rush *Juncus balticus*.

At Sheigra, the large area of MG11 machair habitat southwest of the cemetery should continue to have abundant silverweed *Potentilla anserina*, creeping bent *Agrostis stolonifera*, Yorkshire fog *Holcus lanatus* and red fescue *Festuca rubra* as well as plants such as white clover *Trifolium repens* and common mouse-ear *Cerastium fontanum*.

This habitat should have a low level of grazing to maintain the closed sward whilst allowing typical species can flower and set seed. Grazing should not be removed altogether as this can lead to the development of taller, coarser, species-poor vegetation of lower botanical interest, such as coarse grassland, and loss of sensitive species.

Excessive colonisation of this habitat by vigorous native species, common ragwort *Senecio jacobaea*; creeping thistle *Cirsium arvense*; perennial ryegrass *Lolium perenne*; or bracken *Pteridium* should be avoided as this can lead to loss of typical species or to habitat loss in the longer term.

Conservation Measures

Oldshoremore and Sandwood is notified as part of two Sites of Special Scientific Interest and management changes described on the lists of Operations Requiring Consent must have prior consent from SNH (NatureScot).

Current and recommended management for

- **Shifting dunes with marram**

Issue	Measure	Responsible party
Coastal defences	Ensure that coastal defences do not disrupt the natural mobility and supply of new sand or continuity with adjacent associated habitats.	Land managers/owners, NatureScot,
Tracking/trampling by visitors / vehicles	Ensure trampling by visitors is minimal to prevent erosion of the shifting dunes and loss of typical species.	Land managers/owners
Sand extraction	Avoid extracting sand from the site.	Land managers/owners

Current and recommended management for

- **Dune grassland**
- **Machair**

Issue	Measure	Responsible party
Grazing	Ensure appropriate grazing levels and timing to ensure that combined grazing levels by livestock and rabbits are low enough to allow flowering and fruiting of dune grassland and machair vegetation whilst not being so low that the vegetation becomes rank enough to cause loss of typical species.	Land managers, NatureScot, SGRPID (GEAC)
Cultivation	Any cultivation of the machair should be, small-scale, temporary and use only traditional fertilisers such as seaweed. Dune grassland should not be cultivated.	Land managers, NatureScot, SGRPID (GEAC)
Habitat continuity	Ensure localised destabilisation through loss of surface vegetation (for example, as a result of rabbit activity) does not lead to large-scale destabilisation via blowouts to prevent loss of structure and extent within the system and any fragmentation of the habitat and loss of continuity with adjacent associated habitats.	Land managers/owners
Excessive trampling/crushing by people and vehicles	Ensure trampling/crushing by people and vehicles is minimal to prevent compaction of the soil, erosion and/or reduction/loss of the typical species.	Land managers/owners
Sand extraction	Avoid extracting sand from the site.	Land managers/owners
Colonisation by vigorous native and/or	Ensure colonisation of this habitat by vigorous native and/or non-native	Land managers

non-native species [e.g. ragwort, creeping thistle, bracken,]	species, such as ragwort, creeping thistle and bracken, tree or scrub growth is minimal to prevent loss of indicator species and conversion to other habitats.	
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All habitats

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. Research bodies should have a local contact they can call upon if undertaking field data collection remotely.	NatureScot, University researchers
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