

by David Fritz, the place of recovery being about a half-mile east of my station. The return is of a male Purple Martin, A210085, banded by me on May 18, 1929, which was found on June 29, 1930, by Charles Bryens crushed on the highway about one hundred feet from its place of banding. I have seen Martins on the surface of the stone road rather often, but whether this bird was overtaken by an automobile, or had struck a telephone wire and fluttered to the road and became crushed, is not known.—OSCAR MCKINLEY BRYENS, McMillan, Luce County, Michigan.

RECENT LITERATURE

Der Vogelzug, vol. 2, No. 1, January, 1931.

The initial number of the second volume of this journal opens with the twelfth report on the ornithological work of the biological station on Helgoland, by Rudolf Drost. The report deals chiefly with matters of equipment, routine, the establishment and growth of a reference collection of bird-skins to illustrate molts, and plumages, etc. It gives one a feeling that the scientific results achieved in the past should be greatly extended in the future now that the physical equipment of the station is ample.

Drost and Bock write on some data on bird migration in the North Sea area obtained in the spring of 1930 as a result of the coöperative work of the international observation stations (Danish, Dutch, German, and English). All these stations, together with lighthouses and lightships, were working simultaneously each day from 6.15 to 9.15 A.M., and direction of flight, etc., was duly recorded by compass-readings, making it possible to correlate all the individual observations. Another season's work will be necessary to enable one to judge the significance of many of the data now available for the North Sea. Much of importance may be expected as a result of this coöperative method of study. The present report whets one's appetite without giving much actual information.

Schüz, the able director of the Rossitten station, discusses some old and new attempts to understand the ability of birds to find their way. This is a very valuable and stimulating paper, although it presents no new facts but consists merely of a critical restatement of previously published material, carefully gathered and classified. The work of Rivière on homing pigeons is briefly reviewed, and also that of Coward on the Noddy and Sooty Terns, of Schenk, Wachs, Watson and Lashley, of A. L. Thomson, Culemann, Stimmelmayer, and others, on terns, swallows, Bluethroats, etc. The noteworthy feature of the paper is that the author attempts, for the first time (and successfully), to classify these data, and thereby to eliminate some of the apparent contradictions in the literature reviewed. He finds, for example, that young birds removed from their birthplace, and then reared and liberated elsewhere, generally tend to follow the right direction in their first autumnal migration, although they may not meet with what would have been their original path, but parallel it. This was tested and found to hold true for Storks (*Ciconia ciconia*). A Swift, (*Apus apus*) taken from the nest in Braunschweig and reared and liberated in Berlin, was found to return next spring to the general neighborhood of Berlin (Spandau). This indicates that the tendency is to return to the place where the bird was reared and from which it started on its migration the previous autumn, not necessarily an "ancestral" home. Of course in the normal course of events in nature, the place from which the fall migration starts and the "ancestral" breeding-area are the same, but the present case of the Swift indicates clearly which part of the "home complex" is really effective in its influence.

Similarly, in the case of birds captured during the winter in their normal winter range and artificially transported elsewhere and then liberated, it was found that they tend to return to the original winter quarters the next year. This was shown in the case of Mallards and Pintails captured in Louisiana and liberated at Ithaca, New York, and subsequently retaken in the southern Mississippi Valley. Some statistics on young birds banded and not removed from the breeding-area, compiled by Schenk, indicate that about eighty per cent return to the same general area the next year. Schüz questions this as being too high a percentage. Other studies have shown that even at times when the migratory instinct is at rest, and also during the breeding season, birds have a general propensity to find their way back to their breeding places. This is just as true of parasitic birds as of others with more obvious ties binding them to definite spots.

Schüz quotes Wachs's statement that birds do not strive to reach a particular goal in their migratory journeys, but that the actual goal of the journey results only from the cessation of the migratory impulse when the bird gets to a certain place; he points out, however, that this is too sweeping a statement, and could obviously apply only to the first spring migration of young birds, as other work has suggested that many birds appear to have a perceptual feeling for geographical locality.

Doppelmaier continues his account of the birds banded by the Forst Institut at Leningrad, taking up notes on *Corvus frugilegus*, *Sturnus vulgaris*, *Scolopax rusticola*, and *Larus ridibundus*.

Bouma and Koch contribute notes on the spring migration of the Siskin (*Carduelis spinus*). They find that the birds tend to make extensive expeditionary forays in search of food in their winter quarters; that a number of the birds spend the winter in Holland and Belgium and perhaps also in eastern Prussia; that a part of the Siskin population of northern Europe, which passes through Holland in a southwesterly and southerly direction in late September, winters in northern Italy, where do also some of the southern Russia birds.

Dobbrick writes on the migration of Jays (*Garrulus glandarius*) in the Danzig area in the spring of 1930, giving exact observational records day by day. Natorp has a few retrospective comments on the Crossbill invasion of 1930, previously reported on in vol. I, No. 4, of "Der Vogelzug".

Among the short notes are two of especial interest. One is by Schüz, and deals with an albino Grebe, (*Podiceps cristatus*). Schüz remarks that albinos, being easily identified as individuals in the field, should be observed more and shot less, as they provide excellent opportunities for studying the range, behavior, etc., of individualized birds. The other note is on the southern European Cormorant. In a previous number of "Der Vogelzug" this bird was recorded as banded in Holland and recaptured in Minnesota, but the record is found to be a false one, and it is hoped that it has not been incorporated into subsequent literature.—H. F.

British Birds. Volume XXIV, Feb., 1931. Mr. H. F. Witherby gives his report on progress during 1930 of "The 'British Birds' Marking Scheme." He announces a grand total of birds ringed since the beginning of the plan in 1909, of 287,401. He emphasizes the importance of trapping adult birds as contrasted with the ringing of fledglings of our small passerine birds, and urges the more general adoption of this method, which has only recently been employed by British ornithologists. He also lists certain species of birds as "unremunerative", that is, as furnishing a very small percentage of recoveries, and would discontinue the ringing of these species except in special instances or where trapping operations are being carried on.

A map is published showing recoveries of seven Razor-billed Auks, one

Puffin, and two Guillemots, ringed in Great Britain and recovered on the southwestern coast of Norway or along the Skager Rack, practically due east of the points of ringing, and indicating interesting possibilities in the line of migration followed by this group of birds.

A Kittiwake ringed in the Farne Islands, Northumberland, June 23, 1928, was recovered in Newfoundland during 1930. Two other Kittiwakes have been previously reported as recovered in Newfoundland and Labrador (*Bul. N. E. B. B. A.*, Vol. IV, page 11) and Mr. Witherby states that there is a possible fourth recovery from Newfoundland, apparently awaiting confirmation, and that a Kittiwake ringed in Greenland has been recovered in Europe, suggesting that trans-Atlantic passages may be common among these wide-ranging seabirds.

In the tabulation of birds ringed it is interesting to note that the highest percentages of recoveries are among the persecuted hawks rather than among waterfowl as might be expected. The Peregrine Falcon leads with 31.8 per cent, the Merlin being second with 20.9 per cent.—J. B. M.

It may be added that in Great Britain, which has an area of 87,903 square miles, there are, according to Witherby, over two hundred banders including some in nearby islands. These banders are well distributed over the country, much better than they are in the United States as a whole, or even in the more populous areas in the East. Expressed in areas, there is one bander to each 440 square miles. In New England, having an area of 66,465 square miles, there are approximately 78 banders operating banding stations, or one station to each 852 square miles, so that Great Britain has nearly twice as many banders per unit area as we have in New England, a fact which indicates a much greater interest in the work than there is in the territory of the Northeastern Bird-Banding Association. This greater interest is probably due to the fact that *British Birds* early backed the banding movement which has also been well supported by scientific societies.

The outlook for the future of banding in Great Britain continues most promising, due in part to the fact that trapping as practiced in this country is rapidly increasing and it seems probable that the use of small traps will soon spread to the mainland of Europe.—THE EDITOR.

The Auk. Volume XLVII, 1930. In the October issue is an article by S. Charles Kendeigh and S. Prentiss Baldwin on "The Mechanical Recording of the Nesting Activities of Birds." It deals principally with the development and use of the "itograph", an electric apparatus which records on a mechanically operated strip of paper each coming and going of the parent birds during the incubation of the eggs or the care of the nestling birds. The article is illustrated with four halftone plates, a diagram showing the electrical connections of the apparatus, and three reproductions of actual records. It is an extremely interesting article and should be read by all who may wish to carry their studies of banded birds farther than is possible for those of us who merely place bands and then wait patiently for "repeats", "returns", or "recoveries".—J. B. M.