

connection with song he emphasizes the absolute necessity for a "specific" character in the song of every individual of a given species if it is to serve as a guide to the female of that species in finding a mate. This is I think a statement with which all students of bird song will agree, for while the keen ear may be able to recognize a number of *individual* songs in any species, they all have the specific quality so developed that there is never a question as to what *species* is singing. We fail, however, to harmonize with this Mr. Howard's claim of mimicry in so many British birds as the Jay, Wood Owl, Red-backed Shrike, and various Warblers. Surely there is no such wide-spread mocking among American birds and we are led to wonder whether many cases of alleged mimicry are not mere fancied resemblances. If mimicry exists to such an extent it would seem to be a serious hindrance to the development of a specific song.

In Mr. Howard's discussion of migration he makes no mention of Dr. Watson's experiments with the Terns of the Dry Tortugas and in other connections seems to be quite unacquainted with the American literature bearing upon his subject. Americans however cannot afford to remain ignorant of Mr. Howard's interesting work—interesting alike to the student engaged in research along similar lines and to the general reader who appreciates a fascinating discussion of some of the deeper problems of ornithology.

The beautifully drawn plates represent spirited contests between individuals of various species of British birds, a phase of bird behaviour which takes on a great deal of interest in connection with Mr. Howard's theory and which seems to have been much neglected and but poorly understood in the past.—W. S.

Saunders' 'Distributional List of the Birds of Montana.'—In this admirable publication¹ Mr. Saunders presents us with the first comprehensive list of the birds of Montana and at once places the ornithology of the state on a firm foundation. His list is up to date in every respect, consisting of an introduction, a discussion of distributional areas in which life zones and forest associations and their characteristic birds are considered; a fully annotated list of 332 species (with additional lists of extinct, introduced and hypothetical species) and a bibliography.

In the introduction he apologizes for the fact that the present list cannot compare in completeness with those of most of the other western states because there are as yet scarcely any resident ornithologists in Montana, little collecting has been done, and there are almost no series of specimens, while for many sections scarcely any data are available. It may however

¹ A Distributional List of the Birds of Montana, with Notes on the Migration and Nesting of the Better Known Species. By Aretas A. Saunders. Pacific Coast Avifauna Number 14. Cooper Ornithological Club, Berkeley, California. Published by the Club, February 1, 1921. pp. 1-194 and 35 text figures. Price \$6.00, for sale by W. Lee Chambers, Business Manager, Eagle Rock, Los Angeles Co., California.

prove fortunate that an ornithologist of Mr. Saunders' ability has made a review of the subject at such a comparatively early date, as he has no doubt been able to settle many matters that would have been impossible of solution a few years later, while such an accurate work as this will prevent many an error by those who write upon the birds of the state in the future.

While Mr. Saunders has given us all that can be expected in a "distributional list" we regret that he did not have the opportunity to add biographies of at least some of the species which he lists, as the delightful paragraph which closes his introduction shows that he is quite capable of furnishing this much more difficult sort of ornithological contribution. He has evidently had experiences too, which his successors will hardly be privileged to enjoy in view of the rapid settlement of the state today. He says in speaking of the pleasure of living over in retrospect the experiences recorded in his notes: "I have seen again the rolling prairies on a bright June morning, with countless McCown Longspurs, rising into the air and parachuting down again into the grass, or a male Curlew, charging with loud protest toward the man who had ventured near his nest. I have seen the prairie ponds, dotted with ducks of many species, with pink and white Avosets wading about the muddy shores, and Coots and Grebes swimming among the tules that border the farther side. On the same prairies, bleak with the winter snow and cold I remember the whirling flocks of Snow Buntings, Horned Larks and Rosy Finches or a single Snowy Owl, sitting on a rise of ground, and flying silently away at my approach. The ever changing mountains have been pictured in my memory; the wonderful little Dipper, diving under a waterfall and emerging to sit on a wet stone and sing, the friendly Rocky Mountain Jays, who came at the noon hour to share my lunch in the pine forest, the cock Franklin Grouse, sitting in a dark green spruce top, opening and closing the red comb over his eye, the Solitaire rising in flight song above the mountain peaks, his voice ringing loudly and melodiously through the clear air; and the sweet evening chant of the White-crowned Sparrow in the willows near our camp by the lake shore. However scientifically "cut and dried" the text of this list may seem, back of it is a living Montana, teeming with interesting and wonderful bird life, worthy of greater attention from the future ornithologist."

Few states show such a diversity of physical conditions as Montana and the bird life varies accordingly from the Upper Sonoran and Transition prairie districts of the east to the Canadian, Hudsonian and Arctic Alpine mountain districts of the western counties. Already Mr. Saunders has found it difficult to accurately locate records of the older publications dealing with Montana birds, so rapidly are names changing as settlement advances and new towns and counties are created. Many of these would doubtless have entirely lost their significance had he not placed them while it was still possible to do so.

The illustrations consist of an outline map of the state and a number of half-tones of scenery, birds and nests from photographs of Mr. A. D. DuBois and the author, some of these having appeared previously in 'The Auk,' although the fact is not mentioned.

The author is to be congratulated in sticking to the nomenclature of the 'A. O. U. Check-List,' except in some emendations to common names. The insertion of every proposed innovation in nomenclature in a work of this kind serves no purpose but to confuse the reader and detract from the value of the publication.

Both the author and the Cooper Club are to be congratulated upon the appearance of this notable addition to the well known series of which it forms a part.—W. S.

Hartert on the Types in the Tring Museum.—In November, 1918, Dr. Ernst Hartert published a list of the types of birds in the Brehm Collection in the Tring Museum, which was followed in 1919 by the first instalment of a catalogue of the types in the general collection, covering the Corvidae to the Meliphagidae. The second instalment¹ is now before us carrying the list from the Nectariniidae through the Troglodytidae.

Some idea of the size and importance of the Tring Collection may be gathered from the fact that this list, so far, includes no less than 878 types. Most of the types are of species described by Lord Rothschild and Dr. Hartert although there are a number of other authors. In the course of his work Dr. Hartert has had occasion to name several new forms which appear in this list for the first time: *Cinnyris alinae vulcanorum* (p. 426) Kivu, Urwald; *C. souimanga apolis* (p. 428) Madagascar; *Zosterops intermedia periplecta* (p. 434) Lombok; *Pellicinius zeylonus phanus* (p. 451) Farta Bay, W. Africa; *Prinia mistacea graueri* (p. 457) near Baraka, Africa; *Sylvietta leucophrys chloronota* (p. 460) Baraka, Africa; *Cisticola tinniens perpulla* (p. 466) Benguella; *Turdus obsoletus parambanus* (p. 475) Paramba, Ecuador; *T. fumigatus caparo* (p. 475) Trinidad; *Cyornis banyumas peromissa* (p. 491) Selayer, south of Celebes; *Rhipidura rufiventris tiandu* (p. 497) Taam Island, Tiandu Group.—W.S.

Gurney's 'Early Annals of Ornithology.'—In this volume² Mr. Gurney has collected a mass of data concerning the earliest published accounts of birds, with exact quotations from the texts and reproductions of a number of the most interesting drawings. Beginning with the prehistoric bird pictures in the Spanish caves he traces the development of

¹ Types of Birds in the Tring Museum. By Ernst Hartert, Ph.D. B. Types in the General Collection. (Continued from *Novitates Zoologicae*, 1919, p. 178.) (*Novitates Zoologicae* XXVII, pp. 425-505. November, 1920.)

² *Early Annals of Ornithology.* By J. H. Gurney, F. Z. S., Author of "The Gannet, A Bird with a History," "A Catalogue of the Birds of Prey, *Accipitres* and *Striges*," etc., with illustrations from photographs and old prints. H. F. & G. Witherby, 326 High Holborn, London, 1921. 8 vo. pp. 1-240. 12 shillings, 6 pence net.