

Several half-tones from photographs add to the interest of this excellent article.—
W. S.

Kelso's 'A Key to Species of American Owls.'—In a handsomely printed little book¹ Leon Kelso and Estelle H. Kelso present several articles dealing with the Owls of the Americas. These are entitled: A Key to Species of American Owls; A List of the Owls of the Americas; Notes on the Habits of the Cholibá Screech Owls; Relation of the Diurnal Habit to Distribution and Abundance of American Owls; and Notes on the Habits of the Spectacled Owls.

The "List" is by Estelle Kelso; the others apparently all by Leon Kelso although the authorship of most of them is not definitely stated.

The "Keys" do not carry one to the subspecies but the "List" includes them and gives the range and an English name for each, with reference to the original description for all forms not included in Cory's 'Birds of the Americas.'

The articles on habits are compiled from various authors and there are half-tone reproductions of plates of three species of Owls from standard works. There are also five plates of outline drawings of the pattern of breast feathers from various species of Screech Owls, usually from the type specimen.

The Kelsos have given us a handy volume with up-to-date information on this rather neglected and difficult group of birds, which will be of great assistance to anyone engaged in their systematic study and will form a basis for further research.—
W. S.

Rusby's 'Jungle Memories.'—Although the main theme of this book² is of particular interest to botanists, it also includes much of value to the ichthyologist, the entomologist and the ornithologist as well. It is a narrative of an expedition across the Andes and through the jungles of South America in search of new medicinal plants. It is crowded with incident and adventure sometimes of an almost fantastical character. The data of ornithological value include discussions of such a variety of themes as mountain-top observations made from above on the flight of an Eagle; the variously colored gorgeous plumage of a species of Trogon; observations on the habits of Rheas on the tablelands, particularly their swiftness in running; interesting species of long-tailed Cuckoos frequenting banana fields; the indescribable beauty of a "swallow-tail" Hummingbird and the habits of a related species in building nests among the thorns of a huge columnar cactus; the flitting and sailing habits of Parrots and Paroquets; notes on the collection of various species of Hummingbird nests; an incident of two serpents frequenting the vicinity of Hummingbird nests; methods used by Indians in obtaining prey of Eagles; observations on the "toonkie" (or Cock-of-the-Rock) and on the Sun Bittern (*Eurypyga helias*); observations on the habits and articulation of Macaws; the avoidance of certain pools by Ducks where the savage carib fishes were present; difficulties presented under tropical conditions in collecting and preserving bird skins; discussion of the song notes of the mysterious Bell-bird; observations on collecting the Amazonian Water Turkey or "snake-bird" and the great Horned Screamer; difficulties in collecting birds shot from tropical tree tops but caught while falling in tangled vines and branches. There are also narrations of an interesting experience in a Gull

¹ A Key to Species of American Owls. By Leon Kelso. U. S. Biological Survey with A List of the Owls of the Americas. By Estelle H. Kelso. Constituting Biological Leaflet No. 4. Intelligencer Printing Company, November, 1934. Pp. 1-101 with eight plates. Privately published.

² Jungle Memories By Henry H. Rusby, Emeritus Dean and Professor of Materia Medica, College of Pharmacy, Columbia University, 8 vo., 388 pp., illus. N. Y. McGraw-Hill Company, 1933. Price, \$3.50.

colony with birds, alligators and reptiles, as well as with associations of 'Turkeys,' monkeys and fish. The volume is a veritable encyclopedia of information on certain phases of biological investigations. The theme is a stirring one, the interest is sustained throughout, the author has a beautiful style and the art of using a word or a sentence to describe a breath taking situation. Its reading is very heartily commended.—JOS. S. WADE.

Economic Ornithology in Recent Entomological Publications.—References citable under this head seem less numerous than formerly, possibly because the volume of entomological publications as a whole has been reduced. A few items of interest have accumulated, however, since the last installment (July 1932) of these reviews and they are here presented.

Billbugs (*Calendra*, long called *Sphenophorus*).—These weevils often seriously destructive to corn, timothy, and other crops are the subject of a Farmers' Bulletin¹ by A. F. Satterthwait. The author evidently thinks well of birds as controlling agents for he says: "the protection of birds, especially ground feeders, including the Bobwhite and the shore-birds x x x [is one of the] efficient means of preventing crop losses from billbugs" (p. [ii]). He adds "Many kinds of birds have been found feeding on billbugs. Flocks of them gather where the pests are especially numerous, and birds should be fostered and protected regularly to increase the value of their services" (p. 20). Satterthwait mentions 25 species of birds known to prey on billbugs, and the Biological Survey list extends to 120. These are listed, along with a few similar compilations, and notes on insect pests eaten by a large number of common birds in a leaflet entitled "Bird Allies of the Farmer—an Excerpt from 'Hearing before the Subcommittee of House Committee on Appropriations, in charge of the Agricultural Department Appropriation Bill for 1934'" (Reprint, revised, 10 pp., Feb. 1933).

Black Vine Weevil (*Brachyrhinus sulcatus*).—This weevil, a holarctic species, damages a great variety of ornamental and crop plants and is also a pest in greenhouses. Literature on the species including mention of its enemies is digested² by Floyd F. Smith, and bird foes observed in Great Britain and France are listed. Only one—the Starling—is named for the United States (p. 33). That record is from a Biological Survey publication and further data in the files of the Survey add two species, namely, the Ovenbird and Robin, to the list of bird enemies of the black vine weevil.

Leaf Hoppers (*Cicadellidae*).—Herbert Osborn presents³ information on leaf hoppers and their enemies similar to that in his comprehensive bulletin of 1912 which was reviewed in 'The Auk' for January 1913 (pp. 129-132). The same arguments are made deprecating the status of birds as enemies of leaf hoppers and they must be replied to in the same manner as in the 1913 review. Birds eat all kinds of insects and cannot be expected to specialize on any certain group. This is their most important function, in fact, and disappointment should not be expressed that leaf hoppers or any other restricted kind of insects do not figure more largely in avian diet.

Sod webworms (*Crambinae*).—Attacking lawn-grasses so severely as sometimes to cause widespread damage the sod webworms were especially in evidence during

¹ How to Control Billbugs Destructive to Cereal and Forage Crops. No. 1003, U. S. Dept. Agr., 22 pp., 25 figs., May 1932.

² U. S. Dept. Agr. Tech. Bul. 325, 45 pp., 16 figs., Sept. 1932.

³ U. S. Dept. Agr., Circ. 241, Leaf Hoppers Injurious to Cereal and Forage Crops, 34 pp. 13 figs