

The Langholm Moor Demonstration Project

Red grouse and birds of prey

Summary of Progress to Scotland's Moorland Forum - October 2014

October 2014 marks the end of Year 7 of the Project's 10-Year lifespan. The Project is in the process of producing an integrated report detailing progress to date. As a precursor to the detailed report, a series of position statements have been agreed between Project partners. These formed the basis for the update that was included within the 2014 Heather Trust Annual Report (extract attached). In addition, brief details from the summer 2014 monitoring are included below.

Red Grouse

Spring counts were markedly higher than in 2013. Despite this increase, post-breeding counts did not increase on 2013, and numbers remained insufficient to support driven shooting.

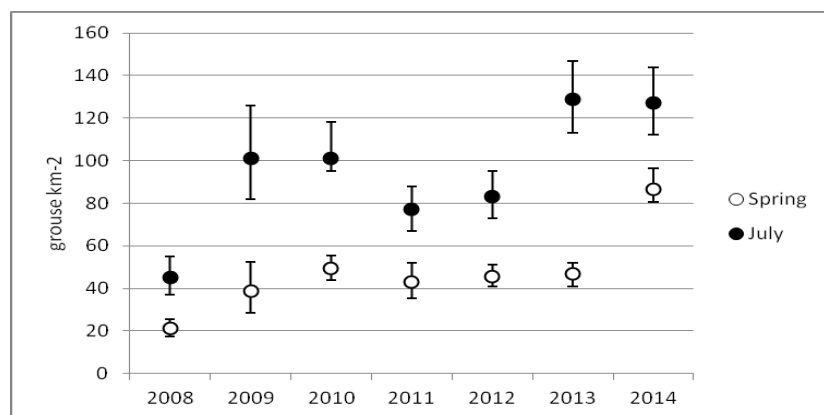


Figure 1 Mean densities of red grouse at Langholm in spring & July derived from distance sampling. Error bars represent 95% CI.

Habitat

During the 2013-2014 burning season, there were no periods when the weather was suitable for heather burning. As such, active heather management was limited to the cutting of strips within established heather. The south western corner of the moor was again affected by heather beetle, but the outbreak was limited to around 50 hectares of heather close to the road. The heather restoration areas showed excellent recovery of heather, with heather now being sufficiently grown to flower profusely this summer. It was intended to undertake follow-up bracken spraying during the summer but the current restrictions on the use of knapsack sprayers and other hand held equipment meant that such use was unviable and aerial spraying contractors were unable to accommodate further work.

Predator Control

Predator control continues to take place over the whole of the moor using all legal means. Indirect measures of abundance indicate that the reduction in the number of foxes remains high. Trapping for stoats and weasels continues. Crow control continues.

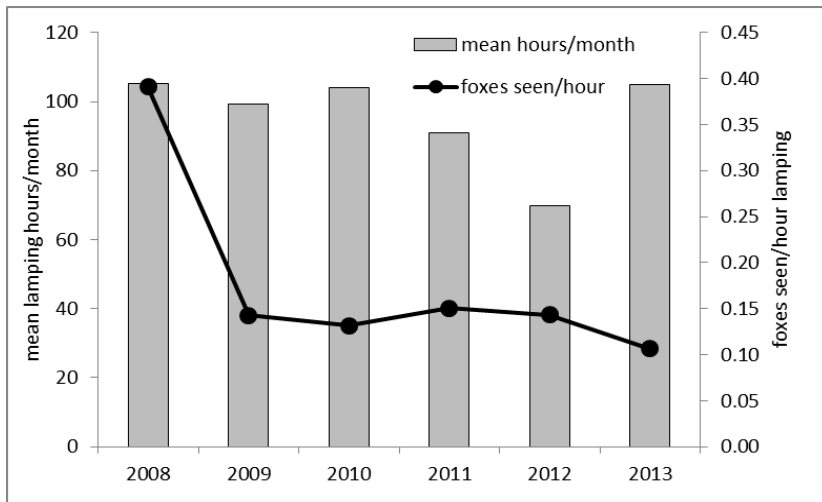


Fig 2. Lamping effort (mean hours/month) and number of foxes seen per hour lamping 2008-2013.

Breeding Raptors

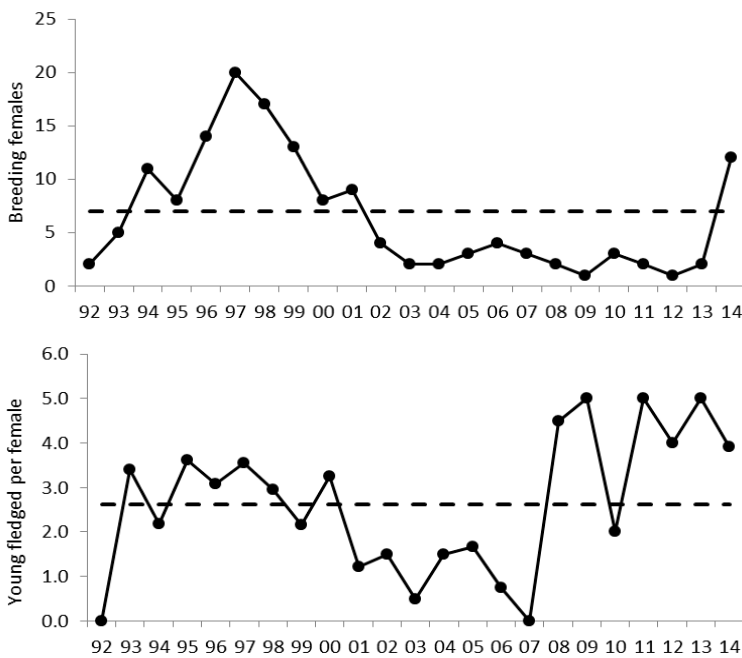


Fig 3 Number of breeding hen harriers and breeding productivity at Langholm

In 2014, there were a total of 47 young hen harriers reared. All nests were provided with diversionary food post-incubation. With nests located across a wide proportion of the moor, this 7-days per week activity was onerous. There was mixed uptake of diversionary food this year.

Staff and local Raptor Study Group workers, undertook an extensive search of the Project area and the following breeding pairs found in 2013.

Species	2008	2009	2010	2011	2012	2013	2014
Hen harrier	2	1	3	2	1	2	12
Peregrine	2	2	2	1	2	2	2
Merlin	1	1	4	5	3	6	6
Buzzard							
Project area only	(10)	(8)	14	12	12	12	(9)
2km buffer zone			1	7	4	11	5
Short-eared owl	2	1	?	?	1	3	12

Table 1. Number of raptor breeding pairs present on the Project area during 2008-2014. Peregrine nests include one site within close proximity (500m) of the Project boundary, for buzzards additional nests found within a 2km buffer zone outside the Project boundary are given as well (note that search effort varied between years). Numbers in brackets are likely to be an underestimate as no systematic search for nests was carried out in these years.

During both the summer and winter, observations on raptor foraging were made at vantage points distributed across the moor. The results are currently being analysed as part of the buzzard PhD work being undertaken by Richard Francksen. In addition, pellets were collected from buzzard roosts on the moor during the winter to help inform winter diet. The analysis was supported by a student project trial in which captive buzzards were fed red grouse and pellets recovered for analysis. Results are currently being analysed.

Mammals

2014 was a high vole year, having quickly recovered from 2013.

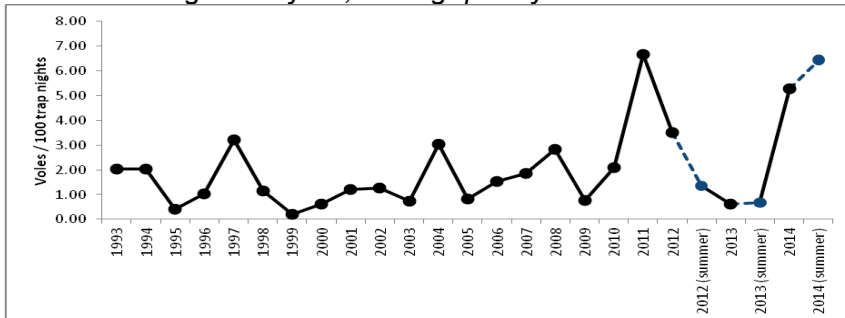


Fig 4. Voles caught per 100 trap nights in March (black points) and June/July (blue points).

Future Issues

The Project is due to release a review shortly (covering the period to 31st October 2014, ie the end of Year 7). There are concerns that despite two grouse breeding seasons with near-perfect weather conditions, there are still insufficient grouse to support driven shooting. The Project is looking to confirm the reasons behind the poor production of young grouse onto the wing and relative scale of predation losses by the different predator species. Such work would be an essential precursor to any deliberation on future management.