

New Forest woodland bird resurvey (2009-11 to 2022)

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Assessing the increasing Firecrest population in the New Forest, Hampshire, 50 years after the first UK breeding record

Abstract The first confirmed breeding record of Firecrests in the UK was in the New Forest, Hampshire, in 1962. The New Forest has remained a stronghold for this species in the UK and, since 2000, numbers appear to have increased significantly. Here, we report on intensive survey work during 2009–11 and confirm that, with up to 270 recorded territories, the New Forest currently accounts for a third or more of all recorded Firecrest territories in the UK.

Firecrests *Regulus ignicapilla* were first discovered during the breeding season in the New Forest, Hampshire, in 1961, with successful breeding subsequently confirmed in 1962 (Adams 1966). This was the first confirmed breeding record for the species in the UK. Over the last 50 years the Firecrest breeding population has expanded rapidly across southern Britain, with recent reports from the Rare Breeding Birds Panel suggesting a population in excess of 400–600 territories during 2007–09 (Holling *et al.* 2010a,b, 2011).

In Hampshire, the Firecrest consolidated its position as a breeding species during 1962–99 (Eyre 2010), although the number of territories recorded each year was generally fewer than 20, and only once exceeded 50 (fig. 1). However, since 2000, the breeding population appears to have increased rapidly, to a peak of 187 territories in 2007. Hampshire continues to be the UK stronghold of the Firecrest; for example, in 2007 the county

total of 187 territories accounted for over 30% of the UK total (Holling *et al.* 2010a). The New Forest continues to hold the bulk of the Hampshire population; in 2007, about 75% of the territories reported in the county came from this area (fig. 1).

In order to assess the current Firecrest population in the New Forest, we undertook intensive, effort-based surveys during the breeding season in 2009–11. This short paper presents the initial results of that survey work, including an updated estimate of the number of territories in the New Forest, 50 years after Firecrests were first confirmed as breeding.

Methods

Our survey area comprised a well-defined block of woodland covering about 40 km² of the central New Forest (fig. 2), centred on the known Firecrest 'hotspots' of Bolderwood and Rhinefield Ornamental Drives (note that the former area was the site where the species

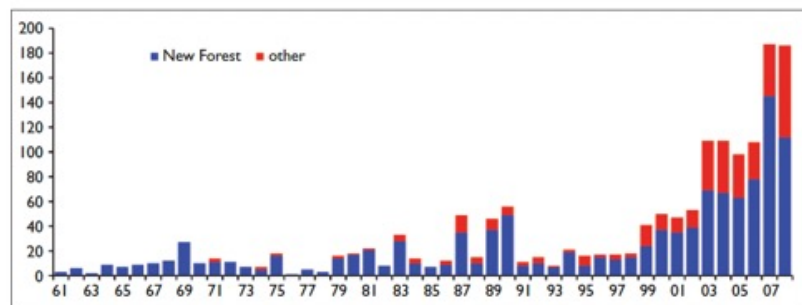


Fig. 1. Firecrest *Regulus ignicapilla* territories in Hampshire, 1961–2008, with those in the New Forest shown in blue and other sites in the county in red. Data from Eyre (2010).

Results of targeted surveys of Firecrests and other woodland species in the central New Forest from 2009–2011

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Firecrest

Rosemary Powell

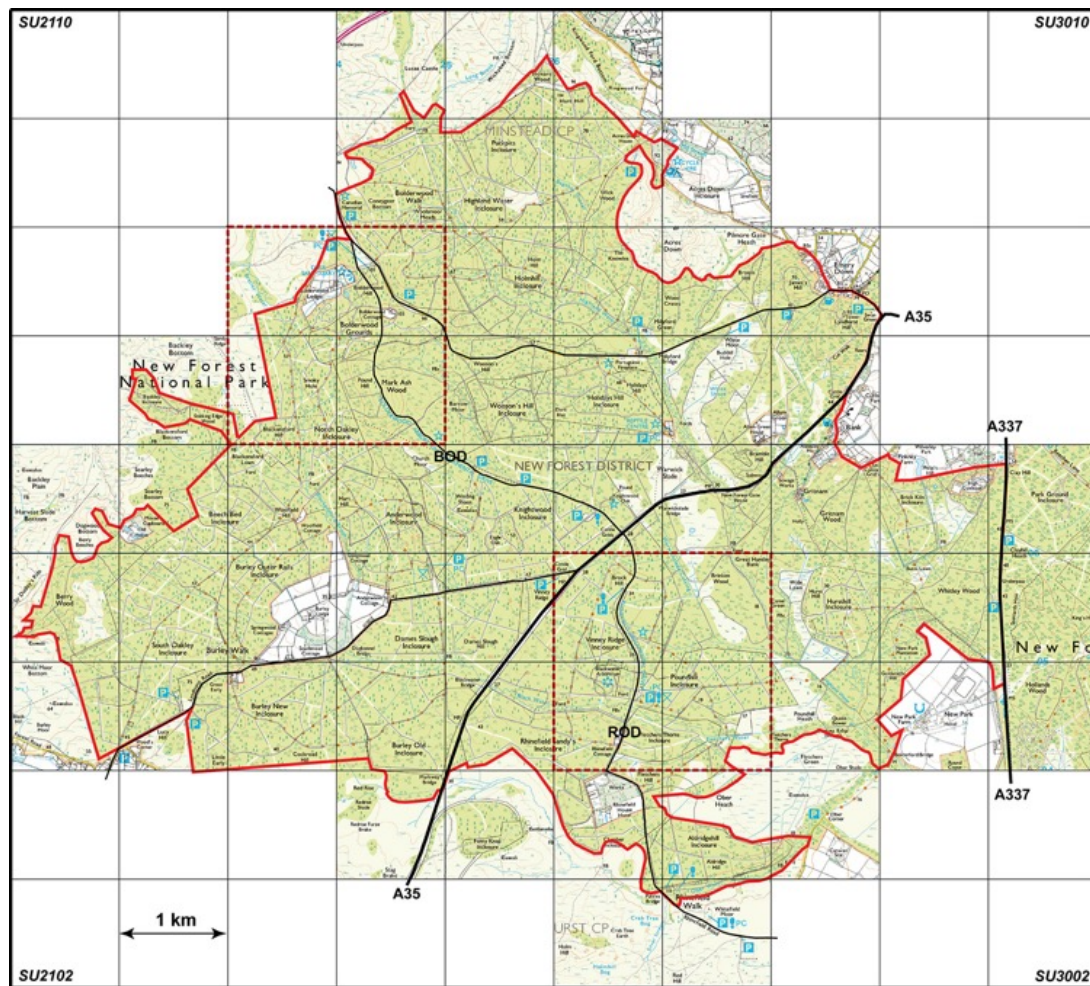
Abstract

This paper reviews the results of a targeted survey of Firecrest *Regulus ignicapilla* and other woodland species carried out in the New Forest between 2009 and 2011. Assessing population density including spatial and temporal distribution, the survey analyses the results of a roving survey of the entire study area during the breeding season together with monthly effort-based monitoring in 2x2 km tetrads centred on Bolderwood and Rhinefield. Colour ringing aided the study enabling monitoring of individuals during the course of the three year study. The survey produced useful baseline data for other poorly recorded woodland species such as Wood Warbler *Phylloscopus sibilatrix*, and will provide a baseline for comparative surveys in future years.

Introduction

The New Forest is an important area for a number of woodland passerine species, in particular the Firecrest *Regulus ignicapilla*. It was first recorded during the breeding season in 1961 and confirmed as a breeding species in 1962 (Adams 1966), which was the first such record for the species in the UK. Fifty years on and the Firecrest is now well established with the New Forest remaining one of the species' strongholds in the UK. Unfortunately, as the numbers of Firecrest in the New Forest have grown, other specialist species such as Wood Warbler *Phylloscopus sibilatrix* are thought to have declined.

In 2009 we embarked on a targeted three year survey of Firecrests and other woodland species in the central New Forest. The primary objectives were to assess the current Firecrest population in the New Forest, whether it was still growing and how it was distributed, spatially and temporally. In addition, colour ringing was undertaken to investigate site fidelity and local over-wintering.



- Breeding abundance and distribution trends primarily obtained via roving survey in May-June 2022, covering a block of woodland centred on Bolderwood and Rhinefield that covers nearly 40 km².
- This was supplemented by a monthly survey that provided information on temporal distribution and detectability of target species through the year.
- Both surveys were effort-based, with the same two experienced observers using pre-determined transects over consistent time periods.

Species	BOCC5	UK Trend	SE Trend	Central NF Trend	Confidence
Section 3.1.					
Cuckoo	RED	29% increase	41% decrease	Moderate / major decrease	Medium
Wood Warbler	RED	39% decrease	No data	Major decrease	High
Willow Warbler	AMBER	10% decrease	49% decrease	Major decrease	High
Garden Warbler	GREEN	22% decrease	20% decrease	Moderate decrease	High
Spotted Flycatcher	RED	26% decrease	36% decrease	Moderate / major increase	Medium
Redstart	AMBER	15% decrease	1% decrease	Minor decrease	Medium
Tree Pipit	RED	9% decrease	42% decrease	Minor decrease	Medium
Section 3.2.					
Chiffchaff	GREEN	23% increase	10% increase	Moderate increase	High
Blackcap	GREEN	47% increase	47% increase	Moderate increase	High
Section 3.3.					
Green Woodpecker	GREEN	23% decrease	27% decrease	Moderate decrease	Medium
GS Woodpecker	GREEN	2% decrease	11% decrease	Moderate decrease	High
Marsh Tit	RED	29% decrease	25% decrease	Stable / minor increase	Low
Woodlark	GREEN	No data	No data	Moderate increase	Medium
Treecreeper	GREEN	2% decrease	12% decrease	Stable / minor increase	Medium
Nuthatch	GREEN	19% increase	28% increase	Minor / moderate increase	Medium
Goldcrest	GREEN	No change	3% increase	Stable	Medium
<u>Firecrest</u>	GREEN	26% increase	No data	Major increase	High
Grey Wagtail	AMBER	3% increase	27% increase	Moderate increase	Medium
Bullfinch	AMBER	2% increase	2% decrease	Major increase	Medium
Crossbill	GREEN	52% decrease	44% decrease	Stable	Low
Siskin	GREEN	16% decrease	4% increase	Moderate increase	Medium

- The total number of birds recorded during the roving survey remained relatively stable at around 2500 birds, with an insignificant increase of just 8% between the 2009-11 and 2022 survey periods.
- Of the 21 surveyed species, nine increased, eight decreased, and four were broadly stable.

Wood Warbler

- 80-90% decrease since 2009-11 = very high risk of local extinction this decade
- 105 birds in 2009-11 and densities of 10-12 singing males per km²



Chiffchaff

- 30-40% decrease since 2009-11 = comparable to national trends
- Able to exploit a range of woodland habitats including new plantations



Tree Pipit

- 10% decrease since 2009-11 = comparable to UK trend
- However, the England trend shows a 42% decrease



Management implications

- Removal of non-native conifers will have significant impact on e.g. Siskin, Crossbill
- No evidence for assemblage-level impact of Goshawk and Pine Marten
- Blackcap and Bullfinch increasing despite high grazing pressure
- Long-distance summer migrants impacted by various intrinsic and extrinsic factors
- Woodlark, Grey Wagtail, and Spotted Flycatcher likely benefitting from restoration
- Plan is to repeat the survey in 2030...