INGLEBOROUGH NNR
THE REWILDING OF SOUTH HOUSE MOOR
PROJECT BRIEF

INTRODUCTION

One of the original reasons for the establishment of a large NNR in the Yorkshire Dales National Park was to provide a tangible English Nature (then the Nature Conservancy Council) presence in a rich and diverse area where hitherto the organisation had been under represented. This presence was and is important to enable us to demonstrate the best in conservation land management. Some general conservation of the wildlife resource is included within the function of the Parks Authority, however their direct land management involvement is slight and it is in thfs area that EN can specialise. It is essential therefore that conservation objectives for the Ingleborough Reserve are clear and relevant to the wider area, that a high standard of land management is carried out underpinned by a sound understanding of the ecological processes and that recording and monitoring of the changes both natural and induced is planned, clear and based on sound science.

The economics of Hill Farming are based at present on the general desire to maintain a viable farming population in the uplands, this needs to be supported by a range of subsidies and support grants. Unfortunately, the structure of the system (based on a headage payment) has encouraged a widespread increase in stocking levels in the last *50* years with a shift towards intensification and high input farming systems. This has lead to some overproduction in hill sheep with further effects on depressing profit margins and the tendency to increase numbers even further to compensate for the shortfall. These trends have had a bad effect generally on nature conservation in the uplands. The Ingleborough reserve provides an opportunity to demonstrate the harmonious integration of more traditional agricultural practices with the maintenance and improvement of the conservation interest. On a more limited scale we have the chance to demonstrate the ecological impact of removing farming pressures totally, thus allowing and encouraging, the upland vegetation communities to re-establish and develop to a more natural state.

Within living memory the dwarf shrub communities on Ingleborough and the surrounding hills have been devastated by overgrazing linked to the rise in sheep numbers. Areas like South House Moor were once notable grouse moors as the estate bag records confirm but today the heather cover is almost gone and Red and Black Grouse are seldom seen. In many areas extensive moorland gripping has added to the problem and undamaged bog and mire communities are difficult to find. Many of the associated plant and animal species although still present have become extremely rare.

From management already carried out on the NNR there are encouraging indications that restoration of native habitats, by removing or reducing grazing, encouraging the reestablishment of the altitudinal zonation of natural plant communities and attempting to return the drainage pattern to its natural course, is a practical possibility. We should seek to pursue this goal as the primary objective on some of the upland areas within the NNR. South House Moor is a suitable area on which to carry out this imaginative scheme for a number of reasons:

a. It is owned by English Nature
b. It has a variety of soil types, microclimate and altitude
c. It has good remnants of dwarf shrub communities
d. There is strong evidence of former woodland cover on the lower slopes
e. It formally had good moorland bird populations and the species are still present in the area to recolonise
f. There are no public footpaths through the compartment so access can be controlled by the visiting permit system

THE PROPOSAL

To recreate the natural mixture of upland plant communities on South House Moor including scattered native woodland grading into Juniper scrub communities and good quality dwarf shrub moorland, valley mire, deep peat communities, acid grasslands and a small area of limestone pavement.

THE AREA AT PRESENT
Compartment 23 **South House Moor**

MAJOR VEGETATION COMMUNITIES AND DESIRED UNGRAZED ALTERNATIVES

Community	NVC Type	Approx Area (ha)	Ungrazed NVC Type
Hill Top Blanket Bog	M19a	5	M19
Hill top calcareous grassland	CG1Oa	10	? (W9a at lower altitude)
Heath on scree/steep slopes	H18c	10	W19/W17
Richer acidic grassland (lower slopes)	U4b	15	W11?
Acidic grassland (drier slopes)	U5A	40	W17 + W19/23
Modified blanket bog/ wet acidic grassland	M20/U2b	65	M19 + W4
Acidic flushes	M6a,c,d	20	W4 + W7, M25
Marshy grassland (below flushes)	M23b	10	W1
	Total Area	174ha	

FEATURES

This large, mainly acidic, upland compartment resembles part of an amphitheatre with a flattish central basin at an altitude around 400m. This is bounded in the west by a convex undulating slope rising to the trig point at the summit of Park Fell *(563m).* The adjacent slope to the south-west rises steadily from South House Moor Beck to an altitude of about 500m and then climbs steeply up a scree slope, of the Yoredale series, to the top of South House Moor at an altitude of 620m. The gently sloping ground to the south is dissected by small (sometimes dry) valleys whose banks of accumulated drift and scree material form dry grassy ridges. The head of South House

Moor Beck drains a saddle area, with considerable peat deposits, which separates the two summit areas on top of South House Moor and Park Fell.

The peat hags near the Park Fell trig point have eroded sides in places, perhaps originally caused by sheep lying up for shelter but now open to the action of frost heave and wind. The summits of these hags have good examples ofMl9a Calluna vulgaris-Eriophornm mire, Erica tetralix sub-community with Rubus chamaemorus and Cladonia lichens. Nearby is a small tarn with breeding frogs and dragonflies Aeshna juncea and Enallagma cyathigerum.
At the top of South House Moor is a small area of limestone pavement of the Yoredale series with abundant Crinoid fossils.

There are small numbers of breeding Red Grouse and Curlew and occasional Golden Plover, Short-eared Owl, Black Grouse and Dunlin have been encountered. A Black Grouse lek site was recorded until the 1950's.

There are no public rights of way in this section but walkers are occasionally encountered following routes published without regard to access provision. Access to the land is granted from Upper Pasture across Borrins Moor as well as being available from Whit-a- Green and Park Fell.

There is evidence of past moorland gripping but many of the channels have now begun to colonise and no longer function as intended.

PAST MANAGEMENT

In the distant past the moor was famous as the best grouse moor on Ingleborough with good heather cover but there is abundant evidence in the present vegetation of a more recent history of overgrazing perhaps coupled with past intensive burning. The peat contains the remains of a considerable birch woodland and in the recent past the area was threatened by coniferous forestry. Before acquisition in 1987 the area was grazed with up to 400 ewes and 114 hogges and the owner before that stocked heavily throughout the winter which probably coincided with the main period of heather decline.

Sheep were removed from the moor in the autumn of 1987 and the area given a total rest from grazing until May 1990 when light summer grazing was again reintroduced at a stocking density of I ewe to 4 acres. This was chosen to permit continued recovery of the dwarf shrub community. The land is owned by English Nature and grazed by Mr R Kenyon of South House Farm on an annual grazing licence which is renewed each March.

RESEARCH AND SURVEY

A monitoring transect was set out over the area and some black & white photographs taken in 1988, these were supplemented by colour photographs and permanent quadrats in 1989. There are three small permanent grazing exclosures on the upper slopes on different upland communities where vegetation changes are recorded. The whole moor was covered by an NVC mapping survey by H Davies in 1992, this proved to be a difficult exercise because of the featureless terrain. The area was also

covered in 1984 by the Ingleborough Upland Survey using Birks and Ratcliffes methodology (Sydes et al) and there is some information in the survey of Ingleborough by Bartley and Clark 1978.

RATIONALE

The NNR Management Plan, the Natural Area Objectives and the Biodiversity Action Plan all point to the desirability of restoring a significant area of upland to a more natural state. We are not aware of opportunities to achieve or demonstrate this elsewhere in the Natural Area and thus see this proposal for South House Moor as a very important and high profile initiative.

The NNR Management Plan (see below) seeks opportunities to demonstrate the conservation value of alternative land-use strategies in the uplands and to restore examples of more natural communities across the eco-altitudinal range.

The Natural Area Profile for the Yorkshire Dales has the restoration of a proportion of the area, and particularly the moorland, to ungrazed communities as the major objective that is not (or scarcely) being pursued at present.

The Biodiversity Action Plan has high priority targets to restore upland oak woodland and populations of black grouse, both of which are major aspects of this project.

South House Moor lies within the proposed Ingleborough Complex SAC and contains a small area of the priority limestone pavement habitat as well as areas of “plants in crevices in limestone rocks”. Representation of both these habitats will be enhanced by the diversity in management states that will result from the removal of grazing from South House Moor. In addition, new areas of the other qualifying habitat (juniper) will be created.

The project will deliver a major increase in the wildlife capital of the NNR and SSSI as well as the moor itself. The early work will enhance structural diversity, whilst the longer-term will see the reestablishment of native communities that are currently absent or present as very small remnants.

A core reason for the project is to enable English Nature to demonstrate the work and its benefits to others. To this end we will record the changes and seek to involve others at all stages of the work. The local community will be involved from the outset. In the NNR management Plan, Ideal Management Objective No 5 states:

“To demonstrate the conservation value of alternate land use strategies in the uplands”

When acquired in 1987 the traditional stone wall boundaries were in poor repair and temporary stock-fence was installed along some 2000 meters in order to make the compartment stock proof. It is intended to reinstate this stone wall, a large part of which is a parish boundary of considerable historical interest and landscape value.

In order to recreate natural type of woodland an initial phase of tree planting using native species suited to the area will be carried out. Trees will be planted in copses and along gill sides and it is intended that this first generation will act as seed parents

so that natural regeneration can take over in the long term and the distribution of native type woodland will be determined by the local conditions of soil and climate. Juniper and willow scrub will be established on the scree slopes in places again to facilitate natural regeneration. The woodland communities will be designed to match the present National Vegetation Classification conversions suggested in Cooper, E. A. & Rodwell, J. S. (1995)

It is visualised that the increased structural diversity in the vegetation, changes in microclimate and available ecological niches will incre,ase the biological capital. Trees and shelter bring an abundance of insects and more bird and animal life. Similar large scale experiments carried out on the Isle of Rhum in Scotland have yielded spectacular results. We will demonstrate that an un-farmed landscape is not the "untidy, derelict" landscape of popular myth but one rich in wildlife, with an attractive wilderness landscape. A place of spiritual significance.

SUMMARY MANAGEMENT PROPOSALS TO INITIATE THE REWILDING

1. Cease sheep grazing at the end of summer 1999.
2. Restore the derelict stone walls around the moor, plus wall top wiring where required. At least 1500m of rebuild required; cost £40-50k.
3. Plant native trees and shrubs in specific clumps and larger blocks - constituting about a fifth of the moor area or approximately 35 ha at average 3m spacings. Say 1000 plants per hectare = 35000 trees. Complex planting design; northern England/upland provenance; most unprotected but some in tubes; thus estimating total cost at £50k.

FUNDING

Total capital cost = approx £ 100k. The major establishment works are envisaged over a three year period starting Autumn 1999.

We will apply for Forest Authority woodland grant for the tree/shrub establishment. We hope for Dales Millennium Project support to 50% of the total cost. We intend pursuing some sponsorship support, probably from local quarry companies.

REFERENCES

Bartley, D. D. and Clark, S. C. (1 978). A Vegetation Survey of the Ingleborough SSSI. NCC Report in Leyburn library copied to Reserve Base.

Cooper, E. A. & Rodwell, J. S. *(1995).* NVC Options in the Yorkshire Dales. EN Contract Report No. 1 *3/94,* shelved at Leyburn and the Reserve Base

Corkhill P. (1995). Ingleborough NNR Management Plan. Unpublished, filed at Leybum, York and Colt Park.

Davies, Helen (1992). A Survey of South House Moor. (NVC map and text) MSc Thesis Lancaster University, Copy at Reserve Base.

Sydes, C. Owen, C. M. & Tapper, R. (1984). Upland Survey Report. Ingleborough volume. Leybum office library.

Rodwell J & Patterson G (1995). Creating New Native Woodlands. Forestry Commission Bulletin 112. HMSO.