

SOME BREEDING-HABITS OF THE MISTLE-THRUSH IN CORNWALL.

BY

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AS a result of very close and continuous observations of some thirty nests of the Mistle-Thrush (*Turdus v. viscivorus*) during the last eight or nine years, I feel now in a position to record the conclusions reached from them. The nests I refer to were all in or near my garden on the north coast of Cornwall about $1\frac{1}{2}$ miles from the sea. I have been particularly fortunate in that several pairs have nested in sites close to my house, which have been readily visible from some window, and my field-glasses have brought the building and other operations into full and clear vision. Other nests, particularly second and further ones, I have been able to study out of doors for, though classed as shy birds, I have experience of many that have taken little or no notice of my presence at close quarters, thus greatly enhancing the value of my studies. These intensive observations, combined with my previous long experiences of the Mistle-Thrush in the West-country, throw, I believe, accurate light on the habits of the bird.

The earliest date at which a brood has safely left the nest is, in my records, March 30th, but such early cases have been rare. The latest dates are of a bird that began her nest on May 23rd, started incubation on the 30th and hatched late on June 12th. The brood left the nest on the 27th, after which the young birds remained in the garden until July 9th, being regularly fed by the parents.

The exact site of the nest is selected by the hen only a day or two before building starts. A large unshaped foundation is first formed, consisting mainly of twigs, large lichens and coarse grasses, and this becomes a consolidated mass, the various materials being interwoven by feet and wing movements and pressure of the body. Then follows the building of the outside framework of the cup, materials being interlaced between natural supports where they exist and firmly entangled with the foundation at the lower parts and with each other as the structure rises. A large, deep cup has now been formed, the bottom being solid and the sides merely a skeleton. Large quantities of lichen and other available material are then brought and the round wall is thickened to the exclusion of daylight; simultaneously the foundation rises. The next process is the further consolidation of the masses of interwoven materials by a plaster of

a quantity of wet mud and dung. The nest is now ready for the reception of fine dry hay as the interior lining, which completely hides the mud under it. The work is completed! The finished nest is a large and conspicuous one and the cup is somewhat shallow and quite roomy. The hen is entirely responsible for this amazing architectural feat, the cock not assisting in any way at all, though he has been often near at hand during the hours of work and her companion at other times. Early and first nests are usually completed in seven or eight days, the hen generally working for two or three hours daily from about sunrise to nearing mid-day. The first egg may not be laid till a week or more later. No building is normally done in inclement weather. The flight of the hen during building operations is very leisured and slow and somewhat heavy. On leaving the nest for fresh materials and flying downwards, her wings are wide-spread. The eye is at once attracted by this special flight and the site is thus quickly located.

The normal clutch here consists of four eggs, any variation from which must be very rare, for I have no record, out of many scores of nests inspected, of ever having seen more or less than four. The eggs are hatched on the fourteenth day after incubation has commenced. The hen quits the nest for not more than twenty minutes eight or ten times a day to feed herself, the cock accompanying her or she joining him. The cock sings considerably less than he did before the eggs were laid.

The young leave the nest when about a fortnight old. I use the word "about" advisedly because the age varies according to climatic and other conditions. The normal age is fourteen days, but I have records of several instances of the brood not quitting the nest until fifteen and sixteen days old. During the first four or five days of their lives the mother sits on them to a considerable extent, though she constantly leaves them for short periods, returning with food. After this she only covers the young occasionally and when nine or ten days old leaves them alone for the night also, except in inclement weather. The cock brings food frequently. For at least a fortnight after the nest is left, the young are fed by both parents and sometimes mainly by the cock.

When a second brood is to be reared, as is sometimes the case, a new nest in a site within the territory is rapidly built about a week after the first brood is on the wing. Such nest is usually finished within three days and the first egg laid

after a much shorter interval. The young of the first nest remain in touch with their parents throughout the rearing of their younger brethren.

The course of breeding by no means always runs so smoothly as above described. Nests are constantly blown down or damaged and the eggs and young consequently destroyed. A fresh nest is very soon built and eggs quickly laid. I have known of many cases of a fourth or even fifth nest being built before a brood is finally reared.