

information in the maze of inter-related facts, remarkable theories and astonishing phraseology. Even "quart in a pint pot" has been indexed. The index has been arranged in different type so that illustrations and diagrams may be distinguished from the letterpress. Led by the index to "epigenesis", one is rewarded by: "This is the principle of co-operation which is an *a posteriori* statement of the *a priori* doctrine of epigenesis". The remarkable changes in cytology

are also reflected in the relegation of parasynapsis and telosynapsis to the glossary.

This is a difficult book; but remarkable changes are still taking place in cytology. The author and publisher are to be congratulated on the production of a research monograph, profusely illustrated with diagrams and photographs, many of which are original, and containing a mass of data which will greatly stimulate workers in the field of cytology.

F. W. SANSOME.

Bird Life

(1) The Book of Birds :

the First Work presenting in Full Color all the Major Species of the United States and Canada. Edited by Dr. Gilbert Grosvenor and Dr. Alexander Wetmore. Vol. 1: Diving Birds, Ocean Birds, Swimmers, Wading Birds, Wild Fowl, Birds of Prey, Game Birds, Shore Birds, Marsh Dwellers, Birds of the Northern Seas. Pp. viii + 356. Vol. 2: Owls, Goatsuckers, Swifts, Woodpeckers, Flycatchers, Crows, Jays, Blackbirds, Orioles, Chickadees, Creepers, Thrushes, Swallows, Tanagers, Wrens, Warblers, Hummingbirds, Finches and Sparrows. Pp. 374. (Washington, D.C.: National Geographic Society, 1937.) 2 vols. 5 dollars.

(2) The Birds of the Malay Peninsula :

a General Account of the Birds inhabiting the Region from the Isthmus of Kra to Singapore with the adjacent Islands. By the late Herbert C. Robinson and Frederick N. Chasen. (Issued by authority of the Federated Malay States Government.) Vol. 3: Sporting Birds; Birds of the Shore and Estuaries. Pp. xxi + 264 + 25 plates. (London: H. F. and G. Witherby, 1936.) 35s. net.

(3) Check-List of Birds of the World

By James Lee Peters. Vol. 3. Pp. xiii + 311. (Cambridge, Mass.: Harvard University Press; London: Oxford University Press, 1937.) 15s. net.

(1) THE resources of the National Geographic Society have made possible the issue of a remarkably effective popular book on the birds of the United States and Canada. The text is contributed by a number of American ornithologists of high repute, whose names guarantee it as authoritative, and the extent to which the two volumes are illustrated is truly lavish. Prior publication in the Society's widely circulating magazine, over a period of years, has covered so much of the cost that the price is a low one for the value given.

Each important group of birds receives a chapter, in which an introductory account is

followed by details of the separate species. Other chapters are interpolated to deal more generally with such topics as the study of migration by the ringing method or the mechanical recording of bird-song. The treatment of some questions is perhaps superficial, and the style at times rather journalistic, but the information essential to a work of this kind is well presented.

The outstanding feature is the full use that has been made both of colour drawings and of photographs—there are more than two hundred of each. The coloured plates by Major Allan Brooks are beautifully clear, and well adapted for purposes of identification: all important species are depicted, often in more than one plumage. The photographs are from various sources and reach a high standard. They have obviously been selected to give an impression of the lives of the birds rather than of their mere appearance, and in this way they admirably supplement the portraits provided by the artist.

(2) Mr. Chasen now presents the third of five instalments of a guide to the bird-life of Malaya, the death of the author of the first two volumes having been the chief cause of a gap of eight years in publication. The work is a sumptuous one, and intended primarily for local use. Its general arrangement is unusual in that the division into volumes is based on habitat instead of following a strictly systematic order. Each species, however, is dealt with on a uniform plan, a description of the bird being followed by particulars of its range, nidification and habits. The information is lucidly set forth, and the plates by Mr. Grönvold are excellent.

(3) Mr. Peters is engaged in producing a work of reference of much value to ornithologists. The information given is restricted to nomenclature and distribution, but the utility of an up-to-date standard list of all known birds is obvious. The present volume covers the pigeons and the parrots, these two orders including between them more than sixteen hundred forms.