

The half-tone pictures, nearly one hundred in number, add immensely to a clear conception of the breeding haunts and habits of a large number of species the ordinary observer can hardly hope to be able to study in life. — J. A. A.

**Witherby on the Migration of Birds.**<sup>1</sup>—Mr. Witherby sets forth at some length, in a popular way, many well-known facts about bird migration. "None of the many theories" professing to answer the questions of what causes migration, what first led birds to migrate, and how they find their way, are, to him, in any way satisfactory; "the more," he says, "we study the matter, and the more we learn, the more difficult does it become to adopt any of the theories, fascinating and plausible though many of them are." But he believes that the collecting and sifting of information, now going on, "will lead us almost imperceptibly towards the discovery of this mystery of mysteries"! When discovered, what an aching void there will be for those who love mysteries! — J. A. A.

**Shufeldt on the Osteology of the Psittaci.**<sup>2</sup>—The views of several leading authorities on the classification of the Psittaci are quoted at some length (pp. 399–405), and then follows an account of the osteological characters of the Carolina Paroquet, this part of the paper being a revision, with some additions, of his paper on the same subject published in 1886, to which is added (pp. 419, 420) 'Observations upon the Osteology of the Owl Parrot (*Stringops habroptilus*). The nine figures forming the four half-tone plates represent the skeleton of *Stringops* and the skulls of *Conurus carolinensis*, *Ara militaris*, and *Cacatua galerita*, and the trunk skeletons and some other bones of *Conurus* and *Cacatua*, the sternum and shoulder girdle of *Calyptorhynchus*, and the humeri of *Cacatua*. — J. A. A.

**Strong on the Metallic Colors of the Feathers of the Neck of the Domestic Pigeon.**<sup>3</sup>—The so-called metallic colors and iridescent effects of feathers have been generally explained as diffraction phenomena. Dr. Strong states that the hypothesis based on the supposed presence of striæ and ridges is "inapplicable to this case when one finds that the feather may be rotated through a whole circle with essentially the same color effects for given angles even from individual barbules. Furthermore, a careful microscopic study of the barbule surface shows that irregularities

<sup>1</sup>The Migration of Birds. By H. F. Witherby, F. Z. S., Member of the British Ornithologists' Union. Separate, pp. 16, reprinted from 'Chambers Journal.'

<sup>2</sup>Osteology of the Psittaci. By R. W. Shufeldt. Annals Carnegie Museum, Vol. I, 1902, pp. 399–421, pll. xxi–xxiv.

<sup>3</sup>The Metallic Colors of Feathers from the Neck of the Domestic Pigeon. By R. M. Strong. Biolog. Bull., Vol. III, 1892, pp. 85–87.