

and is toxic, and the recommendation that a Beckman DU flame spectrophotometer be used for magnesium determinations.

Some of the subjects are too extensive to be discussed adequately in the space allowed in this volume. This is particularly true of two chapters: "Diets and tissue enzymes" and "Biostatistical methods." A chapter on the rates and the kinetics of enzyme formation and destruction in the living animal consists almost entirely of a review of the authors' own good studies of catalase turnover. Two chapters, "Intestinal absorption" and "Carbohydrates," have considerable merit but are incomplete. There are two good chapters on proteins and amino acids, but it must be pointed out that much of the material covered was included in a volume on protein and amino acid nutrition which was published 4 years ago by the same press and with the same editor.

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Botany

Aquatic Plants of the Pacific Northwest.

With vegetative keys. Albert N. Steward, La Rea J. Dennis, and Helen M. Gilkey. Oregon State University Press, Corvallis, ed. 2, 1963. x + 261 pp. Illus. \$4.50.

There are so many different kinds of plants, and floral characters are so important in the definition of families, that an attempt to identify a specimen which does not happen to be in flower is apt to be a frustrating and unsatisfactory experience. The number of species of aquatic plants, on the other hand, is much more limited, and in any given region it is possible to learn to recognize most of the aquatics on vegetative characters, and to design keys which will permit other people to identify them. This little book is intended to facilitate identification of aquatic plants, with or without flowers, in Oregon, Washington, British Columbia, and Alaska. Not only flowering plants, but also vascular cryptogams, bryophytes, and the larger algae (such as *Nitella*) are treated. Many of the species, but not all, are illustrated by simple line drawings. In general the authors have accepted contemporary professional opinion, as is proper in

such a book, instead of attempting taxonomic revisions.

The first edition, published in 1960, dealt with true aquatics and "also species whose life cycle includes some stage that requires either the saturation of the substrate with water or the presence of an ambient aqueous medium." This required 172 pages. The present edition adds "certain borderline plants which, through their broader powers of adaptability, may be termed facultative aquatics," and it includes a family key based on floral characters as well as a vegetative key.

The addition of some "facultative aquatics" is of course intended to make the book more useful, but this carries its own set of problems. The more species are treated, the more complex and difficult the key must be, and the greater the chance of error. One would not expect to find such familiar terrestrial plants as *Bidens frondosa*, *Panicum capillare*, *Plantago major*, *Populus tremuloides*, and *Solanum dulcamara* in a book on aquatics, but they are there. One might think of many others not included, which have as much claim to being considered aquatic as do these species. Where to draw the line in such matters necessarily involves personal judgment, in which people are bound to differ. I would have preferred a more restricted coverage than the authors have chosen.

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New Books

Biological and Medical Sciences

Bibliotheca Primatologica. fasc. 2, *The Development of the Primitive Streak, Head-Process, and Annular Zone in Tarsius, with Comparative Notes on Loris*. J. P. Hill and J. Florian. Karger, Basel, Switzerland, 1963. 96 pp. Illus. Paper, \$9.

Biochemical Findings in the Differential Diagnosis of Internal Diseases. H. U. Anton *et al.* R. Schoen and H. Sudhof, Eds. Translated from the German edition by R. Gaddie and E. Anna Illingworth. Elsevier, New York, 1963. 444 pp. Illus. \$20.

Biology Teachers' Handbook. Joseph J. Schwab, Ed. Wiley, New York, 1963. 603 pp. Illus. \$7.

Cell Culture, a Postgraduate Course. A course of lectures, symposia, and practical work conducted at the Univ. of Melbourne, February-March 1963. David O. White, Ed. Cell Culture Soc. of Victoria, Melbourne, Australia, 1963 (order from the Univ. of Melbourne, Parkville). 372 pp. Illus. Paper.

Cell Proliferation. A Guinness symposium

held at the University of Dublin, Trinity College. L. F. Lamerton and R. J. M. Fry, Eds. Davis, Philadelphia, 1963. 253 pp. Illus. \$7.95.

Cell Structure and Function. Ariel G. Loewy and Philip Siekevitz. Holt, Rinehart, and Winston, New York, 1963. 236 pp. Illus. Paper, \$2.25.

Cellulose Conference, the Fourth, Proceedings. A symposium (Syracuse, N.Y.), October 1962. R. H. Marchessault, Ed. Interscience (Wiley), New York, 1963. 554 pp. Paper, \$22.

Chemical Plant Taxonomy. T. Swain, Ed. Academic Press, New York, 1963. 553 pp. Illus. \$16.

The Chemistry and Function of Proteins. Felix Haurowitz. Academic Press, New York, ed. 2, 1963. 570 pp. Illus. \$10.

Durchblutungsmessung mit Wärmeleit-elementen. In forschung und klinik. K. Golenhofen, H. Hensel, and G. Hildebrandt. Thieme, Stuttgart, Germany, 1963. 131 pp. Illus. DM. 22.50.

Electron-Microscopic Structure of Protozoa. D. R. Pitelka, Pergamon, London; Macmillan, New York, 1963. 279 pp. Illus. \$12.50.

Le Emoglobine Umane. Biochimica, genetica, popolazionistica, patologia, e clinica. E. Slivestroni and I. Bianco. Edizioni Dell'istituto "Gregorio Mendel," Rome, 1963. 140 pp. Illus.

Flora of the British Isles. Illustrations. pt. 3, *Boraginaceae-Compositae*. A. R. Clapham, T. G. Tutin, and E. F. Warburg. Cambridge Univ. Press, New York, 1963. 121 pp. Illus. \$6.

Handbuch der Experimentellen Pharmakologie. vol. 17, *Ions Alcalino-Terreux*. pt. 1, *Systemes Isoles*. Zenon-Marcel Bacq, Ed. Springer, Berlin, 1963. 594 pp. Illus. DM. 148.

Immunology for Students of Medicine. J. H. Humphrey and R. G. White. Davis, Philadelphia, 1963. 460 pp. Illus. \$8.50.

Informational Macromolecules. A symposium (New Brunswick, N.J.), September 1962. Henry J. Vogel, Vernon Bryson, and J. Oliver Lampen, Eds. Academic Press, New York, 1963. 562 pp. Illus.

Lucrarile Stiintifice. Ale Institutului de Seruri si Vaccinuri Pasteur-Bucuresti, vol. 7. Editura Agro-Silvica, Bucharest, Roumania, 1963. 381 pp. Illus. Paper.

Mechanisms of Immunological Tolerance. Proceedings of a symposium (Liblice, Czechoslovakia), November 1961. M. Hasek, A. Lengerova, and M. Vojtiskova, Eds. Czechoslovak Acad. of Sciences, Prague; Academic Press, New York, 1963. 544 pp. Illus. \$18.

Recent Advances in Allergy Research. Transactions of the Collegium Internationale Allergologicum (Freiburg, Germany), October 1962. F. Hahn, P. Kallos, and G. B. West, Eds. Karger, Basel, Switzerland, 1963. 359 pp. Illus. Paper, \$14.75.

Recent Progress in Hormone Research. Proceedings of the 1962 Laurentian Hormone Conference. vol. 19. Gregory Pinchus, Ed. Academic Press, New York, 1963. 764 pp. Illus. \$22.

Recherches Physiologiques sur le Repos Vegetatif de la Vigne (*Vitis Vinifera* L.): La Dormance des Bourgeons et le Mechanisme de sa Disparition. R. Pouget. Institut National de la Recherche Agronomique, Paris, 1963. 255 pp. Illus. Paper, F. 25.