The Firecrest in Kent

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Ticehurst (1909) considered the Firecrest to be a regular autumn visitor to the east and south coasts, but rare in spring. Breeding was not suspected until the 1970s when occasional singing males were recorded. In 1975, 36 singing males were found in mature conifer plantations in Lyminge Forest, while three further males were noted at Bedgebury Forest, where breeding was proven for the first time. Firecrests had first been recorded breeding in Britain in 1962, in the New Forest, part of a northward expansion by the species in mainland Europe. Subsequent to the 1975 findings, the Firecrest population in Lyminge Forest was monitored regularly, reaching a maximum of 52 singing males in 1983. The 1987 storm, and the felling of other areas of mature conifer, led to a reduction in suitable habitat and lower counts in subsequent years. The Kent Breeding Bird Atlas (Henderson & Hodge 1996) suggested a population of 0-15 pairs during the period 1988-94.

When KOS members carried out a survey of Firecrests in Kent in 2001 (Henderson 2001), the total of 26 territories located represented a significant proportion of the UK population of 121 pairs/singing males (2001 RBBP Report). Since then, little work on the species has been carried out in the county, with few breeding season records. By contrast, the national picture has changed considerably, with extensive survey-work in Hampshire, Sussex, Berkshire, Norfolk and other English counties leading to more than 800 pairs/singing males reported in 2010. The lack of records in Kent continued during recent Atlas survey-work. It appeared likely that Firecrests were not being recorded, perhaps because older surveyors could no longer hear their high-pitched song, while newer observers were not familiar with the species. Visits to areas of suitable habitat specifically looking for Firecrests were needed. Tim Hodge organised a handful of field-workers, who in 2011 searched some of the areas visited in the 2001 survey and also a few areas of suitable woodland outside the main conifer plantations. Following on from this, I have spent a large part of the subsequent two breeding seasons looking for Firecrests in a variety of habitats in many parts of Kent. This paper summarises my findings and suggests that the status of the Firecrest in Kent has changed dramatically over the past ten years. It also records some aspects of behaviour by breeding and wintering Firecrests in my local study-areas.

The 2011 Survey

A fuller report can be found in the Autumn 2011 KOS News.

In 2011, I visited 18 locations in East Kent where Firecrests had been recorded in the 2001 Survey. In addition, I visited several other areas of suitable habitat in both private and FC woodlands, all in East Kent. Several records were also received from birders who visited other sites in search of Firecrests. In total, 28 singing males were recorded and breeding proven at five locations. Only one record came from West Kent (a breeding pair in mixed woodland on the North Downs near Kemsing).

Wintering Firecrests

It was previously thought that only small numbers of Firecrests wintered in Kent, chiefly at

coastal locations such as Dungeness. More recently, wintering records from areas away from the coast have increased greatly. Both within and around Sittingbourne, for example, there are several sites hosting regular wintering Firecrests (P Worsley pers comm.) Tim Hodge searched mixed woodland and hedge-row habitat, largely in East Kent, during winter 2011. Judicious use of a tape of Firecrest song often resulted in four/five Firecrests responding. A small wood near Sheldwich, visited on many occasions during December- February 2013-14, was found to hold around 20 Firecrests, with a maximum count of 14 on 1st February 2014. By extrapolation, it appears likely that the wintering population of Firecrests now numbers several thousand, concentrated in mixed woodland and hedgerows along the North Downs and the eastern half of Kent. A summary of my observations on this wintering population may be found in the Appendix.

Breeding Season Methods

Firecrests can only be consistently located if the observer is familiar with the species song and contact calls. Many birders lose the ability to hear high-pitched song as they age, so potential Firecrest surveyors should check that they are able to hear Goldcrest song before venturing forth in search of the species. Searching can take place between early April and late July, though the period May 1st to June 30th encompasses the peak period for Firecrest song. Calm, sunny weather is best, and the period from 8.00 am to 2pm is when song is most likely to be heard. Although other observers have suggested early morning is good, my experience has been that song may not start until around 9.00am especially if the weather is cool. I walk slowly through areas of suitable habitat, following up any song or contact calls with scanning the tree tops for movement. Firecrests can be very mobile, so much stumbling around in the undergrowth is needed for good views.

To prove breeding, visits in June/July are needed, ideally following up earlier records of song/calling birds. Birds carrying food, or groups of newly-fledged youngsters, are recorded at this time. Firecrests often remain around the nest site into August, but song is infrequent, so records are harder to obtain this late in the breeding cycle.

A LOCAL STUDY-AREA

In 2012, I visited an area of mixed woodland (approx 1 sq. km.) near my home on a regular basis throughout the period March 1st- August 1st, recording all Firecrest activity. There had been no previous records of Firecrests reported to the KOS from this area, although I had found two singing males there in a brief visit in 2011. The study area, predominantly deciduous, contained a block of mature Norway Spruce, and two smaller mixed plantations of Lawson Cypress/Oak and Norway Spruce/Oak.

In early March I found a pair of Firecrests on the edge of a private garden. On March 28th three singing males were present in the tallest trees on the edge of a block of Norway Spruce. A few days later, these birds had dispersed and were relocated in the surrounding area, paired and holding territory. One was in mixed Lawson Cypress/Oak, one in mixed Norway Spruce/Ash and the other on the edge of an ornamental garden, with a variety of mature conifer species including Sequoia.

In summary, I found three pairs of Firecrests and two unpaired males that held territory within the study area for prolonged periods.

Pair 1 Present 1.4.12 -28.6.12 Successfully bred. 4 juvs. fledged.
Pair 2 Present 1.4.12 -20.5.12 Breeding attempt failed – unknown cause.
Pair 3 Present 1.4.12 -20.7.12 Successfully bred. 4+ juvs.

Un-paired Male 1 14.4.-14.5. Site A 15.5.-28.6. Site B
Un-paired Male 2 1.6. - 20.7. Site C

The starting dates shown were obviously the date first located; the Firecrests may have been present before I found them. Similarly, the end-dates are those on which song ceased. The birds may have still been present after that date. In contrast to earlier studies of Firecrests, when visits to suitable habitat started in May, these breeding birds were on territory by late March, suggesting perhaps that they were overwintering birds rather than migrants. The unpaired males appeared to arrive later. They moved around their territories, singing almost continuously, but did not appear to attract a mate.

For Pair 1, I found a nest in Lawson Cypress in late May, when both birds were bringing food to well-grown nestlings. The nest resembled a green tennis-ball, attached to the underside, about 30 cm. from the end, of a horizontal branch. On 4th June, juveniles were seen leaving the nest and huddling together on a nearby branch. For the next three weeks, the juveniles moved together from tree to tree, continually fed by both parents. Insect prey seen taken included small moths, various caterpillars, spiders and mosquitoes. The adults were seen to forage at all levels, from the tops of deciduous trees, through young Sycamore saplings, sometimes taking moths from ground cover bramble. In late June, both parents had disappeared, but the juveniles were found around 100 metres from the nest-tree, associating with a mixed flock of tits.

I revisited this location in April 2013 and found 11 singing males, with at least five of the males paired. Around 3 kms away, I found two further nesting pairs, approx. 50 metres apart, and utilising small fragments of deciduous woodland on a large estate. There were a scatter of Yews and some ivy-covered sycamores within the woodland, typical of much woodland habitat on the North Downs.

In 2013, several areas of mature conifer woodland in the western half of Kent were visited, with results summarised below;

Conifer wood near Kemsing	5 singing males
Conifer plantation near Langley Heath	7 singing males
Whitley Forest near Sevenoaks	1 singing male (per Tim Hodge)

HABITAT

What appears to be happening in Kent (and elsewhere in southern England) is that Firecrests are colonising mixed and wholly deciduous woodland outside the “traditional” mature conifer plantations where they have been found in the past. In the New Forest, for example, though numbers in conifer plantations continue to increase, many Firecrests are found in deciduous woodland with an under-storey of Ivy and Holly (Ward and Wynn 2012). In Kent I've found Firecrests in the following main woodland types:

Mature Conifer Plantations

Traditional habitat for Firecrests in Kent. Typically avenues of 40 years + trees with some mixed deciduous trees in and around the plantation.

Estates/Gardens/Pinetums.

Any site where a mixture of non-native conifers is found in association with deciduous woodland is worth searching. Many large estates in Kent feature a group or avenue of mature (40+ years) non-native conifers, often Sequoia, Cedar, Redwood or similar species. Even single conifers in private gardens adjoining woodland can be used as nest-sites (G. Hinchon pers comm.).

Mixed Woodland with Holly, Ivy and Yews.

Typical of the North Down, but similar woodland is present on the Greensand Ridge and on The Weald. Ivy-covered deciduous trees are very attractive to Firecrests, both for feeding and as nest-sites.

Mixed Plantations

Alternate rows of conifer and deciduous, or a scatter of conifers within deciduous woodland are worth searching. Species such as Lawson Cypress or Scots Pine can be worth searching as well as the more usual Norway Spruce/Douglas Fir type conifers.

In summary, almost any woodland or mature hedge-row may hold Firecrests, though Oak and Beech plantations and Sweet Chestnut coppice are the woodland types least likely to be worth searching.

CURRENT STATUS

On the basis of the limited survey-work carried out in 2011, I suggested that it was likely that there were more than a hundred singing males present in Kent that year. Further work in 2012 & 2013 located around 65 territories, though only a tiny proportion of Kentish woodland was visited. I suggest that Firecrest habitat in Kent can be divided into two categories:

Primary habitat: mature conifer plantations such as Lyminge Forest where breeding was first recorded in the county.

Secondary habitat: deciduous and mixed woodland with an under-storey of Holly, Ivy or Yew. Often adjoins gardens, estates, church-yards etc. where ornamental conifers are present.

If all primary and secondary habitat in Kent was occupied, there would be many thousands of Firecrests present each year. In reality, my experience suggests that while most primary habitat now holds Firecrests, the secondary habitat is rather patchily occupied, perhaps with Firecrests expanding their range into suitable habitat away from the initial sites of colonisation. There are clearly nowadays many more than a hundred singing males present in the breeding season, perhaps as many as 500 in some years.

There are around 20 hectads in Kent holding conifer plantations and associated likely breeding habitat. While mature conifer plantations are rather limited in Kent, compared with the amount of such habitat in Sussex and Hampshire, there is a huge amount of secondary habitat. Such habitat is by its nature difficult to search for Firecrests so any population estimate must rely on extrapolation from those small areas where access is possible and intensive searching has been undertaken. TQ95, which I suggest may have held as many as 50-100 singing males in 2013, may be the most productive hectad for Firecrests, but other hectads, such as TQ73, TR05 and TR14 are likely to hold substantial numbers. Even assuming an average of only 10-20 Firecrest territories in each of these 20 hectads, there could be 200-400 territories in total. My survey-work suggests that many of these singing males are un-paired, (not surprising for a species on the edge of its range,) so the number of breeding pairs may be rather lower. The uncertainty surrounding this species suggests that its current status is best summarised as 100-300 territories (singing males) in the county.

To sum up, there are areas of potential Firecrest breeding habitat in most parts of Kent. Only by searching such habitat in West Kent and the High Weald can we be certain how far their colonisation has proceeded. I hope that KOS members will be inspired to look for their local Firecrests in the future so that we can continue to monitor the spread of these delightful birds.

ACKNOWLEDGEMENTS

Many thanks to those KOS members who searched for Firecrests and provided records in 2011 and 2012, especially Tim Hodge, Martin Sutherland, Tony Swandale, Owen Sweeney, Ian Roberts and Murray Orchard.

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APPENDIX

Observations on behaviour of Wintering Firecrests

I made many visits during December/February 2013-14 to an area of woodland near Sheldwich, about half of which was prime Firecrest habitat, with dense Holly thickets, many Ivy-covered trees and a scatter of Yews. There were about 5 hectares of good habitat, though Firecrests often visited adjoining gardens, where access was, of course, not possible! Firecrests were largely located through listening for contact notes (often very loud, audible from 20-30 metres away in calm weather) or song (mostly heard in sunny, mild weather.) Males appeared to outnumber females, though since males were noisier and females don't sing, they were probably easier to locate. Many Firecrests located appeared to be foraging as a pair, although occasionally three birds were located together. Display, with raised crest, was noted, both to female Firecrests and on one occasion, to a female Goldcrest. Overall, there was little interaction between Firecrests and Goldcrests. Firecrests tend to move rapidly through more open habitat, looking for larger prey, while Goldcrests seek smaller insect prey, utilising

denser Yew and Ivy habitat. On a few occasions, Firecrests were noted moving within a flock of Long-tailed Tits, but in general they appeared to forage independently, avoiding contact with more aggressive species such as Blue and Great Tits. Several times, Firecrests were seen to catch large insects, 2-3 cms. in length that required subduing by being bashed against a branch before swallowing was attempted. Firecrests foraged at all levels within the woodland, searching in leaf litter beneath Holly thickets, as well as in the top branches of large oaks, though most sightings were at 1-5 metres above ground level in Holly, Ivy or lower branches of Yew. Song was not noted in December, but became more frequent throughout January, often from the top branches of large trees in sunny weather. In total, there appeared to be around 20 Firecrests present in the woodland and adjoining gardens, with several males holding territory, singing from the same locations throughout the study.

Revisiting in May, I located five territories with singing males within the wood and surrounding gardens. Whether these birds present in the breeding season were the same as those wintering could only be proven by capture and ringing of a sample of wintering Firecrests, but my guess is that the same birds are now present all year round.