

Twenty-five years of the Berkshire Bird Index

Renton Righelato

The Berkshire Bird Index (BBI) is a measure of the change in abundance of commoner species in the county, derived from the BTO/JNCC/RSPB Breeding Bird Survey (BBS), a partnership jointly funded by the BTO, RSPB and JNCC, with fieldwork conducted by volunteers. BBS surveyors record all birds seen or heard along two 1 km transects within randomly selected 1km squares during visits early and late in the breeding season. Visits are made in the early morning and take approximately two hours. The data are collected by the BTO, which publishes the regional and national trends. The BTO have provided us with the data shown here. In Berkshire, at least 72 squares were covered annually in the years since 2000, which is used here as the reference year for the index. The BBS surveys have been running annually since 1994 with the exception of 2001, when foot and mouth disease prevented most surveying in the countryside, so we now have twenty-five years of data.

As the selection of 1 km squares for surveying is random and the area surveyed is less than 5% of the county, there may be few or no surveys of habitats occupying only a small part of the area of Berkshire. As a result, wetland and heathland species in particular are poorly covered or not represented in the data at all.

The annual index is a snapshot for the year of the ratio of a year's abundance to the reference year, which has been set as 2000 except for Buzzard, Red Kite and Ring-necked Parakeet, which were present in too few surveys in 2000, so for them a reference year of 2010 has been used. In the graphs below, the index is shown together with a smoothed trendline and its 85% confidence limits. The reliability of the index falls as the number of survey squares in which a species is recorded falls, so species which have been recorded in fewer than 30 1 km squares are marked with an asterisk *.

In general, the Berkshire results reflect the national trends for those species that are sufficiently abundant to calculate statistically valid changes. Species increasing significantly in abundance nationally and in Berkshire over the period 2000 to 2019 include Red Kite, Buzzard, Jackdaw, Blackcap, Chiffchaff, Goldfinch. Species in decline since 2000 both nationally and in Berkshire include Lapwing, Cuckoo, Swift, Green Woodpecker, House Martin, Skylark, Willow Warbler, Starling, Greenfinch, Chaffinch and Yellowhammer.

Below you will find:

1. A [species list](#) with links to the graphs in Appendix I for each of the species for which there are sufficient data.
2. Presentations of the trend graphs for assemblages of species associated with:
 - a. [Woodland](#)
 - b. [Farmland](#)
 - c. [Wetland](#)
 - d. [Gardens](#)
3. The trends for [raptors](#) and for [crows](#).
4. [Appendix I](#): Breeding season relative abundance (indexed to 1.0 in reference year 2000 unless specified otherwise) 1994 - 2019.
5. [Appendix II](#): Weather summaries

Acknowledgements

Thanks are due to the British Trust for Ornithology and to Sarah Harris for providing the Berkshire results of the Breeding Bird Survey, to Chris Robinson and Patrick Crowley, who initiated the Berkshire Bird Index and to all the Berkshire BBS surveyors.

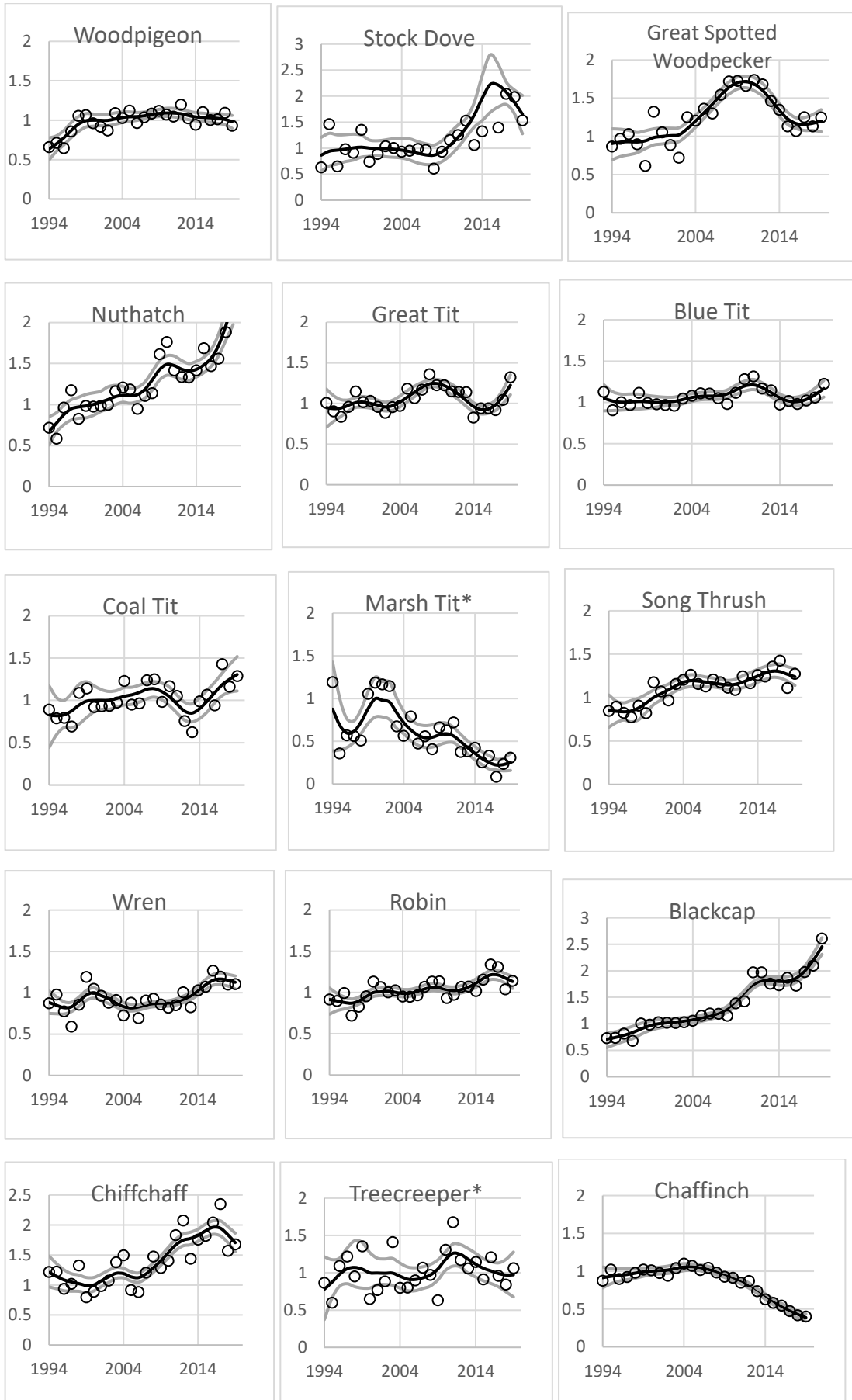
BBI species list

Click on the species names to view the index graph 1994 – 2019.

Ducks & Geese and other water birds	Canada Goose	Greylag Goose	Egyptian Goose	Mallard	Coot	Moorhen	Lapwing	Cormorant
Gamebirds	Pheasant	Grey Partridge	Red-legged Partridge					
Raptors	Buzzard	Red Kite	Sparrowhawk	Kestrel				
Doves	Woodpigeon	Feral Pigeon	Stock Dove	Collared Dove				
Woodpeckers	Great Spotted Woodpecker	Green Woodpecker	Nuthatch					
Hirundines	House Martin	Swallow						
Other non-passerines	Swift	Ring-necked Parakeet	Cuckoo					
Crows	Carrion Crow	Rook	Jackdaw	Magpie	Jay			
Warblers	Blackcap	Garden Warbler	Whitethroat	Lesser Whitethroat	Chiffchaff	Willow Warbler	Reed Warbler	Sedge Warbler
Tits	Great Tit	Blue Tit	Coal Tit	Long-tailed Tit	Marsh Tit			
Wagtails	Grey wagtail	Pied Wagtail						
Thrushes	Blackbird	Song Thrush	Mistle thrush					
Finches	Greenfinch	Goldfinch	Chaffinch	Linnet	Yellowhammer	Reed Bunting	Corn Bunting	House Sparrow
Other passerines	Skylark	Dunnock	Robin	Wren	Treecreeper	Goldcrest	Starling	

Woodland bird assemblage

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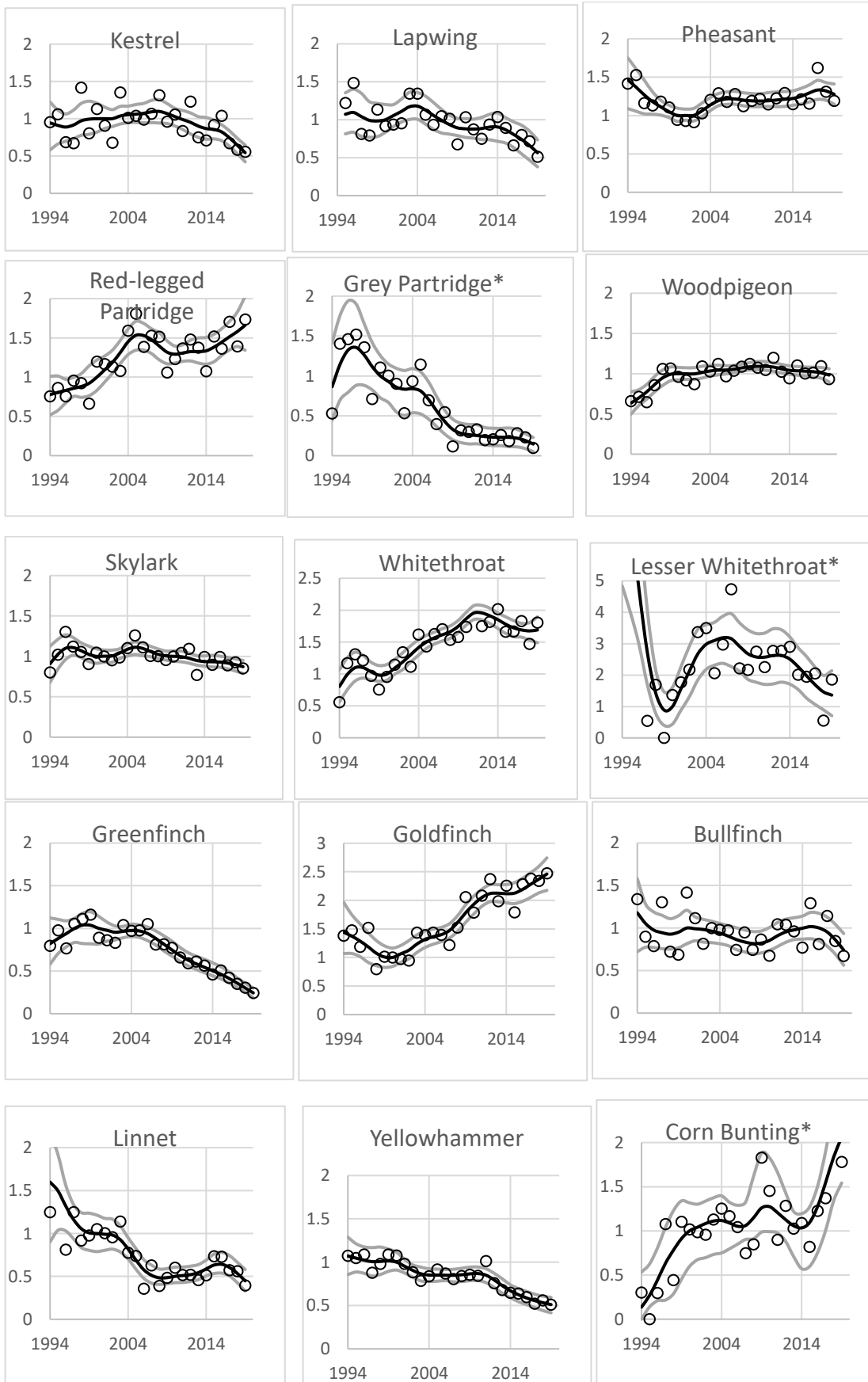


Increasing: Nuthatch, Song Thrush, Blackcap, Chiffchaff.

Decreasing: Marsh Tit, Chaffinch

Farmland bird assemblage

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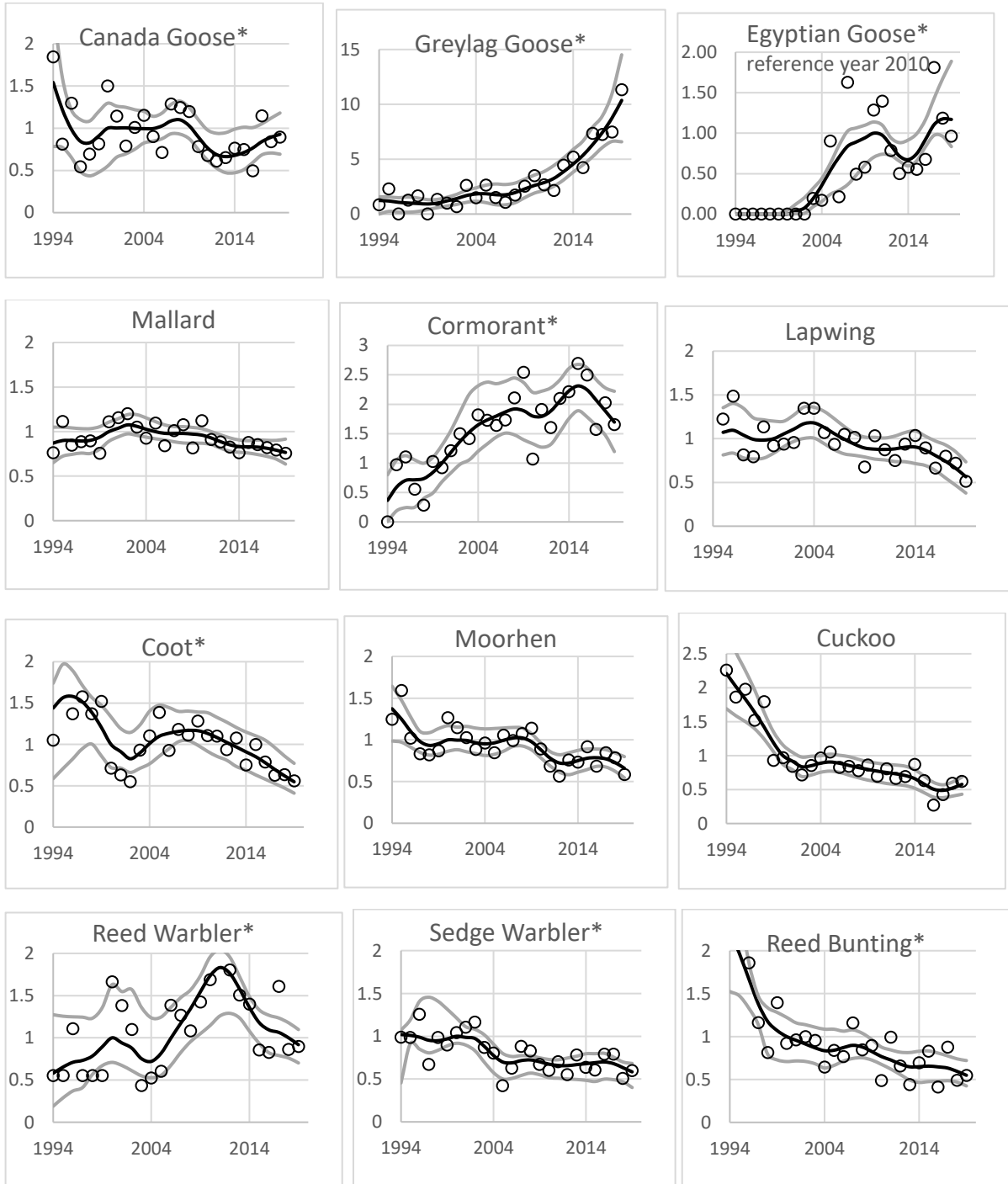


Increasing: Red-legged Partridge, Whitethroat, Goldfinch

Decreasing: Kestrel, Lapwing, Grey Partridge, Linnet, Greenfinch, Yellowhammer

Wetland bird assemblage

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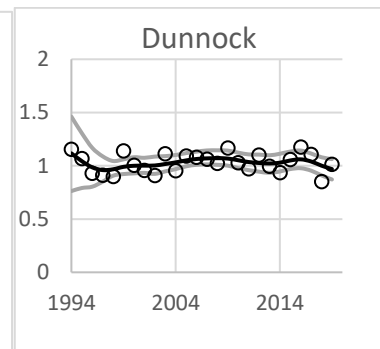
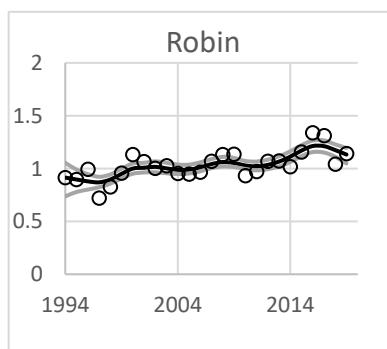
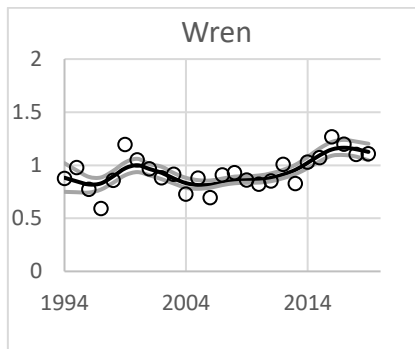
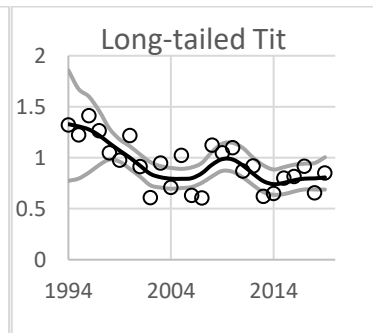
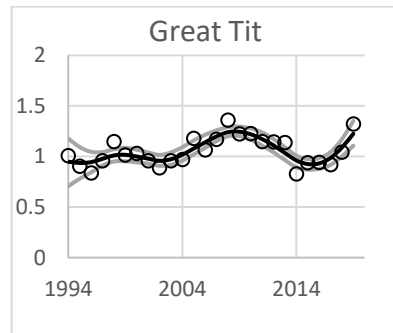
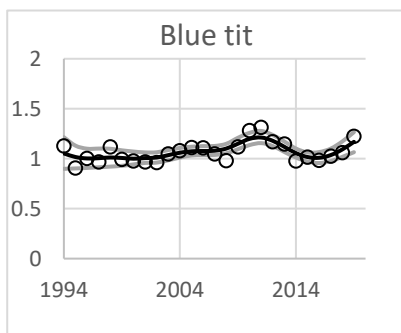
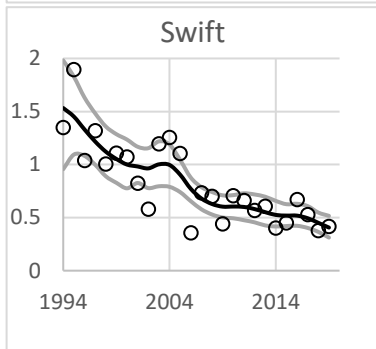
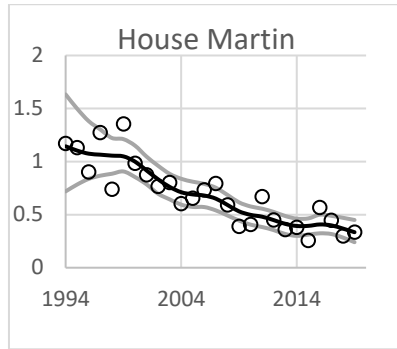
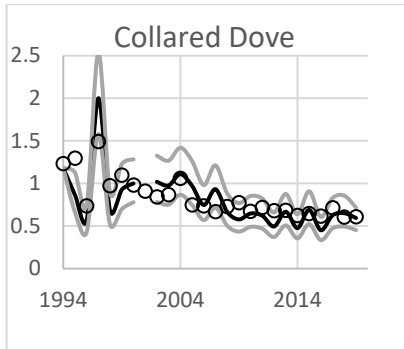
As wetland accounts for only a small proportion of the area of Berkshire, the BBS coverage is low, hence the statistical validity of many of these graphs is poor.

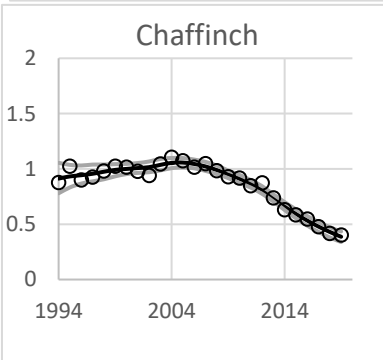
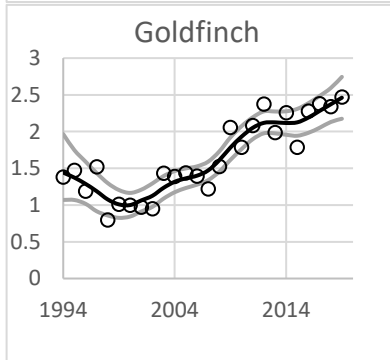
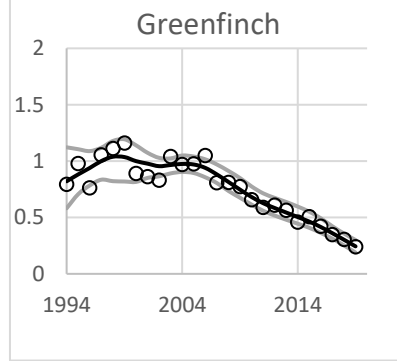
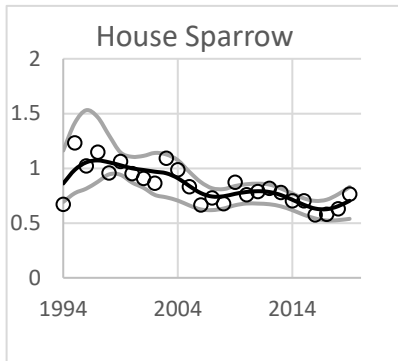
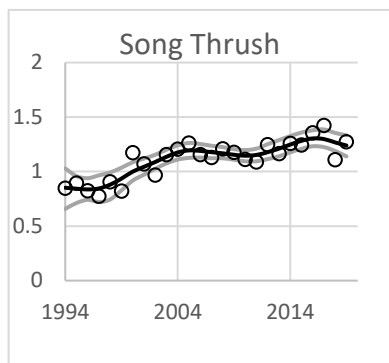
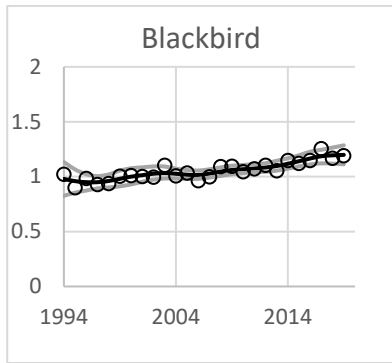
Increasing: Greylag Goose, Egyptian Goose, Cormorant, possibly Reed Warbler

Decreasing: Lapwing, possibly Coot, Moorhen, Cuckoo (included here as Reed Warbler is thought to be an important host species).

Garden bird assemblage

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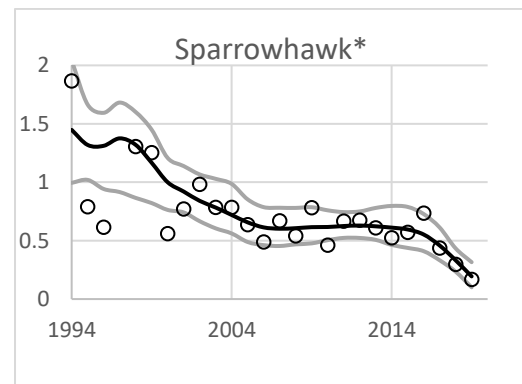
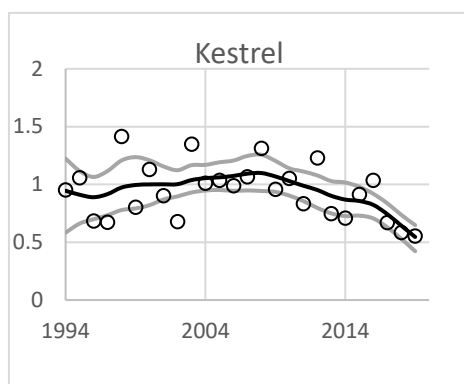
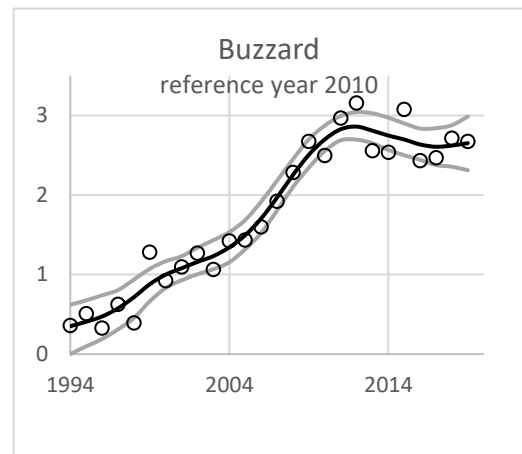
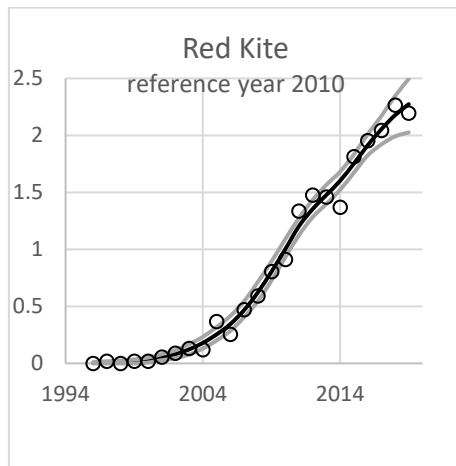




Increasing: Goldfinch, possibly Wren, Robin, Blackbird and Song Thrush
Decreasing: Swift, House Martin, Collared Dove, Greenfinch, Chaffinch

Raptors

[return to list](#)

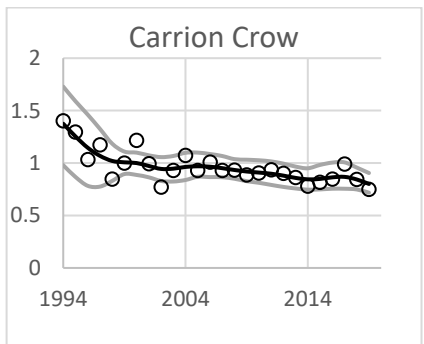
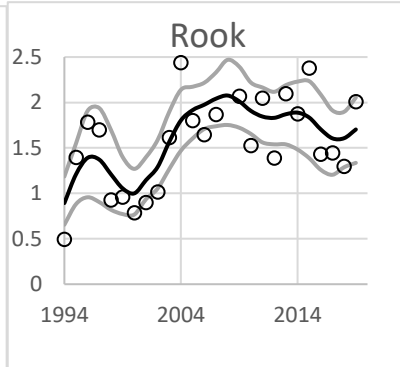
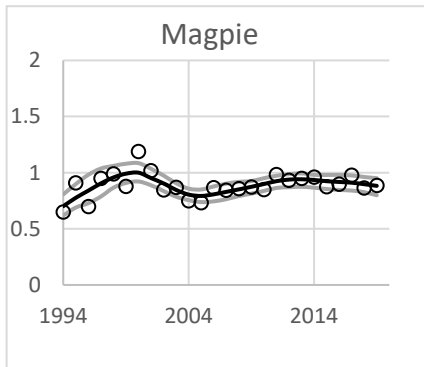
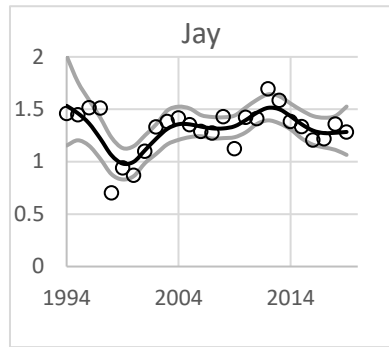
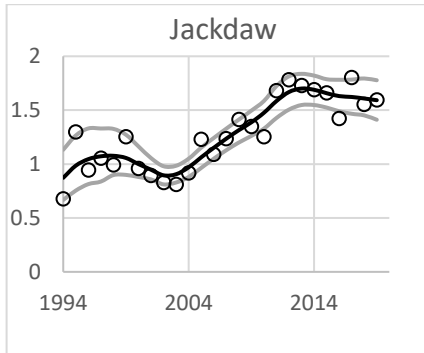


Increasing: Red Kite, Buzzard

Decreasing: Sparrowhawk

Crows

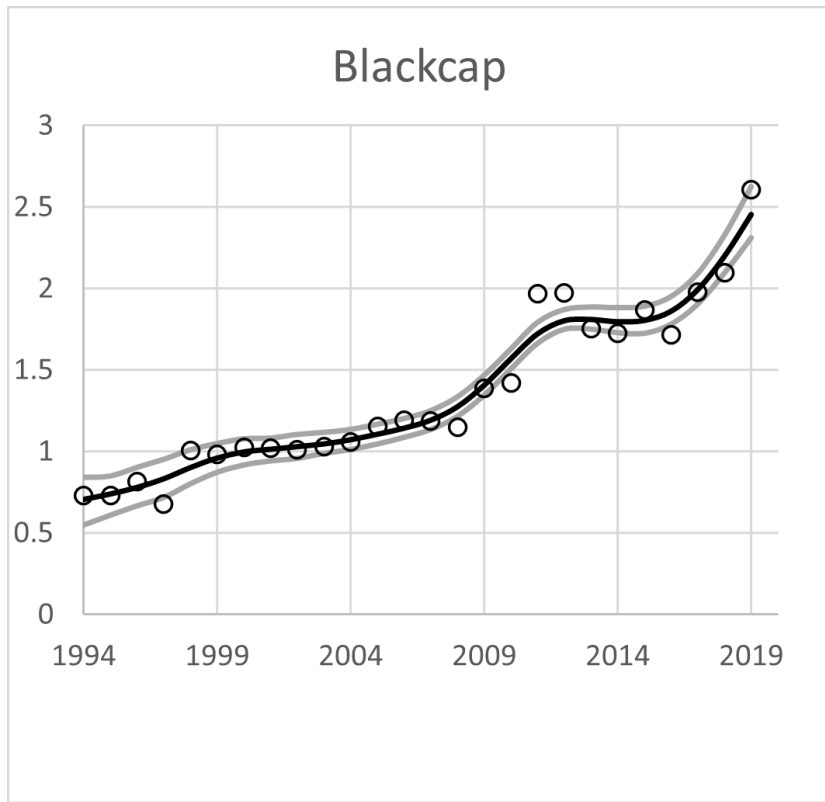
[return to list](#)



Increasing: Jackdaw

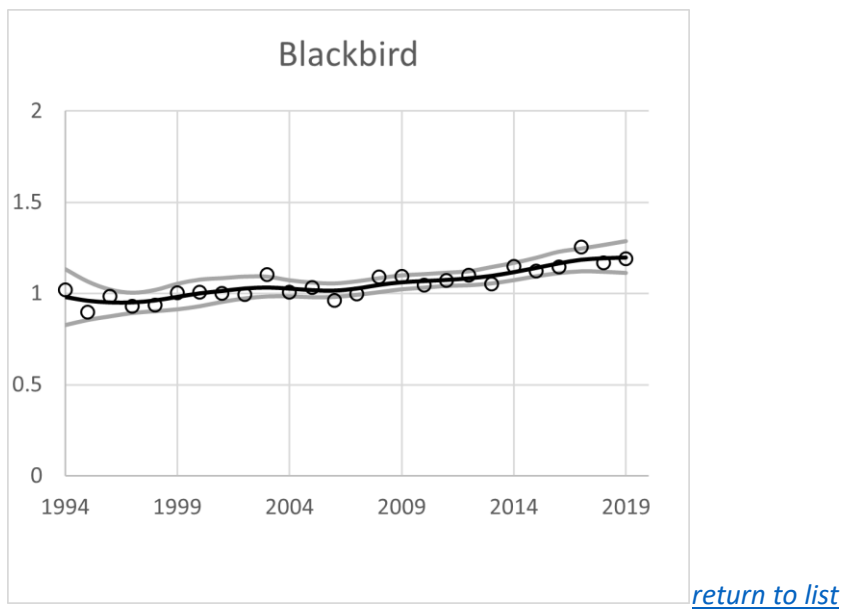
APPENDIX I

Breeding season relative abundance (indexed to 1.0 in reference year 2000 unless specified otherwise).

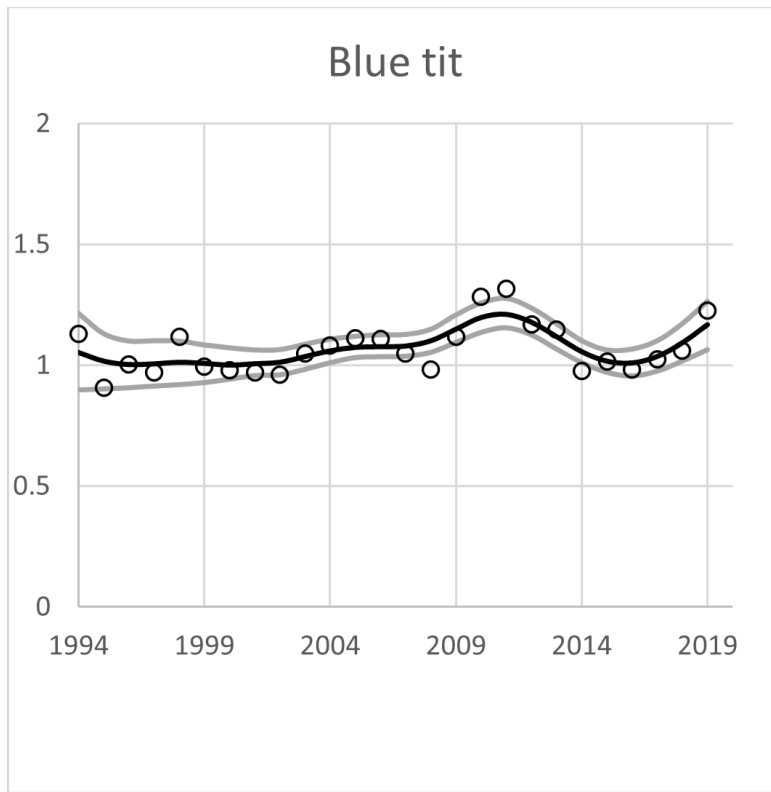


[return to list](#)

Blackcap: steady increase reflects the national trend.

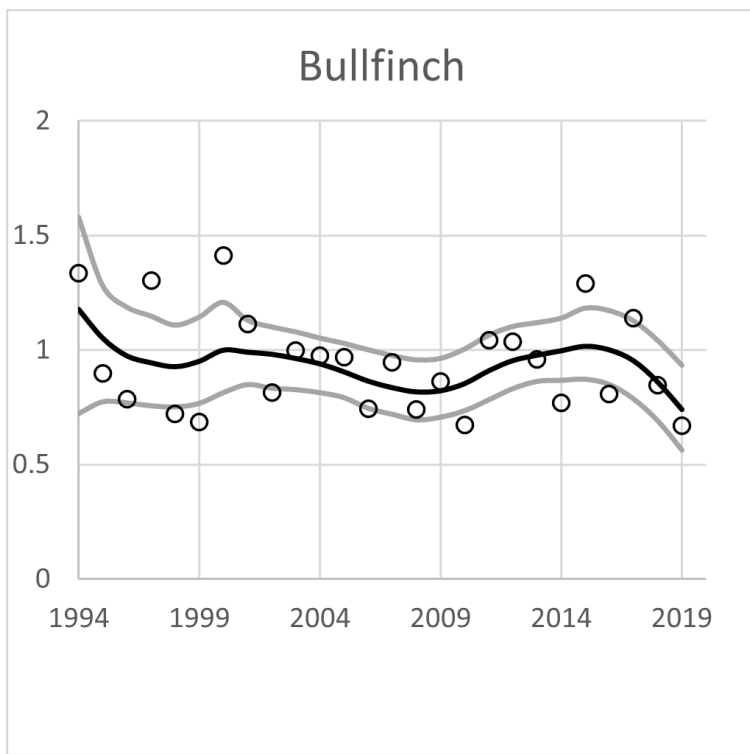


Blackbird: a significant small increase over the 25 year period.



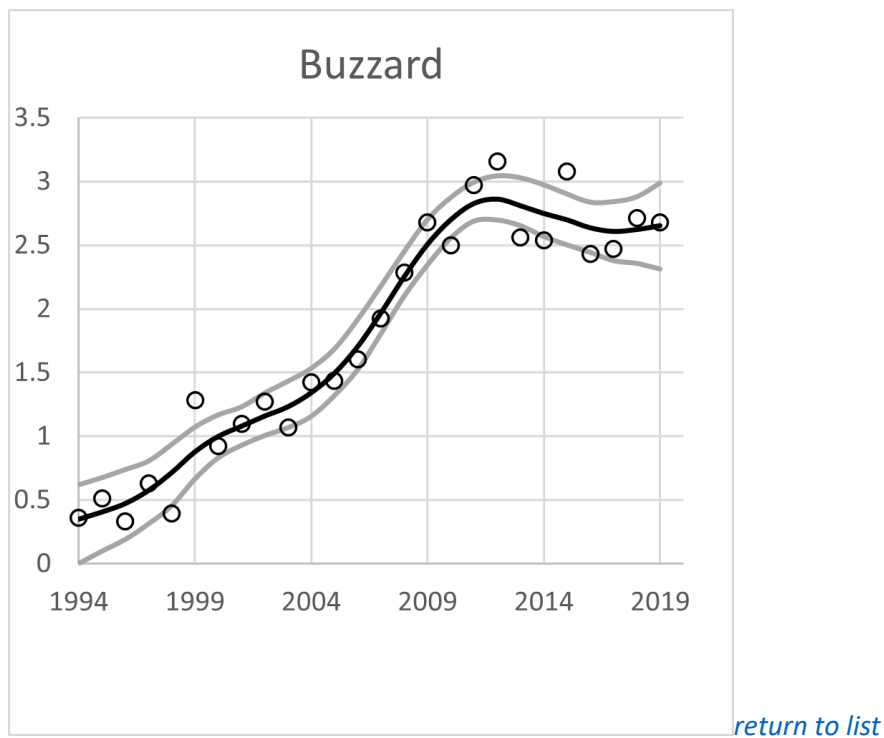
[return to list](#)

Blue Tit: no significant change over 25 years.

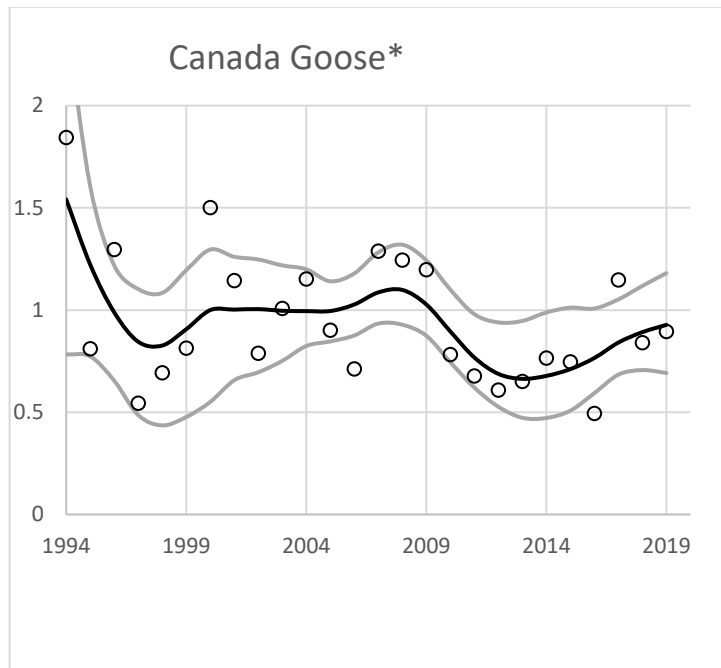


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No significant changes.



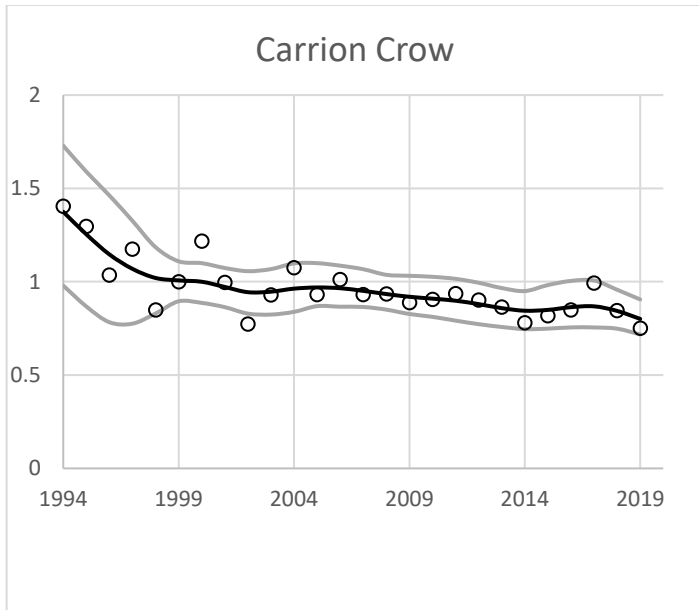
Population grew rapidly following initial breeding the west of the county in the mid 1980s. Now widespread. Population stable since around 2010.



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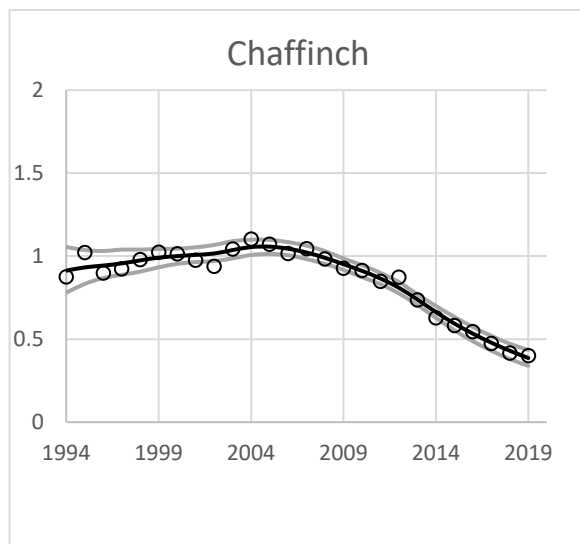
Breeding Bird Survey results suggest population fairly stable.

- Wetland areas are not well covered and results should be viewed with caution.



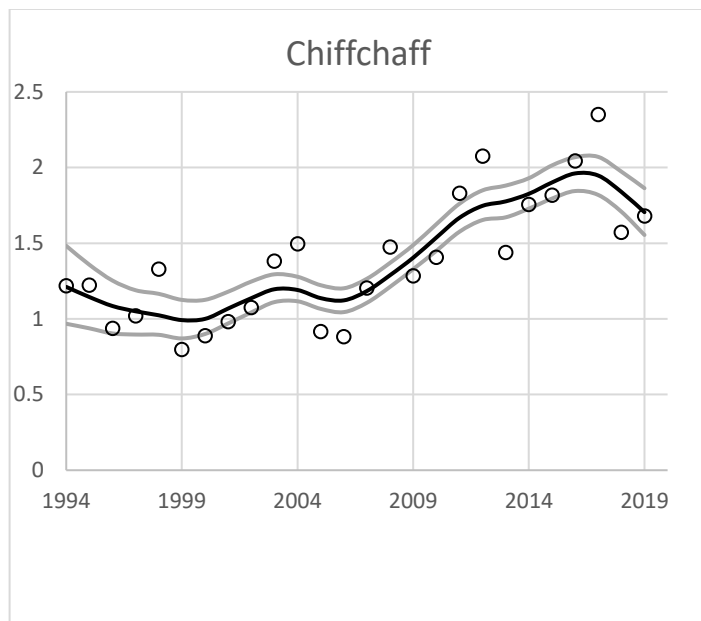
[return to list](#)

No significant changes.



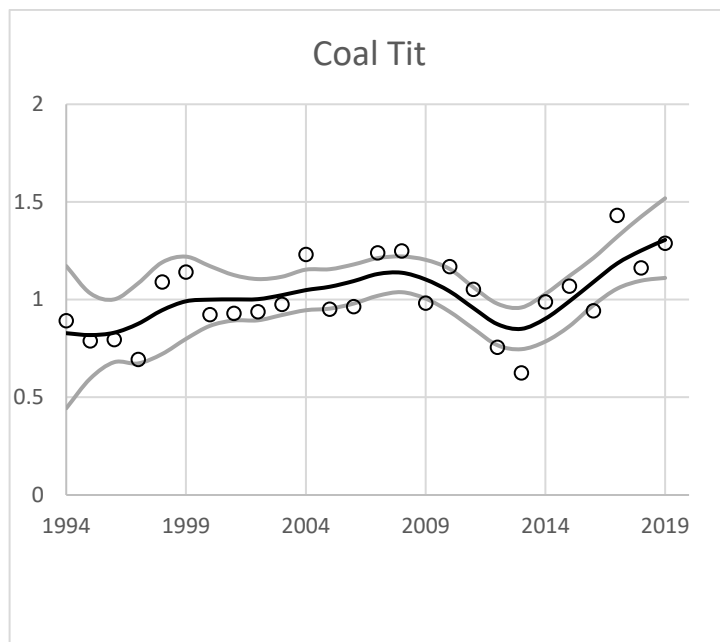
[return to list](#)

Population had been stable until around 2007, since when there has been rapid decline, attributed to trichomonosis (BTO Birdtrends).



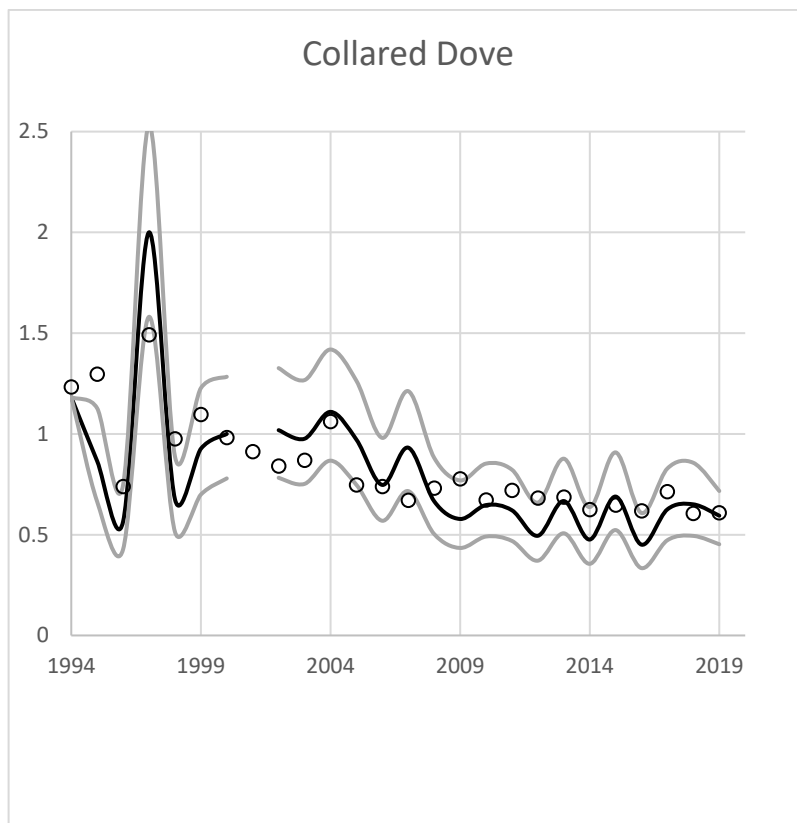
[return to list](#)

The Chiffchaff population has increased almost twofold in the last 20 years.



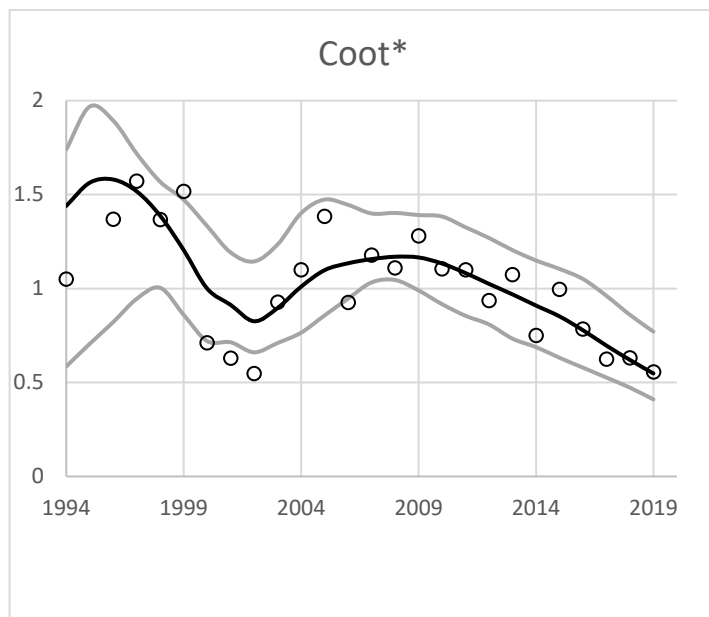
[return to list](#)

Coal Tit abundance has been fairly stable, with a suggestion of a small increase in recent years.



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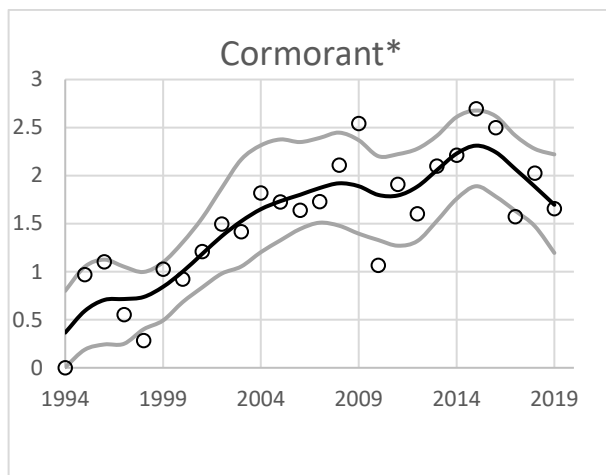
Data very erratic 1994-1998, since when Collared Dove numbers have shown a slow decline.



[return to list](#)

*Wetland areas poorly covered by the BBS.

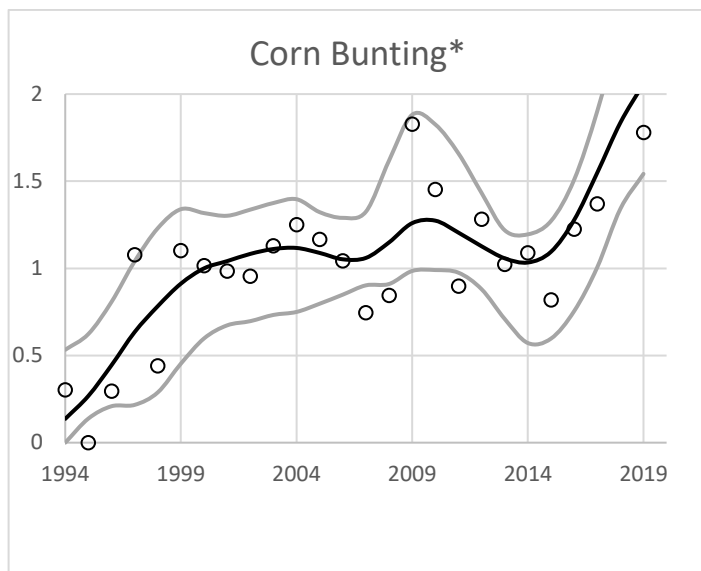
The suggestion of decline since 2010 is probably not significant.



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*Wetland areas are poorly covered by the BBS and s=the data should be treated with caution.

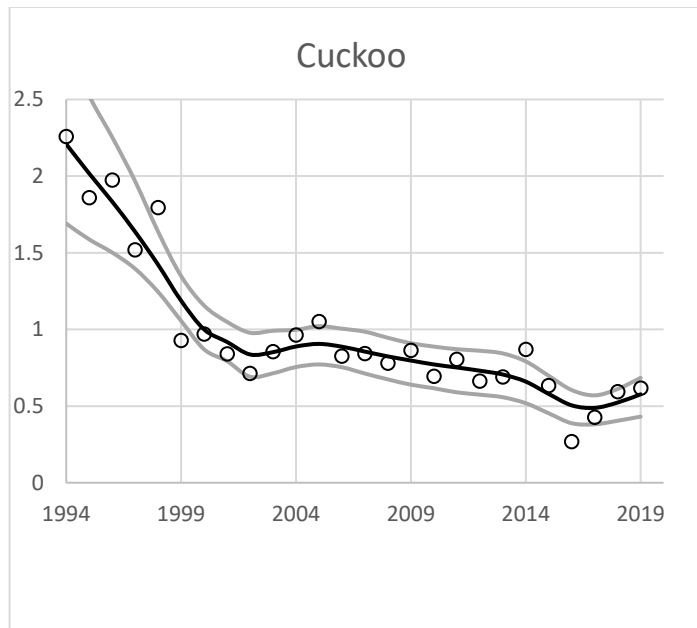
Nonetheless the increase from 1994 to 2006 appears significant. There is no indication of change since 2006.



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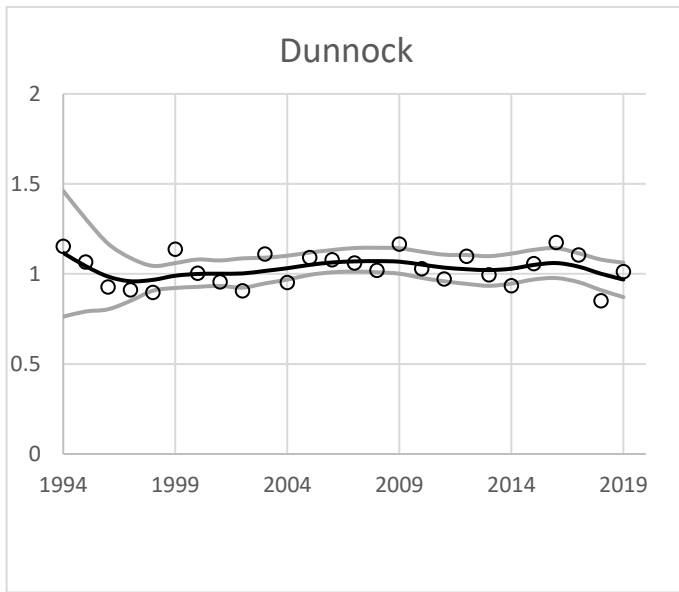
*Corn Bunting is recorded in too few surveys to draw statistically sound conclusions.

Now almost exclusively a downland species, there is no indication here of continuation of the decline of the second half of the twentieth century.



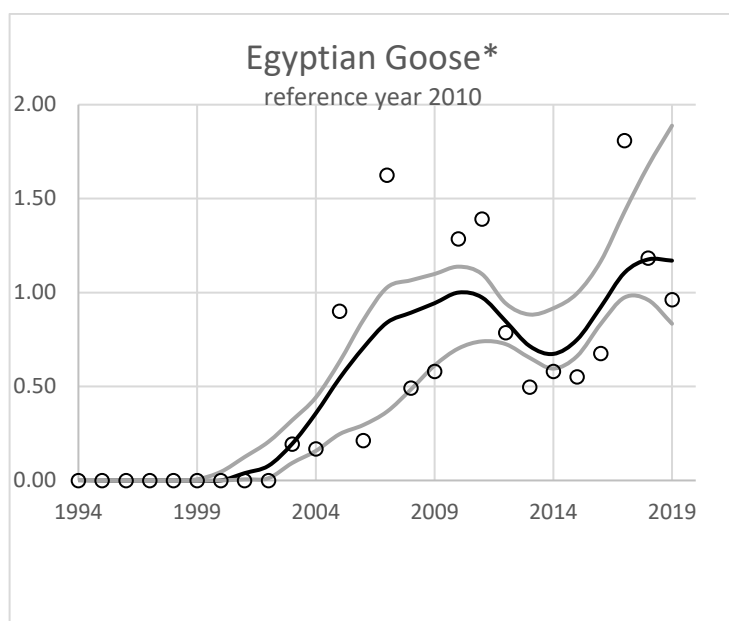
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The decline of Cuckoos in Berkshire has continued in the twentieth century, though less rapidly than earlier.



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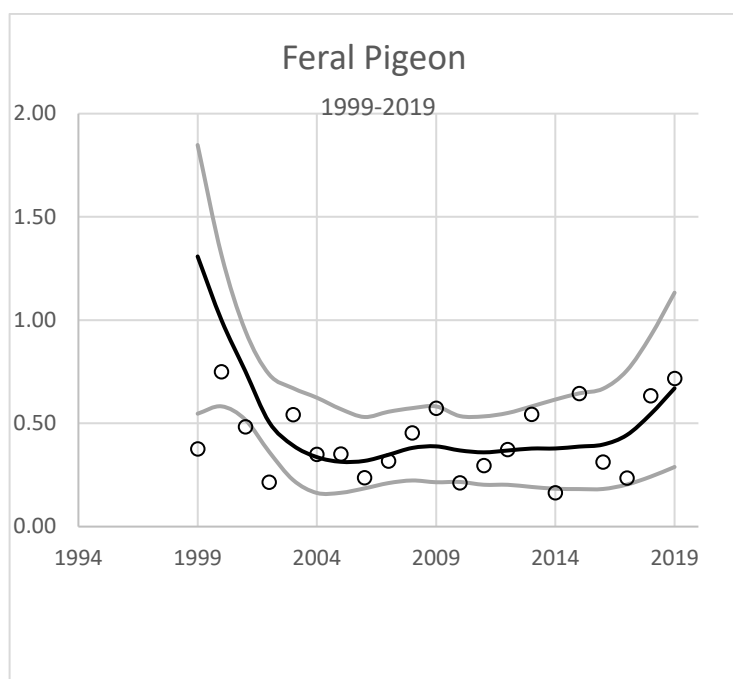
The Dunnock population remains stable.



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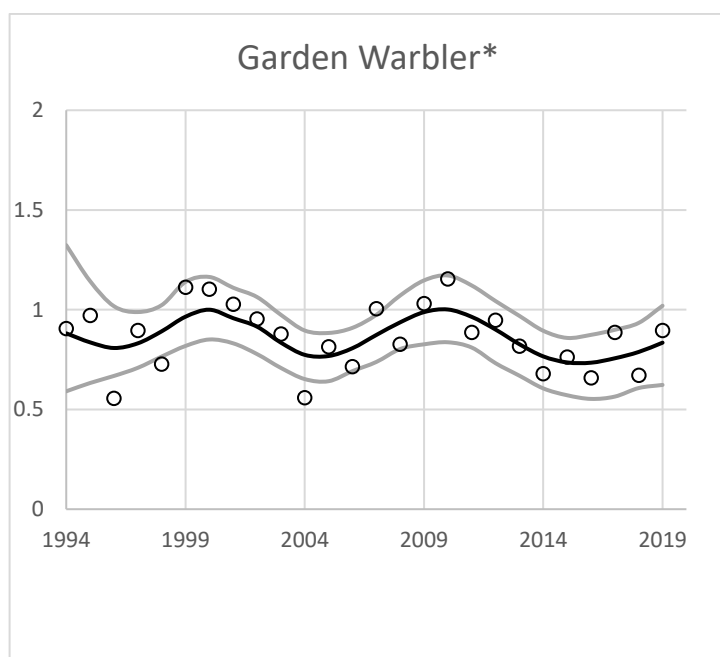
*Wetland areas are not well covered by the BBS and the data should be treated with caution.

Egyptian Goose population has grown rapidly this century.



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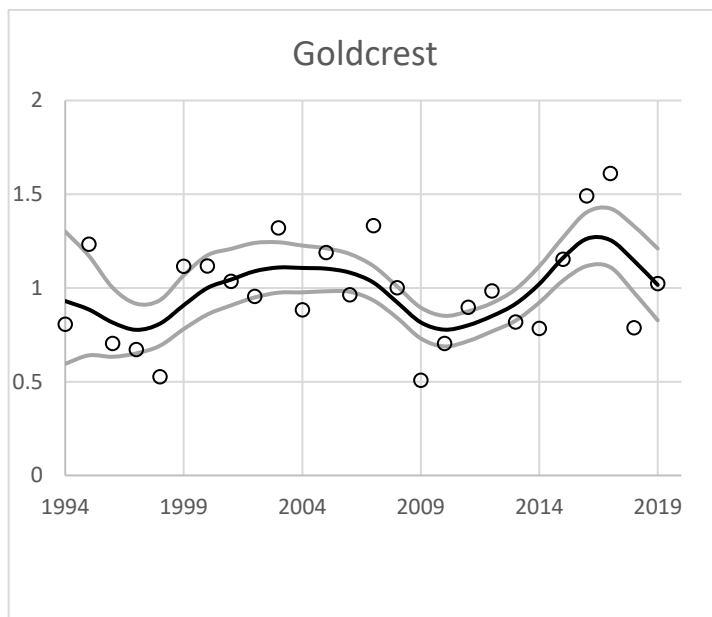
The Feral Pigeon population shows no significant changes this century. Wildly erratic data 1994-8 have been omitted.



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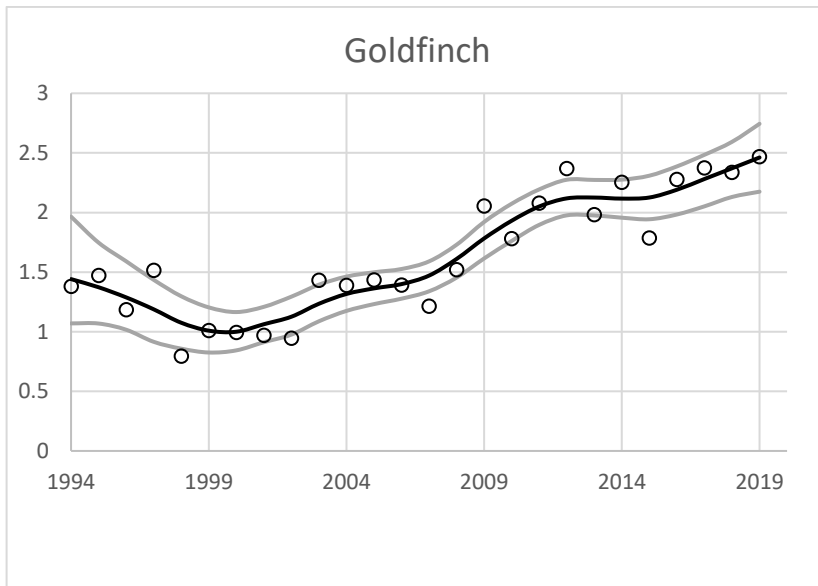
*Present in too few surveys to yield statistically sound results.

The Garden Warbler population shows no obvious change over the period.



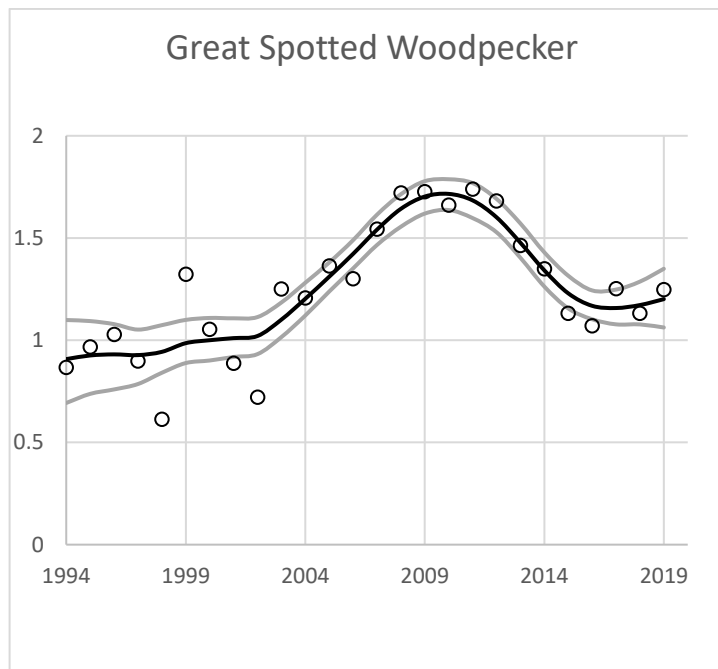
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Overall, the Goldcrest abundance shows no trend. Troughs around 1998 and 2009 coincide with above average numbers of days of air frost in the winters of 1995/6 and 1996/7 and of 2008/9, 2009/10 and 2010/11.



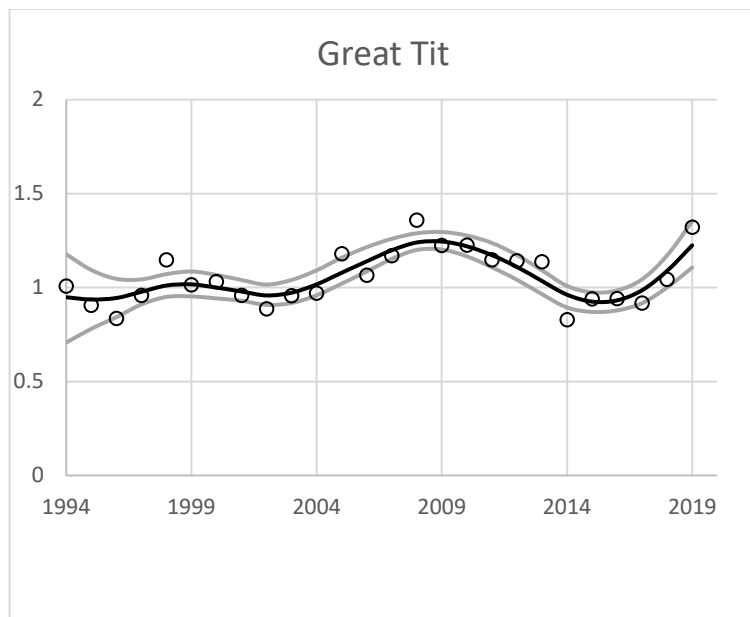
[return to list](#)

Goldfinch numbers have increased over twofold since 2000.



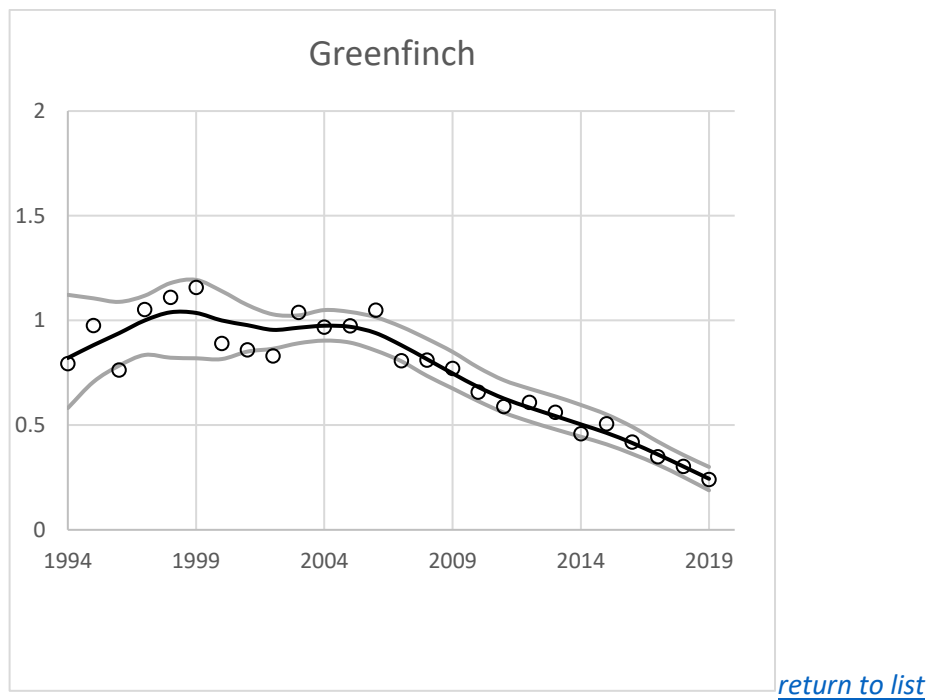
[return to list](#)

Although Great Spotted Woodpecker abundance increased between 1994 and 2010, this increase has not been sustained.

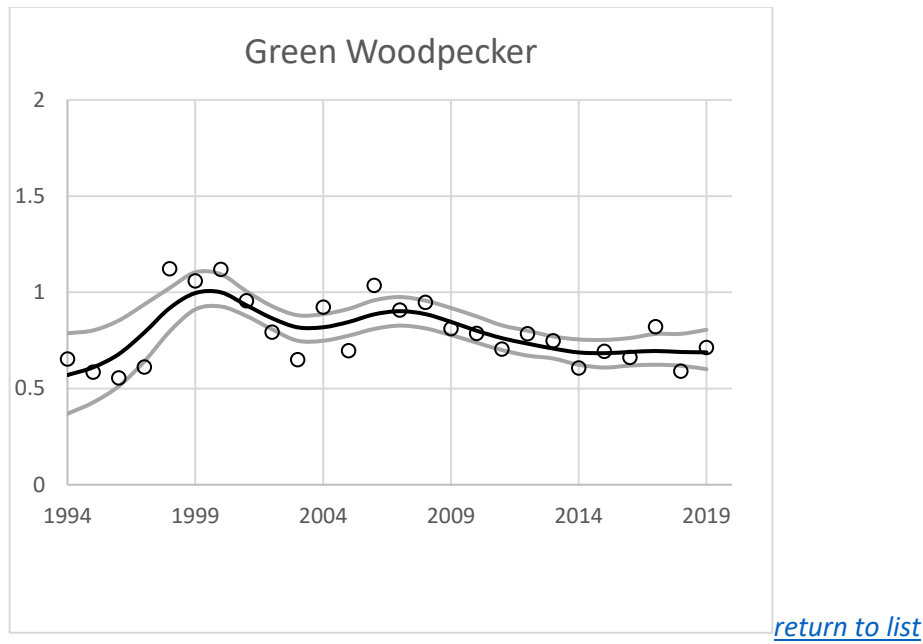


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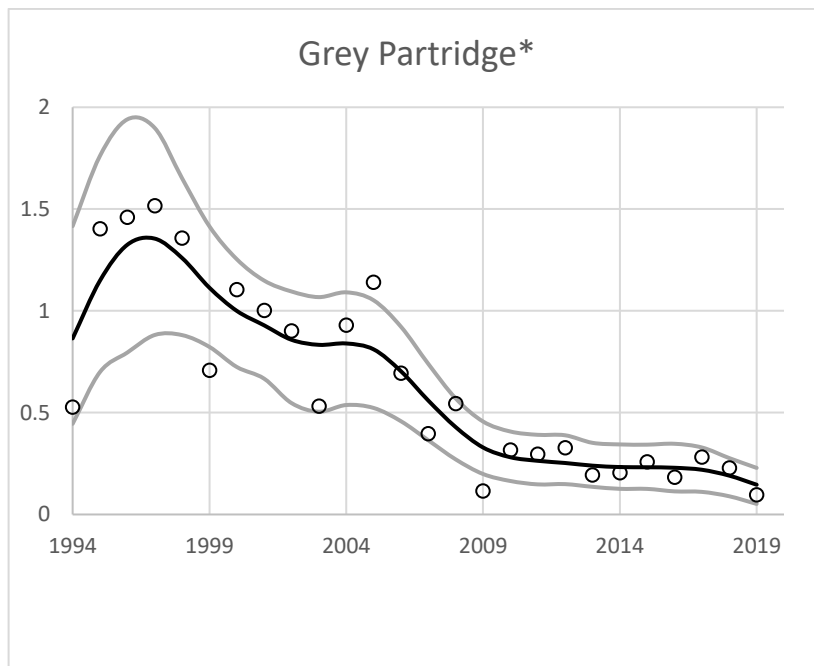
The Great Tit population has not changed significantly over the last 25 years.



The Greenfinch population has been in rapid decline since 2005, primarily, it is believed, due to trichomonosis. It is now around 25% of that in 2000.



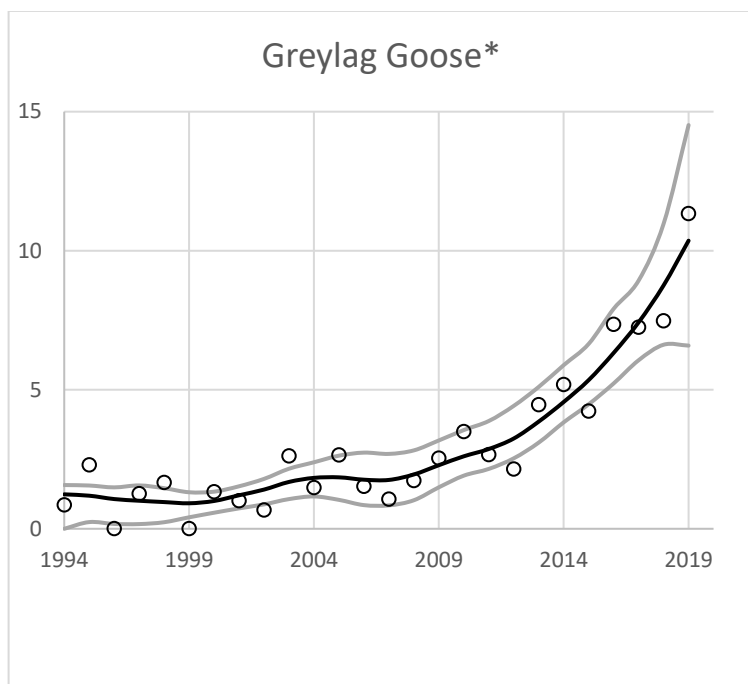
The Green Woodpecker population has been fairly stable, with some indication of a small decline over the last ten years.



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Grey Partridge numbers continue to fall; their abundance is less than 25% of that in 2000.

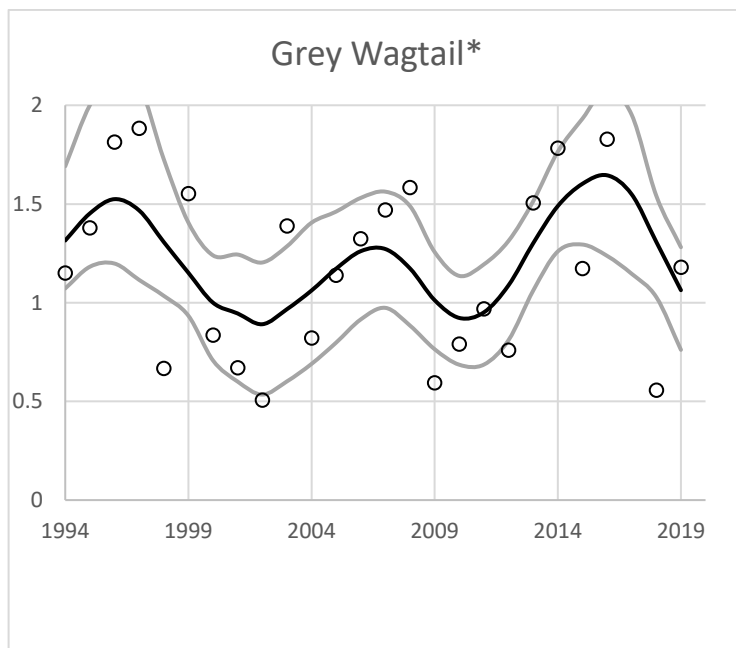
*Present in too few surveys to yield statistically sound results.



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*Wetland areas are not well covered by the BBS and the data should be treated with caution.

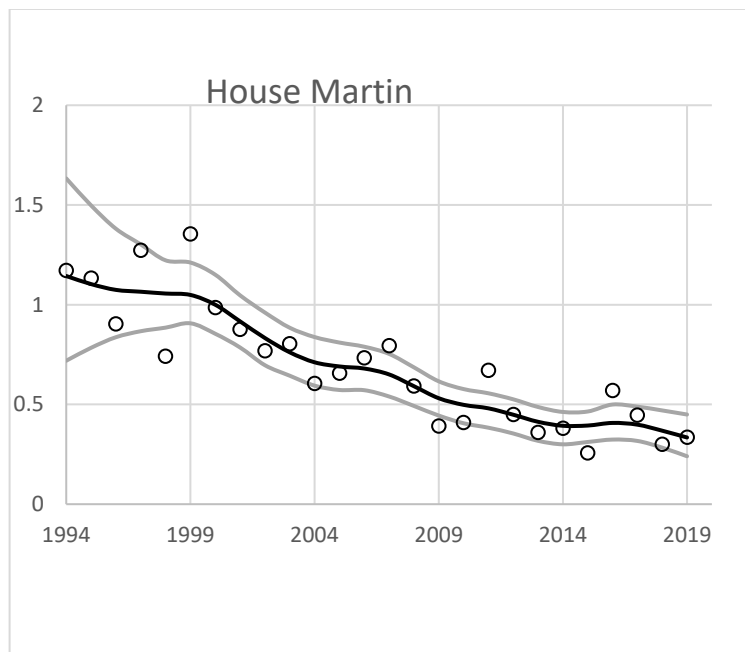
Although recorded in relatively few BBS surveys, the Greylag population appears to have been increasing more or less exponentially since 2000.



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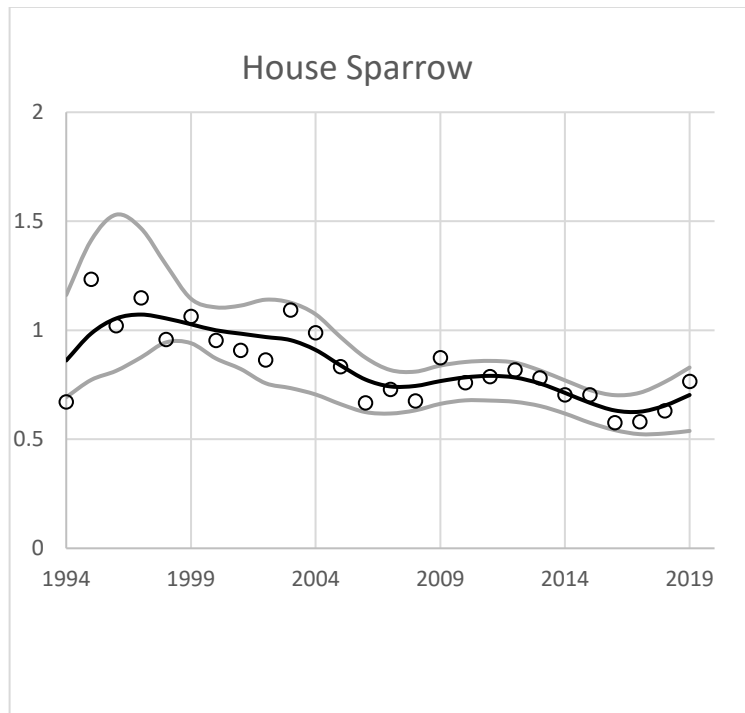
*Present in too few surveys to yield statistically sound results

Although there is a lot of year to year variation in the abundance index, there is no evidence of the decline in the breeding population that has led to the Grey wagtail being added to the Red List.



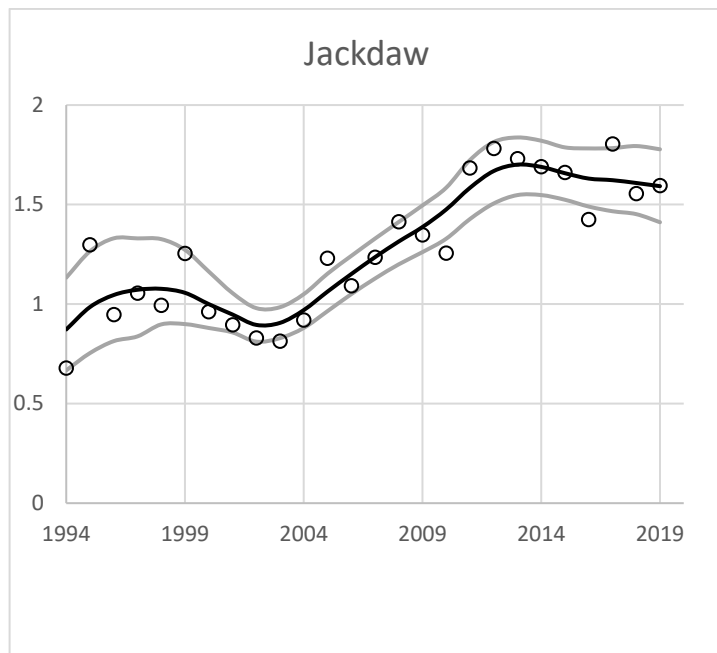
[return to list](#)

The trend in House Martin abundance is continuing inexorably downward.



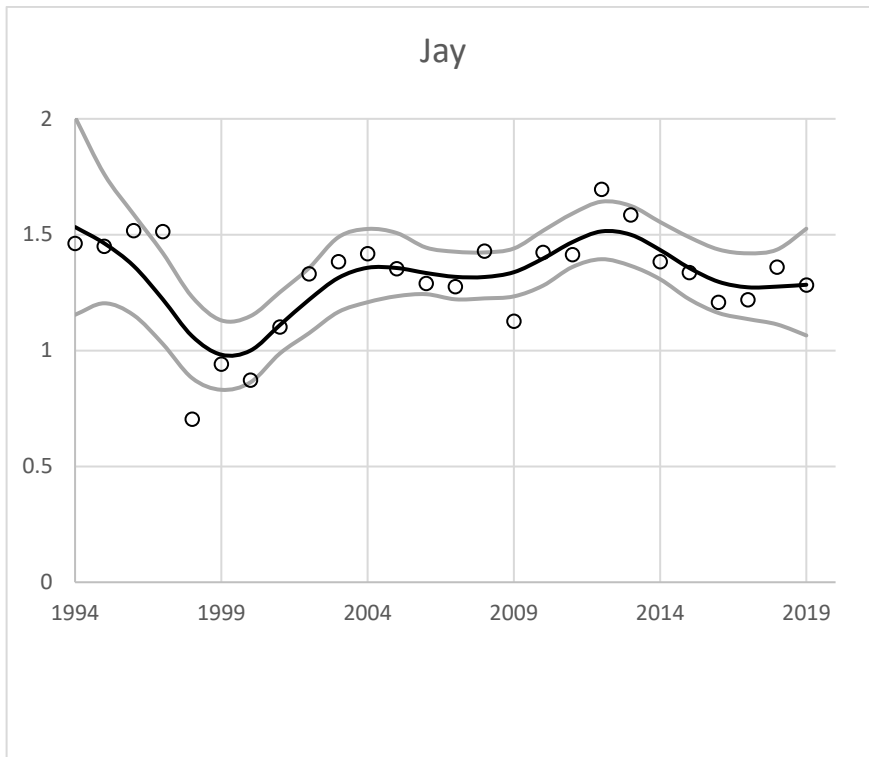
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Following a massive decline in the later decades of the 20th century, House parrow numbers have been stable over the last fifteen years.



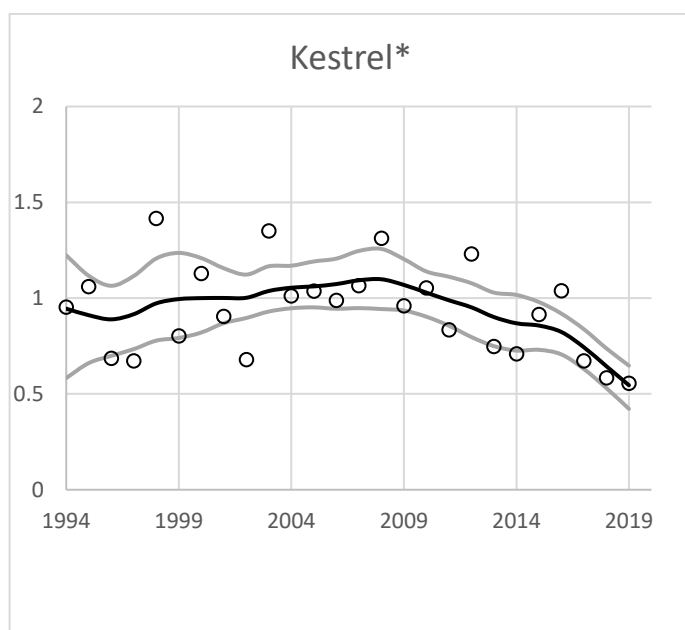
[return to list](#)

Jackdaw numbers have been growing significantly, though are showing signs of levelling off over the last five years.



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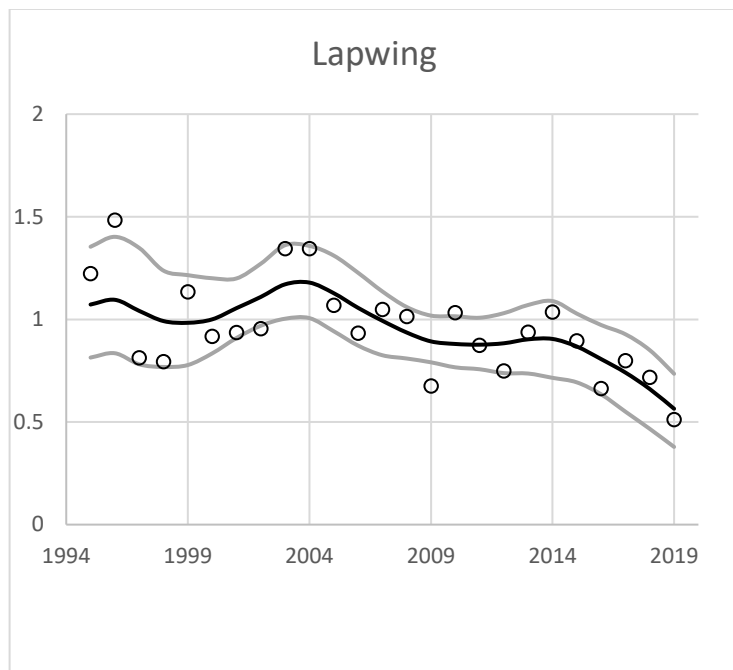
The Jay population appears stable.



[return to list](#)

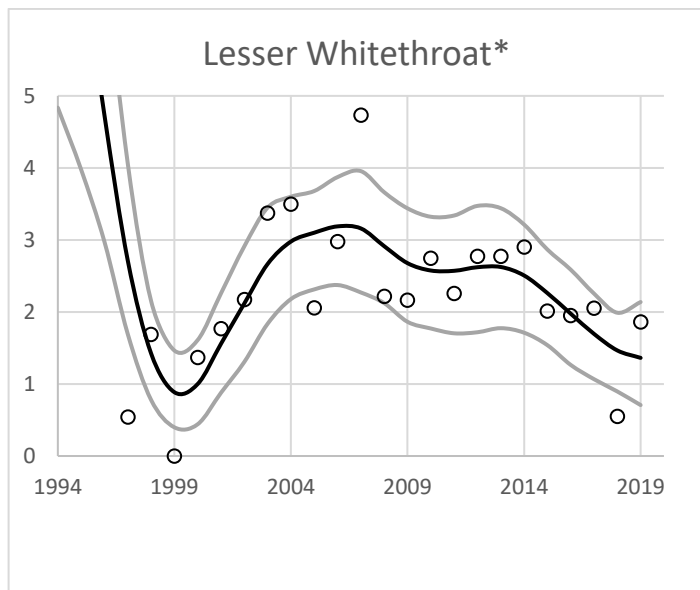
*Present in too few surveys to yield statistically sound results.

Kestrel numbers have not changed substantially over the period, though have been showing signs of decreasing in the last few years.



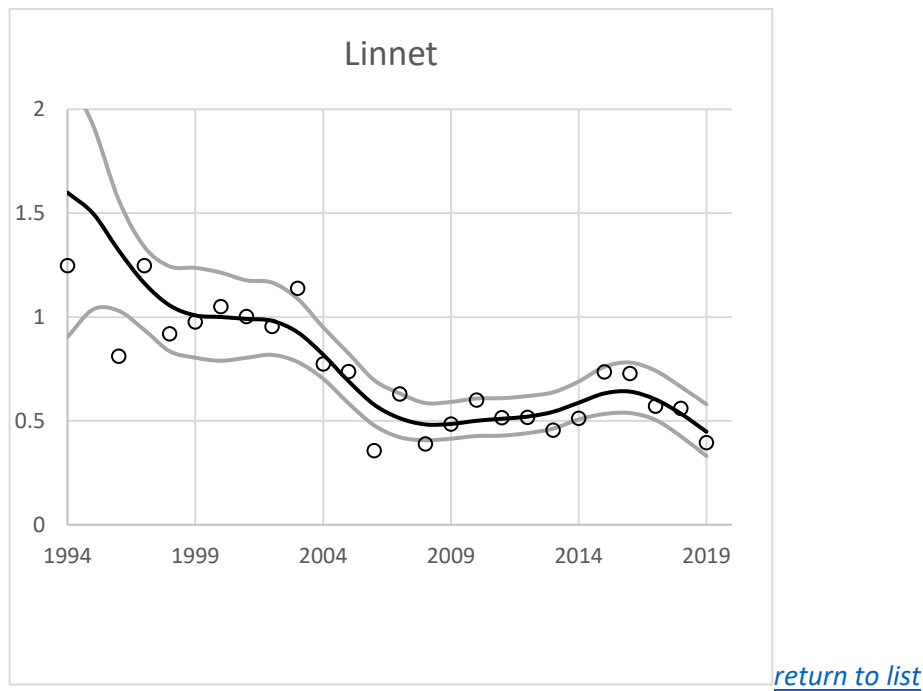
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The long term slow decline in breeding Lapwing appears to be continuing.

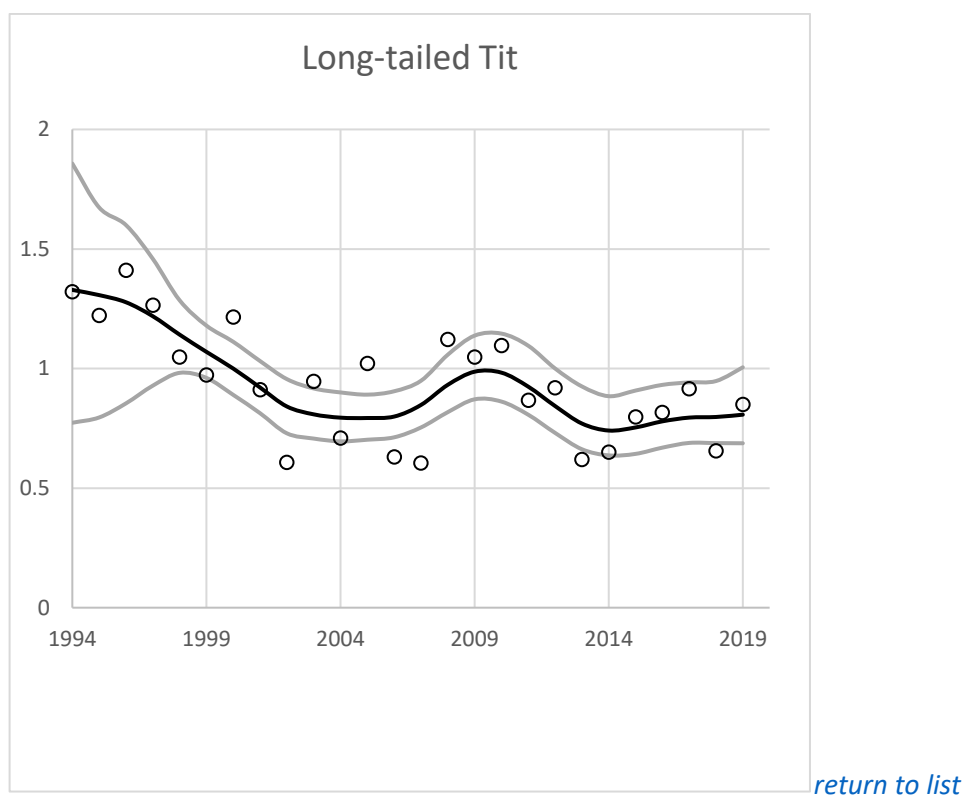


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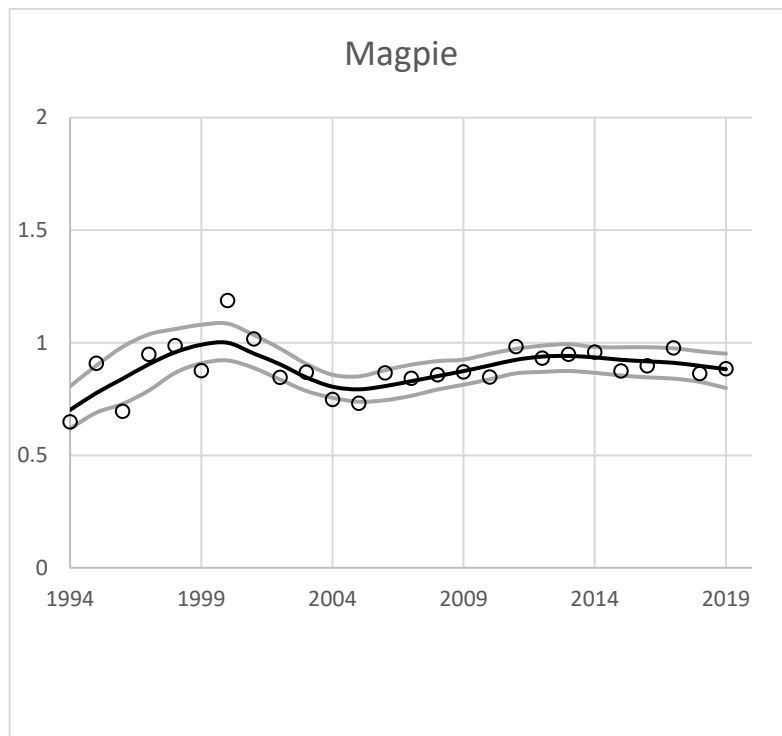
*Lesser Whitethroat are recorded in too few surveys to assess population trends.



There has been no significant change in abundance index over the last fifteen years.

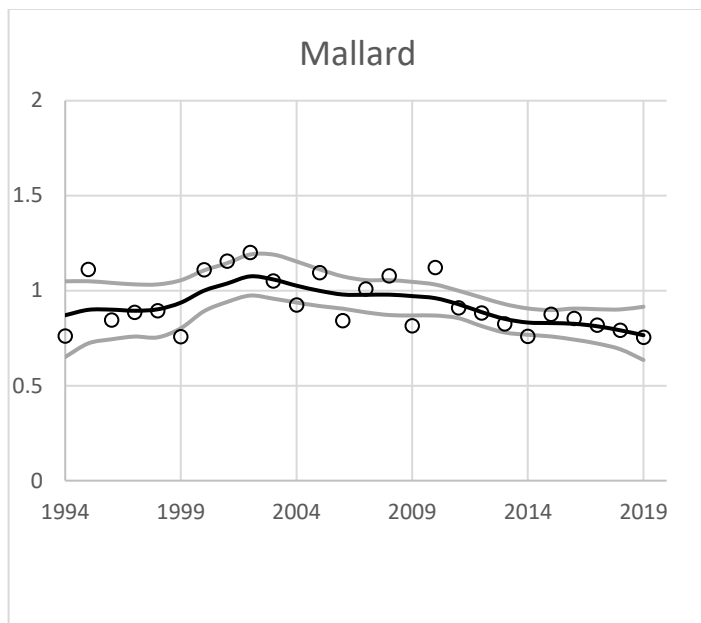


There has been no significant change in the abundance of Long-tailed Tits during the survey period.



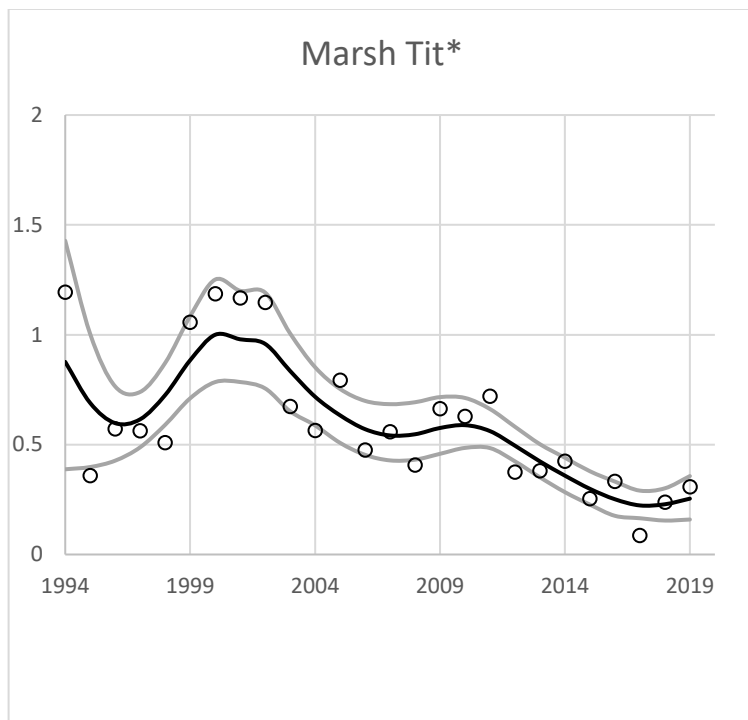
[return to list](#)

Magpie numbers have been remarkably stable over the last twenty five years.



[return to list](#)

Mallard numbers have been remarkably stable over the last twenty-five years.



[return to list](#)

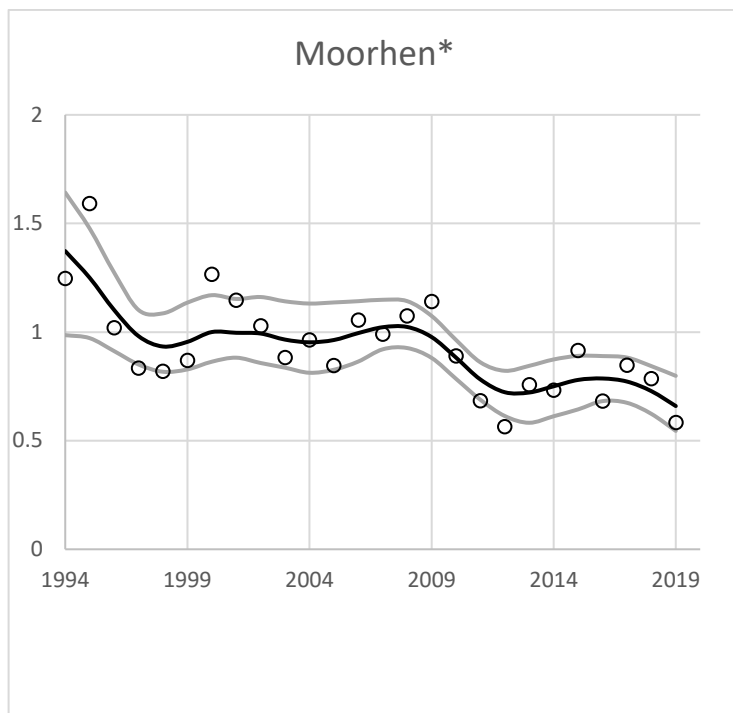
*Present in too few surveys to yield statistically sound results.

The long-term decline in Marsh Tits in our woodlands shows no sign of abating.



[return to list](#)

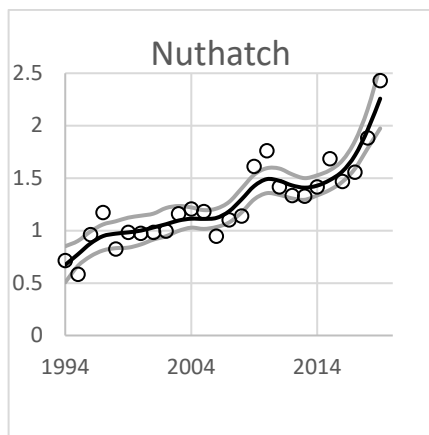
The abundance of Mistle Thrushes has halved over the last twenty-five years, reflecting the national trend.



[return to list](#)

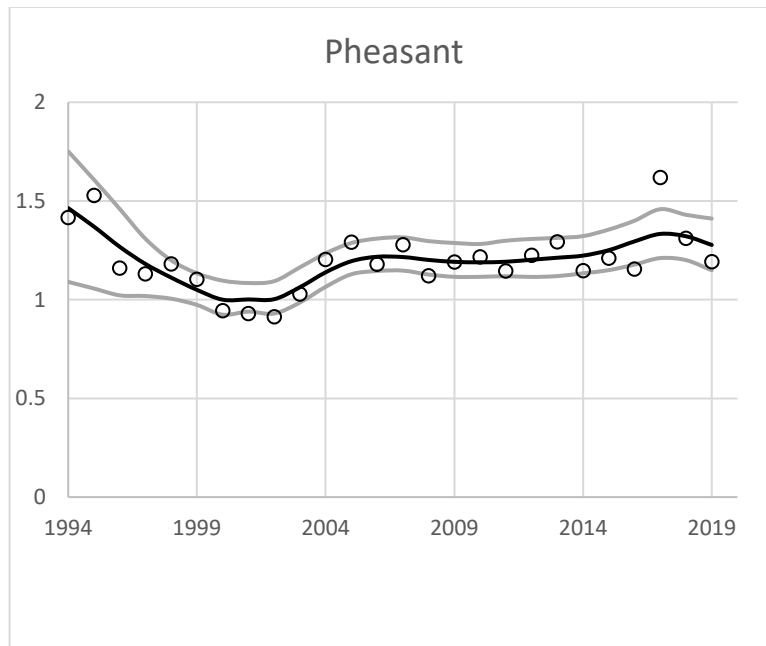
*Wetland areas are not well covered by the BBS and the data should be treated with caution.

The data suggest a modest decline, in common with the national trend.



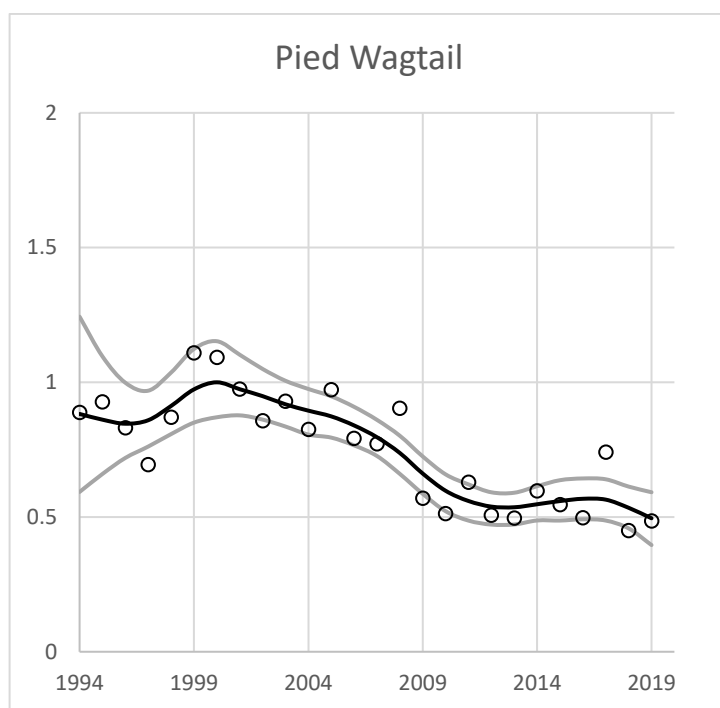
[return to list](#)

Nuthatch numbers have increased around three-fold over the last twenty-five years, somewhat more than the two increase nationally.



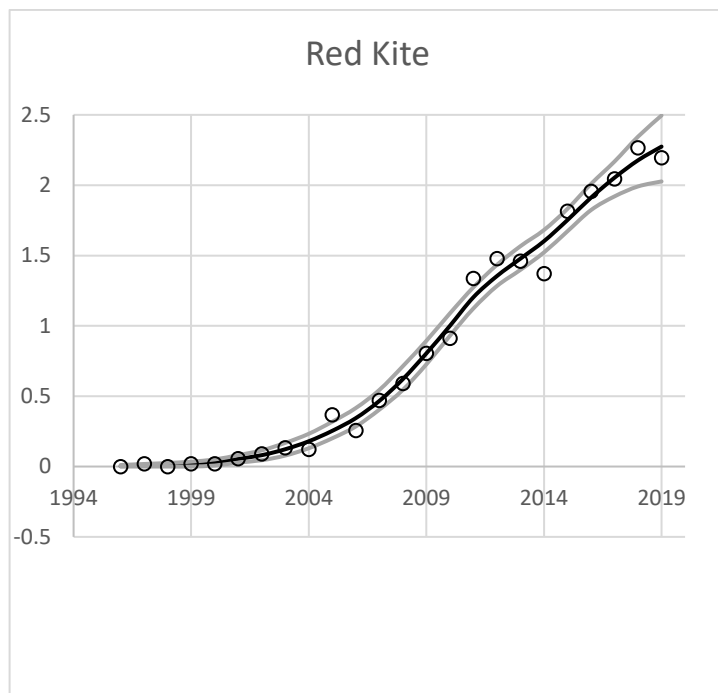
[return to list](#)

Pheasant numbers are buoyed up by huge annual releases. They show no real change over the period.



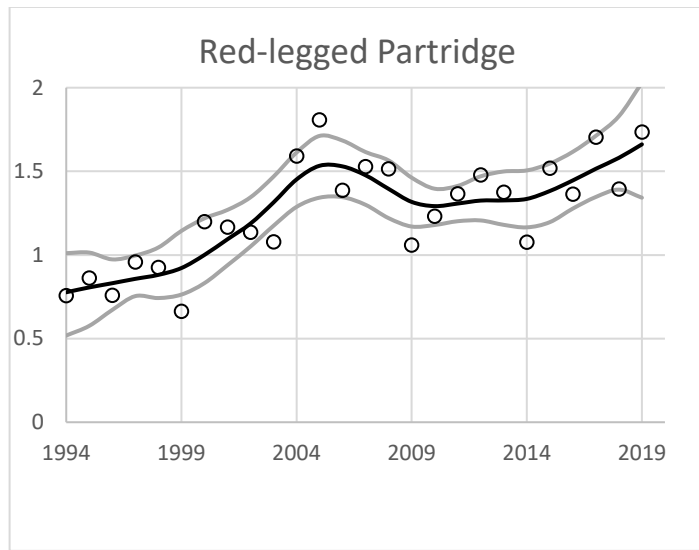
[return to list](#)

Pied Wagtail numbers, which have not changed much nationally since 1994, are showing a significant fall of around 50% in Berkshire.



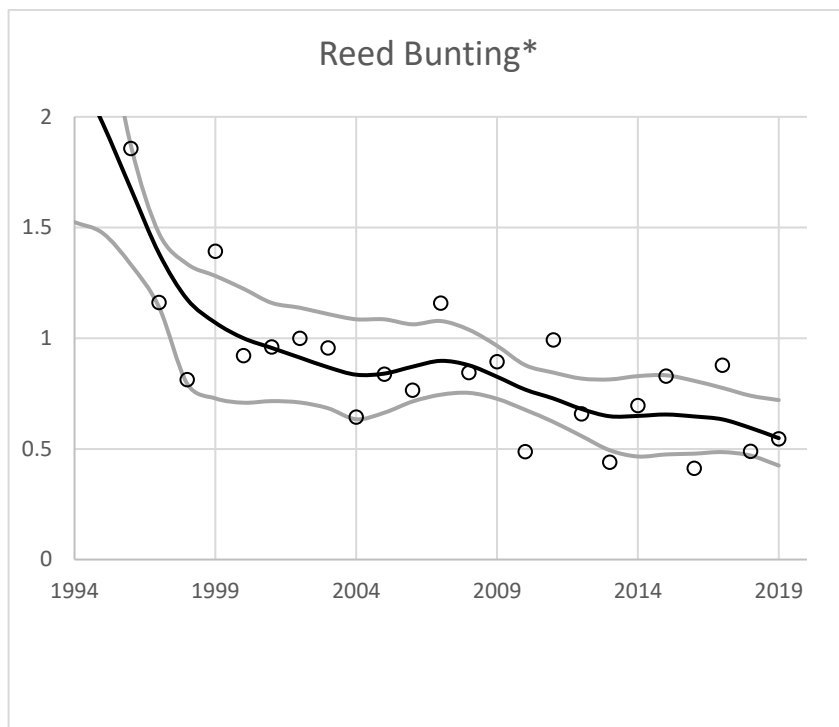
[return to list](#)

Exponential growth of the Red Kite population, doubling around every two years following its introduction in 1990, slowed to a linear increase from 2010.



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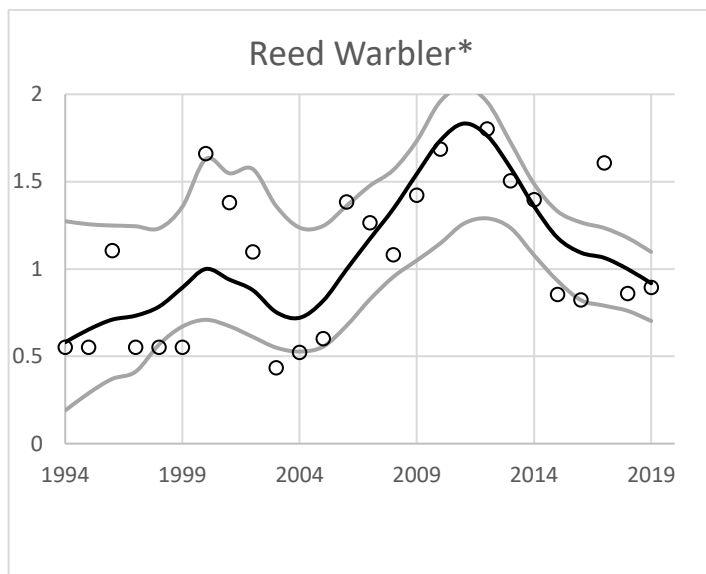
Red-legged Partridge numbers have approximately doubled over the last 25 years.



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*Wetland areas are not well covered by the BBS and the data should be treated with caution.

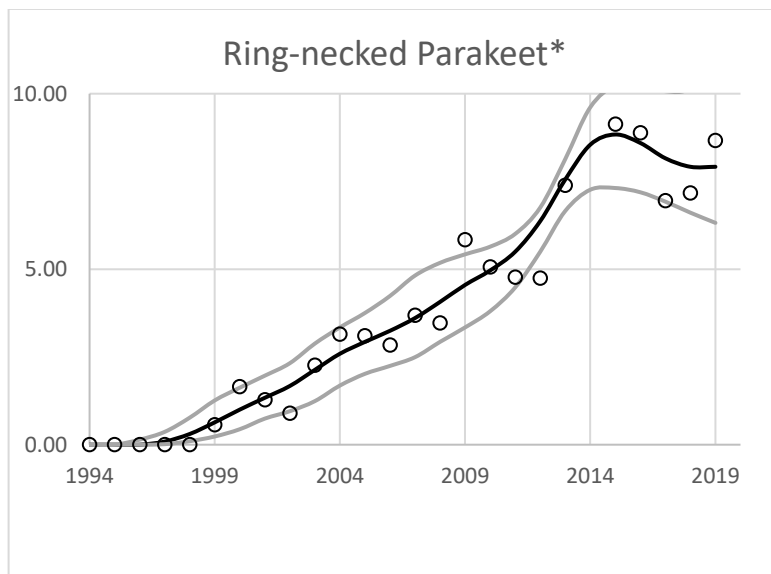
The data show a steady decline in Reed Bunting abundance, though their main breeding habitat, wetlands, are not well covered by the BBS.



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*Wetland areas are not well covered by the BBS and the data should be treated with caution.

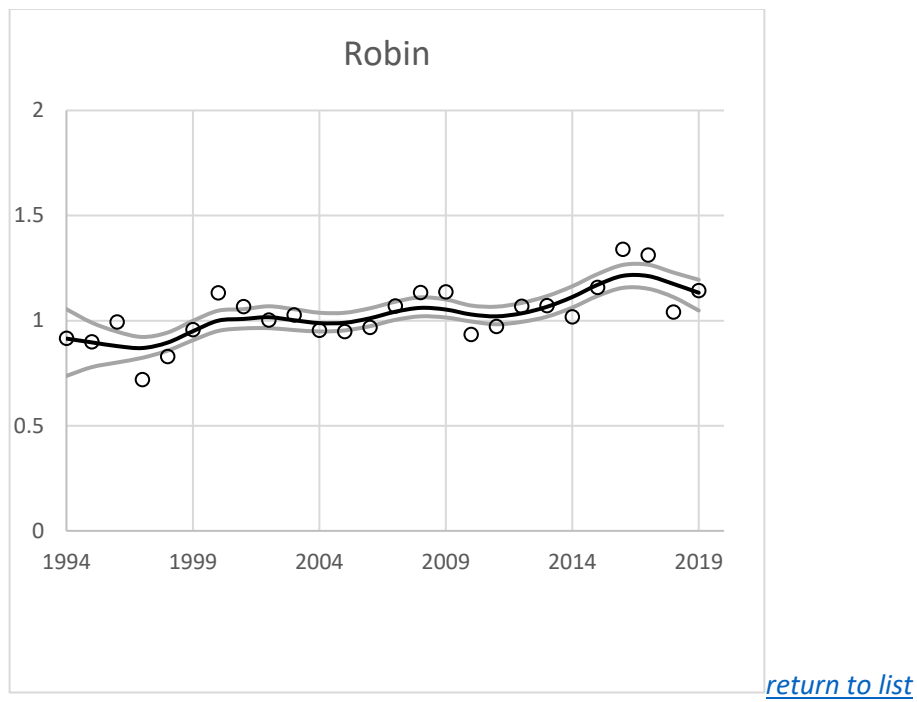
Reed Warbler habitat is not well covered by the BBS. The available data suggest an upward trend over the 25 year period, consistent with the national picture (BTO Birdtrends).



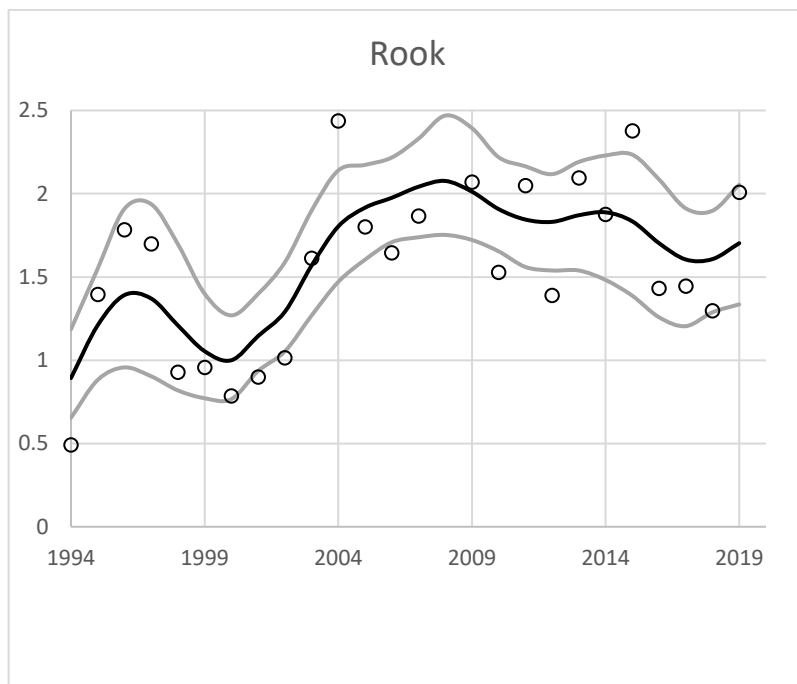
[return to list](#)

*Present in too few surveys to yield statistically sound results.

The expansion of Ring-necked Parakeets into Berkshire began from the east in the 1980s. The population has grown approximately tenfold since 2000.

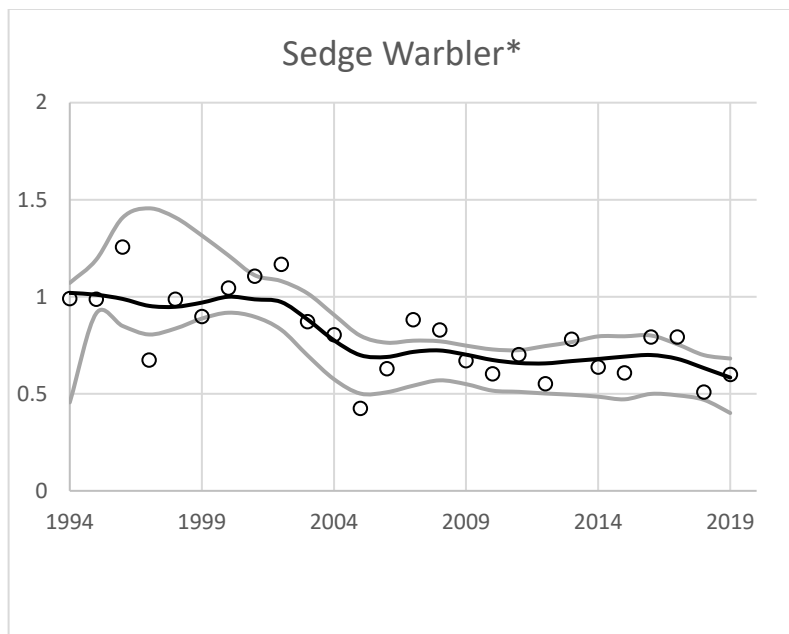


Robin abundance has varied little over the last 25 years, showing a slight upward trend.



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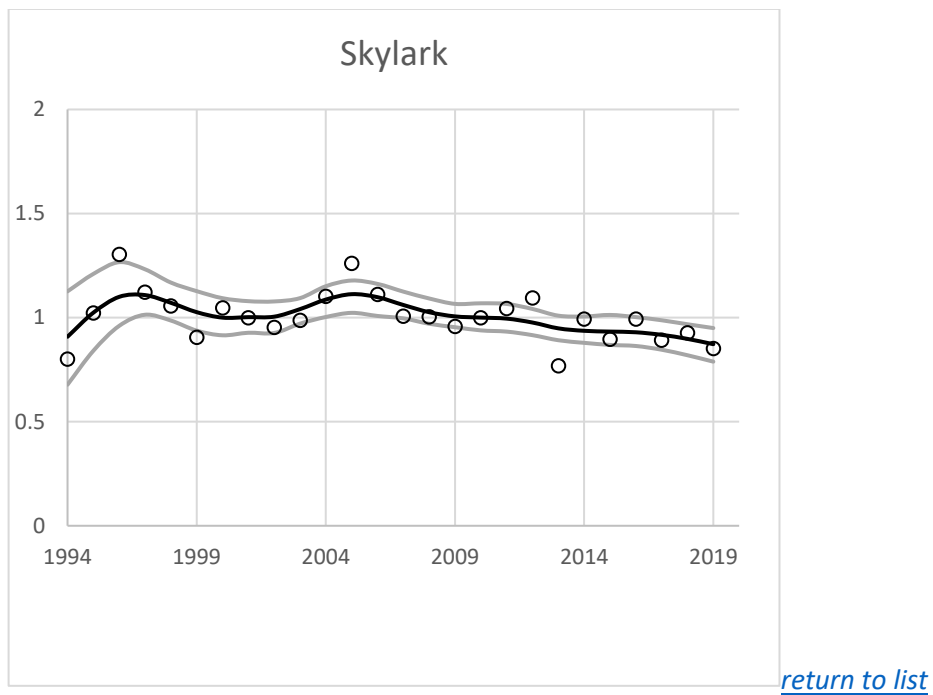
There has been no significant trend in Rook numbers over the 25 year period.



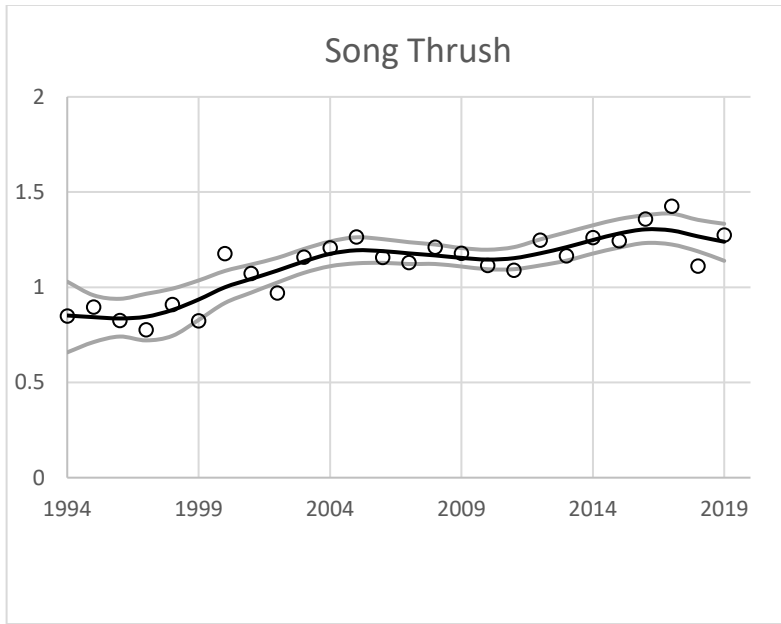
[return to list](#)

*Wetland areas are not well covered by the BBS and the data should be treated with caution.

As a wetland species, Sedge Warblers are recorded in too few surveys to yield reliable results. National data show no substantial trend over the period (BTO Birdtrends).

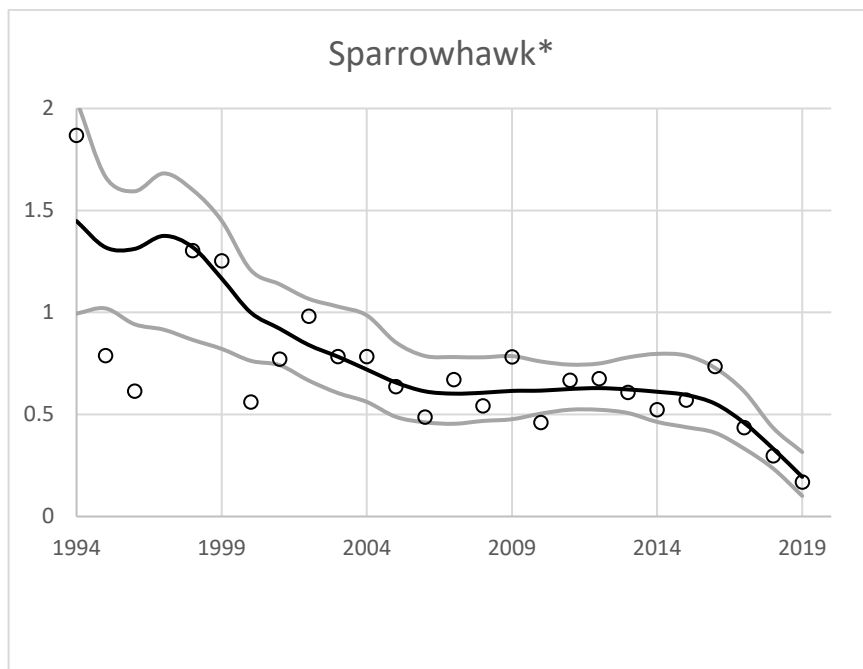


Skylark numbers have shown a small, but significant, decrease since 2000 of around 10%, in common with the national trend (BTO Birdtrends).



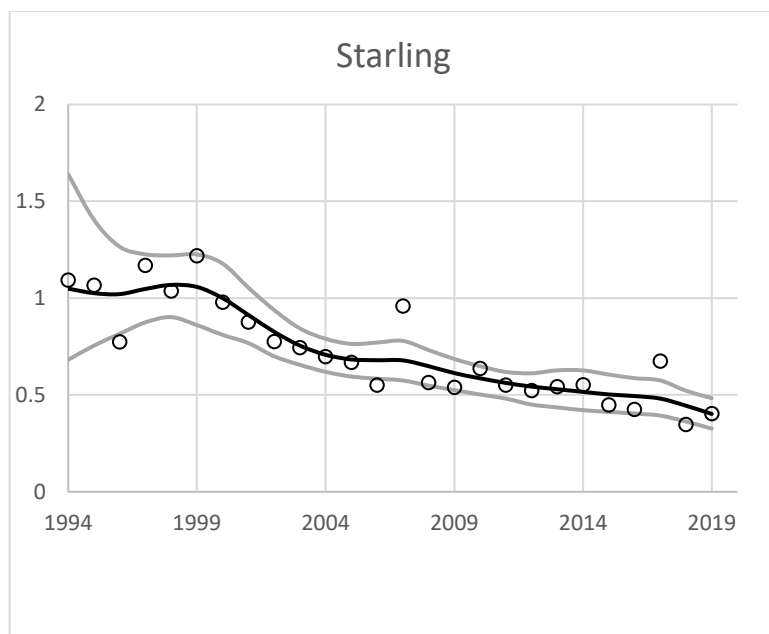
[return to list](#)

Song Thrush abundance has increased significantly, by about 20% since 2000.



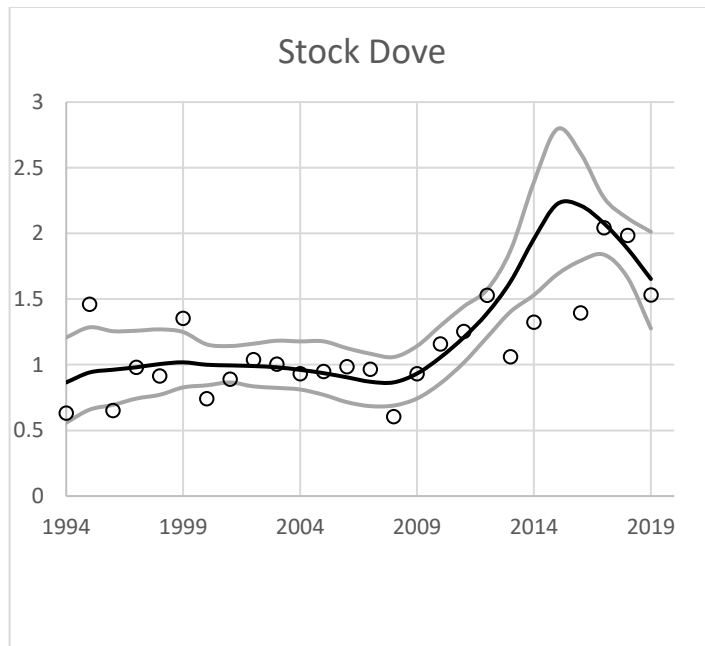
[return to list](#)

*Sparrowhawk is recorded in too few surveys to obtain reliable results; nonetheless the data indicate a rapid decline, reflecting the national picture (BTO Birdtrends).



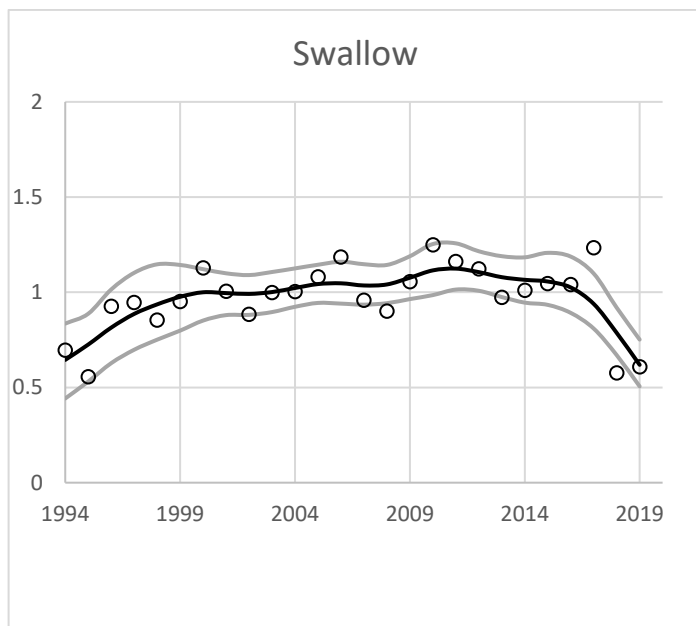
[return to list](#)

Starling abundance in Berkshire has fallen by over half in the last 25 years, in parallel with the national statistics (BTO Birdtrends).



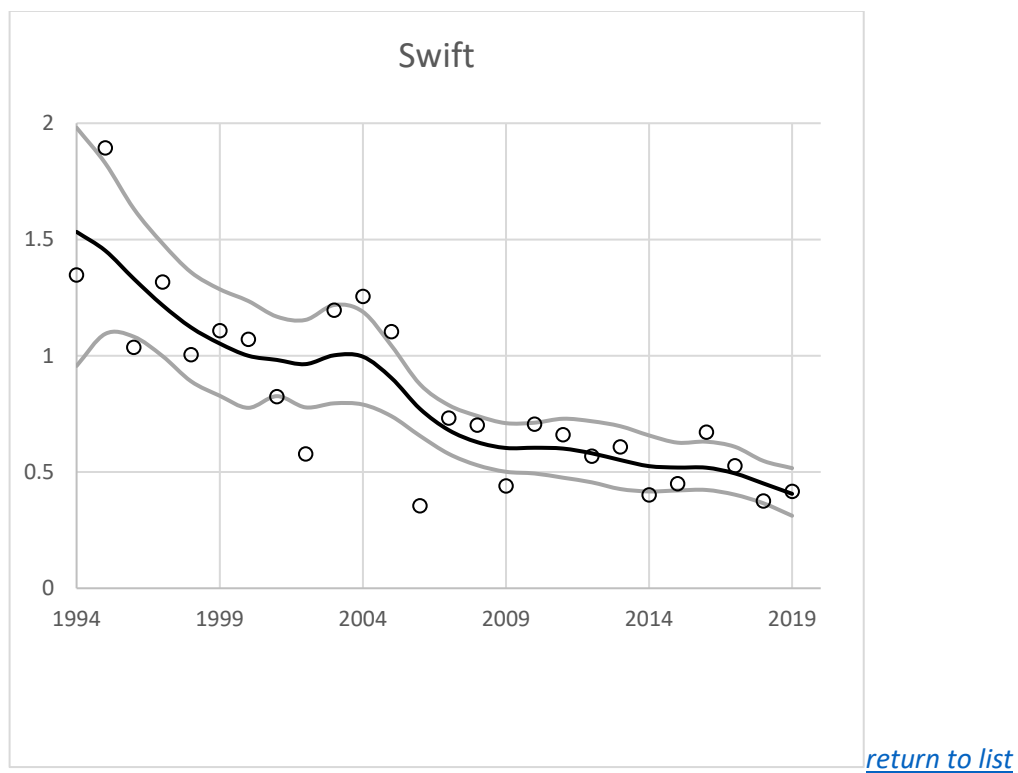
[return to list](#)

The Stock Dove graph is distorted by a presumed spurious index of over 4 for 2015. Setting that aside, numbers have increased by about half over the 25 years, similar to the national increase of around 40%.

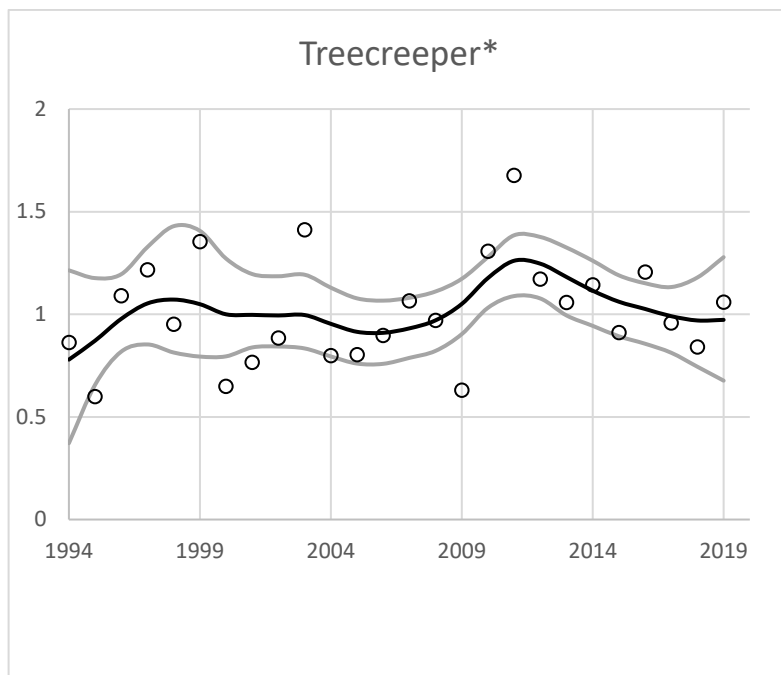


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With the exception of a sharp decrease in 2018 and 2019 that has also been seen in the national figures, Swallow abundance has remained stable over the period.



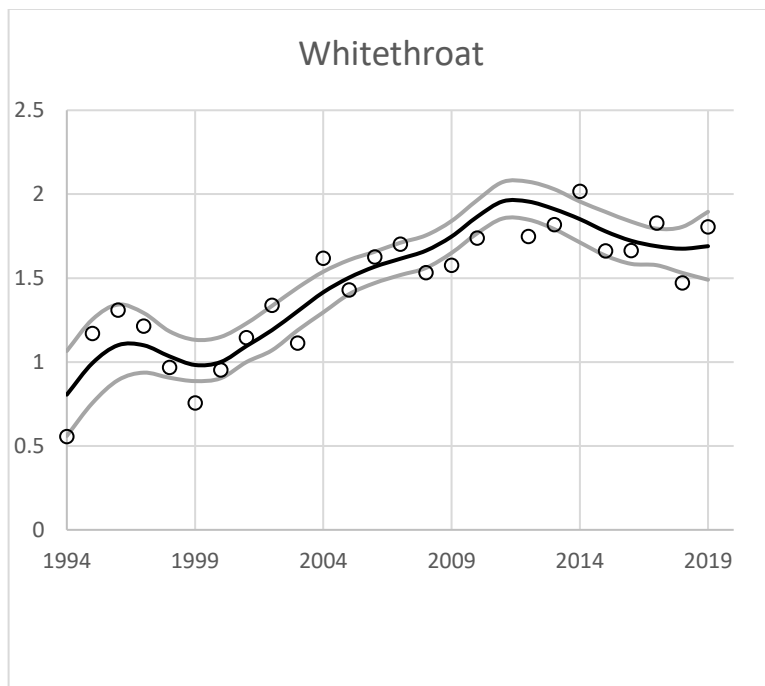
The abundance index for Swifts continues inexorably downwards.



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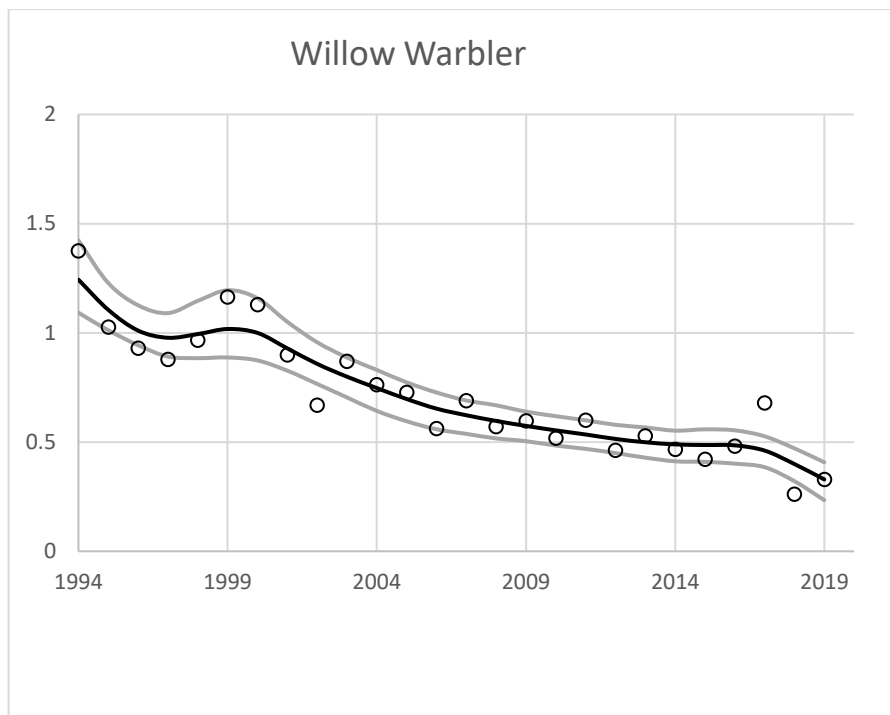
*Present in too few surveys to yield statistically sound results.

There is no evidence of change in Treecreeper abundance over the 25 year period.



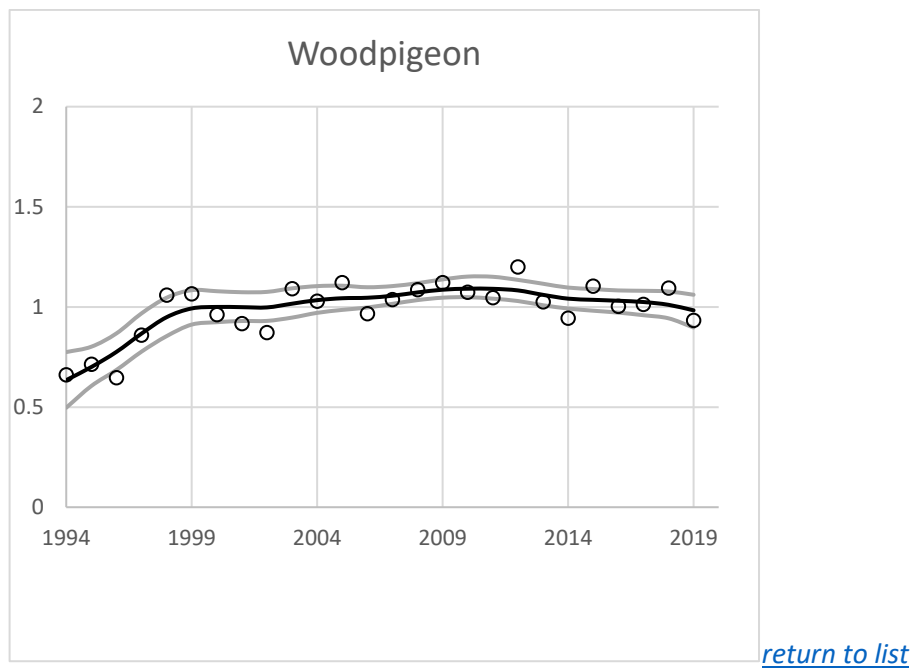
[return to list](#)

Whitethroat numbers appear to have increased almost twofold in twenty years since 1994, substantially faster than the national increase of around a quarter over the same period. There has been no significant change in the last five years.

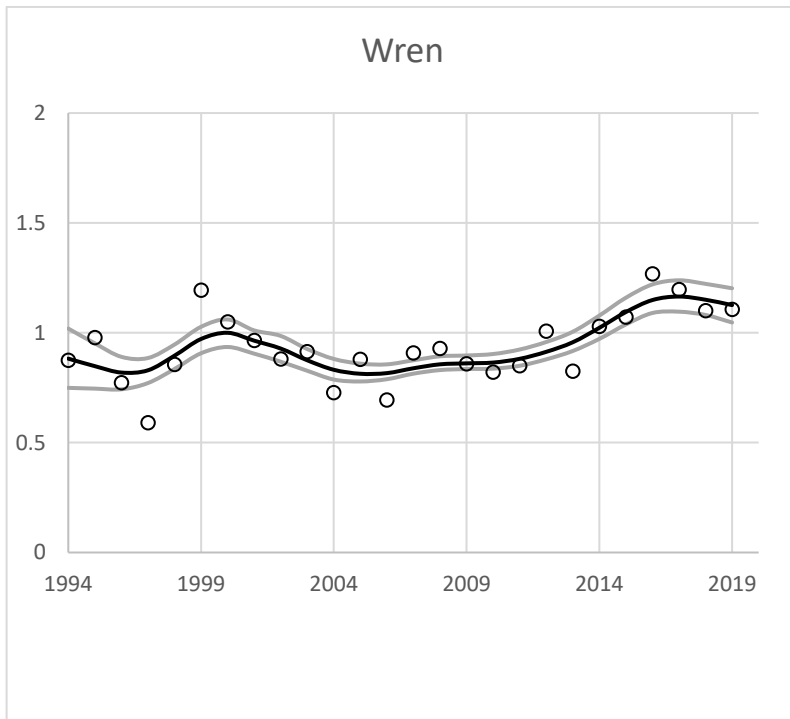


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The decline in Willow Warblers breeding in the south of England is evident here, with a fall of over half since 1994.

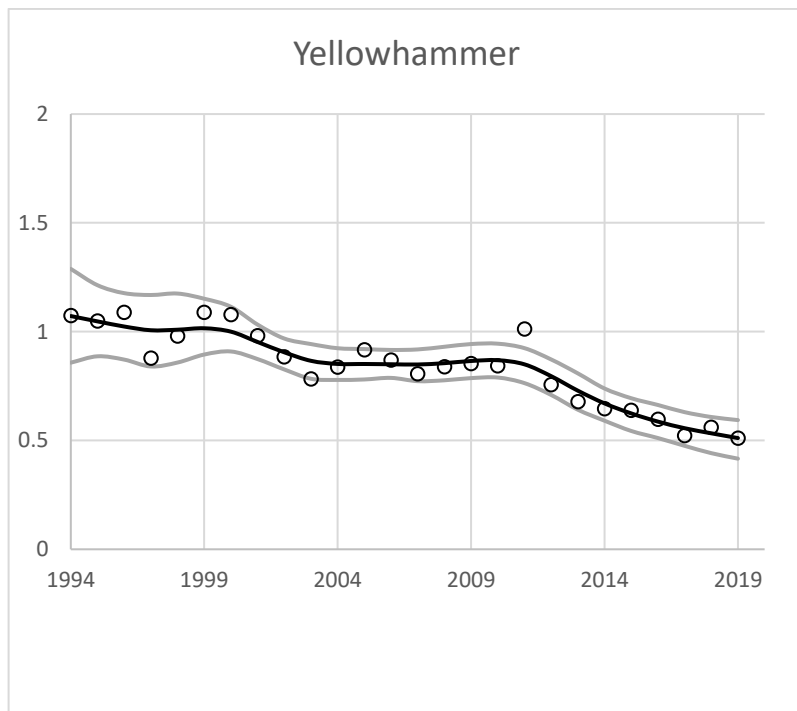


Woodpigeon abundance in the breeding season has been quite steady for the last twenty years.



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There has been a small increase in Wren numbers since 1994.



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Numbers of Yellowhammers have approximately halved in the last 25 years, a decrease much greater than the national average (c 20%).

APPENDIX II

Weather Record 1992 – 2019

The following summaries are from Met Office records at London Heathrow Weather Station.

