

## Fresh-Water Niches

### **Some Aspects of Life in Fresh Water.**

Edward J. Popham, Harvard University Press, Cambridge, Mass., ed. 2, 1961. 127 pp. Illus. \$2.25.

This inexpensive little book would seem to offer a balanced treatment of fresh-water ecology, judging from its table of contents: Water—A Medium for Life; Types of Aquatic Habitats; Plants of Inland Waters; Animals from the Sea; Animals from the Land; Fresh-water Communities. It is "primarily intended for undergraduate students of botany and zoology." But treatment is so uneven that the chief benefit an undergraduate might gain is some sense of excitement about various special adaptations in aquatic organisms. "The greatest changes" since the first edition (1955) retell the intriguing story of respiration in aquatic insects with captive air bubbles, which was described in 1915 by R. Ege and incorporated long ago into books such as V. B. Wigglesworth's *Principles of Insect Physiology*. Indeed, a comparison with Needham and Lloyd's *The Life of Inland Waters* (ed. 3, 1938) reveals little of the real progress made by limnologists in better than 20 years. Nearly a fifth of Popham's book is given over to an account of a Lancashire pond, 10 yards wide by about 25 yards long, of unstated depth. It is there and on the dust jacket that the concept of succession receives brief mention—but not in the index. Students may still be stimulated to examine fresh-water niches by reading this account and the "Suggestions for future study."

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## Continuity and Change

**In the Ngombe Tradition.** Alvin W. Wolfe. Northwestern University Press, Evanston, Ill., 1961. vi + 167 pp. Illus. \$6.50.

In anthropology, one of the more rigorous applications of the cross-cultural method of studying behavior consists in comparing different societies which lie within the same cultural stream; a great number of factors are thus kept constant, and the search for significant variables may be concen-

trated on but a few differences. It is this method that Wolfe adopts in his study (which is No. 7 in Northwestern's African Studies series) of the two sections of the Ngombe people of the Congo. As a result, what may have been simply "descriptive" ethnography becomes an exercise in refining existing theories about cultural stability and change. An interesting facet of this work is the concentration on internal changes, as opposed to acculturative changes induced by European control. Overemphasis on the latter, fruitful though it has been for cultural theory, has sometimes, and subtly, discouraged anthropologists from looking for internal mechanisms of change and has tended to support the myth of necessary stability in so-called primitive societies.

Wolfe begins by describing the two sections of the Ngombe. On the surface, the differences between them are considerable; these differences can be seen in their physical environment, in their ecology, in the economic pursuits they emphasize, in the division of labor between the sexes, in the socio-structural arrangements of village and lineage, in marriage customs, in religious activities, in the patterns of interpersonal relations. Underneath this diversity, however, Wolfe shows a large common core of cultural assumptions about the nature of the world, of man, and of supernatural forces. After demonstrating, convincingly enough, that one Ngombe group may be viewed as a derivative of a culture which the other group still largely represents, Wolfe turns to a reexamination of existing theories of cultural change. Reformulating distinctions drawn by Cassirer into anthropologically acceptable concepts, he shows that cultural elements may be subdivided according to whether they are seen as "actuality" or as "possibility" by the people concerned. "Actuality" is represented by those elements which are taken for granted as given "facts"; they are the axioms of a cultural system, which define, for the people, their unquestioned reality. Once the universe is so defined, there remain "possibilities" of manipulation, of adaptation to new conditions, of variation in behavior, of choice, and of change. It is in the realm of cultural "possibilities" that Wolfe finds most of the differences between the two Ngombe groups. The same assumptions about the universe are, quite logically, acted upon differently, given noncultural differences of setting in which action

takes place. As a result, many of the superficially striking differences in the total organization of life of the two groups are found to be largely epiphenomenal to the similarities in basic cultural assumptions. The logical theoretical correlate of this finding is that it is the cultural "possibilities" which are apt to change most easily over time.

This short summary obviously cannot examine the several fruitful theoretical byways taken by the author, nor the many further elaborations that the argument suggests to the professional anthropologist. Incidentally, the latter will wish for a future, fuller ethnographic monograph on the Ngombe to fill in details that, in the present theory-oriented work, tend to be left out. For the nonanthropologist this book can be recommended as a readable example, uncluttered by jargon, of one link in the chain of theory-building which is an integral part of the science of anthropology.

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## Chemical Synthesis

**The Pfizer Handbook of Microbial Metabolites.** Max W. Miller. McGraw-Hill, New York, 1961. x + 772 pp. Illus. \$15.

Substances claimed to have been isolated or identified in cultures of microorganisms, either in the medium or in the cells, are treated in this compilation. Molds, yeasts, actinomycetes, bacteria, and the like are included. Initial compounds (1313) are listed by name; the name is followed by a short note covering properties and analysis, the organism of origin, and selected references. These entries are organized into 19 chapters, one of which has 15 subdivisions. Each chapter includes a discussion of the probable metabolic origin of the class of substances treated in it. In addition, there is an addendum of 50-odd pages, whose relation to the whole is somewhat confusing, and which is not indexed.

There are a general bibliography, three appendices, and three indexes. One appendix contains references on the chemical composition of microorganisms, another provides both data

and references on microbial carotenes, and the third includes data and references on the composition of the mycobacteria. The indexes are arranged according to substance name (this one is called the subject index), empirical formula, and the organism involved.

This book obviously represents a great deal of literature searching and compilatory work. Although many organizations dealing with this area have prepared such compilations, it is helpful to have a volume available to organizations which have neither the time nor the facilities to prepare one.

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## New Books

### Biological and Medical Sciences

**Atlas of Avian Hematology.** Alfred M. Lucas and Casimir Jamroz. Superintendent of Documents, GPO, Washington, D.C., 1961. 277 pp. Illus. \$4.

**Biological Structure and Function.** vol. 1. T. W. Goodwin and O. Lindberg, Eds. Academic Press, New York, 1961. 375 pp. Illus. \$10.50. Proceedings of a symposium sponsored by the IUBS and the IUB.

**British Flies.** vol. 6, *Empididae*; pt. 2, *Hybotinae and Empidinae* (part). J. E. Collin. Cambridge Univ. Press, New York, 1961. pp. 223-551. Paper, \$6.

**Comparative Plant Anatomy.** A guide to taxonomic and evolutionary application of anatomical data in angiosperms. Sherwin Carlquist. Holt, Rinehart, and Winston, New York, 1961. 155 pp. Illus. \$5.

**General Biology.** Earl L. Core, Perry D. Strausbaugh, and Bernal R. Weimer. Wiley, New York, ed. 4, 1961. 564 pp. Illus. \$7.95.

**Genes, Enzymes, and Inherited Diseases.** H. Eldon Sutton. Holt, Rinehart, and Winston, New York, 1961. 128 pp. Illus. \$3.50.

**The Giant African Snail.** A problem in economic malacology. Albert R. Mead. Univ. of Chicago Press, Chicago, Ill., 1961. 274 pp. Illus. \$7.50.

**Human Genetics.** Principles and methods. Ching Chun Li. McGraw-Hill, New York, 1961. 227 pp. Illus. \$8.50.

**An Introduction to Biochemistry.** E. O'F. Walsh. Macmillan, New York, 1961. 462 pp. Illus. \$7.50.

**Introduction to Protozoology.** Reginald D. Manwell. St. Martin's Press, New York, 1961. 654 pp. Illus. \$12.

**The Machinery of the Body.** Anton J. Carlson, Victor Johnson, and H. Mead Cavert. Univ. of Chicago Press, ed. 5, 1961. 771 pp. Illus. \$6.50.

**Metabolic Pathways.** vol. 2. David M. Greenberg, Ed. Academic Press, New York, 1961. 827 pp. Illus. \$24.

**Metabolic Pathways in Microorganisms.** Vernon H. Cheldelin. Wiley, New York, 1961. 100 pp. Illus.

**Methods of Tissue Culture.** Raymond C. Parker. Harper, New York, ed. 3., 1961. 373 pp. \$12.

**Phosphorus and Its Compounds.** vol. 2, *Technology, Biological Functions, and Applications.* John R. Van Wazer, Ed. Interscience, New York, 1961. 2062 pp. Illus. \$35.

**Plant Hunters in the Andes.** T. Harper Goodspeed. Univ. of California Press, Berkeley, 1961. 378 pp. \$7.50.

**Progress in Medicinal Chemistry.** vol. 1. G. P. Ellis and G. B. West. Butterworths, Washington, D.C., 1961. 271 pp. Illus. \$11.25.

**Recent Progress in Hormone Research.** Proceedings of the 1960 Laurentian Hormone Conference. vol. 17. Gregory Pinchus, Ed. Academic Press, New York, 1961. 608 pp. Illus. \$14.

**Report of the Commission on Enzymes of the International Union of Biochemistry, 1961.** Pergamon, New York, 1961. 159 pp. \$7.50.

**Rogers' Inorganic Pharmaceutical Chemistry.** Taito O. Soine and Charles O. Wilson. Lea and Febiger, Philadelphia, Pa., 1961. 704 pp. \$10.

**Sexuality and the Genetics of Bacteria.** François Jacob and Elie L. Wollman. Academic Press, New York, 1961. 389 pp. Illus. \$10.

**Some Recent Developments in the Chemistry of Phosphate Esters of Biological Interest.** H. Gobind Khorana. Wiley, New York, 1961. 150 pp. Illus. \$5.25.

**Spores.** vol. 2. H. Orin Halvorson, Ed. Burgess, Minneapolis, Minn., 1961. 305 pp. Illus. \$5.

**Supersensitivity Following Lesions of the Nervous System.** An aspect of the relativity of nervous integration. George W. Stavraky and Wilder Penfield. Univ. of Toronto Press, Toronto, Ont., Canada, 1961. 220 pp. Illus. \$10.

### Economics and the Social Sciences

**Contemporary Psychotherapies.** Morris I. Stein, Ed. Free Press, Glencoe, Ill., 1961. 396 pp. \$7.50.

**Human Behavior.** Claire Russell and W. M. S. Russell. Little, Brown, Boston, Mass., 1961. 541 pp. Illus.

**La Victoria.** An early site on the Pacific Coast of Guatemala. *Papers of the Peabody Museum of Archaeology and Ethnology*, vol. 53. Michael D. Coe, *Peabody Museum*, Harvard Univ., Cambridge, Mass., 1961. 177 pp. Plates.

**Legal and Criminal Psychology.** Hans Toch, Ed. Holt, Rinehart, New York, 1961. 444 pp. \$6.

**Proceedings of the Second International Conference on Operational Research.** J. Banbury and J. Maitland, Eds. Wiley, New York, 1961. 827 pp. Illus. \$15. Conference organized by the International Federation of Operational Research Societies and held 5-9 September 1960.

**The Psychology of Aggression.** Arnold H. Buss. Wiley, New York, 1961. 317 pp. Illus. \$7.95.

**Salinity Problems in the Arid Zones.** Proceedings of the Teheran Symposium. UNESCO, Paris, 1961. 395 pp. Illus. \$10.50. Papers from the 1958 conference.

## General

**Bibliography of Fossil Vertebrates, 1949-1953.** Memoir 84. C. L. Camp and H. J. Allison. Geological Soc. of America, New York, 1961. 570 pp. Fifth volume in a series listing and indexing all publications in vertebrate paleontology and paleoanthropology for the years 1928-1953.

**Directory, American Council of Independent Laboratories.** The Council, Washington 14, D.C., ed. 8, 1961. 125 pp. Illus.

**The Nature of Genius.** Andrew Gemant. Thomas, Springfield, Ill., 1961. 216 pp. \$6.50.

**Prolegomena to a Theory of Language.** Louis Hjelmslev. Francis J. Whitfield. Univ. of Wisconsin Press, Madison, 1961. 149 pp. \$4.

**The 2nd Scientific American Book of Mathematical Puzzles and Diversions.** Martin Gardner. Simon and Schuster, New York, 1961. 253 pp. Illus. \$3.95.

### Mathematics, Physical Sciences, and Engineering

**Advanced Organic Chemistry.** Louis F. Fieser and Mary Fieser. Reinhold, New York, 1961. 1166 pp. Illus. \$14.

**Advances in the Chemistry of the Coordination Compounds.** Proceedings of the Sixth International Conference on Coordination Chemistry, 27 August to 1 September 1961. Stanley Kirschner, Ed. Macmillan, New York, 1961. 694 pp. Illus. \$15.

**Advances in Space Science and Technology.** vol. 3. Frederick I. Ordway, III, Ed. Academic Press, New York, 1961. 495 pp. Illus. \$14.

**Aerospace Telemetry.** Harry L. Stiltz, Ed. Prentice-Hall, Englewood Cliffs, N.J., 1961. 518 pp. Illus. Trade ed., \$15; text ed., \$11.25.

**Analysis of Nonlinear Control Systems.** Dunston Graham and Duane McRuer. Wiley, New York, 1961. 495 pp. Illus. \$9.75.

**Argon, Helium and the Rare Gases.** vol. 1, *History, Occurrence, and Properties.* The elements of the helium group. Gerhard A. Cook, Ed. Interscience, New York, 1961. 449 pp. Illus. \$17.50.

**An Atlas of the Moon's Far Side.** The Lunik III reconnaissance. U.S.S.R. Academy of Sciences. N. P. Barabashov, A. A. Mikhailov, and Yu. N. Lipsky, Eds. Translated from the Russian by Richard B. Rodman. Interscience, New York; Sky Publishing Corp., Cambridge, Mass., 1961. 154 pp. Illus. + plates. \$7.

**A Book of Curves.** E. H. Lockwood. Cambridge Univ. Press, London, 1961. 210 pp. Illus. \$4.95.

**Carbon-14 Compounds.** John R. Catch. Butterworths, Washington, D.C., 1961. 135 pp. Illus. \$5.50.

**Chemical Processing of Reactor Fuels.** John F. Flagg, Ed. Academic Press, New York, 1961. 541 pp. Illus. \$17.50.

**Electronic Amplifier Circuits.** Theory and design. Joseph Mayo Pettit and Malcolm Myers McWhorter. McGraw-Hill, New York, 1961. 338 pp. Illus. \$9.75.