

Nightingale 1976

Title

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Description and Summary of the Results

Britain is at the northern edge of the breeding range of the Nightingale *Luscinia megarhynchos* and it is one of several summer migrants which were thought to have declined in numbers; and it had been lost completely, as a breeding bird, in some counties. However there have been few quantified data, and it was not clear whether factors on their breeding grounds or their wintering areas were responsible for the changes.

In three consecutive springs, 1969-1971, ornithologists in Kent organised nighttime censuses of singing Nightingales. These demonstrated the feasibility of the approach, and encouraged the BTO to conduct a national survey along similar lines in 1976.

The census of 1976 produced a total of 3230 singing males. Nights were cold during the first half of the census period, which affected song output, and estimates from five counties suggested under-recording by 10-32% (mean 20%). If this applied nationally, then the true 1976 figure may have been nearer 4000 singing males. There were fewer recorded in western and northern counties than in earlier years, but numbers in southeast England appeared to have been relatively stable at least since 1966.

Over 85% were found southeast of a line from the Wash to Dorset, and the south coast counties of Hampshire, West and East Sussex and Kent together held about 52% of the national total. Many fewer than had been expected were located in East Anglia, all around London and in Dorset.

Habitat data were recorded for nearly 60% of Nightingales located. Moist situations seemed to be preferred, and therefore territories were mainly below the 100m contour. The common component of Nightingale territories was thick undergrowth. In 1976 only a minority (<14%) were reported from coppice, while much larger numbers (53%) were found in other types of woodland. Nightingales cannot live under mature trees where a closed canopy has eliminated secondary growth; but there is evidence that they find alternative sites along the rides and fire-breaks created by then-current forestry practices, and in the extensive 'edge' habitat where light penetration from the sides allowed development of a diverse ground flora. Neglected deciduous woodlands with dense understoreys of hazel, hornbeam and hawthorn, and those which included oaks, seemed to be preferred.

Methods of Data Capture

Participants were asked to count singing birds between midnight and dawn though no further guidance on optimum hours for song was given. The resulting figures therefore relate to singing males rather than to pairs. It is known that Nightingale populations contain a variable but significant proportion of unmated males. Counts made during the early part of the fieldwork period may also have included some migrants singing on passage, and possibly there were some local movements by unmated birds, but it is not thought that these were on a sufficient scale to distort the figures.

Instructions recommended that each site should be visited at least twice. Observers recorded the National Grid reference for each site, dates and hours of visits, weather at the time, the number of singing birds on each occasion, a brief description of the habitat (including altitude), and (where possible) to comment on local status and trends. A check of county bird reports for 1976 revealed a number of additional occupied sites, and no site cards were returned from the particularly important counties of Sussex or Kent, though in both cases summaries were provided by local recorders.

Purpose of Data Capture

To obtain an estimate of the total numbers and distribution of Nightingales in Britain.

Geographic Coverage

All of Britain, although in practice primarily southern England.

Temporal Coverage

The breeding season of 1976 with (preferably two) visits requested between 8 May and 6 June.

Other Interested parties

The survey was organised, run and funded by the BTO. The report was compiled by BTO staff member Bob Hudson whose post at the time was financed by the Nature Conservancy Council.

Organiser(s)

Nigel Davenport, with assistance from Bob Hudson.

Current Staff Contact

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Publications

The main report of the survey is:

Hudson, R. 1979. Nightingales in Britain in 1976. *Bird Study* 26: 204-212.

The survey was noticed in *BTO News* numbers 76, 77 and 87.

Available from NBN?

No.

Computer data -- location

None.

Computer data -- outline contents

N/A.

Computer data -- description of contents

N/A.

Information held in BTO Archives

2 Transfer Cases containing the data and some letters. All have been scanned.

Notes on Access and Use**Other information****Notes on Survey Design****Specific Issues for Analysis**

Not all Nightingales present in an area will sing on a given evening. In an attempt to measure census efficiency, a check was made using sites which were visited on at least four occasions and for which dates and counts were specified -- excluding large sites where different sections were visited on different nights. A total of 146 such sites were estimated to hold 328 singing Nightingales. Of these 70% were detected on the first visit, 86% after the second and 93% after the third. About a third of all sites were visited only once, and overall sites were visited on average twice. Assuming these are representative (and no individual site cards were forthcoming from Sussex or Kent) then it seems that singing Nightingales were under-recorded by at least 14%, plus any additional correction for unvisited sites.