

FURTHER NOTES ON THE BITTERN IN THE
NORFOLK BROADS.

BY

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I REFERRED last month (*antea*, p. 7) to a Bittern's nest found amongst sedge. This nest was composed of sedge with a few rushes laid across the top. As a rule Bitterns' nests are made of dead reeds. I am now able to supply data with regard to this nest.

April 26th. 2 eggs.
May 4th. 6 „
„ 25th. 3 young hatched.
„ 27th. 5 „ „

On May 28th I photographed the young about 6.0 p.m. The three eldest birds stood in a row and regarded me with quiet interest. They were quite docile and did not object to being handled. The fourth crouched near his brethren, while the fifth showed a great desire to shelter beneath the others. This bird could not have been more than 24 hours' old. I was much struck by the way in which these nestlings used their "hands." The youngest bird used them when moving across the nest. The older birds supported themselves also with their hands when standing upright against the reeds, the thumb in each case being extended. As I approached the nest, the female was just flying away in search of food. I walked swiftly up to the young, and found the smallest one still wrestling with an eel about seven inches long. The tail was hanging out of his beak, and he made great efforts to swallow the loose end of his meal before retreating. In order to do this he crouched down in the nest, supporting himself by extending his wings and turning them outwards towards me, and pressing his "hands" hard into the nest. I was more than ever struck with the abnormal appearance of newly-hatched Bitterns. These nestlings were the youngest complete family I had as yet seen. They looked like some queer, uncanny, prehistoric links between the reptile and the bird. The extraordinary brilliance of the blue skin

when seen in bright sunlight accentuates their likeness to the reptiles.

I saw them again two days later. They were a fine healthy set of nestlings, still easy to handle, and showing no disposition to fight. A week later (June 7th) all five hastily retreated from the nest, one after the other, running rapidly through a little path which led from the nest to thick cover. We retrieved them one by one, and when brought back they evinced considerable pugnacity. Still I was possessed with the feeling that I was handling something other than a bird, and as each in turn darted a vicious thrust at my hand or eyes, I almost expected to see a forked tongue thrust forth. The marsh was quite dry when I photographed them on May 28th, but on June 7th the water had risen considerably, so that it was almost up to my knees. The nest, however, was safe, as the water had reached its highest level and would fall during the next few days.

The male was booming near, but his voice had broken and he could only produce two resonant booms after several trials. These preliminary gurgling sounds were like unsuccessful attempts at blowing a bugle. Yet he had been the champion of the marshes. I have heard him boom seven, eight and even nine times in succession, especially during the night of May 15th, when the moon was full. There is a marked individuality about each Bittern's boom. One would like to know whether the strength and peculiar resonance of some males' voices, and the number of times they boom, is due to age, or whether it is merely the result of individual virility. For some weeks one male always produced five booms in succession, with the usual two seconds' interval between each; then, after a four seconds' pause, he boomed a sixth time. After May 28th he dropped from six to five booms with a four seconds' interval between the fourth and fifth. But on the night of June 11th, when the moon was nearly full, he was again booming six times.

One Bittern has boomed irregularly, and with obvious effort all the breeding season. By May 15th this bird failed to produce more than one boom, preceded on every occasion by

two or three abortive efforts. On the night of June 11th booming was continuous from 8.0 p.m. (solar time) until 1.30 a.m. It was one of the brightest and stillest nights I have ever known. Bitterns challenged each other unceasingly and sometimes the boom of one bird overlapped that of another. No two birds seemed to boom in exactly the same key. One far-away Bittern's voice was decidedly high pitched. Distance and atmospheric conditions may partly account, perhaps, for these variations in tone, but they are, nevertheless, as individual as are the lowings of different cows.