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 appletree borer. Its operations result in unthriftiness of the tree attacked and sometimes the death of limbs. Fred E. Brooks, author of the bulletin<sup>2</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 appletree 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>&</sup>lt;sup>1</sup>Eclipse Plumage in Domestic Fowl. By Lee S. Crandall. Zoologica, II, 15. No. 11. October 1920.

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

who have prepared a treatise upon it say<sup>1</sup>: "The clover stem-borer, like many of our older native species, is in a great majority of cases kept in check by its natural enemies." Hymenopterous parasites, toads and birds are recorded as feeding upon the clover stem-borer, the birds being Traill's flycatcher, starling, meadowlark, mockingbird Carolina wren and robin.

Beet Leaf-beetle (Monoxia puncticollis).—This is a native species that has transferred its attentions from its natural food plants to sugar beets and in some instances has caused serious damage. This is another of the so-called protected insects of the supposedly nasty phytophagous group and is buff and black or warningly colored. Nevertheless it "has a goodly number of natural enemies" among which are ladybird beetles a stink-bug, parasites, toads and birds. "The Bureau of Biological Survey' has found specimens of the beet leaf-beetle in the stomachs of the starling (Sturnus vulgaris) and prairie chicken (Tympanuchus americanus) and of other species of the genus Monoxia in the stomachs of the northern and Wilson's phalaropes (Lobipes lobatus and Steganopus tricolor), least flycatcher (Empidonax minimus), English and vesper sparrows (Passer domesticus and Poocetes gramineus), violet-green swallow (Tachycineta thalassina), and pipit (Anthus rubescens)."

Western Cabbage Flea-beetle (*Phyllotreta pusilla*).—This agile little beetle when abundant destroys young cabbage plants, but it does not restrict its attentions to cabbage, attacking also beans, peas, beets, mustard, kale and rape. It seems to have few natural enemies, but the authors state<sup>3</sup> that the Biological Survey has found the species "in the stomachs of three species of birds and other beetles of the same genus in the stomachs of 12 kinds of birds." Birds thus would appear to be the most important natural enemies of this pest.

Grape-vine Flea-beetle (*Altica chalybea*).—This is one of the best known and most widely distributed enemies of the grape and has caused severe injuries in restricted localities. A few natural enemies are recorded<sup>4</sup> among which are 8 species of birds: the bobwhite, meadowlark, Cape May warbler, the red-eyed, white-eyed and Philadelphia vireos, the Carolina wren and bluebird.

Clover-leaf Weevil (*Hypera punctata*).—This beetle, one of the important clover pests was accidentally introduced from Europe. It is of interest that some of the data relating to its spread in this country was obtained by examination of birds stomachs: the first specimen reported from Michigan was found in the stomach of a crow. The authors of a recent bulletin upon the pest state that birds are a valuable and import-

<sup>&</sup>lt;sup>1</sup> Bul. 889, U. S. Dept. Agr., Oct., 1920, p. 19.

<sup>&</sup>lt;sup>2</sup> Chittenden, F. H. and Marsh, H. O., Bul. 892, U. S. Dept. Agr., Oct., 1920, p. 18.

<sup>&</sup>lt;sup>3</sup>Chittenden, F. H. and Marsh, H. O., Bul. 902, U. S. Dept. Agr., Oct., 1920, p. 14.

<sup>&</sup>lt;sup>4</sup> Isely, Dwight. Bul. 901, U. S. Dept. Agr. Dec. 1920, pp. 22–23.

ant check on the insect and that it is known to be eaten by 25 species. This list has been increased to 42 of which the crow, crow blackbird and starling are the most effective.—W. L. M.

**Economic status of the Kingfisher and Rook in Great Britain.**— Dr. Walter E. Collinge's latest publications in economic ornithology deal with these two species. The paper on the Kingfisher is the detailed report of which an advance summary has previously<sup>1</sup> been reviewed.

"A summary of the percentages of the various food items shows that 77.4 per cent of the food is of a neutral nature, 15.66 per cent is beneficial, and only 7.28 per cent is injurious.". The bird is considered useful rather than otherwise in relation to trout streams.

Respecting the Rook, Dr. Collinge finds<sup>3</sup> that the species has increased in recent years, with probably some change in feeding habits so that it is doing more harm than good. Its economic tendencies are rated as: injurious 52 per cent, beneficial, 28.5 per cent, and neutral, 19.5 per cent. Repressive measures are recommended in the hope that reduced to normal numbers the species will again prove a help rather than a hindrance to agriculture.—W. L. M.

## The Ornithological Journals.

Bird-Lore. XXII, No. 6. November-December, 1920.

A Partridge Don Quixote. By H. H. Cleaves.—An account of a tame Ruffed Grouse with illustrations from life.

Why do Birds Bathe. By E. T. Seton.—Discusses sun baths, dust baths, showers and plunges, and their practice by different groups of birds. As this is a topic about which comparatively little has been written attention might be called to Mr. Howard Scudder's paper in 'The Auk' for 1915, p. 455, which treats the subject from a slightly different angle.

The Migration and plumages of N. A. birds covers the Cowbirds with a plate by Fuertes.

Dr. A. A. Allen discusses nests with a key to those of eastern birds.

The Boat-Blind in the Snow. By G. A. Bailey. Excellent photographs of winter birds.

Bird-Lore. XXIII, No. 1. January-February, 1921.

The twenty-first Christmas census takes up the entire number except for 'The Season' and the editorial and Audubon Society departments. There are 134 lists of which those for Montauk Point, N. Y., and Cape May, N. J., with thirty-eight species each, are the largest for the Northern

<sup>&</sup>lt;sup>1</sup> 'The Auk ' Vol. 37, No. 3, July, 1920, p. 484.

 $<sup>^2\,{\</sup>rm On}$  the Economic status of the Kingfisher, Alcedo ispida Linn. The Ibis, Jan., 1921, pp. 139–150.

<sup>&</sup>lt;sup>8</sup> The Rook: its relation to the Farmer, Fruit Grower and Forester. Journ. Ministry Agr., Vol. 27, No. 9, Dec. 1920, reprint 8 pp.