

doomed. It is deplorable that some cooperation of the different departments of the Federal Government cannot be arranged to prevent such a disaster as is here imminent. In the case of the migratory bird law there is splendid cooperation all along the line from both Government and independent organizations and the results are too well known to require further comment. But where water power or water privileges are involved both bird reservations and National Parks seem to be in the greatest danger.—W. S.

**Crandall on the Eclipse Plumage in the Domestic Fowl.**—Mr. Crandall describes the eclipse plumage of the Red Jungle Fowl as exhibited in birds in the New York Zoological Gardens obtained from the Philippines and also a similar plumage in a domestic Black-bellied Red Game Cock and suggests that the lack of records of this phase of plumage in the domestic fowl is probably due rather to carelessness of observation than to its absence.—W. S.

**Economic Ornithology in Recent Entomological Publications.**—The U. S. Bureau of Entomology in several recent bulletins has included information on bird enemies. These enemies and the insects affected are noted in the following paragraphs:

Spotted Apple-tree Borer (*Saperda cretata*).—This beetle does not seem to be near so serious a pest as its congener the round-headed apple-tree borer. Its operations result in unthriftiness of the tree attacked and sometimes the death of limbs. Fred E. Brooks, author of the bulletin<sup>1</sup> relating to it says: "By far the most effective natural check to the increase of this borer seems to be the woodpeckers. The borers feed in positions easily accessible to these birds and empty burrows are to be found on almost every infested tree, with the marks of the birds around the wounds giving unmistakable evidence of the cause of the borer's disappearance. During the present studies every attempt to rear larvae in unprotected trees met with a loss of all the individuals as a result of woodpecker attack. The species of bird responsible for the loss of the borers was not determined definitely, but all the evidence pointed to the downy woodpecker, *Dryobates pubescens medianus*. It seems probable that the spotted apple-tree borer would be a much more widely known and destructive pest were it not for the constant depletion of their numbers by woodpeckers."

Clover Stem-borer (*Languria mozardi*).—In southwestern irrigated regions this beetle has recently become a pest of considerable importance to alfalfa culture. The head and thorax of this beetle are deep red in color, and the remainder of the body bluish black. Thus it is a typical example of a warningly colored insect and moreover belongs to a family supposed to be distasteful. However, V. L. Wildermuth and F. H. Gates

<sup>1</sup> Eclipse Plumage in Domestic Fowl. By Lee S. Crandall. Zoologica, II, 15. No. 11. October 1920.

<sup>2</sup> Bul. 886, U. S. Dept. Agr., Oct., 1920, pp. 8-9.