Lowery's enthusiasm for bird study and his affection for Louisiana and its bird life is evident throughout the book and should prove to be catching. In addition to its other outstanding features, *Louisiana Birds* is well designed and carefully edited. It is an excellent model for a new type of state bird book.

ALBERT WOLFSON
Department of Biological Sciences, Northwestern University

Advances in Veterinary Science. vol. II. C. A. Brandly and E. L. Jungherr. Academic Press, New York, 1955. 449 pp. $10.

Volume II of *Advances in Veterinary Science* represents the most recent information by some of the international experts who are listed among the editors, advisory board, and the contributors. The addition of L. B. Bull of Australia to the advisory board is most fortunate.

R. E. Shope applies modern epidemiological reasoning to epizootics and indicates the necessity for research on virus reservoirs. C. W. Emmons reviews the literature on mycotic diseases since 1945. H. Van Roekel presents the latest information on chronic respiratory disease in a valuable summary of recent research. L. C. Ferguson discusses the complicated antigenic structure of cattle blood and briefly discusses blood groups in dogs, swine, and sheep. I. J. Cunningham of New Zealand gives an excellent summation of the knowledge of trace-element deficiencies and helps to further unravel the complicated interaction of copper, molybdenum, and geographic types of fodder; he warns against indiscriminate trace-element dosage.

N. T. Clare defines photosensitization and describes three types. Treatment for the hepatogenous type is complicated by the lack of specific therapy for the liver lesions. The chapter on rumen dysfunction, by A. T. Phillipson, is a comprehensive and clear discussion of rumen physiology and biochemistry, including toxic conditions, and of bloat and nervous control. It will give practitioners a great deal of fundamental information on clinical problems of rumination. J. C. Shaw, in a chapter on incidence, etiology, diagnosis, and therapy of "primary and secondary ketosis," unreservedly recommends the most powerful cortisone compounds that are available for its treatment. There is no discussion of contraindications or deleterious side effects. In a short but interesting chapter, D. A. Haig discusses tick-borne rickettsioses in South Africa. They are heartwater of cattle, sheep, and goats; tick-bite fever of man; and *E. canis* rickettsiosis of the monocytes of the dog. Procedures for diagnosis and specific treatment are given. The important subject of vibriosis is thoroughly covered by W. N. Plastridge, who includes the characteristics and serologic features of *Vibrio fetus* as well as the diagnostic measures, transmission, and control in cattle and sheep. The steady decrease in brucellosis has unmasked the serious economic losses caused by *Vibrio fetus*. The "Effective control of internal parasites" by Donald C. Boughton is a valuable summary of the economic magnitude of the parasitic problem in this country. His recommendations for sanitary and drug control of parasites are easily justified by the great economic gain to the livestock industry that would result.

This volume of 449 pages and 1458 references reflects the trend of the rapidly increasing knowledge in veterinary sciences that is a part of the over-all rapid advances in the medical sciences. It should be considered required reading for research workers and teachers in veterinary medicine and a valuable source of the most recent information, summarized by experts, for the use of students and practitioners.

Since the value of this book is due to the great amount of information and experience possessed by its contributors, a paragraph or two on the education and background of the contributors and a short history of their research institutions should have been included in order to increase the interest and understanding of their viewpoints.

LADD N. LOOMIS
National Institute of Arthritis and Metabolic Diseases, National Institutes of Health

Comparative Endocrinology of Vertebrates. pt. I, *Comparative Physiology of Reproduction and the Effects of Sex Hormones in Vertebrates.* Memoirs of the Society for Endocrinology No. 4. I. Chester Jones and P. Eckstein, Eds. University Press, Cambridge, 1955 (order from Cambridge Univ. Press, New York). 253 pp. Illus. + plates. $8.50.

This book presents the first part of the proceedings of a symposium on the comparative endocrinology of vertebrates, which was held in July 1954 at the zoology department of the University of Liverpool. The idea of an international symposium on comparative endocrinology, mainly on classes below mammals, originated with I. Chester Jones of the University of Liverpool. With the help and encouragement of many other people and the support of the Royal Society, National Science Foundation, and Rockefeller Foundation, he organized a conference of more than usual scope and interest. The list of 58 participants, of whom 23 were delegates from France, Holland, North Africa, Canada, and the United States, includes many of the most distinguished names in zoology and the special field of endocrinology.

The book is subtitled *The Comparative Physiology of Reproduction and the Effects of Sex Hormones in Vertebrates.* Most of the 14 papers fall into one or the other category, but much overlap was inevitable. Sex hormones were interpreted as hormones of sex and reproduction and thus included steroids—androgens, estrogens and progesterone, and nonsteroids—gonadotrophic hormones.

The classes of vertebrates are for the most part discussed in separate chapters, seven on the physiology of reproduction, five on effects of hormones, and two of more general import. Those on reproduction include chapters on fish (W. S. Hoar), amphibians (G. J. van Oordt and P. G. W. J. van Oordt; C. L. Smith), reptiles (R. Kehl and C. Combescot), birds (A. J. Marshall; W. R. Breneman), mammals (S. Zuckerman and P. Eckstein). The effects of hormones are treated in five chapters: fish and lower chordates (J. M. Dodd), amphibians (L. Gallien), birds (R. M. Fraps), mammals (J. H. Leathem and R. C. Wolf), the mammalian fetus (A. Jost). In addition, there is a chapter on vertebrate gonadotrophins (E. Witschi) and one on the evolution of viviparity (L. H. Mathews).

With such a wide range of material and a focus on comparative aspects of the subject, the papers might well have been too superficial or encyclopedic and specialized. These extremes are avoided, and a nice balance is maintained. The chairman, S. Zuckerman, in his opening remarks sets the stage by saying, "I cannot recall any endocrinological symposium of recent years which has attempted to range over so wide a field. We not only have the opportunity of trying to construct an up-to-date picture of the comparative endocrinology of vertebrates but also to put old biological problems into the perspective of modern endocrinological concepts, and, at the same time, to relate newer ideas in endocrinology to the facts of zoology." The papers and discussions in the symposium come so close to a successful realization of these broad aims, that the organizers, the chairman, and the participants are to be congratulated.

The reader finds himself advancing in evolutionary progression all the way from the neural gland and reproduction in the ascidian to implantation of the blastocyst and the menopause in the human being. The interesting story of the evolution of viviparity is traced. Old problems are raised: the relation of the hypophysis to the gonads, environmental factors as

modulators of autonomous rhythms, variations in responsiveness of end organs and differences in the substrate on which the hormones act. New and interesting viewpoints are proposed, and if there is not always agreement there is always interesting and stimulating discussion. At the end, in the chairman's closing remarks, Zuckerman ably and skillfully brings together the scattered facts and theories and adds his penetrating comments on the problems of reproduction and endocrinology.

The book is one of the best to appear in this field for many a day and probably the best recent one on comparative endocrinology.

DOROTHY PRICE
Department of Zoology, University of Chicago

Guide Pratique de Mycologie Médicale. A l'usage des médecins, des laboratoires et des botanistes précédé d'un tableau d'orientation diagnostique et thérapeutique. Jean Coudert. Masson, Paris, 1955. 364 pp. + plates. Cloth, F. 6000; paper, F. 5200.

If anyone should question the fundamental biological importance of taxonomy in this day of ATP and DNA, he has only to look to the fungi that are pathogenic to man to see a frightening example of the consequences of confused taxonomy and improper nomenclature. Since most of the human pathogens reproduce only asexually, and since all of them are presumably haploid, it is possible for many morphological mutations to become evident, so that to some workers there are almost as many species as there are isolates. This situation, which is perhaps analogous to that in such taxonomically "difficult" genera as *Rubus* or *Crataegus* in the higher plants, has tempted workers to describe a bewildering number of species. Nomenclatorial confusion has been added to this taxonomic difficulty, so that it requires an intrepid and dedicated individual to attempt to bring some sort of order to this chaos. Yet, to do so is of great practical importance to insure accurate diagnosis and appropriate treatment of fungous diseases.

The *Guide Pratique de Mycologie Médicale* is intended to be a simplified guide to medical mycology for the use of clinicians and biologists. The book is divided into three parts. The first part deals with the techniques of medical mycology—methods of taking samples from lesions, methods for direct microscopic examination, media for the cultivation of pathogenic fungi, directions for the macro- and microscopic observation of cultures, verification of pathogenicity by animal inoculation, and immunological procedures.

The second part of the book is devoted to dichotomous keys for the identification of fungi that have been reported to be pathogenic. One major key provides for the identification of genera that cause mycoses of the epidermis and its extensions; another is for the separation of genera that cause deep-seated mycoses; and more refined keys lead to the identification of species.

The third section of the book contains descriptions of the genera and species treated. The genera are arranged according to a phylogenetic sequence, and within each genus the species are arranged alphabetically. For each species there is a concise statement of the type of disease(s) caused, method of securing samples, appearance under direct examination, macro- and microscopic appearance of cultures, immunology, epidemiology, and, in some cases, the relationships of the pathogen.

One feature of this book which serves to set it apart from many of the recent works on medical mycology is the organization of the major part in accordance with the phylogeny of the pathogens rather than on a basis of the diseases that they cause. This type of organization has the advantage of indicating the position of a given pathogen in the scheme of living things, but the dermatologist might question whether this arrangement is practical for clinical use, and some mycologists may be dissatisfied with the particular phylogenetic scheme that was followed. Moreover, the assignment of some forms that lack sexual reproduction to natural groups may not meet with universal approval. It is surprising, for example, to find *Coccidioides,* the causal agent of coccidioidomycosis or valley fever, assigned, even tentatively, to the Chytridiales when it possesses almost none of the characteristics of this Phycomycete order.

The provision of dichotomous keys for the identification of pathogenic fungi is another unusual and laudable feature of this book; however, the usefulness of the keys could have been extended greatly by the inclusion of adequate illustrations. To be sure, there are eight plates of sketches of assorted structures, but these cannot substitute for clear illustrations of the diagnostic features of each species. In the dermatophytes, at least, it would be difficult for the clinician to supplement the descriptions by consulting illustrations in the most recent books on medical mycology, because the names employed for the genera and species differ from those recognized by workers in this country.

Although the *Guide Pratique de Mycologie Médicale* is to be praised for its approach to a difficult subject, dermatologists may find it to be of limited usefulness, because of its brief consideration of clinical symptoms and treatment. Some mycologists may question the validity of many of the large number of species recognized, and all will regret that, through improper citation of species, the book contributes to the confusion of nomenclature which has done so much to hinder the progress of medical mycology.

ROBERT M. PAGE
Department of Biological Sciences, Stanford University

Cancer of the Lung. Pathology, diagnosis, and treatment. Milton B. Rosenblatt and James R. Lisa. Oxford Univ. Press, New York, 1956. 330 pp. Illus. $15.

The different chapters of this book are written by specialists in the fields, and I cannot have the specialists' knowledge in all of them. Since it is the same with the reader, my impressions may still be worth while.

The authors, as is stated in the foreword, expect all practitioners of medicine to profit from the book. This is true for the clinical chapters, but it is doubtful how much a nonspecialist can profit from the detailed descriptions of surgical technique and the accompanying small sketches. Some of the x-ray pictures are difficult to interpret, even for a specialist. The general practitioner will not recognize a "thin-walled cavity" in Fig. 8, page 126, or the pneumothorax on Fig. 6B, page 250, and he may be entirely at a loss how to interpret the rectangular shadow on Fig. 6, page 148.

Pathology does not fare much better. In many of the photomicrographs the details as listed in the legends cannot be studied because magnifications are too low or contrast is lacking. The diagrams in the chapter on surgical pathology are instructive, while those concerning radical Roentgen therapy call for a specialist's eye. The chapter on exfoliative cytology also contains pictures that only the specialist can appreciate, but the text makes profitable reading for every physician.

The term *hilar* is used—on pages 50 and 72, for example—in a wider sense than is customary in anatomy and pathology. The fact is justly stressed that more cures cannot be expected from progress in surgical techniques but only from diagnosis in the preinvasive stage. (I would like to add: and from prevention.) At present, cure or long-time survival can be expected in less than 5 percent of the total cases diagnosed. Routine Roentgen examinations in doctors' offices, clinics, and hospitals are considered to