



## FARMLAND BIRDS

### *Grey Partridge, Skylark, Tree Sparrow & Corn Bunting*

#### 1. INTRODUCTION

A substantial number of our characteristic farmland birds have declined dramatically in range and number over recent decades. This action plan considers four that have shown particularly serious declines in the sub-region, namely the grey partridge, skylark, tree sparrow and corn bunting. Each species has its own unique ecological needs but the causes of their declines and the appropriate remedial actions, are sufficiently similar to warrant bringing them together under one action plan.



Corn bunting © Steve Falk

#### **Grey partridge**

A species of open country, preferring low-intensity, mixed farmland, with small fields and hedges on grassy banks to provide nesting cover (Potts, 1986), the grey partridge also favours bare areas of dry soil for dust-bathing. It feeds on plant material and insects with the latter, especially sawfly larvae, being particularly important for the development of young chicks.

#### **Skylark**

A bird of open habitats such as pastures, arable fields and naturally regenerated grassland which is best known for its distinctive song-flight, the skylark nests on the ground, amongst crops or in grass, but prefers spring-sown cereals, young grass leys and rotational set-aside. Invertebrates form the bulk of the diet but outside the breeding season, cereal grain and weed seeds are important. As summer wanes, the birds often gather in large flocks to feed in stubble fields.

#### **Tree sparrow**

Generally found on lowland arable or mixed farms with scattered trees and mature hedgerows and occasionally round the edge of settlements, but unlike the other birds in this action plan it nests in holes, traditionally in old trees or farm buildings though occasionally it will nest in dense bushes. Tree sparrows feed amongst crops or farmyards and are particularly dependent on rotational set-aside, winter stubbles, root crops, wild bird cover, weeds in the crop margins or areas of spilt grain as a source of seeds. They are largely sedentary and faithful to one nest site, which means recolonisation is extremely slow and their population has historically been very variable, with numbers increasing and decreasing over short time periods for no clear reason. Chicks are fed on insects for the first two weeks of their life which come from a wide range of habitats, including hedges, crops and waterside vegetation.

**Corn bunting**

Corn buntings are found on open arable and mixed farmland, generally preferring treeless areas with fences, stone walls, bushes or overhead wires for song posts. They nest on the ground in cereal fields, set-aside, grass field margins or unimproved grassland. Nesting starts late, usually June or July, and pairs can still have flightless chicks in August. Adults feed mainly on seeds, especially cereal grain. They search for these in rotational set-aside, harvested root crops, winter stubbles, newly-sown crops, weeds in the crop margins, areas of spilt grain or places where cereals are fed to outdoor cattle. During the breeding season, they also take insects from crops, set-aside, grassland and field margins to feed to their chicks and breeding success relates directly to the availability of this insect food.

**2. OUR OBJECTIVES & TARGETS****Target**

- |   |             |
|---|-------------|
| A. <b>To maintain population size of the grey partridge, skylark, tree sparrow and corn bunting.</b>        | <b>2008</b> |
| B. <b>To maintain the 2002 range and, where possible, increase the range of grey partridge and skylark.</b> | <b>2010</b> |
| C. <b>To increase the range of corn bunting and tree sparrow from that of 1996.</b>                         | <b>2008</b> |

**Comment [WCC1]:** Wording changed to UKBAP terminology Sept 2008 R Moffatt

**Comment [WCC2]:** Wording changed to UKBAP terminology Sept 2008 R Moffatt

**Comment [WCC3]:** Wording changed to UKBAP terminology Sept 2008 R Moffatt

**ASSOCIATED HABITAT PLANS**

- Field Margins
- Hedgerows
- Lowland Neutral Grassland
- Lowland Calcareous Grassland

**ASSOCIATED SPECIES PLANS**

- Song Thrush
- Rare Bumblebees
- Scarce Arable Plants

**3. NATIONAL BAP OBJECTIVES & TARGETS****Grey partridge**

- *Halt the decline by 2005. Revised*
- *Ensure the population is above 150 000 pairs by 2010. Revised*
- *Maintain the current range of this species. Revised*
- *Enhance the current geographical range of this species, where biologically feasible. Revised*

**Skylark**

- *Maintain the BBS population index for skylarks at or above the 1995 level. Revised*
- *Maintain the number of wintering skylarks at or above 1997/98 level as determined by the JNCC/BTO survey. Revised*
- *Maintain the range of skylarks as measured by the frequency of occupation in BBS squares at or above the 1995 level. Revised*
- *Reverse the population decline on lowland farmland and other habitats, where found to be declining, as measured by BBS indices Revised*

**Tree sparrow**

- *In the short term, halt or reverse the decline in numbers of the tree sparrow by the year 2003 so that the Breeding Bird Survey index is at least at 1996 levels. Revised*
- *In the long term see a sustained recovery in numbers so that the BBS index is at least 50% higher than 1996 levels by 2008. Revised*
- *Expand the range from that of 1996, as measured by the frequency in random BBS squares, by 2008. Revised*

**Corn bunting**

- *In the short term, halt or reverse the decline in numbers of the corn bunting by the year 2003 so that the Breeding Bird Survey index is at least at 1996 levels. Revised*
- *In the long term see a sustained recovery in numbers so that the BBS index is at least 50% higher than 1996 levels by 2008. Revised*
- *Expand the range from that of 1996, as measured by the frequency in random BBS squares, by 2008. Revised*

**4. CURRENT STATUS**

**Grey partridge:** is largely confined to lowland farms and is on the *Red Alert List of Birds of Conservation Concern*, having declined by 84% during 1974-99 (Gregory et al. 2002). More worryingly, the rate of decline increased during the last five years of this period. The species is the subject of a UK Biodiversity Action Plan. Within Warwickshire, surveys in 1966-68, 1968-72 and 1988-91 showed grey partridge to be present in over 90% of the 10-km squares covering the county. However, current survey work shows that birds are present in only 10-20% of tetrads (2kmx2km squares) (J.Bowley, pers.comm.). It seems likely, therefore, that there are now no more than 200-400 territories.

**Skylark:** is concentrated on farms in the south and east, dropped by 55% during 1974-99, placing the species on the *Red Alert List*. Within Warwickshire, surveys in 1966-68, 1968-72 and 1988-91 all recorded birds in every 10-km square, and this is almost certainly still true, but current surveys show only three-quarters of tetrads to be occupied (J.Bowley, pers.comm.) Numbers are also much reduced and the county population is currently estimated at 5500-7000 pairs.

**Tree sparrow:** the species is something of an enigma whose numbers fluctuate in an irregular, cyclical way. It chiefly occurs in lowland districts in the Midlands and north, numbers plummeted by a staggering 95% between 1974-99, placing it well and truly on the *Red Alert List* (Gregory et al. 2002). In Warwickshire, surveys in 1966-68 and 1968-72 showed birds to be present in virtually every 10-km square but by the 1988-91 survey this proportion had fallen to 87% of 10-km squares. Current survey work has found birds in only 25% of tetrads across much of the county but there is an important population in the Feldon area (10-km squares: SP 45, 46, 55 and 56) that comprises an estimated 250-300 pairs (J.Bowley, pers.comm.) From this information the population is currently estimated at 500-800 pairs.

**Corn bunting:** The UK population is again concentrated on lowland farms in the south and east, with, as implied by its name, a preference for arable land. Like the Tree Sparrow, numbers in Britain have traditionally shown marked fluctuations, but between 1974-99 they fell by 89% and this decline was still accelerating during the last five years of this period (Gregory et al. 2002). In Warwickshire the species is renowned for its chequered history, with the last three surveys showing birds in 62% of the survey areas during 1966-68, 77% in 1968-72 and 67% during 1988-91. The most recent information shows birds now restricted to between 10-15% of tetrads, with main concentrations north of the A5 in the Minworth-Wishaw area and on the river terraces SE of the Avon (J.Bowley, pers.comm.). The total number of territorial males is estimated at 100-300.

#### 4.1 Legal and Policy Status

All birds are protected under the Wildlife and Countryside Act 1981.

- **Grey partridge** is protected in Britain under the Game Acts. It is also listed on Annex III/I of the EC Birds Directive and Appendix III of the Bern Convention.
- **Skylark, tree sparrow and corn bunting** are all protected under the Wildlife and Countryside Act 1981 and the EC Birds Directive.

#### 4.2 Current Factors Affecting The Species

Due to the title of this action plan farming practices have had a major impact on these species. However, it is not the intention of this plan to cease farming, but to seek ways of mitigating their impacts by providing alternative nesting and roosting sites plus increase sources of insect food and seeds. Various experiments are being undertaken nationwide and the body of knowledge is growing. Some solutions are relatively low-cost or even cost nothing; others may be more expensive but could be supported under the new Environmental Stewardship Scheme.

Abundant winter food is a critical resource for all the species covered in this plan, but it is a decreasing feature of the farmed landscape.

There is still much research needed to understand the precise factors causing declines of the various species in particular areas but the following factors appear to be the most significant:

- **Loss of mixed and rotational farming** leading to the disappearance of insect-rich and seed-rich farmland

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Deleted: There is still much research needed to understand the precise factors causing declines of the various species in particular areas but the following factors appear to be the most significant:

- **Reduced crop diversity and structure;**
- **Autumn sowing** which leads to taller, denser crops earlier in the season and earlier harvesting;
- **Lack of winter stubbles and weed seeds** for winter food.
- **Use of herbicides** which reduces arable weeds and hence cover and insect prey;
- **Summer use of insecticides** when insect food is vital to chick survival
- **High fertiliser applications on grassland** which reduces the variety of seed producing wildflowers and the abundance of insects and larvae available to feed chicks
- **High stocking rates** of sheep and cattle which cause disturbance of nests and trampling of eggs
- **Mowing during the nesting season** resulting in destruction of nests or lack of nesting cover for ground nesting species
- **Loss of landscape features** such as free-standing and hedgerow trees, hedgerows, grass banks, ditches, uncultivated field margins and headlands
- **Climatic factors such as drought summers** which can severely reduce invertebrate numbers and kill young birds

**Deleted:** Paul Tame of NFU comments here(12/2/03): "You have a list of factors which have affected the listed birds. It mentions every agricultural operation you can think of. If they all mitigate against the wellbeing of these birds then there is no point. You might as well say if we want these birds then we have to stop farming completely or return to the horse and cart stage. If, as may be the case, it is really some of these operations that are a problem then you must spell out what they are, not list everything you can think of that might possibly be a cause. I also think your section on tree sparrows is light on fact. It's supposition that agriculture that is to blame – yet again farming gets slated. ¶

The plan needs to pick out the actions that will really affect these birds, otherwise FWAG and others will be left with an impossible job of getting wholesale changes to farming practices which will be impossible to achieve, and they may not improve the situation anyway. ¶

He adds (11/02/04) "...If every aspect of modern farming affects skylarks, then if we want to re-establish them we will have to roll back the years in terms of farming practice. For this to happen will take an awful lot of someone's money. And farmers' don't have it, at the moment. I think conservationists need to home in on changes that can be made, rather than say we must farm as we did just after the war. Supermarkets were not quite so powerful then, for one thing! ¶

Frank Lucas of RSPB comments (30/6/04) "Regarding Paul Tame's comments at the end of section 4.2 we would argue that all the listed significant factors causing declines are correct and should stay in the document BUT that we should go on to recognise that few if any of these factors will be reversed and that the key to improving the lot of farmland species is to find alternative ways to meet their needs for good nesting sites, insect food and seeds in the countryside. There is now a considerable body of knowledge about this and new ideas continue to be brought forward and tested. Our own work on skylark patches in winter cereal crops is perhaps the latest example to have hit the headlines. Whilst a number of measures are low-cost ... [1]

The following table indicates a species specific summary:

Factor	Grey Partridge	Skylark	Tree sparrow	Corn bunting
Loss of nest sites	✓		✓	
Reduced insect food supplies as a result of herbicides and pesticides	✓	✓	?	
Loss of winter stubble for feeding	✓	?	?	✓
Loss of wildflower seeds as a result of herbicides				✓
Poor nest cover, vulnerable to predators	✓			
Early silage mowing destroying nests, unlike hay making	✓	✓		?
Conversion of lowland grassland to arable		✓		
Lack nesting holes, eg loss of elms			✓	
Density of winter cereal crops		✓		

## 5. CURRENT LOCAL ACTION

- DEFRA's agri-environment schemes include a range of management options which benefit the conservation of farmland birds. There has been good uptake of these options in Warwickshire in 2002 particularly where there are known populations of species such as those listed in this plan:

- For 2002 in Warwickshire the uptake of 'arable options' is shown in the following table:

Arable Option	Hectarage
Wildlife seed mix (WM1) – food source for birds	25
Pollen & nectar mix (WM2) – food source for insects and birds	8
Overwinter stubble followed by Spring crop (OS1)	49
Overwinter stubble followed by low input Spring cereal (OS2)	0
Overwinter stubble followed by Spring/Summer fallow (OS3)	22
Conservation headland with no fertilizer restriction (CH1)	5
Conservation headland with no fertilizers allowed (CH2)	16
Cultivated 6m arable margins (R3)	3

- RSPB have produced advisory sheets in association with FWAG and GCT for each of these species and their associated habitats informing Warwickshire farmers, land-managers and advisors of the ecological needs of each and practical methods of farming that will benefit them.
- RSPB are undertaking several research projects on farmland that aim to create viable solutions that will help halt and reverse the decline of these key farmland birds:
  - providing seed food over winter for tree sparrow and corn bunting to improve winter survival rates and consequent breeding success (one experimental site in Warwickshire)
- RSPB carry out breeding bird surveys on farms in Warwickshire at request, which highlight the presence of these key farmland birds to farmers and land-managers and provide relevant advice to improving the site for these birds.
- nest boxes for tree sparrows are available to farmers and land-managers through Countryside Stewardship.
- The BTO runs and organises the current Breeding Bird Survey which monitors the population changes of a whole range of species including many farmland birds on currently 7 sites in the county; this number should increase considerably this year. However, the sample size will for the foreseeable future still be too small to monitor changes in Warks. Alone but for changes in the W.Midlands see [www.bto.org/bbs](http://www.bto.org/bbs)
- The Game Conservancy Trust runs the Partridge Count Scheme and encourages all farmers to join.

## 6. PROPOSED LOCAL ACTIONS (some dates amended - Core Steering Group - Feb 2008)

ACTION	Lead	Partners	By	Meets objective
<b>Policy &amp; Legislation</b>				
<b>PL1.</b> Ensure management agreements under agri-environment schemes are sympathetic to the requirements of the grey partridge, skylark, tree sparrow and corn bunting where they are known to occur.	NE	WM GCT FWAG	2005- 2015	A
<b>PL2.</b> Promote the take-up of agri-environment incentive schemes which include farming options that will benefit these four species.	FWAG	BTO WM GCT HBA LBAPSG RSPB WMBC WWT	review 2005	A
<b>Site / Species Safeguard &amp; Management</b>				
<b>SM1.</b> Encourage site management that fulfils the nesting and wintering requirements of the birds covered by this plan.	NE	WMBC	review 2005	A
<b>SM2.</b> Extend nest-box schemes for tree sparrows.	FWAG	WWT WMBC NE	review 2005	A, C
<b>Advisory</b>				
<b>A1.</b> Encourage habitat restoration, especially species-rich grassland, spring sown crops, more undersowing and rotational mixed farming systems and greater retention of winter stubbles. Where not practical, consider the inclusion of a nectar crop for insects and a seed crop for over-wintering birds which could form part of an agri-environment scheme.	FWAG	NE GCT	review 2005	A, B, C
<b>A2.</b> Encourage the sowing of cover crops, especially combinations of kale and quinoa; and a cereal or millet and oats through agri-environment schemes or set-aside wild bird cover option. These should be allowed to be weedy rather than clean.	FWAG	NE GCT	review 2005	A

Comment [WCC4]: LEAD changed May 2008 (R Moffatt)

<b>A3.</b> When spraying is required, promote a selective approach avoiding features such as headlands (especially insecticide use in summer).	FWAG	NE GCT	review 2005	A
<b>A4.</b> Encourage provision of some uncut, undisturbed fields during the nesting season of these birds.	FWAG	NE	review 2005	A
<b>A5.</b> Encourage less use of fertilisers and herbicides and promote an integrated systems of pest control to reduce the need for pesticides.	FWAG		review 2005	A
<b>Research &amp; Monitoring</b>				
<b>RM1.</b> Maintain the Habitat Biodiversity Audit.	HBA		review 2005	A
<b>RM2.</b> Support research and regular monitoring of farmland birds populations in conjunction with the WBRC and local colleges / natural history groups.	WMBC	BTO WM RSPB GCT	review 2005	A
<b>RM3.</b> Revise the county bird atlas at least every 10 yrs.	WM	BTO WMBC	2005-2015	A
<b>RM4.</b> Review plan after launch of DEFRA's new agri-environment schemes since its higher tier will target measures for these four species.	LBAPSG		2005	A, B, C
<b>Communication, Education &amp; Publicity</b>				
<b>CP1.</b> Raise the profile of these four declining species.	RSPB	BTO WM GCT HBA LBAPSG FWAG WMBC WWT	review 2005	A, B

**Abbreviations:** BTO – British Trust for Ornithology, FWAG – Farming & Wildlife Advisory Group, GCT - Game Conservancy Trust, HBA – Habitat Biodiversity Audit, LBAPSG – Local Biodiversity Action Plan Steering Group, RSPB – Royal Society for the Protection of Birds, WM - Warwickshire Museum, WMBC - West Midland Bird Club, WWT – Warwickshire Wildlife Trust.

## 7. REFERENCES (also see LBAP Bibliography web page)

Gregory, R.D., Wilkinson, N.I., Noble, D.G., Robinson, J.A., Brown, A.F., Hughes, J., Proctor, D.A., Gibbons, D.W. and Galbraith, C.A. (2002) *The population status of birds in the United Kingdom, Channel Islands and Isle of Man: an analysis of conservation concern 2002-2007*. British Birds 95: 410-450.

Potts, G.R. 1986. *The Partridge: pesticides, predation and conservation*. London: Collins.

## 8. FURTHER INFORMATION (see separate **Links** web page for links to web sites)

UK Action Plan for Grey Partridge no.506  
UK Action Plan for Skylark no.80  
UK Action Plan for Tree Sparrow no.503  
UK Action Plan for Corn Bunting no.457

British Trust for Ornithology

Farming & Wildlife Advisory Group - information on the new Environmental Stewardship agri-environment scheme. Tel.01926 318280 or email:[warwickshire@fwag.org.uk](mailto:warwickshire@fwag.org.uk)

RSPB: '*Management Guide to Birds of Lowland Farmland*' (2005) and '*Farm Wildlife Handbook*' (2007), from Publications, RSPB, Unit 17, St Martin's Business Centre, St Martin's Way, Bedford MK42 0LF, tel. 01234 263616 or email: [publications@rspb.org.uk](mailto:publications@rspb.org.uk) .

RSPB Conservation Management Advice: *Farmland Bird Feeding Stations*. Leaflet can be ordered from Peter Smith, tel. 01234 211522 or email: [peter.smith@rspb.org.uk](mailto:peter.smith@rspb.org.uk)

RSPB advice sheet on '*skylark plots*' (small undrilled patches), available from Unit 17, St Martin's Business Centre, St Martin's Way, Bedford. Tel. 01234 211522 or email: [st.orders@rspb.org.uk](mailto:st.orders@rspb.org.uk) (ask for '*skylark plots*').

Game Conservancy Trust: '*Restoring wild grey partridge to farms*' . 5 free fact sheets, also an on-farm advisory service. Tel. 01425 652381.

Rural Development Adviser for DEFRA (West Midlands Region), Warks.& West Midlands Rural Development Service Block B, Govt. Buildings, Whittington Road, Worcs.WR5 2LQ  
Tel: 01905 363470 Email: [Matt.Willmott@defra.gsi.gov.uk](mailto:Matt.Willmott@defra.gsi.gov.uk)

Natural England / British Trust for Ornithology / Royal Society for the Protection of Birds / Rural Development Service (2004) *The Farmland Bird Targeting Project*. [Carrie.Howard@english-nature](mailto:Carrie.Howard@english-nature), tel. 01733 455272 or [David.Noble@bto.org.uk](mailto:David.Noble@bto.org.uk), tel. 01842 75550050

J.Appl.Ecology 42:469-476 Research into the effect of stubble height on farmland birds.

## 9. CONTACT

Graham Harrison, 'Bryher', Hatton Green, Hatton, Warwick CV35 7LA.

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