

which will constitute the standard work of reference for a long time to come, and thanks to his researches we, for the first time, gain a clear knowledge of the distribution of life in this region. The admirable map which accompanies the report is a valuable feature.—W. S.

Chance's the Cuckoo's Secret.¹—We have from time to time noticed in the pages of 'The Auk' the publications in the British ornithological magazines dealing with the life history of the Cuckoo and commented upon the remarkable results that our friends across the water have attained through their painstaking studies. In the fore-front of this investigation stands Mr. Edgar Chance, who has now embodied all of his observations on the egg-laying habits of this interesting bird in the little volume before us.

He has recorded four seasons' detailed observations on what he considers to be the same female Cuckoo, and other chapters on more general problems in the life-history of the species. One must read the book to appreciate the painstaking work of the author and the importance of his investigations and only a brief summary of them can be given in this connection.

In the first place British ornithologists seem to be unanimous in the belief that individual Cuckoos lay eggs that are characteristic, and distinguishable from the eggs of other Cuckoos in the same vicinity, and also that under normal conditions an individual Cuckoo is parasitic on only one species of bird—the victim being known as the "fosterer" in the language of Cuckoo investigation. It would also seem that in the case of the Cuckoo it is the female that selects the breeding area and not the male, this being in contrast to the custom prevalent in most birds as described in Howard's 'Territory in Bird Life' and in Mr. H. Mousley's recent paper (Auk, July 1921).

The unique method of nidification in the Cuckoo is ample explanation for this reversal, while the fact that the same type of egg is found in the same area year after year, indicating the presence of the same individual cuckoo, confirms this theory.

All of these points are supported in a convincing way by Mr. Chance's observations. The most interesting features of his researches are however that he was able in 1920 to locate probably every egg laid by this special Cuckoo which he had under observation, and in most cases to record the day and hour at which each was laid. There were 21 eggs laid, all but one in Meadow Pipits' nests, and at intervals of two days (except in two instances). So accurately did Mr. Chance forecast the day and nest in which the Cuckoo would probably lay that he was able to place a motion

¹ The Cuckoo's Secret. By Edgar Chance, M. B. O. U. London: Sidgwick and Jackson, Ltd. 3, Adam Street, W. C. 2, 1922. pp. 1-239. Numerous illustrations. Price 7s, 6d. net.

picture operator in a blind and secure a film of the performance, including the removal of a Pipit's egg by the Cuckoo, which seems normally to follow the deposit of its own egg.

The Cuckoo's exact method of depositing her egg seems not to have been even yet positively ascertained. Mr. Chance construes his evidence as proving that an egg can be laid in eight seconds, the period that the bird under observation was actually on a nest and left an egg which was not there before, and he also claims that in other instances it can be retained for hours after the bird has become anxious to lay it. Mr. Stuart Baker in a valuable paper on this subject, (Bull. Brit. Ornith. Club, March 13, 1922,) regards both of these claims as improbable and says "there is no doubt that in the vast majority of cases the egg is laid by the Cuckoo elsewhere, and deposited by means of the bill in the foster-parent's nest," and further suggests that she holds her egg in her gullet and regurgitates it into the nest. He actually interprets Mr. Chance's film as endorsing this view.

Mr. Baker's admirable paper should also be read with care especially as it deals with African and Asiatic Cuckoos which must obviously be considered in solving the broader problems of the Cuckoo's parasitism.

Mr. Chance is certainly to be congratulated upon his admirable work and the great progress that he has made in the attempt to solve "the Cuckoo's Secret."—W. S.

Beebe's 'A Monograph of the Pheasants' Volume III.¹—True to their promise the publishers have brought out the third volume of this splendid work promptly on the appointed date. The character and make-up of this volume are quite up to the standard of the preceding ones and so fully have these been described in our reviews of the other parts² that it seems unnecessary to repeat the details here.

With regard to the plates of the several species this volume is quite up to the standard of the last, although, as in that, we miss the exquisite work of Thorborn and its wonderful reproduction which characterized Volume 1. The eight plates by Lodge will probably be most appreciated among those of the volume now before us, although those by Jones, representing the races of *Phasianus colchicus*, are admirably adapted to the differentiation of these closely allied birds. The characters are far better shown in a series of "portraits," such as these, by a single artist, in which the birds are placed in approximately the same position and drawn

¹ A Monograph of the Pheasants. By William Beebe, (etc., etc.) Volume III. Published under auspices of the New York Zoological Society by H. F. and G. Witherby, 326 High Holborn, London, England, 1921. Royal Quarto (12 × 16 in.) pp. i-xvi + 1-204, colored plates 24 (Nos. XLV-LXVIII), photogravures 21 (Nos. 40-60) and 4 maps. Edition limited to 600 copies; price of each volume \$62.50.

² For notice of Volume I see 'The Auk' January, 1919, of Volume II, July, 1921