

## GWCT's Andrew Gilruth asks Do We Need Predator Control?

At one conservation organisation's AGM this year we heard some amazing habitat restoration success stories, complete with local bird population recovery – it was impressive. The speaker went on to say that this proves “if you build it, they will come”. In these examples he was absolutely right. It was great. The members loved it

### What do we do in the places where habitat has been restored but targeted wildlife has not recovered?

Where do we start? Any reduction in abundance is caused by losses of adults, eggs or young. So predation then? Possibly. We know predation pressure can, in some places, depress numbers, particularly of ground-dwelling species<sup>1,2</sup>. Predation can also prevent the recovery of declined species of wildlife<sup>3</sup>.

### Research has shown that predation can have impacts

Over the last 30 years, the GWCT has published over 150 papers considering predation effects. The implications for conservation are clear. In the uplands, black grouse and capercaillie ranges would contract further if predation pressure increased<sup>4,5</sup>. Birds such as curlew and lapwing are typically now restricted to upland areas where predators are controlled to benefit red grouse<sup>6</sup>. In the lowlands, predator pressure has been shown to limit grey partridge recovery, corvid predation to impact on thrushes, and fox predation to restrict the abundance of brown hares<sup>7,8,9</sup>.



### Conservation success can be achieved where predators are controlled<sup>10</sup>.

Having suitable habitat for breeding and survival is crucial for all species, but the impact of predation is generally recognised as a factor too. Predator control is now used by farmers, gamekeepers and a wide range of nature reserves<sup>11</sup> where habitat management alone is not enough<sup>12</sup>.

The benefits of predator control are not just for game, waders and songbirds. Reducing numbers of some of the common generalist predators can benefit some rare predators. Pine martens may suffer from fox predation<sup>13</sup>. Ground-nesting harriers do well on virtually fox-free islands, e.g. the Orkney Islands, Islay, Arran and the Isle of Man, and have been found to decline on a grouse moor when fox control ended<sup>14</sup>.

### So is predator control the silver bullet?

No. Demonstrating benefits in many situations is not a carte blanche for control; predator control must also be sensitive to the predators being taken. Many predators in the UK are recovering in numbers while some are at an all-time high<sup>15</sup>. But there is little doubt that the 19th Century drive to increase game abundance led to intense predator control that was responsible for the disappearance of many raptors and small carnivores

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from large parts of Britain<sup>16, 17</sup>. This legacy brought predator control, often wrongly described as 'keeping', into disrepute, driving a perception of incompatibility with conservation.

### What about the 2015 corvid paper published in Ibis?

It is a helpful review of 42 corvid impact studies from around the world (it did not conduct any new corvid work). It concluded that there is evidence of corvid control improving bird nesting success (productivity), but less often having an effect on breeding abundance.

We might expect to find more evidence of improving nest success (productivity) because more studies measure this. Monitoring nesting success is much simpler than monitoring breeding density – for the latter, some species require monitoring for three years until they have reached breeding maturity.

This point is illustrated by the [GWCT Upland Predation Experiment](#) at Otterburn. It lasted eight years, but measuring improvements in breeding abundance of curlew took several years because most curlew do not reach breeding maturity until they are three years old. Measuring breeding abundance is more practical for species that remain in a local area and breed at the end of the first year.



Photo by Laurie Campbell

The [2015 Ibis paper](#) suggests that if there is evidence of predation being at least partly responsible for poor conservation status, then predator management for conservation should, as a rule of thumb, control a broad spectrum of common generalist predators, not just corvids. A point most gamekeepers would understand.

### Why doesn't it show that controlling corvids alone works?

Many reasons, some to do with the number of studies available to review and the interpretation of the results – but at a practical level, there are two important reasons:

- 1) If one species is controlled and leads to improved productivity, this may just provide more prey for other predators
- 2) Removing one species of predator may allow others to come in or increase in abundance.

As gamekeepers have reported for years, and the evidence supports, corvid control alone does not always result in improved conservation of another species

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