

(adoptive immunity, Billingham) and to methods for procuring thoracic duct lymphocytes (Wilson).

Finally, attention is drawn to an often neglected subject—that of maintaining a strictly inbred colony of animals (Silvers). This includes a careful account of the principles and procedures required for producing and maintaining pure animal strains, efficient and accurate ways for keeping records, and means for appraising the isogenicity of inbred strains of animals.

The book is well illustrated and interesting to read; each chapter includes a fairly detailed bibliography.

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Notes

Ecological Vocabulary

Herbert Hanson's *Dictionary of Ecology* (Philosophical Library, New York, 1962. 382 pp. \$10) is an alphabetically arranged vocabulary, with definitions, of more than 3000 terms often encountered in ecological literature. The terms are defined succinctly and well. Some definitions were taken from Carpenter's *Ecological Glossary* (University of Oklahoma Press, 1938; reprinted by Hafner, 1956) and from *Forestry Terminology* (Society of American Foresters, ed. 3, 1958), but most are Hanson's own.

No bias for or against any particular school of ecology is evident in the terms chosen for inclusion or in the definitions. An effort was made to present as full a spectrum of ecological thinking as possible. Current ecological trends, such as the de-emphasis of Clements' terminology and the attempted isolation of splinter groups behind a specialized terminology, are evident in the latitude or tentativeness of some definitions, the simplicity or naturalness of others, the omission of some terms, and the reasonableness in general. Hanson agrees with the first trend, not with the second.

Hanson had immense experience in plant ecology and an open and inquiring attitude; the catholicism of his tastes and the breadth of his understanding are nicely reflected in his dictionary. Perhaps a third of the terms are uniquely ecological; many strange ones are from genetics, animal ecology and behavior, geography, range management and forestry, and soil science.

Statistical terminology is almost entirely omitted.

Most of the terms are widely used in ecology. Some are not. It is not unfortunate that the latter have been included, since most can replace more extensive verbiage (and all editors want shorter papers), but no one should attempt to use this dictionary as a *source* for ecological terminology. If a writer is not sufficiently familiar with certain terms to use them with some contextual feeling, these definitions will not provide that context. The book should find most use by those ecologists who read widely enough to become acquainted with ecologically interesting work by authors with a different background and vocabulary.

Critical users will wish for references to usages, but Hanson does not supply these. Carpenter did, to some extent. Hanson's list of current ecological and related texts offers a library for supplementary reading. About two-thirds of Carpenter's glossary was estimated by O. W. Richards to be useless or synonymous terms. Hanson has weeded out many of these, but some had to be retained because of historical interest and usage. Not more than a third (and not the ecological third) of Hanson's terms are probably useless.

It is to be hoped that individuals will use this volume not as a bible but as a point of departure. Most readers will find a few places they can improve. My changes would include: Correction of the spelling of the *chiono*-combinations, refusal to use character as an adjective, reminder that *erg* is also an energy unit, cross reference from *gilgai* to *mima-type microrelief*, revision of terms related to Schneetälchen, and so forth.

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New Books

Biological and Medical Sciences

Actions of Radiations on Living Cells. D. E. Lea. Cambridge Univ. Press, New York, 1962 (reprint of ed. 2, 1955). 429 pp. Illus. Paper, \$2.95.

Biophysics. Concepts and mechanisms. E. J. Casey. Reinhold, New York; Chapman and Hall, London, 1962. 351 pp. Illus. \$7.95.

Bone Marrow Therapy and Protection in Irradiated Primates. Proceedings of the international symposium held at Rijswijk, Netherlands, August 1962. Radiobiological Institute. T.N.O., The Hague (available from R. R. Overman, Univ. of Ten-

nessee, Memphis, 1962. 458 pp. Illus. Paper, \$4.

Drugs in Psychoanalysis and Psychotherapy. Mortimer Ostow. Basic Books, New York, 1962. 360 pp. Illus. \$8.50.

The Enzymes. vol. 6, *Group Transfer Synthesis Coupled to ATP Cleavage.* Paul D. Boyer, Henry Lardy, and Karl Myrback, Eds. Academic Press, New York, ed. 2, 1962. 704 pp. Illus. \$20.

Frontiers in Brain Research. John D. French, Ed. Columbia Univ. Press, New York, 1962. 297 pp. Illus. \$9.

Irritation and Counterirritation. A hypothesis about the autoamputative property of the nervous system. Adolphe D. Jonas. Vantage Press, New York, 1962. 368 pp. Illus. \$7.50.

Kreislaufdiagnostik mit der Farbstoffverdünnungsmethode. R. Hegglin, W. Rütishauser, G. Kaufmann, E. Lüthy, H. Scheu. Thieme, Stuttgart, Germany, 1962. 335 pp. Illus. DM. 66.

Laboratory Manual for Introductory Mycology. C. J. Alexopoulos and E. S. Beneke. Burgess, Minneapolis, Minn., 1962. 204 pp. Illus. Paper, \$4.25.

Life: Origin and Development. Gösta Ehrensverd. Univ. of Chicago Press, Chicago, 1962. 173 pp. Illus. \$4.50.

Modern Problems in Ophthalmology. vol. 2, *Bibliotheca Ophthalmologica.* E. B. Streiff, Ed. Karger, Basel, Switzerland, 1962. 217 pp. Illus. \$13.

Oxygenases. Osamu Hayaishi, Ed. Academic Press, New York, 1962. 600 pp. Illus. \$17.50.

Processing Neuroelectric Data. Walter A. Rosenblith, Ed. Massachusetts Inst. of Technology Press, Cambridge, 1962 (reprint of 1959 edition). 136 pp. Illus. \$4.

Selected Papers, Kaj Linderstrom-Lang. Selected by an international committee. Danish Science Press, Copenhagen; Academic Press, New York, 1962. 584 pp. Illus. \$17.

Sensory Communication. A symposium held at Dedham, Mass., July–August 1959. Walter A. Rosenblith, Ed. Massachusetts Inst. of Technology Press, Cambridge, 1961. 858 pp. Illus. \$16.

Space Medicine. Ursula T. Slager. Prentice-Hall, Englewood Cliffs, N.J., 1962. 399 pp. Illus. \$11.

Starfishes. And their relations. Ailsa M. Clark. British Museum (Natural History), London, 1962. 119 pp. Illus. Paper, 11s.

The Student Physician as Psychotherapist. Ralph W. Heine, Ed. Univ. of Chicago Press, Chicago, 1962. 254 pp. \$5.

Symposium on Muscle Receptors. Proceedings of the September, 1961 meeting. David Barker, Ed. Hong Kong Univ. Press, Hong Kong; Oxford Univ. Press, New York, 1962. 300 pp. Illus. \$12.

Textbook of Virology. For students and practitioners of medicine. A. J. Rhodes and C. E. van Rooyen. Williams and Wilkins, Baltimore, Md., ed. 4, 1962. 616 pp. Illus. \$13.50.

Third World Congress of Psychiatry, Proceedings. vols. 1 and 2. R. A. Cleg-horn, Ed. Univ. of Toronto Press, Toronto, Canada, 1962. 1483 pp. Illus. \$35.

Traité de Biochimie Générale. vol. 2, *Les Agents des Synthèses et des Dégéné-rations Biochimiques.* P. Boulanger and J. Polonovski, Eds. Masson, Paris, 1962. 706 pp. Illus. Paper, NF. 150; cloth, NF. 155.