

vindication of a paper many ecologists love to hate, a 1960 essay by Hairston, Smith, and Slobodkin (HSS) in which the authors proposed a series of deductions about how terrestrial communities are organized. Historians and sociologists of science will treasure this review of the impact of a 30-year-old classic by its senior author. The evidence is strongly in favor of the HSS hypothesis, although at times Hairston drops his rigor to accept as confirming results that do not conform to the standards of design introduced in the first three chapters. We are all guilty of wishful thinking now and again.

Other chapters review work on successional communities, deserts, and freshwater and marine environments. In the discussion of ponds, there is also a rather detailed review of the excellent work of Nelson G. Hairston, Jr., on aquatic communities. The chapter on marine communities does not include work on pelagic habitats.

The final chapter reviews conclusions that can be drawn from field experiments. These closing arguments are persuasive and may serve to close an era in ecology in which a few theoreticians pursued a grand unified field theory for ecological systems. Hairston quite firmly pronounces that the most important conclusion of the book, and therefore of a quarter century of ecological experimentation, is that at best generalizations can be made at the level of specific environments (forests, successional communities, deserts, freshwater, or marine systems). Most ecology textbooks review the evidence for the relative importance of competition, predation, and mutualism across all systems. The next generation of textbooks may follow Hairston's advice and adopt an organization that contrasts the relative importance of these mechanisms of interaction in each of the major biomes. This is anticipated earlier in the book (p. 53): "I am not ready to abandon the hope of synthesis, at least for some environments. The field might yet produce another Darwin."

The book has an excellent index including ecological subjects, habitats, and Latin binomials with a separate listing of authors. I expect many students will use this index to discover who wears the white hats and who wears the black hats in the eyes of a person who has had a tremendous impact both directly and indirectly on the training and direction of a generation of ecologists. I hope this book motivates the current generation of students to seek the training in statistics that their advisers often lack.

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Books Received

Biochemistry of Ionizing Radiation. Thomas L. Walden, Jr. and Nushin K. Farzanch. Raven, New York, 1990. viii, 248 pp., illus. \$92.

Biographical Index to American Science. The Seventeenth Century to 1920. Clark A. Elliot, Ed. Greenwood, New York, 1990. xiv, 300 pp. \$55. Bibliographies and Indexes in American History, no. 16.

Biologic. Environmental Protection By Design. David Wann. Johnson, Boulder, CO, 1990. xviii, 285 pp., illus. \$19.95.

The Biology of Frankia and Actinorhizal Plants. Christa R. Schwintzer and John D. Tjepkema, Eds. Academic Press, San Diego, CA, 1990. xviii, 408 pp., illus. \$95.

Biomechanics. Motion, Flow, Stress, and Growth. Y. C. Fung. Springer-Verlag, New York, 1990. xvi, 569 pp., illus. \$69.

Biosynthesis of Branched Chain Amino Acids. Z. Barak, D. M. Chipman, and J. V. Schloss, Eds. Balaban, Glenside, PA, and VCH, New York, 1990. x, 530 pp., illus. \$120. From a workshop, Beer-sheva, Israel, Nov. 1988.

The Cognitive Structure of Emotions. Andrew Ortony, Gerald L. Clore, and Allan Collins. Cambridge University Press, New York, 1990. xii, 207 pp., illus. Paper, \$14.95. Reprint, 1988 ed.

Critical Traditions in Contemporary Archaeology. Essays in the Philosophy, History, and Socio-politics of Archaeology. Valerie Pinsky and Alison Wylie, Eds. Cambridge University Press, New York, 1990. x, 160 pp., illus. \$54.50. New Directions in Archaeology.

Curves and Surfaces for Computer Aided Geometric Design. A Practical Guide. Gerald Farin. 2nd ed. Academic Press, San Diego, CA, 1990. xviii, 444 pp., illus., + plates. \$39.95. Computer Science and Scientific Computing.

Handbook of Space Astronomy and Astrophysics. Martin V. Zombeck. 2nd ed. Cambridge University Press, New York, 1990. viii, 440 pp., illus. \$75; paper, \$34.50.

The Hydrocarbon Chemistry of FCC Naphtha Formation. Herman J. Lovink and Lloyd A. Pine, Eds. Editions Technip, Paris, 1990. x, 239 pp., illus. FF 490. American Chemical Society Symposium, Division of Petroleum Chemistry. From a symposium, Miami, Sept. 1989.

Imaging X-Ray Astronomy. A Decade of Einstein Observatory Achievements. Martin Elvis, Ed. Cambridge University Press, New York, 1990. xii, 348 pp., illus. \$49.50. From a symposium, Cambridge, MA, Nov. 1988.

Insect Defenses. Adaptive Mechanisms and Strategies of Prey and Predators. David L. Evans and Justin O. Schmidt, Eds. State University of New Press, Albany, 1990. xvi, 482 pp., illus. \$73.50; paper, \$24.95. SUNY Series in Animal Behavior.

Intervening Sequences in Evolution and Development. Edwin M. Stone and Robert J. Schwartz, Eds. Oxford University Press, New York, 1990. xii, 203 pp., illus. \$39.95.

Introduction to Configurational Frequency Analysis. The Search for Types and Antitypes in Cross-Classifications. Alexander Von Eye. Cambridge University Press, New York, 1990. xiv, 270 pp., illus. \$37.50.

Introduction to Hilbert Spaces with Applications. Lokenath Debnath and Piotr Mikusiński. Academic Press, San Diego, CA, 1990. xiv, 509 pp., illus. \$49.95.

Introduction to Lattices and Order. B. A. Davey and H. A. Priestley. Cambridge University Press, New York, 1990. viii, 248 pp., illus. \$49.50; paper, \$18.95. Cambridge Mathematical Textbooks.

The Last Frontier. Imagining Other Worlds, from the Copernican Revolution to Modern Science Fiction. Karl S. Guthke. Cornell University Press, Ithaca, NY, 1990. xiv, 402 pp. \$38.95. Translated from the German edition (Bern, 1983) by Helen Atkins.

Legal Socialization. A Study of Norms and Rules. Ellen S. Cohn and Susan O. White. Springer-Verlag, New York, 1990. xii, 224 pp., illus. \$49.

Leucocyte Typing IV. White Cell Differentiation Antigens. W. Knapp et al., Eds. Oxford University Press, New York, 1989. xxiv, 1182 pp., illus. \$195. From a conference, Vienna, Feb. 1989.

Magnetic Properties of Layered Transition Metal Compounds. L. J. de Jongh, Ed. Kluwer, Boston, 1990. xiv, 419 pp., illus. \$139. Physics and Chemistry of Materials with Low-Dimensional Structures, vol. 9.

McNeil's Mount Hood. Wy'East THE Mountain. Fred H. McNeil. 2nd ed. Zig Zag Papers, Zig Zag, OR, 1990. xvi, 150 pp., illus., + plates and afterword. Paper, \$12.95.

Medieval and Early Renaissance Medicine. An Introduction to Knowledge and Practice. Nancy G. Siraisi. University of Chicago Press, Chicago, 1990. xiv, 250 pp., illus. \$37.50; paper, \$10.95.

Memoirs. Andrei Sakharov. Knopf, New York, 1990. xxii, 776 pp., + plates. \$29.95. Translated from the Russian edition (1990) by Richard Lourie.

Methods in Phytobacteriology. Z. Klement, K. Rudolph, and D. C. Sands, Eds. Akadémiai Kiadó, Budapest, 1990. xviii, 568 pp., illus. \$79.

Mineral Nutrients in Tropical Forest and Savanna Ecosystems. J. Proctor, Ed. Blackwell Scientific, Boston, 1989. vi, 473 pp., illus. \$99.50. Special Publication no. 9 of the British Ecological Society.

Molecular Aspects of Development and Aging of the Nervous System. Jean M. Lauder et al., Eds. Plenum, New York, 1989. x, 326 pp., illus. \$69.50. Advances in Experimental Medicine and Biology, vol. 265. From a conference, Athens, June 1988.

Molecular Collisions in the Interstellar Medium. David Flower. Cambridge University Press, New York, 1990. xii, 133 pp., illus. \$59.50. Cambridge Astrophysics Series 17.

The Monthly Sky Guide. Ian Ridpath and Wil Tirion. 2nd ed. Cambridge University Press, New York, 1990. 64 pp., illus. Paper, \$10.95.

Nitrite-Cured Meat. A Food Safety Issue in Perspective. Robert G. Cassens. Food and Nutrition, Trumbull, CT, 1990. viii, 176 pp. \$65.

Nitro Compounds. Recent Advances in Synthesis and Chemistry. Henry Feuer and Arnold T. Nielsen. VCH, New York, 1990. xvi, 636 pp., illus. \$125. Organic Nitro Chemistry Series.

The Nonequilibrium Statistical Mechanics of Open and Closed Systems. Katja Lindenberg and Bruce J. West. VCH, New York, 1990. xii, 448 pp., illus. \$45.

Nutrition and Economic Development in the Eighteenth-Century Habsburg Monarchy. An Anthropometric History. John Komlos. Princeton University Press, Princeton, NJ, 1989. xviii, 325 pp., illus. \$45.

Physics of the Earth and the Solar System. Dynamics and Evolution, Space Navigation, Space-Time Structure. Bruno Bertotti and Paolo Farinella. Kluwer, Boston, 1990. xvi, 479 pp., illus. \$99. Geophysics and Astrophysics Monographs, vol. 31.

Polarized Light in Optics and Spectroscopy. David S. Kliger, James W. Lewis, and Cora Einterz Randall. Academic Press, San Diego, CA, 1990. x, 304 pp., illus. \$64.50.

Postindustrial Possibilities. A Critique of Economic Discourse. Fred Block. University of California Press, Berkeley, 1990. x, 229 pp. \$35.

Power Plant Design. E. E. Khalil. Abacus (Gordon and Breach), New York, 1990. xiv, 370 pp., illus. \$150; paper, \$60. Energy and Engineering Sciences Series.

Present Knowledge in Nutrition. Myrtle L. Brown, Ed. 6th ed. International Life Sciences Institute, Nutrition Foundation, Washington, DC, 1990. xii, 532 pp., illus. Paper, \$22.50; \$30 after 1990.

Presentation of Groups. D. L. Johnson. Cambridge University Press, New York, 1990. xii, 204 pp., illus. \$49.50; paper, \$16.95. London Mathematical Society Student Texts 15.

Primate Evolution. Glenn C. Conroy. Norton, New York, 1990. xiv, 492 pp., illus. Paper. \$34.95.

The Principles of Computer Networking. D. Russell. Cambridge University Press, New York, 1990. xviii, 513 pp., illus. \$69.50; paper, \$29.95. Cambridge Computer Science Texts 25.

The Purpose of Forests. Follies of Development. Jack Westoby. Basil Blackwell, Cambridge, MA, 1990. xiv, 343 pp. Paper, \$25.95. Reprint, 1987 ed.

Quantitative Analyses of Behavior. Michael L. Commons et al., Eds. Vol. 8, Behavioral Approaches to Pattern Recognition and Concept Formation. xvi, 226 pp., illus. \$34.50. Vol. 9, Computational and Clinical Approaches to Pattern Recognition and Concept Formation. xiv, 162 pp., illus. \$29.95. Erlbaum, Hillsdale, NJ, 1990. From a symposium, Cambridge, MA, June 1985.

Radiation Protection. A Guide for Scientists and Physicians. Jacob Shapiro. 3rd ed. Harvard University Press, Cambridge, MA, 1990. xxiv, 494 pp., illus. \$35.

Structural and Organizational Aspects of Metabolic Regulation. Paul A. Srere, Mary Ellen Jones, and Christopher K. Mathews, Eds. Wiley-Liss, New York, 1990. xvi, 416 pp., illus. \$130. UCLA Symposia on Molecular and Cellular Biology, new series, vol. 133. From a symposium, Keystone, CO, April 1989.

World Resources, 1990-91. Oxford University Press, New York, 1990. xiv, 383 pp., illus. Paper, \$17.95. A Report by the World Resources Institute in collaboration with the United Nations Environment Programme and Development Programme.