

## CITATION

**GLEN COE**  
**SITE OF SPECIAL SCIENTIFIC INTEREST**  
Highland (Lochaber)

Site code: 731

NATIONAL GRID REFERENCE: NN 140550

OS 1:50,000 SHEET NO: Landranger Series 41  
1:25,000 SHEET NO: Explorer Series 384

AREA: 3,182.82 hectares

### NOTIFIED NATURAL FEATURES:

<b>Geological</b>	<b>:</b>	<b>Igneous petrology:</b>	<b>Caledonian igneous</b>
		<b>: Geomorphology:</b>	<b>Fluvial geomorphology of Scotland</b>
		<b>: Geomorphology:</b>	<b>Mass movement</b>
<b>Biological</b>	<b>:</b>	<b>Upland habitats:</b>	<b>Upland assemblage</b>
		<b>: Woodlands:</b>	<b>Wet woodland</b>
		<b>: Non-vascular plants:</b>	<b>Bryophyte assemblage</b>
		<b>: Vascular plants:</b>	<b>Vascular plant assemblage</b>

### DESCRIPTION:

Glen Coe Site of Special Scientific Interest (SSSI) is a mountainous area comprising a former super volcano located to the south of Loch Leven and adjacent high ground stretching over the watershed into Glen Etive. The site exhibits a variety of upland habitats and supports plant communities of a wide altitudinal range on a variety of rock types from near sea level to the summit of Bidean nam Bian at 1141m. It includes one of the richest Arctic-Alpine floras in Scotland and patches of woodland support a rich assemblage of bryophytes.

Geological features relating to the Caledonian Orogeny and more recent Quaternary period are also significant components of the SSSI. These features are of national and international importance for geological teaching and research, both in terms of understanding Scottish geology and in the study of volcanic processes worldwide.

Glen Coe is one of the best-exposed examples of 'cauldron subsidence' and is internationally important as the place where this phenomenon was first described. Cauldron subsidence is a volcanic process in which a circular, or ring fault allows a block of the Earth's crust to sink into molten magma beneath, with upwelling of magma around it. The sunken block preserves examples of rock-types which have elsewhere been eroded away from the surrounding area. The Bidean nam Bian massif exhibits a complete sequence through these preserved rocks, which are volcanic lavas of Devonian age. Exposures on the southern slopes of Sgorr nam Fiannaidh and An t-Sron, and in the bed of the River Coe below Loch Achtriochtan, show the main features of the subsided block in addition to the schist and quartzite country rock surrounding it, and the granite intruded along the main ring fault.

Important examples of landforms produced by flowing water and mass movements are present in the following localities: the braided stream and alluvial flat upstream of the rock slope failure in Coire Gabhail; large actively forming debris cones on the southern slopes of the Aonach Eagach; an actively forming alluvial fan at the mouth of Coire nan Lochain; active channel change, sedimentation and erosion features in the alluvial basin and channel of the River Coe above Loch Achtriochtan.

A massive cliff-collapse (a type of rock slope failure) in Precambrian metamorphic rocks at the entrance to Coire Gabhail ("The Lost Valley"), less than 2000 years ago, has resulted in the valley being closed off by a large rockfall deposit. This mass-movement feature comprises boulders of up to 1000 cubic metres.

Glen Coe has one of the best examples of an upland assemblage of habitats in Lochaber, because of the rock types and range of altitude. The grassland on the site include alpine and sub-alpine types on both acid and calcareous soils, including species-rich mat grassland. Dry heaths and alpine and sub-alpine heaths are present over a wide range in altitude, and the Dalradian limestone of Meall Mor supports calcicolous vegetation types (e.g. mountain avens heath) not found elsewhere in the site. Tall herb and fern communities survive on ungrazed ledges. The flushes includes low and high altitude base-rich types with yellow saxifrage and russet sedge. The streams and lochans are all nutrient poor. At the highest altitudes vegetation types include lady's mantle-sibbaldia snowbed communities and *Racomitrium* moss heaths associated with acidic scree. The montane willow scrub is a rare habitat in the UK. At Glen Coe the most important stands are on Meall Mor.

A rich vascular plant flora, encompassing an outstanding assemblage of acid and calcicolous arctic-alpine species, occurs over a wide range of montane habitats including calcareous grassland, scree, rock crevices and ledges and base-rich flushes. Fourteen nationally scarce and four Red Data Book species, including drooping saxifrage and Highland saxifrage, are recorded.

Two main types of wet woodland are found within Glen Coe SSSI: alluvial alder woodland is found beside the lower reaches of the River Coe with a ground layer of tufted hair-grass *Deschampsia cespitosa*, and relict slope ash-alder woodland with marsh hawk's-beard *Crepis paludosa* occurs on the northern slopes of Meall Mor.

A nationally important assemblage of bryophytes has developed on stable scree slopes, and over wet rock surfaces within gorges. Several rare and nationally scarce species, including the liverworts *Scapania parvifolia* and *Marsupella boeckii* and the moss *Molendoa warburgii* are present. The birch woodland on the north-facing slopes of 'The Three Sisters' supports one of the best woodland bryophyte assemblages in the Highlands with a rich diversity and abundance of both oceanic and calcicolous species.

#### **NOTIFICATION HISTORY:**

First notified under the 1949 Act: 1964, 1971 as Bidean nam Bian and Meall Mhor (Glen Coe) SSSI

Re-notified under the 1981 Act: 21 March 1989 as Glencoe SSSI with a 326 ha increase in area.

Notification reviewed under the 2004 Act: 27 September 2010

#### **REMARKS:**

Measured area of site corrected (from 3175.88 ha).

Part of Glen Coe SSSI is designated as Glen Coe Special Area of Conservation (SAC) for the European habitats listed below.

Acidic scree

Alpine and subalpine calcareous grasslands

Alpine and subalpine heaths

Base-rich fens

Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels  
Dry heaths  
High-altitude plant communities associated with areas of water seepage  
Montane acid grasslands  
Mountain willow scrub  
Plants in crevices on acid rocks  
Plants in crevices on base-rich rocks  
Species-rich grassland with mat-grass in upland areas  
Tall herb communities