CARAVAN CLUB ECOLOGICAL SITE APPRAISAL

The Invercauld Caravan Club Site
Glenshee Road
Braemar
Ballater
AB35 5YQ

General Information

Site Name and County: The Invercauld, Braemar, Aberdeenshire
Grid Reference: NO153909
Area: 4.64 hectares
Date: 12th August 2005
Recorder: Mike Lush, Just Ecology
Weather Conditions: Warm, dry and overcast

Site Description

Most of the pitches are on gravel areas within improved grassland, linked by tarmac roads, though the tent area is wholly improved grassland. Planted trees are frequent over the site. Buildings are prominent on site, with two toilet blocks, reception, wardens' buildings and sheds. A play area is present towards the east. One small flowerbed is present opposite the reception. Across the north of the site is a dog-walking area, consisting of Birch woodland. Pasture is adjacent to the south and west, with gardens in the north and the main A93 road along the east, beyond which is woodland.

Context

The Invercauld is set within the rich mountainous landscape of the Cairngorms National Park, on the outskirts of the village of Braemar. The geology is composed of alluvial valley soils, which are fairly wet in places, over limestone.

Within the site is a small stream, which is part of the much larger River Dee Special Area of Conservation (SAC)[1]. This SAC was designated for its populations of freshwater pearl mussel (*Margaritifera margaritifrea*), Atlantic salmon (*Salmo salar*) and otter (*Lutra lutra*). The stream was most likely included as part of Clunie Water, a tributary of the river that could support these species.

The Morrone Birkwoods National Nature Reserve and SAC[2] is also located within a kilometre of the site. This contains probably the best example of downy birch (*Betula pubescens*) and juniper (*Juniperus communis*) woodland within the UK, which was a main factor in its designation along with rare alpine mire habitats. Within the surrounding area are the Ballochbuie[3] and Cairngorms SACs[4].

Habitat Information

Broad Habitats Present: Broadleaved woodland, improved grassland, semi-improved neutral grassland
BAP Priority Habitats Present: Wet Woodland
Subsidiary Habitats Present: Dead wood, stream, scattered planted trees

[1] Joint Nature Conservation Committee. 2005. *River Dee - Special Area of Conservation – SAC*. http://www.jncc.gov.uk/protectedsites/SACselection/SAC.asp?EUCode=UK0030251.
[2] Joint Nature Conservation Committee. 2005. *Morrone Birkwood – Special Area of Conservation - SAC*. http://www.jncc.gov.uk/protectedsites/SACselection/SAC.asp?EUCode=UK0012894.
[3] Joint Nature Conservation Committee. 2005. *Ballochbuie - Special Area of Conservation – SAC*. http://www.jncc.gov.uk/protectedsites/SACselection/SAC.asp?EUCode=UK0030030.
[4] Joint Nature Conservation Committee. 2005. *Cairngorms - Special Area of Conservation – SAC*. http://www.jncc.gov.uk/protectedsites/SACselection/SAC.asp?EUCode=UK0016412.

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Table 6: Plant species recorded within the cleared area of woodland

Latin name	English Name
Agrostis capillaris	common bent
Anthoxanthum odoratum	sweet vernal-grass
Cerastium fontanum	common mouse-ear
Cirsium arvense	creeping thistle
Cirsium vulgare	spear thistle
Festuca ovina	sheep's-fescue
Holcus lanatus	Yorkshire-fog
Ranunculus repens	creeping buttercup
Rumex acetosella	sheep's sorrel
Rumex obtusifolius	broad-leaved dock
Senecio jacobaea	common ragwort
Succisa pratensis	devil's-bit scabious
Trifolium repens	white clover
Veronica montana	wood speedwell

Telegraph wires crossed the woodland, below which the trees were regularly felled. Where this had happened the deadwood was left largely in place, allowing plenty of opportunity for fungi and saproxylic (deadwood) invertebrate species, and the trees were regenerating.

In addition to the semi-natural woodland there were also numerous tree plantings, including some small broadleaved plantation woodlands, as well as some that appeared to have grown naturally. Amongst these trees were Scots pine, crack willow, grey alder (*Alnus incana*), osier, grey willow, downy birch, silver birch (*Betula pendula*), rowan and other whitebeams (*Sorbus* spp.). Many of these trees were heavily lichen encrusted.

The Invercauld regularly produced an abundance of fungal fruiting bodies following rain (warden, pers. comm.). Due to the dry weather prior and at the time of the visit few were recorded, though the woodland did contain at least three species of *Russula* (with red, yellow and green caps) and *Fomes fomentarius* on a downy birch trunk (Figure 3).

Figure 3: *Russula* sp.

Other:

A single flowerbed occurred at the entrance to the Invercauld, opposite the reception. This had a number of cultivated plants in it, but the wardens obviously had problems stopping the rabbits from eating them.

Habitat Evaluation

The woodland at the Invercauld is of particularly high quality, with a rich ground flora. It appears to be a transitional community between two BAP Priority habitats, Wet Woodland and Upland Oakwood. It is likely to be important for birds and invertebrates, particularly flies and beetles. The cleared areas detract from the value of the woodland; ideally these should be allowed to regenerate naturally and the brash wood and clippings left to decompose.

The stream along the southern side of the woodland is also high quality, as it has a good range of wetland plant species on its margins. It may also support an interesting invertebrate fauna. In addition, it is designated as part of the River Dee SAC. Although it is unlikely that the freshwater pearl mussel, Atlantic salmon and otter are present within this stream it is important that this stream is protected from developments that may have an effect further downstream.

The grasslands generally have a low biodiversity value, though the two areas of less improved grassland are an exception to this. These areas indicate the species-rich grassland community that would have existed before, which is reinforced by the description given by the previous landowner.

Species Information

BAP Species Seen: Song thrush (*Turdus philomelos*).
BAP Species Potential: The stream running through the site may support great crested newts (*Triturus cristatus*), as it is relatively slow moving, but these are have been rarely recorded in Aberdeenshire. The woodland is unlikely to support any red squirrels (*Sciurus vulgaris*) as there are few suitable food sources within the woodland, though these are likely to be within the surrounding area.
Other Noteworthy Species: Scotch argus butterfly (*Erebia aethiops*).

Flora:
The Invercauld has a flora typical of such mountainous areas. The more interesting plant species with more limited distributions included wood horsetail, great wood-rush, common cow-wheat, aspen, devil's-bit scabious, smooth lady's-mantle, sneezewort and bristle club-rush.

In additional interest is the presence of leopard's bane and snowberry, which are both common introductions and demonstrate that even in such remote areas non-native species can become established from nearby gardens.

Avifauna:
A song thrush was recorded during the visit. This is a BAP Priority Species, as it has suffered a population decline in recent decades. Other species recorded were blackbird (*Turdus merula*), mallard (*Anas platyrhynchos*), great tit (*Parus major*), pied wagtail (*Motacilla alba*), wren (*Troglodytes troglodytes*) and carrion crow (*Corvus corone*). In addition, a dead oystercatcher (*Haematopus ostralegus*) was found in the woodland, and others were sighted in the surrounding area.

Invertebrates:
Only one species of invertebrate was recorded during the visit, a scotch argus butterfly (Figure 4), which was very common in the surrounding area. However, the site has the potential to support a wide variety of invertebrates, including potentially interesting beetles and flies, predominantly in the woodland, but also in the site as a whole. Surveying for these groups and others may be worthwhile. Moth trapping, ideally more than once, may also produce a range of rarely recorded alpine moth species.

Figure 4: Scotch Argus

Herptofauna:
No herptofauna was recorded on the visit, and it is likely that the site is too far north and high altitude to support any reptiles. However, the stream may support great crested newts and other amphibians.

Mammals:
Signs of mammals found during the survey included rabbit (*Oryctolagus cuniculus*) and mole (*Talpa europaea*). Red squirrel are likely to be present within the surrounding area. Pine marten (*Martes martes*) may also be present in the surrounding area, though these would be on the edge of their range.

Bats may utilise the site as part of their foraging range.

Fungi:
Fungi are apparently abundant on site (warden, *pers comm.*), though only a few species of *Russula* (with red, yellow and green caps) were noted on the ground, none of which were identified to species, as this requires a high level of expertise. In addition to these ground-growing fungi was a fruiting body of *Fomes fomentarius* growing on a downy birch trunk. A fungi survey would most likely produce some interesting species. A lichen survey may also be worthwhile, as lichens were abundant on the trees and a species of dog-lichen (*Peltigera* sp.) was seen near the children's play area. The high levels of rainfall and clean air are beneficial to lichens.

Species Evaluation

The Invercauld provides a great deal of potential for a number of plant and animal groups.

With sensitive management the grassland within the campsite could become more suitable for many of these interesting plant species and could lead to an increase in the abundance of the acid-loving plants already present.

The woodland already contains a number of interesting species. However, the two introduced species within the woodland are less welcome, especially the snowberry, which can come to dominate areas if left unchecked.

Given the alpine conditions, woodlands and nutrient poor soils, the site also has great potential for interesting fungi, such as the *Russula* species found in various areas of the site (Figure 5). The lichen flora may also prove diverse, due again to the high altitude and also the clean air. It is very likely that further study would lead to the discovery of a rich fungal and lichen flora.

Figure 5: *Russula* sp.

The invertebrate faunal diversity at The Invercauld is not likely to be high in comparison with other southern sites. Nevertheless it may contain interesting alpine or nearctic species which would not be found in more southerly or lowland sites. The quantity of deadwood within the woodland is also a positive factor on the invertebrate fauna and may lead to the presence of some important saproxylic (deadwood) species. The stream may support additional aquatic species and it is likely that mayflies are abundant for a few days each summer. Had the visit taken place in better weather conditions it is likely that many more invertebrate species would have been recorded. Invertebrate surveys would most likely uncover a number of interesting species within the woodland and from the surrounding area.

The bird fauna was comprised mostly of common species, though one BAP Priority Species, the song thrush, was recorded. The bird fauna could probably be enhanced through the installation of bird nest boxes in the woodland and plantations. Bird feeders would provide an opportunity for visitors to enjoy watching the birds, and may also attract other species such as the red squirrel.

The site is unlikely to be suitable for reptiles, though great crested newts and other amphibians may be present within the stream.

Only common mammals were recorded during the visit, though red squirrel and pine marten may be present in the surrounding area. These species are likely to utilise the

woodland on site if they are present locally. It may be possible to attract both of these species by leaving suitable food sources out on site, but this should be balanced against any increased likelihood of them being hit by cars whilst crossing the road from the adjacent woodland. Bats may also utilise the site.

Management Recommendations

- An aim should be to revert the grasslands to their previous state, as far as possible. This could be achieved by managing the grassland without fertiliser or pesticide inputs and either gradually reduce the regularity of the mowing regime or increase the cut-height to allow some plants to flower. The arisings (cuttings) should be removed to prevent the build up of nutrients. This should allow an increase in plant diversity that will benefit many other species.
- Continue the existing woodland management but allow the clearings to regenerate (though the areas beneath the telegraph wires will continue to need regular clearing). Any increase in use by dog walkers should be monitored for impacts on the vegetation.

- Grass clippings can probably continue to be dumped in the woodland, as there is a shortage of other areas for them, but this should continue only in the current area and not be allowed to spread to an area where the ground flora is richer. Any future clearance should be limited so as to preserve the ground flora, but where it is necessary (*e.g.* for safety purposes or for the telegraph route) the deadwood should be either removed or left where it falls wherever possible, but should not be piled on site.

- Continue to allow some build up of deadwood, especially of broadleaved species, within the woodland for saproxylic (deadwood) invertebrates.

Further Suggestions to Enhance the Wildlife Value of the Site

- The woodland, though small, is probably of high enough quality to warrant the use of interpretive materials. This could simply be a hand out describing the structure and important features of the woodland or interpretation boards within the woodland. This would allow visitors to the site to be aware of the wildlife of interest present within a relatively small area of woodland. These could be further enhanced by additional survey work and could encompass the rest of the site if the recommendations for improving the pitch area for wildlife are adopted.

- Provide bird-feeding stations to provide food for bird species. Two or three feeders at each station could hold a variety of food. One with niger seed; one with husked sunflower seed and a third with general purpose food plus fat balls would attract the abundant birdlife in the surrounding area and provide a useful attraction for visitors to watch.

- Provide bird and bat boxes to encourage woodland birds and bats to nest and roost on the site. The bird nest boxes can be both open-fronted and conventional single hole (32mm diam.) could be added to selected trees in secluded areas of the site. Nestboxes need cleaning out each autumn.

Further Survey or Information Requirements

- A fungal survey of the woodland and site as a whole would probably produce a great diversity of species, including interesting alpine species, and is worth carrying out[1]. This should be carried out between August and October, ideally over a number of years to account for years that are not as good for fungal fruiting.

- A lichen survey may produce a number of interesting species and communities, due to the high rainfall and low levels of pollution. This should be targeted at the communities on the trees, but could also encompass other areas.

- An invertebrate survey is likely to be productive, especially if focused upon beetles and flies in the woodland. This may produce records of a number of interesting alpine, wetland and saproxylic (deadwood) species. Moth trapping in the site as a whole is also recommended and may be an interesting activity for visitors to be involved in. This could be repeated in a number of areas across the site, which would be made easier by the existence of power sources around the site.

[1] The British Mycological Society regularly has a field meeting in and around Braemar and could be contacted to assist with this.