

called for, and before local campaigns are inaugurated careful consideration should be given to their necessity and scope."

As usual it seems to be man's activities that have encouraged and made possible the worst of the Magpie's bad habits and in spite of Mr. Kalmbach's impartial investigation the bird we fear will have a hard time of it and gradually become scarce just as the Hawks are disappearing in the eastern States in spite of all expert testimony.—W. S.

Lewis on the European Starling in Ontario. The first part of this report¹ traces the advance of the Starling in Canada and in Ontario, from the first occurrence in 1915 to the time that it became well established.

The economic part, in its essential features, confirms the reports on the bird's status in the United States and many references are made to the reports of Forbush and of Kalmbach and Gabrielson. Mr. Lewis finds that the Starling devours a large number of injurious insects while as yet no serious complaints have been made against it by fruit growers. In its relation to other birds there are several reports of its dispossessing Flickers, Bluebirds, etc., of their nesting places. Evidently as yet the bird is not sufficiently numerous to be a nuisance, just as is the case in many parts of the United States.

In England where for many years it was regarded as a beneficial species or at least neutral in its economic status, O. V. Aplin called attention as long ago as 1889 to its extraordinary increase in certain sections and predicted that it might change its manner of living and attack crops and would then undoubtedly become a serious nuisance. He also called attention to its increasing attacks on other birds. In 1921 Dr. W. E. Collinge shows that this prophecy had come true, stating that a gradual change of opinion regarding the Starling had taken place and that its alarming increase throughout the country "threatens the cereal and fruit crops and the magnitude of the plague is now fully realized." All of these facts Mr. Lewis has set forth at length and calls attention to the quality of the bird for food and the good sport that is afforded in hunting such wary game. Should it threaten to become a nuisance he thinks it should at once be regarded as a game bird with an unlimited season.

We cannot too strongly recommend the same course in the United States and in many centers of population the time would seem to have arrived. In Philadelphia and its suburbs the Starlings devour all of the food supply formerly available for native winter birds so that the latter have in certain sections largely disappeared.

Mr. Lewis's paper is an excellent, unbiased review of the Starling's status and both Canada and the United States should awaken to the danger that confronts us and take action to hold the bird in check *before* it becomes too numerous. If the ammunition dealers wish to increase

¹ A Distributional and Economic Study of the European Starling in Ontario. By Harrison F. Lewis. University of Toronto Studies Biological Series, No. 30. Published by the Librarian, 1927, pp. 1-57.

their market why not advocate Starling shoots instead of clamoring for the extermination of the Crow, as they did a few years ago.—W. S.

Birds of Lewis and Clark in North Dakota. In this little brochure¹ the authors, Messrs. Russell Reid and Clell G. Gannon present a list of the birds and mammals referred to in the journals of the Lewis and Clark Expedition while it was passing through the present state of North Dakota, from October 14, 1804, to April 27, 1805, and August 3–20, 1806, on the return trip. Comments are added from the editions of the Journals by Coues and Thwaites with additional notes by the authors themselves. Some 29 birds and 24 mammals are listed with the authors identifications in terms of the modern nomenclature. Following the list is a series of extracts from the Journals giving additional data on some of the occurrences and there is a half-tone of Bodmer's painting "A Bear Hunt on the Missouri River."

The pamphlet is a careful historical compilation such as will have to be made for the various western states through which these early expeditions passed when the explorers had interest enough to mention any of the animals that they encountered.—W. S.

Barro Colorado Island Biological Station. In the Smithsonian Report for 1926, Dr. A. O. Gross has published an excellent account² of the Barro Colorado Biological Station from the standpoint of the ornithologist. Dr. Gross spent a summer at the station in association with Mr. Josselyn Van Tyne and gives us an interesting resume of his bird studies in the Canal Zone. Especially valuable are the intimate accounts of nesting and behaviour of the tropical Flycatcher, *Myiobius atricaudus*, and of the Ant birds, *Dysithamnus puncticeps*, *Myrmeciza exsul* and *Hylophylax naevioides*.

The facilities of this station are making it possible to gain the same intimate knowledge of the life histories of tropical birds that has for many years been recorded for the birds of the north temperate zone. Something which Beebe had already demonstrated for Kartabo, British Guiana. A number of excellent half-tones illustrate the paper.—W. S.

La Touche's 'Handbook of the Birds of Eastern China.' The fourth part of this important work³ appeared during the past summer covering the families Ploceidae, Fringillidae, Bombycillidae, and Hirundinidae. The treatment follows exactly that of the previous parts and several half-

¹ Birds and Mammals Observed by Lewis and Clark in North Dakota. By Russell Reid and Clell G. Gannon. Printed by Holt Printing Company. Grand Forks, N. D., 1927, pp. 1–24.

² Barro Colorado Island Biological Station. By Alfred O. Gross, Ph.D. Smithsonian Report for 1926, pp. 327–342. U. S. Government Printing Office, Washington, 1927.

³ A Handbook of the Birds of Eastern China. By J. D. LaTouche. Part IV, August, 1927. Taylor and Francis, Red Lion Court, Fleet Street, London, E.C., 4, pp. 293–398, pls. X–XIII. Price 7 shillings 6 pence net.