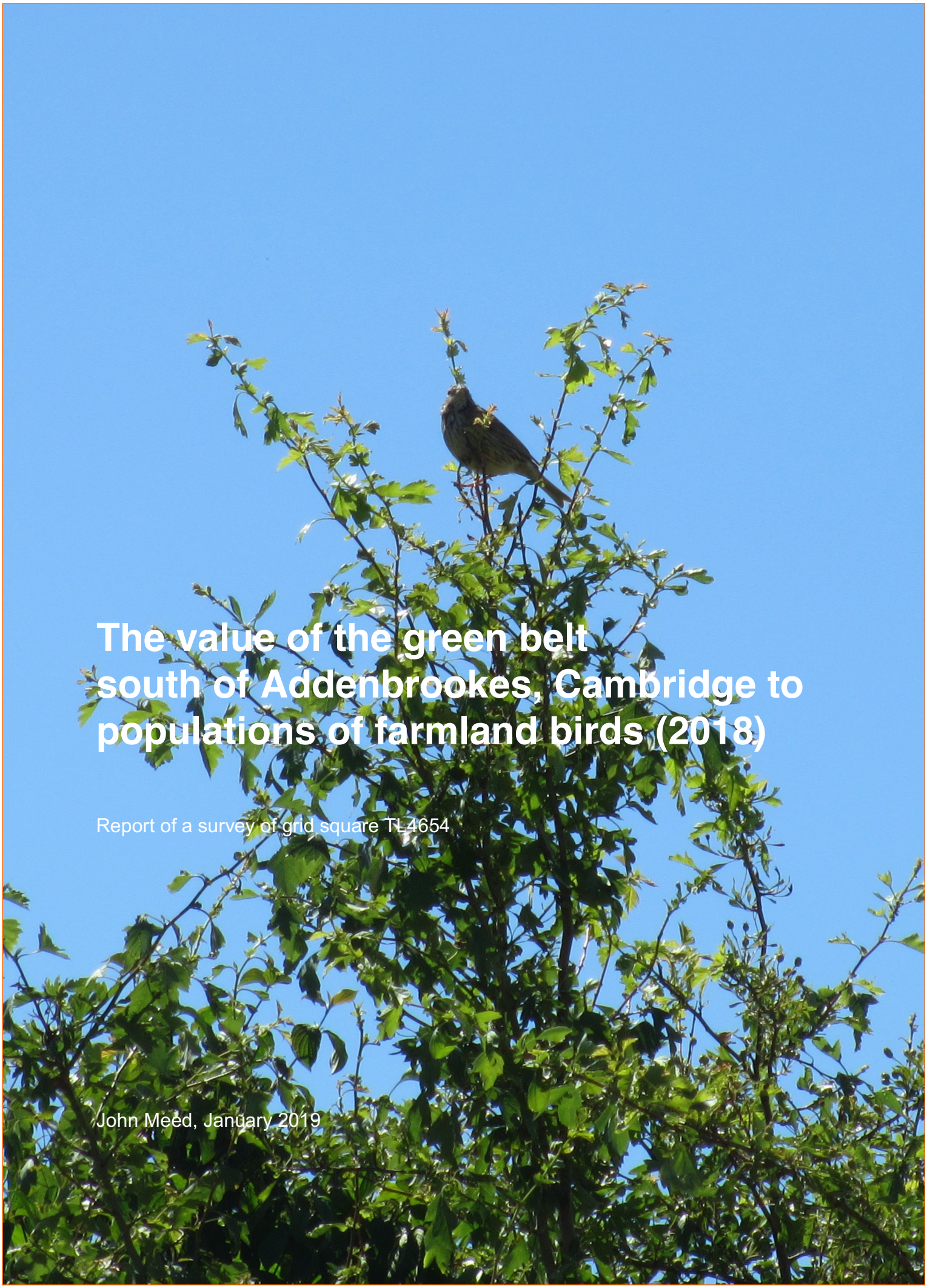


The value of the green belt south of Addenbrookes, Cambridge to populations of farmland birds (2018)

Report of a survey of grid square TL4654

John Meed, January 2019

Introduction

For the last seven years I have surveyed breeding populations of farmland birds on a square kilometre of green belt south of Addenbrooke's Hospital in Cambridge to assess the levels of the biodiversity of an area close to the city.

The area studied is largely arable land, with 2.5km of mature hedgerows, 1km of streams / ditches, and 4+ha of scrub and woodland, including the Nine Wells nature reserve (right). It includes a cycle path and footpath, and land management has created several permissive footpaths, flower-rich field margins and additional woodland (see Appendix 1). It is widely used by walkers, cyclists, families and dog owners.

Why do farmland birds matter?

Farmland birds have suffered major declines in recent decades.

- Grey partridge declined by 92% between 1970 and 2015 and corn bunting (right) by 89% while yellow wagtail declined by 67%, skylark by 59%, yellowhammer by 56% and linnet by 55% (1).
- Farmland birds are indicators for the UK Government Sustainable Development Strategy (2) and 9 of the 18 indicator species are 'red list' birds of 'high conservation concern' (3).
- The city council's local plan identifies skylark (and brown hare) as 'priority species.

Birds are indicator species because of their place as consumers in the ecosystem, and declines in bird populations indicate wider problems: the *State of Nature 2016* report (4) states that 'the indicator of butterfly species of the wider countryside has declined by 41% since 1976'.

Methodology

I monitored the area throughout 2018, using a combination of methods. I adopted the British Trust for Ornithology (BTO) Breeding Bird Survey methodology (5), which involves a habitat survey and walking two parallel transects, each of 1 km, on 2–3 occasions early and later in the breeding season; this approach gives a good snapshot of the species present in an area. I did my transect walks on April 20, May 26 and June 20.

I carried out 32 further visits over the year. Between April and July I built up a more accurate picture of the number of breeding pairs, drawing on my experience as a surveyor for the Royal Society for the Protection of Birds (RSPB) Volunteer and Farmer Alliance (6). In these visits I focused on other areas in the square and on specific breeding signs such as singing males, territorial behaviour and calls, courtship displays, nest building and juvenile birds. I also carried out a more formal survey of butterfly species.

I also visited the site regularly in the early spring, autumn and winter, monitoring winter visitors and in particular grey partridge populations.

Findings

Appendices 2 – 4 show the 73 species recorded on the three transect walks and other visits:

- On the first transect walk: 35 species and 204 individuals
- On the second transect walk: 39 species and 226 individuals
- On the third transect walk: 36 species and 226 individuals

The 73 species recorded included 17 of the 18 farmland bird indicator species for the Sustainable Development Strategy, of which 14 bred (Appendix 5). In total I recorded 15 red list species and 24 amber list species as follows:

Breeding red list species (9)	Breeding amber list species (8)
• 45 pairs of skylarks • 15 pairs of linnets • 14 pairs of grey partridge • 10 pairs of yellowhammers (above) • 11 pairs of corn buntings • 1 pair of yellow wagtails • 2 pairs of starlings • 2 pairs each of song and mistle thrush	• 16 pairs of whitethroats • 12 pairs of dunnocks • 7 pairs of reed buntings, 2 pairs of swallows and 2 pairs green woodpecker • 1 pair each of stock dove, and probably tawny owl and bullfinch • Kestrels, swifts and house martins nest nearby and visit regularly

Red list visitors include herring gull, house sparrow, and in winter lapwing, fieldfare and redwing. One young turtle dove passed through in late August.

Amber list visitors include common tern, mallard, marsh harrier, black-headed, great and lesser black-backed gull and in winter little egret, snipe, golden plover and meadow pipit.

I will go on now to look in more detail at my findings about the populations between 2014 and 2018 of two key red list species that do unusually well in the fields around Nine Wells:

- Grey partridge
- Corn bunting

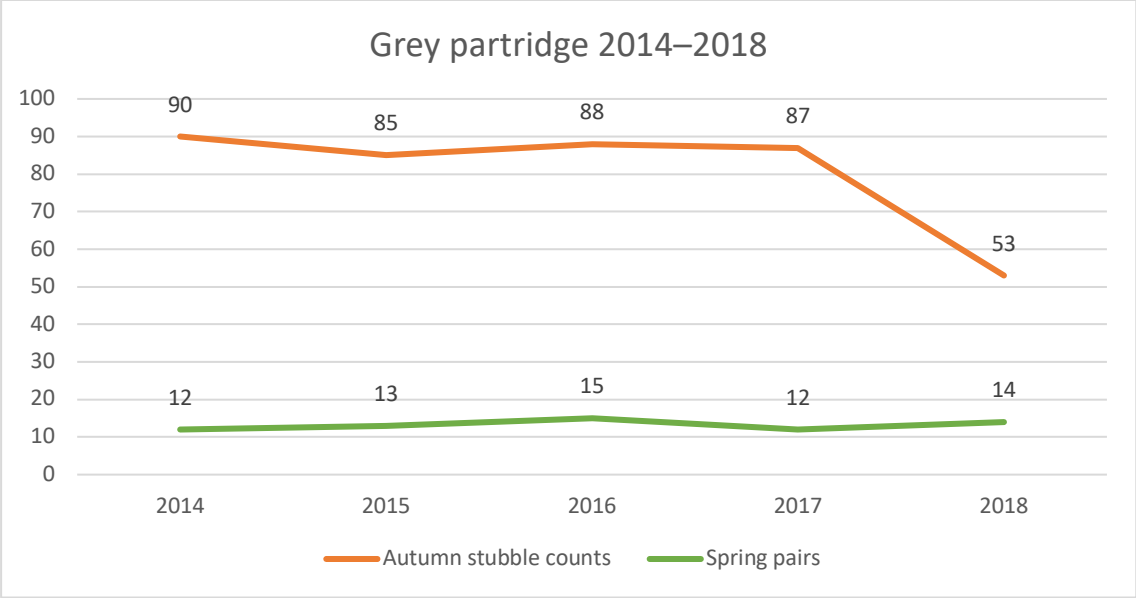
I will then go on to examine my findings for other species.

Grey partridge 2014–18

Grey partridge numbers have been remarkably high over the last five years.

- Between 2014 and 2017 autumn counts consistently revealed between 80 and 90 individuals. However the autumn count for 2018 was significantly lower, at 53 birds.
- Pairs have varied between 12 and 15.

The following chart shows numbers for the last five years.



These counts are high compared to other studies which suggest that the arable farms typical of Cambridgeshire support between 0–5 pairs/km^2 in spring and 0–20 birds/km^2 in the autumn. Only with high levels of management aimed at the species do numbers approach those at Nine Wells. For example, the GWCT's Grey Partridge Demonstration Project near Royston saw the density of grey partridge pairs rise from under 3 pairs/km^2 before management to around 15 pairs/km^2, while autumn densities increased from 8 birds/km^2 to around 80 birds/km^2 (8). The RSPB's Hope Farm had 7 pairs in 2017 in 1.8km^2 (9).

Autumn and winter coveys

Grey partridge have large broods and in the autumn families form groups known as 'coveys'. Numbers are at their highest in November and December, once youngsters have matured but before spring pairing starts. Prior to 2018, most coveys ranged between 7 and 13 birds, though I recorded one covey of 16 in 2014 and one of 14 in 2016.

However, the fall in autumn numbers in 2018 represents a cause for concern. In earlier years the number of autumn coveys reflected the number of spring pairs, suggesting that most pairs reared young successfully. In 2018 14 pairs produced just 8 coveys and the 2018 coveys were smaller – the largest had 10 birds, while half the coveys (four) had just 4–6 birds each. Possible factors may include the loss of habitat and disruption from Biomedical campus development (and other work on the site), and the relatively hot, dry summer.

My autumn counts over the last five years have shown that:

- Coveys tend to move relatively little between fields and if undisturbed stay for much of the autumn in the same area – as for example in grassy areas such as fields awaiting Biomedical campus development. However, they show a distinct preference for stubbles over freshly ploughed land; when a field is ploughed they may move to an adjoining field. They seem more comfortable in fields where winter wheat is starting to grow.

- Partridge generally feed in the early morning and in the time before dusk, probably to avoid predation. They roost during the day in areas of longer grass, hedge bottoms or patchy scrub. However they generally avoid woodland and I have never recorded them near to the wood at the top of White Hill (though red-legged partridge do use this area). They emerge in the hour or so before dark; some emerge later than others. When feeding one or two birds typically keep watch for predators while the rest of the covey eats.

- These two factors – cropping and access to cover – have a major influence over where coveys spend their autumn. In late 2016 Field 4 remained unploughed, and the four coveys here moved very little, roosting along the hedge bottom. In autumn 2016 four coveys were regularly present in Field 2 but moved to Field 1 after ploughing. The largest field (Field 6) had only two regular coveys in 2014 and 2016, but at least four in 2015 between winter wheat and sugar beet; in both 2017 and 2018 two areas close to Granham's Road which remained unploughed and close to cover held four coveys.

- There can be interaction between coveys – normally calling, but sometimes two coveys move closer together and may even intermingle. I have not witnessed agression between coveys. I have observed red-legged partridge coveys close to greys, and on a couple of occasions individual red-legs have joined a covey of greys, though probably temporarily.

- The weather appears to influence partridge behaviour, and I generally recorded fewer birds on windy or wet days.

The autumn coveys appear to suffer little loss from predators. While I often record fewer birds from mid November onwards, I have the impression that this results from changing covey habits or location, rather than a reduction in the size of coveys. I generally record fewer birds after spring pairing than during the previous autumn – I am unclear as to whether this results from predation, greater crop cover or dispersal.

Several aspects of the habitat may help to explain the success of grey partridge around Nine Wells. The birds feed at dawn and dusk in open fields, but need suitable cover during the day and the Nine Wells nature reserve together with the hedge, margin and copses running north-west from the reserve appear ideal. Grassy margins also provide food for chicks while autumn stubbles provide foraging for the coveys.

Spring pairs

Pairs begin to form in the new year, though timing varies from year to year. In 2015 birds remained in coveys until mid-February, whereas in 2017 pairing began in mid-January. Pairing can vary from field to field: in 2017 the partridge in Field 6 were paired on January 18th, whereas those in Field 4 paired a week later.

- Initial pairing is often concentrated in specific fields. In early 2015 and 2017 I recorded at least 8 pairs in Field 6, almost two thirds of the total. By contrast, in early 2016 there were 12 pairs (out of 15) in Fields 1 and 2. Jenkins found that pairs come from different coveys, except when last year's pair reforms (9).

- Following pairing, the pairs disperse more widely across the area. Figure 1 shows how the 2016 pairs, originally concentrated in Fields 1 and 2, spread out later in the Spring.

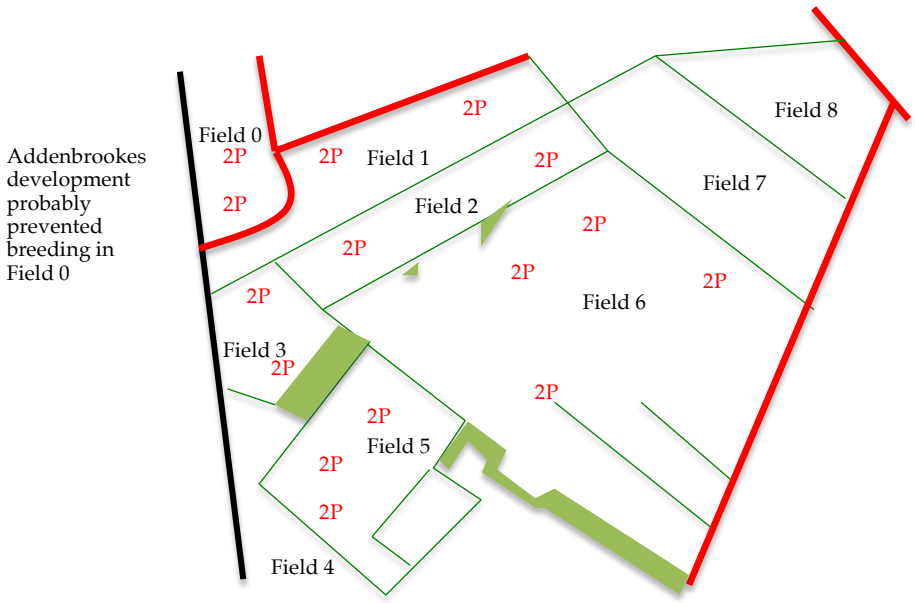


Fig 1: Pairs of grey partridge in late Spring 2016

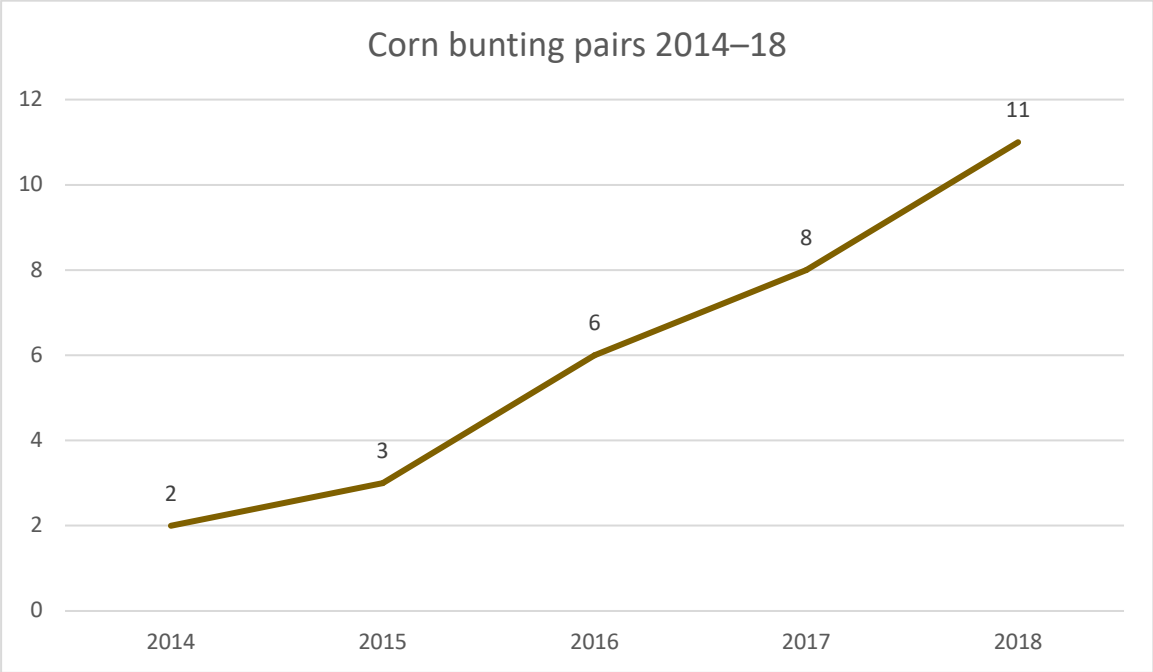
- Partridge behaviour changes during pairing. In the process of seeking a mate birds would call repeatedly – one bird calling could spark off others – and display their breast patches much more obviously. Birds will run and on occasion chase each other, which can end in flying to another spot. On one occasion in 2018 behaviour in the Field 6 stubble recalled a lek with 3 males displaying.

- Paired birds resume their normal placid behaviour, even if the above activity carries on in the same field, though they sometimes call. Interaction between pairs, even when close together, is also usually calm, with occasional breast patch display. As the spring develops and crop cover increases the pairs become increasingly discrete.

- However some unpaired male birds remain (most noticeably in 2018). Unpaired males call and display breast patch more than those in pairs. Jenkins observed an excess of males which would sometimes pair later in the year with a female whose partner had died, or whose original pair bond was weak (9).

Corn bunting 2014–18

11 pairs of corn bunting bred in 2018, three more than the previous year. This continues an upward trend across the five-year period:



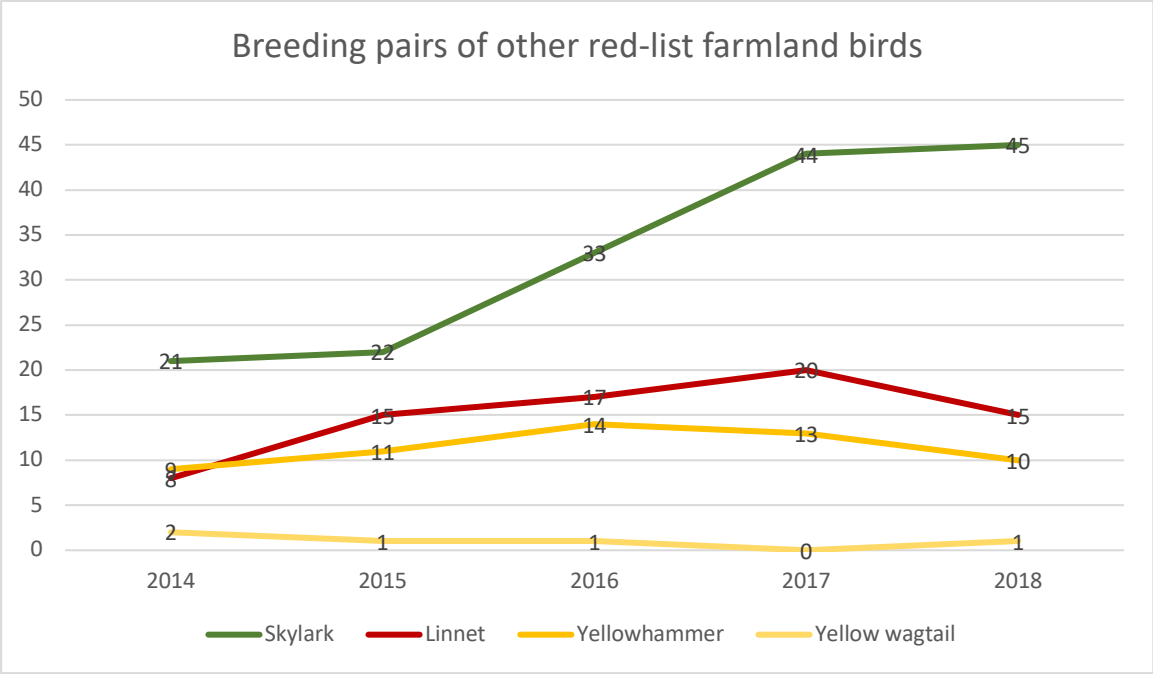
Corn bunting populations in the UK declined by 89% between 1970 and 2015 and that trend continues. There are now only 11,000 birds in the UK and the BTO's Breeding Birds Survey recorded corn buntings in just 145 of the 3,941 squares surveyed in 2017. The species' recent extinction in Ireland risks being repeated in large parts of Britain if its breeding sites are not protected. I asked a fellow surveyor about this who commented that 'corn buntings are generally absent in the fens/Brecks where I usually go'.

So both the number of birds recorded in this study, and the upward trend, are important. This importance increases when added to the population across the railway line in Hobson's Park – the 2018 Bioblitz there recorded 8 singing males. For comparison, the RSPB's Hope Farm had 2 pairs in 2017 in 1.8km^2 (9).

I also recorded some interesting behaviour – which could only be observed because of the good numbers of populations. On both May 7 and 9 I recorded a group of over 10 corn buntings on the corner of the hedge between Fields 4 and 5. This was too late to be a winter flock, and too early to be a family group. Males had been singing for some weeks by then across the site, but fewer did so at this time.

I have searched the literature for any accounts of similar gatherings. The only one I have been able to find was from a century ago (long before the major crash in numbers), when John Walpole-Bond reported singing 'conducted by many males together in a flock, generally from some bush or stunted hedge' (British Birds, Vol 25, No 10, pages 292-300). My group was not singing, however.

Other red-list farmland birds



- **Skylark** populations (right), with around 45 breeding pairs, are similar to 2017. The increase between 2015 and 2017 may result from better recording – I now base estimates of skylark numbers on singing males observed (greatest on May 26th). This population density is higher than the mean recorded for similar crops in the BTO's skylark survey (10). Winter flocks regularly numbered 50–70 birds.
- The **linnet** population, estimated at 15 pairs, was lower than in 2017; linnets are less territorial and more communal than some other species (11) so this estimate is based on the number of regularly used song posts; from April onwards I regularly recorded 10–20 birds. Winter flocks were also smaller in 2018 than in earlier years.

- **Yellowhammer** populations, at around 10 breeding pairs, are lower than the 13 recorded last year – possibly through loss of breeding habitat to the Biomedical campus. Nonetheless 2.5 pairs per km of hedgerow compares well with populations found by Bradbury et al (12). Densities were again highest in the hedges close to Nine Wells and along Granhams Road. Birds were also present in winter.
- A pair of **yellow wagtail** was also present, and appeared to breed successfully.

At least two pairs of **starlings** bred; large flocks were present in the autumn with 200 on January 18th. Two pairs of **song thrush** and **mistle thrush** also bred. **Lapwing** occasionally visited the area, but do not breed on the site. **Herring gull** visit regularly and **fieldfare** and **redwing** in the winter. One juvenile **turtle dove** stopped off during its autumn migration.

Amber list farmland birds

For the amber list farmland bird indicator species present:

- **Whitethroat** populations, with 16 breeding pairs, were lower than last year. Densities were highest along the hedges around Nine Wells and in the hedges along Granham's Road. The most birds on one occasion was 9, on May 9th.
- Around 12 pairs of **dunnock** bred, slightly lower than 2017.
- **Reed bunting** (right) again did well with 7 pairs. A pair of **stock dove** also breed.
- **Kestrel** are present and breed nearby.

Other notable amber list breeding species include **green woodpecker,** and **swallow** (though their favourite breeding site had been demolished) and probably **bullfinch** and **tawny owl.** In winter the site provides habitat for **meadow pipit** and **golden plover** while the water courses are used by **little egret** and **snipe**. **Mallard**, **black-headed**, **great** and **lesser black-backed gull** also visit and **common tern** occasionally fly over.

Other records

The remaining green list indicator species are all present as well as breeding lesser whitethroat, greater-spotted woodpecker, pied wagtail (with large flocks in the autumn) and moorhen. Buzzards bred in the woods on White Hill. A pair of stonechat wintered on the site in 2017/18.

The habitat survey showed 10 mature, species rich hedgerows with thick growth and good variety; 2 important watercourses (though one has been damaged by recent Biomedical campus work) and extensive grassy and flower-rich margins; and 3 small areas of scrub and woodland, plus the Nine Wells nature reserve.

Other species of wildlife present include::

- good numbers of **water vole** in Hobson's Brook; water vole numbers in Britain have fallen disastrously so this population is important; however damage to the ditch beside the cycle path by Biomedical campus development may have made this a less attractive habitat for the species.
- regular spring counts of 20+ **brown hare,** a city council 'priority species'; Hutchings and Harris (13) recorded 7.12 hares/km^2 on arable land; I have also recorded muntjac and roe deer, badger, fox, stoat, rabbit, mole, bank vole and wood mouse
- good populations of butterflies including brimstone, comma, common blue, Essex skipper, gatekeeper, green-veined white, holly blue, large skipper, large white, meadow brown, orange tip, painted lady, peacock, red admiral, ringlet, small heath, small tortoiseshell, small white, speckled wood as well as dragonflies and other invertebrates
- threatened arable flowers, including chamomile, cornflower, furmitory, mallow, poppy, speedwell and viper's bugloss.

Conclusions

The data I have gathered over the last seven years – and particularly between 2014 and 2018 – provide a picture of an area of green belt arable land on the outskirts of the city of Cambridge that supports important breeding populations of threatened farmland birds, as well as water vole, brown hare and other mammals, plants, butterflies and other invertebrates.

1 Over the period between 2014 and 2018 the site has supported exceptional populations of grey partridge and corn bunting (species that have declined by around 90% since 1970) and the site may well be among the best in Cambridgeshire for these species.

2 Habitat variety and land management contribute to the richness of the area. The combination of arable crops with margins and areas of bare earth benefit grey partridge, skylark, corn bunting and yellow wagtail; the ditches benefit yellowhammer and reed bunting, as well as water vole, while hedges are well used by linnet, yellowhammer, whitethroat and dunnock, and by grey partridge for cover. In particular, the hedge, margin and copses running north-west from the Nine Wells nature reserve provide excellent habitat for grey partridge, linnet and yellowhammer and must be conserved.

3 There are nonetheless warning signs in the 2018 data for red-listed species. While corn bunting continued to thrive, linnet and yellowhammer numbers declined and grey partridge numbers in the autumn showed a sharp reduction from earlier years. While several factors including the weather may have contributed, it seems probable that the expansion of the Biomedical campus and associated construction work has been important, and the construction work may also have damaged water vole habitat. Further disturbance is likely to reduce breeding sites for corn bunting and yellow wagtail and the proposed development of Field 2 would have a further detrimental effect on populations.

4 The area provides an important green space and area for walking, cycling and relaxation for local residents who are clearly able to co-exist with nature; the land also forms part of that covered by the Gog Magog Countryside Project proposed in the Cambridgeshire Green Infrastructure Strategy.

John Meed, January 2019

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5 BTO/JNCC/RSPB (2015) *Breeding Bird Survey Instructions*

6 RSPB (2012) *RSPB Volunteer and Farmer Alliance Training Manual*

7 Aebischer, N J and Ewald, J A (2012) The grey partridge in the UK: population status, research, policy and prospects. *Animal Biodiversity and Conservation*, 35.2: 353–362. (Other comparisons: the RSPB's Hope Farm Project, also nearby, recorded no grey partridge prior to management. Following management changes the population rose to 3 pairs/km^2 in 2011. The largest UK partridge study, the Sussex Study, recorded under 2 pairs/km^2 with typically 5 birds/km^2 in the autumn. Major changes in management – including game keeping and predator control – on one area of the Sussex Study led to autumn densities of 64 birds/km^2 by 2008 with around 20 breeding pairs/km^2 by 2014.)

8 Ceci, Chiari (2017) *Record highs for Hope Farm monitoring*, RSPB (at https://ww2.rspb.org.uk/community/ourwork/b/biodiversity/archive/2017/10/02/record-highs-hope-farm-monitoring-blog-summer-2017.aspx). The Hope Farm before and after management figures provide useful comparisons but it is important to recognise that the Hope Farm bird-friendly management measures are more extensive than those on the Nine Wells site.

9 Jenkins, D (1961) 'Social behaviour in the partridge *Perdix perdix*, The Ibis, Vol 103a, No 2 – a 3-year study of partridge on 640 acres (260 ha or 2.6km^2) of downland near Winchester

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12 Bradbury, R et al (2000) Habitat associations and breeding success of yellowhammers in lowland farmland, *Journal of Applied Ecology*, 37, 789-805 (The density of breeding yellowhammers varied between 0.5 and 3 pairs per km of hedgerow, and two thirds of hedges surveyed in 1997 held fewer than 2 pairs per km. The RSPB's Hope Farm density was 8 before and 17 per km^2 after management)

13 Hutchings, M.R. and Harris, S., (1996), *The current status of the brown hare (Lepus europaeus) in Britain* (out of print)

Appendix 1: The area covered

Looking towards White Hill

Nine wells from White Hill

Mature hedge and permissive path

Cycle path and flower-rich margin

Grey partridge on Field 2, autumn 2016

Yellowhammer on Field 2 ditch, spring 2016

Appendix 2: Species recorded (2013–18)

This list shows the 88 species recorded over the last 6 years, organised in order of 18 red list birds, 27 amber list birds, and 43 green list species (*italic* = not recorded in 2018).

Red list species	1st transect	2nd transect	3rd transect	Other visits	Estimated pairs
Corn bunting	6	6	9	x	11
Cuckoo				–	–
Fieldfare				x	–
Grey partridge	13	7	4	x	14
Herring gull		2		x	–
House sparrow				–	–
Lapwing				x	–
Linnet	10	13	19	x	15
Merlin				–	–
Mistle thrush				x	2
Redwing				x	–
Skylark	30	41	16	x	43
Song thrush	1	3		x	2
Starling		1		x	2
Turtle dove				x	–
Whinchat				–	–
Yellowhammer	7	8	5	x	10
Yellow wagtail		2		x	1
Amber list species	1st transect	2nd transect	3rd transect	Other visits	Estimated pairs
Black-headed gull		3	5	x	–
Bullfinch			1	x	?
Common gull				x	–
Common tern				x	–
Dunnock	5	3	4	x	12
Golden plover				x	–
Green woodpecker	2	1		x	2
Great b-b gull				x	–
House martin			5	x	–
Kestrel				x	–
Kingfisher				–	–
Lesser b-b gull				x	–
Little egret				x	–
Mallard	9	-	1	x	–
Marsh harrier				–	–
Meadow pipit				x	–
Mute swan				–	–
Red kite				x	–
Redstart				–	–
Reed bunting	2	3	2	x	7
Snipe				–	–
Stock dove			1	x	1
Swallow	1	7	3	x	2
Swift		2	2	x	–
Tawny owl				x	–
Whitethroat		5	6	x	16
Willow warbler				–	–

Green list species	1st transect	2nd transect	3rd transect	Other visits	Estimated pairs
Blackbird	5	5	9	x	8
Blackcap	4	4	5	x	6
Blue tit	11	5	4	x	6
Buzzard			2	x	1
Canada goose				x	–
Carrion crow	9	7	10	x	Not counted
Chaffinch	2	4	2	x	4
Chiffchaff	3	2	1	x	6
Coal tit				–	–
Collared dove				–	–
Cormorant				x	–
Egyptian goose				–	–
Feral pigeon			1	x	–
Garden warbler		1	1	x	2
Goldcrest	1			x	1
Goldfinch	2	8	9	x	4
Gt-sp woodpecker	1	1		x	1
Great tit	2	4	4	x	5
Greenfinch	2	2	4	x	5
Grey heron				x	–
Greylag goose	1	4		x	–
Hobby				x	–
Jackdaw	1	3	2	x	Not counted
Jack snipe				–	–
Jay	2	1		x	1
Lesser whitethroat	3		1	x	4
Long-tailed tit	2	1	7	x	5
Magpie	3	4	9	x	Not counted
Moorhen	1	1	1	x	1
Peregrine				x	–
Pheasant	2	1		x	3
Pied wagtail		1		x	2
R-L partridge	2			x	2
Reed warbler				–	–
Robin	6	5	3	x	12
Rook	4	17	24	x	–
Sedge warbler				–	–
Siskin				–	–
Sparrowhawk				x	–
Stonechat				x	–
Wheatear				–	–
Wood pigeon	42	27	38	x	Not counted
Wren	7	3	6	x	9

Appendix 3: Evidence of breeding populations

This table shows breeding signs recorded for the red and amber list species on the site:

Species	Estimated pairs*	Breeding signs
Skylark	45 (44)	Singing males; pairs; fledged young
Yellowhammer	10 (13)	Singing males; pairs; nest sites; fledged young
Linnet	15 (20)	Singing males; pairs; nest sites; fledged young
Grey partridge	14 (12)	Courtship behaviour; pairs; fledged young
Corn bunting	11 (8)	Singing males; pairs; fledged young
Yellow wagtail	1 (?)	Singing male only
Mistle thrush	2 (2)	Singing males; pairs
Song thrush	2 (2)	Singing males; pairs; fledged young
Starling	2 (2)	Pairs; nest sites; fledged young
Whitethroat	16 (22)	Singing males; pairs; nest sites; fledged young
Dunnock	12 (16)	Singing males; pairs; nest sites; fledged young
Green woodpecker	2 (2)	Pairs
Reed bunting	7 (8)	Singing males; pairs; nest sites; fledged young
Stock dove	1 (1)	Pair
Swallow	2 (4)	Singing males; pairs; nest sites; fledged young
Bullfinch	? (1)	Pair
Tawny owl	? (1)	Recorded: fledged young in previous year

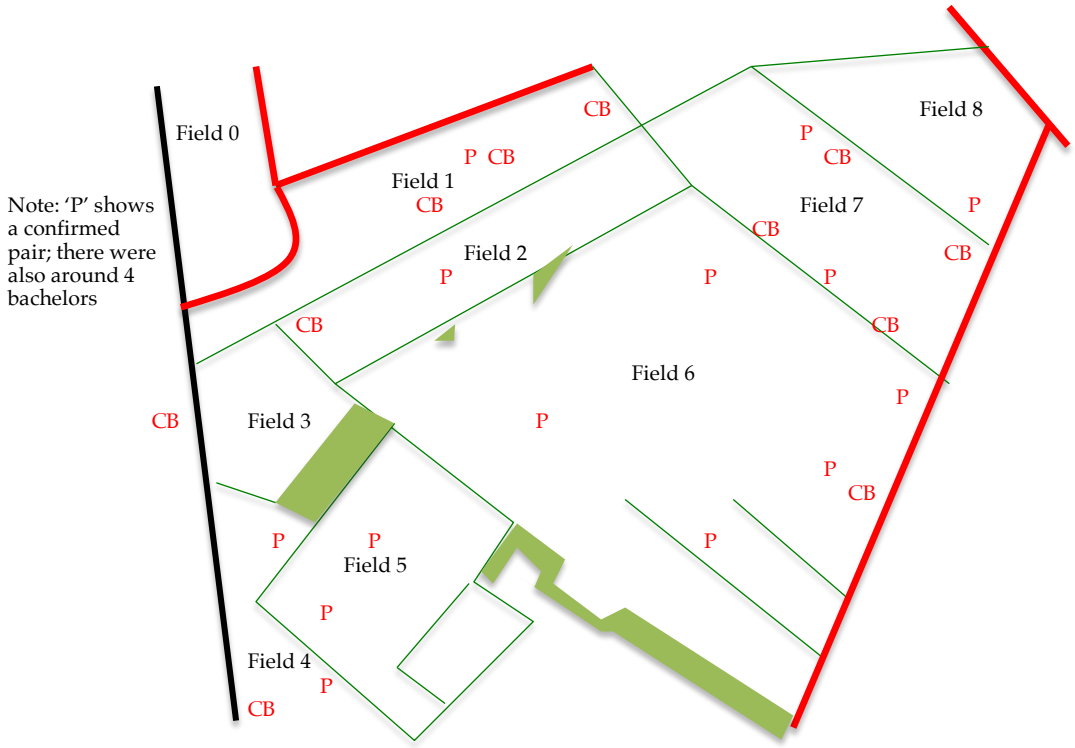
* Figures in brackets show estimates for 2017

For other red and amber species: no breeding signs were observed for herring gull, lapwing, black-headed gull, common gull, kestrel, house martin, swift, mallard ***and mute swan***: these species visit to feed. The red kite, common tern and lesser-black-backed gull were flying over. The fieldfare, redwing, little egret, kingfisher, golden plover, great-black-backed gull and meadow pipit were winter visitors, all using the site to feed. The turtle dove was on autumn passage.

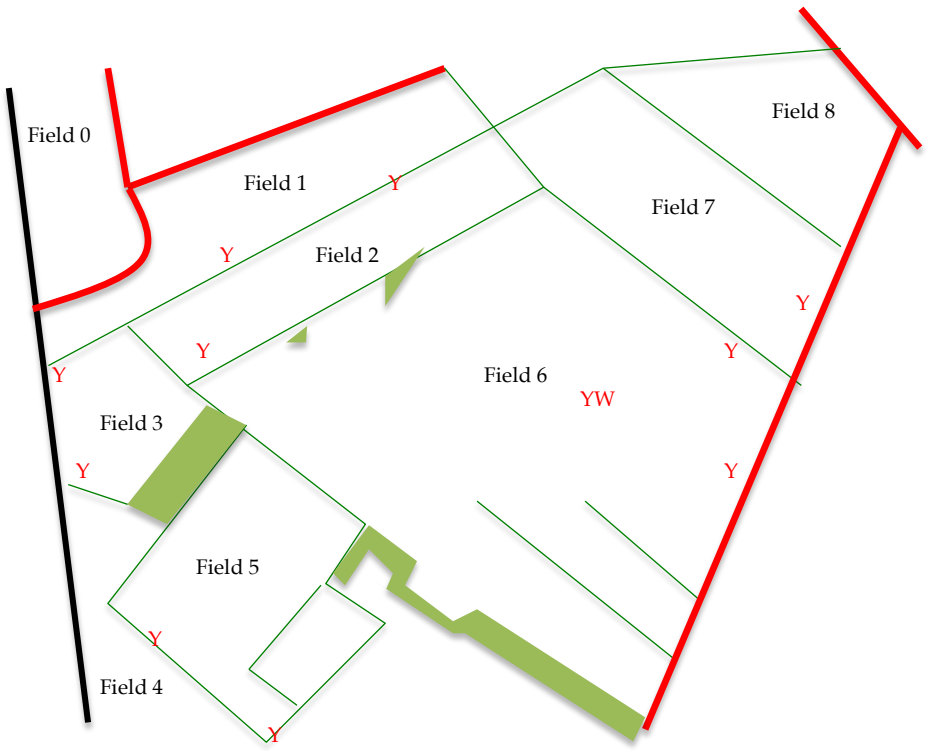
Appendix 4: Maps showing breeding pairs

These maps show estimated breeding pairs in 2018 of the red- or amber-listed farmland bird indicator species breeding in the one kilometre square:

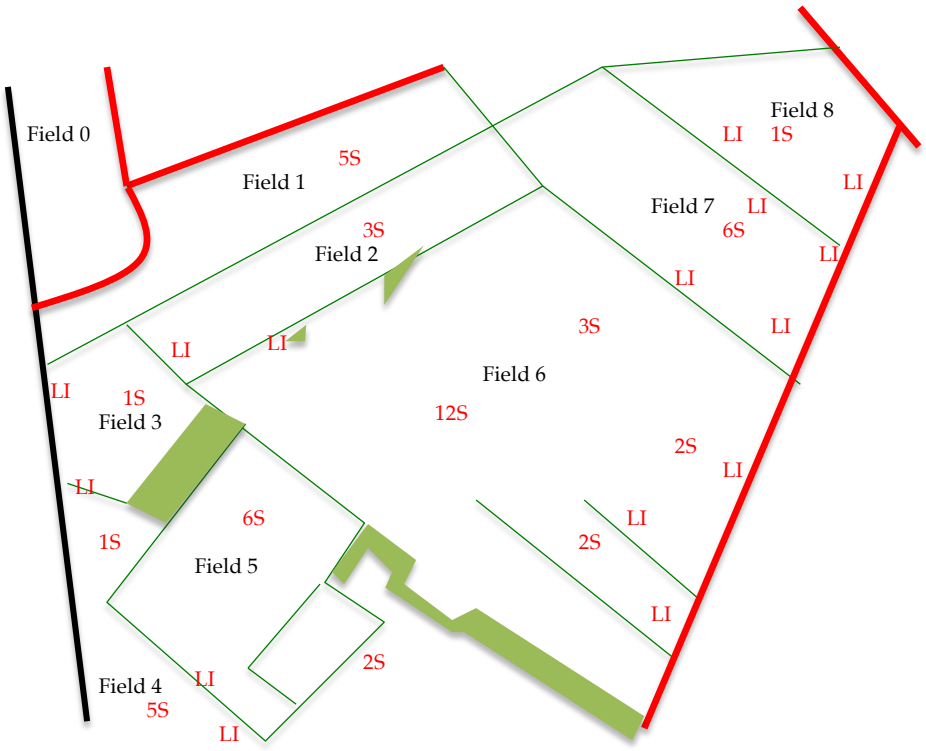
Grey partridge (P) and corn bunting (CB)



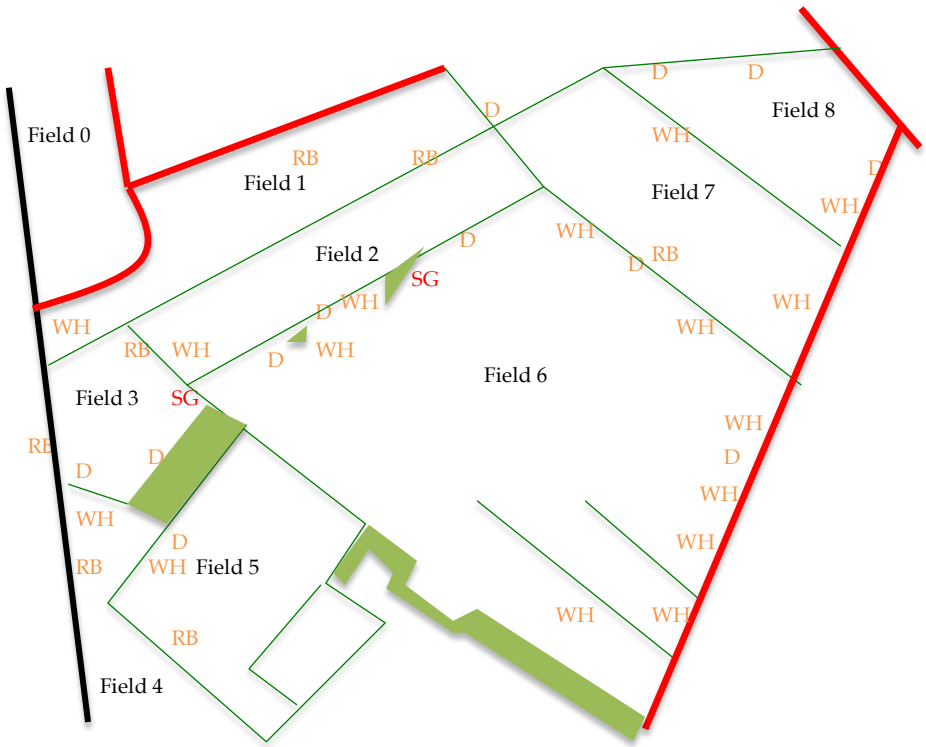
Yellowhammer (Y) and yellow wagtail (YW)



Linnet (LI) and skylark (S)



Whitethroat (WH), dunnock (D), reed bunting (RB) and starling (SG)



Appendix 5: Farmland bird indicator species

This table shows the 18 species on the UK Farmland Bird Indicator; the per cent change shows their population trends for the period 1970-2015:

Species	Present?	Breeding?	Per cent change*
Turtle dove	☒	–	-98%
Grey partridge	☒	☒	-92%
Corn bunting	☒	☒	-89%
Tree sparrow	–	–	-90%
Starling	☒	☒	-81%
Yellow wagtail	☒	☒	-67%
Skylark	☒	☒	-59%
Yellowhammer	☒	☒	-56%
Linnet	☒	☒	-55%
Kestrel	☒	–	-50%
Reed bunting	☒	☒	-31%
Greenfinch	☒	☒	-46%
Whitethroat	☒	☒	+6%
Stock dove	☒	☒	+113%
Woodpigeon	☒	☒	+123%
Jackdaw	☒	☒	+149%
Goldfinch	☒	☒	+159%
Rook	☒	–	n/a

Skylark is also a priority species in Policy 70 of the Cambridge Local Plan

• Source: Hayhow D.B., Ausden M.A., Bradbury R.B., Burnell D., Copeland A.I., Crick H.Q.P., Eaton M.A., Frost T., Grice P.V., Hall C., Harris S.J., Morecroft M.D., Noble D.G., Pearce-Higgins J.W., Watts O., Williams J.M. (2017) *The state of the UK's birds 2017*. RSPB, BTO, WWT, DAEFRA, JNCC, NE and NRW, Sandy

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See: johnmeed.net/john-meed/nine-wells/