

exactly the same position which facilitates comparison. The Ducks, for example, are all shown, in one series of drawings, as we see them sitting sideways on the water, while in another they are depicted on the wing. The Gulls are all shown in a hovering position so that size, and extent of black and gray markings, may at once be compared. In the Sparrow plates little arrows point to characteristic and distinctive markings.

In his text the author mentions also characteristic actions, notes, and usual habitats, but leaves seasons and dates of occurrence to the standard works. There are also colored plates of the Warblers, the more brightly colored Grosbeaks, Tanagers, Orioles, etc., the figures being all side views facing to the left and necessarily very small, but arranged so that similarly colored species are close together.

Few books are free from error and in the present work the author's knowledge of field identification seems to be far ahead of his acquaintance with plumages. He says, for instance, that the young of the Towhee and of the Black-throated Blue Warbler are like the females while as a matter of fact in both species the adult plumage (except for slightly duller primaries) is acquired at the post-juvinal molt so that in the autumn adult and young males are alike as are adult and young females. The author's use of the terms "young" and "juvenile"—indefinite words at best—is sometimes confusing and it is unfortunate that the use of the exact terms proposed by Dr. Dwight are not more generally used today. In some species mention is made of the juvinal plumage, while in others—as the Goldfinch and Cowbird—it is omitted. These, however, are but minor faults and are shared by other authors as well, while they are but incidentally concerned with Mr. Peterson's real objective. On the general conception of the work and its admirable consummation we heartily congratulate him. We feel sure that a proper use of the volume will make for more accurate identifications and the elimination of many errors that undoubtedly result today from the sight records of over zealous field ornithologists. Sight records have come to stay and will form an increasingly important part of ornithological data but the beginner must not think that, even with the aid of Mr. Peterson's excellent book, he can instantly recognize every bird in the off-hand manner of the expert with years of experience behind him. He should heed Mr. Peterson's statement, which we strongly endorse, that accurate field identification is a "matter of seeing a bird often enough and knowing exactly what to look for" and, also, that a thorough acquaintance should be made with a state or local list, so that an observer can state off-hand the comparative rarity of a species and the dates between which it is likely to be seen. Without this knowledge his sight records will receive doubtful recognition and their publication may only tend to obscure accurate knowledge instead of adding to it.—W. S.

**Brand's 'Songs of Wild Birds.'**—If anyone thinks that nothing new is possible in the way of bird literature let him examine this interesting

little book. Mr. Brand, early realizing the importance of a knowledge of bird song to the bird student and also the years of field study necessary to become familiar with the songs of the species found in even a limited area, conceived the idea of "collecting" bird songs for study much as the earlier ornithologists collected the birds themselves and their successors their photographs.

The photography of sound, which is practically what is done in making the sound films which accompany modern motion pictures, is a difficult operation even in a studio, but the recording of bird song in the open, where all sorts of complicating noises may develop, is far more difficult, especially when we consider that most songs are by no means loud at the distance necessary to record them without disturbing the singer.

With tireless patience and many experiments, however, Mr. Brand finally evolved an apparatus which, fitted up in a "sound wagon," could be taken from place to place wherever a singing bird might be located, and its song "collected." Once secured it was possible to make records for reproduction on a phonograph so that anyone could, by playing these records, familiarize himself with the songs of the birds in a fraction of the time necessary to learn them in the field.

The result of Mr. Brand's labors is an attractive little volume<sup>1</sup> explaining how his song records are obtained, with a discussion of the "How and Why of Bird Song" and short descriptions of the songs of some thirty-five familiar birds with appropriate quotations from the works of leading writers on the subject. Then in a pocket inside the back cover of the book we find two double faced records from which all of the songs may be reproduced. We should understand clearly that these are not whistled reproductions such as have been made in the past, nor songs from caged birds, but actual songs of wild birds taken in their natural surroundings.

The interest in Mr. Brand's records is enhanced by the intrusion of natural sounds that were not anticipated when the songs were collected. Thus in the record of the Thrasher's song one detects a few notes from a Towhee which happened to be nearby, while in another are interpolated the caws of a passing Crow.

Mr. Brand has supplied another "ornithological tool" to make more thorough the training of the field ornithologist and, as in the case of the binocular glass and the motion picture camera, it will certainly lead to an increase in ornithological knowledge. Aside from the scientific and educational value of his work, he has provided pleasure to many already familiar with the songs of our birds but who will greatly enjoy hearing them in their homes, just as they delight in the photographs or "movies" of wild bird life.

We feel that all bird lovers will be greatly indebted to Mr. Brand for the pleasure that he has made possible and for the aid that he has supplied in learning to recognize bird song.—W. S.

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<sup>1</sup> *Songs of Wild Birds.* By Albert R. Brand, Associate in Ornithology American Museum of Natural History. Thomas Nelson and Sons, New York, 1934. Pp. 1-91. Price \$2.00.