



REVISED PLAN MAY 2017

FARMLAND BIRDS:

Grey Partridge, Skylark, Tree Sparrow, Corn Bunting, Turtle Dove, Linnet, Yellowhammer, Reed Bunting and Yellow Wagtail.

1. INTRODUCTION

A substantial number of our characteristic farmland birds have declined dramatically in range and number over recent decades. This action plan considers nine that have shown particularly serious declines in the sub-region, namely the grey partridge, skylark, tree sparrow, corn bunting, turtle dove, linnet, yellow wagtail, reed bunting and yellowhammer. 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. The lapwing has somewhat different requirements as it uses both farmland and wetland and is the subject of a separate action plan.



Corn bunting © Steven Falk

The **grey partridge** (*Perdix perdix*) is a species of open country, preferring mixed farmland, with hedges on grassy banks to provide nesting cover (Potts, 1986). It feeds on plant material and insects. In the first weeks, chicks feed almost exclusively on insects especially sawfly larvae to obtain the proteins needed for rapid growth.

The **skylark** (*Alauda arvensis*) is a bird of open habitats such as arable fields and naturally regenerated grassland. It nests on the ground, amongst crops or in grass, but prefers spring-sown cereals, or young grass leys. Adults feed on a range of seeds, weeds including knotgrass, groundsel and fat hen, and grasses. Chicks are entirely dependent on insects until fledging, favouring sawfly larvae, beetles, ants, spiders and grasshoppers. As summer wanes, the birds often gather in large flocks to feed in stubble fields.

The **tree sparrow** (*Passer montanus*) is generally found on lowland arable or mixed farms with scattered trees and mature hedgerows. Unlike the other birds in this action plan, it nests in holes, traditionally in old trees or farm buildings though occasionally in dense bushes. Tree sparrows feed amongst crops or in farmyards and are particularly dependent on winter stubbles, root crops, weeds in the crop margins and spilt grain. Chicks are fed on insects for the first two weeks of their life from a wide range of habitats, particularly waterside vegetation.

The **corn bunting** (*Emberiza calandra*) is found on open arable and mixed farmland, generally preferring treeless areas with fences, stone walls, bushes or overhead wires for song posts. It nests on the ground in cereal fields, or forage grass. Adults feed mainly on seeds, especially grain from harvested root crops, winter stubbles, newly-sown crops, weeds in the crop margins, spilt grain or places where cereals are fed to outdoor cattle. Chicks are fed on insects from crops, grassland and field margins.

The **turtle dove** (*Streptopelia turtur*) historically fed on a variety of plants now regarded as arable weeds such as fumitory (*Fumaria spp.*) and chickweed (*Stellaria spp.*). These plants are now less commonly accessible after decades of herbicide use and birds are

increasingly found foraging around grain stores in farmyards or even on seed put down for garden birds. The favoured nesting habitat is tall, overgrown hedgerows in landscapes including water.

The **linnet** (*Carduelis cannabina*) uses a wide range of habitats including areas of scrub, wasteland, heath and urban areas. On farmland, it can be found wherever there is a plentiful supply of seeds which they rely on almost entirely throughout the year. During the winter, adults will favour stubbles and field margins where weed seed and spilt grains are abundant; dandelion seeds in pasture are particularly important. The chicks feed on weed seeds and unripe oilseed rape grains. It nests in thick, well-maintained thorn hedges, bramble patches and areas of scrub.

The **yellowhammer** (*Emberiza citrinella*) inhabits mixed farmland with well-managed hedgerows and scrub. In winter, favours winter stubbles, natural regeneration, game cover, farmyards with livestock. Adults feed on a wide range of plant seeds, including dead nettles, groundsel, sorrel and cereal grains. Chicks depend on insects for the first week of life and adults will also take insects in the breeding season. It nests on or close to the ground in field margins with long grass, scrub, woodland edges and short dense hedgerows particularly next to ditches.

The **reed bunting** (*Emberiza schoeniclus*) is associated with cereal crops and oilseed rape, ponds, ditches, streams and boggy corners on farmland. Adults feed on or near the ground, taking a range of insects and seeds, including oilseed rape, chickweed and goosefoot. Chicks require insects for the first two to three weeks of life. The nest is a cup, well-hidden on the ground, in ditch edges or, more occasionally, up high in bushes; also in certain crops, notably oilseed rape.

The **yellow wagtail** (*Motacilla flava*) is a summer visitor, and favours damp habitats, such as wet meadows, grazing marshes and river valleys, but there has been much greater use of arable habitats over recent years, with oil-seed rape, legume and root crops increasingly used for breeding. It is entirely insectivorous and can often be seen in lowland grassland where cattle and horses are being feeding on the invertebrates, such as flies and beetles, disturbed by the livestock. The nest may be on the ground in a hollow or tussock of grass.

2.	OBJECTIVES	TARGETS
Associated Action Plans are: 'Old Parkland & Veteran Trees', 'Lowland Neutral Grassland', 'Lowland Calcareous Grassland', 'Field Margins', 'Hedgerows', 'Lapwing' and 'Snipe'		
PLEASE CONSULT THE 'GENERIC SPECIES' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL SPECIES PLANS		
A.	To halt population decline of the grey partridge, skylark, tree sparrow, corn bunting, turtle dove, linnet, yellow hammer, reed bunting and yellow wagtail.	2020
B.	To aim for no further loss of range of grey partridge, skylark, tree sparrow, corn bunting, turtle dove, linnet, yellowhammer, reed bunting and yellow wagtail.	2020

3. NATIONAL BAP OBJECTIVES & TARGETS

These nine farmland birds are all on the current UK Biodiversity Action Plan (BAP) Priority Species list published in 2007([Joint Nature Conservation Committee](#)). The targets and objectives for the BAPs, updated in 2010, may be seen online:

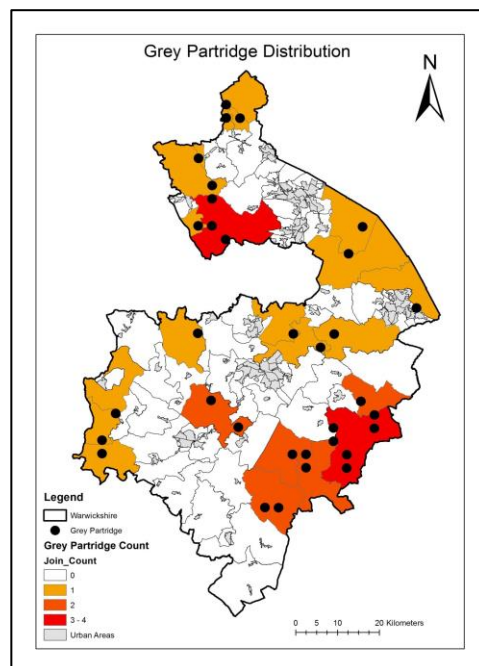
- [Grey Partridge](#) BAP
- [Skylark](#) BAP
- [Tree Sparrow](#) BAP
- [Corn Bunting](#) BAP
- [Turtle Dove](#) BAP
- [Linnet](#) BAP
- [Yellowhammer](#) BAP
- [Reed Bunting](#) BAP
- [Yellow Wagtail](#) BAP

4. CURRENT STATUS (for data before 2016 on individual species see **Appendix**).

The [National Farmland Bird Index](#) is one of a suite of indices used to measure the sustainability of UK biodiversity. It is updated annually and takes into account all farmland-dependent species, from the increasingly common woodpigeon to the increasingly scarce corn bunting. In October 2015 the [Farmland Bird Indicator](#) showed for first time an improvement of 2% on the previous year, but Breeding Index for Farmland Birds in UK was less than half of its 1970 level, a decline of 54% (reported in Wild Bird Populations in the UK, 1970 to 2014 Annual statistical release: 29th October, 2015)

Grey partridge.

The species is largely confined to lowland farms and is on the Red List of [Birds of Conservation Concern](#) 3. Nationally and regionally the Grey Partridge is in continued decline, the population declining by 91% between 1967 and 2010. The latest information suggested that herbicides are killing larval host plants of invertebrate prey species, with confirmed breeding in only 15% of 10km² in UK (Smith, 2014). In Warwickshire, however, the population seems unstable with dips and rises; the distribution map shows a low density across the county with significant densities in the south east and north. The key areas are Fenny Compton, Burton Dassett, Kineton and Stockton and Napton in the east and Meriden and Fillongley in the north (Smith, 2016)



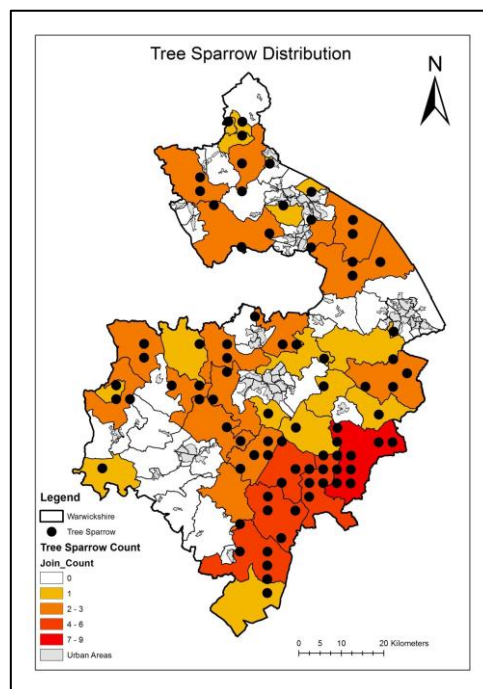
Skylark.

In the lowlands, the species is concentrated on farms in the south and east of the UK, with a total population decline of 58% since 1970 (Smith, 2014), placing the species on the Red List of Birds of Conservation Concern (Eaton et al. 2009). Skylark density is relatively stable reflecting both National and Regional patterns. There is still a very minor negative

trend but this looks to be slowing. There were no skylark data in the BCTP dataset so they have not been mapped (Smith, 2016).

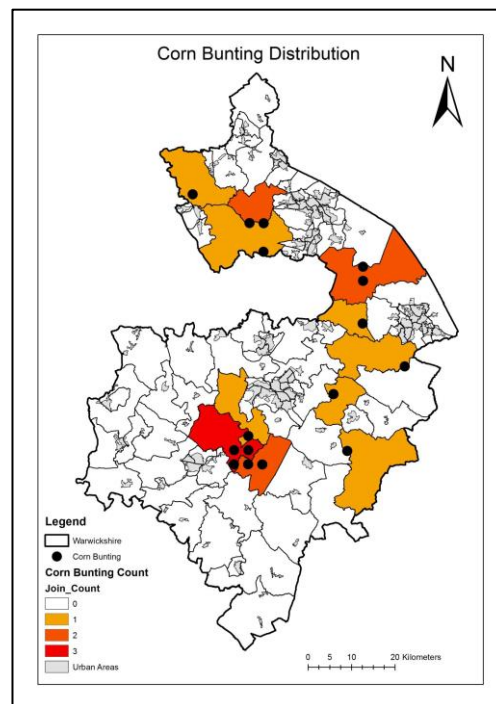
Tree sparrow.

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 plummeting by a staggering 95% between 1974-99, placing it on the Red List of Birds of Conservation Concern (Eaton et al. 2009). However, the species has now increased in density by 53% although breeding range has contracted by 41% since 1968/72 and winter range by 20% since 1981/84 (Smith, 2014). It has disappeared from many areas in south west England. Density in Warwickshire has fluctuated over the study period with indications of a recovering population from 2003 to 2008. This reflected the national slow rise in national numbers but was counter to regional patterns. Falling numbers in 2009, 2011 and 2014 perhaps reflect more of a regional effect. Over winter numbers are good and it is possible external factors are affecting this species. The distribution map shows that key populations occur along the eastern border of the county including Fenny Compton, Kineton, Burton Dassett, Vale of the Red Horse and Brailes (Smith, 2016).



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 1970-2010 there was a decline of 90%, with a contraction of breeding range by 56% since 1968/72 and of winter range by 27% since 1981/84 (Smith, 2014). Its dramatic population decline puts it on the Red List of Birds of Conservation Concern (Eaton et al. 2009). After a sustained national decline up until 2003 this species has started to improve at the national level. This improvement seems much slower in Warwickshire with low densities present but the promising rise in 2014 against the national trend could be the start of a recovery. The distribution map shows a core population existing in Snitterfield and Wellesbourne with scattered populations across the north and east of the county (Smith, 2016).

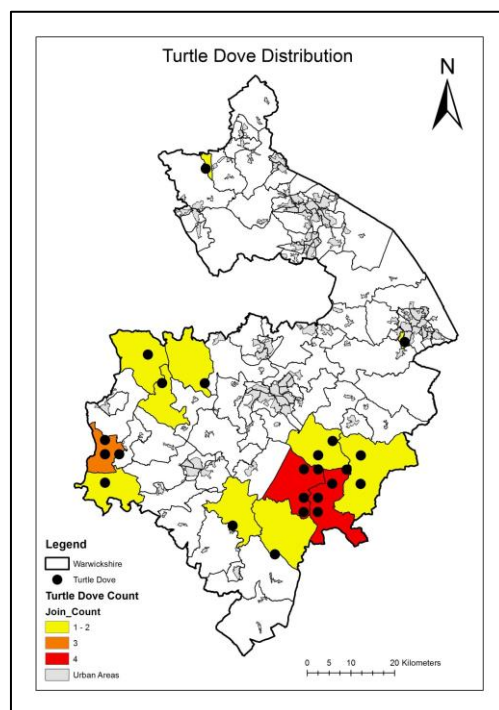


Turtle Dove.

The species was awarded 'vulnerable' status in 2015 and is on the Red List of Birds of Conservation Concern (Eaton et al. 2009). It was once common across much of England

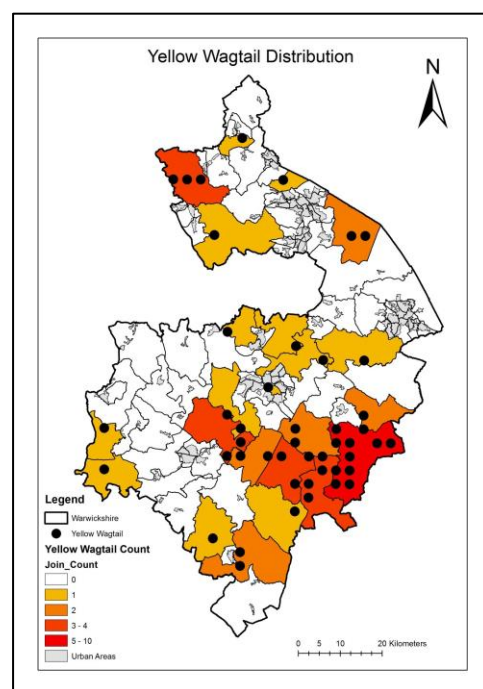
but is now retreating into an ever shrinking patch of East Anglia and South East of England, having suffered a 96% UK population decline since 1970. Research by the [Game & Wildlife Conservation Trust](http://www.gameandwildlifeconservationtrust.org.uk) (GWCT) has shown that the bird returns later to the UK than they used to in spring and arrive in poor condition, producing only one brood instead of two, or increasingly fail to breed at all. The consequent reduction of productivity would alone be sufficient to cause the long term decline in the UK population, but this is far from the only problem faced by the species. European Turtle Dove is now experiencing problems on the wintering grounds in Africa and large numbers are shot on migration through the Mediterranean each year depleting a contracting population, although UK birds appear to be avoiding the worst areas. The breeding population in the UK is currently halving in number every six years with an estimated 6-7000 territories in 2014. A number of factors have contributed to this situation combining to create an

'extinction vortex' which may result in losing the species altogether. The key requirements to be delivered through the agri-environment scheme are to ensure the provision of food plants which seed throughout the breeding season and to ensure the retention of appropriate nesting habitat. Density in Warwickshire shows a prolonged crash over the 20 year study period. This trend is reflected regionally and nationally. It is likely that loss of local habitat is only part of the problem for this species and that events in wintering grounds and problems encountered during migration have a greater effect. The distribution map shows three distinct clusters a main one centred on Fenny Compton, Kineton, Burton Dassett and Harbury, one in the west at Alcester and lastly around Tanworth, Lapworth and Henley (Smith, 2016).



Yellow wagtail.

Serious declines in breeding numbers place it on the Red List of Birds of Conservation Concern (Eaton et al. 2009). Between 2010 and 1970 the population declined by 72% and its range contracted 32% between surveys in 1968-1972 and 2008-2011. The decline has been linked to soil penetrability and invertebrate availability. For much of the study period the Yellow Wagtail followed the national and regional picture however from 2011 instead of following the small national increase the Warwickshire population nosedived. The Yellow Wagtail has a concentrated spread across eastern Warwickshire around Fenny Compton, Burton Dassett, Kineton and Harbury and a second hotspot up in the north at Curdworth (Smith, 2016).



Linnet.

Numbers declined by 48% between 1970 and 2003, putting it on the Red List of Birds of Conservation Concern (Eaton et al. 2009). Nationally numbers fell by 72% between 1967 and 2014 with no appreciable change in distribution indicating a decreased breeding success. Seeds of weeds in crops have been shown to be of high importance to chick survival linking declines to herbicide use. In Warwickshire the number of pairs has increased by 53% between 2006/09 and 2010/13 with a 50% increase in range over the same period. The breeding density of Linnets in Morton Bagot and Shipston over an 8 year period between 2003 and 2010 shows a low stable density of 0.08-0.14 pairs per hectare with some evidence of a small fluctuation on a three year cycle. Higher Level Stewardship monitoring of farms in Dunchurch, Honnington, Kenilworth, Long Compton, Upper Brailes and the Upton estate over a two year period shows a small stable breeding population. Winter flock sizes declined from highs of 1500 individuals in the early 1990's to 80-100 by the end of the decade before increasing up to 500-1000 in the mid-2000's (pers.comm. Smith, 2017).

Yellowhammer.

Numbers declined by 54% between 1970 and 1998, and surveys suggest populations are still falling, putting it on the Red List of Birds of Conservation Concern (Eaton et al. 2009). Between 1967 and 2014 numbers fell by 56%, however they were stable between 2009 and 2015. Yellowhammer survival is closely associated with cereal farming. In Warwickshire the number of pairs has increased by 149% between 2006/09 and 2010/13 with a 57% increase in range over the same period. Breeding density data from multiple sites, including Morton Bagot, Shipston, Priors Hardwick and Priors Marston between 2000 and 2010, show a small general decline with some oscillations. Higher Level Stewardship monitoring of farms in Dunchurch, Honnington, Kenilworth, Long Compton, Upper Brailes and the Upton estate over a three year period shows a declining breeding population. Since 2000 winter flock sizes have continued to grow with a maximum of 300 occurring in Haselor in 2008 (pers.comm. Mark Smith, 2017).

Reed bunting.

Numbers have declined by about 50% since 1970. It is on the Birds of Conservation Concern Amber list (Eaton et al. 2009). Data collected since 1967 indicate a fluctuating population, between 1967 and 2014 numbers fell by 19% however between 1967 and 1977 and in 2005 numbers increased. In 2009 and 2015 numbers have increased by 4%. Surveys taken in 1968-72 and in 2008-11 show that the breeding range decreased nationally by 5%. Winter surveys between 1981-84 and 2010-2012 show an increase in range of 23%. In Warwickshire the number of pairs has increased by 28% between 2006/09 and 2010/13 with a 36% increase in range over the same period. Reed bunting breeding is particularly strong in Fenny Compton, Priors Hardwick, Lighthorne Quarry, Brandon, Salford Priors and Napton (pers.comm. Mark Smith, 2017).

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the [Wild Birds Directive](#) (1979), the [Wildlife and Countryside Act](#) (1981), the [Conservation Regulations](#) (1994) and [EC Habitats Directive](#) (1992). Protection of sites is afforded nationally through [Sites of Special Scientific Interest](#) (SSSI) designation, [Special Areas of Conservation](#) (SAC) and [Local Nature Reserve](#) (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local

Character Areas and identified Landscape Scale Areas. The [National Planning Policy Framework](#) (2012) chapter/section 11 states conditions with regard to any development negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the [Conservation of Habitats & Species Regulations](#) (2010) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

All five species are protected under the Wildlife & Countryside Act. In addition:

- **Grey partridge** are protected in Britain in the close season under the Game Acts and is also listed on Annex 2.1 of the EC Birds Directive 2009.
- **Skylark and turtle dove** are protected under the EC Birds Directive, Annex 2.2.
- **Linnet, grey partridge, linnet, yellowhammer and yellow wagtail** are protected under Appendix 2 of the Bern Convention.
- **Skylark, reed bunting, tree sparrow, turtle dove, grey partridge, yellowhammer and yellow wagtail** are listed under the section 41 of the Natural Environment and Rural Communities Act 2006.

4.2 Current Factors Affecting the Species

Farming practices have a major impact on these species. However, it is not the intention of this plan to cease farming, but to seek ways of mitigating its impact by providing alternative nesting and roosting sites plus increase the supply of seeds and insects. 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 agri-environment schemes.

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, weed-rich and seed-rich farmland.
- **Reduced crop diversity and structure** (including in grassland) can cause poor post-fledging survival.
- **Autumn sowing** which leads to taller, denser crops earlier in the season.
- **Lack of winter stubbles and weed seeds** for winter food.
- **Use of herbicides** which reduce 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 for silage and hay during the nesting season** resulting in destruction of nests or lack of nesting cover for ground-nesting species.

Factor	Grey Partridge	Skylark	Tree sparrow	Corn bunting	Turtle dove
Loss of nest sites	✓		✓		
Reduced insect/weed seed food supplies and/or access to that food	✓	✓	✓	✓	yes
Loss of winter stubble for feeding	✓	✓	✓	✓	n/a
Poor nest cover, vulnerable to predators	✓			✓	n/a
Early silage mowing destroying nests	✓	✓			n/a
Lack nesting holes, e.g. loss of elms			✓		n/a

Bird Conservation Targeting Project in Waikaremoa Wetland, New Zealand
Avicula melanotos

Distribution of seven birding grey partridge, tufted duck, yellow-rumped, grey turnstone, grey plover, grey gull, and grey teal.

Species present 2005
 for 2005 new site areas

- 0 species
- 1 species
- 2 species
- 3 species
- 4 species
- 5 species
- 6 species
- 7 species

- EF2/HF2/OHF2/ HF12/ EF23 /HF24: wild bird seed mixture, enhanced wild bird seed mix plots and supplementary winterfeeding.
- EF7/HF7/OHF7: beetle banks.
- EF8/HF8: skylark plots.
- EF6/EF22/OHF6/HF15: over wintered stubbles and reduced herbicide cereal crops, followed by over wintered stubbles.
- EF9/HF9 /EF10/HF10: cereal headlands and unharvested cereal headlands.
- EF13/HF13/OHF13: uncropped cultivated areas for ground nesting birds.

Following the introduction of field margin and infield practices at two arable farms belonging to the GWCT and RSPB, changes in the abundance of farmland birds were measurable. Local rates of population growth were up >10% per annum and up to 20% for some species, compared with regional trends (British Wildlife, 2016).

5. LOCAL ACTION

- RSPB have produced advisory sheets in association with FWAG and GWCT 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.
- From 2000-12 RSPB provided free breeding bird surveys on farms in Warwickshire on request through the [Volunteer & Farmer Alliance](#), 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.
- The BTO runs and organises the Breeding Bird Survey, which typically covers just over 20 squares each spring.
- The Warwickshire Breeding Bird Tetrad Atlas provided data on the species in parts of the county until 2006 when survey work ceased (pers.comm. Jon Bowley, 2012).
- Skylark plots at a farm in Sherbourne resulted in 4 breeding pairs in 2012; the plots remain (2013).
- In 2013 an awareness raising event was held for farmers by [Natural England](#) (NE), RSPB and Butterfly Conservation, particularly with regard to the provision of early seeding food plants.
- In 2013 [Cemex](#) and the RSPB announced plans to plant early seed mixes designed for European turtle dove at four quarry sites in the UK, one of which was Southam Quarry; this unfortunately failed to take. In Salford Priors and the Upper Leam Valley farmers have planted early seeding mixes designed for the species under HLS for the last 3 years; supplementary feeding with grain is being undertaken at both sites (pers. comm. Tim Marlow, 2015)
- Nest boxes for tree sparrows are available to farmers and land-managers through agri-environment schemes. Sun Rising Natural Burial Ground installed 6 nest boxes in two trees in 2015 to encourage the existing population of tree sparrows; 2 pairs bred in 2016.
- GWCT's [Big Farmland Bird Count](#) is now in its fourth year, and during that time, it has gone from strength to strength. In 2016, over 970 farmers recorded 130 species of birds across approximately 900,000 acres; only half an hour a day is recording the species and numbers of birds on one particular area of the farm. The [Partridge Count Scheme](#) continues.
- [Campaign for the Farmed Environment](#) - at the Warwickshire farmland bird event in 2017 a GWCT speaker covered managing for native farmland birds alongside game birds.
- Breeding and wintering data since 2009 for 6 farms (from 100ha to 700ha) for 19 species shows the populations to be stable and rising. Warwickshire has good residual populations owing to recording effort, diverse landscape (ponds, trees in hedgerows) and mixed farming, resulting in the highest densities of skylark and tree

sparrow in the country; for some reason tree sparrow are prone to local extinctions (pers.comm. Matt Wilmott, 2016).

6. PROPOSED LOCAL ACTIONS

ACTION	Lead	Partners	By
PLEASE CONSULT THE ' GENERIC SPECIES ' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL SPECIES PLANS			
Site / Species Safeguard & Management			
SM1. Ensure management agreements under agri-environment schemes are sympathetic to the nesting and wintering requirements of the grey partridge, skylark, tree sparrow, corn bunting, turtle dove, linnet, yellow wagtail, reed bunting and yellow hammer where they are known to occur.	NE	WCC RSPB SRNBG	ongoing
SM2. Target agri-environment schemes for corn bunting and turtle dove with relevant technical tailoring to ensure the species has safe nesting habitat in the right places.	NE	WMBC	ongoing
SM3. Actively promote nest-box schemes for tree sparrows as appropriate to the farm until the species decline is reversed and population is considered secure.	NE	WWT RSPB WMBC SRNBG	ongoing
SM4. Ensure the area of relevant farmland bird options currently in ELS and HLS are transferred into Mid or Higher Tier Countryside Stewardship, so the area of relevant farmland bird options is at least maintained, but where possible should be increased.	NE		ongoing
Advisory			
A1. Actively promote the uptake of agri-environment incentive schemes by using the Farmland Bird Package, especially in the Farmland Bird target area of SE. Warwickshire and ensure uptake of key arable options totalling 7%- 10% of arable area of farms. Outside this area, ensure uptake wherever 3 or more of these species occur.	NE	WCC HBA WWT RSPB WMBC CFE	ongoing

ACTION	Lead	Partners	By
A2. When spraying is required, promote a selective approach avoiding features such as headlands (especially insecticide use in summer).	NE		ongoing

Abbreviations: CFE – Campaign for the Farmed Environment, HBA – Habitat Biodiversity Audit partnership, NE – Natural England, RSPB – Royal Society for the Protection of Birds, SRNBG – Sun Rising Natural Burial Ground, WCC – Warwickshire County Council, WMBC – West Midland Bird Club, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Progress with this plan up to 2016 can be seen at www.warwickshirewildlifetrust.org.uk/LBAP.

8. BIBLIOGRAPHY

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

Mead, C. (2000). *The State of the Nation's Birds*. Whittet Books, Stowmarket

Raven, M. and Noble, D. (2001). 'The Breeding Bird Survey 1994-2000'. BTO News No. 237 pp 12-14.

Butler S.J., Bradbury R.B. & Whittingham M. (2005). *Stubble height affects the use of stubble fields by farmland birds*. Journal of Applied Ecology, 42, 469-476.

RSPB (2009) [Birds of Conservation Concern 3](#) : the population status of birds in the United Kingdom, Channel Islands and the Isle of Man.

Risely, K., Renwick, A.R., Dadam, D., Eaton, M.A., Johnston, A., Baillie, S.R., Musgrove, A.J. & Noble, D.G. (2011) *The Breeding Bird Survey 2010*. BTO Research Report 597. British Trust for Ornithology, Thetford.

Lawton, J.H. (2010) [Making Space for Nature](#): a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

Defra (2011) [Biodiversity 2020](#): A strategy for England's wildlife and ecosystem services.

BTO (2013) [Bird Atlas 2007-11](#): The Breeding and Wintering Birds of Britain and Ireland - a comprehensive overview of bird distribution and change in Britain and Ireland, giving national level trends which will place local issues in the national context.

Smith, M.C. (2014 and 2016) Updates on the status of Bird Local Biodiversity Action Plans in Warwickshire. 'Wild Warwickshire' Wildlife Information & Consultancy.

RSPB, BTO & Wildlife & Wetland Trust (2014) [The State of the UK's birds](#) - the theme is migrants, a group showing some of the most dramatic population changes in the last few decades.

BTO (2014) The latest [Bird Trends](#) report, bringing together the latest BTO survey data for 120 breeding bird species across Britain & Ireland, shows that it is bad news for backyard biodiversity. Long-term population trends for each species are presented by country and by habitat.

RSPB (2016) [State of Nature](#) – a stocktake of all our native wildlife by over 50 wildlife organisations.

Natural England (2016) [Conservation Strategy for the 21st Century](#). Sets out how NE will help deliver DEFRA's ambitions for the environment to reverse biodiversity loss, sustain distinctive landscapes and enhance engagement with nature.

British Wildlife (2016) Wildlife Reports.Vol.27:5, p352.

9. FURTHER INFORMATION

UK [Arable Field Margins](#) Biodiversity Action Plan

Habitat Biodiversity Audit (HBA) for Warwickshire, Coventry & Solihull – mapping data set and associated information. Phase 1 ([JNCC](#)) 1996-2002 and Phase 2 (Local Wildlife Sites) ongoing.

Game & Wildlife Conservancy Trust (2008). [Grey partridge fact sheets](#). Available online or tel. 01425 652381).

RSPB [Management Guide to Birds of Lowland Farmland](#) (2005) and [Farm Wildlife Handbook](#) (2007) Available online or tel. 01234 263616.

RSPB (2008). Conservation Management Advice: [Farmland Bird Feeding Stations](#) and [Skylark plots' - small undrilled patches](#). Available online or tel. 01234 211522

Suffolk Biodiversity Partnership (2015) Priority Species Fact Sheet 2: Turtle Dove.

RSPB & NE (2014) [Operation Turtle Dove](#) : saving a bird on the brink.

[Farming fit for the future](#) (2015) – a call by 46 voluntary organisations (under the umbrella of the Wildlife & Countryside Link) for an integrated approach to better management of farmland.

10. CONTACT

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Worcestershire & Warwickshire Team

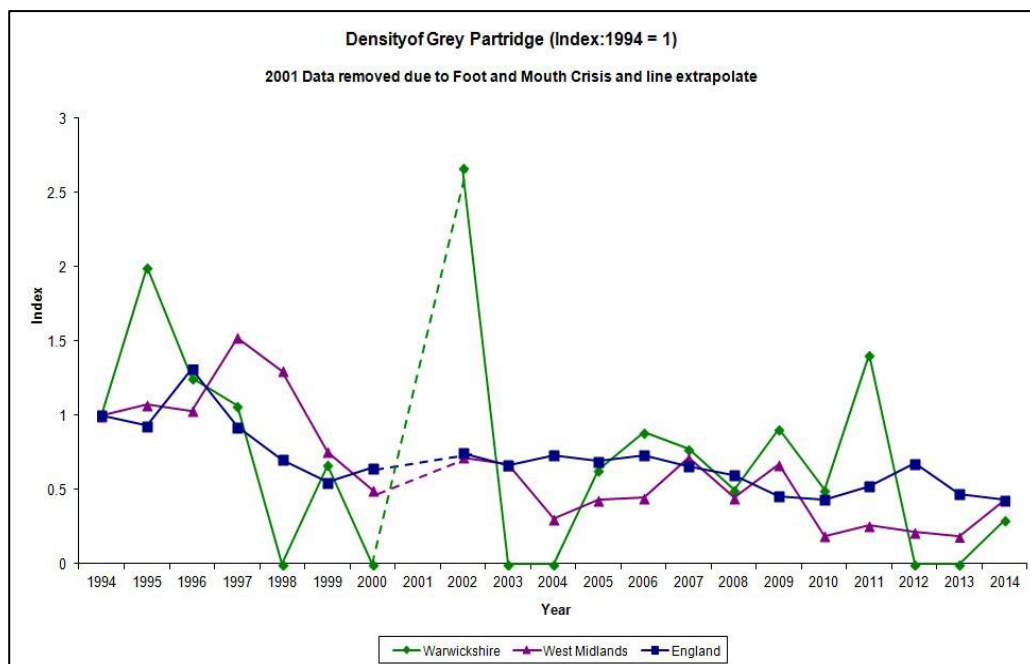
Natural England, County Hall, Spetchley Road, Worcester WR5 2NP

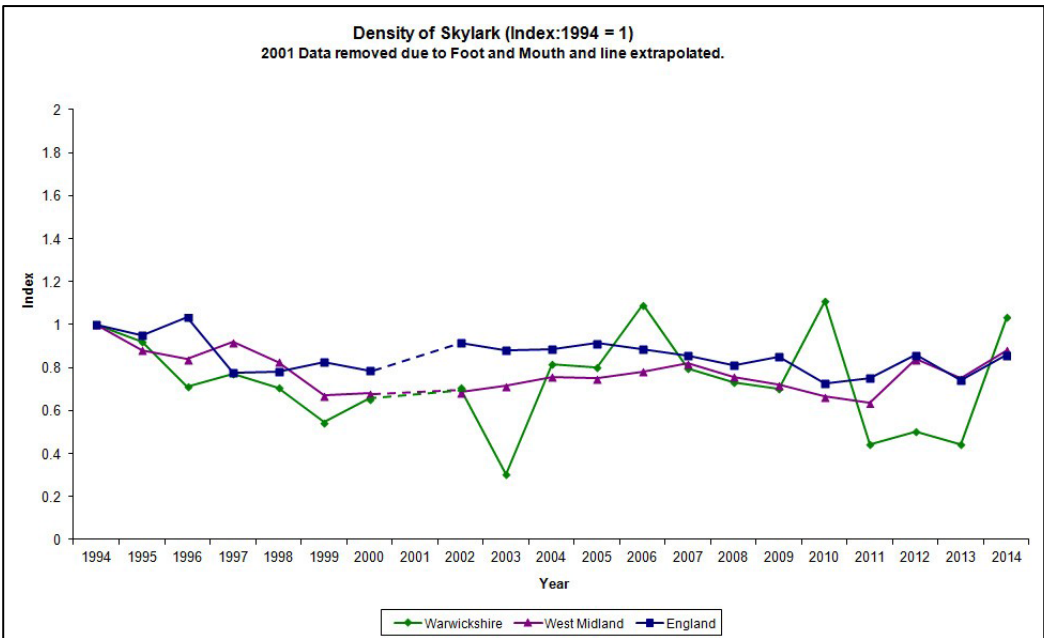
Tel: 02080 260988 Email: Mike.Robinson@naturalengland.org.uk

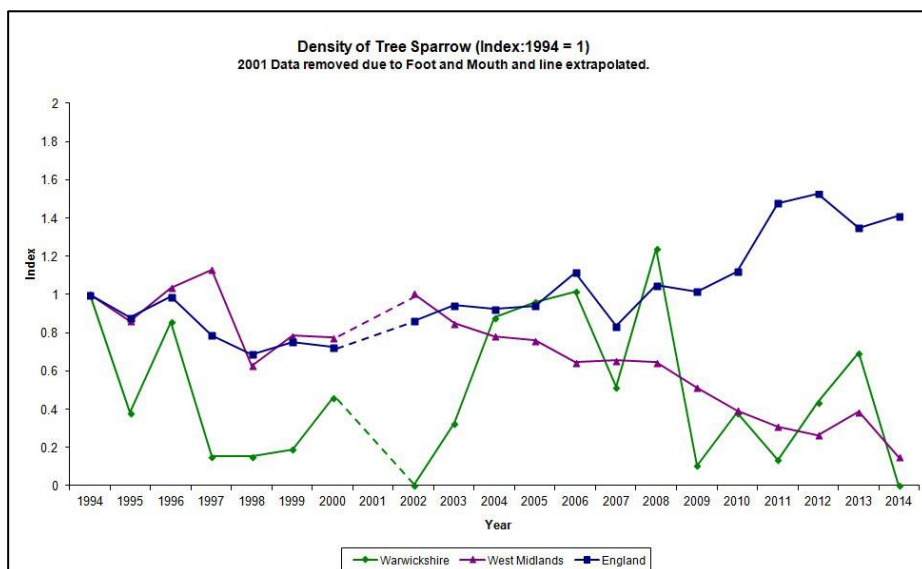
Appendix: information on species prior to 2016 (Mark Smith, 2017)

Grey partridge

- 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, later survey work showed that birds were present in only 10-20% of tetrads (2kmx2km squares) and it seemed likely that there were no more than 200-400 territories (Jon Bowley, pers.comm. 2005).
- The Breeding Bird Survey (BBS) indicates a severe period of decline from 1994-2000, a period of lower density stability and another decline in 2012. Indications are that the species is particularly vulnerable to seasonal effects.
- A report in 2014 stated: 'It is interesting to note the sharp increase in breeding density in 2002; this breeding season followed the closure of much of the county during the Foot and Mouth Crisis of 2001 and suggests that less disturbance led to a greater breeding productivity reversing momentarily the decline of this species' (Mark Smith, 2014). Note that this data was taken from a sample of 6 x 10km squares surveyed in 2002, with only 4 birds found.
- Birds can appear in areas where they have not been seen in years, e.g. at Easenhall, and status is obscured in some areas by reintroduction attempts by some landowners e.g. at Morton Bagot, Priors Marston and on the Ragley Hall estate. Overall though, away from introduction points, no real increase in sightings has been noticed, so the status/population is probably static with low annual productivity (JB, pers.comm.2012).

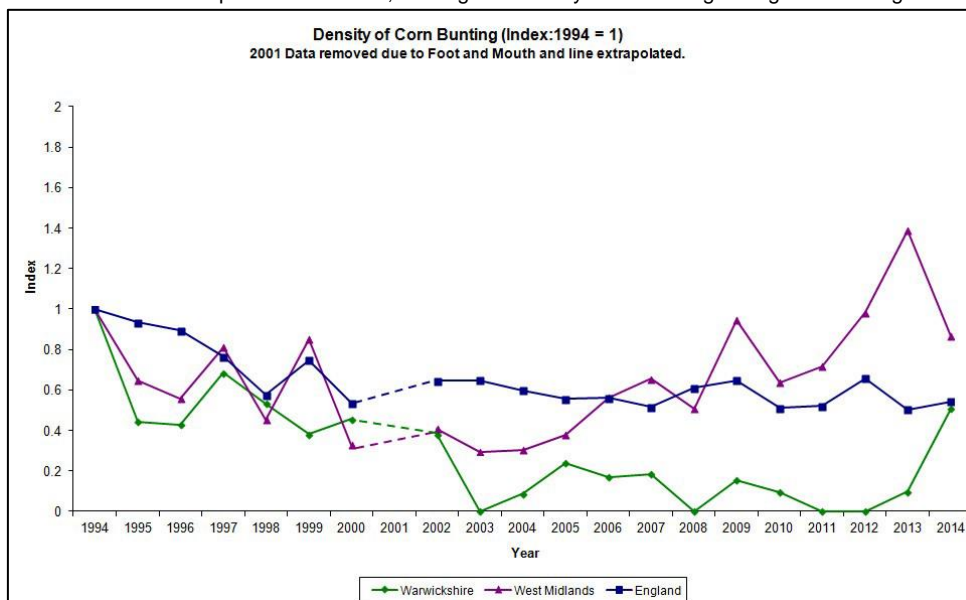


Skylark	<ul style="list-style-type: none"> • Within Warwickshire, surveys in 1966-68, 1968-72 and 1988-91 all recorded birds in every 10-km square, and while this was almost certainly still true, later surveys showed only three-quarters of tetrads to be occupied. Numbers were also much reduced and the county population was estimated at 5500-7000 pairs. (JB, pers.comm.2005). • The BBS shows that, although not as pronounced as in other farmland species, the decline in Warwickshire between 1994- 2012 was still twice that experienced in the wider country; however, this was mainly due to the coarser variations in the data inherent to the smaller sample size (MS, 2014). • The species increased considerably on farms with agri-environment schemes and in areas with unsprayed set-aside (a scheme which was in place until 2008). However some decline has been detected again subsequently. Although the species is still common and widespread and present in most rural tetrads this is often at a low frequency. Some of the highest densities occur in large areas of rough semi-improved grassland with low human disturbance, e.g. at Salford Priors Gravel Pits (Marsh Farm) where about 45 pairs breed (JB.pers.comm. 2012).  <p>Density of Skylark (Index:1994 = 1) 2001 Data removed due to Foot and Mouth and line extrapolated.</p>
Tree sparrow	<ul style="list-style-type: none"> • Within Warwickshire, which appears to be on the edge of the species range, 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. Later survey work found birds in only 25% of tetrads across much of the county but an important population was identified in the Feldon area (10-km squares: SP 45, 46, 55 and 56) that comprises an estimated 250-300 pairs. From this information the population is currently estimated at 500-800 pairs (JB, pers.comm.2005). • The BBS shows that between 1994-2012 the species fared slightly better than in the West Midlands, with some level of recovery to 1994 levels between 2004-8 but a major crash in 2009 (MS, 2014). • There has been a satisfactory spread out from the Feldon area with birds now breeding thinly across most of the county, partly helped by nest box schemes and feeders. Also the spread of game cover and wild bird cover crops during the last decade has been a major factor in keeping birds alive during the winter and there have been several flocks of 200-300 in such crops in the Feldon area during recent winters. Within Feldon the population has thinned in places due to the shortage of nest sites (many old hedge ash trees have been lost to storm damage and formerly ruined barns repaired, for instance) and some more nest box schemes would help. However, it is doubted whether the population has reached 1000 pairs yet (JB. pers.comm.2012).



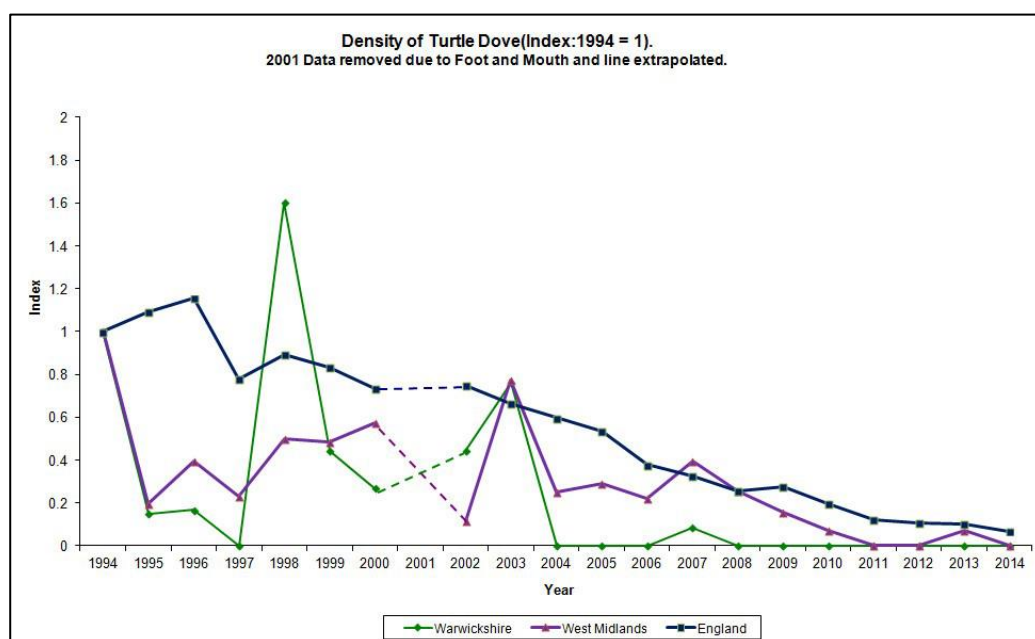
Corn bunting

- Within Warwickshire the species is renowned for its chequered history, with the last three surveys showing these birds present in 62% of the survey areas during 1966-68, 77% in 1968-72 and 67% during 1988-91. Later information showed the species restricted to between 10-15% of tetrads, with main concentrations north of the A5 in the Minworth-Wishaw area and on the river terraces S.E. of the Avon. In 2005 the total number of territorial males was estimated at 100-300 but since then numbers have crashed very badly throughout their former core districts and have disappeared entirely from areas such as Long Itchington - Marton, where at least 20 territories were present during 2000-2005 (JB, pers.comm.2015).
- Corn buntings tend to come back to traditional sites and the growing of unsuitable crops, e.g. maize or ley grass, has had a major impact on breeding populations. The BBS shows that between 1994-2012 the species declined continually in Warwickshire (MS, 2014), even in core areas with comparative counts of singing males in the Charlecote / Wasperton area (13 in 2000, down to 2 in 2010), at Milcote (20 in 2001, down to 4 in 2010) and at Long Itchington (20 in 2003, down to around 4 in 2010). The best breeding site was at Crimscoth with up to 8 singing males on a large crop of clover and also possibly a strong population somewhere near Bidford-on-Avon with winter flocks of 80 in early 2009 and 60 in early 2010 at different sites in that area. This would give a total county population of around 70-100 singing males or even less in 2012 (JB, pers.comm.).
- Data from Birdtrack in 2015 shows a further very disturbing decline in breeding territories. Current records (Tim Marlow, pers.comm. 2015) suggest that there are only 2 possible sites now that the species has gone from 3 others. Extensive survey effort by West Midland Bird Club (WMBC) found none in the far north of the county around Austrey / Warton / Newton Regis and only 1-2 territories at Wishaw; also 5-6 territories around Charlecote / Wellesbourne, giving an estimated breeding population of c.20 birds. In spring 2015 a flock of 63 birds was seen in the Wasperton Pools area, feeding on a weedy field with large hedges for resting and roosting.

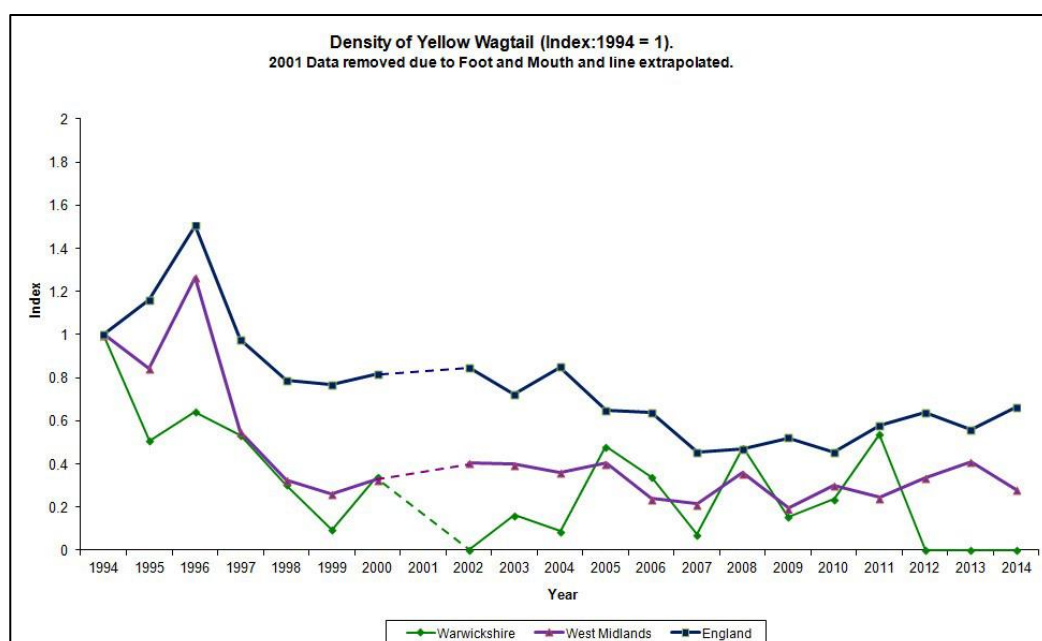


Turtle dove

- So far the species has survived in the Upper Leam Valley where there is plenty of nesting habitat. As recently as 2009 several pairs could be found at the two localities which were occasionally monitored; the species has now gone from one of these sites and most of the feeding habitat at the other was removed in 2011. In 2012 a small population comprising at least six individuals, including 2 pairs, was found at a new locality and efforts were made with the landowners to monitor progress and establish an informal plan to try and stabilise/recover the population.
- During 2014 the species was recorded from most of the sites or areas occupied the previous year and it was also found at two new sites. The two remaining localities in the Upper Leam Valley both held singing birds which were apparently paired, one of the 'pairs' using an area lying fallow prior to the planting of an early seed mix specifically designed for the species. In August came confirmation of breeding success when a juvenile was seen nearby and an indication that the number of birds at the stronghold locality may have increased by a pair (TM.pers.comm.2015).



Yellow wagtail



<p>Reed bunting</p>	<p>Density of Reed Bunting (Index:1994 = 1). 2001 Data removed due to Foot and Mouth and line extrapolated.</p> <p>Index</p> <p>Year</p> <p>Warwickshire West Midlands England</p>
<p>Yellow hammer</p>	<p>Density of Yellowhammer (Index:1994 = 1). 2001 Data removed due to Foot and Mouth and line extrapolated.</p> <p>Index</p> <p>Year</p> <p>Warwickshire West Midlands England</p>
<p>Linnet</p>	<p>Density of Linnet (Index:1994 = 1). 2001 Data removed due to Foot and Mouth and line extrapolated.</p> <p>Index</p> <p>Year</p> <p>Warwickshire West Midlands England</p>