

Preliminary Management Plan for Corrie Fee

PLAN DETAILS

Start 01-Apr-2018

End 31-Mar-2028

Sign Off

SITE DESCRIPTION

Corrie Fee National Nature Reserve (NNR) sits on the southern shoulder of the Cairngorms plateau at the head of Glen Clova in Angus in eastern Scotland. Corrie Fee is one of the best examples of a glacial corrie in the British Isles with a magnificent natural amphitheatre of cliffs. The NNR includes Corrie Sharroch to the south and the slopes of Craig Rennet, the spur to the north which separates it from Glen Doll.

The reserve is famed for the most extensive stand of montane willow scrub in Scotland and for the many arctic-alpine plants that grow on the cliffs and wet flushes in the corrie. Botanists have known of the importance of the area since the 18th century. The reserve also plays host to many of the bird and animal species which are iconic of Scotland's uplands and today it is recognised and protected as a national and internationally important site.

Corrie Fee is one of a suite of NNRs in Scotland. NNRs are special places for nature, where some of the best examples of Scotland's wildlife are cared for. Nature always comes first on NNRs, but these places also provide special opportunities for people to enjoy and find out about the richness of our natural heritage.

The Reserve Story contains background information about the reserve, describing the wildlife interest, its land use history and management since it became a reserve. The Corrie Fee NNR Management Plan covers the future management of the reserve.

1 Our Vision for Corrie Fee NNR

Corrie Fee NNR is a special destination at the head of Glen Clova in the Angus Glens, well known by hillwalkers and those who come to look at the spectacular glacial landscape, with its characteristic habitats and plants. The steep sided corrie, moraines and fast flowing burns in Corrie Fee represent classic Scottish mountain landscapes, shaped by glaciers over millions of years. Distinct moraine flutes from

the last time ice flowed, some 12,000 years ago, can be glimpsed from the woodland path in Glen Doll on the way up to Corrie Fee. The altitudinal range in the NNR is important and its rich diversity of upland and sub-montane habitats with associated species is maintained through sustainable deer and woodland management as well as restoration projects of the montane willows.

One of nine National Nature Reserves in the Cairngorms National Park, Corrie Fee is renowned as the gateway to the National Park and two Munros from the Angus Glens. The reserve continues to attract more than twenty thousand visitors every year, who come to enjoy and be inspired by nature. Trails for different abilities and interests lead from the visitor centre and car park at Glen Doll, while events, educational visits and digital media offer deeper insight into the special qualities of the site. With support from the Angus Glens Ranger Service, higher and further educational groups make good use of opportunities for learning about glaciation, woodland and deer management. Other groups learn and contribute through their own observations and citizen science projects.

Corrie Fee is much loved by the community that visits including walkers, botanists, photographers and those who live locally. The reserve is valued as a tourism destination, indirectly supporting nearby small businesses and directly offering employment to land management staff. A strong partnership at Corrie Fee and Glen Doll brings together Scottish Natural Heritage, Angus Alive, Forest Enterprise Scotland and the Cairngorms National Park Authority to manage and promote the area and the reserve both locally and nationally.

The 16 Red data book higher plant species and other uncommon plants continue to thrive. Sustainable and viable populations are maintained through our work in partnership with The Royal Botanic Gardens of Edinburgh (RBGE) and Forest Enterprise in accordance with the RBGE Scottish Plant Project.

The slopes of Corrie Sharroch felled areas at the edge of Glen Doll Forest shelter the largest area of montane willow scrub in Scotland, enhanced over the years by supplementary planting of young downy and woolly willow trees. Working with partners has also restored areas of native woodland in Glen Doll. These healthy habitats in turn support golden eagle, peregrine and raven on the rocky crags, while twite and ring-ouzel nest on the slopes. For those visitors who choose a quiet spot in the NNR to reflect and connect with nature, mountain hares, pine martins and water voles might be spotted.

2 Natural Heritage Management

Protected Areas and special features

Feature	Protected Area
Golden eagle (<i>Aquila chrysaetos</i>), breeding	<u>Caenlochan SPA</u>

Golden eagle (<i>Aquila chrysaetos</i>), breeding	<u>Cairngorms Massif SPA</u>
Breeding bird assemblage	<u>Caenlochan SSSI</u>
Invertebrate assemblage	<u>Caenlochan SSSI</u>
Bryophyte assemblage	<u>Caenlochan SSSI</u>
Lichen assemblage	<u>Caenlochan SSSI</u>
Species-rich grassland with mat-grass in upland areas	<u>Caenlochan SAC</u>
Dry heaths	<u>Caenlochan SAC</u>
Base-rich fens	<u>Caenlochan SAC</u>
High-altitude plant communities associated with areas of water seepage	<u>Caenlochan SAC</u>
Base-rich scree	<u>Caenlochan SAC</u>
Plants in crevices on base-rich rocks	<u>Caenlochan SAC</u>
Tall herb communities	<u>Caenlochan SAC</u>
Alpine and subalpine heaths	<u>Caenlochan SAC</u>
Montane assemblage	<u>Caenlochan SSSI</u>
Mountain willow scrub	<u>Caenlochan SAC</u>
Vascular plant assemblage	<u>Caenlochan SSSI</u>

Objective NH1: Monitor the NNR's special features

Corrie Fee NNR is important because the best British examples of montane willow scrub, with woolly and downy willow slopes, are found in Corrie Sharroch and a number of rare arctic-alpines grow on the base rich cliffs in the corrie. The Reserve is also important for its mosses and liverworts, fungi and lichens and has an interesting range of invertebrates.

We will continue to monitor the health and distribution of rare vascular plants and montane willow scrub and look to work with others to monitor other species. To ensure we have appropriate grazing pressures we will also undertake habitat monitoring of key habitats including species-rich grassland with mat-grass in upland areas, base-rich fens, Tall herb communities and Dry heaths. We are keen to gather data on other species within the NNR, so will work with specialists and volunteer recorders to monitor for raptors, mink and water voles especially.

Projects planned to deliver Objective NH1 during life of plan:

NH1.1	Monitor plants to ensure thriving, sustainable populations, and to contribute to Site Condition Monitoring of the wider Caenlochan SAC.
NH1.2	Monitor key habitats, and contribute to Site Condition Monitoring

	and habitat conditions assessment of the wider Caenlochan SAC.
NH1.3	Use long-term monitoring data to contribute to studies which increase our understanding of the impacts of climate change and other factors (like grazing) on habitats and plant populations. Disseminate on Scotland's Environmental web. http://www.environment.scotland.gov.uk/
NH1.4	Monitor golden eagles, peregrine and other breeding birds and record any evidence of disturbance
NH1.5	Promote opportunities for specialist survey and research of other species groups not traditionally monitored as part of NNR/SSSI programme of work.
NH1.6	Monitor for presence of mink and water vole

Objective NH2: Safeguard and enhance habitats, plants and native fauna - especially those that are nationally/internationally important

Our top priority is to manage the internationally important rare montane habitats and associated arctic-alpine plants found in Corrie Fee NNR. To do this we need to ensure that the fenced enclosure in Corrie Sharroch allows low herbivore grazing pressure to be maintained. The impacts from deer are being addressed across Caenlochan SAC as part of a Deer (Scotland) Act Section 7 agreement, with the primary object to achieve favourable condition of all the Natura Habitats and SSSI features of the area. The reduced grazing pressure since the last reserve plan has successfully resulted in both an increased diversity of plant species and increased extent of habitats sensitive to grazing pressures. For example, tall herb communities and Yellow Oxytropis are both benefitting from management. Rare habitats and species of restricted distribution such as Mountain Willow Scrub, Alpine Milk-Vetch and Purple Colt's Foot may require more intervention to increase their abundance in the NNR. We would like to work with partners at the landscape scale, in order to investigate opportunities to increase biodiversity in the wider area around Corrie Fee. This may include felled areas of forest in Glen Doll.

The Reserve is part of a much larger SPA with a good breeding population of golden eagles and dotterel. Eagles hunt over the corrie and have bred here in the past, while dotterel breed on the plateau above the Reserve. A number of other mountain birds live around the crags and woodlands, including ring ouzel, peregrine falcons, twite and raven.

In 2003 mink wiped out the water vole colony in the Reserve and we want to keep the NNR free of mink to allow water voles to recolonise.

Projects planned to deliver Objective NH2 during life of plan:

NH2.1	Continue to follow SNH Best Practice Guidance and SNH's Wildlife Management Framework when managing deer within Corrie Fee NNR
NH2.2	Maintain a low level herbivore grazing regime to ensure important plant communities and endangered species are in the best condition they can be, in good health and resilient to climate change
NH2.3	Continue to work with neighbouring estates as part of East Grampian Deer Management Group and as a member of the Caenlochan Section 7 Steering Group
NH2.4	Expand the extent of Woolly willow by continuing to carry out supplementary planting
NH2.5	With Royal Botanic Gardens of Edinburgh, maintain and enhance population size and distribution of important plant species to ensure climate change resilience. Consider translocation and management of Alpine milk-vetch and other rare plants
NH2.6	Control any mink if detected
NH2.7	Consider intentional supplementary feeding for eagles etc by leaving occasional deer carcasses
NH2.8	With partners investigate opportunities for a landscape scale approach to management of the Corrie Fee and Glen Doll areas to enhance endangered habitats and species

Objective NH3: Safeguard the geology and geomorphology

Corrie Fee is a classic example of a corrie, formed by the action of glaciers at the end of the last Ice Age. Around 15,000 years ago, the climate warmed rapidly, melting glaciers, depositing moraines, and collapsing unstable slopes as vast volumes of meltwater poured across the landscape. This warming was short-lived, however, and the intensely cold conditions returned about 12,900 years ago. Glaciers reformed, including small independent ones in Corrie Fee, grinding out the bottom and sides of the corrie to produce the steep, U-shape amphitheatre of cliffs seen today. Finally, around 11,500 years ago, rapid climate warming melted them once more, depositing the eroded spoil as moraines.

There are several types of moraine on the corrie floor. Lateral boulder moraines along Corrie Fee's north side were formed as the ice melted depositing the rocks which had fallen onto the edges of the glacier. Fluted moraines below the corrie lip were formed in streamlined areas behind large boulders. Hummocky moraines formed as the ice thinned depositing piles of material crushed between the blocks of

ice. These moraines have forced the Fee Burn to cut a highly meandering path across the corrie floor.

Projects planned to deliver Objective NH3 during life of plan:

NH3.1	Ensure that no significant features or views of them are obscured and investigate opportunities to enhance views
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3 Management for People

Objective VM1: Provide opportunities for visitors to enjoy, appreciate and better understand the special natural heritage qualities of the Reserve and its management

People are welcome to visit the Reserve but to maintain the sense of wildness of the place we have not put any interpretation inside the NNR. Most visitors start from the Forest Enterprise Scotland (FES) car park in Glen Doll and walk up the track through the forest to the Reserve. There is information about the natural heritage of the surrounding area in and around the Glen Doll visitor centre. Angus Glens Rangers are based in the visitor centre to help make visits enjoyable and informative.

The rangers and FES collect information on the numbers of cars and people using the car park, which helps us have some idea of how many people visit the NNR to help with planning management and maintenance of facilities. SNH, FES and Angus Glens Rangers work closely over the management of this area and will continue to do so, in liaison with the Cairngorms National Park Authority, to improve the journey to Corrie Fee from Glen Doll

Projects planned to deliver Objective VM1 during life of plan:

VM1.1	Encourage visitors to act responsibly and follow the Scottish Outdoor Access Code to help us look after the Reserve's natural heritage and to enhance visitor experience
VM1.2	Consider refreshing interpretative and promotional information in liaison with AA, FES, and CNPA to ensure it remains accurate, relevant, accessible and engaging for visitors, using various media.
VM1.3	Work closely with AA, FES and CNPA to provide a positive visitor experience and a high quality gateway to the whole NNR.
VM1.4	Continue to provide SNH-led guided walks/events and to support other events focussing on the special features of the site.
VM1.5	Promote Corrie Fee NNR through social media - NNR facebook, @snhnortheast Twitter, and occasional Nature of Scotland blog

	posts.
VM1.6	Work in partnership to support promotion of Corrie Fee, including with local tourism forums.

Objective VM2: Improve opportunities for learning and engagement in the Reserve

There is a small but significant amount of formal educational use of Corrie Fee. Dundee University has a long association with the area, while students and course participants from the Field Studies Council's Field Centre at Kindrogan sometimes visit the reserve. Elmwood College students use the reserve for field work, as do several schools supported by the Ranger Service. Citizen science describes opportunities that are being continuously developed for people to record biological information themselves and then contribute their data to local and national monitoring schemes. Visitors to Corrie Fee will be encouraged to take part in these opportunities through information on site and social media. In addition, good links will be maintained with specialist recording groups to ensure rare and endangered species are monitored frequently.

Projects planned to deliver Objective VM2 during life of plan:

VM2.1	If required through the Ranger Service, provide support to educational groups who wish to use the reserve.
VM2.2	With partners, investigate opportunities to promote education using the reserves special features and building on existing resources.
VM2.3	Develop opportunities with partners for citizen science on the reserve.
VM2.4	Encourage specialist study groups to make use of the Reserve

4 Property Management

Objective PM1: To manage the Reserve property responsibly following best practice.

We aim to manage Corrie Fee responsibly following best practice and this means carrying out checks and maintaining the visitor infrastructure in a safe and good condition, regularly reviewing the emergency plan for the NNR, producing a Property Asset Plan and complying with Health and Safety legislation.

Projects planned to deliver Objective PM1 during life of plan:

PM1.1	Maintain all SNH-owned visitor infrastructure in good condition
PM1.2	Carry out quarterly safety and condition assessments of all visitor

	infrastructure and keep accurate records.
PM1.3	Ensure the property is maintained and conforms with Health & Safety Regulations including risk assessment and fire plan reviews.
PM1.4	Produce a property asset plan
PM1.5	Monitor any issues with the path through Corrie Fee and erosion from any users leaving the path
PM1.6	Liaise and co-operate with neighbours over Reserve activities
PM1.7	Maintain the exclosure fence in Corrie Sharroch