The future of biodiversity in the Southern Uplands

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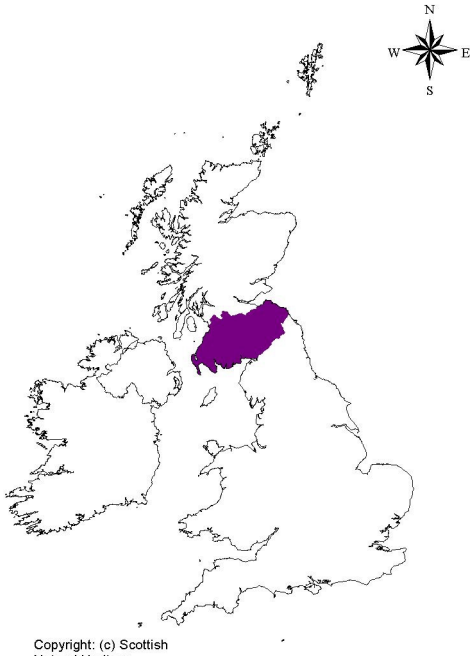
Introduction

The Southern Uplands is the one sixth of Scotland that folk tend to whiz through on their way north or south (Figure 1).

Figure 1. The area of Southern Scotland within which the Southern Uplands are located.



The Southern Uplands Partnership (SUP) is a small charitable company that has been working since 2000 to promote sustainable land use across the region. Visit our website at www.sup.org.uk

The Partnership seeks to promote integrated working – between agencies, communities, interest groups and between local authority areas. We try to tackle issues in the round and this paper considers some of the practical issues we have encountered in working with one broad habitat (heather moorland) and two species (black grouse and juniper). These are to some extent representative of upland biodiversity and the issues that impact upon it in the Southern Uplands.

Heathland

Heather cover in the Southern Uplands is declining:

- 1940s 1540 km2
- 1980s 786 km2
- A decline of almost 50%

It is likely that these losses are ongoing and these figures probably hide an additional decline in quality of habitat. The area of blanket mire and rough grassland is also declining.

What is causing the change?

- Afforestation, over/under-grazing, changes from cattle to sheep (and in some cases back to cattle).
- Less manpower to carry out traditional management. The impacts of this are subtle – e.g., hedges are now cut when the contractors are available.
- Decline in the quality and quantity of muirburn. The spread of forestry up to the moorland edge makes muirburn more risky.
- Conflict between land management practices for sheep and grouse. Doing both results in neither good sheep nor grouse.
- Bracken can be a significant issue.

- Climate change is likely to be having an effect – e.g., through heather beetle outbreaks and perhaps the increase in ticks.

Examples of good practice in heather management

"Linking the Ling" is a project that has funding from SNH and the Biodiversity Action Grant Scheme (BAGS) and good support from SEPA, SEERAD and RSPB. It is working with land managers to try to improve heather coverage in Upper Nithsdale through grazing management and reseeding. The signs are that this has been successful, but such changes are slow and project funding is all too often short-term.

Forestry Commission Scotland have done some good work for example by encouraging some "pulling-back" from moorland edges at restocking stages and some re-profiling of the upper edges of it's own forests to create a more diverse "feathered" moorland edge.

The Natural Care scheme run by SNH is able to support land managers who are willing to deliver ideal management within designated sites. The difference that this can make is marked. We find that land managers are generally willing to carry out management, *providing it is cash-neutral*.

Good relations with land owners and managers are vital and trust does develop over time. Unfortunately, most projects are time limited.

Land Management Contracts (LMCs) may offer a means of encouraging neighbouring land owners to work together to deliver priority actions, but again this will require facilitation and it is unclear how open the new scheme will be to such an approach. When payments for path creation were offered last year it was one of the most popular items on the menu, with total spend on new paths amounting to something like £7m. However, there was no requirement that these paths should relate to access strategies. Lots of paths might be good but not necessarily the paths we want or need. With a little bit of planning this money could have delivered a significant proportion of what local people actually wanted. Likewise, with some planning, targeting of funds through LMCs and Leader+ and some facilitation could deliver significant biodiversity benefits.

Black Grouse

Black grouse is a priority species that is unfortunately rapidly declining – more so in Southern Scotland than anywhere else in the country (Table 1). There have been several attempts to address this decline. Five years ago SUP sought funding from the Heritage Lottery Fund (HLF) for a black grouse project. We tried again in 2004 and we managed to get some funding to look at the possibility of developing black grouse watching at three leks in the Southern Uplands. By the time this work was done the numbers of birds had declined to the point that we did not feel the population was robust enough to cope with any disturbance. Local support for the species is strong and some individuals have spent significant amounts of their own money creating ideal habitat but still the numbers fall.

We have accurate counts for the leks in a key part of the Borders (one that held very healthy populations until just 10 years ago) showing that numbers declined by 35% between 2005 and 2006 from 98 male birds to just 63.

Table 1. Numbers of Black Grouse in Scotland.

Scotland	1995	2005	% change
N	910	743	-18
NE	1640	1494	-9
SW	1590	799	-50
SE	820	257	-69
UK	6813	5031	-26

Reasons for this decline are complex.

- To some extent we are probably seeing the last stages of a contraction following a boom in population caused by previous afforestation. Remaining good habitat consists of fragmented "islands" from which grey hens disperse – rarely to find suitable ground to settle on.
- Where there is good habitat there are fears that this may attract predators as well as black grouse thus concentrating the impacts of predation.
- Forests offer shelter for corvids, mustelids and foxes and upland plantings tend to bring them into closer proximity to the upland fringe.
- There has been a parallel decline in management for red grouse and the area of keepered moorland and the black grouse has almost certainly suffered as a result. A recent Game Conservancy Trust study in Northern England found that 90% of their black grouse were found on keepered ground.
- A recent seminar held in the Yarrow Valley highlighted the perception amongst gamekeepers that they were doing all they could in the way of legal predator control. This view was not shared by experts from the Game Conservancy who pointed out the very high numbers of corvids present in the Southern Uplands compared to the North Pennines for example.
- It is especially depressing that there has been such a decline in the south-west of Scotland where there has been a black grouse conservation project running over the last 6 years or so. Work there has concentrated on producing plans to enhance lek sites, and while some of these have been implemented, many remain aspirational due to lack of funds.
- There is also a strongly held view amongst keepers that the impact of raptors (specifically goshawks) on black grouse in the Southern Uplands is now significant. There are few if any hard data available on this, and indeed we have struggled to get access to any information on raptor populations. It seems to us that there is a need for a more open debate on this, if only to clear the air. However, at present there is rather a gulf between two strongly divided camps and we often feel somewhat exposed in the middle.

"Biodiversity on the Edge"

We have funds for a 2 year project ("Biodiversity on the Edge") to work with private landowners to try to stop further decline. A post is funded through to August 2007 by SNH, RSPB, Borders LEADER+ and BAGS (a funding mix that generates significant bureaucracy).

Costed plans have been produced for the best of the remaining leks in the area and efforts have been made to secure funds for the implementation of these plans. We have been thwarted to some extent by the closure of the Scottish Forestry Grant Scheme and Rural Stewardship Scheme but we are now trying to encourage better legal predator control to move things forward. We hope that LMCs will make it possible for these plans to be implemented in future and meantime we are looking at other funding sources – such as wind farm mitigation and carbon credits to see if these can be used to implement the plans.

Juniper

Juniper is another priority species which has attracted some interest in recent years.

Population studies have highlighted its plight, with only 8 individual plants found in South Lanarkshire (Table 2) , and one of these is apparently a sapling growing on top of a coal bing.

Table 2. Numbers of Juniper individuals currently extant in the Southern Uplands and numbers of Juniper plants under propagation.

	2005 population	Currently under propagation
Scottish Borders	6000	3000
Dumfries & Galloway	2500	0
S. Ayrshire	15	0
S. Lanarkshire	8	80

A project started 5 years ago in the Borders identified a worrying shortage of young plants amongst stands of aging trees and a project run by Borders Forest Trust has collected seeds, taken cuttings and has had these grown-on so that the population will soon have almost doubled.

There was initially a question over genetic provenance but work undertaken by Edinburgh University showed that there was very little genetic difference between Borders populations and between Borders stock and that from other regions so there was no problem with mixing stock from the scattered populations.

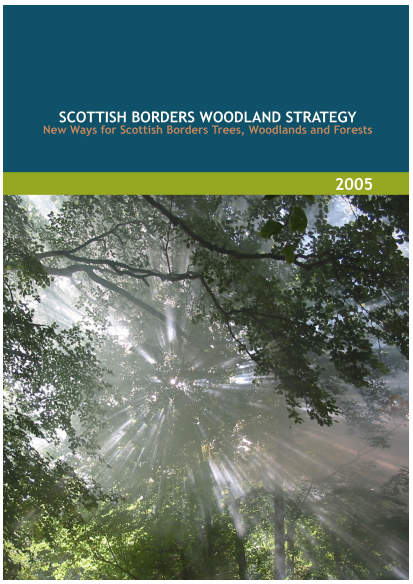
There is clearly now a need for work in other parts of the Southern Uplands, although there is a need to seek funds (or in-kind help) to cover collection and growing-on costs. A meeting will take place in January 2007 to consider a South Scotland project to extend this work and we think the Biodiversity Action Grant Scheme (BAGS) might be interested in funding this.

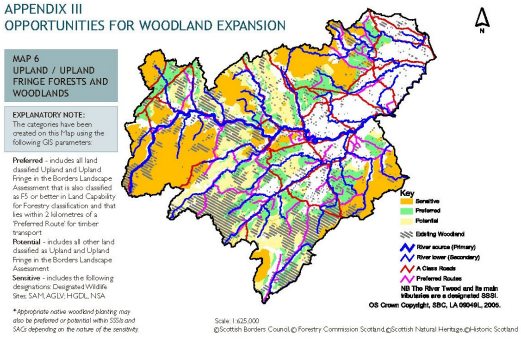
As a side note, we have found it very useful being able to match BAGS money 50/50 with SNH grant aid. Now that the BAGS is being managed by SNH we are concerned that this ability to match one against the other may be lost. Unless there is an opportunity for SNH to offer 100% funding to suitable projects, a new source of match funding will be needed and in our experience there are very few, if any, other sources of funding for this sort of work. We would therefore urge SNH to consider this matter.

Strategic Approaches

A good example of a strategic approach is the recent Scottish Borders Woodland Strategy produced by a partnership including the Local Council, SNH, Borders Forest Trust and Forestry Commission. This basically sets out what sort of woodland should go where (and where it should not go). This was launched last year linked to a (perhaps over-generous) challenge fund and almost overnight 504ha of new native woodland was "created".

Figure 2. Cover of Scottish Borders Woodland Strategy and an example of its graphic content showing opportunities for woodland expansion.





This work has been followed-up in the Borders by the production of a "Wetland Vision" funded by BAGS, Scottish Borders Council and SNH, again setting out where wetlands ought to be and what form they should take whether a farm pond, blanket bog or raised mire. This is already being used in current flood management planning which may result in enhanced habitats and flood prevention.

Everyone welcomes this better strategic targeting of habitat creation and enhancement. Many of us hope that such strategies will shape future LMC so that the outcomes of

farm support deliver agreed biodiversity and other priorities. It seems there will be a mechanism for "regionalisation" but it is not yet clear how this will work – nor how any future LEADER programme will function. However, having good quality strategic plans on the shelf makes this at least possible.

It is also clear to us that resources for conservation work are going to be scarcer and harder to obtain as HLF funds get applied to the forthcoming Olympics, EC funds reduce as a result of expansion, and generally budgets are tightened. It is then all the more important that these resources are used in ways that bring about maximum benefit.

The Future

We would like to see the development of a parallel Upland Vision. Linked to this and to the black grouse project, we are trying to develop an upland restoration project that would bring together the scattered small-scale initiatives, link the designated areas (Figure 3) with other areas of high biodiversity value and perhaps pool scarce funding resources so that we start to develop a landscape scale habitat that restores the links to native woodland, wetlands, grasslands, forest edges, etc. This might be the only way to reverse the decline in black grouse numbers – and it would enhance the natural heritage of the uplands in general.

Figure 3. Designated sites in the Southern Uplands