has underscored the need for a comprehensive descriptive list of seaweeds. Taylor has filled this need in a superior manner. His field and herbarium experience of more than 30 years, his skill in bookmaking, his ability to see the forest despite the trees—these qualifications are manifest throughout the book.

The descriptive catalog, which comprises most of the book, treats 760 species. Diagnoses are given for all taxa of the rank of order and below, while keys are provided for families, genera, and species. There are 80 plates of line drawings and photographs. The bibliography is exhaustive.

Taylor offers, in addition to the descriptive catalog, a historical survey, directions for collecting and preserving specimens, and a particularly informative discussion of the geographic and ecological distribution of seaweeds, illustrated by excellent photographs.

A reviewer of a taxonomic work need not look hard to find points of disagreement, but these differences of opinion do not necessarily detract from the utility of the work. It is disappointing, however, to encounter various new nomenclatural and taxonomic decisions for which no supporting arguments are given.

The jacket refers to this work as a manual, but it is even less a manual than it is a definitive floristic monograph. Actually, it is an elaborate study outline: a carefully compiled check list based on literature and herbarium records, augmented by field study in selected areas. Phycologists should be grateful for this foundation for future study and should not be too dissatisfied with the unevenness of treatment, both geographic and taxonomic, or with the large number of loose ends, which Taylor wisely chose to spotlight rather than to conceal.

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Under the Deep Oceans. Twentieth century voyages of discovery. T. F. Gaskell. Norton, New York, 1960. 240 pp. Illus. $3.95.

Many people who work on the oceans seem at some time to keep a personal log or journal. Gaskell's book *Under the Deep Oceans* will be particularly interesting to those who have tried to write down their experiences in quiet seas or strange ports. Anecdote and humorous comment on things done and places visited by the *Challenger* Expedition of 1950 are the media holding Gaskell's account together. The author's style resembles "sea-story" sessions often held on the fantail of ships.

The scientific text is a straightforward, much-condensed discussion of many aspects of marine science, with emphasis on the part played by the *Challenger* cruise in collecting data. The author takes every opportunity to point out the usefulness of marine science to society, particularly to the oil industry and the Royal Navy. Gaskell points to the similarity of interest between marine scientists and the oil industry in developing instruments—such as seismic apparatus—and in developing various drilling techniques, and he urges the oil industry to give additional support to deep-ocean research.

Readers will find this book entertaining; the author does not waste a good story because he happens to be involved in discussions of seismic records or the difficulties of fixing position at sea. Even while readers ponder the punishment for adultery at Nukufetau, it is apparent that the author has led them through a rather wide variety of basic problems associated with the seas.

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New Books

General

Sax, Karl. *Standing Room Only.* The world's exploding population. Beacon Press, Boston, ed. 2, 1960. 206 pp. Paper, $1.75.

Schapero, Max, *et al. Dictionary of Visual Science.* Chilton, Philadelphia, Pa., 1960. 799 pp. $15. Contains over 13,000 listings; a total of 61 collaborators and contributors are listed. Examples of contents: "A case. See *case, type A.*" "macula (mak'ulah). Any uniquely pigmented area such as the macula lutea of the retina. 2. A corneal macula."

Mathematics, Physical Sciences, and Engineering

Brinkmann, Roland. *Geologic Evolution of Europe.* Translated by J. E. Sanders. Enke, Stuttgart; Hafner, New York, 1960. 161 pp. $8.50. A condensed version of the second volume of ed. 8 of *Abriss der Geologie.* Only those parts which refer to the geology of Europe were translated.

Coulson, Kinsell L., Jitendra V. Dave, and Zdenek Sekera. *Tables Related to Radiation Emerging from a Planetary Atmosphere with Rayleigh Scattering.* Univ. of California Press, Berkeley, 1960. 560 pp. $12.50.

Dunsheath, Percy. *Electricity.* How it works. Crowell, New York, 1960. $3.95.

Hohn, Franz E. *Applied Boolean Algebra.* An elementary introduction. Macmillan, New York, 1960. Paper, $2.50.

Hoyle, Fred. *The Nature of the Universe.* Harper, New York, rev. ed., 1960. 141 pp. $3.

Judkins, Henry F., and Harry A. Keener. *Milk Production and Processing.* Wiley, New York, 1960. 460 pp. $7.95.

Kleinberg, Jacob, William J. Argersinger, Jr., and Ernest Griswold. *Inorganic Chemistry.* Heath, Boston, 1960. 688 pp. $10.75.

Leet, L. Don. *Vibrations from Blasting Rock.* Harvard Univ. Press, Cambridge, Mass., 1960. 134 pp. $4.75.

Mach, Ernst. *The Science of Mechanics.* A critical and historical account of its development. Translated by Thomas J. McCormack. Open Court Publishing Co., LaSalle, Ill., ed. 6 (with revisions through ed. 9), 1960. 665 pp. $6.

Marton, L., Ed. *Advances in Electronic and Electron Physics.* vol. 12, *Photo-Electronic Image Devices.* J. D. McGee and W. L. Wilcock, Eds. Academic Press, New York, 1960. 409 pp. $12. This volume is the proceedings of a symposium convened in London by McGee during 1958.

Rabi, I. I. *My Life and Times as a Physicist.* Claremont College, Claremont, Calif., 1960. 61 pp.

Renfrew, A., and Phillip Morgan, Eds. *Polythene.* The technology and uses of ethylene polymers. Iliffe, London; Interscience, New York, ed. 2, 1960. 802 pp. $25.75.

Richards, James A., Francis W. Sears, M. Russell Wehr, and Mark W. Zemansky. *Modern University Physics.* Addison-Wesley, Reading, Mass., 1960. 1022 pp. $10.75.

Roberts, J. K. *Heat and Thermodynamics.* Interscience, New York, ed. 5, 1960. $7.25. This fifth edition was revised by A. R. Miller.

Slater, John C. *Quantum Theory of Atomic Structure.* vol. 1. McGraw-Hill, New York, 1960. 514 pp. $11.

Soviet Research in Geophysics. vol. 1, *A Collection of Articles on Dynamic Meteorology,* I. A. Kibel, Ed., 181 pp., $8; vol. 2, *Isostasy and Isostatic Hypotheses,* E. N. Lyustikh, 119 pp., $6.50; vol. 3, *The Microstructure and Macrostructure of Elastic Waves* (in one-dimensional continuous nonhomogeneous media), B. N. Ivakin, 113 pp., $6. American Geophysical Union and Consultants Bureau, New York, 1960. These volumes, the first in a new series, are translations of *Trudy* Nos. 37–39 of the Geophysical Institute of the Academy of Sciences of the U.S.S.R.

The Space Encyclopaedia. A guide to astronomy and space research. Dutton, New York, ed. 2, 1960. 288 pp.

Wilkinson, W. D., Ed. *Extractive and Physical Metallurgy of Plutonium and Its Alloys.* Interscience, New York, 1960. 324 pp. $10.50. Based on a symposium held in February 1959. The volume includes a 45-page annotated bibliography prepared by the editor.

Zeldovich, Ia. B., and A. S. Kompaneets. *Theory of Detonation.* Academic Press, New York, 1960. 284 pp. $10. Translated from the original Russian edition (1955).