



**LANGHOLM MOOR
DEMONSTRATION PROJECT**

ANNUAL REPORT

December 2008

Introduction

The Langholm Moor Demonstration Project is a partnership between Scottish Natural heritage, Buccleuch Estates, the Game and Wildlife Conservation Trust, the Royal Society for the Protection of Birds and Natural England. The Project was formally launched on 20th September 2007.

The Project area covers 11,960 hectares of land which incorporates all of the Special Protection Area and Site of Special Scientific Interest owned by Buccleuch Estates. It includes the area previously managed for as grouse beats and a surrounding buffer where legal predator control was undertaken to support the management of the grouse beats.

The partners have agreed that the core objective of the Project is

To establish Langholm Moor as a driven grouse moor to meet the nature conservation objectives of the Special Protection Area and the Site of Special Scientific Interest.

Under this objective, the following elements would be delivered:

- ***Demonstration of how to resolve the conflicts between moorland management for raptors and red grouse;***
- ***The hen harrier population would be maintained as a viable component of the Special Protection Area;***
- ***The heather moorland habitat would be extended and improved beyond its state in 2002; and***
- ***The number of red grouse shot would be sufficient to ensure the moor reaches a financial viable state.***

These elements would be reviewed every three years. Five broad criteria have been devised to evaluate the success of the Project. These criteria are being considered in detail by the Scientific and Technical Advisory Group. The basic criteria are:

Raptors and red grouse

The Project seeks to demonstrate if it is possible to manage the Special Protection Area for both raptors and red grouse interests.

Hen harriers and other raptors

The Project seeks to avoid deterioration in the habitats of hen harriers or significant disturbance to them. All raptors will be protected during the Project. The Special Protection Area will hold a nationally important population of hen harriers when there is 1% of the UK population (7 breeding females, based on 2007 population estimates). The Project aims to restore moorland habitats, reduce conflicts and create other conditions that allow the Special Protection Area conservation status to be maintained and will endeavour to meet a target of at least 1% of the UK population of hen harriers.

Red grouse numbers

Based on standard practice of shooting 30% of the grouse on a moor, 6,000 birds (equivalent to 150 birds/Km²) would be required in order to shoot 1,000 brace. The target is set for 1,000 brace of grouse shot or a mean density of 150 birds/Km² in July across the sample plots in one year, with the sustainable employment of keepers. Grouse moor management would be the economic driver, supporting the employment of at least 5 keepers but not necessarily making a financial surplus.

Heather moorland

Milne and Pakeman's report of 2002 identifies 1240 hectares of dry heath by October 2017. The target for the Project is to increase heather cover by 20% (250 hectares) on areas of 'white' ground and degraded heather moorland. The Project also aims to improve the condition assessment of the moor in accordance with Scottish Natural Heritage's Site Condition Monitoring principles.

Passerines and waders

In 2000-03, 14 species of bird were known to breed and/or feed on the moor. Given the populations of these bird species since 1992, the targets for breeding density are as follows

Lapwing:	0.6 birds/Km ²
Curlew:	1.9 birds/Km ²
Golden plover:	0.5 birds/Km ²
Meadow pipit:	21.9 birds/Km ²

All being based on June counts along two 1Km transect in each of 15 1Km squares, using the Breeding Bird Survey methods.

The Project comprises three broad elements of work

Moorland management – keeping, shepherding and associated activities

Monitoring – survey and monitoring of red grouse, raptors and other species and habitat interests

Project management – reporting and PR

Project Management

The Project was formally launched in September 2007.

Langholm Moor Demonstration Project Limited, the company established to deliver the Project was incorporated on 31st March 2008. The Board of Directors is composed of a representative from each of the funding partners.

Scottish Natural Heritage	Colin Galbraith
Buccleuch Estates	Mark Oddy
Game and Wildlife Conservation Trust	Teresa Dent
Royal Society for the Protection of Birds	Duncan Orr-Ewing
Natural England	Martyn Howat

Colin Galbraith acts as the Chair for the Board and the Project Manager provides the necessary administration. The Board meet quarterly and direct Company policy, consider reports on progress and direct the overall management of the Company. The Board met on 3 occasions in May, July and September.

The Scientific and Technical Advisory Group has been established to ensure data gathering and land management accords with the highest standards and that data is interpreted with scientific rigour. Members of the Group are as follows;

Jeremy Greenwood	Steve Redpath
Alan Edwards	Mick Crawley
Simon Thirgood	Robert Kenward
Ian Newton	Alex Jameson

In addition to the members of the Group, there are observers from the following organisations:

SNH	Buccleuch Estates	GWCT
RSPB	Natural England	

Jeremy Greenwood acts as the Chair for the Group and the Project Manager provides the necessary administration. The Group met in January and in May 2008. Their purpose is to ensure that

- success criteria for the Project were realistic and robust
- Monitoring Protocol provide all necessary data
- Moorland management/keeping are of suitable standards
- Project results reviewed annually and expected to meet success criteria
- Published outputs are scientifically and technically accurate

Graeme Dalby, the Project Manager was appointed and started on 1st March 2008. He is responsible for the day-to-day management of the Project Company. In addition, he provides administration for the Board of Directors and Scientific and Technical Advisory Group and manages the media relations.

Press and Media Relations

The Project Manager provides the focus for media relations for the Langholm Moor Demonstration Project. They are supported by a media contact within each of the partner organisation as follows:

SNH	Nancy Fraser and Heather Kinnin (technical input from Des Thompson)
Buccleuch Estates	Richard Williamson
GWCT	Steve Tapper
RSPB	Duncan Orr-Ewing
Natural England	Beth Rose

A protocol has been developed to ensure that all partners receive recognition for their role within the Project. This protocol also provides for a mechanism whereby agreement over the content of any outgoing material is agreed between the Partners.

The following activities have been undertaken during 2008:

March	Joint press release issued for appointment of Simon Lester as Head Gamekeeper
	GWCT presentation on Project to member's conference
April	BBC Landward visit Project for filmed piece
June	Scottish Gamekeepers Association visited Project
July	Staff attended Scone Game Fair
	Scottish Cabinet Secretary visit
	Staff assist with wildlife walk as part of Langholm Walking Festival
August	Scottish Countryside Alliance visit
	GWCT presentation on Project to grouse moor managers conference
	Members from Dumfries and Galloway and Lothian and Borders Raptor Study Groups visit
September	Introduction to muirburning presentation
October	Head keeper attends Heather Trust AGM and field visit in Peak District
	Joint press release to announce provisional results from first year of Project
	Project Manager made presentation on Project to Moorland Forum
November	Head Keeper and Mark Oddy (Buccleuch) made presentation on Project to Moorland Association
	Project Manager made presentation on Project to Natural England Upland Advisors' conference

Moorland Management

The management of the moorland is based around five key activities

- Programme of measures to benefit the habitat, including heather burning, bracken control, heather restoration, blanket bog management, livestock management and goat control;
- Legal predator control;
- Medication of red grouse for disease control (notably to combat strongylosis)
- Diversionary feeding of hen harriers
- If the recovery of game populations is slow by Year 3 (2009-10), red grouse may be taken from other moors to help 'kick start' the population

The Project will also explore habitat creation measures to create alternative nesting and feeding habitat for hen harriers.

The Project employs one head gamekeeper (Simon Lester, started on 1st March 2008) and four beat gamekeepers (Andrew Johnstone, Thomas Johnson and Joseph Pattison, started on 1st April 2008 and Paul Bell, started on 3rd May 2008) to undertake this work. They work alongside the shepherds employed by Buccleuch Estates and ecologists working for the Project.

A detailed Management Plan is being developed between the Project Manager, keeping staff, scientific staff and Estate staff. The Plan will be finalised during 2009 and implemented from May 2010. Targets within the overall Project Plan are given below with progress to 31st October 2008.

Target	Progress (as at 31/10/2008)	Target for 2008-09
<p>Heather burning</p> <p>Aims to produce a mosaic of different aged heather.</p> <p>All burning in accordance with the Muirburn Code.</p> <p>Dry heather on 15-year rotation. Burnable blanket bog on 25 year rotation. With 1,240 hectares of dry heath and 1,490 hectares of burnable bog, this equates to around 150 hectares of burning per year.</p> <p>(note that these figures exclude Twislehope and Dinley.</p>	<p>Burning started in March 2008. 5 days in 2007-08 season and 2 days in October 2008.</p> <p>All burning in accordance with Muirburn Code.</p> <p>Minimal recent burning, so no young heather burnt.</p> <p>Around 50 hectares burnt during 2007-08 with 22 hours cutting (estimated to be around 22Km of 6m wide cut strip). Lower than target as most keepers only in place for April and October of burning season.</p>	<p>All burning opportunities taken (any day in week).</p> <p>All burning in accordance with Muirburn Code.</p> <p>Target of around 200ha, 200 fires of around 1ha each (accepting that achievement is weather dependent, that some fire may be greater than 1ha and that cutting included in total)</p>
<p>Bracken Control</p> <p>Bracken expanding onto heather areas. Many areas untreatable as next to watercourses, scrub and grassland. Target is for 42 ha/year to be treated</p>	<p>Aerial spraying arranged. No treatment possible due to prolonged wet weather during spraying window.</p>	<p>Aerial spraying undertaken to treat large areas on Whita Hill and Roan Fell.</p> <p>Ground treatment considered on readily accessible areas.</p> <p>(note both targets are weather permitting)</p>
<p>Heather restoration</p> <p>11 areas identified with use of cattle and cutting <i>Molinia</i> and spray/burn/seed suggested</p>	<p>Estate using cattle on part of Lodgegill to reduce <i>Molinia</i> (restoration target area F)</p> <p>Other areas considered lower priority so work proposed for later year.</p>	<p>Proposals for each target area to be considered and action identified within Moorland Management Plan.</p>
<p>Blanket bog management</p> <p>Good practice management</p> <p>Consideration of ditch blocking on Roan Fell and Blackgate Rig</p>	<p>Careful use of atv's</p> <p>Ditch blocking being considered as part of Moorland Management Plan development</p>	<p>Careful use of atv's</p> <p>Ditch blocking being considered as part of Moorland Management Plan development</p>

<p>Livestock Management</p> <p>Shepherding to spread grazing across hefts</p> <p>Management of supplementary feeding sites</p> <p>Consideration of away wintering</p>	<p>Estate shepherd move sheep regularly, but difficulties due to large blocks of unbroken heather and minimal young heather (minimal burning in recent past)</p> <p>Cattle supplementary fed on 2 sites, not sensitive areas</p> <p>Estate Farm considering away wintering of sheep from Broomholmshiel (not one of restoration target areas) and part of Perterburn (restoration target area M) and considering infrastructure requirements for other areas (restoration target areas A, C and N)</p>	<p>Estate shepherd move sheep regularly. Being made easier by burning/cutting of heather.</p> <p>Cattle supplementary fed on 2 sites, not sensitive areas</p> <p>Estate Farm deliver winter grazing reductions on 4 hefts</p>
<p>Other Herbivore Control</p> <p>Goat population to be managed around 200 animals by Oct 2010</p>	<p>Estate currently undertaking cull of animals, with gamekeepers taking occasional animals for fox middens. Goat count planned for December 2008 to provide more detail for target and cull planning.</p>	<p>Goat count undertaken December 2008. Breakdown of existing population and required cull (and population structure) to maintain target of sustainable population of 200 individuals on whole moor.</p> <p>Estate maintain cull of animals (mainly billies), with gamekeepers nannies and kids.</p>
<p>Legal Predator Control</p> <p>Foxes, corvids and mustelids controlled throughout year, with main effort in spring</p>	<p>Keepers only in place from early spring. They run 5 Larsen (crow) traps, at 2 large crow cage, 80 spring traps (for mustelids), at least 1 midden and 100 snares.</p> <p>All live catch traps checked at least daily and corvid traps labelled as required by General Open Licence.</p>	<p>Keeper to run 5 Larsen (crow) traps, at 2 large crow cage, 100 spring traps (for mustelids), 2 middens and 100 snares.</p> <p>All live catch traps checked at least daily and corvid traps labelled as required by General Open Licence.</p> <p>Each keeper lamps at least 2x per week, as</p>

	Each keeper lamps at least 2x per week, as weather conditions allow. Where dens were suspected, keepers 'sat out' awaiting leaving/returning foxes	weather conditions allow. Where dens were suspected, keepers 'sat out' awaiting leaving/returning foxes
<i>Disease control in red grouse</i> Medicated grit out (withdrawn prior to shooting) Catching and direct dosing may be undertaken	Samples from grouse worm counted, generally low to modest worm counts. Medicated grit put out on territories of know red grouse. Supply of suitable 'grit boxes' being investigated. Worm burdens do not warrant direct dosing at this time.	Samples from grouse worm counted in autumn and spring. Medicated grit put out on approx 150m grid across grouse areas in suitable 'grit boxes'. Worm burdens checked to ensure no requirement to direct dose.
<i>Diversionsary Feeding of Hen Harriers</i> Carried out in accordance with ' <i>Substitute Feeding of Hen Harriers on Grouse Moors</i> '	2 harrier nest produced. Both fed prior to hen settling on eggs and for 60 days after hatching. In addition, feed perches and nest watched by movement sensitive cameras (with night vision capability)	All harrier nest to be fed prior to hen settling on eggs and for 60 days after hatching. Feed perches and nest watched by movement sensitive cameras (with night vision capability)
<i>Habitat Creation</i> Small scale scrub creation, small plantations or brash provision	Not required as harriers found ample suitable habitat within moorland	Not expected to be required as harriers found ample suitable habitat within moorland

No grouse shooting took place during August, September or October 2008. No grouse shooting will take place during November and December 2008. The decision on whether to shoot grouse during the 2009 season will be dependent on grouse numbers in summer 2009.

There was no shooting of non-grouse gamebirds between the launch of the Project and 31st October 2008. Any decisions on such shooting will be based scientific advice.

