

# Conservation of Farmland Birds

This guide comprises notes to support the Conservation of Farmland Birds workshop at Peppering Farm, Sussex, in June 2022; a collaboration between GWCT and AgricoLOGY and made possible by the generous support of The Ernest Kleinwort Charitable Trust and The Lawson Trust.

UK Farmland bird indicators have fallen by 54% since 1970. Modern farming techniques have created challenging conditions for farm ecosystems and birdlife in particular, reducing insect numbers and the nesting habitats they need to survive.

Peppering farm, in partnership with GWCT, lead partner in the Interreg PARTRIDGE Project, have successfully developed a scalable solution for increasing farmland bird populations whilst maintaining farm profitability. In recent years they have laid 9 miles of new hedging and currently dedicate 12% of their farmland to conservation, with the remainder farmed as before.

This approach has been developed primarily to ensure grey partridge populations, an indicator species for a healthy farm environment, thrive, but has also demonstrated a significant positive impact across other farmland birds including a 57% increase in skylarks, 71% increase in lapwings, 20% increase in yellowhammers and 30% increase in corn buntings. Small mammals such as voles and hares are also visibly abundant.



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## The Three Pillars of a Successful Conservation Approach

Extensive research across Europe has identified three pillars of an approach that can successfully reverse the decline in farmland biodiversity, supporting more varied flora and fauna

### NESTING AND OVERWINTER HABITAT

Grey partridges are ground-nesting birds, with nests in shallow scrapes hidden in dense vegetation in field margins, crops, or the bases of hedges. They pair up in late winter/early spring and search for suitable nesting sites, looking for cover to protect their nests and the incubating hens from the weather and predators.

#### Provide suitable habitat by:

- ✓ Cultivated arable margins (which also allow less pesticide drift into nesting areas)
- ✓ Leaving hedges uncut during the nesting season (May - July), and cutting in rotation (3 years) to allow a dense base to develop and ensuring plentiful nesting habitats for other farm birds
- ✓ Introducing wildflower margins/plots in field corners that remain uncut during May - August to provide overhead protection from predators and insect food for chicks
- ✓ Rotating crops throughout the year and leaving winter stubble where possible to ensure consistent cover
- ✓ Creating 'beetle banks' for additional nesting habitat and sustainable food sources



# FOOD SOURCES

Nesting birds need a constant supply of seeds and fresh green material, while newly hatched chicks require protein-rich insects to promote growth and feathering up. The closer the food resources are to their nesting sites the better, as long journeys increase risks of predation.

## Maintain food sources by:



- ✓ Introducing conservation headlands with arable flora that provides food resources such as knotgrass, chickweed and mayweed, as well as rare arable flora such as cornflower, prickly poppy and dwarf spurge,<sup>1</sup> free from herbicides or summer pesticides, that will support a healthy insect population (shown to support twice as many insects as conventional wheat fields)
- ✓ Using flower-rich, diverse wild bird covers, that flower during June, July, and August; these have been shown to provide good numbers of chick-food insects
- ✓ Creating mid-field 'beetle-banks' to increase populations of beneficial insects and small mammals
- ✓ Including seed-bearing winter crops such as kale, quinoa and chicory in rotation plans
- ✓ Providing supplementary bird food via feeders in winter and spring (located close to nesting sites), and ensure overhead cover to minimise risk of predation

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## PREDATION CONTROL DURING NESTING

The nests of ground nesting birds and chicks are vulnerable to predation - up to 75% of partridge nests and a third of nesting female partridge can be lost to predators.<sup>2</sup> Foxes are the main threat during the breeding season. Birds of prey such as sparrowhawk are the main threat during winter months hence the need for good cover over winter.

Habitat management can reduce the threat of predation, examples include providing nesting habitats that are wider than 20 metres, and ensuring beetle banks do not connect with field edges.

Legal methods of controlling foxes, crows and magpies, in combination with increases in nesting habitats, have nearly tripled the percentage of grey partridge pairs that successfully produce a brood of chicks - from 26% to 71%.<sup>3</sup> It is essential that lethal predator control is humane and efficient and follows best practice guidelines. Courses are available on best practice and relevant legislation.



## Reduce threats of predators by:

- ✓ If using feeders, take pains to control access by rats and instigate a programme of rat control / feeder movement to limit any problems
- ✓ Use Larsen traps according to the relevant conditions of the appropriate general licences to reduce crow and magpie numbers in spring and summer
- ✓ Reduce levels of predation by foxes during the breeding season using appropriate methods

<sup>1</sup> Three taxa important for chick food insects - as in Marshall, E. J. P. et al. (2003). The role of weeds in supporting biological diversity within crop fields. *Weed research*, 43(2), 77-89. Rare arable flora included as a separate consideration

<sup>2</sup> 10 years previous to the time of management on the Peppering estate used for these calculations as in Ewald, J.A. et al. (2020). Research into practice: gray partridge (*Perdix perdix*) restoration in Southern England. *Frontiers in Ecology and Evolution*, 8(517500): 1-13

<sup>3</sup> Figures as published in Ewald, J.A. et al. (2020). Research into practice: gray partridge (*Perdix perdix*) restoration in Southern England. *Frontiers in Ecology and Evolution*, 8(517500): 1-13