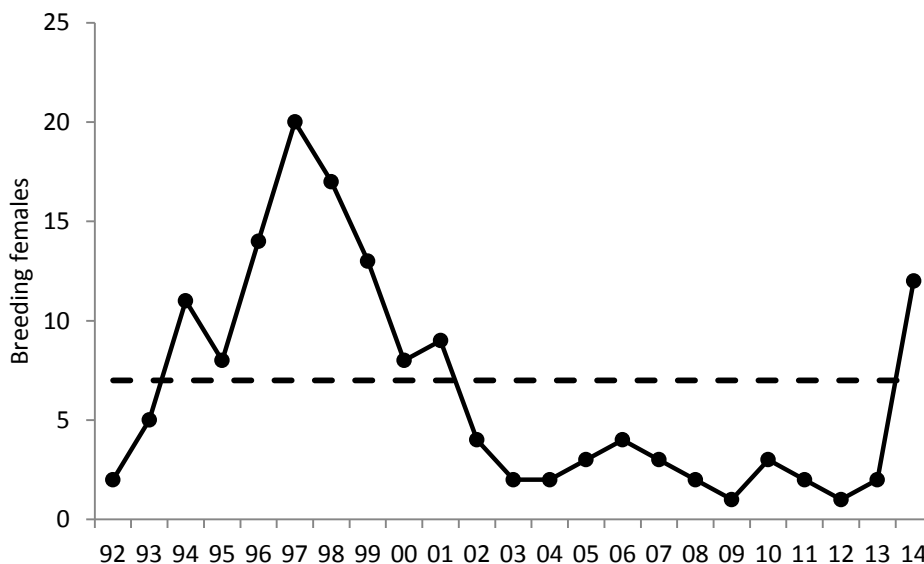




This report summarises information gathered during the 2014 breeding season by a combination of members from the Scottish Raptor Study Group and staff from the Langholm Moor Demonstration Project.

### Hen harriers

2014 has seen a big increase in hen harrier numbers on the moor (Figure 1). Two satellite tagged juvenile females from last year have stayed on and around Langholm Moor all winter, and other harriers were observed from late March onwards. In total, there were at least 13 females (4 second-year, 9 adult) and 9 males (2 second-year, 7 adult) present, and in contrast to previous years displaying males were not only observed in the southern area around Little Tarras, Terrona, Muckle Knowe, and Whita, but also in the northern areas (County March, Roan Fell, Dinley). 12 females settled and nested with the established males (three of them as secondary females), the additional female was seen displaying but did not pair up.



**Figure 1.** Number of breeding female hen harriers at Langholm 1992-2014. The dotted line represents the SPA target.

Ten nests were successful and fledged 47 chicks in total; the other two failed on eggs (one secondary female, one very late nesting attempt):

	Female	Male	Eggs	Hatched	Fledged	
Nest 1	2cy (sat-tag)	Adult	5	5	5	Sat-tag on female chick
Nest 2	Adult		6	5	5	
Nest 3	2cy	Adult	6	5	5	
Nest 4	2cy		7	6	6	
Nest 5	2cy (sat-tag)	Adult	5	4	3	One young chick died
Nest 6	Adult		6	0	0	Deserted during incubation, secondary female
Nest 7	Adult	Adult	7	6	6	
Nest 8	Adult	Adult	5	3	3	Sat-tag on male chick
Nest 9	Adult	Adult	6	5	5	
Nest 10	Adult	2cy	6	3	3	
Nest 11	Adult	2cy	6	6	6	
Nest 12	Adult	Adult	(2)	0	0	Late nest, deserted/predated by corvids during egg laying

All chicks were BTO-ringed, and 30 out of 47 chicks were also fitted with colour rings (black with yellow letters) as some had already fledged by the time the colour rings were available. Two chicks were additionally fitted with satellite tags.

### **Peregrine**

All traditional sites both within the LMDP boundary and in the immediate surrounding area were checked for occupancy. One site on the project area fledged two chicks. In addition, a site approx. 500m outside the project boundary fledged three chicks, and a further site approx. 2km outside the project boundary fledged one chick. All chicks were ringed and fitted with PIT tags.

### **Raven**

All traditional nest sites within the project area were checked. In 2014, three pairs of raven nested on the project area, one nest failed and the other two fledged two and three young, respectively. A further pair <500m outside the project boundary fledged five young. All chicks were ringed.

### **Merlin**

Five merlin nests were located within the project area, of which four successfully fledged between three and four young. The chicks from two nests were ringed. One additional site was occupied with a pair but their success is unknown.

**Buzzard**

Nine buzzard nests were located on the project area plus an additional five nests within a 2km buffer zone outside the project area. Ten nests successfully fledged up to three young, two nests failed and at two sites success is unknown. Chicks were ringed and fitted with patagial tags at seven nests. However, this year the monitoring effort was reduced compared to previous years.

**Goshawk**

No goshawk nested within the project area. One nest site outside the project area (<2km from the project boundary) was occupied by a pair, which fledged 3 young.

**Short-eared owl**

At least 12 pairs of short-eared owls nested on the project area, fledging up to six young, and at three further sites single birds were observed. Chicks from three broods were ringed.

**Barn owl**

Eight pairs of barn owls nested successfully within or close to the project area, fledging four to eight young. The chicks of six broods were ringed.