

Experimental assessment of release methods for the re-establishment of a red-listed galliform, the grey partridge (*Perdix perdix*).

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ABSTRACT

Large-scale declines of grey partridges (*Perdix perdix*) since the 1980s have led to local extinctions in the species' range. As part of a UK recovery programme, we aimed to identify the best methods of re-establishing grey partridges through releasing in areas of extinction where a suitable environment has been restored. In East Anglia and southern England we followed the fates and breeding success of radio-tagged (one site per region) and colour-ringed birds (12 sites per region) of individuals released using five different techniques. The average resighting rate after the first 6 months post-release was 20% for bantam-reared and artificially-reared fostered young, 7% for unfostered young, 10% for full-grown birds in autumn-released coverts and 9% for spring-released adults. For birds that survived the first 6 months, the percentage resighted after a second 6-month period averaged 35%. Across both regions, 65% of grey partridge losses were due to predation of which 58% were killed by mammalian predators and 37% by raptors. Of birds still alive during the breeding season, 88% established their breeding territory within 1.5 km of the release location. There were no detectable differences in breeding success between release methods, but the proportion of females with broods among released birds was a third lower than among wild birds. We recommend re-establishing grey partridges by first releasing autumn coverts, followed by fostering. However, where wild birds are still present, the conservation focus should be on habitat improvements and predation control.

Citation

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