



The Rotherfield Demonstration Project

The amount of grey-partridge-friendly habitat increased from 10.4 hectares (5%) to 43.3 hectares (20%) in the 217ha project core area. © Francis Buner/GWCT

BACKGROUND

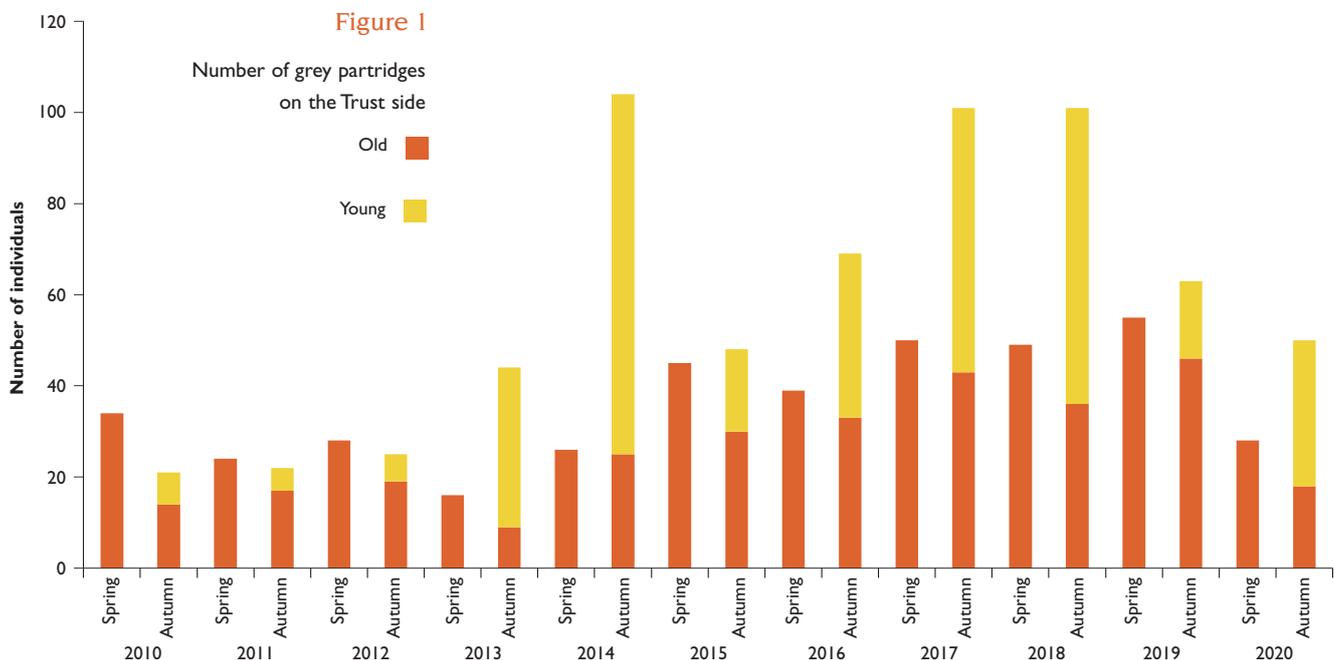
The project started in 2010 to demonstrate grey partridge recovery from zero, together with the benefits for other wild game and wildlife. It aims to be applicable to a wide range of landowners and other stakeholders wishing to recover grey partridges where they have gone extinct. Grey partridge reintroduction is based on GWCT guidelines, which follow international guidelines.

The Rotherfield demonstration project in east Hampshire was launched in 2010 to demonstrate how to recover grey partridges in an area where they disappeared in the early 1990s, and to showcase how grey partridge conservation management benefits farmland wildlife more generally. The Rotherfield Estate invited the Trust's own gamekeeper, Malcolm Brockless, to manage an area of 700 hectares (ha) (Trust side) to build a wild-bird shoot. GWCT researchers provided habitat improvement advice to the farm and managed the wildlife monitoring protocols agreed at the beginning of the project. Between 2011 and 2020, 600 wing-tagged cock pheasants were released annually, demonstrating a workable way to provide moderate but high-quality shooting during the grey partridge recovery period when any partridge shooting should be avoided.

In February 2020, Malcolm Brockless retired from the GWCT handing back predation and shoot management to the Rotherfield Estate, bringing a natural end to the project. Nevertheless, the long-term wildlife monitoring protocols remain in place until 2023 as part of the PARTRIDGE project, alongside habitat management advice where required (see page 76).

During the 11-year period, the amount of high-quality grey-partridge-friendly habitat within the 217ha core grey partridge recovery area, mostly part of an HLS Agri-Environment Scheme (wild bird seed mixes, cultivated uncropped margins, beetle banks, floristically enhanced grass margins and field corners, pollen and nectar mixes and extended overwintered stubbles) increased from 10.4ha (5%) to 43.3ha (20%). During the same period, the cropping plan was diversified, and fields made smaller, resulting in a mixed arable crop pattern. Meanwhile, gamekeeping management was intensified, focusing on predation management during the breeding season from early May until mid-July and supplementary winter feeding from September to the end of April, with an average of 24 tonnes of wheat grain fed per winter.

On the Trust side, the number of grey partridge pairs remained unchanged (17 pairs in 2010 vs 16 pairs in 2020), with a peak of 27 pairs in 2019 (see Figure 1).



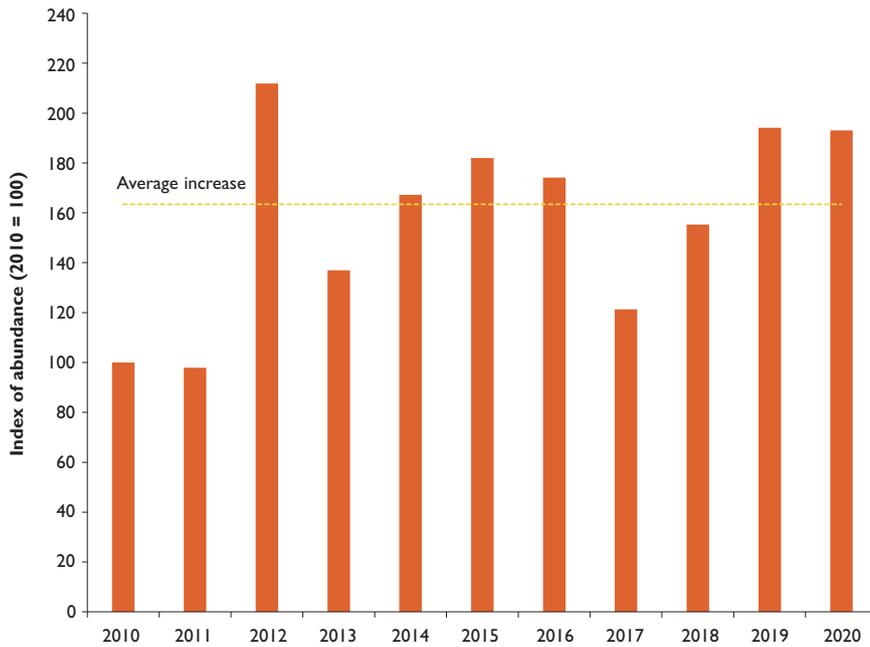


Figure 2

Abundance index of farmland songbirds of conservation concern during the breeding season (April-June) on the Trust side of Rotherfield Estate, based on counts along a 10-km transect. The index of the baseline year 2010 is set at 100. The index of 193 in 2020, for example, means that numbers have increased by 93% compared with the baseline year

However, in 2010 almost all birds were released (17 pairs produced only seven young; a young-to-old-ratio of 0.5), whereas from 2014 onwards all were wild. With 36 young recorded in autumn 2020 (young-to-old ratio of 1.8), the ratio was slightly higher than the 11-year average of 1.4. The peak year for productivity was 2014 with 79 young produced by 13 pairs (young-to-old-ratio of 3.2). The autumn stock of the re-established wild grey partridge population (no release of reared or wild birds since 2014, see *Review of 2014*) was 56 in 2020, with the highest autumn numbers of around 100 birds recorded in 2014, 2017 and 2018. Clearly, the disastrous breeding season of 2019 (27 spring pairs produced only 17 young, resulting in an autumn young-to-old ratio of 0.4) affected the situation in 2020.

In 2020, the abundance of red- and amber-listed farmland songbirds recorded during the breeding season (yellowhammer, skylark, linnet, dunnock, song thrush, bullfinch and tree pipit) was similar to 2019, and 93% higher than in 2010 in the project area (see Figure 2), whereas nationally they increased by only 1% during almost the same 10-year period (see BTO BirdTrends for England). Similarly, brown hare numbers increased 1.8-fold, from an average of 23.5 hares/100ha in 2017, to 42.0 hares/100ha in 2020 (11.2 fewer per 100ha than in 2019). Monitoring of hares began only with the start of the PARTRIDGE project (see page 77).

Between 2011 and 2020, the number of shoot days per season averaged 12 (six driven days including walk-stand days for 16 guns, and six mixed walked-up days including spaniel and pointer trial days), with an average annual mixed bag of 382 head of feathered game (SE 38.6), of which 290 (SE 24.6) were cock pheasants. Of the 600 wing-tagged cocks that were released annually, 153 (SE 18.4) were shot per season. Hence, the known recovery rate of released cocks in the bag was 25.5% (SE 1.1), whereas the recovery rate based on the total cock bag (the way recovery is typically calculated on UK shoots because released birds remain untagged), was 47% (SE 4.5).



KEY FINDINGS

- After 11 years at Rotherfield, and 36 working for the GWCT, Malcolm Brockless retired from his gamekeeper position handing predation management back to the Rotherfield Estate.
- In 2020, the number of grey partridge spring pairs on the Trust's demonstration area was 16 pairs, 11 fewer than in the previous year and one less than when the project started in 2010.
- On the Trust's area, the grey partridge autumn stock was 50 birds, 13 less than in 2019. During the project period, autumn numbers exceeded 100 birds three times.
- Farmland birds of conservation concern were up 93% compared with the baseline year in 2010, with an average increase of 63% since the project began.
- During the 10-year shooting period, an average of 12 shoot days were held per season, with mixed bags of 382 feathered game per season.

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ACKNOWLEDGEMENTS

We are extremely grateful to the Rotherfield Estate, including all the farm staff, for allowing the GWCT to demonstrate how to successfully recover grey partridges from initial extirpation to an autumn stock of just over 100 wild birds on three occasions during our 11-year involvement. This has not been achieved anywhere else in Europe.

Young grey partridges. © Markus Jenny