

## **Appendices – East Schiehallion**

### **Statement of Significance**

#### **Landscape Description**

Schiehallion is an iconic mountain in Highland Perthshire, which dominates the surrounding landscape. Its name comes from the Gaelic ‘Sidh Chailleann’ or the ‘Fairy Hill of the Caledonians’ and there is a rich folklore association with the mountain. The John Muir Trust property stretches from the summit of Schiehallion to both the north, south and east of the mountain, bounded by the Schiehallion road to the north, the hill of Dun Coilich to the east and the Allt Mor to the south.

The entire property lies within the Loch Rannoch and Glen Lyon National Scenic Area, with several of the ‘special qualities’ of this designation evident across the property:

- Mountain grandeur of Highland Perthshire
- Natural and cultural beauty
- Secluded side glens and ancient shielings
- Wild summits
- The long, symmetric mass of Schiehallion

#### **Geology**

Schiehallion and the surrounding mountains were largely formed during the Caledonian mountain building period, some 510–480 million years ago. The mountain predominantly consists of Mica schist and quartzite, with areas of exposed quartzite across the ridge.

#### **Local Importance**

The Breadalbane hills are renowned for their importance for arctic-alpine plant communities due to the abundance of base-rich soils in the area. Schiehallion has extensive lime-rich habitats influenced by the Dalradian limestone on the site. These include limestone outcrops, calcareous grassland and flushes, and small patches of montane willows.

#### **Habitats**

Schiehallion has limited examples of montane vegetation, due to the dominance of bare, quartzite boulders across the summit ridge, which only occasionally allow room for small patches of montane heaths and mires. Below this point, sub-montane heaths and areas of *Nardus-stricta* dominated grassland are widespread.

Due to the dominance of limestone on the site, areas of blanket bog are fairly limited. However, a good patch remains at the most south-eastern part of the site, in addition to extensive areas of *Calluna* and *Vaccinium* heath, especially on the southern and eastern slopes of the mountain. On northern slopes, there are large areas of calcareous grassland.

#### **Freshwater**

The three main burns on the site provide habitat for dippers, water voles and otters. Remnant patches of woodland remain along parts of all three burns, however trees are heavily grazed by herbivores where accessible.

## **Woodland**

Small patches of existing woodland remain, the most impressive along the steeply-sided Allt Mor. Elsewhere, large patches of willow scrub remain at lower levels and are expanding rapidly, thanks to recent deer exclosures. There is a small remnant population of montane willows on the northern, base-rich part of the site. The Trust inherited two small commercial plantations on the site, which are being felled in stages and replanted with native species.

## **Species**

Notable species on the site include: otter, badger, fox, pine marten, mountain hare, water vole, adder, mountain ringlet and red deer. There are a variety of woodland birds found including bullfinch, tree pipit, common redstart and spotted flycatcher. Upland birds including ring ouzel, hen harrier, merlin, black grouse and ptarmigan breed in the area.

Many of these species are listed as 'red' or 'amber' under the UK Biodiversity Action Plan. The site is home to several vascular plants that have been recorded as nationally rare or scarce in Britain by BSBI. Changes to the populations and habitats of several of these species are monitored on a yearly basis. Further information can be found in Appendix B.

## **Natural Heritage Designations**

The significance of various habitat and species present are recognised by designations:

- The property lies within the Loch Rannoch and Glen Lyon National Scenic Area
- Approximately 475 hectares of the property lies within the Schiehallion to Strath Fionan Geological Conservation Review Site area
- Approximately 315 hectares of the properties lies within the Schiehallion SSSI

## **History of Settlement and Land Use**

There is a rich history of settlement at East Schiehallion, with evidence of human activity from the Neolithic period to the present day. Two prehistoric hut circles, cup-marked stone, stone cup, axes and flint arrowheads are some of the earliest signs of human activity and settlement on the site. Numerous medieval field systems also exist, showing agricultural use from this period onwards. Two significant settlements with several sheiling huts show usage for summer grazing into the 18<sup>th</sup> century. During the Victorian period and onwards, the property was used for sheep and cattle farming, driven grouse shooting and deer stalking.

In 1774, Schiehallion was notably used as the location for Nevil Maskelyne's experiment to weigh the world and stone ruins of two observatories used during the experiment remain.

## **Contemporary Use**

Today, recreation is the predominant land use and more than 20,000 visitors climb the hill each year. The mountain path was badly eroded and as such, was re-routed up the hill in 2003. Improving the footpath has allowed for a much greater number of visitors to engage with. A new easy access path, the Foss Loop, was completed in late 2019, providing an additional way for visitors to access the site. Increased visitor numbers have led to plans for expanding the Braes of Foss car park, which is often over capacity during holiday periods.

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## 1.0 General Information

### 1.1 Location

East Schiehallion lies around 2.5 miles to the south-east of the eastern end of Loch Rannoch, in Perth and Kinross. The main access is by the Braes of Foss car park, which is approximately 10 miles from Aberfeldy and 5 miles from Tummel Bridge. The site is within 80 miles of Edinburgh and Glasgow, and just over 40 miles from Perth. East Schiehallion is a Munro, a mountain over 3000 feet (914 metres) which is one reason it attracts a large number of visitors.

The land owned by the Trust covers an area of 871 ha and includes the summit and eastern slopes.

National Grid Reference: NN 735 545.

Ordnance Survey Map Coverage:

1:50 000: Landranger series, 52 (*Pitlochry and Crieff*).

1:25 000: Explorer series, 386 (*Pitlochry and Loch Tummel*).

### 1.2 Status

East Schiehallion is situated within the Loch Rannoch and Glen Lyon National Scenic Area (NSA) and contains part of the designated Schiehallion Site of Special Scientific Interest (SSSI). It is also situated within a Geological Conservation Review (GCR) site ([see map 2](#)).

### 1.3 Tenure

The 871-hectare East Schiehallion estate was purchased by the John Muir Trust on 18 October 1999. It was purchased in two lots from Mrs Mary Horsfall (360 ha) and Captain I de Sales La Terriere (555 ha).

At the time of purchase there was one agricultural tenant, the Louis Wilson Trust, who had grazing rights over the whole property. This tenancy was renounced in November 2002.

Captain I C de Sales La Terriere and his heirs have the right to shoot ptarmigan on the summit of Schiehallion so long as they remain proprietors of the adjoining Crossmount estate. However, as far as the John Muir Trust is aware none has taken place since the sale of the estate.

## 1.4 Situation

### 1.4.1 Site Definition and Boundaries

The boundaries of East Schiehallion are as shown on [map 1](#). The property borders:

- Tay Forest Park/Braes of Foss – Forestry and Land Scotland
- Dun Coilich – Highland Perthshire Communities Land Trust
- Kynachan Estate
- Garth Estate
- Crossmount Estate
- Glen Lyon Estate

## **1.4.2 Heart of Scotland Forest Partnership**

John Muir Trust are the lead organisation in a landscape partnership – the Heart of Scotland Forest Partnership. The Partnership is a group of NGO, public, private and community landowners in the Highland Perthshire area. They are: Garth Wood Wilding Project, Highland Perthshire Communities Land Trust (Dun Coillich), John Muir Trust, Dalchosnie & Kynachan Estate, Scottish Wildlife Trust, Woodland Trust Scotland and Forestry & Land Scotland.

Together, the Partnership's vision is for a restored, vibrant landscape that provides opportunities for people and wildlife to thrive, for local employment and enterprise, and for the local community to enjoy, access and learn.

## **1.5 Legal and Other Obligations**

### **1.5.1 Tenure**

None.

### **1.5.2 Wayleaves**

None.

### **1.5.3 Rights of Way**

The footpath up Schiehallion is a core path. It is proposed that the Foss Loop will be added to the Perth and Kinross Council core paths list.

### **1.5.4 Rights of Access**

Captain I C de Sales La Terriere has a right of vehicle access leading from Braes of Foss farm into Glen Mor in perpetuity.

The John Muir Trust has an open pedestrian access policy to all its sites. With implementation of the Land Reform (Scotland) Act 2003, Part 1 in 2005, there is a statutory right of access while taking part in activities covered by the Act. These access rights only apply if they are exercised responsibly.

### **1.5.5 Listed Buildings**

None.

### **1.5.6 Scheduled Ancient Monuments**

None.

### **1.5.7 Woodlands**

There are several areas of planted native woodland and commercial plantations on East Schiehallion:

- Strathfionan: planted c. 1970, 4.8 ha Sitka spruce, larch, Scots pine and lodgepole pine. 1.6 ha was felled in 2018. Felling permission was granted in 2020 to fell an additional 2.7 ha of larch and Scots pine due to spread of *Phytophthora* in the area, although some Scots pine on the western edge will be retained.
- Braes of Foss: commercial plantation planted c. 1975, 0.3 ha felled in 1996,

remaining 2 ha Sitka spruce and Lodgepole pine was felled in 2018, 0.4 ha of Scots pine was retained.

- North Wood: opposite Braes of Foss farm, planted c. 1996. Approximately 3 ha of native broadleaves and Scots pine under Woodland Grant Scheme 033/000875. No WGS conditions apply to this area.
- Braes of Foss: 7.3 ha native broadleaves and Scots pine planted 2018-19. Comprised of 4.3 ha of woodland creation and 3 ha of replanting to replace felling in Strathfionan plantation in 2018.

There are small patches of relict native woodland across the site, although the two largest areas are:

- Quarry Wood: 0.9 ha of native woodland, NVC categories mainly W11, W4 and W7.
- Allt Mor: 1.0 ha of native woodland mainly in steep gorge, NVC categories mainly W11 and W17C.

#### **1.5.8 Designations**

- Schiehallion Site of Special Scientific Interest (SSSI)
- Glen Lyon and Rannoch National Scenic Area (NSA)
- Schiehallion to Strath Fionan Geological Conservation Review (GCR) Site

#### **1.6 Fixed Assets**

None.

## **2.0 Environmental Information**

### **2.1 Wildness**

Values placed on wildness are subjective to the individual. East Schiehallion, being a popular Munro sees a high amount of footfall and is in an area where there is a high level of rural development. From the summit, you can see the vast expanse of Rannoch Moor and mountains as far away as Glen Coe and Ben Nevis. Contrasting with these wilder places, several windfarms (notably Griffin and Calliachar to the south), extensive farmland, muirburn, commercial forestry and the Beaully-Denny transmission lines are visible.

Equally, much of this development has been added to by the John Muir Trust – including a new path (the Foss Loop), re-routing and erosion-proofing the mountain path up Schiehallion, in addition to extensive areas of fencing and interpretation on the site. It is hoped that these additions to the landscape will help transform an otherwise bare landscape through woodland creation and will encourage people to explore and better understand wild places.

### **2.2 Landscape**

East Schiehallion is largely composed of a glacially-eroded landscape. From most directions Schiehallion is distinctive in shape. Its smooth slope profiles contrast with the knobbly nature of the Farragon range to the east and the rugged hills of Glen Lyon and Ben Lawers to the west. From Kinloch Rannoch its triangular shape dominates the village and eastern Loch Rannoch. From north and south the mountain takes on the shape of an asymmetric cone recognisable from long distances.

The upper slopes and mountain summit of East Schiehallion are distinctive, due to the dominant pale grey colour of the bare, largely unvegetated quartzite blocks. The footpath up Schiehallion was re-routed in 2003 and, whilst it is visible from a distance (as much as 15 miles), it is less susceptible to erosion. The route of the old path has recovered well and is almost impossible to see from the car park.

There are very few areas of the lower slopes that are unaffected by human land management, predominantly muirburn and grazing. A few rocky outcrops and remnant pockets of native broadleaf woodland break up the heather-dominated moorland.

### **2.3 Natural Heritage (Physical)**

#### **2.3.1 Geology**

Schiehallion is situated within the Grampian Highlands of Scotland, between the Highland Boundary Fault and Great Glen Fault. These mountains are largely comprised of metamorphic rocks formed during the Caledonian mountain building period, climaxing between 510–480 million years ago, in the Lower Palaeozoic period. Schiehallion lies just south and close to the boundary between the Moinian (older) and Dalradian (younger, further south and east) metamorphic rock series formed during this period.

The summit of Schiehallion is composed of outcropping quartzite. The lower slopes comprise a series of schists – rich in mica, and some quite lime-rich. Most of the bedrock of the lower slopes is covered by glacial and fluvio-glacial (meltwater) materials, deposited with the retreat of the ice after the last glacial period of the Ice Age about 13,000 years ago. The



boulders found within these deposits include rocks from further afield, e.g. white Rannoch granite and hornblende schists.

Most of the rocks of Schiehallion originated as marine sediments that accumulated in a subsiding trough about 600 million years ago. They mostly consisted of clean sands, clayish sands and layers of lime. The whole pile had a total thickness of about 25 km. There is a distinctive stratum of boulders (Schiehallion Boulder Bed) now visible on the north side of the mountain. Geologists believe it may represent the deposit of glacier ice 620 million years ago.

About 400 million years ago this sedimentary pile, covering a wide area that is today Highland Scotland, was subject to an immense mountain building period, known as the Caledonian. Sideways compression took place, as two of the earth's crustal tectonic plates converged from the north-west and south-east. The result was a range of mountains comparable to the present-day Himalayas.

What we see today are the worn down roots of these mountains. The result of the heat and pressure led to the melting and reforming of rocks, and distortion of original sedimentary layers. The pure sandstones became quartzite and the muddier sandstones became the mica-rich schists. The limestone beds were baked and became more crystalline. The original layering of the limestone can be seen on the rusty-coloured outcrops beside the mountain path about 100m above the old sheep fank.

There is no evidence in the Schiehallion area of any rocks of later date. It is likely that they have been eroded.

### **2.3.2 Geomorphology**

The landscape that we see today around East Schiehallion was shaped relatively recently, in a geological context. The natural processes responsible were mostly caused by the Ice Age 1.5 million to 10,000 years ago. During this time, Scotland was affected by the repeated advance and retreat of ice sheets and glaciers. Today, the only evidence that remains is from the last ice advance, about 18,000 years ago. It is likely that this ice sheet was around 1200-1500m thickness and would have covered the summit of Schiehallion. The middle of this ice sheet was over Rannoch Moor. Strath Fionan, the valley along the northern slopes of Schiehallion, is probably the result of an overflow glacier.

Much of the rock debris eroded and carried by the ice can be seen today lying where it was deposited. On the valley floors, it appears as hummocky ground and as terraces on lower hillsides. The last of the ice sheets disappeared from this area about 10,000 years ago. The peat accumulation and development of the soils that underlie the present-day vegetation have all taken place since.

### **2.3.3 Soils**

A soil survey has not been carried out by the Trust, and there is limited existing data for the site. The likelihood is that a survey would show the predominance of shallow podsoles and brown earths on the better-drained ground, and peaty gleys and peat in the more waterlogged areas.

On the highest slopes of Schiehallion quartzite releases few nutrients as it weathers to a highly acid sand and is not conducive to soil development. In contrast, where the limestone is close to the surface and has weathered, shallow calcareous brown soils have developed, covering the outcrops. They are recognisable by the greener appearance of the colonising vegetation, with a lack of heath-associated plants, and in their place a variety of grasses and other flowering plants.

#### **2.3.4 Hydrology**

East Schiehallion lies between two contrasting eastward flowing burns. The Allt Strath Fionan to the north, drains its headwaters off the northern slopes of Schiehallion into the Allt Kynachan, and ultimately into Loch Tummel. The Allt Mor, draining Schiehallion's southern flanks, flows into the Keltney Burn and the River Lyon. As of 2010 this now flows over an intake for a hydro-electric scheme just outside the JMT boundary, which was upgraded in 2018 to allow for greater energy conversion.

A third catchment drains the north and eastern boundary slopes, south of Braes of Foss. The Allt Ruighe nan Coireachan drains the slopes of Schiehallion and Cnoc nan Aighean and its tributary the Allt an t-Socaich drains northwards from the watershed east of Aonach Ban to join it, before meeting the Allt Strath Fionan.

In the limestone areas, underground steams can be heard and numerous small sink holes are visible. There is a small cave system under Schiehallion, the biggest of which, Uamh Tom a'Mhor-fhir occurs just outwith East Schiehallion's western boundary (NN 708 532).

### **2.4 Natural Heritage (Biological)**

#### **2.4.1 Habitats**

East Schiehallion supports a rich variety of upland habitats because of its underlying limestone. There is also good potential for the restoration of different habitats, particularly the areas of eroded peat, degraded native woodland and remnant montane scrub. Several of these habitats are listed in the Natura 2000 Habitats Directive as 'priority' habitats. These include: limestone-influenced habitats, species-rich *Nardus* grassland, base-rich flushes and active blanket bog.

*Calluna*-dominated heaths are predominant on the lower slopes, interspersed with other vegetation types, for example bracken. There are some areas of blanket bog and valley mire and numerous areas of herb-rich grassland and base-enriched flushes.

Remnant woodland and scrub contain silver birch (*Betula pendula*), downy birch (*Betula pubescens*), aspen (*Populus tremula*), rowan (*Sorbus aucuparia*), goat willow (*Salix caprea*) and eared willow (*Salix aurita*). All woodland has suffered from high grazing pressure, with the exception of trees protected in steep burns and gorges.

There are bare quartzite crags on the south facing slopes and locally there are patches of limestone pavement, which is rare in Scotland.

#### **2.4.2 Vascular Plants**

The north and north-east areas of East Schiehallion are included within the Schiehallion SSSI, important for its limestone-influenced plant communities.

An NVC survey undertaken by Ben and Alison Averis in 2000, found 214 vascular plants and 107 bryophytes. Of particular note are nationally rare species (recorded since 1950 in <16 10km<sup>2</sup> in Great Britain) or nationally scarce (recorded since 1950 in <100 10km<sup>2</sup> in Great Britain). There was one vascular plant: *Diphasiastrum complanatum* or Issler's clubmoss recorded on Schiehallion that was nationally rare, in addition to 11 that were nationally scarce (see table below).

Ongoing surveys by John Muir Trust staff and members of the Montane Scrub Action group from 2017 onwards, noted records of several montane willows including: whortle-leaved (*Salix myrsinites*), net-leaved (*S. reticulata*) and dwarf/least willow (*S. herbacea*).

Hair sedge	<i>Carex capillaris</i>
Sheathed sedge	<i>Carex vaginata</i>
Variiegated horsetail	<i>Equisetum variegatum</i>
Alpine cinquefoil	<i>Potentilla crantzii</i>
Intermediate wintergreen	<i>Pyrola media</i>
Serrated wintergreen	<i>Orthilia secunda</i>
Scottish asphodel	<i>Tofieldia pusilla</i>
Mountain willow	<i>Salix arbuscula</i>
Interrupted clubmoss	<i>Lycopodium annotinum</i>
Whortle-leaved willow	<i>Salix myrsinites</i>
Net-leaved willow	<i>Salix reticulata</i>

### 2.4.3 Bryophytes

Of the bryophytes recorded in the NVC, two are nationally scarce. *Kiaeria falcata* (sickle-leaved fork-moss) and *Anthelia juratzkana* (scarce silverwort).

### 2.4.4 Lichens

Three uncommon lichens were recorded in the NVC, although none were classified as nationally rare or scarce. They were: *Alectoria nigricans*, *Cetraria islandica* (Iceland moss) and *Ochrolechia frigida*.

### 2.4.5 Mammals

The most common large mammals found on East Schiehallion are the red deer (*Cervus elaphus*) and roe deer (*Capreolus capreolus*). Both these species are covered in more detail in the Deer Management Plan for the site.

Other mammals that have been recorded on the site are shown in the table below:

Mountain hare	<i>Lepus timidus</i>
Brown hare	<i>Lepus europaeus</i>
Fox	<i>Vulpes vulpes</i>
Pine marten	<i>Martes martes</i>
Bager	<i>Meles meles</i>
Red squirrel	<i>Sciurus vulgaris</i>

Otter	<i>Lutra lutra</i>
Pygmy shrew	<i>Sorex minutus</i>
Common shrew	<i>Sorex araneus</i>
Short-tailed vole	<i>Microtus agrestis</i>
Mole	<i>Talpa europaea</i>
Water vole	<i>Arvicola amphibius</i>

#### 2.4.6 Birds

Over 60 species of birds have been recorded on Schiehallion throughout the year. Important species recorded nearby include hen harrier (*Circus cyaneus*), merlin (*Falco columbarius*), black grouse (*Tetrao tetrix*), ring ouzel (*Turdus torquatus*) and twite (*Carduelis flavirostris*). Annual breeding bird surveys are undertaken to show long-term population changes and species present.

The following species that are known to breed on or near the site also carry a conservation status of red/amber according to the 2015 study led by the RSPB: *Birds of Conservation Concern 4* (BoCC4).

Species	BoCC4 Status
<i>Black grouse</i>	Red list
<i>Cuckoo</i>	Red list
<i>Curlew</i>	Red list
<i>Grasshopper warbler</i>	Red list
<i>Hen harrier</i>	Red list
<i>Merlin</i>	Red list
<i>Mistle thrush</i>	Red list
<i>Ring ouzel</i>	Red list
<i>Skylark</i>	Red list
<i>Song thrush</i>	Red list
<i>Spotted flycatcher</i>	Red list
<i>Tree pipit</i>	Red list
<i>Twite</i>	Red list
<i>Whinchat</i>	Red list
<i>Bullfinch</i>	Amber list
<i>Common redstart</i>	Amber list
<i>Dipper</i>	Amber list
<i>Dunnock</i>	Amber list
<i>Kestrel</i>	Amber list
<i>Meadow pipit</i>	Amber list
<i>Red grouse</i>	Amber list
<i>Reed bunting</i>	Amber list
<i>Snipe</i>	Amber list
<i>Willow warbler</i>	Amber list

#### 2.4.7 Herptiles

The common lizard (*Zootoca vivipara*) occurs in suitable habitat probably over much of Schiehallion. Adders (*Vipera berus*) is commonly encountered along the boundary with Dun Coilich and towards the Allt Mor.

#### **2.4.8 Invertebrates**

With the exception of lepidoptera, little work has been undertaken on the invertebrate fauna of Schiehallion. A good range of butterflies including common blue (*Polyommatus Icarus*), small pearl-bordered fritillary (*Boloria selene*), dark-green fritillary (*Argynnis aglaja*), small heath (*Coenonympha pamphilus*) and green hairstreak (*Callophrys rubi*) are all regularly seen.

Mountain ringlet (*Erebia ephron*) was recorded in the SSSI in 1986 and has been subject to survey since. The population at Schiehallion has been estimated at 1500 during a study by Melissa Minter at the University of York.

There are at least six moths of national interest, with one nationally rare species (*Ancylis tineana*) recorded on the Schiehallion SSSI, though primarily from an area outwith East Schiehallion, at Lochan an Daim. There are five other moth species recorded on or around Schiehallion which are nationally scarce: *Atemelia torquatella*, Scotch annulet (*Gnophos obfuscatus*), *Eudonia alpine*, Highland grey (*Udea uliginosalis*) and Highland ermel (*Kessleria saxifragae*).

### **3.0 Cultural, Social and Economic Information**

#### **3.1 Archaeology and History**

##### **3.1.1 Prehistoric to Post Medieval**

Before the Trust purchased East Schiehallion, there was little existing information about the archaeology of the site. A survey was undertaken shortly after the purchase in 1999-2000 to identify areas that could be affected by the construction of a new footpath. This survey found extensive evidence that the site was occupied in the post-medieval period.

However, there are signs of occupation from a much earlier period. The earliest indication of human activity is the cup-marked stone near to the Braes of Foss car park, which probably dates from 2500-2000 BC. Pre-JMT purchase, two Neolithic stone axes were found on the site which are thought to date from 4000-2000 BC, in addition to a stone cup and flint arrowhead found near the summit of Schiehallion.

There were two clear periods of settlement and agricultural activity on Schiehallion. Two prehistoric hut circles exist, which are possibly of national importance due to their high elevation. An additional five medieval/post-medieval settlements are also found on the site, which include field systems and field clearance cairns. These agricultural systems suggest arable farming occurred at a remarkably high altitude on the site, when compared to other parts of the Highlands.

##### **3.1.2 18<sup>th</sup>–20<sup>th</sup> Centuries**

There are two significant settlements where there is evidence of several shieling huts. None have been excavated, therefore they are difficult to date. One settlement is on the lower slopes of Cnoc nan Aighean, the second and much larger settlement is in Glen Mor. It appears that both settlements were used for summer grazing and there are references to the Glen Mor settlement by Farquarson's survey of Loch Tay (1769) and later in the 18<sup>th</sup> century by then landowner, David Stewart of Garth. Most settlements and shielings survive only as low banks of turf and stone, with some in Glen Mor forming impressive artificial mounds.

In 1774, Dr Nevil Maskelyne the Astronomer Royal, selected Schiehallion for his experiments to calculate the mass of the earth. The mountain was chosen, largely because of its conical shape and isolation from other mountains. For the experiment, two observatories were built on the southern and northern sides of the mountain at approximately 700m elevation with a temporary hut built nearby for accommodation and shelter. Two cairns were also built on the main ridge. The observatories consisted of a circular stone wall, five feet in diameter, with a conical roof. Remains of the southern observatory exist, the northern one lies slightly to the west of the JMT property boundary. It is possible that a remaining horse-shoe shaped cairn near the east end of the main ridge was built as part of Maskelyne's experiments.

Two nineteenth-century developments: large-scale sheep farming and driven grouse shooting, are represented by two sheep-fanks, dry stone dykes and four rows of grouse-butts.

#### **3.2 Land Use**

##### **3.2.1 Agriculture**

During the twentieth century, East Schiehallion was used predominantly for sheep and cattle grazing. Summer grazing on East Schiehallion and Craig Kynachan, up to the late 1990s, included up to 60 cattle and around 600 ewes. During this period muirburn was common on the site.

In 2000 the John Muir Trust came to a financial agreement with the grazing tenant to release their grazing tenancy rights. This sheep flock was removed, although today neighbouring sheep still encroach on East Schiehallion from estates to the west and south. Stock fencing along the Schiehallion road and on our boundary with Crossmount Estate limits some grazing encroachment, although future discussions are underway to extend march fencing.

There are currently no intended agricultural activities on East Schiehallion.

### **3.2.2 Forestry**

See 1.5.7 for detailed summary of woodland on East Schiehallion (including remaining commercial forestry).

### **3.2.3 Deer Management**

See Deer Management Plan for details.

### **3.2.4 Fishing**

The only sizeable burn on the property is the Allt Mor. There are no formal agreements relating to fishing with any party.

### **3.2.5 Hydro generation**

There is a hydro-electric scheme just outwith the JMT boundary on the Allt Mor. The intake is situated on Highland Perthshire Communities Land Trust land and was upgraded in 2018 to allow for greater energy conversion.

### **3.2.6 Minerals**

There is no mineral extraction on East Schiehallion. Limestone was once quarried at NN 745 561 although there is little known about the history or purpose of this quarry.

## **3.3. Recreation**

### **3.3.1 Walking and Climbing**

Schiehallion is a popular Munro due to its accessibility to the Central Belt and being a relatively easy walk. It is estimated that around 20,000 visitors climb the hill each year. Due to its popularity, the main Braes of Foss car park (run by Forestry and Land Scotland) is regularly at or over capacity at weekends or during holidays. Discussions are underway to explore ways to sensitively extend the car park.

The path up Schiehallion is due to be repaired by contractors in late 2020 as there are now several patches of worsening erosion where the original path surface material has washed away. The path is frequently maintained by volunteer work parties to ensure minimal erosion due to weather and footfall.

### **3.3.2 Stalking**

No client stalking is let by the John Muir Trust, although Kynachan & Dalchosnie Estate take paying clients to stalk stags and hinds on East Schiehallion as part of their stalking agreement. See Deer Management Plan for further information.

### **3.3.3 Caving**

There are several mapped caves under and near East Schiehallion. It is not known how many people explore these caves but it is thought to be only a few. Peter Dowswell's 1980 publication *The Caves of Schiehallion* is the most comprehensive guide to the area's caves.

### **3.4 Litter**

Litter is not a huge problem on the site and visitors are generally respectful of the area. During holiday periods an increase in BBQ and picnic litter is obvious in the car park area and with increased visitor numbers in the Rannoch area, such problems may increase.

### **3.5 Volunteering**

There are numerous volunteering opportunities at East Schiehallion. We have several returning volunteers who help with vegetation and wildlife monitoring during the summer, in addition to a substantial group of local volunteers who regularly attend practical work parties. Equally, due to the site's accessibility, work parties also attract volunteers from as far away as Edinburgh, Glasgow and Aberdeen.

Additional opportunities within the Heart of Scotland Forest Partnership exist at a weekly work party at Dun Coilich and at summer work parties with the Scottish Wildlife Trust.

### **3.6 Employment**

There are currently two John Muir Trust staff based primarily at East Schiehallion (both 0.8 FTE). There is potential for short-term or contract work on deer control, fencing, tree planting and footpath maintenance.



## **4.0 Evaluation**

### **4.1 Key Factors Influencing Management**

- Grazing impacts
- Climate change
- Visitor impacts
- Heart of Scotland Forest Partnership objectives
- **John Muir Trust Wild Land Management Standards**

#### **4.1.1 Grazing Impacts**

One of the most important factors influencing the management of East Schiehallion is the impact of herbivore grazing. High grazing levels from wild red deer and encroaching sheep continue to prevent woodland regeneration.

For the past ten years, comprehensive habitat and wildlife monitoring has been undertaken by JMT staff and volunteers. Minimal growth recorded in tree seedling and heath monitoring continues to inform decisions surrounding appropriate deer management, fencing and tree planting.

#### **4.1.2 Climate Change**

Due to the urgency of the climate emergency, the management of East Schiehallion has a keen focus on mitigating negative environmental change. Continued tree planting and the restoration of degraded vegetation are at the forefront of our plans for the property. Tree planting on the site will increase soil stability, carbon capture potential and water storage. Reducing grazing pressures will ensure natural regeneration of trees can occur, reducing the need for intensive management.

#### **4.1.3 Visitor Impacts**

Schiehallion is a draw for many visitors to the local area. Tourism provides numerous jobs to the surrounding towns and rural populations.

Current visitor pressures to Schiehallion, although increasing, are generally manageable. The limitations of the Braes of Foss car park have been identified and we are currently working alongside Forestry and Land Scotland to expand its capacity.

New signage and interpretation were installed in 2020 alongside the completion of the new Foss Loop path. Due to its popularity from visitors across Scotland, East Schiehallion provides a key location to share messages with visitors about responsible access to the area and the conservation work of the Heart of Scotland Forest Partnership.

#### **4.1.4 Heart of Scotland Forest Partnership Objectives**

A key factor governing management at East Schiehallion is our collaborative work as part of the Heart of Scotland Forest Partnership. This landscape partnership shows how a more holistic, landscape-scale approach can provide greater benefit for the environment, local employment and the wider community. It is therefore important that any management decisions complement the wider work of the Partnership.

#### **4.1.5 John Muir Trust Wild Land Management Standards**

### **4.2 Summary of Factors Influencing Management**

#### **Internal Factors:**

- Size, topography and access to the area

- Changes in vegetation structure
- Changes in large herbivore populations

**External Factors:**

- Increasing visitor numbers
- Recreational activities
- Promotion of the area and developing responsible access
- Car park development with FLS
- Herbivore populations on neighbouring land
- Climate change

**Factors Arising from Legislation:**

- Implementation of Land Reform Act (Part 1) Scottish Outdoor Access Code
- Nature Conservation Act (Scotland) 2004
- SSSI Agreement with SNH
- Rannoch and Glen Lyon NSA
- JMT's legal obligation to protect the health and safety of employees
- Obligations to ongoing Woodland Creation Grants from Scottish Forestry
- Obligations to SRDP Improving Public Access funding for easy access path

**Physical Conditions or Restraints:**

- Management limited during periods of bad winter weather