

Carriker's 'Notes on Costa Rican Formicariidæ.'¹—These notes¹ record *Myrmotherula axillaris* (Vieill.) as new to Costa Rica; give *Drymophila stictoptera* Lawr. as the male of *D. læmosticta* Salvin; raise *Myrmelastes exsul occidentalis* Cherrie to a full species; and discuss the range in Central America of the light and dark forms of *Cercomacra tyrannina*.—J. A. A.

Craig on the Voice in Pigeons as a Means of Social Control.²—The author considers (1) Social Development of the Young; (2) Social Life of Breeding Birds; (3) Social Relations outside of the Family. The present paper is announced as preliminary to a book on the general subject of the development of bird songs which the author hopes soon to publish, giving the results of several years of investigation of the subject. His conclusions are that utility of the voice in birds is of much wider scope than has hitherto been suspected. "The voice," he observes, "is a means of social control: that is to say, the voice is a means of influencing the behavior of individuals so as to bring them into coöperation, one with another." The illustrations are here drawn from the domestic pigeon. He claims that a bird is not "the good machine that naturalists have supposed it to be. No internal machinery, no system of instincts, be it ever so perfect, could carry an individual dove through the vicissitudes of social life without the agency of social control... what is meant is, that to treat the behavior as instinctive is to give it an inadequate description. The inadequacy consists in studying the individuals, and in treating the individual as a distinct entity. What is needed is, to transcend this individualistic view point, and to see that the instincts of the individual can effect their purposes only when they are guided and regulated by influences from other individuals." The song is considered as one means of social control, and its uses are found to be numerous and complexly inter-related, of which a partial list is given.—J. A. A.

Taverner and Swales on the Birds of Point Pelee, Ontario.³—Point Pelee, near the western end of Lake Erie, "forms the most southern point of the main land of the Canadian Dominion." It is V-shaped, two long low sandbars enclosing a "swamp of varying degrees of wetness," and several small ponds, while portions are wooded. It thus forms a resort for all classes of birds. It also seems to form a well marked migration route for a large area to the northward, and is further, according to the authors, tinged with such intrusive southern forms as the Cardinal, Yellow-breasted Chat, Blue-gray Gnatcatcher and Carolina Wren, which "have

¹ Notes on Costa Rican Formicariidæ, By M. A. Carriker, Jr. Ann. Carnegie Museum, V, No. 1, 1908, pp. 8-10.

² The Voices of Pigeons regarded as a means of social control. By Wallace Craig. Amer. Journ. of Sociology, XVI, No. 1, July, 1908, pp. 86-100.

³ The Birds of Point Pelee. By P. A. Taverner and B. H. Swales. The Wilson Bulletin, Vol. XIX, 1907, pp. 37-53, 82-99, 133-153; Vol. XX, 1908, pp. 79-96 107-129. Also separate.