

adequate description, and a paragraph each on 'Distribution' and 'Habits, etc.' The work is thus in the nature of a 'hand-book,' and will prove invaluable to all interested in Indian ornithology. — J. A. A.

Gurney's 'The Economy of the Cuckoo.'¹— Although so much has been written about the Common Cuckoo of Europe (*Cuculus canorus*), there are many points in its history, according to Mr. Gurney, still not well known. "Cuckoo's eggs," he says, "and all that appertains to them, is an inexhaustible subject when naturalists meet in conclave, and it is one which has a fascination for every oölogist . . . Cuckoo's eggs often, but by no means always in this country, whatever may be the case on the Continent, bear a curiously protective resemblance to the eggs of the foster-bird. To the late August Baldamus belongs the credit of this discovery, though Professor Newton has pointed out that in the second century Ælian had almost arrived at the truth . . . What is argued, by Baldamus and others since him, is that each individual Cuckoo is parasitic to one or two species, and has power to lay only one type of egg . . . Further it seems reasonable to suppose that any Cuckoo will by preference lay in the nest of the species which brought her up. That each individual Cuckoo lays its own type of egg, season after season, and that in nineteen cases out of twenty it lays that egg on the ground, . . . and taking it in its mouth flies or crawls to a nest already known, is established, and hardly requires any further proof . . . That Cuckoos habitually carry away one or more of the fosterer's eggs is now beyond dispute, and they might be expected to continue watching a fosterer's nest which they had not yet robbed, in the hope of doing so." This is supposed to be their purpose when seen hanging about in the immediate vicinity of a nest they have chosen for the deposition of one of their own eggs, rather than solicitude for its safety.

Much proof is also advanced as to the egg-eating propensity of the Cuckoo, the mashed shells of at least seven eggs having been taken from the stomach of a single Cuckoo. The old Cuckoos are also accused of removing nestlings from the nest of the fosterer, and the charge is sustained by much circumstantial and some very satisfactory evidence, the purpose being apparently to secure more abundant nourishment for their own young.

It is a disputed question whether or not Cuckoos ever feed their own young. Mr. Gurney believes "that this departure from the Cuckoo's ordinary habits does take place under very rare circumstances," and that further verification of it will be forthcoming. Mr. Gurney also refers to the "supposed pouch" or "throat pocket" of the Cuckoo, for carrying

¹ The Economy of the Cuckoo (*Cuculus canorus*). By J. H. Gurney, F. Z. S. Trans. of the Norfolk and Norwich Naturalists' Society, Vol. VI, pp. 365-384.

its egg, but seems to quite discredit its existence. He also refers to a kind of dimorphism in the plumage of the Cuckoo when young, "for it sometimes has a rufous plumage, and sometimes a very dark plumage." The red phase appears not infrequently to have a bright chestnut collar; "they are then called Hepatic Cuckoos, and are more often females than males."—J. A. A.

Eastman on 'Struthious Birds.'¹—Dr. Eastman's paper consists of two parts, both of unusual interest. The first portion relates to a fossil egg of a Struthious bird found in the loess of northern China. This egg, with another which was broken, was found by a Chinese farmer, some five years ago, who took it to Kalgan and disposed of it to the Rev. William P. Sprague, an American missionary resident there. Last spring the egg was brought to this country by the Rev. James H. Roberts, by whom it was offered for sale in the interest of Mr. Sprague, and was eventually purchased for the Museum of Comparative Zoölogy, where it is now deposited. It has thus a thoroughly authentic history. The egg is about one third larger than the largest Ostrich egg, thus indicating that "the fossil egg must be the legacy of a larger bird than the Ostrich, and very likely one differing in other respects as well as size." As early as 1857 a similar egg was discovered in the Government of Cherson, in South Russia. This egg later fortunately fell into the hands of Professor A. Brandt of Charkow, who described it, under the designation *Struthiolithus chersonensis*, up to the present time a species known only from this fossil egg, and to which Dr. Eastman now refers the present specimen.

Ostrich remains (fragments of bones) have also been found in the Pliocene of the Siwalik Hills of India and in the Lower Pliocene of Samos, indicating a wide distribution of Struthious birds in early times. In commenting on these facts, Dr. Eastman says: "The occurrence of fossil Ostrich remains in the loess of such widely separated regions as Northern China and Russia has a direct bearing upon the distribution of Struthious birds. It enables us to speak positively with regard to the former extension of the Struthionidæ over Eur-Asia and Africa since the Pliocene, and gives rise to some inferences, within duly circumscribed bounds, regarding the past history of Raft-breasted birds in general. It is necessary to distinguish between what can be affirmed of the Ostrich group, properly speaking, and what we can assume with more or less plausibility concerning the rest of the so-called Ratitæ." He notes that "the best modern ornithological opinion holds that the division into Ratitæ and Carinatae is unnatural, since the differences between existing

¹On Remains of *Struthiolithus chersonensis* from Northern China, with Remarks on the Distribution of Struthious Birds. By C. R. Eastman. Bull. Mus. Comp. Zoöl., Vol. XXXII, No. 7, pp. 127-144 (with plate). August, 1898.