

Cumbria Bird Club Rookery Survey: April 1996

Introduction

The rook is a familiar sight over much of agricultural Britain and, at a time when many farmland bird populations are in alarming decline, is actually increasing in many suitable areas. In Cumbria the rook is a very successful bird, especially in the north-western half of the county where grass pasture predominates. Very dry summers as well as very cold winters pose a threat to the rook as in both situations the availability of food decreases substantially with the hardness of the ground. It would seem that climate change (e.g. global warming) could be a cause of serious decline in rook numbers in the future. Changes in numbers and distribution also depend to a large extent on the changing agricultural scene, particularly where it affects the availability of earthworms which are a very important food item. A survey carried out in 1993 in the mainly agricultural county of Dumfriesshire indicated that the rook population was at a high level and was thought to be as much as 50% higher than at any time in the first sixty years of this century. This information coupled with the last major rook survey in Cumbria (1975) and the proposed BTO national sample-tetrad survey of 1996 prompted the Cumbria Bird Club to go ahead with the organisation of a full county survey in the Spring of 1996.



It is entirely due to the interest and dedication of a large number of volunteers that the survey was such a success and the organisers would like to thank everyone who participated.

Method

It is clear that much of the high ground of the central lakes and Pennines is totally unsuitable for rooks as these areas provide few nest sites and only meagre feeding. On the other hand there are large areas of the county where land usage creates a landscape very favourable to rooks. It was decided that we should ignore these assumptions and cover the whole county during the critical period between 6th and 20th April when it was hoped that most nests would be complete and that the foliage would not yet be dense enough to make accurate counting difficult. There are about 50 complete 10km squares in Cumbria and a further 44 with varying areas of land within the county boundary. The Cumbrian part of all 94 of these squares was surveyed regardless of habitat type and regardless of their assumed suitability or otherwise for rooks. A rookery, for the purposes of this survey, was deemed to be any group of nests (or indeed single nest) separated from another group by at least 100m. The use of this standard distance, the same as that used in the last national survey in 1975 and in the BTO's 1996 sample-tetrad survey, increases the validity of any comparisons made. Generally rooks are two or three years old before they breed, therefore the counting of nests alone is not a true indication of total population as this does not include the unknown number of non-breeding one or two-year old birds. However, numerous surveys of occupied nests over a long period of time have provided a good insight into the changing fortunes of this common farmland bird. Primarily, the objective of the survey was to ascertain the total number of rooks nesting in Cumbria but it was decided that other valuable information could be gleaned at the same time. With this in mind the fieldworkers were asked to provide an accurate grid location from which the altitude of the rookery could later be obtained and to record the dominant tree species in the woodlands used by rooks. Information on tree species was thought to be a very important factor in the survey bearing in mind the loss or fragmentation of many of the larger tracts of deciduous woodland this century coupled with findings in the Dumfriesshire survey that showed coniferous trees, especially scots pine, held a significant number of rookeries.

Results: *Density of occupation*

Ninety-four 10km squares gives a total of 2350 tetrads (94 x 25) however, after consultation of the relevant maps, it was found that only 1766 of these tetrads have significant land area in Cumbria. The survey shows that of these 1766 tetrads 653 (37%) were occupied by rooks. In total 44738 nests were counted in 1325 rookeries giving an average rookery size of 34 nests. **Figure 1** shows the number of nests and rookeries found in each 10km square and **Table 1** compares these totals with the 1975 data.

