

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.

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**Advances in Veterinary Science.** vol. II.  
C. A. Brandly and E. L. Jungherr.  
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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.

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**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 con-

ference 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. Leatham 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