

text more comprehensible. For example, uniform endings are applied to names of all taxa up through Order; nomenclatural terms such as *Genus*, *Genera*, *Families*, and *Subclass* are capitalized to indicate that they are being used in a formal sense; and use of stratigraphic terms is reduced to system names for the Paleozoic and Mesozoic and series names for the Cenozoic. In addition there is a series of study questions for students at the end of each chapter. The bibliographies are comprehensive.

In over-all aspect, Easton's text is authoritative, well organized, and beautifully illustrated. Nevertheless, the volume contains little that is original and much that has been better stated elsewhere. Furthermore, in his effort to reach the intermediate level, Easton has reduced his book to little more than a compendium of morphologic terminology and taxonomic categories. One has the feeling that the book is designed for mediocre students rather than as a challenge to those at the intermediate level.

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Dynamic Programming and Markov Processes. Ronald A. Howard. Technology Press and Wiley, New York, 1960. viii + 136 pp. Illus. \$5.75.

Although the material contained in this book is of some interest to operations researchers, it is difficult to see a justification for publishing it as a book rather than as a paper or a series of papers.

The first thing to remark is that, in spite of its title, the book is neither about dynamic programming nor about Markov processes. It is rather a treatment of a single model for decision-making which has the flavor of both topics, but it does not discuss either except as the topic reflects on the author's problem. The problem, briefly stated, is as follows: Suppose one's profits are governed by a finite state, discrete Markov process in which one has some degree of control over the transition probabilities (for example, by research and advertisement). Suppose further that the profit for a transition $i \rightarrow j$ is given by an array r_{ij} , which are known quantities. What is the optimal policy for the manipulation of

transition probabilities in order to maximize profit? This same problem is discussed under different circumstances with essentially the same solution given for each case. Many illustrative examples are discussed; none of these are of particular interest since they consist merely of substituting numbers into the established formulas.

It has always seemed to me that writing a book implies an evaluation of the generality and the permanent interest of the material contained in it. On this basis and on the over-all thinness of the subject matter, I would call Howard's book premature and without perspective.

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New Books

Biological and Medical Sciences

Abelson, D., and R. V. Brooks, Ed. *Quantitative Paper Chromatography of Steroids*. Cambridge Univ. Press, New York, 1960. 110 pp. \$6. Proceedings of a symposium held in July 1958 to discuss problems in the application of paper chromatography to the quantitative estimation of steroids.

Abramson, Harold A., Ed. *The Use of LSD in Psychotherapy*. Josiah Macy, Jr. Foundation, New York, 1960. 304 pp. \$5. Transactions of a conference on D-lysergic acid diethylamide (LSD-25); the conference was held 22-24 April at Princeton, N.J.

Alexander, Frank. *An Introduction to Veterinary Pharmacology*. Livingstone, Edinburgh, Scotland; Williams and Wilkins, Baltimore, Md., 1960. 187 pp. \$4.75.

Andrews, R. D., Ed. *Transactions of the Society of Rheology*. vol. 3. Interscience, New York, 1960. 216 pp. \$6.75.

Bourne, G. H. *The Structure and Function of Muscle*. vol. 1, *Structure*. Academic Press, New York, 1960. 488 pp. \$14.

British National Formulary. Alternative edition, 1960. Based on a pharmacological classification. British Medical Assoc. and Pharmaceutical Soc. of Great Britain, London, 1960. 292 pp. \$1.75.

Crampton, E. W., and L. E. Lloyd. *Fundamentals of Nutrition*. Freeman, San Francisco, 1960. 504 pp. \$7.50.

Cummings, John N., Ed. *Modern Scientific Aspects of Neurology*. Arnold, London; Williams and Wilkins, Baltimore, Md., 1960. 365 pp. \$13.

Dodson, Edward O. *Evolution*. Process and product. Reinhold, New York; Chapman and Hall, London, 1960 (revised text edition of *A Textbook of Evolution*). 368 pp. Text, \$5.75; trade, \$6.90.

Edsall, John T., Ed. *Amino Acids, Proteins and Cancer Biochemistry*. Academic Press, New York, 1960. 253 pp. \$7. Contains the papers presented at the Jesse P.

Greenstein Memorial Symposium held by the Division of Biological Chemistry of the American Chemical Society, 16 September 1959. The volume also contains a biographical article and a bibliography of Greenstein's writings.

Etter, Lewis. *Glossary of Words and Phrases Used in Radiology and Nuclear Medicine*. Thomas, Springfield, Ill., 1960. 218 pp. \$8.50.

Garland, Joseph E. *An Experiment in Medicine*. The first 20 years of the Pratt Clinic and the New England Center Hospital of Boston. Riverside Press, Cambridge, Mass., 1960. 177 pp.

Glick, David, Ed. *Methods of Biochemical Analysis*. vol. 8. Interscience, New York, 1960. 409 pp. \$10.

Harris, E. J. *Transport and Accumulation in Biological Systems*. Academic Press, New York; Butterworths, London, ed. 2, 1960. 290 pp. \$9.

Hockenhull, D. J. D., Ed. *Progress in Industrial Microbiology*. vol. 2. Interscience, New York, 1960. 201 pp. \$7.50.

Hockensmith, Roy D., Ed. *Water and Agriculture*. AAAS Symposium No. 62. AAAS, Washington, D.C., 1960. 206 pp. \$5; prepaid order to members, \$4.50. A symposium presented at the AAAS Washington meeting; 16 papers on the following topics: water for the future (covering the resources, legal aspects of water use, significance of small watershed programs, and water management and groundwater supplies in agriculture); water sources (factors that affect the water cycle, effects of weather modification on water supplies, the use of climatic data in guiding water management on the farm, and precipitation measuring and analysis as an aid to agriculture); water planning and use (relations between soil conservation practices and availability of water, increasing water yields by forest management, interdependence of upstream and downstream water management, views of water users on federal reclamation projects); water control (agricultural drainage, control of aquatic and bank vegetation and phreatophytes, suppressing evaporation from water surfaces, energy balance approach to evapo-transpiration from crops).

House, Earl Lawrence, and Ben Pansky. *A Functional Approach to Neuroanatomy*. McGraw-Hill, New York, 1960. 503 pp. \$12.50.

Kisch, Bruno. *Electron Microscopy of the Cardiovascular System*. Translated from the original German text by Arnold I. Kisch. Thomas, Springfield, Ill., 1960. 192 pp. \$7.50.

Kundu, B. C., K. C. Basak, and P. B. Sarcar. *Jute in India*. Indian Central Jute Committee, Calcutta, 1960. 411 pp. Rs. 30. This monograph deals with the botany, cultivation, diseases, and pests of jute; with its economic and marketing problems; and with the problems of jute manufacture and technology.

Machlis, Leonard, Ed. *Annual Review of Plant Physiology*. vol. 11. Annual Reviews, Palo Alto, Calif., 1960. 475 pp. \$8.

Nowinski, Wiktor W., Ed. *Fundamental Aspects of Normal and Malignant Growth*. Elsevier, Amsterdam, Netherlands; Van Nostrand, Princeton, N.J., 1960. 1041 pp.