

Avon Wildlife Trust Birdwatch, Winter 2007/2008

Report by R.L.Bland

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1 Origin and Purpose.

This is a report on the eighth winter of this survey, originated by the Biodiversity group of the Bristol City Council LA 21 group in 2000/2001. The survey is organized and administered by Avon Wildlife Trust, and its purpose is to establish the role played by urban and suburban gardens in winter in sustaining avian biodiversity, and to monitor population changes. It is widely supported both in Bristol, and in the other three unitary authorities. The forms used this winter had one change from those used in the previous two winters; observers were asked to record the months in which they heard Tawny Owls calling from their houses. 14% of observers recorded them. The forms were sent out to all those who had previously participated and were available on the AWT website, and were also distributed as a result of publicity.

2 Method

Participants are asked to note the presence of every species that occurs in their gardens in each of the six winter months, October to March, and to count the Sparrows, Starlings and Feral Pigeons present on the last weekend in each month. These three species were chosen because they were undergoing rapid population change.

3 Summary of records received.

There were 1708 returns, the vast majority being people who had participated in previous winters. 46% were from Bristol, 54% elsewhere in the region, virtually the same as the previous year.

4 Overall results

In addition to the 31 listed species a total of 29 additional species were seen in gardens, a grand total of 60. The average total per garden was 18. 10% of gardens held more than 25 species. To some extent these figures will depend more on the identification skills of individual observers than the reality of the species using gardens.

Winter weather. The average for the six months was 10.6C, cooler than the previous winter, but a whole degree higher than the long term average since 1881. December and March were both cooler than the long-term average, the other months warmer. There were just 30 frost nights and snow fell briefly twice, and it was cold enough to ice over ponds on just five nights. December, January and March had double the normal rainfall for these months. Daily counts revealed a slow but steady growth in numbers from October to mid December, and then numbers remained very high for the rest of the winter, unlike the previous winter.

5 Analysis by species.

Table 1 lists the percentage of gardens in which each of 31 species occurred in the four unitary authorities.

	Bristol	Other areas		Bristol	Other
Blackbird	100	100	Long-tailed Tit	56	67
Robin	98	100	Jay	43	35
Blue Tit	96	97	Feral Pigeon	47	30
Magpie	94	95	Song Thrush	32	44
Wood Pigeon	92	88	Sparrow Hawk	31	32
Wren	77	88	Goldfinch	38	61
Great Tit	82	87	Pied Wagtail	29	60
Collared Dove	83	89	Jackdaw	34	52
House Sparrow	72	81	Green woodpecker	18	26
Chaffinch	69	85	Bullfinch	11	19
Dunnock	68	73	Goldcrest	14	14
Starling	65	82	Gt Sp Woodpecker	16	26
Crow	57	64	Rook	11	23
Greenfinch	49	65	Redwing	7	14
Coal Tit	46	56	Fieldfare	6	13
Blackcap	47	50			

Comment

For the most part the differences are small, though Bristol has the lowest proportion of gardens with Starling and Sparrow, the highest with Feral Pigeon and Jay. The sharp differences in Pied Wagtail, Goldfinch are striking.

6 Change over five winters

Table 2 shows the overall results for Avon since 2002/3, when the present format for the survey was established. The first Change column shows any significant change between 2006/7 and 2007/8. Greenfinch had a bad winter, but other totals are up, partly because in general more birds were using gardens this winter than the previous one. The second Change column shows overall difference over six years. A few trends are beginning to become apparent. Most striking is the increase in Goldfinch and Jackdaw. The latter is a bit of a mystery. Great Spotted Woodpecker are also using garden fat balls more and Dunnock also appear to be doing well. Species use of gardens will reflect many factors, including population size, and the success of the previous breeding season, the nature of the winter and the pressures it puts them under, and the numbers migrating to this country from the continent, and within this country from further north and east. It was a better winter for Blackcap, which come from Germany, and for both Redwing and Fieldfare, though these usually only venture into gardens in hard weather. Greenfinch populations have fallen nationally as the result of a parasitic disease in the autumn of 2006.

Avon	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	Change 6/7-7/8	Change 2/3-7/8
Blackbird	100	100	99	100	99	100		
Blue Tit	97	97	98	96	98	97		
Robin	97	98	98	98	96	99		
Magpie	95	94	93	94	94	94		
Wood Pigeon	84	85	85	92	90	91		
Great Tit	80	81	83	79	82	86		
Collared Dove	84	85	85	75	82	87		
House Sparrow	83	83	83	74	79	78		
Chaffinch	75	77	77	67	73	81		
Wren	87	86	90	86	73	81		
Dunnock	60	64	70	66	71	72		20
Starling	78	75	74	63	68	76		
Greenfinch	70	69	77	59	66	61	-7	-12
Crow	62	59	62	62	60	61		
Coal Tit	57	54	56	54	48	56	16	
L-t Tit	59	56	65	53	54	66	22	
Goldfinch	34	36	45	33	42	55	30	61
Blackcap	54	56	43	57	41	50	21	
Jackdaw	31	32	40	23	40	50	25	61
Sparrowhawk	30	32	37	36	38	32	-15	
Pied Wagtail	49	51	52	29	33	53	60	
Jay	38	36	30	51	32	36	12	
Feral Pigeon	40	43	34	49	30	34	13	
Song Thrush	49	55	44	40	28	42	50	
Gt Sp W/pecker	17	18	24	15	19	23	21	35
Green W/pecker	19	20	24	18	16	23	43	
Rook	16	15	20	10	15	20	33	
Goldcrest	16	15	22	15	14	16	14	
Bullfinch	19	17	22	18	13	19	46	
Redwing	10	17	20	7	7	13	85	
Fieldfare	8	15	13	9	4	12	200	

Table 2 Percentage of each species in Avon in each winter 2002/3 on, and change between 2006/7 and 2007/8, and change overall since 2002/3

7)Counts of Sparrow Starling and Feral Pigeon

Table 3 lists the average numbers per garden in the six winter months for the four unitary authorities and for Avon as a whole. The differences are interesting. Starlings and Sparrows are most numerous in S Gloucs, primarily in areas fringing Bristol, and least numerous in Bristol. Feral Pigeons are most numerous in Bristol. The figures for all three species show an increase over the previous year.

	Sparrow	Starling	Feral Pigeon
BS	4.9	4.2	1.9
Rest	5.4	5.1	0.9
Avon	5.6	4.9	1.1

Table 3 Average numbers of the three species in Bristol and outside.

Population Change

	2000/1	2001/2	2002/3	2003/4	2004/5	2005/06	2006/07	2007/08
House Sparrow	5.3	5.5	5.5	5.6	6.2	6.1	5.2	5.6
Starling	6.5	5.2	4.7	4.1	4.2	4.4	3.7	4.9
Feral Pigeon			0.9	1.3	1.2	1.2	0.8	1.1

Table 4 Average numbers for Avon in each winter.

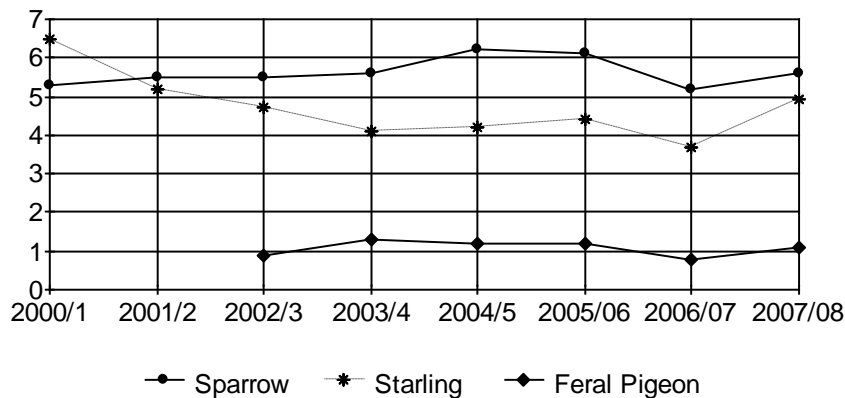


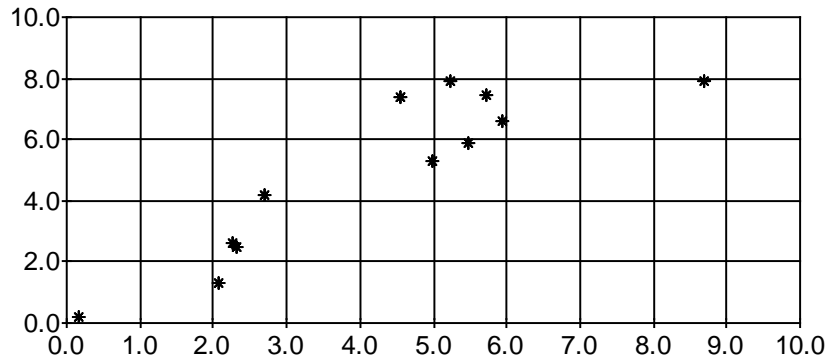
Chart showing population change since 2000/2001

Sparrow, Starling and Feral Pigeon numbers by postcode in Bristol.

The density of these three species shows quite unusual variation across different areas of Bristol. Sparrows show a difference of a factor of thirty between the Sparrow-rich and the Sparrow-poor areas of Bristol, and there is a good correlation between Sparrow and Starling density. Table 5 below shows Bristol postcodes in order of Sparrow density. Avonmouth, Southmead, Bishopsworth and Bishopston all have dense populations, Clifton and Henlease very few. Feral Pigeon are far more evenly spread across the city.

Avonmouth	bs11	7.9	8.7	2.2
Southmead	bs10	7.9	5.2	3.6
Bishopsworth	bs13	7.4	5.7	2.6
Bishopston	bs7	7.4	4.5	2.9
Stockwood	bs14	6.6	5.9	2.0
St George	bs5	5.9	5.5	1.9
Brislington	bs4	5.3	5.0	3.0
Bedminster	bs3	4.2	2.7	0.8
Redland	bs6	2.6	2.3	1.5
Eastville	bs16	2.5	2.3	1.4
Henlease	bs9	1.3	2.1	0.9
Clifton	bs8	0.2	0.2	0.3

Table 5 Average count per garden over the six monthly counts



Sparrow density (vertical), plotted against Starling (horizontal).

There is a very similar relationship between Sparrow and Starling numbers in the other unitary authorities,

Tawny Owls

There were reports from 226 gardens in 168 different 1km squares across the region. The largest numbers of sites, 140, were heard in October, when young birds are seeking out new territories, and 101 were heard in November. Tawny Owls nest very early, and birds heard between December and March are potentially nesting. During this period they were heard in 118 one-km squares, which is probably the minimum number of nesting pairs, as, if the habitat is good, more than one pair can nest in a single one-km square. The results are very similar to those from the previous winter, and, as Tawny Owls are very faithful to their nest sites, this survey is both a good way of discovering the distribution of Tawny Owls, and of monitoring them.

11 Conclusions.

The most significant conclusions are:-

1 Gardens in the Bristol region supported 60 species over the 2007/08 winter. Half of all gardens supported 18 or more species. Evidence from other surveys shows that an average garden helps to support around 25 individual birds a day, though birds move from garden to garden taking what they need. It is clear that garden feeding supports a substantial proportion of the wintering population of the region.

2 Starling numbers and Sparrow numbers both rose, Starlings by 32% and Sparrows by 7% over the previous winter.

3 It was a good winter for Pied Wagtail, Song Thrush, Goldfinch, Green Woodpecker and Jackdaw, and among less frequent species there were unusual numbers of Brambling, Grey Wagtail and Siskin.

4 There is a long term trend for an increase in Goldfinch, Jackdaw and Great Spotted Woodpecker.

5 **Species** The best garden had 32 species, the average was 18.0.

6 The **Avon top ten** most frequent birds are listed below. Most species positions are unchanged since 2005/06, shown in brackets, but Chaffinch and House Sparrow have moved in ahead of Dunnock.

	Percent	Place
Blackbird	100	1 (1)
Robin	99	2 (3)
Blue Tit	97	3 (2)
Magpie	94	4 (4)
Wood Pigeon	91	5 (5)
Collared Dove	87	6 (7)
Great Tit	86	7 (6)
Wren	81	8 (9)
Chaffinch	81	9 (8)
House Sparrow	78	10