

Mammals in Review

Only at rare intervals do there appear such comprehensive works as these three volumes, **Mammals of the World** (Johns Hopkins Press, Baltimore, Md., 1964. 2268 pp. Illus. \$37.50), by Ernest P. Walker and his associates. Mammalogists have awaited expectantly the completion of this project, a truly extraordinary achievement on which the author has been engaged for more than 30 years. Originally conceived as a treatise entitled "Genera of Recent Mammals of the World," with an illustration of each taxon, the volumes as they now appear cover a vastly wider field. They will appeal widely to general readers as well as to professional mammalogists.

Ernest Pillsbury Walker, born in Missouri, completed his formal education at the University of Wyoming in 1913. Almost at once, with a newly acquired bride, he departed for Alaska where, as warden and inspector, he served the U.S. Bureau of Fisheries for 6 years. There followed a few years in Arizona and southern California as game warden with the U.S. Biological Survey, and then several more years in Alaska as chief fur and game warden. In 1925 he was appointed executive officer and fiscal agent for the Alaska Game Commission; two years later he became senior biologist and assistant in charge of reservations for the Biological Survey in Washington, D.C. In 1930 he became assistant director of the National Zoological Park of the Smithsonian Institution, at which post he served until his retirement from government service in 1956. He is a member of a number of American mammalogical, ornithological, and biological societies, and author of papers in their journals, as well as author of *The Monkey Book* and articles in the *National Geographic Magazine*, *Saturday Evening Post*, and *Illustrated London News*. His special fields of interest have been mammals and their behavior, the birds of Wyom-

ing, wildlife administration and protection, the biology of bats, and the care of animals in captivity.

Upon retirement, he began at once to organize his extensive files of references, observations, and photographs for this work. Capable co-workers were assembled, and for years they worked tirelessly in an upstairs office at the reptile house of the National Zoo. These colleagues—Florence Warnick, Kenneth I. Lange, Howard E. Uible, Sybil E. Hamlet, Mary A. Davis, and Patricia F. Wright—are accorded deserved recognition as coauthors. At least five drafts of the basic check list of genera were circulated widely to mammalogists from every continent for their comments, criticisms, and suggestions. As a result, the published work now treats the 1044 known genera of recent mammals, all but four of them represented here by photographs.

Such a compendium is not brief. It comes in three heavy volumes, of which the first contains extensive introductory material and treats in detail members of the orders Monotremata to Pholidota, together with selected bibliographies and an index. Volume 2 deals similarly with the remaining orders, Lagomorpha to Artiodactyla. Volume 3, of interest chiefly to specialists, is an extensive mammalian bibliography of 700 pages and some 50,000 references gleaned from the files of the author as well as those of the National Museum, the Fish and Wildlife Service, and the American Society of Mammalogists. Recognizing the diverse appeal of the volumes to the public, the publishers have arranged for volumes 1 and 2, boxed together, to sell for \$25 and for volume 3 to sell separately for \$12.50. Despite the apparently high cost, this is really a bargain for any naturalist or ecologist with a cosmopolitan interest, and a necessity for any serious-minded mammalogist.

In the first two volumes appear gen-

eral statements concerning each order and family of mammals. Introductory material includes 5 pages of acknowledgements, and 34 pages are devoted to a unique chart, the "World Distribution of Mammals," which provides a convenient index to all genera as well as a graphic representation of where they all occur. Treatment of each genus covers common and scientific names (including local or native variants), the number of presently recognized species, their ranges, weights and measurements (in metric system), coloration, types of body covering, structural peculiarities, habits, foods, gestation periods, the number of young per litter, and their economic importance. In the case of rare forms, museums where they are represented are indicated. An attempt is made, wherever possible, to avoid unnecessary technical terminology.

A particularly noteworthy feature is the pictorial coverage. The photographs as a whole are above par and many are exceptional; they illustrate nearly every genus, although a few are simply photographs of drawings from published sources. Nowhere else is such a remarkable collection of pictures assembled. In the case of large genera, several pictures illustrate representative species. Original drawings serve to picture the pygmy shrew (p. 144), the forefeet of artiodactyls (p. 1355), and other special features. We find a partial portrait of the author, posed with a long-nosed bat, on page 294. Many pictures depict skulls, teeth, and various anatomical peculiarities.

The third volume contains a vast amount of bibliographic information. Titles are classified under taxonomic, geographical, and general subject headings; subheadings relate to specific areas, or to such topics as anatomy, diseases, ecology, habits, embryology, or fossils. Unfortunately, there is some duplication of citations. For instance, the title "The susceptibility to yellow fever . . ." is cited twice in volume 3 as well as on pages 509 and 510 in the first volume. A 1923 paper by William Beebe, "Jacking for Yapocks" is ascribed merely to the *Zool. Soc. Bull.*, but not all readers will associate the author with the New York Zoological Society. Nor are the references completely up-to-date; under Marsupials 163 titles are cited, but the latest is dated 1958, and all but 41 were published prior to 1950. The repetition in volume 1 of some 4500 titles that appear also in volume 3 seems to be a needless waste of 113 pages.

The author, who is not a taxonomist, has had to rely on the literature for criteria distinguishing genera. This is no mean task, what with the continuing activities of the "splitters" and the "lumpers" in our midst. But the decisions reached appear generally satisfactory. The black bear (*Euarctos*) is segregated from the grizzly and brown bears (*Ursus*); four genera of marmosets (*Callithrix*, *Cebuella*, *Leontideus*, and *Saguinus*) are recognized; the American pocket gophers fall into eight genera.

In a work of such magnitude some errors are unavoidable. Thus, we read that rabbits and sheep prey on marsupials in Australia (p. 10), and that the blue whale can swim at "15 knots an hour or more" (p. 1139). *Citellus columbianus* is misspelled as *C. colombianus* (p. 709), *Myrmecobiidae* as *Myrmecodiidae* (p. 511), and *Babirussa* as *Babyrousa* (p. 1364). The bibliographic slips are equally annoying. More discerning proofreading would have corrected much of this. But, on the whole, these three volumes comprise an essential general reference book for all professional mammalogists. Packed with intriguing details and profusely illustrated, they are also a fine example of the bookmaker's art. Certainly they will be much used by all those with an interest in any aspect of the mammals of the world.

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Need for Research Reviews

Advances in Drug Research. vol. 1.
N. J. Harper and Alma B. Simmonds, Eds. Academic Press, New York, 1964. x + 209 pp. Illus. \$6.25.

Until a few years ago, the conscientious pharmacologist could keep up with the review articles in his field by reading the quarterly *Pharmacological Reviews*, plus perhaps the less frequently published *Recent Advances in Pharmacology*. In the last few years, with the advent of *Annual Review of Pharmacology*, *Advances in Pharmacology*, and now *Advances in Drug Research*, the brimming cup has begun to spill over.

It is not that the extraordinary activity of the pharmaceutical industry and of nonindustrial scientists inter-

ested in drugs does not justify the publication of authoritative reviews on topics of importance. It is rather that one may ask whether we need quite so much as is now available in the way of publication along these lines.

For example, in the first volume of *Advances in Drug Research* there is an interesting and useful article on penicillins and related structures. This field is expanding so rapidly that an up-to-date review, especially with a chemical orientation, will be of interest to many. The material presented indicates rather clearly how far the chemists are ahead of the clinicians; new penicillins are being produced and introduced at a rate that exceeds the ability of physicians to appraise them satisfactorily.

A good review on antitussives is badly needed, but the presentation given in this volume leaves something to be desired. There are abundant references that will guide the reader to the world literature, but the discussion of the application of antitussives to clinical practice suffers from the non-clinical orientation of the authors. Physicians might suspect, for example, that many of the alleged therapeutic effects of inhalants, expectorants, mucolytic agents, proteolytic enzymes, and the like should be attributed to the placebo phenomenon. The article's strength lies in its chemistry, not in its biology, but the two are inextricably related.

With respect to the other two papers in this first volume of *Advances in Drug Research*, one can be even more ambivalent. The treatment of physiological transport of drugs is satisfactory per se, but merely adds another to a series that has appeared within the last few years. Information in this field is hardly accumulating at a rate that justifies such frequent summaries. The article on adrenergic neurone blocking agents is, again, not objectionable per se, but in view of recent reviews of this topic, including one on antihypertensive drugs (by Green) in a book put out by the same publisher in 1962, one can seriously question the advisability of soliciting the present article.

If volumes of this kind are to have a broad appeal and to merit purchase by individuals or libraries, more attention must be paid to the selection of topics. Obviously it will be difficult to avoid overlapping, with different publishers being involved and long de-

lays between the commissioning of articles and their publication. At the very least, however, scientists who are approached might more often sacrifice a modicum of ego satisfaction and turn down invitations to write reviews when they know that a review of the topic is already "in the mill" or that one has been published a year or two earlier. Neither the authors nor the reading public are likely to benefit from a continuation of the present trend.

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Physical Anthropology

Physical Anthropology 1953-1961.
Gabriel W. Lasker, Ed. (vol. 9, 230 pp. Illus. Paper, \$4.50); **Yearbook of Physical Anthropology, 1962.**
Jack Kelso and Gabriel W. Lasker, Eds. (vol. 10, 383 pp. Illus. Paper, \$4.50). Published for the American Association of Physical Anthropologists by Instituto de Investigaciones Históricas, Universidad Nacional Autónoma and Instituto Nacional de Antropología e Historia, México, D.F. (order from Instituto Nacional de Antropología e Historia, Córdoba 45, México 7, D.F.).

From 1945 through 1952 the Wenner-Gren Foundation for Anthropological Research, known through part of this period as the Viking Fund, published volumes 1 through 8 of the *Yearbook of Physical Anthropology*; the series was then discontinued in favor of a more ambitious *Yearbook of Anthropology*, designed to cover the broader field. Only one issue (1955) of the latter publication appeared. Now the American Association of Physical Anthropologists, thanks to two diligent editors from its membership (Lasker currently is also President of the Association), has reestablished the series as of the year 1962, and has filled in the 9-year gap. This explains the slightly different title of volume 9, the interim volume. Welcome financial assistance has come, not only from the Wenner-Gren Foundation, but, perhaps more significantly, from two institutions in Mexico: the Instituto de Investigaciones Históricas of the Universidad Nacional Autónoma and the Instituto Nacional de Antropología e