



Dartford warbler

Sylvia undata

Status

Red listed: HD, BL, SPEC 2 (V)
Schedule 1 of WCA 1981
Annex I of EC Wild Birds Directive

National monitoring

National surveys in 1974, 1984 and 1994; next will be 2004.
Rare Breeding Birds Panel.

Population and distribution

More than three-quarters of the Dartford warbler population is restricted to Dorset and Hampshire, with most of the rest in Devon and Surrey. A marked increase in the population was noted between 1984 and 1994. The population is prone to large fluctuations, depending on the harshness of the winter weather (birds are especially susceptible to prolonged snow cover). There are an estimated 1,600–1,890 pairs in the UK (*Population Estimates*, Gibbons and Wotton 1996).

Ecology

The main habitat is dry, mature lowland heath, with the nest either in heather *Calluna vulgaris* or gorse *Ulex europaea*. A clutch of 3–5 eggs is laid, generally between mid-April and early July, occasionally later; there can be one or two broods (*Red Data Birds*). Birds are most active feeding young from mid- to late May.

Breeding season survey – population

Information required

- number of occupied territories.

Number and timing of visits

Three visits: one from the beginning of April to mid-May, one between mid- and late May, and one in June.

Time of day

From about one hour after dawn onwards.

Weather constraints

Fine, calm days are best. Avoid cold, windy and rainy conditions, but males will sing in calm, warm conditions with light rain.

Sites/areas to visit

Anywhere with suitable nesting habitat (see *Ecology*, above).

Equipment

- 1:25,000 OS map of the area to be visited
- Schedule 1 licence.

Safety reminders

No specific advice. See the *Introduction* for general guidelines.

Disturbance

No disturbance is necessary.

Methods

Map the boundary of the survey area, identify suitable habitat within it and mark this on the site map. Recent aerial photographs may make it easier to map areas of gorse.

Dartford warblers are mainly sedentary and are site-faithful, so use the locations of previous years' territories to indicate where current territories might be. However, ensure that all suitable habitat in the survey area, including previous years' territories, is equally well covered.

During each visit, mark on the map any birds located, using standard BTO symbols (see Appendix 1). Use a separate map for each visit, or prefix each mapped registration with a visit-specific code (eg A, B, C).

The object of the survey is to estimate the number of occupied territories over three visits. A territory is considered occupied if a singing male, boundary dispute(s) or breeding activity are seen on at least one visit. Examples of breeding activity are a bird carrying food or behaving in an agitated manner, as if with young. The ability to record singing males is density- and weather-related. In mid- to late May, when adults are feeding young, they become agitated when their territory is entered, and are much more visible.

Territories (or home ranges) vary in size. Where densities of birds are high, home ranges may be 1–3 ha (Catchpole and Phillips 1992); in lower-density areas, home ranges may be up to 10 ha (Wotton pers comm). It is possible that males will not sing at low densities. If two (or more) males are heard singing simultaneously, treat them as separate territories. If two (or more) males are heard singing, but not simultaneously, treat them as being from the same territory if within 200 m of one another, or from separate territories if at a greater distance than this. Although this distance is likely to depend on the quality of the habitat, birds living at higher densities are more likely to be heard singing simultaneously anyway.

At the end of the third visit, combine the records of singing birds, those involved in boundary disputes and records of other breeding activity to obtain the number of territories. When reporting the total number of occupied territories, make an additional note of how many records were of singing males only.

References

- Catchpole, C K and Phillips, J F (1992) Territory quality and reproductive success in the Dartford warbler *Sylvia undata* in Dorset, England. *Biological Conservation* 61: 209–215.
- Gibbons, D W and Wotton, S (1996) The Dartford warbler in the United Kingdom in 1994. *British Birds* 89: 203–212.

