

Besides the main list there is a hypothetical list, a list of species ascribed to British Columbia on unsatisfactory grounds and a bibliography, while preliminary sections include a review of previous ornithological work in British Columbia and a sketch of the life zones and faunal areas, both illustrated with photographs of characteristic scenery. There are also a faunal map and a color plate of the Queen Charlotte Saw-whet Owl.

The only criticism that might be made to the plan of this excellent work would be that the association of real synonyms with erroneous names, under which a species has been recorded in British Columbia, without any distinguishing mark, may prove misleading to the uninitiated. They might naturally wonder whether *Pipilo maculatus montanus* and *P. m. megalonyx* are really identical with *P. m. curtatus* or not.

Both the authors and the Cooper Club are to be congratulated upon the completion and publication of this important list, and ornithologists at large will find it an indispensable work of reference.—W. S.

**Jourdain on Parasitism in the Cuckoos.**—This extremely interesting paper<sup>1</sup> gives us an admirable review of observations on the life history of the Cuckoo from earlier times to the present and the author's interpretation of the facts that have been brought out. Mr. Jourdain considers that the first step toward parasitism was the habit of certain birds to build their nests inside nests of other species of which we have many instances; then came the depositing of eggs in the nest of another bird without the addition of nesting material, and from this we pass to the Cowbirds of South America, some of which appropriate nests of other species or build their own but always incubate their eggs, while others have become entirely parasitic like our northern Cowbird and the European Cuckoo.

The latter goes still farther in breaking up into distinct strains not separable in color or appearance, each of which is parasitic on a single species, the eggs of which its own eggs often come to resemble very closely. There are other cases, however, where the Cuckoo's eggs are quite in contrast to those of its "forsterer." Mr. Jourdain thinks that the development of similar eggs is due to selection on the part of the host. Where its powers of perception are highly developed and it recognizes the differently colored Cuckoo's egg as a foreign object in its nest, it throws it out, and only those eggs which happen to resemble its own eggs are undetected and are hatched. This naturally tends to develop a type of egg like that of the host so long as this strain of Cuckoo remains parasitic on this species. Where the hosts do not recognize the Cuckoo's egg as an intrusion they hatch it, and in such species no resemblance between the eggs develops because it is not necessary. Similar cases of both kinds occur in other parasitic Cuckoos. Some in Africa lay pure white eggs in nests of species which do not distinguish them from their own quite different looking eggs, while others in India, through selection on the part of

<sup>1</sup> A Study on Parasitism in the Cuckoos. By the Rev. F. C. R. Jourdain, Proc. Zool. Soc. London, 1925, pp. 639-667. Published July 21, 1925.

hosts with keen powers of discrimination, have developed blue eggs so like those of the latter that they can hardly be distinguished.

Mr. Jourdain shows also that the young of certain Cuckoos have, apparently by selection, developed a plumage similar to that of the young of their hosts in order to save them from being ousted from the nest by the highly discriminating parents. In most species, however, the reaction to the young Cuckoo clamoring for food is stronger than any possible tendency to question its right to be in the nest.

Many other interesting points are discussed and some criticisms are made to theories advanced by Mr. E. C. Stuart Baker in a paper on the same subject in the 'Proceedings' of the Zoological Society of London for 1923.

Excellent color plates show many interesting cases of resemblance and contrast between the eggs of parasitic species and their hosts.—W. S.

**Miller and Griscom on Central American Birds.**—This paper<sup>1</sup> contains the final results of the systematic study of the authors' Nicaraguan collections upon which several papers have already appeared. The new forms here proposed are *Cyanocompsa parellina dearborni* (p. 1), *Corvus corax richardsoni* (p. 5) and *Cyanocitta stelleri suavis* (p. 7), all from San Rafael del Norte; *Aimophila botterii vulcanica* (p. 2), Volcan Viejo, *Melzone leucotis nigrior* (p. 4) and *Cissilopha melanocyanea chavezii* (p. 8) from Matagalpa. Incidentally, *Icterus sclateri alticola* (p. 4) from Progreso, Guatemala, and *Cyanocitta stelleri ridgwayi* (p. 7) from Volcan de Fuego Guatemala, are described.

A review of the races of *Turdus assimilis* results in the establishment of three new subspecies, making seven in all, the three forms *assimilis*, *daguae* and *phaeopygos* being maintained as distinct species. The points raised in the paper are fully discussed and all new forms adequately described and compared with their nearest allies.—W. S.

**Sushkin on Palaearctic Birds.**—Prof. Peter P. Sushkin, during his recent tour of the United States, spent some time in examining the collections of the leading museums and presented for publication, by the Boston Society of Natural History, a number of notes<sup>2</sup> dealing with palaearctic birds gleaned from his studies of various Russian collections as well as those in England, Germany and this country. Species of the following genera are considered and their subspecies defined and ranges worked out, while in nearly every one, new forms are proposed—*Cannabina erythrina*, *Pyrrhula*, *Petronia*, *Pyrgilauda*, *Cynchramus*, *Emberiza*, *Budytes*, *Dumeticola*, *Locustella* and *Prunella*.

<sup>1</sup> Further Notes on Central American Birds, with Descriptions of New Forms. By W. DeW. Miller and Ludlow Griscom. American Museum Novitates. Number 184. September 24, 1925. pp. 1-16.

<sup>2</sup> Notes on Systematics and Distribution of Certain Palaearctic Birds. By Peter P. Sushkin, Proc. Boston Soc. Nat. Hist. Vol. 38, No. 1, pp. 1-55. August, 1925.