

wetlands add to the difficulty of interpreting the process of decomposition. Because of their succulence, marsh species can decompose extremely rapidly—60 to 80 percent in three months. But on this process, too, data are limited primarily to aboveground parts. To help gain a holistic view J. L. Gallagher presents an invaluable conceptual model that relates the many processes with which we must be concerned.

Nutrient dynamics is considered in riverine and northern wetlands, lake-shore marshes, and freshwater tidal systems. C. J. Richardson and his associates highlight the nutrient dynamics of northern wetlands, which filter efficiently and at the same time have a high nutrient reserve. Thus total losses may be high depending upon the flushing action. Although nitrogen and phosphorus can be readily taken up, they may also be rapidly lost from freshwater tidal systems unless picked up by algal blooms. Although these three basic processes give us many new insights into wetland complexity, we must generalize with caution because there is so much variation among wetlands.

The section on management covers a variety of topics. M. W. Weller expounds the view that wildlife management should be holistic, with emphasis on working with natural processes. Management does not always mean the bulldozer; it may mean the erection of a fence to maintain present conditions. The adverse effects of canal construction in Louisiana are documented by J. H. Stone *et al.* E. W. Garbisch, Jr., and L. B. Coleman, who have successfully planted *Spartina* grasses, have now found that the freshwater arrow arum, *Peltandra virginica*, is another workable species. W. E. Sloey and his associates explore the potential of wetlands as pollution filters here and abroad. In conclusion, F. Stearns encapsulates the management potentials and cautions that, for example, natural wetlands should be used only experimentally for waste-water disposal until we know the long-range effects of such use.

The format of the volume is attractive. The text has been carefully edited, and the articles are well documented. If another topic could have been included it might have been vegetation dynamics, for traditional succession and climax concepts fail to provide a meaningful framework for working with wetland systems. The cyclic pattern of vegetation change as described by A. G. van der Valk and C. B. Davis in their account of prairie marshes provides a prime example.

There remain many exciting and challenging problems in dealing with basic wetland processes and ecological functions. This book will provide a great stepping-stone for many wetland researchers. Collectively such information will be invaluable in helping to preserve the remaining liquid assets.

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Books Received

The Filamentous Fungi. Vol. 3, Developmental Mycology. John E. Smith and David R. Berry, Eds. Halsted (Wiley), New York, 1978. xvi, 464 pp., illus. \$49.50.

Fish Protein Concentrate. Panacea for Protein Malnutrition? Ernst R. Pariser, Mitchel B. Wallerstein, Christopher J. Corkery, and Norman L. Brown. MIT Press, Cambridge, Mass., 1978. xx, 296 pp. \$17.50.

Flavor. Its Chemical, Behavioral, and Commercial Aspects. Proceedings of a symposium, Cambridge, Mass., Apr. 1977. Charles M. Apt, Ed. Westview Press, Boulder, Colo., 1978. xvi, 230 pp., illus. \$24.40. Westview Special Studies in Science and Technology.

Genetics of Human Populations. Albert Jacquard in collaboration with André Chaventré, Laurent Degos, André Langaney, and Philippe Lefèvre-Witier. Translated from the French edition by Demetrios M. Yermanos. Freeman, Cooper, San Francisco, 1978. 192 pp. \$9.80.

Gold Usage. W. S. Rapson and T. Groenewald. Academic Press, New York, 1978. xviii, 366 pp., illus. \$23.50.

Heterostructure Lasers. Part A, Fundamental Principles. H. C. Casey, Jr., and M. B. Panish. Academic Press, New York, 1978. xiv, 372pp., illus. \$23. Quantum Electronics.

The Hospice Movement. A Better Way of Caring for the Dying. Sandol Stoddard. Stein and Day, Briarcliff Manor, N.Y., 1978. xx, 266 pp. \$8.95.

Human Neuropsychology. Henri Hecaen and Martin L. Albert. Wiley-Interscience, New York, 1978. xx, 510 pp., illus. \$22.95.

Industrial Applications of Lasers. John F. Ready. Academic Press, New York, 1978. xvi, 588 pp., illus. \$28.50.

Inorganic Chemistry. Principles of Structure and Reactivity. James E. Huheey. Harper and Row, New York, ed. 2, 1978. xviii, 890 pp., illus. \$17.75.

The Interferon System. A Current Review to 1978. Samuel Baron and Ferdinando Dianzani, Eds. University of Texas Medical Branch, Galveston, 1977. xiv, 574 pp., illus. Paper, \$10. Texas Reports on Biology and Medicine, vol. 35.

Lactation. A Comprehensive Treatise. Vol. 4, The Mammary Gland, Human Lactation, Milk Synthesis. Bruce L. Larson, Ed. Academic Press, New York, 1978. xviii, 596 pp., illus. \$55.

Law and the Mental Health Professions. Friction at the Interface. Papers from a meeting, Hanover, N.H., Aug. 1976. Walter E. Barton and Charlotte J. Sanborn, Eds. International Universities Press, New York, 1978. xviii, 330 pp. \$15.

Linear Systems, Fourier Transforms, and

Optics. Jack D. Gaskill. Wiley, New York, 1978. xvi, 554 pp., illus. \$24.95. Wiley Series in Pure and Applied Optics.

A Manual of Acarology. G. W. Krantz. Oregon State University Book Stores, Corvallis, ed. 2, 1978. viii, 510 pp., illus. \$27.95.

Mechanisms of Tumor Promotion and Carcinogenesis. Papers from a symposium, Gatlinburg, Tenn., March 1977. Thomas J. Slaga, Andrew Sivak, and R. K. Boutwell, Eds. Raven, New York, 1978. xviii, 588 pp., illus. \$45. Carcinogenesis—A Comprehensive Survey, vol. 2.

Natural Resistance Systems against Foreign Cells, Tumors, and Microbes. Proceedings of a conference, Jenner, Calif., Oct. 1976. Gustavo Cudkowicz, Maurice Landy, and Gene M. Shearer, Eds. Academic Press, New York, 1978. xii, 300 pp., illus. \$15. Perspectives in Immunology.

The Origin of Civilisation and the Primitive Condition of Man. John Lubbock. Peter Rivière, Ed. University of Chicago Press, Chicago, 1978. lxviii, 378 pp., illus. \$22.

Ozonation in Organic Chemistry. Vol. 1, Olefinic Compounds. Philip S. Bailey. Walter Trahanovsky, Editorial Advisor. Academic Press, New York, 1978. xiv, 272 pp., illus. \$28.50. Organic Chemistry, vol. 39.

Perceptual Modification. Adapting to Altered Sensory Environments. Robert B. Welch. Academic Press, New York, 1978. xviii, 346 pp., illus. \$24.50.

The Psychology of Music. John Booth Davies. Stanford University Press, Stanford, Calif., 1978. 240 pp., illus. \$13.95.

The Psychology of the Self. A Casebook. Written with the collaboration of Heinz Kohut. Arnold Goldberg, Ed. International Universities Press, New York, 1978. viii, 460 pp. \$20.

The Robot Book. Robert Malone. Created and Produced by Push Pin Press. Harvest/HBJ (Harcourt Brace Jovanovich), New York, 1978. 160 pp., illus. Paper, \$6.95.

The Role of Technology in International Disaster Assistance. Proceedings of a workshop, Mar. 1977. National Academy of Sciences, Washington, D.C., 1978. viii, 102 pp. Paper.

The Screwworm Problem. Evolution of Resistance to Biological Control. Papers from a symposium, Waco, Tex., Mar. 1977. R. H. Richardson, Ed. University of Texas Press, Austin, 1978. viii, 152 pp., illus. Paper, \$6.

Superships and Nation-States. The Transnational Politics of the Intergovernmental Maritime Consultative Organization. Harvey B. Silverstein. Westview Press, Boulder, Colo., 1978. xvi, 252 pp. \$17.50.

Swallow Shelter and Associated Sites. Gardiner F. Dalley with chapters by Michael S. Berry and appendices by James M. Adovasio, Gardiner F. Dalley, and Frank W. Hull. University of Utah Press, Salt Lake City, 1977. xxii, 180 pp., illus. Paper, \$8. University of Utah Anthropological Papers, No. 96.

Thermal Methods in Polymer Analysis. Papers from a symposium, Philadelphia, 1977. S. W. Shalaby, Ed. Franklin Institute Press, Philadelphia, 1978. viii, 204 pp., illus. \$18.95.

Transitional Man or the Anatomy of a Miracle. Franklin Earnest III. Vantage Press, New York, 1978. xiv, 64 pp. \$5.95.

Two-Dimensional Digital Signal Processing. Sanjit K. Mitra and Michael P. Ekstrom, Eds. Dowden, Hutchinson and Ross, Stroudsburg, Pa., 1978 (distributor, Academic Press, New York). xvi, 374 pp., illus. \$32. Benchmark Papers in Electrical Engineering and Computer Science, vol. 20.