

source of inspiration to all who have followed him, This Work is gratefully and respectfully inscribed by The Author."

Another portrait in the work is one of the author and it is most welcome.—W. L. M.

Birds as Distributors of Barberry.—The common barberry (*Berberis vulgaris*) has come into unfavorable notice in recent years as the most important intermediate host of the black stem rust of wheat and other grasses. A campaign for eradicating the plant is described in a recent bulletin¹ of the United States Department of Agriculture in which information is given as to the distribution of barberry seeds by birds, both in text and illustrations. The statement is made that "birds and cattle are the chief natural means of distributing escaped barberries in the United States, the birds serving to distribute the seed over an extensive area, and the cattle intensively over more limited areas" (p. 4). No proposals are made for aggressive action against birds.—W. L. M.

Economic Ornithology in Recent Entomological Publications.—Interesting information on the bird enemies of various insect pests in articles that have appeared recently is cited below, in one case with reference to additional data from other sources.

Grasshoppers.—An outbreak of grasshoppers, the most extensive since the invasion of the Rocky Mountain locust in 1874, occurred on the Canadian prairies in 1919-1923. Norman Criddle, both entomologist and ornithologist, has written several papers on the subject, of which one in the 'Fifty-fifth Annual Report of the Entomological Society of Ontario' (1924 [1925] pp. 13-16) contains interesting references to bird enemies of the pests. "Gulls," states this author, "proved an important local factor in preventing and controlling grasshopper outbreaks and their value within an area of twenty miles of their breeding places can hardly be overestimated. The most important species in Manitoba was Franklin's Gull.

"Crows could always be counted upon to frequent grasshopper infested fields and several incipient outbreaks were checked by these birds. They also learn to locate the *Camnula* egg beds, among which they did valuable service. Many birds feed regularly upon grasshoppers, and some, such as the Sharp-tailed Grouse, depend very largely upon them as food for their young. These species are all useful in maintaining a balance, but it is to those birds that gather in flocks that we owe most when grasshoppers have got beyond their normal numbers." (p. 15.)

Pale Western Cutworm (*Porosagrotis orthogonia*).—This pest which sometimes destroys thousands of acres of grain in the western United States and Canadian Provinces has bird enemies which are briefly mentioned in a pamphlet² of the Dominion of Canada Department of Agri-

¹ No. 1451, Dec. 1926, 44 pp., 13 pls.

² No. 71, June, 1926, p. 5.

culture. The writer of this publication, Mr. H. L. Seamans, says: "Both the Crow and the Horned Lark dig the cutworms out of the soil, but most of the birds pick them up only when they find them upon the surface." Birds also prey upon the moths.

Tobacco cutworms.—A number of species of cutworms seriously destructive to tobacco transplants are treated in a recent bulletin¹ by Mr. S. E. Crumb who has a good word for the birds. These, he says "play an important part in the control of cutworms. During May cutworms and similar larvae make up more than 20 per cent of the average diet of such common species as the Chipping Sparrow, Cardinal, Meadowlark, Robin, Redwing Blackbird, Bluebird, Bobolink, Carolina Wren, Bobwhite and Crow." (p. 8.).

Clover root borer (*Hylastinus obscurus*).—Mr. L. P. Rockwood, author of a recent bulletin² makes a definite contribution to knowledge of the bird enemies of this destructive insect. At Forest Grove, Oregon, in April and May, 1920, 53 birds of 22 species were collected "near clover fields on days when it was known that the root borers were migrating by flight. On examination of their stomachs, 39 root borers were found in the contents of 12 of them, representing 8 species of birds." (pp. 38-39.) The birds found to have eaten root borers were: Streaked Horned Lark, Brewer's Blackbird, Oregon Vesper Sparrow, Townsend's Fox Sparrow, Golden-crowned Sparrow, Cliff Swallow, Northern Violet-green Swallow, and Pacific House Wren.

White-pine weevil (*Pissodes strobi*).—This weevil is one of the most destructive pests of the eastern white pine, and according to a recent treatise of the species including discussion of its natural checks, "Of all the vertebrates birds are undoubtedly the greatest enemies of the weevil. It is more or less common, in infested patches, to find some of the infested shoots cleaned out by birds."³ Although no definite observations as to the species of birds concerned are made in this publication, we know from other sources⁴ that Woodpeckers, Yellow-billed Cuckoos, English Sparrows, and Bluebirds are among them.

Ants.—Prof. E. A. Andrews in a paper on the sequential distribution of ant nests in Maryland reports that "Attempts to establish transported mounds both in city back-yard and in the old forest at Homewood, in 1906, 1916, and again in 1926 proved futile; some communities of this ant, *Formica exsectoides* planted at Homewood at various seasons of the year were decimated by birds, especially Robins and Flickers. Thus one influence of forestation on this ant will be through the bird fauna of the forest; for where the Robin is favored by the vegetation there can not be

¹ Farmers' Bul. 149, U. S. Dept. Agr., Aug., 1926., 13 pp, 11 figs.

² No. 1426, U. S. Dept. Agr., 48 pp., 15 figs., Aug., 1926.

³ Graham, S. A., Bul. 449, Cornell Agr. Exp. Sta., 1926, p. 27.

⁴ Felt, E. P., Mem. 8, N. Y. State Mus., 1905, p. 400.

Hopkins, A. D., U. S. Bur. Ent. Circ. 90, 1907, p. 7, and

McAtee, W. L., Roosevelt Wild Life Bul., Vol. 4, No. 1, 1926, p. 115.

good stands of these ant dwellings, and when the trees have grown so large as to furnish not only food but nesting sites for Flickers, this ant can not be expected to flourish."¹

These observations and comment are interesting as showing what birds can do in destroying local colonies of insects even so populous as those of ants; also they are further evidence that ants scarcely deserve the term "specially protected" applied to them by neo-darwinians.—W. L. M.

The Ornithological Journals.

Bird-Lore. XXVIII, No. 6. November–December, 1926.

Friendly Siskins. By Edward Russell Davis.—A remarkable instance of fearlessness.

Bird Photography for Everybody. By A. T. Devoe.—Showing what may be done with a Kodak with portrait attachment.

The Parauque and Poor-will are the subject of the migration and plumage notes, with a color plate by Fuertes.

There is a remarkable record by E. K. and D. Campbell of Chimney Swifts roosting in a dense mass on a tree trunk and an excellent paper on the classification of birds by Dr. A. A. Allen.

The interesting annual report of the National Association of Audubon Societies and the numerous affiliated bird clubs in all parts of the country takes up most of the number.

Bird-Lore. XXIX, No. 1. January–February, 1927.

Bird Haven. By F. M. Chapman.—An account of the Ridgway Wild Life Sanctuary and the plans of the committee for raising the necessary \$35,000 endowment fund.

The Christmas Day bird lists occupy most of this issue but there is an instructive paper by A. A. Allen on Feathers and a pleasing frontispiece by Allan Brooks representing the Ovenbird.

The Condor. XXIX, No. 1. January–February, 1927.

The Surf-bird's Secret. By Joseph Dixon.—A notable paper on the discovery of the nest and eggs of this elusive species in the Mt. McKinley district of Alaska, with excellent photographs of the birds and nest and a color plate by Allan Brooks. The male bird was found to carry on the duties of incubation.

Emargination of the Long Primaries in Relation to Power of Flight and Migration. By C. K. Averill.

Notes on the Location and Construction of the Nest of the Calliope Hummingbird. B. W. Weidemeyer.

Eyeshine in Birds. By A. J. VanRossem.—Eyes of some species show varying shades of red, some pale green and some no color whatever.

¹ Psyche, 33, No. 6, Dec., 1926, p. 145.