

REVIEWS

WILDLIFE OF MEXICO. By A. STARKER LEOPOLD.
University of California Press. \$12.50.

The geographical situation of Mexico has meant that for long periods the country has served as a bridge for animals between North and South America. As a result Mexico has a rich fauna, composed of species representing Nearctic and Neotropical elements. In addition to its zoogeographical position, Mexico has many different habitats corresponding to the needs of its wild life. With its deserts, scrub-lands, grasslands, savannas, pine-oak forests and tropical rain forests, all situated at different levels and in various climatic zones, it is indeed a country with a high ecological diversity. Only about 30 per cent is tropical; about 70 per cent supports types of vegetation characteristic of north temperate regions.

In the first part of the work, "The wildlife resource and its management", the author gives a thorough account of the physiography and the characteristic vegetation zones. In a stimulating discussion of land use in relation to wild life, he points out that the Mexican biota no longer conforms to its original pattern. Man by his agriculture, grazing of livestock, clearing of forests and draining of lakes, has so altered the face of Mexico that Montezuma, if he returned to-day, might not recognize his domain. These changes have, with accelerating speed, radically altered the habitat for wild animals, especially since the human population of Mexico is increasing more rapidly than that of any other country in the New World. In the past fifty years it has doubled.

In a chapter on the utilization of wild life, the author stresses the importance of game as food and as one of Mexico's great social values, as well as the need to regulate the use of this renewable resource and the general lack of success of predator control as a practical means of management. His programme for conservation education emphasizes that it must appeal to the mind of the average Mexican campesino—not a very easy task.

The second and third parts of the book deal with game mammals and birds, which are treated in detail. Under the individual accounts of 83 species of mammals and about 70 species of birds, we are given criteria for identification, descriptions, weights and measurements, biology, present status and problems of management. Nearly every species is illustrated

with full-page drawings by Charles W. Schwartz, including, besides the main portrait, range maps, skulls, anatomical details and other characteristics. Their beauty and accuracy remind one of his recent book *The Wild Animals of Missouri*.

The distributional maps are, according to the author, based not only on localities of records but also on the knowledge of the species' habitat requirements and the ranges of vegetation types. This method seems to be rather dangerous, for there are often ecological determinants for an animal's distribution beyond the vegetation type, although this is usually the most important.

The Mexican game law and hunting regulations are stated in two appendices. A bibliography of eight pages and a useful index increase the value of the book.

In the foreword to this work Professor Enrique Beltrán, Director of the Instituto Mexicano de Recursos Naturales Renovables, emphasizes that, in many situations, the recreational value of wild life, with its attractions for tourists and its implications for commerce, may be a higher and more productive form of land-use than the activities of agriculture, forestry and livestock production. This unfortunately is far from being realized not only in Mexico but everywhere else. Starker Leopold's book should therefore give wild life management in Mexico its rightful place in the rural economy of that country. Its conclusions might well be applied to other countries also.

K. CURRY-LINDAHL.

AN INTRODUCTION TO ANIMAL PHYSIOLOGY. By W. P. YAPP.
Oxford : Clarendon Press, Second Edn., 1960. 25s.

This second edition of a widely used text originally published in 1939, will be welcomed by students and others interested in the elements of animal physiology as distinct from human or general physiology. Although the general format has been retained, much new information has been incorporated, especially in the sections dealing with respiration, metabolism, vitamins and internal secretions, bringing the work up to date. Of particular interest are references to unusual pabulum and the way they are attacked, e.g. wax by honey-guides and keratins by clothes moths.

To the conservationist the chapters on nutrition, co-ordination of function and reproduction are of major interest, but most of all that dealing with the animal in relation to its environment.

The book is of handy size, clearly printed in a readable type