

THE SPARROWHAWK IN KENT

A POPULATION ESTIMATE

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Unrecorded as a breeding species in Kent between 1953-1974, the Sparrowhawk has made a rapid recovery from the effects of pesticide poisoning since then. By the end of the 1988-1994 Breeding Birds Survey, recorded in 23% of the county tetrads, there were thought to be between 200-300 breeding pairs in the county (Henderson & Hodge 1996.) A later increased estimate of 600-650 pairs was published in the 2000 Kent Bird Report (Clements 2002.) As a result of further survey-work on the species in different habitats, a more accurate estimate can now be made. It is suggested that there are now 1300-1400 territorial pairs of Sparrowhawks in Kent, of which around 1000 pairs breed or attempt breeding each year.

While factors such as soil-type (influencing prey availability) and altitude above sea level may affect Sparrowhawk breeding density on a national level (Newton 1986,) within Kent the main determinant of Sparrowhawk density in any particular 10 km. square (hectad) is the proportion of woodland in that hectad. An accurate population estimate for Kent depends on establishing the density of territorial or breeding pairs in different types of farmland, with varying proportions of woodland. This estimate is based on three such surveys.

Survey-work near Windsor (Berkshire) in the 1980's found a density of 96 pairs per hectad in a study area containing more than 40% woodland. (Ted Green in Newton 1986).

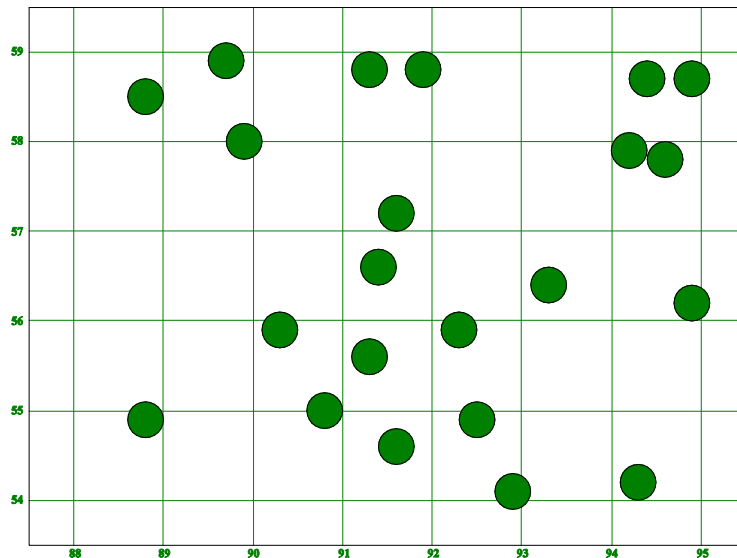


Fig 1. Sparrowhawk Territorial and Breeding pairs in a 35 sq. kms North Kent Study Area 2007.

In a 35 sq. km study area on the North Downs with 22% woodland, survey-work in 2007 located 22 breeding pairs and 7-10 territorial but non-breeding pairs, a density equivalent to 60-90 pairs per hectad (Clements unpublished Fig.1).

Even in farmland with little woodland, Sparrowhawks will nest in hedgerows, gardens and overgrown orchards. A recent study in Suffolk found between three and six pairs breeding in 20 sq.kms of farmland, (average 4.2) indicating an average of twenty-one pairs per hectad in such habitat (Reg Woodard in Suffolk Bird Report 2004).

Kent can be divided into four broad categories, based on woodland density. Urban areas, which hold breeding Sparrowhawks at low density, are included in the 0-5% woodland category. The densities recorded above in study areas with different amounts of woodland can be applied to these categories. The following estimate is only likely to be inaccurate if large areas of un-surveyed Kent hold radically lower densities than the above examples; all experience shows however that scenario is unlikely.

% Woodland in Hectad	No. Hectads in category (approx)	Sparrowhawk Density Breeding Prs. per Hectad	Total
0-5	15	10	150
5-20	13	20	260
20-30	5	60	300
30+	4	80	320
Total			1030

Assuming 25% further non-breeding pairs, the total Kent population might be around 1300-1400 pairs holding territory at the beginning of the breeding season.

Acknowledgements

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References

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