

Grönvold's Illustrations of the Birds of South America.¹—The plates prepared by Mr. Grönvold to illustrate Brabourne and Chubb's 'Birds of South America' are now issued in folders as Lord Brabourne's untimely death has prevented the continuance of the work.—W. S.

Bryant on Food of the Road-runner in California.²—In 1911 and 1912 when the California Fish and Game Commission collected material for a study of the economic status of the Western Meadowlark, a special effort was made also to obtain stomachs of Road-runners. Eighty-four were collected, and Dr. H. C. Bryant now reports upon their contents. The primary object of this investigation of the Road-runner was to learn the relation of this ground cuckoo to other birds and particularly to the Valley Quail of which it was said to be a serious enemy. It was found that only two of the 84 Road-runners had eaten birds. These constituted only 1.7 per cent of the total food. There are a number of field observations of Road-runners devouring birds, but Dr. Bryant concludes that "the evidence at hand here in California does not justify the wholesale destruction of the Road-runner on the ground of its being an enemy of quail or other bird life."

The almost omnivorous habits of *Geococcyx* are well illustrated by Dr. Bryant's analyses. The principal items of food, besides birds (already mentioned), are vegetable matter, about 10 per cent, chiefly seeds of *Rhus integrifolia*, orthoptera, 36.82 per cent, beetles, 18.2 per cent, lepidoptera, 7.5 per cent, bugs 5 per cent, hymenoptera 4 per cent, and reptiles 3.7 per cent. Spiders, scorpions, millipeds and centipeds also were devoured.

The published information on the food of the road-runner in California is quoted, and a full bibliography given. The paper is well illustrated also, by tables, diagrams and half-tones. There are some errors in the spelling of scientific names and lack of system in the lists of species of insects identified. The statement that "in this habit of feeding upon reptiles, the Road-runner is almost unique among birds, with perhaps the exception of certain hawks and owls" (p. 37), also is objectionable. In its present broad form the pronouncement obviously is inaccurate. Even had its application been definitely restricted to the United States, the statement would still be too comprehensive. The fact is there are few families of land birds, but have representatives among the reptile eating species. Among these are the Herons, Chuck-will's-widow, Woodpeckers, Flycatchers, Crows, Jays, Magpies, Meadowlarks, Grackles, Butcherbirds, Thrashers, Mockingbird, Wrens, and Thrushes. So small a bird as the Carolina Wren is an habitual lizard eater.

These are minor defects, however, and as it stands the paper is not only creditable to its author, but also is the best statement of the food of the Road-runner that has been published.—W. L. M.

¹ Illustrations to 'The Birds of South America.' By H. Grönvold. Parts I, II, III, IV.

² Univ. Calif. Publ. in Zool., 17, No. 5, pp. 21-58, pls. 1-4. October 26, 1916.