

REVIEWS.

"The Rookeries of Somerset." By B. W. Tucker, M.A., M.B.O.U.
Proc. Somersetshire Arch. and Nat. Hist. Soc. Vol. LXXXI (1935),
pp. 149-240.

AMONG the many remarkable bird census operations recently carried out in Great Britain the various censuses of rookeries have in the aggregate covered the largest number of birds and received the smallest measure of attention. The two facts are connected, for British Rook population is so large and well distributed that no one has been bold enough to attempt a national census, and the work, being done piecemeal by counties or regions and published in different journals, is not seen as a whole except by the specialist. While Mr. Tucker has not been able to escape from these inherent limitations of his subject we must be grateful to him for the thoroughness and width of view which has transformed what might have been a parochial account into a paper of interest to all students of animal numbers.

Starting with an account of organization and methods he explains how the immense task of surveying 35,643 nests scattered over more than a million acres was carried out by the Ornithological Section of the Somerset society with the aid of large numbers of Boy Scouts. The method proved workable, provided that a senior member was available in each case to see that the work was done intelligently and systematically. The basis adopted, as in the previous Oxford work on this

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subject, was the grid of 2-inch squares on the 1-inch Ordnance Survey, which give a series of convenient and exactly identifiable units of area, whose recent abandonment in the Fifth Edition of the Survey is a serious blow to studies of this type.

Isolated nests, which have been shown in practice to be insignificant, were ignored. The usual trouble was met over the question, "What is a rookery?" and after discussing this at length Mr. Tucker adopts the arbitrary criterion of treating all groups of nests less than 3 furlongs apart as sub-groups of one rookery, and all groups farther apart as separate rookeries. (It might have been humane to note for the benefit of foreign readers that a furlong is a trifle over 200 metres.) On this basis Somerset contained in 1933-4 669 rookeries, whose situation, number of nests and type of site, together with the actual species of trees bearing the nests are listed in detail, and are moreover indicated on a useful series of half-inch maps covering almost the entire county.

In his analysis Mr. Tucker follows to some extent the lines of the two Oxford Bird Census papers, but with a greatly improved range of data he is able to make a considerable advance. By a useful technique he has been able to estimate the area occupied by the various geological formations, and to find the total number of Rooks' nests on each. Distribution is uneven, the Keuper Marls group and Lias showing nearly sixty per cent. of the county's breeding Rook population on only about forty per cent. of its area. The conclusion reached is that geology, soil, altitude and exposure have some influence on the density of Rook population, but this influence is mainly indirect, through their effects upon agriculture, growth of trees and so forth. The largest "rookless areas" are mainly on the high ground of the county, notably Exmoor and the Brendons, the Quantocks, Blackdowns and Mendips, but there is nothing comparable to the 200 square mile "Rookless" block of Nottinghamshire mapped by Roebuck (*British Birds*, Vol. XXVII., p. 10).

It can hardly be said that available data show a very strong correlation between high or low density of nesting Rooks and certain geological formations. Alluvium, in Somerset as on the Severn and in the Lincolnshire fens, is poor in rookeries, and the Devonian, Carboniferous Limestone and Oxford Clay also show low Rook densities in Somerset, although some of these formations put up respectable figures elsewhere. The suggestion that rookeries tend to be located along streams has also not been confirmed, except that where a stream or pond is available the actual site of the rookery is often very close to it. Rookeries are located near buildings and roads to a much greater extent than can be accounted for by chance. Although nearly half the recorded Somerset nests are in elms, and more than 93 per cent. are in elm, oak, beech, Scots pine and ash taken together, there is no reason to suppose that the birds show any marked preference for particular species of tree. On the contrary they seem to choose the commoner trees of suitable height, and this explains why the elm predominates as a site on the low ground where it flourishes, but gives way to beeches, oaks, and conifers at higher levels.

The discussion in Mr. Tucker's paper suggests that elementary census work on this species has contributed about as much as can be expected of it in present circumstances. It has shown, over an area now representing about 15 per cent. of Great Britain, the exact size and distribution of the breeding Rook population, and has indicated the approximate range of variations from area to area and from year to year. Published British surveys covering at least 100 square miles show maxima in the Wallingford district of the Upper Thames, in the Vale of Taunton and in Berwickshire of 44, 43 and about 45 nests per square

mile respectively, with minima of 7.7 for Nottinghamshire, and about 5-6 for parts of Wales. The average of the existing results appears to be in the neighbourhood of 16 nests per square mile. Some 13,000 square miles of Great Britain surveyed at various dates and with varying degrees of accuracy show in round figures 212,000 Rooks' nests, whereas Holland, with an almost identical area, showed in 1924 only 31,000 Rooks' nests.

Rook census work, from Muirhead's rough pioneer efforts in Berwickshire just fifty years ago to the present elaborate survey, has uncovered many interesting and valuable facts. It has shown that while in the Scottish Lowlands rookeries range not infrequently up to 2,000 or more nests, in England at the present day the limit is much lower. The largest rookery in Somerset has 487 nests, and very few appreciably larger than this are now known south of the Border. Successive counts have proved that while individual rookeries may increase or dwindle rapidly the nesting Rook population of an area remains as a rule remarkably stable from year to year. Mapping has brought out the fact that rookeries in large or even medium-sized woods are exceptional, and has shown the characteristic types and sites of rookery very clearly.

As Mr. Tucker's discussion shows, however, there are many points which cannot be decided by a census, but should yield to intensive observation, and it is through indicating the lines on which observers can profitably take up the investigation, as much as through the intrinsic value of his great survey that he has earned the gratitude of ornithologists. E.M.N.

LOCAL REPORTS.

Skokholm Bird Observatory Report for 1936.

THIS is the first report of the Bird Observatory Mr. R. M. Lockley has organized on Skokholm. It contains much of interest in a condensed form. About one hundred observers took part in 1936. Breeding birds were mapped, 2,500 birds were ringed, many of them being caught in the large "Heligoland" trap and much other work was done. A short account is given of homing experiments, chiefly with Shearwaters, and special notes under species headings supplement Mr. Lockley's account of the birds of Skokholm already published in our pages (Vol. XXIX, pp. 230-235). Northern Willow-Warblers were identified on May 25th and 27th, one nest of the Little Owl contained corpses of nearly two hundred Storm-Petrels and another twenty-five and these birds should be still more drastically dealt with than is recorded. Fulmars were frequently seen near the island from April to September, a Ruff was recorded for September 1st and two Sandwich Terns off the island on September 17th.

Mr. Lockley is anxious to obtain a succession of observers on the island, and he informs us that he still requires a good many more to complete his programme for the coming spring.

Report of the Oxford Ornithological Society, 1935. (Obtainable from B. W. Tucker, University Mus.) 3s. 3d.

THIS Report keeps up the "model" character it has achieved in recent years. Besides the notes under species, which form the bulk of the Report, there are dates of migrants, results of special investigations for the area undertaken for the "British Trust for Ornithology" (Great Crested Grebe and Woodcock) and special accounts of the

distribution of the Redstart, Great Spotted Woodpecker and Pochard, as well as reports on ringing. Among the systematic notes there are many of interest of which the following may be referred to :—A Bearded Tit was seen in June, 1933, near Bloxham, occurrences of Shelduck, Garganey, Pintail, Scaup and Scoter among the ducks and Grey Plover, Turnstone, Sanderling, Temminck's Stint (May 26th, 1935, Reading Sewage Farm), Wood-Sandpiper, Spotted Redshank, Grey Phalarope and other scarce birds among the waders.

Hastings and East Sussex Naturalist, 1936. *Report on the Local Fauna, etc.*, for 1935, by N. F. Ticehurst.

THIS contains an excellent account of the Birds for 1935. The notes are arranged in systematic order and among many interesting items we may note the following :—An adult male Golden Oriole seen and heard in Hastings on June 1st, an account of Sand-Martin former nesting colonies, only one apparently now remaining, details of heronries, nesting of Garganeys, a single Kentish Plover near the Midrips in July, nesting of a pair of Sandwich Terns on Dungeness but the eggs destroyed by Black-headed Gulls, and Scandinavian Lesser Black-backed Gulls in January and December.

Proceedings of the Bournemouth Natural Science Society, 1935-6. *Report on Birds*. By the Rev. F. C. R. Jourdain.

THIS contains a summary of observations on birds from October, 1935, to October, 1936, arranged under species headings. Two Choughs are said to have been seen on Parbeck Cliffs in August, 1935, and another in August, 1936, but this requires confirmation. There are also notes on occurrences of Firecrests, Waxwings and Black Redstarts, Spoonbill, Garganey, Dusky Redshank and Black-tailed Godwits as well as some winter records of Greenshanks.

Das Leben deutscher Greifvögel. By Dr. Heinz Brüll. Pp. 144. 47 text figs. and plates. 6 R.M. (G. Fisher, Jena), 1937.

DR. BRÜLL has written an interesting little work, which deals chiefly with three of the most prominent German Raptores : the Goshawk, the Buzzard and the Peregrine. There is a good deal on other species of Accipitres, and the author also includes some observations on the Owls, but it is not by any means a systematic monograph, nor yet a manual of practical falconry. It is quite evident, however, that it is through the medium of falconry that the writer has amassed much of the information in his book.

The earlier sections of the work contain analyses of the various types of hunting ground and breeding places characteristic of each species. Then the author shows how the structure of the bird is specially adapted in each case for the pursuit of its prey under these conditions. At times the facts seem to be somewhat forcibly fitted into the theory, rather than the theory framed to account for the facts. Thus the "toothed" upper mandible of the Falcons is classed as a "death-dealing" type of bill, and the toothless bill of the Harriers, is regarded merely as a "carving" implement, while the claws become the death-dealing weapons. Yet in the case of the Peregrine the prey is frequently dead before the beak is brought into play at all, sometimes the stoop alone or in conjunction with the ripping hind claw.

There is much useful information on the courtship flight, and the detailed information on the moult of the primaries, as observed in a Goshawk over a period of six years, is extremely interesting, and the

same may be said of the notes on the normal prey. Admittedly these are partly compiled from other sources, but the information is generally so reliable that we find it difficult to understand the statements on p. 29. In this table, after giving the normal breeding season, clutch, incubation period and prey, there is a column devoted to "Brut und Gelege." Here four species (Goshawk, Sparrow-hawk, Hobby (2-3 "Bruten") and Peregrine ("selten noch eine Sommerbrut 5-7 Eier!") are quoted as having more than a single brood! Even if this referred merely to second layings and not broods, why then are such species as the Buzzard omitted? We have never met with any reliable evidence of an Accipitrine bird rearing a second brood after the first has hatched off—in fact, the prolonged breeding period renders this practically impossible. On the other hand most of them will lay a second time, and occasionally three times, when the first laying has been taken or destroyed. We hope that this Table will be drastically revised in any future edition. Apart from this, the book is likely to be especially useful to those who keep raptorial birds in confinement and wish to know more about them and the connexion between their structure and mode of life—F. C. R. JOURDAIN.