

ARE STARLINGS DOUBLE OR SINGLE BROODED ?

BY

N. F. TICEHURST, M.A., M.B.O.U.

AT the meeting of the British Ornithologists' Club on February 12th, 1913, Mr. R. H. Read related that in 1912 he had found second layings of Starlings' eggs in nests from which a brood had been previously hatched out, and that these were the first instances he had ever met with of a second brood in a Starling's nest. As reported in the *Bulletin* (p. 64), no proof is given that these second-layings were the produce of birds that had already reared broods, and in the discussion that took place on this point it seems to have been the general opinion that the second brood occasionally reared in a nest was the offspring of different parents. In support of this Mr. Bidwell cited the experience of Mr. J. Whitaker at Rainworth, who had put up ninety boxes for Starlings. "When every box was occupied there were sometimes two or three pairs which used them after the first brood had flown. These were all birds which had not previously been able to find a nesting place. When the ninety boxes were not all used there were never any late nests. If the Starling was double brooded, many of these boxes would have been occupied a second time. These observations were the result of nearly forty years' experience." Now, it seems to me that the only possible way of proving whether these later broods are the offspring of parents that have or have not reared young already, is by making a series of observations on ringed birds, although Mr. Whitaker's facts show that at any rate in Nottingham the large majority of Starlings are single brooded.

The subject is an interesting one, and not unimportant, and it is to be hoped that anyone who has any facts bearing on the matter will make them public, so that a definite conclusion may be arrived at.

Some years ago I put up a few nesting-boxes for Starlings in my father's orchards in Kent, and when my brother started marking the birds in 1908 we increased the accommodation for them by adapting sundry old woodpecker and natural holes in the old trees in various ways, so that they were not only suitable to the birds but convenient to us to reach the young ones when old enough for ringing. Since then I have kept a careful account of all the broods reared and marked. In most years the majority of the holes have been used for first broods, though never all, which may mean, though I do not regard it as a certainty, that the supply is slightly in excess of the demand. Every year also a considerable percentage are occupied later, and I always have a second

crop of ringing to do about the third week in June, but whether these young ones are the progeny of birds that have already reared one brood, there has been no proof until 1912, though I have always considered that some of them were.

With a view to reaching some definite conclusions, I have analysed my records for 1912 (the first year that marked birds have been recovered in any numbers) and the results are somewhat surprising. I find that I have records of thirty-two nesting-places, and there were at least three or four besides that were never occupied at all. Of these thirty-two, nineteen contained young nearly ready to fly which were ringed between May 18th and 24th; to these may be added five more that contained eggs or small young at the same date and which may with certainty be reckoned as first broods, though perhaps those of birds that had been previously disturbed. This leaves eight "boxes" unoccupied, besides those mentioned above. The second layings commenced very soon after the young ones flew, and in two instances at least at an interval of only three days in the same boxes. There were no less than twenty-two of these later broods, leaving ten boxes unoccupied, while no less than fourteen boxes were used twice over. The young in these broods were large enough to ring between the 16th and 20th of June.

On these facts it would seem as though a considerable percentage of these Starlings were double-brooded, but it would be unsafe to draw this conclusion as the number of earlier nests in 1912 was distinctly below the average, and it may well have been that for some reason or other some at least postponed their nesting-operations until late in May. Be this as it may, there is definite proof from marked birds that at least two pairs did rear two broods, and in concluding with the evidence for this I would urge others who may be aware of any similar instances to publish them.

Box 57.—Adult female ringed while sitting on eggs (No. B.B. 7109), May 20th, 1911.

Caught on eggs, April 21st, 1912.

Young ringed May 18th and flew 20th.

Caught on eggs June 6th, young subsequently flew.

Box H.—Adult female caught on eggs and ringed (No. B.B. 14512), April 21st, 1912.

Young ringed May 18th and flew 20th.

Box J.—Adult female (14512) caught on eggs, June 6th.

Young ringed June 20th.

The above facts were briefly recorded (*supra*, p. 97) in the list of marked birds recovered, but in the mass of statistics their significance is perhaps not very apparent.