

cal as well as biological investigations. The book contains six papers given in 1962 during a symposium of the Royal Society of Canada, the joint sponsor, with the National Academy of Sciences of the United States, of the new *Serial Atlas of the Marine Environment* (which is introduced in this volume by Dunbar).

One paper describes the seasonal cycling of the thermocline in the North Pacific; it is a pity that there is no discussion of the biological implications. Three papers deal with the distributions of animals and plants—one with the seaweeds of the northeast coast of the Pacific and two with the zooplankton of the North Atlantic. All three relate the distributions of species to the identity and movements of water masses. The final paper is concerned with osmoregulation of Crustacea and provides an example of the physiologist's contribution to the problems of biogeography.

All but one of the papers consist of a study of a few organisms, on the one hand, in relation to one or two physical parameters, on the other. Only one paper (and that very briefly) mentions that part of the environment which consists of the other animals and plants. This incomplete and piecemeal approach is, perhaps, inevitable in the present state of knowledge, but it draws attention to the need for the analysis of nature as an integrated whole with all its physical, biological, and chemical interactions.

Perhaps the most valuable part of the book is a summary, by L. A. Walford, that contains many seeds of wisdom which should be encouraged to germinate.

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## Note

### Chemistry

In this second edition of their excellent monograph, *Interfacial Phenomena* (Academic Press, New York, ed. 2, 1963. 494 pp. \$15), the authors, J. T. Davies and E. K. Rideal, have corrected some minor errors and added a small amount of new material. [See *Science* **134**, 1611 (1961) for a review of the first edition.]

The new material deals with the damping of waves on water and with

the circulation in small droplets. In treating the first of these topics, the authors deal with the propagation of low-amplitude waves on clean surfaces and discuss the problems of obtaining clean water surfaces. They discuss the effects of adsorbed monolayers and of insoluble, spread monolayers, and include a new table of results obtained for damping coefficients, which shows the generally good agreement between observed and calculated values when one is dealing with low-frequency waves. At higher frequencies, as the authors point out, there is a problem of "short-circuiting" of surface stresses owing to surface pressure fluctuations in the peaks and troughs of the waves. Some of the results presented show that the change in damping coefficient occurs at frequencies consistent with known relaxation times in adsorbed films.

The treatment of the circulation of small drops, which has an important bearing on the problem of liquid-liquid extraction processes, has been slightly extended on the basis of a recent publication by one of the authors (Davies). If one can judge by my review copy, it appears that the quality of the halftone illustrations has been improved in the second printing.

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## New Books

### Biological and Medical Sciences

**Introduction to Modern Biochemistry.** P. Karlson. Translated from the German edition (Stuttgart, 1962) by Charles H. Doering. Academic Press, New York, 1963. 451 pp. Illus. \$10.

**Medical and Biological Problems of Space Flight.** Proceedings of a conference, November 1961. Geoffrey H. Bourne, Ed. Academic Press, New York, 1963. 299 pp. Illus. \$12.

**Mental Retardation, Second International Congress on, Proceedings.** vol. 1, *Organic Bases and Biochemical Aspects of Imbecility* (424 pp.); vol. 2, *Psychological and Sociological Problems in Imbecility Drug Treatment* (269 pp.). Otto Stur, Ed. Karger, New York, 1963. Illus.

**Metabolic Inhibitors.** A comprehensive treatise. vol. 1. R. M. Hochster and J. H. Quastel, Ed. Academic Press, New York, 1963. 689 pp. Illus. \$26.

**Methodology in Basic Genetics.** Walter J. Burdette, Ed. Holden-Day, San Francisco, Calif., 1963. 496 pp. Illus. \$5.

**Naming the Living World.** An introduction to the principles of biological nomenclature. Theodore Savory. English Univ. Press, London, 1962; Wiley, New York, 1963. 142 pp. \$3.95.

**Newer Methods of Nutritional Biochemistry.** With applications and interpretations. Anthony A. Albanese, Ed. Academic Press, New York, 1963. 595 pp. Illus. \$18.50.

**Perspectives in Virology.** vol. 3. Morris Pollard, Ed. Harper and Row, New York, 1963. 314 pp. Illus. \$10.50.

**Primary Embryonic Induction.** Lauri Saxén and Sulo Toivonen. Logos Press, London; Prentice-Hall, Englewood Cliffs, N.J., 1963. 283 pp. Illus. \$8.75.

**Principles of Paleocology.** An introduction to the study of how and where animals and plants lived in the past. Derek V. Ager. McGraw-Hill, New York, 1963. 383 pp. Illus. \$10.75.

**Progress in Nucleic Acid Research.** vol. 1. J. N. Davidson and Waldo E. Cohn, Eds. Academic Press, New York, 1963. 438 pp. Illus. \$13.

**Radioecology.** Proceedings of a symposium (Fort Collins, Colo.), September 1961. Vincent Shultz and Alfred W. Klement, Jr., Eds. Published for the American Institute of Biological Sciences by Reinhold, New York, 1963. 766 pp. Illus. \$16.50.

**Recent Progress in Microbiology.** A symposium (Montreal, Canada), August 1962. N. E. Gibbons, Ed. Univ. of Toronto Press, Toronto, Canada, 1963. 735 pp. Illus. \$21.50.

**Research Problems in Biology.** Investigations for students. Series 1 and 2. Prepared under the direction of the American Institute of Biological Sciences. Doubleday, Garden City, N.Y., 1963. Series 1, 277 pp.; Series 2, 274 pp. Paper, 95¢ each.

**Die Rohstoffe des Pflanzenreichs.** vol. 2, *Antibiotiques.* G. Hagemann. Cramer, Weinheim, Germany, 1963. 276 pp. Illus.

**Solute Uptake by Intact Plants.** Arthur Wallace. The author, Los Angeles, 1963. 184 pp. Illus. \$4.

**Spectrophotometric Analysis of Drugs, Including Atlas of Spectra.** Irving Sunshine and S. R. Gerber. Thomas, Springfield, Ill., 1963. 253 pp. Illus. \$10.50.

**Systema Helminthum.** vol. 4, *Monogenea and Aspidocotylea* (707 pp. \$80); vol. 5, *Acanthocephala* (431 pp. \$60), Satyu Yamaguti. Interscience (Wiley), New York, 1963. Illus.

**Symptoms of Virus Diseases in Plants.** L. Bos. Centre for Agricultural Publications and Documentation, Wageningen, Netherlands, 1963. 132 pp. Illus.

**Techniques in Parasitology.** A symposium (London), October 1962. Angela E. R. Taylor. Davis, Philadelphia, 1963. 115 pp. Illus. Paper, \$3.25.

**Tissue Cultures in Biological Research.** G. Penso and D. Balducci (English edition of *Le Colture dei Tessuti nella Ricerca Biologica*). Elsevier, New York, 1963. 476 pp. Illus. \$18.

**Treatise on Asthma.** The medical writings of Moses Maimonides. Translated from the Arabic. Suessman Muntner, Ed. Lippincott, Philadelphia, 1963. 141 pp. Illus. \$5.

**Vascular Allergy and Its Systemic Manifestations.** Joseph Harkavy. Butterworth, Washington, D.C., 1963. 312 pp. Illus. \$10.75.

**Viruskrankheiten des Menschen.** vol. 1, pt. 7. Eugen Haagen. Steinkopff, Darmstadt, Germany, 1963. 95 pp. Illus. Paper.