based on a long personal acquaintance with this remarkable man while General Hardy was stationed at Halifax on military duty about the middle of the last century. A long article entitled 'An Afternoon with Downs,' contributed to a Halifax newspaper by Mr. Hardy in 1864 is here reproduced, describing in detail Downs's home and Zoölogical Gardens at the head of North West Arm, near Halifax, and the personal traits of a man whose name is inseparable from the history of Nova Scotian natural history. Downs's "Zoo" is said to have been the first "established on the American continent."- J. A. A.

Beal on the Relation of California Birds to the Fruit Industry. Part II .-- This is the concluding part of Professor Beal's report on the 'Birds of California in Relation to the Fruit Industry.'<sup>2</sup> Part I, treating of 38 species, was published in 1907 (see Auk, XXV, Jan., 1908, p. 96). The present part treats of 32 additional species, and consists of statements concerning the food found in the stomach of birds taken mainly in the more thickly settled and highly cultivated parts of the State, since they afford a better test of their relation to husbandry than would the same number of birds taken at random throughout the State.

In reference to the general subject, the author states: "Few birds are always and everywhere so seriously destructive that their extermination can be urged on sound economic principle. Only four of the species common in California can be regarded as of doubtful utility: These are the linnet [House Finch], California jay, Steller jay and redbreasted sapsucker. When the known methods of protecting fruit have been exhausted, or cannot be employed profitably, then a reasonable reduction of the numbers of the offending birds is permissible. But the more the food habits of birds are studied the more evident is the fact that with a normal distribution of species and a fair supply of natural food, the damage to agricultural products by birds is small, compared with the benefit."

Of the California Jay it is said that it does "entirely too much nest robbing for the best interests of the State," as well as being a despoiler of fruit. While woodpeckers in general rank high as useful birds, the Red-breasted Sapsucker is classified as more harmful than beneficial, owing to its habit of pecking holes in the bark of trees and stripping it off in patches.

The report is illustrated by eight beautiful colored plates, after drawings

## 480

<sup>&</sup>lt;sup>1</sup> Reminiscences of a Nova Scotia Naturalist: Andrew Downs. By Major-General Campbell Hardy, R. A., Dover, England. Proc. and Trans. Nova Scotia Institute of Science, Vol. XII, part 1, pp. xi-xxx. August, 1908.

<sup>&</sup>lt;sup>2</sup> Birds of California in Relation to the Fruit Industry. Part II, By F. E. L. Beal, Assistant, Biological Survey, Biological Survey, Bulletin No. 34. 8vo, pp. 96, with 6 colored plates. Washington, Government Printing Office. Issued August 8, 1910.

Vol. XXVII 1910

by Louis Agassiz Fuertes, representing the following species: California Quail, Arkansas Kingbird, California Jay, Brewer's Blackbird, Bullock's Oriole, and Green-backed Goldfinch.— J. A. A.

McAtee's 'Plants Useful to Attract Birds and Protect Fruit.'— Attention is here called "to the plants which best serve to provide food for birds and to draw their attention away from cultivated crops." A list of the species of native plants most resorted to for food by birds is given. From this list species can be selected for cultivation which will afford both shelter and a continuous supply of food, including some which retain their fruit through the winter and furnish a food supply at seasons when bird food is hardest to obtain. Food plants are suggested for various groups of birds, and for different regions. The mulberry is recommended as unsurpassed for alluring birds from early orchard fruits. There are also suggestions for providing water and favorable haunts, as well as food, and for the protection of birds from cats and other predatory animals.— J. A. A.

**Game Laws for 1910.**<sup>2</sup> — This is the eleventh annual summary of the game laws of the United States and Canada, and reviews the laws which passed, and which failed to pass, during 1910, together with a schedule of open seasons, and the regulations respecting the shipment and sale of game, and the obtaining of licenses for hunting and shipping, under the Federal and State laws of the United States, and the orders in council of the Canadian Provinces. These annual digests are of great importance and convenience as a source of definite information for sportsmen and game protectors, and form a valuable record of progress in bird and game protection.— J. A. A.

**Publications Received.**— Allen, J. A. Opinions Rendered by the International Commission on Zoölogical Nomenclature. (Science, XXXII, No. 820, pp. 380–382, Sept. 10, 1910.)

**Beal**, F. E. L. Birds of California in Relation to the Fruit Industry. Part II. Biological Survey, Bull. No. 34.

Felger, A. H. Notes on Birds and Mammals of Northwestern Colorado. (University of Colorado Studies, VII, No. 2, pp. 132-146, January, 1910.)

<sup>&</sup>lt;sup>1</sup> Plants useful to Attract Birds and Protect Fruit. By W. L. McAtee, Assistant, Biological Survey. Yearbook of Department of Agriculture for 1909, pp. 185–196.

<sup>&</sup>lt;sup>2</sup> Game Laws for 1910. A Summary of the Provisions relating to Seasons, Shipments, Sale, Limits, and Licenses. By Henry Oldys, C. E. Brewster, and Frank L. Earnshaw, Assistants, Biological Survey. 8vo, pp. 47. Farmers' Bulletin 418, Published September 2, 1910, U. S. Department of Agriculture, Washington.