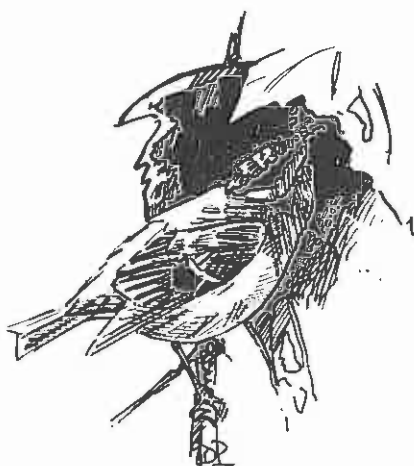


Firecrest

Regulus ignicapillus



Status

Amber listed: BR
SPEC 4 (S)
Schedule 1 of WCA 1981

National monitoring

Rare Breeding Birds Panel.

Population and distribution

Firecrests were first recorded breeding in Britain in 1962. They are sparsely distributed in the south of England, in East Anglia and in Wales (*88–91 Atlas*). Breeding occurs in conifer plantations and in mixed or mainly broadleaved woodlands (*Red Data Birds*). The population in the UK appears to be slowly increasing and spreading, but is still vulnerable, and is estimated to number between 80 and 250 territory-holding males (*88–91 Atlas*), or perhaps fewer if all the main breeding sites have now been discovered. Around 200–400 birds, probably mainly of continental origin, overwinter.

Ecology

Firecrests are almost always summer migrants to their breeding areas, arriving mainly during April and early May and departing in July or August. Song may be heard on territory from late March to early October but peaks in mid-June. Some passage migrants also sing. Types of woodland occupied by firecrests are difficult to characterise. The UK sites with highest numbers have been mature plantations of Norway spruce. Other conifers, and perhaps particularly mixtures of ornamental trees, are also favoured. Some sing in mixed or predominantly deciduous woodland. In Norway spruce, males hold exclusive territories of about $\frac{1}{2}$ – $1\frac{1}{2}$ ha, about 2–3 times larger than those of goldcrests in the same area; territories might be larger in other habitats. Because of this mobility, song locations within 200 m of one another should generally be expected to relate to the same male, unless there are other indications to the contrary.

Breeding season survey – population

This method is essentially the territory-mapping bird census method, as used by the BTO's Common Birds Census, with visits concentrated into the firecrest breeding season.

The species' rarity and its highly clumped distribution within suitable habitat makes surveys on a national or regional scale exceptionally difficult. Firecrests breed in dense woodland and are difficult to locate except by song; many singing males may fail to attract a mate. Observers should check that they are reliably able to hear high-pitched bird sounds, for example goldcrest song, before attempting to survey firecrests.

Information required

- number of territory-holding males
- any casual information on the number of territories in which breeding was proved, with date and a precise location, would be of value in addition to formal surveys.

Number and timing of visits

At least three thorough visits at intervals of at least ten days, spread between mid-May and early July. To prove breeding, extra visits would be needed in July.

Time of day

An early start is desirable but not essential, provided that the visit is completed by midday.

Weather constraints

Cold, wet or windy weather may depress song and should be avoided; song is most audible on calm days.

Sites/areas to visit

Any suitable habitat (see *Ecology*, above).

Equipment

- 1:10,000 OS map
- compass (optional)
- Schedule 1 licence.

Safety reminders

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

Disturbance

Disturbance at or near the nest is illegal unless licensed. Fieldwork for this method is unlikely to cause any disturbance.

Methods

Mark the boundary of the survey area on a map. On each survey visit, take a copy of the map and mark on it all firecrest registrations. Walk within 50 m of all points of suitable habitat on the plot. Firecrests with fewer neighbours might sing less frequently and be harder to locate. Use standard BTO species and activity codes (see Appendix 1) to record numbers, sexes and activities, with emphasis on song and contemporaneous encounters. Retrace your steps whenever it is necessary in order to confirm that new encounters are with different individuals. Spend several minutes with each bird to map its movements and any interactions with other firecrests. Once visits are completed, compile a species map and delineate territories in the standard way.

Report the number of territory-holding males, broken down into those which possibly, probably and definitely bred, defined as follows.

- Possible* Any observations of a bird apparently on territory, but seen only on one date, or a bird seen more than once in an area but not singing or showing other territorial behaviour.
- Probable* At least one bird recorded in the same territory on two or more visits over a period of at least ten days, where song or other territorial behaviour was observed.

Bird monitoring methods – firecrest

Confirmed Observations of young, either fledged or still in the nest, or of adult behaviour such as a pair mating, nest-building or occupying a completed nest, or carrying food, eggshells or faecal sacs.

Contributed by John H Marchant