

peculiar to the island, many of which are confined to special isolated localities. Many species are met with only at certain seasons, while others, usually very rare, are abundant in places where their food plants occur, during the season when these plants are in fruit."

There are interesting notes on the habits of many of the species peculiar to the island, which includes such isolated forms as *Dulus* and *Calyptophilus*. The occurrence of fifteen species of North American warblers is worthy of remark.— W. DE W. M.

**G. B. Grinnell on the Wild Turkey.**— In two recent numbers of 'Forest and Stream' Dr. George Bird Grinnell has given a very full account of "America's Greatest Game Bird," the Wild Turkey,<sup>1</sup> including its names, geographical races, former and present range, and habits. Dr. Grinnell quotes Mr. Brewster<sup>2</sup> respecting its former range in the New England States, and presents much (in part previously unpublished) information concerning its former presence in southern South Dakota, Nebraska, and Colorado. It appears to have never quite reached the Black Hills, and that it "seldom or never crossed the divide between the north and south forks of the Platte," but appears to have extended up the Missouri River as far as the mouth of the Cheyenne River.

As is well known, the Wild Turkey has been exterminated over much of its former range. Says Dr. Grinnell: "In the Southern States turkeys have always been abundant and their stronghold is still there — parts of Virginia, the Carolinas, Georgia, Alabama, Mississippi, Louisiana, Arkansas, Missouri and Texas. Merriam's turkey is said to be almost extinct in Colorado, but is still abundant in Arizona and New Mexico. That there should be occasional outlying colonies of a few birds in Iowa and Nebraska . . . seems very surprising, but such colonies cannot last long unless protected by the owners of the land on which they live. . . . Throughout the farming country of the North and West the turkey is gone and gone forever."— J. A. A.

**Report of the Chief of the Bureau of Biological Survey, 1909.**<sup>3</sup>— This Report, by Dr. C. Hart Merriam, treats, as usual, of the varied activities and the interests subserved by this important Government Bureau, the functions of which are primarily economic and incidentally scientific. The work, as defined by Congress, comprises: (1) Investigations of the economic relations of birds and mammals; (2) investigations concerning the geographic distribution of animals and plants with reference to the determination of the life and crop belts of the country; (3) supervision of

<sup>1</sup> The Wild Turkey. America's Greatest Game Bird. By George Bird Grinnell. Forest and Stream, Vol. LXXIII, Nos. 22 and 23, Nov. 27 and Dec. 4, 1909, pp. 852-854, 891, 892. with 2 half-tone illustrations.

<sup>2</sup> Birds of the Cambridge Region.

<sup>3</sup> From Annual Reports of the Department of Agriculture. 8vo, pp. 24.

matters relating to game preservation and protection, and importation of foreign birds and other animals. The first and third are almost strictly economic in their relations and output, and are of the highest importance to the general welfare. It is therefore fortunate that so many great economic interests are placed where they can be so well safeguarded and promoted.

The second division of the work of the Bureau requires investigations of a more strictly scientific bearing, and through this provision it has been possible to prepare and publish the long series of monographic and faunistic papers that have so conspicuously contributed to the advancement of North American mammalogy and ornithology. They have, however, been grudgingly and insufficiently provided for by a body of law-makers unable to appreciate the value of scientific research as such, or which has no obvious economic bearing.

The present report, like its predecessors, is thus largely a report dealing with such economic problems as the destruction of house rats, ground squirrels, field mice, pocket gophers, kangaroo rats, wolves and coyotes, the relation of birds to the boll weevil and other insect pests and to fruit-growing, and the food of shore birds and wild ducks. In respect to the shore birds, it is stated that a bulletin has been prepared "with special reference to their breeding resorts, their winter homes, and their migration routes," which can not fail to be of special interest to ornithologists. In respect to wild ducks, a bulletin is in preparation with reference to legislation by which species threatened with extinction "may be preserved either by being bred in a state of partial domestication, or else ponds and streams surrounded by tracts of suitable marshy land may be set apart as duck preserves, where the ducks may resort to breed unmolested."

Under the head of Geographic Distribution, the progress of field work is noted; reference is made to Mr. Nelson's report on the rabbits of North America, "economically important both as a source of food and because of the great damage they do in various parts of the country"; and to the gathering of data on the migration and distribution of birds and mammals. "Work on the distribution maps has been pushed as rapidly as the exigencies of other and more pressing work permitted."

As already stated, the protection of game, under various acts of Congress, forms an important branch of the work assigned to the Bureau of Biological Survey, which includes also a constant supervision over the importation of birds and mammals from foreign countries. The importance of this feature of the work can hardly be overestimated, when we recall the English Sparrow pest, the threatened pest of Starlings, already upon us, and the mongoose and rabbit pests that are afflicting other countries, through their injudicious admission in the past. Interesting statistics are given of the importations during the past year of game birds and their eggs and of cage birds of various species. There is also mention of the new bird reservations established during the year, among which is the Hawaiian Islands reservation, which, comprising a number of islets in the Pacific

Ocean, includes "the largest and most famous breeding colonies of sea birds in the world." Under work outlined for 1910, it is stated that it is the intention to publish a ten years' review of bird and game protection, covering the first decade of the present century, which completes also the first decennial period of federal bird and game protection under the Lacey Act. Congress has now made provision for the maintenance of the national bird reservations, which will soon all be under charge of wardens provided by the Government. The work of this division of the Bureau has thus assumed an importance and breadth of scope that seemed almost impossible of achievement a decade ago.— J. A. A.

**Fifth Annual Report of the National Association of Audubon Societies.**<sup>1</sup>

—The Annual Report of the National Association of Audubon Societies for 1909 occupies some sixty pages of the November-December number of 'Bird-Lore,' with many half-tone illustrations. It comprises the address of the President, William Dutcher, the report of the Secretary, reports of the Field Agents (Edward Howe Forbush in New England, William Lovell Finley on the Pacific Coast), the reports of the State Societies (thirty-three in number) by their respective secretaries, a list of the members and contributors, and the report of the Treasurer. The president's address considers 'Education as a Factor in Audubon Work' and the 'Relation of Birds to Man.' The chief function of the Association is held to be the education of "the whole mass of our fellow citizens regarding the value of wild birds, and the intimate relation that exists between them and agriculture." Success in this means the preservation of the birds. While it may not be possible to interest all in their preservation there is a hope that adequate bird protection may be realized "in educating the children to a proper realization of the importance of birds to the community."

The past-year, says the secretary, "has been marked by some of the fiercest struggles we have ever encountered with the enemies of bird and game protection." The sources of opposition have been the market men, market hunters, bird dealers, and the large millinery interests. The gains and losses through legislative action are shown in a comparative tabular statement. The gains include the enactment of the 'Model Law' in two States, the prohibition of spring shooting in two others, and the protection of particular species in still others. The losses include the removal of protection from certain species or groups of birds, as the hawks and owls, herons, loons and grebes, etc., in a number of States, and the extension of the spring shooting season in others. A list is given of the Reservations, over fifty in number, established mainly by President Roosevelt during the period 1903-1909. Other bird reservations have been provided by different States, and privately through the purchase of islands occupied as breeding resorts of sea birds.

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<sup>1</sup> Bird-Lore, Vol. XI, 1909, pp. 281-348, with numerous half-tone illustrations.