

of the sister organizations. The name of the journal becomes 'Bird Banding.' This move will centralize still further the activities of the bird banders and save a great amount of energy now expended on separate publications. (For notice of contents see p. 290).—W. S.

Publications on Game Birds.—Two recent publications of the Biological Survey, by W. L. MacAtee, deal with the propagation of game birds and should prove a great help to those engaged in this line of work. The time seems to be rapidly approaching when certain groups of game will be extinct so far an original wild stock is concerned and, if sportsmen wish to continue to shoot, a supply of game will have to be raised for the purpose. Therefore all information relating to this business is welcome.

The first paper¹ deals with the propagation of upland game birds and contains detailed instructions for enclosures, cages, breeding houses, etc., followed by specific information about Pheasants, Bobwhites, Hungarian Partridges, Grouse and Wild Turkeys.

In discussing enemies, while the use of pole traps for catching Hawks is discouraged and the hope extended that it will eventually be everywhere prohibited, as it has been in New Jersey, nevertheless considerable space is devoted to explaining how pole traps may be made less cruel and less likely to cause the death of smaller birds which alight upon them. It would seem to us, however, that the Biological Survey stands strong enough in the estimation of the public to take the lead in this matter and to state emphatically that pole traps should under no circumstances be used, that they are cruel and that they are likely to make the user liable to fine for killing smaller beneficial birds. Such a statement from such a source would go far to eliminate the obnoxious pole trap.

Mr. MacAtee's other paper² lists game birds suitable for introduction into this country. He recommends many species of Pheasants, Sand Grouse and Bustards but considers that the Red Grouse and Black Grouse are too dependent upon the presence of heather to make it possible to introduce them where the plant does not grow. The Wood Pigeon is regarded as likely to become a nuisance and its introduction is not advised. May not some of the others also become undesirable when it is too late to remedy the error? Introduction of any foreign species is a dangerous procedure and it would seem that the breeding of native birds were the better alternative.—W. S.

Stegmann on Birds of S. E. Transbaikal.—This excellent paper³ is based on the author's personal experiences and upon extensive collec-

¹ Propagation of Upland Game Birds. By W. L. MacAtee. Farmers Bulletin No. 1613. U. S. Dept. Agriculture. pp. 1-61, January, 1930. Price 10 cents, Supt. of Documents, Washington, D. C.

² Game Birds Suitable for Naturalizing in the United States. By W. L. MacAtee. Circular 96. U. S. Dept. Agriculture. November, 1929. pp. 1-23.

³ Die Vögel Süd-Ost Transbaikaliens von B. Stegmann. *Annuaire du Musée Zool. Acad. des. Sci. de l'Urss.* Pp. 83-242, pl. IV-IX

tions of others obtained in this region, first traversed by Pallas in 1772-3. There is a general account of the characteristics and the physical features of the country, a tabular list of species with their distribution in the several regions indicated, and finally a fully annotated list of 303 species with a bibliography and six half-tone plates illustrating the variation in plumage in *Hierofalco cherrug progressus*.

The publication forms a valuable contribution to the ornithology of a little known region.—W. S.

Wetmore's 'Ornithology' in Encyclopaedia Britannica.¹—In this day of abundant bird books the average student of ornithology does not ordinarily think of going to an encyclopaedia for a brief but at the same time comprehensive survey of the science. Doctor Wetmore's account in this recently issued work, however, so well summarizes the entire subject, and in such a readable manner, that we know of no other single digest that furnishes a comparable insight to the study of birds. In fact, the information compressed into this article may well be considered the meat of the information contained in an extensive ornithological library.

The introductory section is historical, beginning with the records left by Aurignacian man in France and Spain during the last Glacial Epoch of the Ice Age. From these early paintings and carvings man's notice of birds is traced through Egyptian, Hebrew, and Greek writings to the modern contributions that date from the middle of the 19th Century. "Ornithological Societies," "Bird Protection," "Economic Studies," and "Aviculture" are treated in this section.

"Types of Living Birds" are considered at some length, followed by a section on "Geographic Distribution." "The Avian Life-Cycle" is then taken up and traced through the courtship, nest-building, egg laying, and incubation periods. Here is given information on territory, mating performances, types of nest architecture, eggs, incubation periods, the temperature required, and parasitism.

Under "Post-Breeding Life" the discussion is devoted mainly to the change in feather covering by molt and the development of colors and pattern by wear.

"Migration" is treated at length, under the sub-headings "Superstitious Beliefs," "Theories of Origin," "Methods of Migration," and "Bird Banding," illustrative examples being used to bring out the salient features of each. Under "Songs and Calls," the entire range of bird notes is considered, from the practically silent vultures and pelicans to the finished music of the Mockingbird and the Nightingale. Reference is also made to mimicry and to the faculty for imitation of the human voice that is possessed by certain Parrots, Crows, Jays, Magpies, Starlings, and Mynahs. In the discussion of voice and also of the mechanics of flight, Doctor Wetmore

¹ Encyclopaedia Britannica: A New Survey of Universal Knowledge, Vol. 16, pp. 917-933. The Encyclopaedia Britannica Co., Ltd., London, Encyclopaedia Britannica, Inc., New York. Fourteenth Edition, 1929.