



BTO Research Report No.316

**Lark Rise Farm, Barton, Cambs (Plot 1571)
The Countryside Restoration Trust
Report on Breeding Birds 2002**

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September 2003

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British Trust for Ornithology, The Nunnery, Thetford, Norfolk, IP24 2PU
Registered Charity No. 216652

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Published by the British Trust for Ornithology, The Nunnery,
Thetford, Norfolk IP24 2PU in September 2003

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ISBN No. 1-902576-78-0

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1. INTRODUCTION

Year 2002 saw a fourth successive good annual survey of the breeding bird community of Lark Rise Farm, Barton, Cambridgeshire. The annual procedure deploys the BTO's Common Birds Census (CBC) mapping technique, whereby the breeding bird populations on the farm are assessed by delimiting clusters of territorial activity. This farm, modest in size by east of England standards (53.2 ha), was purchased by the Countryside Restoration Trust (CRT) in 1998. Thereafter, it has been managed for financial gain, whilst attempting to improve the potential for wildlife. In Year 2002, the farm was given over chiefly to arable production (as in previous years), winter wheat and undersown spring barley covering some one-half of the total area, but with an ongoing crop rotation programme. In 2002, fields of broadly similar size were devoted to oilseed rape (autumn sown), spring beans, grass cut for hay and, finally, fields of set-aside: to natural generation and bare fallow. A small, but significant area (2% of the plot), comprised new woodland planting, enhancing an ongoing hedge-planting regime – see Annual Habitat Summary Form. The management plan added to further sympathetic conservation orientated work undertaken in previous seasons with birds in mind (Carter and Glue 2000, Carter and Glue 2001, Glue and Carter 2001).

2. METHODS

A complete mapping census was undertaken using the guideline methodology laid down by the BTO's CBC procedures (see Marchant *et al.* 1990). Eight full visits were made to register all bird activity from late March through to the end of June, including a productive evening visit in mid-June (Visit H) to detect potential crepuscular species. The field effort expended, some 23.5 hours, was somewhat less than in previous years (most notably 2000 and 2001). Similarly, eight full visits represents a third fewer than in 2001. Nonetheless, the procedure deployed, by the same observers, satisfies acceptance as a full census. The findings are considered a broadly comparable set of data, allowing a valid comparison between years, though with certain reservations (discussed below). To consolidate the project, the fieldworkers should attempt to complete 10 visits (to include two evening visits spanning 10 days or more), over the same calendar period, where possible in fair weather conditions.

3. RESULTS

In total, 51 species were recorded on, or flying over Lark Rise Farm, and considered an integral part of the breeding bird community, matching the picture mapped in 2000, but fewer than in 2001 (59 species). The reduction in the number of 'casual' visitors (mentioned below), may well be a product of the drop in recording effort mentioned. Similarly, the 32 species that merited acceptance of one or more territories, under CBC criteria (see Appendix II, CBC Master Sheet), compared with those in the previous two summers (37 and 41 species in 2000 and 2001 respectively), may, to a degree, reflect the fewer hours and number of visits spent bird mapping. This caveat has to be born in mind when assessing population trends shown for certain species (detailed below). However, Lark Rise Farm, Barton, was shown once again in 2002 to support a particularly rich diversity of species, including locally important key populations in the context of an arable farm in eastern England of such size. Certain non-territory holding species continued to add colour and interest to the farm bird community, including hunting Hobby and Barn Owl, transient Grey Heron and Cormorant, and insect foraging Swift and Swallow.

3.1 Waterbirds

Winter 2001/02 added to a wet series, enhanced by a damp spring (April excepted) and summer dogged by periodic downpours, sustaining high water tables. The damp southern boundary area, comprising meadowland, ditch and osier bed, supported single Mute Swan and Moorhen territories and three Mallard territories, maintaining the improved status on previous years. Grey Heron and Canada Goose retained their casual visitor status.

3.2 Diurnal Birds of Prey

Kestrel, Sparrowhawk and Hobby were noted at varying points of the farm, all three failing to merit acceptance of a solid territory, possibly a function of reduced coverage (see above). Nestbox provision may help Kestrel to breed on the plot.

3.3 Gamebirds

Gamebirds maintained the encouraging improved status on Lark Rise Farm noted in Year 2001. Pheasant, with nine territories, achieved 'highest yet' levels (up from seven in 2001), the bulk of activity centred on the fringing and internal hedgerow network and wildlife strips. Conversely, Red-legged Partridge, represented by six territories (down from eight in 2001), ranged widely across the farm, with some intense activity within the fields given over to oilseed rape and left as fallow. Encouragingly, Grey Partridge, with four territories, matched the previous year's high level, birds foraging across all elements of the farm.

3.4 Doves

Woodpigeon, again, fed in substantial numbers in both spring and summer over much of the farm. Flocks in early spring, topping 50 birds, were drawn to spring barley, alongside Feral Pigeon (30) and Stock Dove (10 birds). Limited Woodpigeon song and allied breeding display, providing few clusters of activity, tested the CBC analysis procedure. An estimated twelve territories, fractionally fewer than in previous years (Table 1), were focussed primarily on the peripheral hedgerows, thickets and scrub, later focusing on the oilseed rape. Stock Dove, with three territories, matched the improved status of 2001, with breeding season activity centring on the core cereal fields within the farm. Collared Dove and Feral Pigeon were most active in the northwest sector, close to domestic housing and possible supplementary foods. Turtle Dove, again, was sadly absent.

3.5 Owls to Wagtails

A Barn Owl, hunting over the southeast meadow sector on the evening visit, provided the visual highlight for Year 2002 census. Cuckoo failed to register, having declined from a confirmed territory in Year 2000, adding to recent concerns for this UK summer visitor under pressure (see Glue and Carter 2001). Green Woodpecker and Great Spotted Woodpecker, each represented by single registrations, also disappointed.

Lark Rise Farm, again, lived up to its label, with intense opposed song providing 26 territory clusters – matching the impressive 'highest yet' density achieved in 2001. Song output was most intense in the central field systems, notably those of winter wheat, spring barley and set-aside fallow and stubble. Swift and Swallow swept for aerial plankton, concentrating on the internal crops and fringing hedgerows respectively, neither providing evidence of nest site occupation on the farm.

Meadow Pipit (4 territories), most encouragingly matched the status achieved in the previous two years, an impressive density for a lowland farm, in eastern England. Interestingly, much song was centred on the field of spring beans, foraging birds radiating onto those of cereals, meadow and wildlife strips. A single Yellow Wagtail territory only, associated with spring beans and cereals, enhanced concerns for this species – reflected on many other lowland UK farms.

3.6 Thrushes and Allied Species

Wren (11 territories), achieved 'highest yet' status, dispelling concerns over potential cold weather related losses over recent winters (Glue and Carter 2001). Similarly, Robin (7 territories) approached the previous year's level, while Dunnock (6 territories) doubled in numbers. This trio of soil invertebrate feeders have been favoured by the recent series of essentially mild and damp winters, followed by changeable damp weather in spring and summer. For each, song output and foraging activity was confined, almost exclusively, to the peripheral hedgerow network, sections of scrub and human dwellings in the northwest sector, showing little sign (except Dunnock) of penetrating the recently planted internal hedges and wildlife strips.

In contrast, Blackbird (10 territories), ranged more widely, employing hedgerows and wildlife elements within the heart of the farm, for food and nesting cover. Song Thrush, disappointingly, was limited to a single territory, associated with the eastern trackway and set-aside fallow and stubble. Mistle Thrush, similarly, having appeared in 2001 and offered promise, was absent (Table 1).

3.7 Warblers and Tits

A mild March, and three-week long, dry, warm spell in April, helped some pioneer spring migrants to return early in 2001 and prosper, but many were held back until May by unsettled weather in the Mediterranean basin (see BTO *Migration Watch* www.bto.org/migwatch). Most summer visitors on Lark Rise Farm failed to match the upturn in fortunes charted in 2001 (Table 1). Grasshopper Warbler, 'flagship' bird in 2001, failed to reappear. Lesser Whitethroat, similarly, with a single territory centred on elements of mature timber and thicket in the southeast corner, fell short of 2001 status (2 territories). Whitethroat (10 territories), impressively, was spread widely along the fringing hedges, areas of thicket, scrub and certain of the recently planted internal hedge strips: fewest, though in the four year study (12 territories each in 1999 and 2000, 14 in 2001). Blackcap, just two territories (5 in 2001), again was focussed on more mature elements of timber and scrub in the southwest corner and eastern boundary hedgerow. Willow Warbler appeared a transient visitor only, after the promise of a consolidated territory in 2001.

Blue Tit and Great Tit (with four and two territories respectively), matched the status mapped in the previous year; again, a relatively low density reflecting the paucity of mature timber with cavities for such hole nesters, and extent of foraging canopy for invertebrate gleaners, features that hopefully increase as the vegetation matures. Long-tailed Tit and Coal tit, represented by casual records only, failed to merit acceptance of a solid territory.

3.8 Corvids

Carrion Crow (3 territories) retained its status as the most numerous corvid on Lark Rise Farm in 2002. Birds foraged across most features of the farm, though much summer activity was associated with the fringing hedgerows, pockets of thicket and scrub. Magpie (2 territories), up from a single pair in 2001, reflected the current success of this adaptable omnivore, most active in hedge and scrub at opposite corners of the farm. Jackdaw (single territory) again was associated with domestic housing in the northwest sector, with nearby spring sown beans and barley, affording nest site and food potential, respectively. Rook, as in previous years, also fed in some strength in the spring and early summer on the plot. Flocks, topping 77 in late March, were associated with spring barley, adults later carrying away food loads to adjacent nest sites from most field systems. Jay, sadly was absent, following a welcome solid territory in 2001.

3.9 Starling, Sparrows and Finches

Starling (2 territories) again was focussed on domestic property and parking in the northwest sector of the farm, where potential nest sites and supplementary foods will have benefited. Sadly, House Sparrow was absent, having shown promise in 2001, a picture reflected on other farms. Chaffinch (16 territories) retained its status as the most numerous of four finches detected. The majority of territories were strung in linear fashion around the peripheral hedgerows and scrub, achieving the highest density thus far (Table 1). The fine-billed finches enjoyed mixed fortunes. Linnet (8 territories) also reached 'highest yet' status, birds highly mobile in summer, but foraging strongly in oilseed rape, winter wheat, spring barley, and the wildlife strips created. Goldfinch (3 territories) also roamed widely, flocking in winter wheat. Greenfinch (3 territories) improved on the 2001 status (just 2 pairs), singing strongly in the northwest corner, where scrub cover and late spring supplementary foods, via man, may well have supported them. Bullfinch, sadly was absent, having hinted at promise in 2001.

3.10 Buntings

The trio of buntings resident on Lark Rise Farm, all red-listed species, thrived in 2002. Yellowhammer (14 territories) enhanced yet further impressive densities achieved in previous years (Table 1). Discrete territories were spread widely across the farm, spanning both established fringe and newly planted internal hedgerows, wildlife strips, ditches, and sections of scrub. Reed Bunting (7 territories), also improved by one on its 2001 status, no doubt assisted by the high water tables, notably in the southern meadow section, ditches and scrub, plus availability of oilseed rape for foraging. Corn Bunting (3 territories), reclaimed its 2000 status, with vigorous song registered within the core fields, hedgerow margins, areas of oilseed rape, and set-aside stubble and fallow.

4. DISCUSSION

Fittingly, in 2002, Skylark (a BAP species), maintained its position as dominant bird with the overall breeding community of Lark Rise Farm (Table 1), matching the impressive density (26 territories), mapped in the previous year. Worryingly, just 51 species were observed using the farm during the breeding season, and just 32 species qualified for acceptance of one confirmed territory or more, a reduction in overall diversity (36 species in 1999, 37 species in 2000 and 41 species in 2001), though this reduction may, in part at least, be a product of a short-fall in recording effort (see Methods). Blackbird, Chaffinch, Robin and Wren, maintained or improved their position as co-dominants within the breeding community, despite various concerns expressed over possible cold weather related losses from severe cold snaps in winter 2000/2001 and 2001/2002. Encouragingly, the trio of buntings, Yellowhammer, Reed Bunting and Corn Bunting, each improved on their strength in 2001. Equally positive, Meadow Pipit also retained a significantly important local population, probably assisted by a mainly mild damp winter.

Concerns mount, though, for Yellow Wagtail and Sedge Warbler, a feature not limited to this farm. Overall, summer visitors were late arriving and disappointed. Whitethroat returned in some strength (10 territories), but in lesser strength than previous summers; numbers of Blackcap and Lesser Whitethroat were also checked. In general though, the blend of winter and spring cereals (wheat and barley respectively), beans, oilseed rape, and areas left fallow, provided a wide range of crop heights, cover and food resource, for a rich diversity of birds, Linnet, among key populations of fine-billed finches, thrived. Doves, corvids and gamebirds, broadly sustained their healthy status.

None of the 32 species confirmed as holding territory on the farm in 2002 were new to the four-year study. Encouragingly, several achieved their 'highest yet' strength: Pheasant, Wren, Dunnock, Chaffinch, Greenfinch, Linnet and Yellowhammer. On the positive side, others matched their previous highest numbers: Grey Partridge, Stock Dove, Skylark, Meadow Pipit, Blackbird, Magpie and Corn Bunting. Among those species of former breeders, absent or failing to merit acceptance of a solid territory, Sparrowhawk, Kestrel, Hobby, Cuckoo, Grasshopper Warbler, Sedge Warbler, Garden Warbler, Willow Warbler, Long-tailed Tit, Jay and House Sparrow deserve a cautious eye. A nestbox programme might assist the large and small cavity nesters.

In future years, given ongoing solid comparable CBC mapping coverage, it will be interesting to assess: (a) the impact of maturing existing and freshly planted hedgerows, tree standards and beetle banks, (b) the extent and speed of exploitation of the newly created internal hedgerow and wildlife features, (c) the impact of a repeat rotational cropping programme, and, (d) the ability to retain and possibly enhance the breeding strength of a suite of BAP species, and some of locally important significance within the context of a modest sized arable farm in eastern England.

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Table 1. Number of breeding territories on Lark Rise Farm in 1999, 2000, 2001 & 2002

Species	1999	2000	2001	2002
Cormorant	-	Present	-	Present
Grey Heron	-	Present	Present	Present
Mute Swan	-	-	1	1
Canada Goose	-	Present	-	Present
Mandarin	-	-	Present	-
Mallard	Present	1	4	3
Marsh Harrier	-	Present	-	-
Sparrowhawk	-	Present	1	Present
Kestrel	1	1	1	Present
Hobby	1	Present	Present	Present
Peregrine	-	-	Present	-
Red-legged Partridge	4	5	8	6
Grey Partridge	1	1	4	4
Quail	-	-	Present	-
Pheasant	2	3	7	9
Moorhen	Present	Present	1	1
Lapwing	-	Present	-	-
Woodcock	-	Present	-	-
Bar-tailed Godwit	-	Present	-	-
Lesser Black-backed Gull	-	Present	-	Present
Feral Pigeon	-	-	Present	Present
Stock Dove	1	2	3	3
Woodpigeon	15	13	c.15	12
Collared Dove	1	2	2	Present
Cuckoo	-	1	Present	
Barn Owl	-	-	-	Present
Swift	Present	Present	Present	Present
Kingfisher	Present	-	-	-
Green Woodpecker	-	Present	Present	Present
Great Spotted Woodpecker	-	Present	-	Present
Skylark	20	25	26	26
Sand Martin	-	-	Present	-
Swallow	Present	Present	Present	Present
House Martin	Present	-	-	-
Meadow Pipit	3	4	4	4
Yellow Wagtail	1	3	1	1
Blue-headed Wagtail	Present	-	-	-
Pied Wagtail	Present	Present	-	-
Wren	10	8	9	11
Dunnock	5	5	3	6
Robin	5	7	8	7
Whinchat	-	-	Present	-
Wheatear	-	-	Present	-
Blackbird	8	7	10	10
Fieldfare	-	-	Present	-
Song Thrush	1	1	2	1
Mistle Thrush	-	-	Present	-
Grasshopper Warbler	-	-	1	-
Sedge Warbler	3	4	1	Present
Lesser Whitethroat	Present	2	2	1

Table 1 contd.

Species	1999	2000	2001	2002
Whitethroat	12	12	14	10
Garden Warbler	1	-	Present	-
Blackcap	3	4	5	2
Chiffchaff	Present	Present	-	-
Willow Warbler	1	1	1	Present
Long-tailed Tit	1	1	1	Present
Coal Tit	-	Present	-	Present
Blue Tit	5	4	4	4
Great Tit	3	3	2	2
Nuthatch	Present	-	-	-
Treecreeper	-	Present	-	-
Jay	1	Present	1	-
Magpie	2	1	1	2
Jackdaw	1	1	1	1
Rook	Present	Present	Present	Present
Carrion Crow	4	4	3	3
Starling	1	1	1	2
House Sparrow	Present	1	1	-
Chaffinch	12	13	14	16
Greenfinch	2	2	2	3
Goldfinch	4	4	3	3
Linnet	3	4	3	8
Bullfinch	Present	Present	Present	-
Yellowhammer	13	11	12	14
Reed Bunting	8	7	6	7
Corn Bunting	3	3	1	3