

CITATION**ARRAN NORTHERN MOUNTAINS
SITE OF SPECIAL SCIENTIFIC INTEREST**
North Ayrshire

Site code: 90

NATIONAL GRID REFERENCE: NR 945439

OS 1:50,000 SHEET NO: Landranger Series 69
1:25,000 SHEET NO: Explorer Series 361

AREA: 12076.97 hectares

NOTIFIED NATURAL FEATURES**Geological: Igneous petrology: Ordovician Igneous****Geological: Igneous petrology: Tertiary Igneous****Biological: Upland habitats: Upland assemblage****Biological: Woodlands: Upland birch woodland****Biological: Vascular plants: Vascular plant assemblage****Biological: Birds: Breeding bird assemblage****Biological: Dragonflies: Dragonfly assemblage****Biological: Invertebrates: Beetle assemblage****DESCRIPTION**

Arran Northern Mountains Site of Special Scientific Interest (SSSI) covers the mountainous northern part of the Isle of Arran and supports a variety of habitats and species. The mountains, including two nationally important geological areas of Ordovician and Tertiary Igneous rock exposures, support the largest and most diverse upland habitat assemblage in west central Scotland. There are upland birch woodland remnants around the upland fringes of the range, however, the most extensive areas of birch woodland are located in the north and west of the site. The vascular plant assemblage includes three endemic whitebeams and the Killarney fern while the diverse upland breeding bird community includes ptarmigan at its southernmost station, hen harrier and golden eagle. The invertebrate interest includes dragonfly and water beetle assemblages.

The geological interest, which includes the north-western part of the Northern Granite, a mass unique in the Tertiary Igneous Province in the diatirlike form, and the adjoining updomed and metamorphosed Dalradian metasediments into which it was intruded, is visible in the mountain block between Guala Riabhach and Glen Catacol. The Northern Granite comprises an outer coarse-grained member often seen in chilled, intrusive contact with the Dalradian rocks, and a younger inner fine-grained member which has sharp intrusive contacts towards the outer granite. Granite-granite and granite-metasediment contacts are generally steep, a feature well-displayed within the site which has over 700m of relief. Post- and pre-granite basaltic dykes and post-granite felsitic dykes occur throughout.

In addition, to the north-east of the site in North Glen Sannox, there are exposures associated with the Highland Border Complex which consists of a number of narrow, fault-bounded exposures of Ordovician sediments and igneous rocks, which crop out intermittently along the Highland Boundary Fault Zone between Arran and Stonehaven. The ultramafic and mafic rocks of the complex are interpreted as incomplete fragments of a greatly dismembered obducted ophiolite. Rocks belonging to the most westerly outcrop of the ophiolite are well exposed in the vicinity of North Glen Sannox, as a sequence of lavas forming a thrust stack at least 250m thick. The lavas are pillowed and are associated with minor amounts of clast-supported lava breccias. A structurally lower group of alkali-basalts of probable 'within-plate' affinities is divided by an amphibolite horizon from a structurally higher series of tholeiitic lavas of 'mid-ocean ridge' type.

The site supports the largest and most diverse assemblage of upland habitats in west central Scotland. The components of the upland assemblage feature include blanket bog, sub-alpine wet dwarf-shrub heath, subalpine dry dwarf-shrub heath, alpine heath, and alpine moss heath. They show oceanic characteristics and an uninterrupted sequence of plant communities from sea-level to mountain tops, which is very unusual in this part of Scotland.

Blanket bog occupies extensive tracts of land at low altitudes within the site. The bogs are dominated by purple moor-grass, deergrass and hare's-tail cottongrass in varying combinations determined by altitude and topography. The acid grassland is dominated by bents and fescues, for example on the steep north westerly slopes of Coire Roinn. However, in the lower parts of several glens (e.g. Glen Sannox and Glen Rosa), bracken with an understorey of acid grassland forms a mosaic with the purple-moor grass and heather mire community over large areas of hillside.

The wet heath is extensive and forms the largest extent of wet heath in southern Scotland. It is dominated by the deergrass-cross-leaved heath community with most of this community distinguished floristically by the Atlantic bryophyte *Campylopus atrovirens*. Unusually, dwarf juniper *Juniperus communis* ssp. *nana* is locally frequent (e.g. on the south facing slope of Meall Breac), forming a variant of the wet heath that is otherwise localised to the north-west Highlands and Islands.

Dry heath, dominated by heather, is common throughout the site on steep slopes. Blaeberry may become co-dominant in places where hillsides level out and where there is a transition to blanket bog at lower altitudes. In addition, on north-east facing slopes immediately below ridges, small areas of blaeberry snow-bed vegetation may be found; for example on Beinn Bharrain. Dry heath with *Arctostaphylos uva-ursi* is restricted to the northern upland areas between Beinn Bhreac and Meall Mor. With increasing elevation and exposure the dry heath becomes more prostrate and is replaced by alpine heath.

The alpine heath is restricted to the highest ground and occupies some of the highest ridges and corrie tops around Goatfell, Coire nan Larach, Coire na Ciche, the upper slopes of Coire nam Fuaran and Cir Mhor. It is dominated by the heather-woolly fringe moss *Racomitrium lanuginosum* community.

Alpine moss heath is represented by the stiff sedge *Carex bigelowii*–woolly fringe moss *Racomitrium lanuginosum* community that forms extensive beds along with *Salix herbacea* on the summit ridges of the hills.

The most extensive area of woodland is in the north-west of the site between Lochranza and Catacol. Although predominantly birch *Betula pubescens*, rowan, oak and ash are also locally present. Throughout the site a few scattered trees can be found on the crags (usually rowan). Trees are more common on steep sided river banks or gullies at lower elevations where rowan, birch and rarely aspen occur.

The vascular plant interest within the site includes the nationally rare endemic whitebeams, *Sorbus arranensis*, *S. pseudofennica*, and *S. pseudomeinichii*, which are found growing with birch and rowan at several places in river gorges, but are most abundant in Glen Diomhan and the Allt nan Calman. Other plants in the assemblage include the gametophyte stage of the Killarney fern *Trichomanes speciosum* and the nationally scarce brown beak-sedge *Rhynchospora fusca* and alpine enchanter's-nightshade *Circaea alpina*.

The ornithological interest of the site centres principally on the variety of the upland breeding community which features golden plover, dunlin, hen harrier, raven, peregrine, golden eagle and the red-throated diver, in addition to the most southerly Scottish locality for ptarmigan.

The invertebrate interest within the site includes dragonflies and water beetles. Many of the mires and lochans have good dragonfly communities, particularly Loch a' Mhuilinn in which nine species have been recorded out of the ten which occur in the site. The other species, the keeled skimmer *Orthetrum coerulescens* has been found in Glen Iorsa, its only known station in Ayrshire and Arran. Of the lochans, those on Clachan and An Tunna are of most interest for water beetles with three Nationally Scarce species being recorded, including *Dytiscus lapponicus* which is at the southern limit of its Scottish range in this site.

NOTIFICATION HISTORY

First notified under the 1949 Act: 1965, 1978 with a 5166 ha net increase in area

Re-notified under the 1981 Act: 31 March 1989 with a 2107 ha increase in area

Notification reviewed under the 2004 Act: 28 January 2011

REMARKS

Measured area of site corrected from 12307.2 ha

Approximately 1390 ha of Arran Northern Mountains SSSI is designated as part of Arran Moors Special Protection Area (SPA) for hen harrier *Circus cyaneus* (breeding).

Arran Northern Mountains SSSI is adjacent to Arran Moors SSSI which is also notified for its upland assemblage habitats, breeding bird assemblage and hen harrier.