

THE ABNORMAL BREEDING OF BIRDS IN THE WINTER 1953/54

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THE unusually mild weather that prevailed over the British Isles in November and December 1953 resulted in a considerable outburst of breeding by a few species of resident birds. A number of reports appeared in the Press at the time, and there were many rumours of nests. In March 1954 *British Birds* made an appeal for information on these "freak" nests, which brought in a disappointingly small number of extra records. Since then, a few more records have been published in reports of local ornithological societies and elsewhere. From all these sources it is evident that breeding was widespread, though on a small scale. It is unfortunate that, as it seems, no ornithologist had the opportunity to make detailed observations on any nest, and few ornithologists even saw one. Inevitably, therefore, the data on which this account is based are much less precise than could be desired, and although records which for any reason appeared open to doubt have been rejected, others, for which the evidence is hardly conclusive, have been admitted. In dealing with records of this sort the line between acceptance and rejection is hard to draw, but in this case the general picture is luckily not much affected. Thanks are due impartially to all who sent in records, whether they have been accepted or not.

THE WEATHER

Weather data have been taken from the *Monthly Weather Reports* of the Meteorological Office and from the meteorological records kept at Oxford. October 1953 was, in the words of this report, "dry in most areas; mainly rather dull; mild in Scotland; unusually quiet in England". The weather was not, in fact, at all exceptional, apart from the absence of strong winds in the south. Mean temperature was a little lower than the average for 1921-50 in England and Wales (by 0.4° F.), and a little higher than average in Scotland (by 1.8° F.). November was however unusually mild. The mean temperature for November was notably high, being 3.3° F. above average in all areas—higher than for any other year except one since before 1901. The month started rather cold. Mean temperature was somewhat below average in the first week, but the remainder of the month was very mild, and the normal seasonal drop in temperature was suspended. During the long mild spell there were numerous high maximum temperatures, but few outstanding values. Minimum temperatures were also high. At Oxford the extreme minimum, 35° F., was the highest for November in a record going back to 1881.

December continued unusually mild. It was very dry, dull in England and Wales, and sunny in Scotland. Mean temperatures exceeded the average (for 1921-50) by 4.6° F. in England and Wales, and 2.9° F. in Scotland. This was the mildest December in Great Britain since 1934. Temperatures were exceptionally high from 2nd to 4th December. Night temperatures were also very high at some places. At Oxford there was no air frost in any of the four months September-December.

January 1954 was changeable. The first ten days were cold, the next fortnight mainly mild, and then from 23rd January to the end of the month it was unusually cold. The long mild spell thus ended almost exactly at the end of the year.

In Fig. 1 the daily maximum and minimum temperatures at Oxford are plotted from mid-October to mid-January, together with the mean monthly maxima and minima for the 10 years up to and including the winter 1953/54. It will be seen that maxima fluctuated fairly regularly about the mean except for a period round the end of November and beginning of December, when they were consistently above the mean for a fortnight. Minima fluctuated rather more erratically. There was a period of 6 days in mid-November when they were consistently above the mean, and another long period of nearly 30 days, in the second half of November and first three weeks of December, when they were consistently above the mean on all days except one, rising above

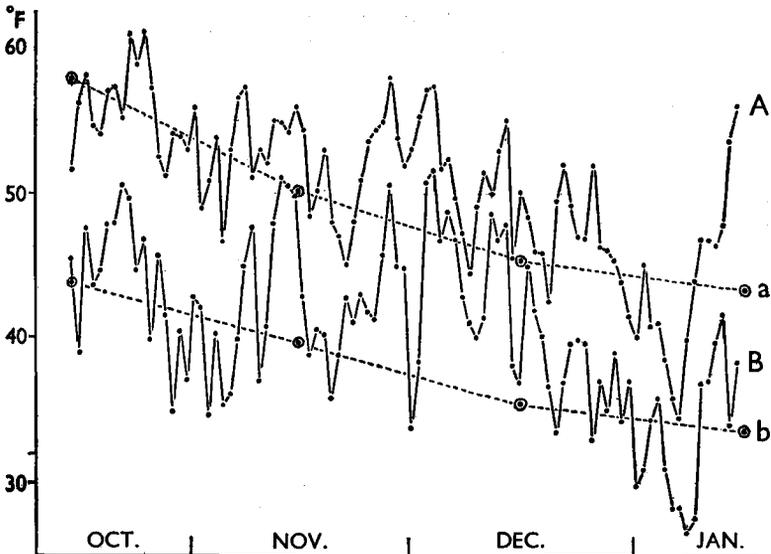


FIG. 1.—DAILY MAXIMUM (A) AND MINIMUM (B) TEMPERATURES AT OXFORD IN THE WINTER 1953/54, COMPARED WITH THE MEAN MONTHLY MAXIMA (a) AND MINIMA (b).

mean maximum temperatures on several days in the first half of December.

SPECIES BREEDING

Blackbirds (*Turdus merula*), Song Thrushes (*T. philomelos*), Robins (*Erithacus rubecula*), Starlings (*Sturnus vulgaris*) and House Sparrows (*Passer domesticus*) were the chief species reported as breeding, but because of the inaccessibility of their nests few details are available for the last two. Most information is available for the Blackbird and Song Thrush, but clearly this is mainly due to their abundance and the accessibility of their nests and does not necessarily mean that proportionally more of these two species were nesting than of other less common resident species. In addition there is one record of a Dunnock's (*Prunella modularis*) nest with eggs, one of a Skylark's (*Alauda arvensis*), several reports of Rooks (*Corvus frugilegus*) building and one report of a Magpie (*Pica pica*) nesting.

As the Appendix shows, breeding records came from many parts of England. The only definite breeding records for Scotland were from the extreme south (Roxburghshire), and in addition Rooks were reported as building near Edinburgh on several dates in December and early January. The absence of records from further north is probably due only to the scarcity of observers; November was as mild in Scotland as in England and December only a little less mild.

Details of all the nests for which there is some satisfactory information are given in the Appendix, and their dates are summarized in Table I. Some conventions have had to be adopted because of the imprecise nature of the data. The date for each nest is taken as the day on which the first egg was laid. For most nests this can only be worked out as a more or less extensive "bracket", and in working out this bracket it has had to be assumed that nests were occupied when first found unless there was evidence to the contrary. In allocating the nests to a period in Table I, the middle point of the bracket has been taken; since the periods used are of half a month, the error involved should not

TABLE I—BREEDING DATES (CALCULATED DATES OF FIRST EGG) OF SIX SPECIES IN THE WINTER 1953/54.

	Song		Robin	House		
	Blackbird	Thrush		Starling	Sparrow	Skylark
First half November	—	3	1	—	1	—
Second ,, ,,	5	2	1	2	—	—
First half December	5	4	2)	1	1
Second ,, ,,	2	1	—)1	1	—
First half January	1	—	—	—	—	—

be great. Hardly any clutch-sizes can be determined with certainty. In the Appendix, clutch-sizes which appear to be well founded are shown without a bracket, those based on a mere statement of how many eggs a nest contained, with no indication whether the clutch was complete or not, are bracketed, and those based on the size of broods, or broods plus unhatched eggs, are square-bracketed.

BLACKBIRD. Records are available for 13 nests which contained eggs or young. In ten of these the clutch was begun in the second half of November or first half of December. Of the two latest nests, from the same wood in Roxburghshire, one was probably started on 31st December, and the other at the very end of December or in the first few days of January. Considering that some of the clutches were probably incomplete when recorded, clutch-size was not abnormally low. The fate of only five nests was known. Two were deserted or destroyed, both apparently due to human interference, and young hatched in three. Of these three, young were fledged from one, the young died in one, probably due to exposure to the weather, and the fate of one was unknown.

SONG THRUSH. Records are available for ten nests which contained eggs or young (including one based on observation of newly fledged young). Song Thrushes started to nest rather earlier than Blackbirds, just as in a normal breeding-season. Clutch-size seems to have been similar to the Blackbird's. The fate of most of the nests was known. Young hatched in five, and fledged from three of these, the fate of the other two being unknown. One of the clutches known not to have hatched was incubated for 18 days (20th December-7th January), and then deserted; the eggs were later found to be infertile.

ROBIN. Robins apparently bred at about the same time as the Song Thrushes. Of the four nests, the fate of two was unknown, one was deserted, and young probably fledged from one.

OTHER SPECIES. None of the information on Starlings is very precise, though it seems that a good number must have bred and succeeded in hatching young, since there were several unconfirmed reports of young Starlings besides those admitted here. Information for the House Sparrow is even more scanty and cannot be summarized. Reports of Rooks building have already been mentioned, but there is no evidence that any got beyond this stage; unsatisfactory records of young Rooks and Jackdaws have had to be discarded. Details of the single Dunnock's and Skylark's nests are given in the Appendix.

DISCUSSION

Table I shows that, taking all species together, most breeding started in the second half of November and first half of December. It will be recalled that the weather in October was not exceptional,

and that the first week of November was rather colder than usual; but that after the end of the first week of November the normal seasonal drop in temperature failed to occur and the rest of November and December remained exceptionally warm. It seems clear that the main outburst of breeding was stimulated by this abnormal prolongation of warm weather. It may be noted that, as the Appendix shows, the nests allocated to the first half of November in Table I could all have begun after the end of the first week, and most of them, since they lie within rather wide brackets, in the second half of November.

The Blackbird and Song Thrush, the only species for which some idea of breeding success can be gathered, were not notably unsuccessful. Indeed it seems that many Song Thrushes, in particular, may have effectively added an extra brood to their year's production of young. It would be extremely interesting to know whether those individuals that bred were able to start again at the normal time in the spring of 1954. This raises the wider problem of the selective factors operating against autumn breeding. If the climate of this country were to become only a few degrees warmer in autumn, many resident birds, if they retained their present physiological adjustment to their environment, would start breeding in autumn, as they did in 1953. But there is little doubt that a regular autumn breeding season would not be established, just as it has not been in southern Europe where autumn temperatures are comparable to those prevailing in this country in 1953. There are several reasons why selection might eliminate a regular autumn breeding-season, even if conditions were normally suitable for raising some young. Individuals breeding in autumn might be physiologically incapable of breeding again with full efficiency in the following spring, when conditions for raising young would be even more favourable. Or they might not be able to lay up sufficient food reserves to survive the coming winter as well as those that did not breed. Or, even if these disadvantages were not of sufficient force, the young might not on the average survive the coming winter in sufficient numbers to offset the extra mortality which a breeding season undoubtedly entails for the adults. These factors are not of course mutually exclusive: all might operate together to prevent regular autumn breeding.

APPENDIX

The italicized dates of first egg, clutch-size, etc., do not form part of the original reports, but are calculated from them in the way described on page 122; they are used as the basis for Table I and for other generalizations made in the text.

Blackbird

1. Sandhurst, Berks. Nest with 4 eggs exposed during gardening operations, approx. 3rd Dec.; deserted. (Telephone communication to Edward Grey Institute.) *First egg: 17th-30th Nov. Clutch: (4).*

2. Fordingbridge, Hants. Bird sitting on eggs, 7th Dec. (J. Ash.) *First egg: 20th Nov.-5th Dec.*

3. Wiston, Sussex. Pair with eggs, 6th Dec. (*Sussex Bird Report* 1953.) *First egg: 20th Nov.-5th Dec.*

4. Hants. Nest with 2 eggs, approx. 6th Dec. (Letter to *Field*, 6th Dec. 1953, from Sir F. Hervey-Bathurst, and pers. comm.) *First egg: 22nd Nov.-5th Dec. Clutch: (2).*

5. Carisbrooke, I.O.W. Nest with eggs, first days of December. (*I.O.W. County Press* 5th Dec. 1953, per J. Stafford.) *First egg: second half November.*

6. Hereford. Nest with 3 eggs destroyed during hedging operations, 9th Dec. (*Hereford Orn. Club Report* 1953.) *First egg: 25th Nov.-7th Dec. Clutch: (3).*

7. Carnforth, Lancs. Nest with 4 eggs found during second week December; not known to have hatched. (Eric Hardy, *Liverpool Daily Post* 21st Dec. 1953.) *First egg: 22nd Nov.-11th Dec. Clutch: (4).*

8. Penrith, Cumberland. Nest in a byre at Great Strickland; 3 eggs, 16th Dec. (N. Thorburn in *The Field Naturalist* January 1954.) *First egg: 1st-14th Dec. Clutch: (3).*

9. Totland Bay, I.O.W. 3 young in nest, presumably 1st Jan. 1954. Fate unknown, but considered possible that they survived. P.S. gives 3rd Jan. as date on which young were in nest. (*I.O.W. County Press* 2nd Jan. 1954, per J. Stafford; letter from F. G. Clegg, 2nd May 1954; letter from P. Sleightholme, 4th May 1954.) *First egg: 6th-17th Dec. Clutch: [3]. Brood: 3.*

10. Bristol, Glos. Nest with 4 eggs, near Almondsbury, just before 25th Dec. (A. E. Billett in *Bristol Nat. Soc. Report* 1953.) *First egg: 7th-20th Dec. Clutch: (4).*

11. Dinmore, Hereford. Nest with 2 eggs, 25th Dec. (*Hereford Orn. Club Report* 1953.) *First egg: 11th-24th Dec. Clutch: (2).*

12. Newcastleton, Roxburghshire. 4 young and one undeveloped egg, 22nd Jan. 1954. Young flew on 31st Jan. Nest well sheltered, in spruce. (S. Cruickshank in *Gamekeeper* April 1954, and pers. comm.) *First egg: approx. 31st Dec. Clutch: [5]. Brood: 4.*

13. Newcastleton, Roxburghshire. Nest in same wood as No. 12, found on 18th Jan. 1954. 3 young perished, probably of exposure, at approx. 5 days old. (Uncertain what nest contained when found.) (S. Cruickshank in *Gamekeeper* April 1954, and pers. comm.) *First egg: 30th Dec.-3rd Jan. Clutch: [3]. Brood: 3.*

Song Thrush

1. Flackwell Heath, Bucks. Nest with 2 eggs, 11th Nov., beside footpath. A few days later eggs gone and nest disturbed. (C. A. Smith in *Country-Side* Spring 1954, and letter to Editor of *British Birds*, 12th May 1954.) *First egg: 28th Oct.-10th Nov. Clutch: (2).*

2. Norwich. Young in nest, early December. (E. A. Ellis in *Norfolk Bird Report* 1953.) *First egg: mid-November (limits approx. 2nd-22nd).*

3. Washington, Sussex. Pair with young, 6th Dec. (*Sussex Bird Report* 1953.) *First egg: 7th-21st Nov.*

4. Ellesmere, Salop. 4 three-quarter-fledged young in nest, 14th Dec. Young in nest 2-3 days later and left nest in natural way. (D. Pilsbury in *Country-Side* Spring 1954, and letter to Editor of *British Birds*, 24th Apr. 1954.) *First egg: approx. 18th Nov. Clutch: [4]. Brood: 4.*

5. Marks Tey, Essex. Nest with 3 eggs, 2nd or 4th Dec. (reports of dates and nest-site conflicting, but probably only one nest involved); deserted, probably due to interference. (*News Chronicle* 3rd Dec. 1953, per H. E. Pounds; letters from G. Mountfort, 8th Dec. 1953 and 9th Feb. 1954.) *First egg: 19th-30th Nov. Clutch: (3).*

6. Hindhead, Surrey. Nest with eggs, 15th Dec. (Letter from C. Densley, 4th March 1954.) *First egg: 29th Nov.-14th Dec.*

7. Cobham, Kent. Young birds seen in nest "after Christmas"; two days

later two young just out of nest. Still being fed in mid-January. Possible that these reports involve two different nests. (Letter from U. Benecke, March 1954.) *First egg: beginning December.*

8. Haslemere, Surrey. Nest with 4 eggs, 17th Dec.; abandoned during cold weather in January. (Letters from C. Densley, 4th and 11th March 1954.) *First egg: 1st-14th Dec. Clutch: (4).*

9. Hailsham, Sussex. Nest built in early December; first egg 15th Dec.; incubation started 20th Dec. Nest deserted, 7th Jan.; examined on 12th Jan., contained 3 infertile eggs. (E. Salvage in *Country-Side* Spring 1954; *Sussex Bird Report* 1953.) *First egg: 15th Dec. Clutch: 3.*

10. Rainham, Essex. Two fully fledged young seen, 30th Jan. 1954, unaccompanied by parents. Tails incompletely grown, and still with traces of down. (Letter from R. Spencer, 4th Feb. 1954.) *First egg: 25th-30th Dec. (on assumption that they were 15-20 days old when seen).*

Robin

1. Wimborne St. Giles, Dorset. Young in nest about end November; believed to have fledged successfully. (Mr. Webb, per K. B. Rooke.) *First egg: first half November.*

2. Washington, Sussex. Nest with eggs, 6th Dec. (*Sussex Bird Report* 1953.) *First egg: 20th-Nov.-5th Dec.*

3. Cumberland. Nest with 4 eggs, 16th Dec.; bird sitting. (*Country-Side* Spring 1954; letter from J. A. McRitchie, 25th March 1954.) *First egg: 1st-13th Dec. Clutch: 4.*

4. Wimborne, Dorset. Nest in chassis of mobile crane; building begun early November; 5 eggs laid by 12th Dec. Incubated for some time in spite of moving of crane. Deserted during severe weather just after Christmas, but may have been disturbed. (A. Willis and A. Creamer, per Wimborne Timber Co.; all per K. B. Rooke.) *First egg: approx. 8th Dec. Clutch: (5).*

Starling

1. Camberley, Surrey. Building mid-November. Later (?date) young heard squeaking; nest inaccessible. (Letter from Maxwell Knight, 14th Jan. 1954.) *First egg: probably second half November.*

2. Brighthstone, I.O.W. Starling's egg found on lawn, 29th Nov. (*I.O.W. County Press* 5th Dec. 1953, per J. Stafford.)

3. North Cowton, Yorks. Probably 4 young in nest on 20th Dec., and parents seen carrying food. Young last heard on 8th Jan., and probably killed by 13° frost on following night. Nest inaccessible. (J. P. Utley in *Darlington Times* 2nd and 12th Jan. 1954, and letter to Editor of *British Birds*, 28th Jan. 1954.) *First egg: 27th Nov.-2nd Dec.*

4. Penrith, Cumberland. Young in nest at Christmas. (*Penrith Observer* January 1954, per R. W. Robson.) *First egg: late November or early December.*

House Sparrow

1. Widnes, Lancs. Nest with eggs found in third week November. (Eric Hardy, *Liverpool Daily Post* 23rd Dec. 1953.) *First egg: 1st-19th Nov.*

2. St. Helen's, Lancs. Remains of egg, probably not more than two days old, picked up in garden, approx. 22nd Dec. (A. J. Bailey, per Eric Hardy.)

3. Near Northwich, Cheshire. Nest with 3 eggs, 11th Dec. (A. W. Boyd in *Manchester Guardian*, 15th Dec. 1953.) *First egg: 26th Nov.-9th Dec.*

Duncock

1. Yateley, Surrey. Nest with eggs, presumably in December. (Letters from Maxwell Knight, 14th and 26th Jan. 1954.)

Skylark

1. Appleby, Westmorland. Nest with 2 eggs in turnip field, 19th Dec. (N. Thorburn in *The Field Naturalist* January 1954, per R. W. Robson.) *First egg: 5th-18th Dec.*