

relation between these pugnacious flycatchers and their more timid friends. On many occasions, in seasons following, I found nests of various warblers, vireos, tanagers, and other birds in close proximity to nests of the Coues flycatcher. Once, by using a small cloth scoop on the end of a pole I took a set each of Coues flycatcher and a black-fronted warbler, without changing my position in the tree. Another time I took a set of olive warbler and a set of black-fronted warbler from the same tree, and a set of Coues flycatcher from a tree not more than fifteen feet distant. In these, as well as in many other instances, I had the opportunity to learn the reason for these family gatherings. In the locality where my observations have been made, the smaller and more peaceable birds suffer great loss from snakes, squirrels, and jays. Probably the most bitter enemy of the smaller birds is the long crested jay, who is continually in search of their nests. When the jay locates a nest, his call-note brings as many as half a dozen of his hungry comrades to the scene, and under a feeble attack from the parent birds, the eggs or young, as the case may be, are carried off or devoured on the spot. Many times, even, the nest is torn into shreds. All this, however, does not occur when there is a nest of the Coues flycatcher in the vicinity, for upon the first alarm, the flycatcher comes to the rescue, and the would-be assailant is forced to leave. This wholesale slaughter seems to teach these much imposed upon species to seek the protection of the more independent flycatcher.—O. W. HOWARD.

**Road-runners Eat Young Mockingbirds.**—Mr. Leroy Abrams of the department of botany, Stanford University, states that while he was collecting plants in the Mission Valley near San Diego, California, between May 1 and 10, 1903, his assistant observed a road-runner (*Geococcyx californianus*) remove from a nest a young mockingbird and devour it. Both road-runners and mockingbirds are common at this locality. It is known that road-runners eat eggs, but I have never heard of their killing young birds. How general is this habit? Have our readers any observations on this point?—WALTER K. FISHER.

## THE EDITOR'S BOOK SHELF

BIRDS OF THE HUACHUCA MOUNTAINS, ARIZONA. By HARRY S. SWARTH. Pacific Coast Avifauna No. 4, pp. 1-70, April 15, 1904.

It affords us great pleasure to call attention to this interesting contribution to the ornithology of southeastern Arizona, and to commend the thoroughness of the work. It is based, with the exception of a few scattered records, on observations made and specimens collected by the author, W. B. Judson, H. G. Rising and O. W. Howard during three visits to the region in 1896, 1902, and 1903. It certainly is refreshing to find a paper entirely devoted to the life histories of birds—a subject of absorbing interest—and not given over to descriptions of closely split subspecies, the principal function of which is to burden the already plethoric pages of synonymy. The arbitrary limiting of the list to such species as occur in the mountains proper, above the surrounding plains may be in some respects a good plan, though by its adoption certain valley forms noted near the canyon openings are included, while others of similar distribution are omitted. Moreover, interesting information relating to the migration and distribution of water-fowl and waders in the San Pedro and Barbocomari valleys is necessarily left out. Although the author has had phenomenal success in securing a large amount of material, it may not be out of place to make the list more complete by adding the following species which have come directly or indirectly under the observation of the reviewer.

*Lophortyx gambeli*. Examples of this quail were shot by one of the officers at Fort Huachuca near the post in January, 1895. *Scardafella inca*. Mr. R. D. Lusk secured two specimens in Ramsay Canyon, one in 1891, and the other on Sept. 15, 1894. *Urubitinga anthracina*. During May and early June, 1892, this species was seen on several occasions near Fort Huachuca. Although no specimens were secured the broad white single band on the tail served to identify them. *Asio wilsonianus*. A specimen of this owl was secured near Fort Huachuca April 28, 1892. *Micropallas whitneyi*. On May 7, 1892, my lamented friend Major J. L. Fowler found one of these little owls in a clump of oak leaves where it was secured. A month later Mr. Frederick H. Fowler discovered a female and three eggs in an old woodpecker's hole, in the canyon above the Fort. *Calypte anna*. Mr. Fowler took two specimens of this hummer at the Fort, Oct. 12, 1892, and Mr. H. Kimball one, Sept. 11, 1895. *Otocoris alpestris actia*. Three specimens were taken by Mr. Fowler Jan. 10, 1893. *Xanthocephalus xanthocephalus*. This blackbird is considered a common winter resident about the Fort. One was seen there May 4, 1892, and others in the valley below fully three weeks later. *Amphispiza belli nevadensis*. Secured by

Mr. Fowler Nov. 5, 1892. It is said to be a tolerably common winter resident. *Passerella iliaca schistacea*. A specimen has been examined which was taken by Mr. H. Kimball Nov. 20, 1894, in the Huachuca mountains. *Progne subis hesperia*. Purple martins were seen about the Post May 4 and again May 15, 1892. *Dendroica virens*. An adult male was examined which was secured by Mr. R. D. Lusk in Ramsay canyon May 9, 1895. It may be stated that the record of the house sparrow (*Passer domesticus*) in Bulletin No. 1 is based on an erroneous identification and should refer to the house finch (*Carpodacus mexicanus frontalis*).

*Turdus guttatus auduboni* and *Regulus calendula* breed in the Chiricahua mountains where nests were found in 1894, and it is therefore probable that they will be found in some of the more inaccessible parts of the Huachucas in summer. This general area including the Huachuca mountains and the more extensive Chiricahua range to the eastward affords one of the most inviting fields in the United States for carrying on ornithological studies. The presence of many Mexican species which find congenial homes in the many numerous canyons among the heavier timber of the upper parts, furnish a strong incentive for continued search after other rareties.—A. K. FISHER.

BIRDS OF CALIFORNIA, An Introduction to More than Three Hundred Common Birds of the State and Adjacent Islands with a Supplementary List of Rare Migrants, Accidental Visitants, and Hypothetical Subspecies. By IRENE GROSVENOR WHEELOCK. With ten full page plates and seventy-eight drawings in the text by Bruce Horsfall. Chicago. A. C. McClurg & Co., 1904 (February) pp. 1-XXVIII, 1-578.

In this volume of 600 pages the publishers have taken much care to provide a book of pleasing appearance. The flexible green covers and excellent quality of paper contribute to an agreeable ease in handling. The numerous illustrations are mostly quite good for their kind. But we regret that we cannot recommend so highly the accompanying text. The many misstatements and slighter inaccuracies seem to indicate a limited knowledge of our literature, as well as an inadequate personal acquaintance with many of the common species. To be frank, there are so many obvious slips, that we cannot help doubting the general trustworthiness of the book throughout. The rapid increase in our knowledge of birds and their habits requires the exercise of judicious discrimination on the part of anyone who feels called upon to compile life-histories, together with long and intimate acquaintance with the birds themselves. Perhaps an occasional resort to the gun would have resulted in a less sweeping generalization in regard to "regurgitation" than is hurled at the reader in the preface! We can agree that the "Birds of California" is much of it written in an interesting style, and is sure to be read with interest by the popular contingent. Of course an error now and then is not likely to be detected by the susceptible amateur, so that the book may be appreciated just the same. Yet it does not appear to us up to the standard of exactness demanded in the present stage of California ornithology. In view of the above remarks, detailed criticism seems hardly worth while.—J. GRINNELL.

A REVISION OF THE NORTH AMERICAN MAINLAND SPECIES OF MYIARCHUS. By E. W. NELSON. From Proc. Biol. Soc. Washington, XVII, March 10, 1904, pp. 21-50.

Mr. Nelson has given the North American mainland species of Myiarchus a thorough overhauling in the present paper which covers all the species and subspecies of the genus known to occur in the mainland of North America north of the Isthmus of Panama. In addition, the birds of Cozumel Island near the coast of Yucatan, and the Tres Marias Islands off the coast of Tepic, western Mexico, have been included.

"The genus Myiarchus appears to reach its greatest development in the American tropics, including the West Indies, with a limited number of forms ranging well up into temperate North America. These most northerly representatives of the genus are *cinerascens*, which reaches the northern border of the Upper Sonoran zone on the west coast in Oregon, and *crinitus* which crosses the Transition zone of eastern America to southern Canada and New Brunswick. *M. lawrencei* and its subspecies is the most widely distributed of the North American species, with a breeding range extending from the Isthmus of Panama to Southern Arizona and the Tres Marias Islands. The species of most limited distribution is probably *M. yucatanensis*, found only on the peninsula of Yucatan and on Cozumel Island."

The introduction also touches upon questions of nomenclature, the moult, and calls attention to the fact that the dusky pattern on the tail feathers of rufous-tailed species has a considerable range of variation in extent. *Myiarchus nuttingi* from Arizona thus turns out to be the female of *cinerascens*. "By the examination of several hundred specimens of the various species it has been demonstrated that the dusky pattern on the inner webs of the outer tail feathers (and to a similar degree on the inner tail feathers) of *cinerascens*, *mexicanus*, *crinitus*, and *nuttingi* with