

RINNS OF ISLAY SPECIAL AREA OF CONSERVATION (SAC)

CONSERVATION ADVICE PACKAGE



Marsh Fritillary ©Lorne Gill/SNH

Site Details

Site name:	Rinns of Islay
Site map:	https://sitelink.nature.scot/site/8354
Location:	Highlands and Islands
Site code:	UK0030247
Area (ha):	1085
Date designated:	17 March 2005

Qualifying features

Qualifying Feature	SCM assessed condition	SCM visit date	UK overall Conservation Status
Marsh fritillary butterfly (<i>Euphydryas aurinia</i>) [S1065]	Favourable Maintained	September 2014	Unfavourable-Inadequate

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.

Overlapping Protected Areas

The boundary of the SAC overlaps [Rinns of Islay SPA](#) and [Rinns of Islay SSSI](#)

Key factors affecting the qualifying feature

Marsh fritillary butterfly

The marsh fritillary butterfly occurs in open grassland and, less frequently, in woodland clearings. On Islay wet coastal heathland also seems to be a preferred habitat. The marsh fritillary butterfly has strong colonies in several parts of the Rinns of Islay SAC, with excellent habitat for breeding and breeding webs found across the site.

It requires continuous light grazing, ideally by cattle or horses, to keep its habitat in a suitable condition. A key requirement for the butterfly is the density of devil's bit scabious *Succisa pratensis*, its larval foodplant. This plant regenerates in the spring, so it is important to have an open sward at that time. Light winter or spring grazing is likely to be especially beneficial and encourages swards of devil's bit scabious to grow. However sheep may preferentially graze scabious plants, making them too short for the butterfly.

Although marsh fritillary is generally associated with grazed pastures some colonies are not grazed by either cattle or sheep, demonstrating that marsh fritillary also

occurs in more natural habitats with vegetation closer to mire and heath than grassy pastures.

The major threats to the marsh fritillary population at Rinns of Islay SAC are: habitat loss from land development and agricultural improvement, afforestation, changes in grazing regimes, and increasing fragmentation and isolation of habitats.

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

Conservation Priorities

Rinns of Islay SAC overlaps with the Rinns of Islay SPA. The SPA features are hen harrier, corncrake, chough, whooper swan, Greenland white-fronted goose and common scoter.

The impact of any proposed management measure for Rinns of Islay SAC or assessment of plans or projects subject to a Habitats Regulations Appraisal, will also need to take account of the SPA features.

Conservation Objectives for marsh fritillary butterfly (*Euphydryas aurinia*)

1. To ensure that the qualifying feature of the Rinns of Islay SAC is in favourable condition and makes an appropriate contribution to achieving favourable conservation status
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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 the Rinns of Islay SAC is maintained by meeting objectives 2a, 2b and 2c for the qualifying feature

The aim at this SAC is to maintain marsh fritillary butterfly in a favourable condition as a contribution to its wider conservation status. Therefore any impacts to 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 maintaining site integrity, specifically by meeting the objectives outlined in 2a, 2b and 2c. 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 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 species is exposed to a wide range of drivers of change. Some of these are natural (e.g. population fluctuations/ shifts or habitat changes resulting from natural processes) and are not a direct result of human influences. Such changes in the qualifying species' distribution and use of 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.

2a. Maintain the population of the marsh fritillary butterfly as a viable component of the site

The conditions for the long-term existence of marsh fritillary at Rinns of Islay SAC should be maintained.

As numbers of marsh fritillary vary greatly in time and space, numerical baselines are not reliable.

This conservation objective is considered to be met if the conditions for the species' long-term existence are in place. This includes:

- Avoiding effects that could lead to a permanent reduction in the marsh fritillary population through mortality, injury, or impacts caused by disturbance or displacement. This includes for example the effects caused by land development, agricultural improvement, afforestation, changes in grazing regime and increasing fragmentation of habitats.
- Maintaining the species' ability to use all areas of suitable habitat within the site (see conservation objective 2b)
- Maintaining access to, and availability of, supporting habitats within the site (see conservation objective 2c).

The population at the Rinns of Islay SAC also use suitable habitat in the surrounding wider countryside.

When assessing the effects of any plan or project consideration should be given to whether impacts outwith the SAC could affect achievement of this conservation objective.

The Rinns of Islay SAC was monitored through NatureScot's SCM programme in 2014, which was an exceptional year for marsh fritillary butterflies. Adults were seen in abundance at several breeding centres on mainland Argyll during early June and web counts on Islay in September found large numbers of webs and caterpillars present.

2b. Maintain the distribution of the marsh fritillary butterfly throughout the site

Conditions should allow the distribution of marsh fritillary in Rinns of Islay SAC to be maintained or expanded.

The ability for marsh fritillary to use and access all areas of suitable habitat within the SAC should be maintained.

The marsh fritillary butterfly is either found in, or has the potential to colonise, all areas of suitable habitat within the site. The distribution of marsh fritillary within the site can be affected by: the number of habitat patches and distance between them, grazing regime (intense grazing and no grazing are detrimental), average sward height (it should be kept in the 5-25 cm interval), burning, and drainage works.

2c. Maintain the habitats supporting the marsh fritillary butterfly within the site and availability of food

The distribution and extent of marsh fritillary habitat within Rinns of Islay SAC should be maintained, together with the structure, function and supporting processes of the habitat

Most marsh fritillary colonies are situated in areas of damp, neutral or acid *Molinia* or *Deschampsia* grassland such as fen meadows and rush-pastures with an abundance of the plant devil's bit scabious. On Islay wet coastal heath is a favoured habitat. The caterpillars feed on devil's bit scabious. Female butterflies lay eggs on this larval food plant, typically choosing the larger leaves. Adults feed on a variety of plants, including bugle, buttercups, dandelion, knapweeds, thistles and tormentil.

Continuous light grazing is required to produce a sward between 5 and 25 cm high, although density of devil's bit scabious is a key requirement. This plant regenerates in the spring, so it is important to have an open sward at that time. Therefore winter or spring grazing at appropriate levels is likely to be especially beneficial.

Suitable marsh fritillary habitat patches are quite small, often less than 0.2 ha, but colonies fluctuate greatly in numbers and therefore seem to require an extensive network of suitable habitat patches for their long term survival. These occur both within and outwith Rinns of Islay SAC.

Monitoring of marsh fritillary at the Rinns of Islay SAC found all areas to be in a favourable condition, with excellent habitat for marsh fritillary butterfly, breeding recorded and breeding webs found across the site. Two areas were noted as requiring a management review, as it was thought they have declined slightly since they were last monitored.

Near the shore of Loch Corr, previously suitable habitat had become dominated by tall rushes. Other suitable habitat was found nearby and it may be that a mapping error has occurred. However, discussions with the land manager should take place, to see if any changes to grazing practices have been implemented in this area.

Conisby west, had suitable habitat close to the boundary fence where grazing by sheep and deer was at its heaviest. However, away from the fence the vegetation was found to be rank, with no webs. At Conisby east, the vegetation was mostly, very short lawns or rushy areas. It appeared to be heavily grazed by cattle, with webs only found on hummocks. A review of grazing within the two areas of Conisby should be carried out, including the possible introduction of low/moderate cattle grazing during the winter, to Conisby west.

Conservation Measures

Rinns of Islay is notified as a SSSI, and changes to land management described on the SSSI list of Operations Requiring Consent must have prior consent from SNH (NatureScot).

Current and recommended management for marsh fritillary butterfly

Issue	Measure	Responsible party
Beneficial habitat management	Periodic scrub control may be needed to prevent invasion under low grazing levels.	Land managers, NatureScot
	Future monitoring shall record the presence of scrub and advise appropriate management as required.	
	Promote a beneficial low grazing density of cattle, sheep, and deer to maintain a patchwork of short and tall vegetation 5-25 cm, with areas of abundant devil's-bit scabious on coastal heath, open damp moorland or grassland, with a good supply of nectar sources growing in sunny areas.	Land managers, NatureScot, Rinns of Islay Deer Management Forum, SGRPID (GEAC)
	Monitoring in 2014 noted areas around Loch Corr dominated by rushes, and over/as well as under grazing at Conisby east and west. A review of management for these areas is desirable, supported by funding from the Agri-Environment Climate Scheme (see below).	
	Monitor deer population. Deer management measures may be necessary in the future.	
	Marsh fritillary are considered a vulnerable priority species under the Scottish Government's Agri-Environment Climate Scheme. Applications for funding to help manage a network of suitable pockets of marsh fritillary habitat, both within and outwith the SAC, are encouraged.	Land managers, NatureScot
	Fencing may be required to maintain a low grazing level regime and manage those areas that are currently undergrazed.	Land managers, NatureScot, SGRPID (GEAC)
	Bracken control may be required in the future to prevent encroachment and to promote the growth of the larval food plant devil's bit scabious.	Land managers, NatureScot, SGRPID (GEAC)
Monitoring will observe abundance of bracken and advise appropriate management as required.		
	<i>Rhododendron ponticum</i> is present across the Rinns of Islay peninsula, a project is currently working on its removal from parts of the Rinns of Islay SAC.	Land managers, NatureScot, SGRPID (GEAC)
	Further monitoring and removal will be required to prevent re-invasion.	
Muirburn	Burning should be avoided.	Land managers, NatureScot
Habitat	Maintain plans as required, for example Loch	NatureScot,

Management	Gruinart and Ardnave RSPB reserve plan, taking into account any issues affecting the marsh fritillary butterfly.	RSPB
Development	Ensure any development proposals do not adversely affect the site	Land Managers, Argyll and Bute Council, NatureScot
Agriculture	No agricultural improvement should occur e.g. drainage works	Land manager, NatureScot
Afforestation	No forestry should occur.	Land manager, NatureScot, Scottish Forestry

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Approved on 29 June 2020 by:

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