BTO Research Report No. 398

The Status and Distribution of The European Nightjar *Caprimulgus Europaeus* in Britain in 2004

Authors

Greg Conway and Ian Henderson

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EXECUTIVE SUMMARY

1. During the summer of 2004, a UK-wide survey was conducted, by the British Trust for Ornithology, the Royal Society for the Protection of Birds, English Nature and Forestry Commission, to determine the population status and distribution of the Nightjar *Caprimulgus europaeus*. The survey was based on two visits to sites (mainly 1-km squares) by volunteer observers. Professional ornithologists covered areas where volunteer coverage was low.

2. Survey sites were selected according to the presence of suitable habitat, i.e., either lowland heathland or forest plantations of less than 20 years old. Both the survey methods and habitat criteria used, allowed a direct comparison of results with a previous survey conducted in1992.

3. The survey covered 3111, 1-km squares, within 596 10-km squares (a 15% increase in coverage in 1992).

4. A preliminary estimate of the national population for 2004, was 4024 males; a 30% increase since 1992. In all, 66% of the population was located in southern England. This region accounted for 88.6% of the national increase. Relatively modest increases were recorded in Wales (mainly the south) and in East Anglia. In Northern England, there was a shallow decline, except for North Yorkshire where the population virtually doubled. The Nightjar population in Scotland appeared to have declined by 35%.

5. Nightjars were recorded in a similar number of 10-km squares to 1992 (268). Consolidation and range expansion in southern England was balanced by range contractions further north and especially in Scotland (Table 2; Fig. 3). The main concentrations (densities) of Nightjars were in Hampshire, Surrey, Berkshire, Dorset and East Anglia.

6. In all, 46.4% of males were associated with heathland (marginally higher than in 1992), and a total of 47.6 % of males (marginally lower than in1992) were recorded in forestry plantations. On heathland, a significantly higher proportion of males (32.7%) was associated with heather rather than bracken (11.4%) or grass (9.2%).

7. The UK Biodiversity Action Plan target of 4000 males by 2002 was probably met. The target to maintain a population of at least 3400 calling males was probably met and the target to halt the range-decline of Nightjars to a 1992 baseline figure of 268 10-km squares was probably met. However, the BAP target to increase the total range of churring males to 280 10-km squares by 2002 and to restore the Nightjar to parts of its former range, such as in the West Midlands, north-west England, south-west Scotland and Northern Ireland was probably not met. Generally, Nightjar populations in north-western UK appear to have declined, in contrast to populations in the south and east.

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1. INTRODUCTION

The European Nightjar, *Caprimulgus europaeus* (here "Nightjar") has declined in numbers and range since at least 1950s, especially in north-west and northern Europe, and is currently regarded as having an 'unfavourable' declining population status (SPEC 2; Tucker & Heath 1994), Specifically, in Britain and Ireland, the Nightjar is considered of high conservation concern, classified as a Red-listed species with a breeding population decline in excess of 50% in the last 25 years (Gregory *et al.* 2002). At one time, it was more widely distributed across Britain than is currently the case. Nightjars bred as far north as the Moray Firth, with strongholds in southern England, Wales and the Marches (Holloway 1996). Since the 1950s, large-scale losses of heathland to agriculture, construction and afforestation led to both a contraction of range and a severe population decline. The population may have been halved between 1972 (estimated at between 3,000 and 6,000 males; Sharrock 1976) and 1981 (estimated at 2100 males; Gribble 1983), certainly in terms of range, by which time, only scattered records remained in south-west Scotland and Wales. Declines also occurred across large swathes of northern and central England. In Northern Ireland it is probably now extinct as a breeding species, having formerly had a widespread distribution (Gibbons *et al*.1993), where its former habitats included 'cut-over' raised bogs.

By 1992, the second national survey was able to report an adjusted total of 3400 'churring' (territorial 'song') males (Morris *et al*. 1994), signifying a change in fortunes that was probably in response to favourable conditions of forest structure. Nightjars were showing an increasing dependence on felled or recently planted conifer plantations and 54% of calling males were recorded there (Morris *et al.* 1994). Despite the partial population recovery, the breeding range of Nightjars, which declined from 562 10-km squares in 1968-72 to 241 in 1981, only increased to 268 10-km squares by 1992, and still far short of its former range (Gibbons *et al*. 1993, Morris *et al*. 1994). The range contraction is in many ways more worrying since it increases the vulnerability of even strong populations to local changes in habitat use or condition. The main centres of occupancy remained in the New Forest, on other heathland and afforested heaths in southern England and in the Brecklands and Sandlings of East Anglia.

The partial recovery of Nightjars in southern England was due to the large scale felling of mature conifer plantations across Britain, leading to areas of 'clearfell' and new restocks. This phase of forestry has now slowed and it is unlikely that suitable habitat on the same magnitude within forests is still available. Meanwhile, the restoration and (re)creation of lowland heathland for conservation, is increasing the availability of suitable heathland habitat for Nightjars. Proposals for continuous cover forestry also have potential implications for the availability of nesting habitat for Nightjars. Either way, both the national and regional population status of the Nightjar in the UK is uncertain, and the success of efforts to attain the targets of the UK Biodiversity Action Plan for Nightjars (Anon 1998), is unknown. These targets include the following:

- (a) To increase the numbers of Nightjars to 4000 churring males by the year 2002, representing an 18% population increase in 10 years.

- (b) To increase the range of Nightjar to at least 280 ten km squares by the year 2002, representing a 5% range increase in 10 years.

- (c) In the long term (next 20 years since 1998), to restore the Nightjar to parts of its former range in, for example, south-west England, West Midlands, north-west England, south-west Scotland and Northern Ireland.

Since 1992, there have been continued regional and local surveys of Nightjars on a regular basis which indicate further increases in numbers and range expansion, at least in southern England (RSPB/FE 2000, unpublished). It is not clear to what extent this is replicated throughout the UK. The 2004 re-survey assesses changes in both population size and distribution of the Nightjar.

2. METHODS

2.1 The Strategy for Site Selection and Coverage

Survey site locations were chosen on a hierarchical basis according to three levels of priority, high, medium and low. Thus, the strategy was to cover all high probability sites and to sample buffer zones around these sites (to detect local range expansion). A random sample of areas of potentially suitable habitat was also made in areas with no recent record of occupancy. Specifically site allocation fell into the following categories:

High Priority

1. All sites occupied in the 1992 survey and subsequently
2. A random sample of 500 1km squares containing apparently suitable habitat in each 100km square surrounding the 1992 sites.

Medium Priority

3. Thirty-percent sample of all the sites occupied in the 1981 survey only.
4. A sample from proposed SPA extension areas.

Low Priority

5. A 10% sample of sites with apparently suitable habitat though not occupied in either of the previous surveys.
6. Additional sites, which observers considered to be potentially suitable habitat.

In large expanses of suitable but relatively uniform heathland or forest habitat was identified from heathland inventories, held by the RSPB and English Nature, and forest stock maps, maintained on Geographic Information Systems (GIS) databases by the Forestry Commission and the National Inventory of Woodland and Trees. The same habitat criteria were used in the present survey as in the previous Nightjar survey (Morris *et al.* 1994), targeting conifer plantation age classes less than 21 years old, plus unplanted blocks, bare ground and other suitable habitats. These were subdivided, on the basis of habitat type, in to 1-km squares.

2.2 Bird Survey Methods

The survey was carried out mainly by volunteers but with profession ornithologists covering gaps in volunteer coverage or remote parts of Wales and areas in Dorset and lowland Scotland. A minimum of two visits to a site was required, either at dawn or dusk, between the last week of May and mid-July, with at least three weeks apart and with at least one visit in June. It was recommended that surveyors make a preliminary reconnaissance visit to their site(s) to familiarise themselves with the landscape and location. During count visits each surveyor was asked to physically survey less than 80 ha per visit, being sure to pass within 200m of potentially suitable habitat (for example with an allocated 1-km square). The locations of 'churring' males were recorded onto 1:2500 scale maps (males marked: A1, A2…etc., for visit A, Bi, B2 …etc of visit B). Special attention was given to simultaneously churring males. Other calling birds or birds seen flying were also marked as such on the visit maps. Surveyors were asked to visit sites only in calm and preferably dry evenings in wind conditions of less than Beaufort force 4. 'Playback' of recorded Nightjar calls was not used during the survey because unless its use was standardised and ubiquitous, it would bias counts towards those sites where playback was used and may draw birds from neighbouring areas.

2.3 Habitat Recording

Nightjars' use of habitat has been studied in detail in several previous studies (e.g., Alexander & Cresswell 1990, Bowden & Green 1994) and was not the principal focus of the present survey. Nevertheless, a change in the use of broad habitat categories by Nightjars is possible with expanding populations and/or within heavily man-managed habitats, such as forestry plantations. Observers therefore recorded the presence or absence of several habitat categories that occurred within 50m of each Nightjar registration or at the centre of the site where no Nightjars were recorded. Habitats were categorised first as: 'Forest Plantation', 'Heathland' or 'Woodland'. These three categories were subdivided according to the composition of the woodland ('Unplanted', 'Conifer', 'Broad-leaved' or 'Mixed'), four height categories ('<1m', '1-2m', '2-4m', '>4m'), the presence of 'stands' of taller or mature trees within young plantations or 'brash/stump-rows' which may act as song-posts, and the presence of 'Rides' or woodland 'Edge'. For heathland, ground cover was assessed as: greater then 50% cover of Bracken, Grass or Heather (e.g., *Calluna vulgaris*) and as 'Wet' or Dry'. The presence of 'conifer/birch (*Betula pendula* or *B. pubescens*)' encroachment onto heathland was also recorded. These categories were not mutually exclusive.

2.4 Analysis

2.4.1 Calibrating bird counts

All data for males and females, or unidentified individuals, their activity (e.g., 'churring' or flying) and nest sites, were recorded onto site-maps and transferred to summary sheets. The summary sheets were used to collate the estimated number of males recorded on each visit, according to each observer. The mapped registrations were plotted on a GIS (i.e., Arcview; ESRI). For consistency, across all sites, individual territories were determined from the GIS location data for each bird registration, according to the following criteria:

1. Where observers identified different individuals on maps, such as simultaneously churring males.
2. Where churring male registrations were over 400m apart, except where known topographical or structural features ('barriers') were present.
3. Where clusters of registrations, from sequential visits, indicated the presence of distinct groupings that were indicative of discrete territories.

Lone males that were heard churring in May only, along the English Channel coastal counties and were not subsequently observed during the breeding season, were excluded from the population calculation. These individuals were considered to be passage birds *en route* to breeding grounds further north.

2.4.2 Assessing population estimates

The effectiveness of using multiple visits for recording Nightjars with increased accuracy is discussed in Morris *et al*. (1994). Their conclusions were used in the present paper to calibrate population estimates, based on the absolute number of male territories calculated for each site or 1-km square, using the criteria above (excluding records of males in May only). A 'boot-strapping' re-sampling method (Efron 1982) was used with 999 re-iterations to calculate 95% confidence intervals around mean population estimates, based on the actual counts of territorial males seen or heard per 1-km square. On the totals, calibrations and adjustments were made to account for the area of available habitat not surveyed and for visit frequency. Bird densities were calculated at the 10-km square scale, to show changes in density and range over and above presence/absence.

2.5 Habitat Associations

Bird densities, per 1-km square, were calculated for different habitat categories according to the initial habitat criteria used to predict suitable sites and stratify the initial sampling protocol as heathland or four forest age categories. In addition, the actually habitat variables present or absent within 50m of each recorded male, according to observers, was also used to assess actual habitat association and compare this habitat use with surveys in 1981 and 1992. For this analytical procedure, General Linear Models with Binomial error terms were used.

3. PRELIMINARY RESULTS

3.1 Coverage

In total, observers covered 3111, 1-km squares or sites (up to 80 ha each) in 2004. In all, 2256 sites were covered in 1992 and we estimated that the area coverage in 2004 was probably around 20% to 30% higher. In practice, it was difficult to asses the increase in coverage since 1992 because the areas of site were not recorded then and some, at least, were 'super-sites' comprising sub-sections which in 2004 would have been classified as individual sites. Coverage at the 1km scale was higher in Scotland in 2004 than 1992 (Table 1) but at the 10 km scale was marginally lower (Table 2), especially in the north, although not so in the only stronghold for Nightjars, within Dumfries & Galloway. In Northern Ireland, observers made speculative visits to historical sites, albeit with no recent records of Nightjar presence. In Wales, range coverage in 2004, at the 10 km scale, was similar to 1992. Increased survey effort in 2004, within these 10 km squares, may partly be accounted for by differences in 'site' definitions. Almost complete coverage of Nightjar habitat was made in the Thames Valley Basin, Hampshire outside of the New Forest, the Brecklands and Sanderlings of East Anglia, the Dorset Heaths, Devon and North Yorkshire.

3.2 National Population Estimate, Distribution and Change

At the time of writing there were still some data to be received, and the following figures are based on around 90% of expected returns. Thus, a preliminary estimate of the national population for 2004, using uncorrected totals is 3959 males (95% confidence limits ± 2.2, range: 3850 to 4412 males). With additional data yet to be received from one well-monitored population (Cannock Chase: 65 males) presents a total of 4024 males. This represents a national increase of around 30% in 12 years (following an apparent 74% increase between 1981 and 1992; Morris *et al*. 1994). Calibrations of visit-frequency by Morris *et al.* (1994) suggest a possible underestimate of males of around 10%, which potentially increases the outside maximum total to 4426 males for the UK.

Regional population estimates, presented in Table 1 (and in Appendix 1) for seven broad regional categories, show that 66% (2700 males) of all males in 2004 were located in southern England where the biggest increase in population size also occurred (average 45%: Table 2). This accounted for 430 and 412 new males territories in southeast and southwest England respectively and 88.6% of the national increase. Modest increases were recorded in Wales and the Midlands (accounting for 31 and 22 new males respectively). A shallow increase in East Anglia accounted for a further 49 males. In Northern England, there was a shallow decline, but in North Yorkshire the number of males almost doubled (+97%). Nightjars in Scotland appear to have undergone a significant decline of 37%, despite good coverage in the core areas in 2004 (Table 1). Corrections to population totals are required yet (by extrapolation) to account for the area of available habitat that was not covered by the survey.

3.3 Breeding Range

The distribution of Nightjars and variation in density are presented in Fig. 1 and 2. Nightjars were recorded in 259. With a few outstanding data yet to be received, the total range is likely to be similar to 1999 (268 10-km squares) suggesting that there has been no significant increase in range at a national scale. Thus, localised consolidation and range expansion in southern England was balanced by apparent range contractions further north, especially in Scotland (Table 2; Fig. 3).

3.4 Habitat Associations

Habitat data was returned for 3279 males, plus 600 sites were no males were recorded. In all, 46.4% of males were associated with heathland (marginally higher than in 1992), 40.1% with conifer plantations and 13.1% with unplanted areas of plantations. A total of 47.6 % of males (marginally lower than in1992) were associated with plantations in all stages of development (with about 5% falling in both categories).

On heathland, a significantly higher proportion of males (32.7%) was associated with (> 50% cover) heather, than bracken (11.4%) or grass (9.2%; LR: $\chi^2_2 = 36.1$, $P<0.001$).

Further analyses will look at forest stock age classifications and bird densities.

4. DISCUSSION

The total of 4024 in 2004 meant that the UK Biodiversity Action Plan target of 4000 males by 2002 was probably met (Anon 1998). Between 1992 and 2004 the population of Nightjars in the UK increased by about 30%, about half of the increase reported between 1981 and 1992 (75%). However, search effort was not standardised between the two previous surveys, whereas search effort was more similar for the surveys in 1992 and 2004, with on average two visits per site. Site coverage was generally higher in 2004 than 1992, but this would mainly have affected the precision of the population estimate. Apart from absolute population size, other requirements of the UK BAP programme (Anon 1998) were as follows:

1. To maintain a population of at least 3400 calling males (***target reached***).
2. To halt the range-decline of Nightjars to a 1992 baseline figure of 268 10-km squares (***target reached***).
3. To increase the total range of churring males to 280 10-km squares by 2002 (***target probably not reached***).
4. Within 20 years (from 1997), to restore the Nightjar to parts of its former range, such as in south-west England, the West Midlands, north-west England, south-west Scotland and Northern Ireland (***equivocal as to whether the target was reached, possibly with the exception of south-west England)***.

The mechanism for this process included the protection and maintenance of existing lowland heathland, the adoption of heathland restoration and re-creation schemes and the promotion and adoption of sympathetic forestry practices (Anon 1998). As a result, in England and Wales, the range of the Nightjar appears to be stable, with no overall increase at the 10 km scale, since figures for 1992 and 2004 were broadly similar. Changes in population size between the two surveys were largely due to local consolidation and localised expansion around core areas. These areas included the southeast and southwest of England (with a some range expansion into south Devon and Cornwall), parts of East Anglia and North Yorkshire. Thus, the range of breeding Nightjars in the UK was generally maintained, but regional declines have meant that the long term aim of restoring breeding Nightjars to parts of its former range, such as in the West Midlands and north-west UK are falling short of the target. Generally, the pattern of decline or lack of increase for north-western regions of the UK contrasts with southern and eastern populations of Nightjars. In Scotland, a further reduction in range seems to have occurred, even where survey coverage and visit frequency were similar to 1992. The 23% decrease in the estimated population size for Scotland was largely due to lower counts in the south-west.

In Wales, a population increase of 17% since 1992, included scattered changes in distribution, but was largely associated with increases in density in Carmarthenshire, Ceredigion and Glamorgan. In contrast, slightly lower population totals were registered for North Wales. In 2004, coverage was also slightly lower in North Wales and slightly higher in South Wales than in 1992, which may explain part of the differential. However, visit-frequency to survey sites was similar for both regions.

In northern England, a shallow population decline since 1992 may partly have been explained by wet and windy conditions during the second half of June that can influence survey efficiency. However, large increases in Nightjars were recorded in North Yorkshire, suggesting a very positive response to habitat management there (in forest plantations).

4.1 Potential Sources of Bias

Temperatures were above average for June although the weather, which was fairly settled and warm for the first two weeks of June, turned much cooler, with spells of wet and windy weather from the mid-June onwards. This affected all areas but especially the north and west. July was changeable at first with some thundery rain and with a notable wet, windy and cool spell of weather on the 7th and 8th. Temperatures were average for July. It is possible that in places where the bulk of the survey

work was conducted between late June and early July that counts of bird are likely to have been significantly and adversely effected by weather conditions.

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Table 1. Regional comparisons of 'site' the unadjusted number of males recorded and the change in the number of males recorded, between 1992 and 2004.

Region	1992*		2004			
	Sites†	Males	Sites†	All sites	Males	%Change in males
East Anglia	199	585	248	338	634	8
Midlands	51	124	58	137	146	18
Northern England	112	292	143	299	289	-1
Scotland	29	41	14	197	26	-37
South-east England	486	1000	601	1023	1430	43
South-west England	210	863	450	710	1275	48
Wales	107	188	129	357	219	17
	1194	**3093**	1643	3061	**4043**	**30**

*Morris *et al*. 1994

†Occupied sites: note that in 1992, 2256 were visited, but site definitions vary between surveys and may not be directly comparable. In 2004, 90% of sites were 1-km squares. In 1992 the area of sites was unknown but varied considerably).

Table 2. The regional distribution of occupied and un-occupied 10-km squares by Nightjars in 1992 and 2004.

	1992* 10km squares			2004 10km squares			%Change‡	
Region	'Unoccupied'	Occupied	Total	'Unoccupied'	Occupied	Total	Occupied	All squares
East Anglia	13	28	41	25	35	60	25	46
Midlands	34	20	54	44	14	58	=?	
Northern England	45	36	81	58	39	97	8	20
Scotland	68	18	86	71	6	77	67	-11
South-east England	25	68	93	41	75	116	11	25
South-west England	35	54	89	36	68	104	26	17
Wales	48	51	99	57	39	96	-24	-3
		268†	519†		**259**†	596†		

*Morris *et al*. 1994
†Some 10-km squares cross the boundary of two regions so the total coverage is less than the column sum-total.
‡Rounded whole figures.

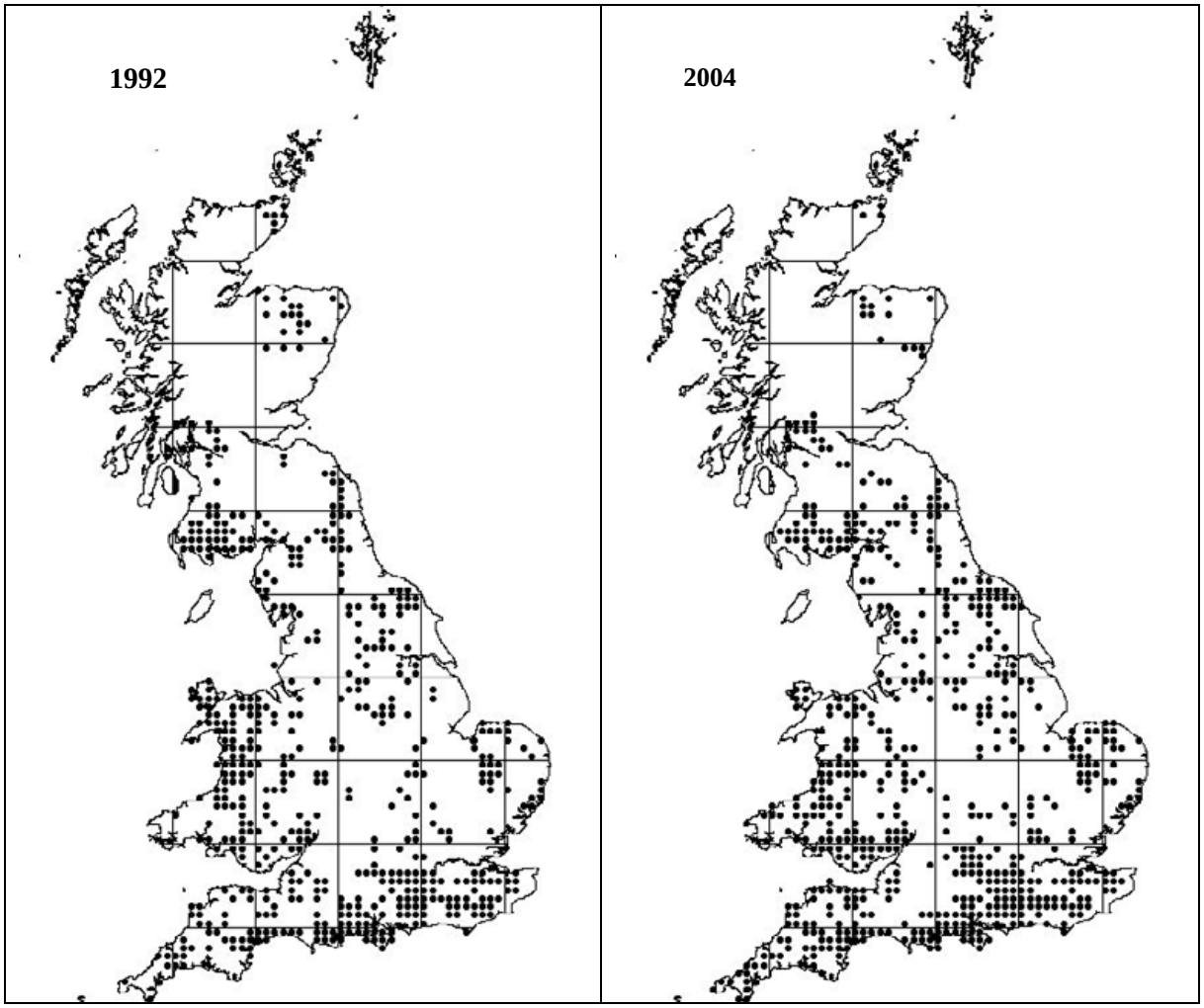

Figure 1. Survey coverage for Nightjars in 1992 and 2004 by 10 km square.

Small dot = 1-5; Big dot = 6-30; Square = 31+.

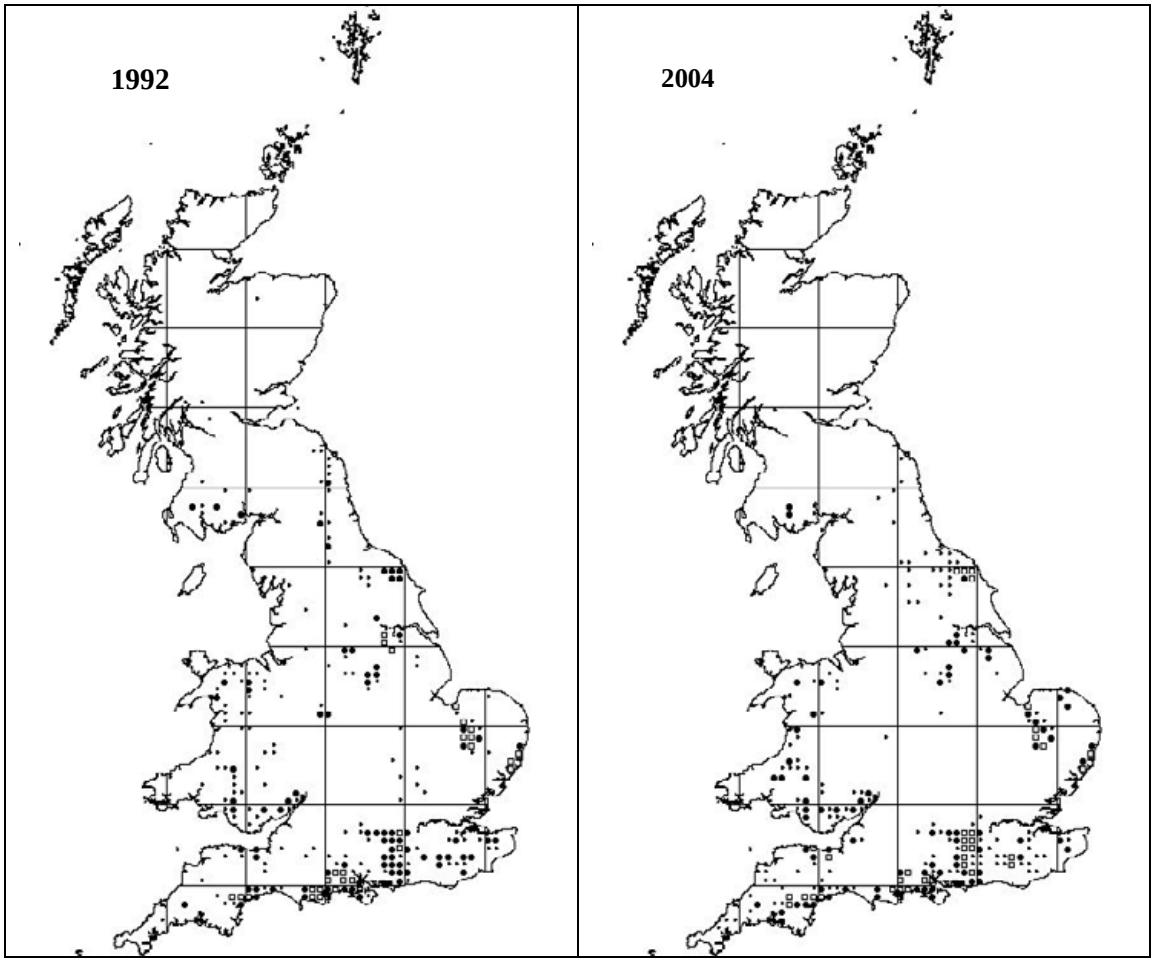

Figure 2. The distribution of Nightjars in 1992 and 2004 by 10 km square.

Small dot = 1-5; Big dot = 6-30; Square = 31+.

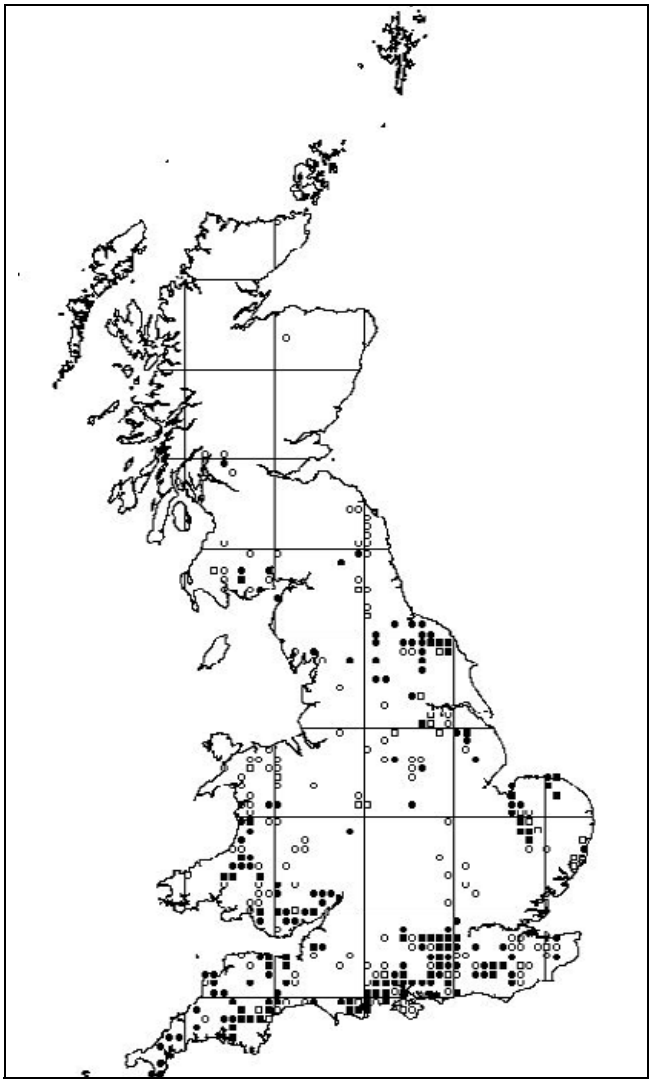

Figure 3. The change in densities (at the 10-km scales) of Nightjars between 1992 and 2004.

Solid square > +6; Solid circle + 1-5; Open circle – 1- -5; Open square > -6.

Appendix 1. Preliminary figures showing a regional and sub-regional breakdown of population change for Nightjars between 1999 and 2004 (using uncorrected totals).

Region	County	1992 totals	2004 totals	Change in no. males	% change
East Anglia	Bedfordshire	4	0	-4	-100.0
	Cambridgeshire	0	0	0	
	Lincolnshire	41	52	11	26.8
	Norfolk	223	298	75	33.6
	Suffolk	317	284	-33	-10.4
	East Anglia Total	**585**	**634**	**49**	**8.4**
Midlands	Buckinghamshire	1	1	0	0.0
	Derbyshire	4	3	-1	-25.0
	Gloucestershire	12	16	4	33.3
	Herefordshire (& Worcestershire)	1	0	-1	-100.0
	Leicestershire & Rutland	0	2	2	(+)
	Northamptonshire	3	0	-3	-100.0
	Nottinghamshire	73	63	-10	-13.7
	Oxfordshire	0	0	0	
	Shropshire	1	0	-1	-100.0
	Staffordshire	29	63	34	117.2
	Warwickshire	0	0		
	Midlands Total	**124**	**86**	**38**	**-30.6**
Northern England	Cheshire	0	0	0	0.0
	Cleveland	0	2	2	(+)
	Cumbria	6	6	0	0.0
	Durham	19	9	-10	-53
	East Yorkshire (Humberside 1992)	18	8	-10	-55.6
	Greater Manchester	1	0	-1	-100.0
	Lancashire	1	0	-1	-100.0
	Merseyside		0	0	
	North Yorkshire	114	225	111	97.4
	Northumberland	43	9	-34	-79.1
	South Yorkshire	89	37	-52	-58.4
	West Yorkshire	1		-1	-100.0
	York		1	1	
	Northern England Total	**292**	**289**	**-3**	**-1.0**
Scotland	Aberdeenshire		0	0	
	Dumfries and Galloway	31	24	-7	-22.6
	(Dumfries)	(4)		4	-100.0
	(Kirkcudbright)	(20)		20	-100.0
	(Wigtown)	(7)		7	-100.0
	Strathclyde 1992	6		-6	-100.0
	East & South Ayrshire & Aran	(2)	0	2	-100.0
	Argyll and Bute	(4)	0	4	-100.0
	Inverclyde		0	0	
	East Dunbartonshire		0	0	
	East Renfrewshire		0	0	
	Grampian (Moray)	1	0	-1	-100.0
	Caithness	1	0	-1	-100.0
	North Lanarkshire		0	0	
	Stirling (Central 1992)	2	2	0	0.0
	West Lothian		0	0	
	Scottish Borders		0	0	

Appendix 1. Continued.

Region	County	1992 totals	2004 totals	Change in no. males	% change
	Scotland Total	**41**	**26**	**-15**	**-36.6**
South East England	Berkshire	39	78	39	100.0
	Essex & Greater London	0	0	0	0.0
	Hampshire	514	746	232	45.1
	Hertfordshire	1	0	-1	-100.0
	Isle of Wight	59	19	-40	-67.8
	Kent	79	45	-34	-43.0
	Surrey	133	302	169	127.1
	Sussex	175	240	65	37.1
	South East England Total	**1000**	**1430**	**430**	**43.0**
South West England	Cornwall	16	29	13	81.3
	Devon	230	333	103	44.8
	Dorset	536	752	216	40.3
	Somerset	57	158	101	177.2
	Wiltshire	24	3	-21	-87.5
	South West England Total	**863**	**1275**	**412**	**47.7**
Wales	**Clwyd**	**39**	**(15)**	**-24**	**-61.5**
	(Wrexham)		0		
	(Denbighshire)	(26)	13	-13	-50.0
	(Flintshire)	(2)	2		0.0
	(Merioneth)	(11)			
	Conwy		12		
	Gwynedd	**45**	**6**		**-86.7**
	(Caernarvon)	(20)			
	(Merioneth)	(25)			
	Clwyd & Gwynedd (&Conwy)	**(84)**	**31**	**53**	**-63.1**
	Isle of Anglesey		0	0	
	Carmarthenshire	5	38	33	660.0
	Ceredigion	5	17	12	240.0
	Pembrokeshire	1	0	-1	-100.0
	Monmouthshire (total)	**28**	**40**	**12**	**42.9**
	Monmouthshire (2004)		29		
	Gwent (Monmouthshire 1992)	(28)			
	Newport		11		
	Blaenau Gwent		0		
	Torfaen		0		
	(West Glamorgan)	**29**	**(46)**	**17**	**58.6**
	Swansea	0	0		
	Neath Port Talbot		46		
	(Mid Glamorgan)	**3**	**(18)**	**15**	**500.0**
	Bridgend		0		
	Rhondda Cynon Taff		8		
	Merthyr Tydfil		0		
	Caerphilly		10		
	South/Vale of Glamorgan	**1**	**0**	**-1**	**-100.0**
	Powys	32	27	-5	**-15.6**
	Wales Total	**188**	**219**		**16.5**
Total		3093	3959		