

# Woodlark 1986

## Title

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## Description and Summary of Results

The Woodlark *Lullula arborea* is a rare breeding species and partial migrant in the UK, where it is mainly confined to southern England. It is a species of high to moderate conservation concern and subject to a national Biodiversity Action Plan (BAP).

Woodlarks breeding in Britain have undergone several large changes in numbers and distribution in the 20th Century. Between the 1920s and early 1950s the population increased and the species became widely distributed in England and Wales as far north as Yorkshire. There followed a rapid decline and contraction of range although there were regional differences in the exact pattern of population change. From the late 1960s to the early 1980s, the British population is thought to have fluctuated between 100 and 400 pairs and it became increasingly concentrated in five discrete regions: the Suffolk coast, Breckland, the Hampshire/Surrey border, New Forest/Dorset and Devon. Overall numbers appeared to reach low ebbs in the mid-1970s and mid-1980s although some populations such as those on the Hampshire/Surrey border actually increased in the mid-1970s.

The 1986 survey aimed to record the distribution and numbers of breeding Woodlarks in Britain and to describe occupied sites. This habitat description was important because it is likely that sites occupied during this period of low numbers were optimal ones.

The survey estimated there were 250 territories in the UK concentrated into the five regions noted. 241 pairs were found during fieldwork with 9 more estimated for those areas not covered well. The range had contracted considerably between the 1968-1972 Breeding Atlas and 1986 and the species was lost completely from the northwest and extreme west of its range. Most birds were found in young conifer plantations and heathland, but neither of these habitats was important in SW England where birds used a variety of habitats including marginal farmland.

The habitat and vegetation of 184 Woodlark territories was examined more specifically. Overall, 84% of the territories had bare soil within them, short grass was present at 70%, and 176 (96%) territories had either or both. In very few territories did the shrub layer exceed 20% cover and the canopy cover only rarely exceeded 20%. The most striking differences between regions were: bracken was more frequent in East Anglia than elsewhere; heather was relatively abundant in Dorset, Hampshire and Surrey; and gorse was less common in East Anglian territories than in ones further west. Overall, 33% of the territories were recorded as grazed, mostly by Rabbits *Oryctolagus cuniculus*, and 35% of the heathland territories had been burnt recently (especially in the Hampshire/Surrey border area).

## Methods of Data Capture

Observers were asked to search all sites known to have been occupied by Woodlarks in any breeding season since 1975. Returns were requested from these sites, even if negative.

Observers were also asked to investigate other potentially suitable areas. Nevertheless some occupied territories may well have been overlooked, and this was particularly likely in those areas, such as SW England, where the population is thinly scattered.

Two recording cards were used, a 'site card' for noting all breeding season (March to August) observations of Woodlarks in a 10-km square and a 'habitat card' for describing the habitat and vegetation. Observations were recorded by 1-km square within each 10-km square covered.

The habitat card asked for: grid reference, altitude, predominant nature of land, degree and aspect of slope of ground, soil moisture, evidence of grazing, evidence of recent burning and details of vegetation. The latter was described in terms of percentage cover of 16 vegetation variables structured into ground, shrub and canopy layers. Percentage cover of each variable was described as: absent, covering less than 5% of the ground, 5-20%, 20-40%, 40-60%, 60-80%, 80-95% and 95-100%. The ground and shrub layers were considered to be mutually exclusive (combined totalling 100%) but the canopy was considered to be separate.

Each completed habitat card related to 1 of 5 types of observation of Woodlarks: a) a nest (26% of the 184 territories); b) a pair (29%); c) a family group (6%); d) a male singing from a perch (13%); or e) a male singing in flight (26%). Each card also requested a description, principally by ticking boxes against a list, of the habitats within an arbitrary 50m radius of the nest or observed birds.

### **Purpose of Data Capture**

The stated aim was to provide an accurate assessment of the population and distribution of Woodlarks breeding in Britain in 1986.

### **Geographic Coverage**

Parts of southern and eastern England which were the known range at the time, particularly East Anglia, the heaths of Surrey, Hampshire and Dorset and some areas of Nottinghamshire. All sites known to have been occupied by Woodlarks in any breeding season since 1975, in southern and eastern England were surveyed.

### **Temporal Coverage**

The breeding season of 1986 with recording from March to August. (Note: later surveys were more restricted to early season than this, finishing by the end of May, but in 1986 there was not so much information available as to the species's breeding biology.)

### **Other Interested parties**

The survey was organised and run by the BTO with some funding from the Royal Society for the Protection of Birds, Suffolk Wildlife Trust, Forest Enterprise and the Joint Nature Conservation Committee.

**Organiser(s)**

Humphrey Sitters as a volunteer.

**Current Staff Contact**

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**Publications**

The main report of the survey (and covering some partial surveys in the following few years) is:

Sitters, H.P., Fuller, R.J., Hoblyn, R.A., Wright, M.T., Cowie, N. & Bowden, C.G.R. 1996. The Woodlark *Lullula arborea* in Britain: population trends, distribution and habitat occupancy. *Bird Study* 43: 172-187.

It was noticed in *BTO News* numbers 138, 141 and 145.

**Available from NBN?**

Yes.

The dataset contains the geographical location of the centre of territories as determined by GIS from the results of the 1986, 1997 and 2006 surveys.

**Computer data -- location**

BTO Windows Network central space.

**Computer data -- outline contents**

A data file containing location and number of birds.

**Computer data -- description of contents**

The columns in the data file are:

A - Grid Reference (mostly 6 figures); B - 1-km square; C - 10-km square; D - County; E - Date; F - Maximum males; G - Males; H - S = singing male, T = territory, N = nests, P = pairs, I = individuals; I - type N = number, C = estimate; J - accuracy +/- this number, mostly 0; K - breeding status B1=possible, B2=probable, B3=confirmed, U = unknown, W = wintering

**Information held in BTO Archives**

3 Transfer Cases containing survey cards and other information. All data have been scanned.

**Notes on Access and Use**

Full disclosure of breeding locations to the public might lead to environmental harm. Users are requested to exercise appropriate care when publicising or publishing any results.

**Other information needed**

**Notes on Survey Design**

**Specific Issues for Analysis**