



BTO Research Report No. 528

**Collation of existing data from
national surveys on heathland birds
breeding on English SSSIs**

Authors

N.H.K. Burton, G.E. Austin and G.J. Conway

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1. INTRODUCTION

In accordance with the guidance on *Common Standards Monitoring* (CSM), the statutory nature conservation agencies including Natural England are required to assess the condition of all Sites of Special Scientific Interest (SSSIs) and Special Protection Areas (SPAs) every six years. Sites which have been selected for ornithological interest features are assessed by comparing the current status of the key bird species with that at the time of designation. For sites which qualify for assemblages of species it is necessary to confirm the presence of the relevant species which are listed in the SSSI selection guidelines.

As part of the recent national surveys of breeding Woodlarks *Lullula arborea* (Conway *et al.* in press) and Dartford Warblers *Sylvia undata* (Wotton *et al.* submitted), surveyors were asked to record numbers of six other heathland species: Hobby *Falco subbuteo*, Tree Pipit *Anthus trivialis*, Redstart *Phoenicurus phoenicurus*, Whinchat *Saxicola rubetra*, Stonechat *Saxicola torquata* and Grasshopper Warbler *Locustella naevia*. In this report, we collate the data for these additional heathland species from the original survey forms to provide information on species' presence on those English SSSIs notified for the lowland heathland breeding bird assemblages – a potential 49 sites. These include 34 SSSIs with a 'lowland heath' breeding bird assemblage, four with a 'mixed (heath, scrub)' assemblage, seven with a 'mixed (heath, woodland)' assemblage, two with a 'mixed (fen, heath, scrub)' assemblage, one with a 'mixed (heath, scrub, wet grassland, woodland)' assemblage and one with a 'mixed (heath, scrub, woodland, open water)' assemblage.

Aside from their importance to the breeding bird assemblages of these SSSIs, these species are of considerable conservation importance in the UK. The Grasshopper Warbler is currently on the Red List of Birds of Conservation Concern, and the Tree Pipit, Redstart and Stonechat included on the Amber List (Gregory *et al.* 2002). The Tree Pipit is also now listed as a Biodiversity Action Plan species (<http://www.ukbap.org.uk/PrioritySpecies.aspx?group=1>).

In combination with data on Woodlarks and Dartford Warblers, and an earlier survey of breeding Nightjars *Caprimulgus europaeus* (Conway *et al.* 2007), this collation of data will make an important contribution to the assessment of English SSSIs supporting heathland breeding bird assemblages.

2. METHODS

Data on six other species – Hobby, Tree Pipit, Redstart, Whinchat, Stonechat and Grasshopper Warbler – were recorded during the 2006 national Woodlark and Dartford Warbler surveys (organised by the BTO, Royal Society for the Protection of Birds [RSPB], Forestry Commission, Natural England and Joint Nature Conservation Committee [JNCC]). For these surveys, observers were asked to make two visits to each 1-km survey square, marking the numbers of singing Woodlarks and Dartford Warblers on a map. For Woodlarks, there were two survey periods between 15 February and 31 May and, for Dartford Warblers, two survey periods between 1 April and 30 June. For the six species additional species listed above, observers were asked to note the overall numbers of males / territories that they recorded on each visit to the 1-km survey square.

Here, we summarise the data collected on these other species from survey squares that overlapped with those English SSSIs notified for their lowland heathland breeding bird assemblages. Data are both tabulated in this report and provided in detail in an Excel spreadsheet.

The species totals provided for each SSSI represent the sum of males / territories recorded from each survey square overlapping that site. It should be noted that, in the majority of cases, the surveys did not encompass the entirety of the SSSI. Similarly, in the majority of cases, a proportion of each square surveyed encompassed areas outwith the SSSI. It is assumed, though, that the majority of heathland species recorded in these squares would have been found within the SSSI by virtue of their habitat preferences. To indicate the extent of overlap, data are provided on the percentage of each SSSI covered by the survey and the percentage of the relevant survey squares comprised by the SSSI. In five cases, survey squares overlapped with two SSSIs. In these cases, maximum and minimum figures of the numbers of birds recorded are provided for each site.

It should be noted that the timing of the survey visits, and the fact that some survey squares were visited only once whilst others were visited three times or more, means that the likelihood of the six other species being detected will have varied between squares. Survey dates were chosen to optimise detection of the two target species, i.e. Woodlark and Dartford Warbler. However, summer migrants such as Hobby, Tree Pipit, Redstart, Whinchat and Grasshopper Warbler would not have been recorded during the early season visits during the Woodlark survey, for example. Data thus represent minima, though do provide a good indication of presence / absence.

3. RESULTS AND DISCUSSION

The distributions of those English SSSIs notified for their lowland heathland breeding bird assemblages and the survey squares covered during the 2006 Woodlark and Dartford Warbler surveys are shown in Figures 1a-c (these maps exclude SSSIs in western and northern England that were beyond the area covered by the surveys). In total, coverage was obtained for all or part of 36 of the 49 SSSIs. Those SSSIs not covered by the survey were Porthgwarra to Pordenack in Cornwall, Drumburgh Moss, Glasson Moss and Appleby Fells in Cumbria, Hurn Common in Dorset, Seaford to Beachy Head in East Sussex, The Stiperstones & The Hollies in Shropshire, Shapwick Heath in Somerset, Thorne Crowle & Goole Moors in South Yorkshire, Ambersham Common and Chapel Common in West Sussex and Salisbury Plain and Devil's Spittleful in Wiltshire.

The total numbers of males / territories of the six 'other' species recorded by the surveys were: Hobby – 52, Tree Pipit – 468, Redstart – 362, Whinchat – 56, Stonechat – 1,135 and Grasshopper Warbler – 27. By far the greatest numbers were, unsurprisingly, found on the largest SSSI, The New Forest – Hobby – 24 males / territories, Tree Pipit – 108, Redstart – 206, Whinchat – four, Stonechat – 531 and Grasshopper Warbler – four.

These totals, on the whole, represent only small percentages of the species' estimated UK populations: Hobby – 2.4% (2,200 pairs), Tree Pipit – 0.6% (74,400 territories), Redstart – 0.4% (101,000 pairs), Whinchat – 0.3% (14,000-28,000 pairs), Stonechat – 7.1% (9,000-23,000 pairs) and Grasshopper Warbler – 0.2% (11,750 pairs) (see Baker *et al.* 2006). In part, this reflects the fact that not all males / territories of these species would have been detected during the surveys. However, much of the UK populations of Tree Pipit, Redstart, Whinchat, Stonechat and Grasshopper Warbler are found in Scotland (Gibbons *et al.* 1993) and, additionally, large proportions of the UK populations of Tree Pipit, Redstart and Grasshopper Warbler are found in habitats other than lowland heath. The populations of four of the migrant species – Tree Pipit, Redstart, Whinchat and Grasshopper Warbler – have also recently declined, most notably in England (Hewson *et al.* 2007, Baillie *et al.* 2008).

Acknowledgements

The 2006 Woodlark and Dartford Warbler Surveys were undertaken as a collaborative project between the BTO, RSPB, Forestry Commission, Natural England and JNCC. Our thanks go to all the volunteers who took part in the surveys and the BTO Regional Representatives and landowners who helped with the surveys.

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Table 1. Numbers of males / territories of Hobby (HY), Tree Pipit (TP), Redstart (RT), Whinchat (WH), Stonechat (SC) and Grasshopper Warbler (GH) recorded on English SSSIs notified for their lowland heathland breeding bird assemblages during the 2006 Woodlark and Dartford Warbler surveys.

SSSI	County	HY	TP	RT	WH	SC	GH	Area of SSSI (ha)	% of SSSI covered	% of surveyed squares comprised by the SSSI
Ash to Brookwood	Surrey	2	47	20	0	32	0	1,157.4	73.6	64.3
Heaths										
Ashdown Forest	Sussex	0	3	0	0	1	0	161.7	5.0	80.8
Blackheath	Surrey	0	5	1	0	1	0	112.0	79.9	37.3
Bramshott & Ludshott	Hampshire									
Commons										
Canford Heath	Dorset	0	9	2	0	9	0	292.5	77.9	58.5
Chobham Common	Surrey	0	0	0	0	36	0	414.1	100.0	31.9
Christchurch Harbour	Dorset	0	1	0	0	16	0	397.9	61.4	66.3
Chudleigh Knighton	Devon	0	0	0	0	5	0	182.7	52.3	30.4
Heath										
Devil's Punch Bowl	Surrey	0	2	0	0	2	0	35.2	69.4	35.2
East Devon Pebblebed	Devon	0	13	5	0	6	0	222.1	79.2	55.5
Heaths										
Goss & Tregoss Moors	Cornwall	1	7	0	0	8	0	246.5	21.8	49.3
Great Haldon Heaths	Devon	0	0	0	0	5	3	167.5	23.7	55.8
Hartland Moor	Dorset	0	6	0	0	6	0	52.3	96.9	26.2
Hatfield Moors	South Yorkshire	0	1	0	0	10-13	0	300.5	100.0	33.4
Holt & West Moors	Dorset	0	7	0	0	0	0	175.5	12.3	87.8
Heaths										
Holton & Sandford	Dorset	0	5	0	0	33	0	608.7	79.6	22.5
Heaths										
Horsell Common	Surrey	0	7	0	0	10	0	237.7	85.9	19.8
Iping Common	Sussex	1	0	0	0	1	0	65.9	44.1	22.0
Kirkby Moor	Lincolnshire	2	5	0	0	7	0	119.6	96.9	29.9
Lakenheath Warren	Suffolk	2	0	0	0	0	0	51.5	70.2	25.8
North Exmoor	Devon, Somerset	2	8	1	0	4	0	141.2	24.0	47.1
Pamber Forest & Silchester Common	Hampshire	0	8	11	25	69	11	2,843.3	23.7	81.2
		0	1	0	0	3	0	77.5	22.8	25.8

Table 1. continued

SSSI	County	HY	TP	RT	WH	SC	GH	Area of SSSI (ha)	% of SSSI covered	% of surveyed squares comprised by the SSSI
Povington & Grange Heaths	Dorset	8-9	4-7	0	0	13-16	1	1,218.0	100.0	45.1
Puttenham & Crooksbury Commons	Surrey	0	8	3	0	2	0	86.0	76.0	28.7
South Exmoor	Devon, Somerset	0	7	5	8	40	5	1,742.1	55.7	64.5
St Leonards & St Ives Heaths	Dorset	0	25	0	0	20-21	0	478.0	90.2	43.5
Stoborough & Creech Heaths	Dorset	1-2	6-9	0	0	13-19	0	333.7	98.7	37.1
Studland & Godlingston Heaths	Dorset	0	3	0	0	26	0	713.8	94.3	54.9
Sutton & Hollesley Heaths	Suffolk	0	3	0	0	2	0	150.3	31.0	50.1
The New Forest	Hampshire, Wiltshire	24	108	206	4	531	4	18,840.2	65.1	84.9
The Quantocks	Somerset	2	47	21	18	82	3	2,082.6	84.2	71.8
Thursley, Hankley & Frensham Commons	Surrey	7	56	48	0	63	0	1,484.6	79.3	57.1
Town Common	Dorset	0	1	0	0	9-10	0	243.2	95.1	27.0
Turners Puddle Heath	Dorset	0	11	0	1	4	0	390.3	100.0	19.5
West Exmoor Coast & Woods	Devon	0	0	2	0	11	0	214.5	30.5	35.8
Woolmer Forest	Hampshire	1	51	37	0	48	0	1,171.5	90.5	58.6
TOTAL		52	468	362	56	1,135	27			

Figure 1. The distribution of survey squares covered during the 2006 Woodlark and Dartford Warbler surveys and English SSSIs notified for their lowland heathland breeding bird assemblages. **a.** Southwest England.

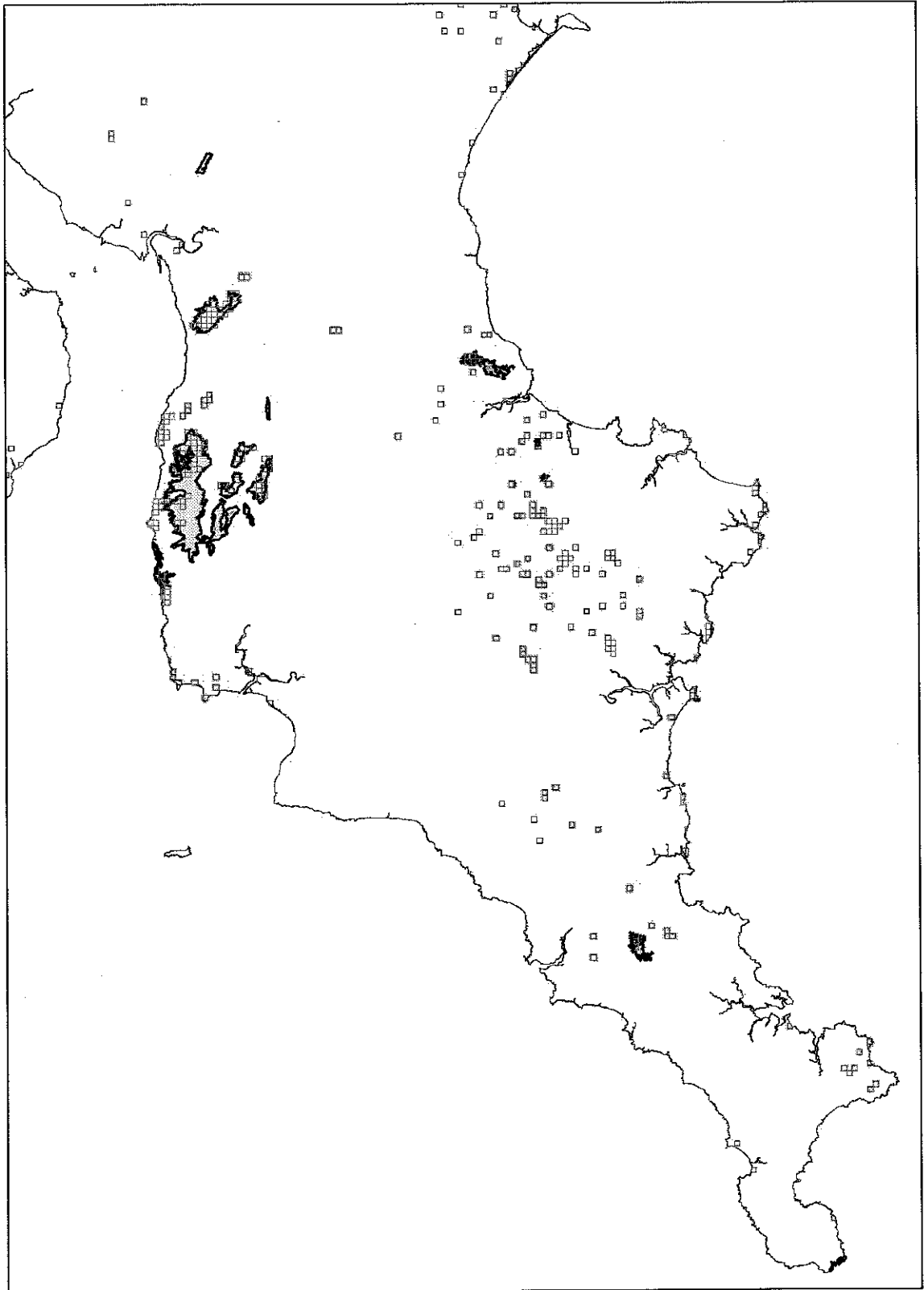


Figure 1. The distribution of survey squares covered during the 2006 Woodlark and Dartford Warbler surveys and English SSSIs notified for their lowland heathland breeding bird assemblages. **b.** Southeast England.

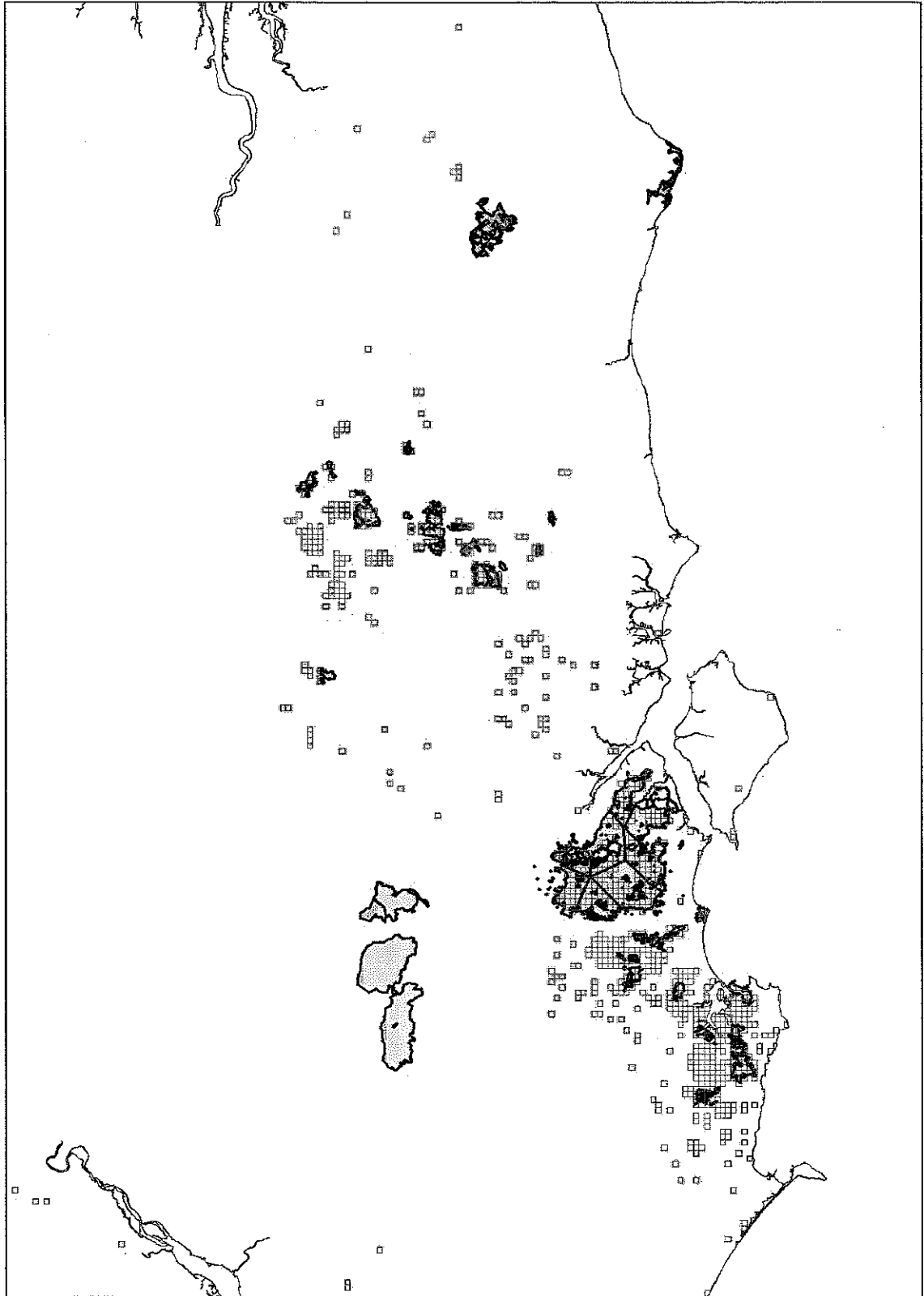


Figure 1. The distribution of survey squares covered during the 2006 Woodlark and Dartford Warbler surveys and English SSSIs notified for their lowland heathland breeding bird assemblages. **c.** Eastern England.

