Scottish Natural Heritage

NESS GLEN
SITE OF SPECIAL SCIENTIFIC INTEREST

SITE MANAGEMENT STATEMENT

Site code: 1215

31 Miller Road
Ayr
KA7 2AX

Tel: 01292 294048

Purpose

This is a public statement prepared by SNH for owners and occupiers of the SSSI. It outlines the reasons it is designated as an SSSI and provides guidance on how its special natural features should be conserved or enhanced. This Statement does not affect or form part of the statutory notification and does not remove the need to apply for consent for operations requiring consent.

We welcome your views on this statement.

Description of the site

Ness Glen Site of Special Scientific Interest (SSSI), lying 3km south of Dalmellington, comprises an area of upland mixed ash woodland within a narrow and steep-sided ravine, which has cut through greywackes and shales that are locally calcareous. The geology, topography and woodland cover have conspired to yield a highly diverse moss and liverwort flora with many species more typical of sites in Argyll and the North-West Highlands.

The gorge woodland, dominated mainly by ash, is found along the river. Birch, beech and conifers dominate the canopy on the west side of the glen. The eastern side of the glen has more native species than on the west, including birch, hazel, rowan, ash, oak, and aspen, as well as frequent elm saplings (mature trees having been killed by Dutch elm disease).

On flatter areas above the gorge there is an area of semi-natural birch woodland as well as, further north, mixed woodland heavily influenced by historical planting, with native oak accompanied by non-native species such as beech, sycamore, larch and Norway spruce.

Especially on the steeper gorge sides, there is a rich ground flora and a range of moist, shaded habitats supporting an assemblage of oceanic mosses and liverworts, including several that are nationally scarce, such as Haller's apple-moss *Bartramia halleriana*, Portuguese feather-moss *Platyhypnidium lusitanicum* and hooked veilwort *Metzgeria leptoneura*. In total, there have been more than 160 bryophyte species recorded in

Ness Glen, including many species reliant on either (or both) the calcareous substrate and humid conditions.

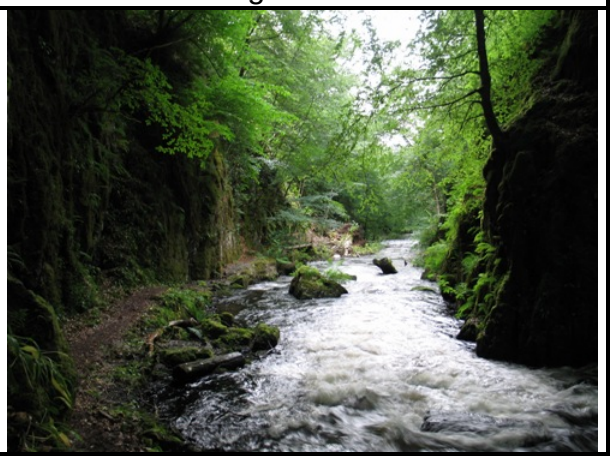
The site is also valuable for ferns, epiphytic lichens and its breeding bird community, although these do not form part of the notified interest.

The following table summarises the assessed condition of each of the notified natural features of the SSSI:

Natural features of Ness Glen SSSI	**Condition of feature** (date monitored)
Atlantic woodland assemblage of bryophytes	Favourable (baseline assessment January 2017)
Upland mixed ash woodland	Unfavourable, declining (June 2014)

The bryophyte (moss and liverwort) feature is considered to be in favourable condition, with a comprehensive survey undertaken in 2017 considered as the baseline for future monitoring.

The woodland feature has been formally assessed as being in unfavourable condition due to the lack of standing dead wood, the native species composition and regeneration. However, the woodland is managed positively by the land manager for the benefit of biodiversity, and since 2017 conservation efforts have been supported through the Forestry Grant Scheme, which helps to fund measures including fencing and dyke repair (to exclude livestock), bracken control and rhododendron control. Management under this contract is guided by a management plan, which also prioritises areas for removal of non-native trees and saplings. As a result of this commitment to positive management, the woodland feature is now considered to be recovering towards favourable condition.

The view north over Ness Glen from the east bank above Pike Fall.	The gorge below Shot Craig, looking north along the River Doon.
	

Past and present management

Difficulties of access – for both humans and grazing animals – over the steeper sections of the ravine mean that these areas are likely to have had significant woodland cover for thousands of years.

The site has been used for sheep grazing in the past but livestock are now excluded from the woodland to reduce browsing impacts on native tree regeneration. Roe deer continue to browse within the wood, and further assessment of browsing impacts – following the exclusion of sheep – should indicate whether there is also a need to reduce deer pressure. Although browsing can restrict natural tree regeneration, some level of herbivore activity is likely to benefit the mosses and liverworts by reducing their likelihood of being overshadowed or displaced by grasses and other flowering plants.

A circular path has been created through the woodland, which runs along the top of the western part of the gorge to Loch Doon and returns along the bottom of the gorge along the River Doon. The riverside path was originally created in the Victorian period but fell into disrepair for much of the 20th century before being restored by the current owner.

Besides supporting riparian habitat for some aquatic or semi-aquatic bryophytes, the River Doon makes a crucial contribution to the humid microclimate in the glen that makes it suitable for many other mosses and liverworts. Flows in the river are regulated by the Loch Doon dam, and maintained at a constant level. There are historical records of flooding events in the glen, including an episode in the early 1950s when it appears that a large volume of water released by the dam following heavy rainfall stripped vegetation from the lower slopes of the glen.

Part of the SSSI was damaged by burning in May 2017, by a fire started deliberately by a member of the public along the riverside footpath. The fire spread up the steep slope from a number of ignition locations on the west side of the river, with an estimated total area of 1 hectare burned. Subsequent monitoring suggested that most of the known locations of scarce bryophytes had remained unscathed, with only one population directly affected, and this a species known to be widespread elsewhere within the SSSI.

Under current ownership the SSSI is actively managed for conservation and public access, and attracts many visitors for its spectacular gorge walk.

Objectives for Management (and key factors influencing the condition of natural features)

We wish to work with the owner to protect the site and to maintain and where necessary enhance its features of special interest. SNH aims to carry out site survey, monitoring and research as appropriate to increase our knowledge and understanding of the site and its natural features and to monitor the effectiveness of the management.

1. **To maintain and enhance, where possible, the natural species composition of the woodland.** This will be achieved by removing young non-native trees and saplings, as well as by targeted removal of mature non-native trees to reduce the non-native seed source.

   Natural regeneration of native tree species will be further encouraged by limiting browsing pressure, through continued livestock exclusion. If herbivore impacts

remain too high for natural regeneration, deer management measures may need to be considered, although these must take into account the needs of the bryophyte feature (see objective 2 below).

2. **To maintain and enhance habitat suitability for bryophytes.** This will be achieved by maintaining a suitably humid microclimate (influenced in part by flows in the River Doon), by retaining dead and decaying trees and branches as substrate for mosses and liverworts, and by allowing browsing by deer sufficient to maintain a fairly open ground and shrub layer. Availability of potential bryophyte habitat will be increased by removal of rhododendron.

Front-cover photograph: Remnant gorge woodland, dominated mainly by ash, in the gorge below Shot Craig.

Date last reviewed: 10 October 2019