

Report on ringing Summer 1968

i) Introduction

Wicken Fen carries a large population of breeding birds, which are of particular interest because the habitat is unique in the county. This is worth studying, especially in comparison with much of the rest of the fenland, which has been drastically altered by drainage and modern agriculture. It is hoped that information gathered in the course of a sustained ringing programme might be of some use to those involved in the management of the Fen, where precise knowledge of the needs of the flora and fauna is clearly of prime importance.

The most effective way of obtaining accurate information on the birds is by systematic trapping and ringing. Birds can be identified uniquely by rings and it is thus possible to follow their history on subsequent retrappings. In this manner it is possible to establish the status, relative abundance and particular needs of the various species. Previous ringing has been undertaken by Douthwaite and Penn and Palmer and some birds ringed by them have been retrapped in 1968. It is possible that the status of several species referred to by Easy and Kirtland (1967) has already changed, and that the gathering of information throughout the breeding season could be helpful in monitoring such changes and in maintaining a more accurate picture of the status of many of the species to be found on the Fen. The pilot scheme in 1968 has shown above all that useful information can be obtained, and this report aims to show what has been found so far and where further research would be valuable.

ii) The national Acrocephalus Enquiry

Of particular interest are the acrocephalus warblers - the Reed and Sedge Warblers. These are numerous on the Fen and are the objects of a national inquiry at the moment.

Previous experience during the national Sand Martin inquiry has shown that if ringers all over the country are encouraged to concentrate their efforts on one or two species, more ringed birds are controlled (caught alive by other ringers elsewhere) and consequently much more information can be collected. Both species (but especially the Reed Warbler) breed in restricted habitats, and are thus effectively colonial. In consequence it is possible to catch large numbers in a particular area.

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The initial questions which might be answered are as follows

- a) What proportion of adults change colonies from one breeding season to another?
- b) What is the distribution of birds, bred in one colony, when they return for the first time in the following summer?
- c) When do adults and juveniles leave the colonies? Are the early movements of juveniles orientated?
- d) Is there a tendency in autumn for the birds to move from one colony to another before leaving Britain?
- e) What is the pattern of weight fluctuation throughout the time that birds are in the country? What weight gain is there during the days prior to departure and are there localities where birds congregate to put on pre-migratory fat?

The questions a) and b) are directed towards population studies and the results may be of practical as well as academic interest. The remaining questions are concerned with migration and the closely interlinked subject of weights.

iii) Techniques used at Wicken

Birds are caught with mist nets, a technique which has been used in this country for over ten years and has proved effective and safe with proper handling. The fine nylon mesh nets are suspended vertically on bamboo poles in the anticipated lines of movement of birds. The birds, moving naturally, are caught with the minimum of disturbance and are removed from the nets at frequent intervals. The most suitable net sites are between reed or sedge areas where the birds breed, and the surrounding thickets through which they move while feeding. This avoids disturbance actually in the reeds, where there would be a danger of destroying nests and plants, and damaging the crop.

After a quick survey two sites were chosen this summer, and both were used throughout. The first of these was the area of the brick-pits, where birds breed in the reeds and move out to the surrounding willow and hawthorn. The nets were sited round the edge of the pits along the paths. The second area, nearby, was the path along the

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edge of the common fen, where the birds behaved in a similar manner. Apart from the presence of the birds, these sites had three main advantages. They were near the entrance to the Fen, enabling equipment, especially the cumbersome poles to be easily transported to the sites. At the same time however they were reasonably inconspicuous to the public, thus avoiding mutual disturbance to each party. Situated on the north-east of the fen, the sites were protected from the prevailing wind, a hazard which reduces the efficiency of a net.

A useful site which was not exploited this year was the reed bed area. The Reed Warbler, being particularly attracted to Phragmites is more numerous here than elsewhere. This could be worked in the same way as the other sites, by intercepting birds on their way to and from the reeds.

All the birds caught are ringed and weighed; a measurement of wing lengths are also taken. The information collected is tabulated on several kinds of form to show various facets of the investigation. A chronological record of all initial ringings and retrappings of ringed birds is kept. For each bird that is retrapped an individual card is kept, indicating the history of the bird, from which it is possible to investigate its variations of weight, and its status. For each of the two species, a card is filled in each day on which catches are made, which permits seasonal variations of weights, the proportion of unringed to ringed birds, and proportions of juveniles to adults to be ascertained. These data can provide useful results.

iv) Evidence collected:

The evidence collected by a pilot scheme of this nature is naturally incomplete, but nevertheless is sufficient to show that the findings are starting to provide answers to some questions. It is confidently expected that in a year of fuller coverage, a much larger number of birds could be ringed, and more valuable results obtained.

One aspect of the findings is discussed briefly below.

It was noticeable that the activity of the birds varied considerably throughout the day and this was investigated for the Sedge Warbler. The day was divided into hourly intervals, starting at sunrise, and the numbers of birds caught as well as their weights were collected in these intervals. The weights (see accompanying diagram) were plotted as mean weights over three-hourly intervals; thus the figure plotted at the third hour is the mean weight of all Sedge Warblers (excluding juveniles) caught in the second, third and fourth hours after sunrise. The other line shows the activity, which was calculated by dividing the total

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number of birds caught in the hour-long period by the number of days in which catching took place during that hour. The number of nets used, and their sites, were fairly consistent throughout the season.

It will be seen that there is a peak of activity in the third hour, which drops off to zero in the fifth hour, and rises to a smaller peak in the eighth hour. This second peak results in a parallel increase to a peak weight, but the first does not. This might be because the birds are involved in a non-feeding activity, such as territory-holding and display, in the early morning. As would be expected, the birds reach a maximum weight in the evening, and this is reduced to a minimum in the morning, due partly to the energy expended in maintaining body temperature over night.

v) Other observations

As a result of the large numbers of man-hours spent on the Fen other ornithological observations have been made. Inevitably other species are caught, and these are ringed in an attempt to provide other useful data on the species which occupy similar areas to those of the two acrocephalus warblers under study. From the number of catchings it is possible to ascertain the relative abundance of the inconspicuous warblers and other birds. The ringing totals of the following species are of interest:-

Grasshopper Warbler	3	Whitethroat	17
Reed Warbler	34	Lesser Whitethroat	8
Sedge Warbler	103	Willow Warbler	31
Blackcap	18	Chiffchaff	13
Garden Warbler	2		

During the years 1968-1972, it is hoped to make observations on breeding birds and their distribution in the British Isles, on a basis of the 10-kilometre squares of the national grid. Many useful records have been collected at Wicken Fen, because of the large numbers of ornithologists who have been present during the breeding season. Young birds of many species were caught in early July, before any birds bred out of the area might have immigrated. Thus the breeding of such species as Willow Tit, Tree Creeper, Grasshopper Warbler, Blackcap, Lesser Whitethroat, and many others was proved. The survey lays emphasis on proof rather than high probability, and these are all useful observations.

Counts of Ducks on the Mere have been made for the Wildfowl Trust's continuous census of these birds and it is hoped to maintain these observations on the state of moult of birds caught have been made, the most interesting ones so far being of 15 Long-tailed Tits in two consecutive days. These should give interesting data when more records have been accumulated.

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In a few years' time, it should be possible to write a further report on the birds of Wicken Fen. The value of the notes on the species in any such check-list could be increased were a regular programme of ringing research to follow on this year's pilot scheme.

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A few notes on individual species observed from May to July are included, where they are of particular interest, or supplementary to the records in 'The Birds of Wicken Fen' (G.M.S.E. and C.A.E.K. 1967).

Marsh Harrier:

several records of individuals throughout the summer.

Montagu's Harrier:

a pair was very probably present throughout the summer, but the birds had a wide range and no breeding attempts were recorded. Further information is required on this species.

Snipe:

numerous, and frequently observed drumming.

Woodcock:

roding was noted throughout the summer.

Collared Dove:

numcruous in the area of the brickpits, up to 10 pairs probably involved.

Turtle Dove:

very numerous throughout the fen.

Swift:

Up to 100 seen feeding over the Mere area in suitable weather, presumably the breeding birds from the village. One bird ringed at Downham Market in 1966 was found dead in Wicken in April 1968.

Treecreeper:

probably two pairs in the area of the brickpits. A juvenile was caught in early July.

Song Thrush:

one bird ringed at the roost near Coton on 2 March 1968 was controlled on 4 May 1968.

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Grasshopper Warbler:

very numerous; there could probably be over a hundred breeding pairs on the Fen. Two juveniles were caught in early July.

Lesser Whitethroat:

probably more numerous than it appears, judging by the number of birds caught in a small area. Juveniles were also caught in early July.

Spotted Flycatcher:

A bird near the Mere on 5 May and another caught at the brickpits on 12 May were probably on passage. There were no other records.

Redpoll:

present in fair numbers throughout the summer; several adults, but no juveniles were caught.

Bullfinch:

a very numerous bird. Flocks were occasionally seen feeding on the ground in the surrounding fields, which is perhaps unusual for this species.

vii) Education and the visitor to the Fen

Although the ringers are usually fairly busy while catching birds, they are always anxious to meet members of the public who are curious or even suspicious about their activities. They try to show them how the birds are caught and ringed and explain the purpose of it all. It is pleasing that all the people encountered have been satisfied that nothing unreasonable is being done, and many have been very interested. Relations with the public are always a compromise between being too open, which would lead to undue disturbance of the birds, and delay the work too much, and being too secretive, which might give rise to suspicion and an undesirable and unfair reputation. It is hoped that this problem has been successfully met throughout the summer. Public co-operation has been encouraged by the establishment of a record book in which observations can be recorded. Mr. and Mrs. Barnes have been very kind in keeping this and drawing the attention of the public to it, and it has met with some success.

Most of the work has been done by qualified ringers, but there has been some opportunity to train beginners. Thus it is hoped that trained undergraduates will move out to other parts of the country, and more resident enthusiasts will be available to continue projects in the area of Cambridge. Wicken Fen, with its large variety of species in steady supply, is an excellent place for this.

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viii) Future plans

The completion of the pilot scheme this summer has shown that there is a lot of useful information to be gathered on the Fen. It should be possible to ring many more Reed and Sedge Warblers in 1969 and the findings should thus assume much greater significance. With the experience gained in 1968 it will be easier to catch birds efficiently as much has been learned about useful net sites. The results of the scheme have generated substantial interest amongst other ringers in Cambridge and many non-ringers are also eager to learn. Thus by 1969 there should be a larger number of experienced ringers and partially-trained beginners to help. These will be utilised by covering more weekends rather than by using more people each weekend, and this will increase the value of the results by improving their continuity.

While the Acrocephali are wintering in Africa, there are other studies worth making. These involve particularly the wintering populations of Redwing and Fieldfares which are numerous on the Fen, both while feeding by day and roosting at night. It is hoped to discover the numbers of birds involved and their movement patterns, for instance are the same birds present throughout the winter or not? What proportion of birds wintering on the Fen return in subsequent winters? Similar questions could be asked about the finch flocks which probably build up later in the winter. It will also be interesting to see whether the resident birds, such as Robins, ringed in the breeding season are still present, or if their numbers have been swollen by birds from elsewhere wintering on the Fen.

ix) Acknowledgements

We are indebted to all those who have made this project possible, and especially to Dr. John Smart, Zoological Secretary for the National Trust's Wicken Fen Committee, who issued the permit for our work, and was kind and patient with us from the outset. The Warden, Colonel Mitchel, allowed us to use a shed for living and ringing in at the height of the summer visits, which made a great deal of difference to the speed and efficiency of the programme at what could have been a critical time. Apart from this he became a valuable friend, always ready with useful advice and information. The Keeper and Mrs. Wilfred Barnes were equally kind and welcoming and were good enough to draw the attention of visitors to our book for records, kept at the cottage. Throughout we received nothing but good will and friendly co-operation from all those working on the Fen.

The project was carried out by the following, who supplied equipment and rings at their own expense:

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|--------------|----------------|
| M.J. Allen   | J.A. Dick      |
| C.J. Bibby   | D.J. Steventon |
| H.J. Branson | C.J.R. Thorne  |
| A.C. Clarke  | S.R. Wilkinson |

Reference: G.M.S. Easy & C.A.E. Kirtland (1967):  
The Birds of Wicken Fen (National Trust: Wicken Fen Local Committee)

C.J. Bibby

Activity

Midday ↓ approx

wt. gms

