RECENT LITERATURE

American Waterfowl: Their Present Situation and the Outlook for their Future. By John C. Phillips and Frederick C. Lincoln. Published by Houghton Mifflin Co., Boston. It is a pleasure to review a book like the present. Crowded into compact but very readable form is a vast amount of carefully collated data on a subject which is important to all sportsmen, ornithologists and bird lovers. The senior author, well known for his great monograph on the Ducks of the World, is even better known to many as an ardent sportsman, and so it is doubly gratifying to note the care with which the data has been gathered and the temperateness of the opinions expressed throughout the volume. As typical of the point of view and liberality of the writers let me quote a few lines from the chapter on "Natural Enemies" of waterfowl. They write "We may confidently assert that the idea prevalent in the minds of many sportsmen that hawks and owls are responsible for a heavy mortality among waterfowl is utterly fallacious. Of all bird-killing hawks, only one, the Duck Hawk or Peregrine Falcon, possesses flight superiority that enables it to overtake and capture even the slowest of the ducks, and these hawks are today so uncommon that it is doubtful if many sportsmen have ever seen one. And even so the Peregrine is such a magnificent bird, and possesses such perfect mastery of the air, that the spectacle of one in pursuit of a swift-flying teal or other duck should call forth the highest admiration of the observer, rather than a feeling of resentment coupled with a desire to kill the bird which is striving to do only that which the hunter himself had planned. . . .We do wish here to register our opposition to the senseless slaughter of hawks, owls, gulls, harmless snakes, and other species that only too frequently are killed on sight, merely because it is thought that they may at some time kill a duck or some other game bird."

The volume is divided into four parts, under the headings "Our Waterfowl and their Habitats" including chapters on their breeding areas, wintering grounds and migrations; "Adverse Factors" including drainage and irrigation, shooting, poisons, diseases and parasites, natural enemies, and oil pollution; "Conservation" in general and a chapter on food-plants; "Sport and Sportsmen" with some remarks on the ethics of the various practices; and an Appendix which gives the common names, ranges, notes on present status, and a table of weights.

The bird-bander will find much of interest and encouragement in the book, as might be expected from the junior author, head of banding operations of the Biological Survey. On page 35 we read "We know very little, indeed, about the winter movements of ducks in the lower Chesapeake and in Currituck. What becomes of the ducks that are frozen out of the Havre de Grace flats and other shallow bays? Is there an interchange of Canvas-backs, Redheads, and Scaups between the Chesapeake and Currituck regions? Where do the Currituck and Back Bay (Virginia) ducks go when they are frozen out or driven out by various causes? Only extensive banding of diving ducks can throw any light on these points and also give us an idea of the relative numbers of these ducks which fall to the gun each year. We have a great deal better knowledge of the surface-feeding ducks, through banding, than we have of the diving ducks." Again we read "Where do all the California ducks come from? This question should be easily answered in the future through intensive banding. . .Banding work has clearly shown the natural spread and interchange between the California and the interior ducks." In the chapter on "Migration" are frequent references to recoveries of banded birds and the light these have thrown upon our knowledge of migration routes, of the rate of

migration, and so forth. In the chapter on "Shooting as an Adverse Factor" banding data are used in estimating the mortality from this cause, and, using the average of these returns, between twelve and thirteen per cent of banded ducks being killed during the first following shooting period, an estimate is made of the total number of ducks present annually in the region treated. Using this and various other factors the authors reach the conclusion that the total kill annually in the United States is, conservatively, between 8,000,000 and 9,000,000 ducks and 100,000 to 150,000 geese, to which they add 1,000,000 to 1,500,000 ducks and 50,000 to 100,000 geese killed annually in Canada. When we add to these figures the mortality from poisons, diseases and parasites, and from oil polution, the newest and one of the most serious menaces to waterfowl, we realize the need of a survey such as this book presents.

Typographically, the book is a credit to the authors, the artists who illustrated it, and the publishers. Seven beautifully reproduced paintings by Major Allan Brooks show thirty-two species of waterfowl in flight, as they would appear when passing the gunner in the field, and these should be of great assistance in field identification of the different varieties. The chapter headings by A. L. Ripley are delightfully delicate little vignettes of waterfowl or sporting scenes. In fact, our only criticism of the entire book is in the small detail of the use of local gunners' names in the titles of a few of the ducks illustrated, such as Long-tailed Duck and Blue-bill, instead of the accepted A. O. U. names, Old Squaw and Scaup. Our sporting literature is full of local names of limited application and books such as this should be a means of broadening and perpetuating the use of the officially correct nomenclature.—J. B. M.

Der Vogelzug, vol. I, No. 4, October, 1930.

This number, which completes the first volume of this valuable journal, opens with a thoughtful and stimulating paper by Ernst Mayr and Wilhelm Meise on some theoretical considerations of bird migration. After briefly reviewing some of the more important attempts at an explanation of bird migration, they present their own findings and decisions. The main body of the paper is divided into three sections: an hypothesis of the origin of bird migration; the development of the migratory impulse; and the subject of winter ranges and the lengthening of the migratory journey. The general conclusions are conveniently summarized in two places in the paper, and are here translated for the benefit of those who have not access to *Der Vogelzug* or who cannot read the German language.

1. Birds tend to be permanent residents in areas in which conditions remain constantly at their optimum throughout the year.

2. Bird migration is an unmistakable consequence of the change of conditions with the seasons. Just as the seasons were fairly well established and their differences marked before the ice age came, so, too, migration was a definite thing in the lives of the birds to a very considerable extent before the birds underwent the influence of the ice age.

3. During the ice age our (European) birds were rather concentrated in a relatively small area in the south; migration took place during the ice age, but only to a limited extent geographically (i.e., the geographical distances involved were not great).

4. Bird migration in its present form is a result of development since the ice age. With the retreat of the ice, large areas were rendered available, and were occupied as a result of the natural tendency of birds to spread out into "empty" territory. However, because of the marked seasonal changes, these regions could not be inhabited all through the year, but had to be vacated during the season of inhospitable, inclement weather.

5. Many and diverse factors and conditions have subsequently greatly influenced and molded these basic factors, so that at present almost every species has developed and built up a slightly different picture of the migratory habit (such differences as route, distance, time required, etc.).

6. The occurrence together of winter visitors and breeding, resident birds undoubtedly exercises an influence on the seething density of the population in the winter quarters.

7. The outpouring from the winter quarters and the return to the breeding-areas are not to be explained on the basis of external conditions operating to-day, but only through the migratory habit, which has become an inherited instinct. What caused the birds to leave the pleasant, favorable tropical and subtropical regions before the time of the origin of the migratory instinct is not clear.

8. Often the winter range and the migratory path have been altered both in geographic location (direction, etc.), and in extent (distance, etc.) in the case of individual species.

9. Lengthening of the migratory journey has been demonstrated in a number of different cases. It appears to consist chiefly of a matter of shortening or reducing all roundabout routes, and adding the distance thus saved to the main direction of flight.

10. A lengthening of the migration path largely precedes an extension of the breeding-range. It concerns, first of all, the spring migration, but its influence is carried over and appears in the subsequent strengthening of the migratory impulse in the autumn migration as well. Indirect evidence of this may be found in the fact that the winter range may be located in another zoögeographic region, and the resulting fact that the migratory path traverses and crosses from one region to another.

In general, it is the opinion of the reviewer that the authors seem to rely too wholly on a thesis (yet to be proved) that the winter range is the ancestral home of all species of birds. The main contribution of this paper seems to be the suggestion that there was definite migration before the ice age, that the latter merely altered and exaggerated the habit in some regions, and that the present bewildering diversity of migration paths, distances, etc., is all a post-glacial development. However, much of this has previously been said, in perhaps slightly different words, by other authors.

The second paper is by Doppelmair, and deals with bird-banding at the "Frost-Instituts" at Leningrad. The records are arranged according to species, and data are given for a teal (*Nettion crecca*), the Mallard, the Gray Goose (*Anser anser*) and the Black Grouse (*Lyrurus tetrix*). The paper is merely an extract from a longer and much fuller report published in Russian elsewhere. Birds banded in Soviet Russia were recovered in England, Germany, and various parts of Russia.

Rudolf Drost contributes the first of a proposed series of papers on how to tell the sex and age of migrant birds. In this installment he discusses three common birds, a flycatcher (*Muscicapa hypoleuca*) a warbler (*Sylvia communis*, and the Redstart (*Phœnicurus phœnicurus*). The discussion deals with all those slight, but reliable, differences in plumage, by which the bander may be able to identify more fully the bird he bands. It would be worth while to imitate this in this country, as all our bird manuals are either field keys or museum keys in their fundaments, while the needs of the bird-banders are slightly different from those of the opera-glass enthusiast or the museum investigator. Characters by which ages and sexes differ in spring and autumn, clues as to whether a bird is a post-breeder or a belated migrant by characters of molt, feather-wear, etc., are the sort of criteria that need to be stressed for the purposes of bird-banding.

Among the shorter notes, which complete the number, are articles by Kramer on the spring migration of 1930 at Rossitten; by Drost on

Œnanthe œnanthe schioleri as a migrant at Helgoland; another on the same topic by Salzmann. Emeis comments on migrants in the Tunisian steppes south of the Atlas Mountains; Hörtling writes on the migration of the Great Spotted Woodpecker at Rossitten and Helgoland; while a number of observations on the Crossbill invasion of 1930 are tabulated collectively by countries. A table of contents and an index complete the number and the volume. —H. F.

Wilson Bulletin. Volume XLII, No. 2. This issue contains an article on "Chimney Swift Banding Operations at Chattanooga" by Wyman R. Green, including a map and several halftones from photographs, but the material is the same which was treated by Mr. Green in his interesting article in BIRD-BANDING for July, 1930, and so needs no further reviewing here.

In a discussion of the "Status of Gambel's Sparrow in Michigan" Josselyn Van Tyne brings out the interesting fact that this bird was first recognised as a visitor to the state by a bird-bander, Mr. M. J. Magee of Sault Ste. Marie, who captured and banded a Gambel's Sparrow on May 21, 1925, and sent a sketch and description to Dr. Van Tyne for confirmation of his identification. Dr. Van Tyne then found that three earlier specimens, mislabelled White-crowned Sparrows, were in reality Gambel's Sparrows. Since that time Mr. Magee has captured six other specimens at his banding station and Prof. J. W. Stack and Mr. F. E. Ludwig have each captured and banded one bird. This interesting paper brings out afresh the importance of careful scrutiny of all birds handled in banding operations. In cases of doubt regarding unusual birds, it is well to retain the bird in captivity until an expert may be consulted, or if this is impossible, the bird should be photographed or sketched and its portrait, with a description written while the bird is in captivity, sent to a recognized ornithologist for identification.—J. B. M.

Wilson Bulletin. Volume XLII, No. 3. C. E. Holcombe describes his experiences with banded Bluebirds in Illinois. In 1927 he banded a pair of Bluebirds and their young. In 1928 the female returned with a different male and raised two broods. Again in 1929 the female returned, but with a third male for partner. In view of the generally accepted theory that the male bird is the one which establishes a "territory" this experience is interesting and suggestive.—J. B. M.

British Birds. Volume XXIV, No. 2. On pages 55–56 H. F. Witherby describes the recovery of a Black-headed Gull which was banded in Great Britain on June 13, 1910, and recovered near the same place on May 26, 1930, so that the bird was twenty years old at the time of recovery. Mr. Witherby comments further on a Golden Eagle from Germany which was twenty years old when recovered, a Tufted Duck, a Cormorant and a Shag of fourteen years, a Woodcock of twelve years, Lapwings of twelve and eleven years, and a Blackbird of ten years, among recent records. —J. B. M.

British Birds. Volume XXIV, No. 3. On pages 70–72 H. F. Witherby reports on "Birds Ringed in Iceland and Recovered in the British Islands." These recoveries were of birds banded by Mr. P. Skovgaard of Denmark or by his agents and were previously published, with others, in *Danske Fugle*. Mr. Witherby lists 55 individuals of ten species, all, with the exception of one White Wagtail, one Great Black-backed Gull, two Snipe and thirteen Golden Plover, being ducks. No less than eighteen European Wigeon are recorded from Great Britain, wiih the added comment "Besides these birds recovered in the British Islands and recorded above, Iceland Wigeon have

reached S. W. Spain (1); France (2); Ravenna (Adriatic), Italy (1); Tula (south of Moscow) Russia (1); while no less than four have reached America, viz., Newfoundland, Nova Scotia, Massachusetts and Maryland." As with our American waterfowl, most of the recoveries were during the first hunting season following the placing of the rings, and the birds were presumably nestlings when ringed; the longest interval was two years, two months and three weeks.

On pages 77–78 Mr. Witherby comments on a Cuckoo, ringed in England June 23, 1928, and shot by a native in French Cameroons, January 30, 1930. Only two other British-ringed Cuckoos have been recovered outside of Great Britain, one at Muhlhausen, Germany, and the other near Reggio, Emilia, Italy, both being young birds in their first migratory journey.—J. B. M.

CORRESPONDENCE

MAKING CELLULOID BANDS

Editor of Bird-Banding:

I read with much interest the article by Dr. Butts in the October number. Some very interesting facts will doubtless be found from observing marked individuals. I have found an easy and quick way of making celluloid bands and offer it for any who may be interested.

The celluloid of which toys and rattles are made I find preferable to the sheet kind, which does not shrink. I use a nail of diameter equal to the size of the band I wish to make, and cut a piece of celluloid as long as the nail and as wide as the band is to be round, providing, of course, for an overlap. A short immersion in boiling water softens the piece enough to wind it around the nail and then I wind string tightly over the whole length of the piece on the nail. A longer immersion, several seconds, shrinks the celluloid to conform exactly to the diameter of nail. When it is cooled and the string is unwound, a celluloid cylinder results of proper diameter that may be cut into several bands of required width with a razor-blade. Shrinking them to the form makes them very springy, and they fit well and neatly when placed on the birds.—JAMES RINTOUL, Bardonia, New York.