



UPDATE ON PROGRESS – 2012

Red Grouse Density.

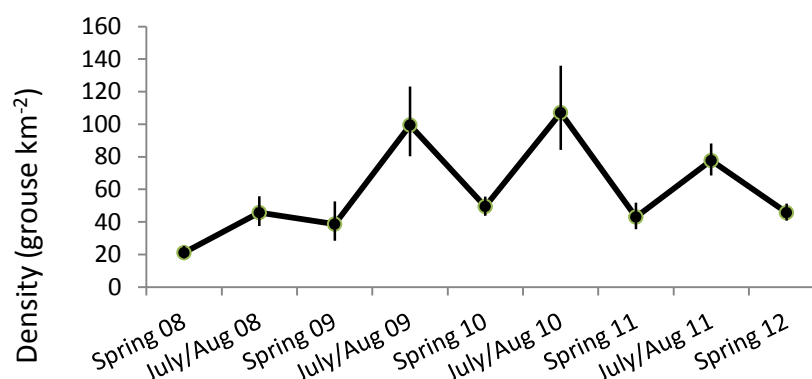


Figure 1. Mean density of Red Grouse at Langholm derived from distance sampling in both the 10 block counts and the additional transects. Bars show 95% CI.

Red Grouse Mortality: Estimates of mortality of Red Grouse are available from radio-tagged birds and changes in numbers between successive counts. The count data suggests that between August and March 11/12 the change grouse over the moor because of death and low levels of migration was estimated at 41% compared to 60% (2010-11), 50% (2009-10) and 16% (2008-9).

	Keeper found kills (Aug-Mar inc All yrs)	Found during spring counts (All yrs)	Radio tracking (winter 2011-12)
Raptor	266 (91%)	50 (77%)	14 (78%)
Fox	10 (3%)	11 (17%)	2 (11%)
Other/unassigned	16 (6%)	4 (6%)	2 (11%)
Total	292 (100%)	65 (100%)	18 (100%)

Table 1 Likely mortality causes of red grouse found dead on Langholm Moor

Raptors: In 2011, two hen harrier nests reared 10 young. Nests were diversionary fed prior to and post incubation. There was good uptake of this and during nest watches, 119 items were observed being brought in, 65 of these being diversionary food, with a further 45 being passerines mostly meadow pipits. No young grouse were observed being taken in to the nest (note 3 items were unidentifiable). Ravens only started removing food. As of 12th June 2012, there was one hen harrier nest with 4 eggs in the nest. Three young hen harriers were satellite tagged in 2011. These birds moved around the Southern Uplands of Scotland and 2 moved south into France. Four tagged harriers have been lost in the UK and two in France.

In 2011, there was 1 successful peregrine nest and two unsuccessful nests off the moor, 4 raven nests on the Project area and one closeby and 4 successful merlin nests with at least 11 young. Around 15 buzzard nests were found on or near the Project boundary. Similar numbers of nests have been recorded in 2012. During summer 2011, provisional work was undertaken to assess the diet of buzzards nesting near the moor. This work is being expanded in 2012-2014.

During winter 2011/12 observations on raptor foraging were made at 9 vantage points distributed across the moor. The area was scanned with binoculars at 2min intervals and all raptors and ravens seen were recorded.

Year (No of scans)	Buzzard	Peregrine	Hen Harrier	Goshawk	Raven
2011/12 (6390)	9.28	0.42	0.05	0.03	3.36
1992-93 (9252)	5.58	1.91	3.06	0.24	0.14
1993-94 (8273)	8.15	2.02	4.77	0.02	0.39
1994-95 (3285)	1.52	2.47	1.00	0.06	0.06

Table 2 Summary of number of points per 100 scans for winter 2011/12 and during the Joint Raptor Study

Fox Abundance An index of fox abundance is determined using standard transects along which fox scats are collected. During 2011, an additional transect was included where there was perceived to be a fox problem. An average of 8-9 hours keeper effort is now required for each fox lamped. There are increasing numbers of badgers at Langholm. Mapping of setts has taken place and will be repeated in future years.

	2008	2009	2010	2011	2012
Average/transect	56	15	8	10	8

Table 1 Number of fox scats recorded on clear up rounds during last week of March

Grouse Health Management: Tick burdens were have been noted on the southern part of the moor though disease testing during late 2011 revealed no evidence of louping ill. Medicated grit is being used and worm burdens are at a low level.

Small Mammals: Numbers of small mammals fell from the record levels of 2011 but were still high.

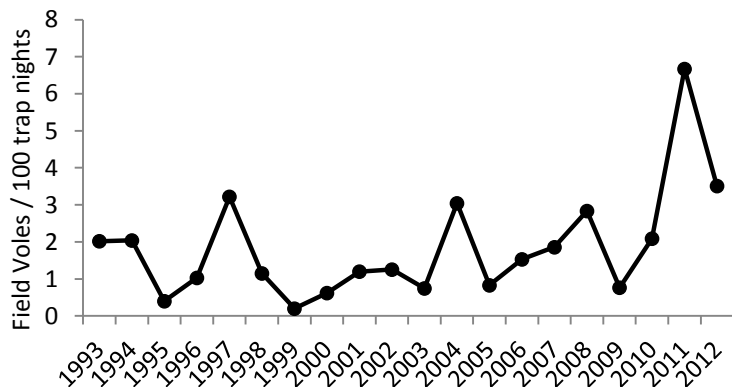


Figure 2 Index of field vole abundance at Langholm

Habitat: Langholm Farms Ltd have reduced sheep grazing levels, particularly winter levels. An out of season burning licence was issued by SNH but weather allowed only one day of burning in September 2011. Widespread heather beetle outbreaks in 2009 and 2010, required heather restoration. Spraying of glyphosate-based herbicide was undertaken on 263 ha during July/August 2011. The areas were cut or burnt with heather seed applied to all cut areas at 4 kg per ha.

	2008/09	2009/10	2010/11	2011/12
Number of fires	275	363	118	109
Total Area (ha)	119	113	95	329*

Table 9 Number of fires and area burnt *includes heather restoration areas described above

Extensive bracken control was carried out by aerial spraying in July 2011. 140 ha were re-sprayed after incomplete coverage in 2009 and a further 400 ha of primary treatment were achieved.

PR: The Project continues to offer on-site visits for policy makers and others. During the past 12 months, the Project has hosted: *Wildlife Crime Officers from most Scottish police forces and staff from the National Wildlife Crime Unit, some of the Scottish Procurator Fiscals, Stewart Stevenson MSP, the Upland Ecosystems Group chartered surveyors from both public and private sector organisations and invitees from partner organisations.*

The Project has featured in *Shooting Times (Game Fair issue outlining 3-yr Review), The Field (3-yr Review), the Heather Trust Annual Report (3-yr review), local newspapers (3-yr review and out of season heather burning licence), Scotland Outdoors (general feature).* The Project has also hosted BBC Scotland 'Out of Doors' (general feature on moorland management undertaken) and Border TV (out of season burning licence).