sections. This paper is a very important one and much valuable data can be obtained from the figures and grouping, both economic and distributional.—W. S.

Birds as Factors in the Control of the Fall Webworm.—Dr. John D. Tothill, whose preliminary papers on the natural control of the fall webworm (*Hyphantria cunea*) have already been noticed in 'The Auk' (25, No. 2, April 1918, p. 252) is doing the best work the reviewer is aware of in bringing to light the actual effect upon insects of the feeding habits of birds.

The present comprehensive report[1] details the results of eight years' study of the fall webworm in New Brunswick, and of shorter periods in Nova Scotia and British Columbia. Careful account was kept each year of the percentage of destruction of the pest by various agencies, and it was found that Red-eyed Vireos destroyed from 11.4 to 89.5 per cent of the broods, averaging more than 68 per cent, far more, of course than any other agency. As a test case 382 caterpillars were placed on a tree and in 9 days the birds had taken all but 6 that had been parasitized. The work of the birds naturally was most effective when the webworm was scarce and in some years it seemed scarcely a worm escaped the Vireos. The insect seemed clearly doomed to local extinction when a flight of adult moths from a distance repopulated the district. In summing up his observations Dr. Tothill refers to the "tremendously important part played by the Vireos in Eastern Canada, and by undetermined birds in British Columbia," and concludes: "They are of least importance when the host insect is very abundant; of greatest importance when the webs are very scarce; and they share with the parasites the task of maintaining a stabilized control when the insect is just moderately abundant. Without the birds, the parasites would not maintain a control . . . and the converse is also true." With their record of destroying 68 per cent of the broods, on the average, the reviewer feels this summary is by no means over-generous to the birds. He wonders also why birds other than Vireos escaped observation as enemies of the webworms. In New Brunswick, Cuckoos, the Baltimore Oriole, and some of the Warblers almost certainly do prey upon these larvae.—W. L. M.

Birds in Relation to Poison Oak.—In a book entitled 'Rhus Dermatitis' (June 1923), Prof. James B. McNair has several items dealing with the relations of birds to *Rhus diversiloba*, the western poison oak. First a list of localities where birds which had eaten the fruit were collected is given in the chapter on distribution of the plant, next a table showing the months in which the fruit has been found in the stomachs of California birds, and finally a graph showing the number of species of birds feeding

[1] Bul. 3, n. s. Dominion Dept. of Agriculture, Ottawa, 1922, 107 pp. 99, figs., 6 pls.