

Nightingales in Kent in 2012: an update with revised data

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In the 2012 Kent Bird Report, we described the results for the county of the national Nightingale survey carried out in that year (Henderson & Orton 2014). Since then, some small errors have been found in the dataset provided by the British Trust for Ornithology (BTO), and also the BTO have completed their analysis of the national data enabling a final estimate of the population to be calculated.

This note summarises the revised data for Kent and discusses the significance of the county population in national terms.

Revised results for 2012

The final total of singing male Nightingales counted in Kent in 2012 was 995 (corrected from 977 in our previous report). Table 1 gives the totals for each 10km square, and Figures 1 and 2 show, respectively, the species' distribution by tetrad in 2012, and the changes per tetrad between 1999 and 2012.

Table 1. Distribution of Kent Nightingales by 10km square
The table shows the number in each square. nc = no count

	1980	1985	1994	1999	2012		1980	1985	1994	1999	2012
TQ44	2	nc	5	14	11	TQ94	13	nc	45	52	38
TQ45	4	nc	2	3	1	TQ95	22	nc	13	39	0
TQ46	0	nc	0	0	0	TQ96	0	nc	7	15	27
TQ53	0	nc	1	0	0	TQ97	0	nc	0	0	0
TQ54	12	nc	0	5	4	TR01	3	nc	0	0	5
TQ55	6	nc	1	2	0	TR02	0	nc	0	0	0
TQ56	3	nc	3	1	0	TR03	69	nc	28	35	29
TQ57	1	nc	3	1	0	TR04	28	24	22	9	7
TQ63	3	nc	13	2	1	TR05	83	75	80	96	18
TQ64	5	nc	25	32	67	TR06	15	16	17	24	22
TQ65	3	nc	18	13	1	TR07	0	0	0	0	0
TQ66	34	nc	7	2	6	TR13	11	3	13	9	3
TQ67	0	nc	1	2	7	TR14	75	39	26	23	3
TQ72	0	nc	6	1	0	TR15	121	82	84	111	78
TQ73	2	nc	43	43	8	TR16	113	135	148	101	108
TQ74	1	nc	11	23	13	TR23	4	5	0	0	2
TQ75	10	nc	9	15	9	TR24	48	45	41	15	0
TQ76	51	nc	48	93	62	TR25	34	34	34	21	20
TQ77	48	nc	59	82	161	TR26	2	4	22	50	43
TQ82	0	nc	6	2	5	TR34	1	1	2	1	0
	1980	1985	1994	1999	2012		1980	1985	1994	1999	2012
TQ83	15	nc	68	62	36	TR35	3	4	4	3	2
TQ84	3	nc	11	21	23	TR36	0	0	3	17	3
TQ85	12	nc	10	23	5	TR37	0	0	0	0	0
TQ86	6	nc	14	5	9						
TQ87	0	nc	4	9	4	Totals:					
TQ92	0	nc	6	5	0	Kent:	931	nc	1066	1212	995
TQ93	65	nc	103	130	154	E Kent:	538	467	496	480	309

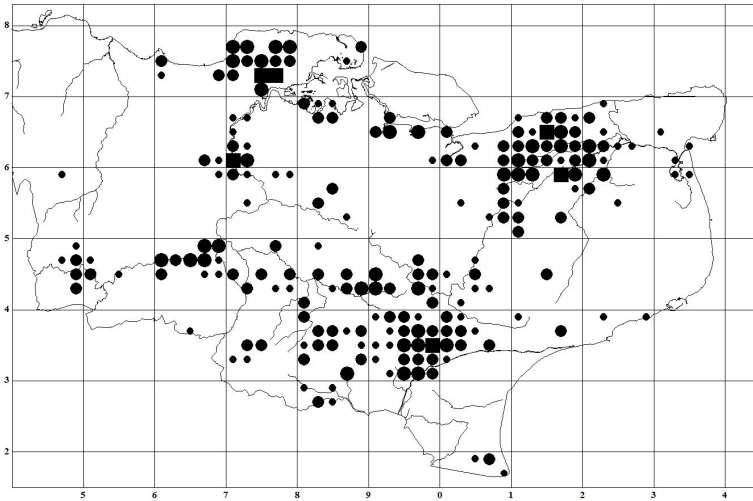


Figure 1.

Distribution and abundance by tetrad of Nightingales in Kent in 2012
Singing males per tetrad: 1=small dot; 2-6=medium dot; 7-19=large dot; 20 or more=square

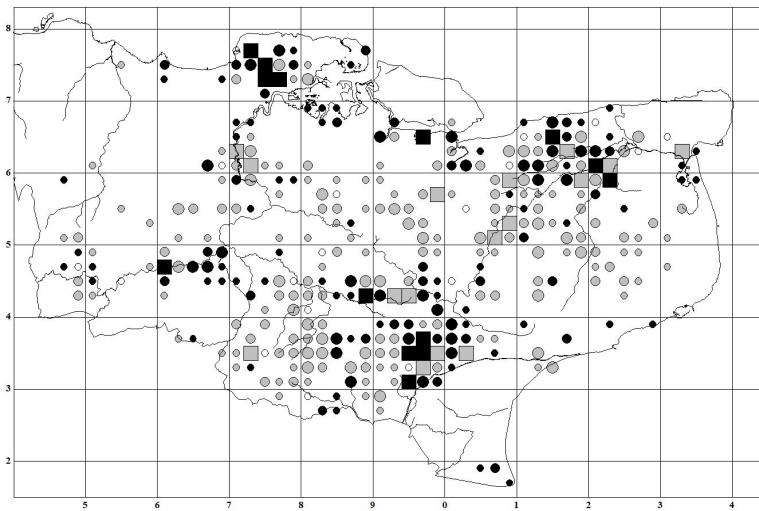


Figure 2.

Changes in numbers of Nightingales in tetrads in Kent between 1999 and 2012

Dark symbols are gains, pale symbols are losses, open circles show no change.
Size of change: 1=small dot; 2-3=medium dot; 4-9=large dot; 10 or more=square

The largest corrections made to our previously published report involve TQ67 (3 deleted from tetrad R), TQ76 (4 added including 3 in tetrad A), TQ77 (3 added to tetrad D), TQ84 (12 added including 4 in tetrad S and 5 in tetrad W), and TQ96 (3 added to tetrad C).

Habitat information was provided by surveyors for 867 of the 995 territories, and is summarised in Table 2. These corrected figures are little different from those published last year. The most striking result is the continuing decline in the number found in broad-leaved and coppice woodland, and the increase in scrub.

Table 2. Habitat use of Nightingales in Kent in 2012

The table includes comparable data for previous years with some categories combined in 1980 and 1994. Sample sizes (n) omit territories in unknown habitat.

	1980	1994	1999	2012
n	920	916	1191	867
	%	%	%	%
Broad-leaved woodland	22.4	19.9	24.5	16.4
Coppice woodland	37.2	44.3	18.0	13.7

Coniferous woodland			1.9	1.2
Mixed woodland	24.8	4.0	4.2	0.6
New plantations			3.4	3.2
Scrub			38.8	51.2
Carr			1.3	3.9
Old orchards	12.8	25.7	1.2	0.3
Gardens			1.2	0.9
Hedges	2.8	6.1	5.5	8.4

National context

In our previous report, we mentioned that BTO had provided a provisional estimate of the national population of Nightingales (6,250-6,550 singing males). This was calculated before all data were input and validated, and before all statistical procedures were developed to account for (a) birds that did not sing during survey visits and (b) areas that were not covered. The provisional estimate was considered likely to be an over-estimate (BTO unpublished report, January 2013).

The final estimate of the population is 5,799-5,919 singing males (per BTO, December 2014). This range represents the midpoints of several different statistical treatments. The lower and upper 95% confidence limits of the estimate are 5,267 and 6,425.

The accepted convention for describing the nature conservation status of sites for birds is that a site that holds 1% or more of the national population is nationally important. Thus any defined area holding more than 60 singing males in 2012 is now regarded as nationally important. Obviously, the definition of what comprises a site will affect this, but Table 3 shows discrete areas in Kent holding more than 60 birds in 2012, together with others holding between 30 and 59.

Table 3. Notable concentrations of Nightingales in 2012

	1999	2012
<i>Sites with >1% of national population</i>		
Chattenden Woods-Upnor	46	91
Warehorne-Shadoxhurst*	67	76
Medway valley, Tonbridge-Yalding	29	63
<i>Other sites with >0.5% of national population</i>		
Faggs, Longrope & Birchett Woods, Warehorne	60	56
New Hythe-Eccles	67	52
Church Wood (Canterbury) complex	48	52
Lower Higham-Cliffe	23	45
Old Park, Canterbury	29	37
Clowes/Thornden/Honey Woods	32	34
Stour valley, Sturry-Grove	36	30

* Large area that includes Faggs, Longrope & Birchett Woods

For all but one of the areas in Table 3, most or a substantial part is protected as a Site of Special Scientific Interest (SSSI), although in some cases such as Lower Higham-Cliffe and Old Park, a substantial proportion of the Nightingales found in 2012 were outside the protected areas. The exception is the Medway valley between Tonbridge and Yalding, where there is no SSSI; the Nightingale population here has grown recently, in response to the development of scrub along the river and around gravel workings.

It is important to mention that this analysis of important sites is cautious, since it compares actual counts (which may have under-estimated the true total present) with the national estimate (which takes under-estimates into account).

After the 1999 survey, the Kent Nightingale population was estimated to be in the range 1,450-1,575. We now consider this to have been too low, because – as for the national estimate – it did not allow sufficiently for birds occurring in areas not covered and those not singing in the areas that were covered.

BTO have not been able to provide estimates of individual county populations in 2012. However, applying the same multiplier as between the count (i.e. the number actually located) and the estimate nationally to the Kent count (in both cases excluding casual records) would suggest a Kent population of 1,502-1,533 singing males (25.9% of the national total). This is not necessarily accurate, since coverage differed between counties. An alternative approach, comparing the total count in Kent with the national count (in both cases including casual records), suggests that Kent held 25.3% of the total. This also is possibly biased by differences in survey efficiency but would imply 1,467-1,497 singing males in Kent. We therefore suggest that the county population in 2012 should be considered to be in the range 1,450-1,550 with a midpoint of 1,500.

References

Harris, S.J., Risely, K., Massimino, D., Newson, S.E., Eaton, M.A., Musgrove, A.J., Noble, D.G., Procter, D. & Baillie, S.R. (2014) *The Breeding Bird Survey 2013*. BTO Research Report 658. British Trust for Ornithology, Thetford.

Henderson, A. & Orton, G. (2104) Nightingales in Kent in 2012. *Kent Bird Report* 61 (2012): 177-187. (Note that this was mistakenly published as Henderson & Horton)

Note

A full revised version of the 2012 survey report has been placed on the KOS website at www.kentos.org.uk/articles/Nightingales2012.htm

