

BirdTrends 2023: trends in numbers, breeding success and survival for UK breeding birds.



BTO Bird Trends Explorer

Key Findings 2023



Turtle Dove, by Liz Cutting / BTO

This document summarises some of the major changes observed over the long term (34 years) and short term (5 years) in terrestrial bird population sizes presented in the latest version of the BTO Trends Explorer.

Long-term population decreases

The 10 largest statistically significant population decreases in population size over the long term (1967–2021) were:

Species	Change (95% confidence limits)	Scheme
Turtle Dove	-99 (-100 – -98)	CBC–BBS
Whinchat	-99 (-100 – -91)	CBC–BBS
Tree Sparrow	-97 (-99 – -92)	CBC–BBS
Willow Tit	-96 (-98 – -90)	CBC–BBS
Spotted Flycatcher	-93 (-96 – -90)	CBC–BBS
Grey Partridge	-92 (-95 – -88)	CBC–BBS
Lesser Spotted Woodpecker	-92 (-98 – -62)	CBC–BBS
Tree Pipit	-92 (-96 – -82)	CBC–BBS
Nightingale	-91 (-98 – -47)	CBC–BBS
Starling	-90 (-93 – -86)	CBC–BBS

Long-term population increases

The 10 largest population increases in the long term (1967–2021) were:

Species	Change (95% confidence limits)	Scheme
Goldfinch	132 (73 – 228)	CBC–BBS
Chiffchaff	135 (95 – 228)	CBC–BBS
Mallard	141 (89 – 235)	CBC–BBS
Jackdaw	144 (54 – 300)	CBC–BBS
Woodpigeon	150 (20 – 576)	CBC–BBS
Mute Swan	260 (48 – 794)	CBC–BBS
Nuthatch	280 (172 – 424)	CBC–BBS
Blackcap	378 (284 – 526)	CBC–BBS
Great Spotted Woodpecker	399 (231 – 757)	CBC–BBS
Buzzard	824 (492 – 3,988)	CBC–BBS

Short-term population decreases

The 10 largest statistically significant population decreases in United Kingdom population size over the short term (2016–2021) observed were:

Species	Change (95% confidence limits)	Scheme
Turtle Dove	-50 (-68 – -26)	BBS
Wood Warbler	-47 (-62 – -32)	BBS
Willow Tit	-47 (-62 – -25)	BBS
Spotted Flycatcher	-46 (-57 – -34)	BBS
Swallow	-35 (-38 – -32)	BBS
House Martin	-33 (-38 – -27)	BBS
Greenfinch	-32 (-35 – -29)	BBS
Dipper	-29 (-43 – -8)	BBS
Peregrine	-28 (-45 – -6)	BBS
Little Owl	-27 (-42 – -4)	BBS

Short-term population increases

The 10 largest increases in United Kingdom population size over the short term (2016–2021) observed were:

Species	Change (95% confidence limits)	Scheme
Stock Dove	21 (13 – 28)	BBS
Gadwall	21 (0 – 56)	BBS
Blackcap	21 (18 – 24)	BBS
Ring-necked Parakeet	23 (3 – 45)	BBS
Canada Goose	23 (3 – 44)	BBS
Corn Bunting	28 (2 – 56)	BBS
Red Kite	39 (27 – 52)	BBS
Stonechat	59 (42 – 80)	BBS
Cetti's Warbler	108 (73 – 157)	BBS
Fieldfare	190 (87 – 365)	BBS

Population changes in individual countries

Decreasing Species

The following table highlights the 10 species showing the greatest significant population decreases in each country in the short term (2016–2021). Note trends are not produced for all species in all countries, and fewer than 10 species may be decreasing significantly in any one country.

Species	England	Scotland	Wales	Northern Ireland
Chaffinch	-30 (-32 – -28)	–	-25 (-30 – -18)	-18 (-24 – -11)
Curlew	–	–	-26 (-46 – -2)	–
Dipper	-36 (-48 – -16)	–	–	–
Dunnock	–	-14 (-23 – -4)	–	–
Goldcrest	–	-21 (-34 – -2)	–	–
Greenfinch	-30 (-33 – -27)	-28 (-42 – -13)	-48 (-59 – -35)	-52 (-67 – -29)
House Martin	-34 (-41 – -25)	-32 (-47 – -14)	-46 (-57 – -31)	–
Linnet	–	–	–	-27 (-45 – -3)
Little Owl	-26 (-44 – -5)	–	–	–
Long-tailed Tit	–	–	-30 (-46 – -15)	–
Mistle Thrush	–	–	–	-24 (-37 – -9)
Pied/White Wagtail	–	-22 (-32 – -13)	–	-25 (-36 – -11)
Red Grouse	–	-33 (-45 – -20)	–	–
Redstart	–	–	-20 (-30 – -8)	–
Reed Bunting	–	–	–	-26 (-43 – -4)
Robin	–	-16 (-23 – -10)	–	–
Siskin	–	-23 (-37 – -4)	–	–
Skylark	–	–	-24 (-36 – -7)	–
Spotted Flycatcher	-27 (-42 – -7)	–	–	–
Starling	–	–	–	-12 (-25 – 0)
Swallow	-38 (-42 – -35)	-26 (-35 – -18)	-40 (-48 – -31)	-26 (-33 – -16)
Swift	–	–	-30 (-47 – -10)	–
Tree Pipit	-37 (-51 – -20)	–	–	–
Turtle Dove	-49 (-68 – -22)	–	–	–
Whinchat	-28 (-46 – -4)	–	–	–
Willow Warbler	–	–	–	-12 (-20 – -1)
Wren	–	-17 (-23 – -12)	–	-11 (-17 – -4)
Yellowhammer	–	–	-51 (-69 – -35)	–

Increasing Species

The following table highlights the 10 species showing the greatest population increases in each country in the short term (2016–2021). Note trends are not produced for all species in all countries, and fewer than 10 species may be increasing significantly in any one country.

Species	England	Scotland	Wales	Northern Ireland
Blackbird	–	–	8 (2 – 14)	–
Blackcap	–	37 (20 – 55)	19 (12 – 28)	21 (7 – 38)
Cetti's Warbler	115 (69 – 157)	–	–	–
Chiffchaff	–	39 (22 – 56)	–	–
Corn Bunting	29 (2 – 66)	–	–	–
Cuckoo	–	15 (2 – 32)	24 (1 – 47)	–
Egyptian Goose	57 (19 – 102)	–	–	–
Fieldfare	271 (131 – 537)	–	–	–
Goldfinch	–	–	10 (1 – 20)	–
House Sparrow	–	–	14 (2 – 24)	–
Jackdaw	–	20 (3 – 38)	–	–
Long-tailed Tit	–	46 (10 – 90)	–	–
Mandarin Duck	56 (17 – 101)	–	–	–
Red-legged Partridge	20 (12 – 29)	–	–	–
Red Kite	49 (37 – 62)	–	–	–
Ring-necked Parakeet	23 (9 – 39)	–	–	–
Siskin	–	–	50 (3 – 103)	–
Skylark	–	10 (0 – 21)	–	–
Stock Dove	22 (15 – 30)	–	–	–
Stonechat	69 (44 – 108)	51 (24 – 87)	60 (41 – 90)	–
Willow Warbler	–	13 (2 – 24)	–	–

BTO Bird Trends Explorer

Summary statistics 2023



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This document summarises the data as used in the latest version of the BTO Trends Explorer.

Summary of time series

The current BTO Trends Explorer contains 63,713 graph data points across 4,263 individual time series spanning 329 species (including populations). The number of species covered by each metric is shown in the table below.

Metric type	Metric	Source scheme	No. species
Population abundance	Long-term trend (1994–)	BBS	113
Population abundance	Long-term trend (1998–) along linear waterways	WBBS	76
Population abundance	Long-term trend (1970s–) along linear waterways	WBS-WBBS	25
Population abundance	Long-term trend (1960s–)	CBC-BBS	72
Population abundance	Long-term trend (RBBP)	RBBP abundance	2
Population abundance	Long-term trend at heronries	Heronries Census	1
Population abundance	Long-term trend at colonies	SMP colony counts	18
Population abundance	Adult abundance (CES)	CES abundance	23
Distribution	Range size	Birdatlas range size	329
Breeding performance	Long-term trend at colonies	SMP productivity	19
Breeding performance	Clutch size	NRS clutch size	90
Breeding performance	Brood size	NRS brood size	79
Breeding performance	Egg-stage nest failure rate	NRS egg-stage nest failure rate	90
Breeding performance	Chick-stage nest failure rate	NRS chick-stage nest failure rate	79
Breeding performance	Fledglings per breeding attempt	NRS productivity	79
Breeding performance	Whole-season productivity (CES)	CES productivity	23
Survival and mortality	Adult survival (recoveries)	Ringling survival	18
Survival and mortality	Adult survival (RAS)	RAS survival	24
Timing of life cycle events	Timing of breeding	NRS laying date	90
Timing of life cycle events	Onset of primary moult	Ringling moult timing	1

Summary of time series

The current BTO Trends Explorer contains 63,713 graph data points across 4,263 individual time series spanning 329 species (including populations). The number of species covered by each metric is shown in the table below.

Metric type	Metric	United Kingdom	England	Scotland	Wales	Northern Ireland
Population abundance	Long-term trend (1994-)	111	108	65	58	35
Population abundance	Long-term trend (1998-) along linear waterways	76	70	15	0	0
Population abundance	Long-term trend (1970s-) along linear waterways	25	0	0	0	0
Population abundance	Long-term trend (1960s-)	51	70	0	0	0
Population abundance	Long-term trend (RBBP)	2	1	2	2	2
Population abundance	Long-term trend at heronries	1	1	1	1	0
Population abundance	Long-term trend at colonies	18	0	0	0	0
Breeding performance	Long-term trend at colonies	18	7	18	4	0
Distribution	Range size	329	318	297	288	237
Breeding performance	Clutch size	90	0	0	0	0
Breeding performance	Brood size	79	0	0	0	0
Breeding performance	Egg-stage nest failure rate	90	0	0	0	0
Breeding performance	Chick-stage nest failure rate	79	0	0	0	0
Breeding performance	Fledglings per breeding attempt	79	0	0	0	0
Timing of life cycle events	Timing of breeding	90	0	0	0	0
Timing of life cycle events	Onset of primary moult	1	0	0	0	0