

This novel would appeal to the naturalist in us all. It is delightfully entertaining and informative. It is certain that this will be perched on my bookshelf for future leisure reading as well as for reference. Perhaps the greatest reward in reading this book is the inspiration to look with greater introspection at the world with which we cohabitate in our daily lives.

Rose LaRochelle-Colby
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GENETICS

GENETICS

by Charlotte J. Avers. 2nd ed., 1984. PWS Publishers (Statler Office Bldg, 20 Park Plaza, Boston, MA 02116). 644 p. Hardback.

The second edition of *Genetics* by Charlotte Avers reflects a significant improvement in presentation and content over the first edition. This is an excellent textbook for a first semester course in genetics. The text is composed of 16 chapters, glossary, index, and answers to questions and problems. Though the author has taken a "chronological" view going from Mendelian to cellular to population genetics, which is a little confusing, all of the various aspects of genetics are presented for the reader. The material is clearly presented, with all important terminology appearing in bold print and defined in the glossary. All subheadings and several illustrations are presented in red ink on a high contrast glossy background.

The questions at the end of each chapter stress a problem solving approach to enhancing and examining a student's understanding of the material in each chapter. Though some of these questions may test even the best of genetics students the author has provided the answer to each question so that all students can benefit from the problem solving approach to demonstrating an understanding for genetics.

The only criticism of the textbook is the extent of material devoted to quantitative and geographic mechanisms of speciation. But, the extreme clarity of presentation and attention to modern events in genetics more than compensate for this minor flaw in an otherwise excellent introductory genetics textbook.

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MEASUREMENT

YARDSTICKS OF THE UNIVERSE

by Owen Bishop. 1st ed., 1984. Peter Bedrick Books (125 East 23rd St., NY 10010) 130 p. \$10.95 hardback, \$5.95 softback.

Owen Bishop has written an excellent account of the history of measurement, with emphasis on the importance of accurate and precise measurement to the advancement of scientific knowledge.

In the first chapter, the author presents an overview of early yardsticks in measurement and points to the difficulties encountered because of the lack of standards. Origins of various terms are explained. In each succeeding chapter, one of the following topics is explored from the earliest attempts at its measurement to the current state of the art. These topics include measuring the earth, measuring the universe; measuring the speed of light, measuring the imponderable, and measuring the infinite. The classic experiments of each are described as they relate to the technique of measurement of scientific data. The book concludes with a somewhat small glossary, but extensive index.

One of the outstanding chapters deals with the role of human senses in measurement. There are several simple but graphic experiments that can be used in the classroom to illustrate the need for precise instruments when measuring for the sciences.

Good photographs and illustrations of early measuring devices are included. In addition, there are directions for constructing some of these devices including a sundial, pendulum clock, astrolabe, sextant, and steelyard.

The book should provide interesting reading for high school age and above. I would recommend it for all science teachers. Not only can the book serve to enhance one's historical background, but it can provide a resource of activities which may spark curiosity in topics that are often omitted due to a lack of knowledge and interest. The low price and sturdy construction of the soft cover edition should make this a must for science teachers and school libraries.

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NEUROBIOLOGY

FROM NEURON TO BRAIN

by Stephen W. Kuffler, John G. Nicholls, and A. Robert Martin. 2nd ed., 1984. Sinaur Associates, Inc. (Sunderland, ME 01375). 670 p. \$30.00 hardback.

From Neuron to Brain begins with the structure and function of individual neurons and traces their pathway from sensory organs through the mediating structures of the brain, explaining their relationship to perception. It interrelates data from neurophysiology with brain function in a way that is impressive in its scope and depth. Evidence cited is individually footnoted making the bibliography extensive. Supplementary readings are also suggested. The material presented has obviously been thoroughly researched and documented.

The level of presentation is senior college through postdoctorate—an excellent reference and sourcebook for the graduate library or personal collection. Their style of writing is clear without pretension. Chapter 7, Neurons as Conductors of Electricity, may require some background in electronic principles. The illustrations, electron micrographs and line drawings are of excellent quality and an appropriate elaboration of the text.

The authors are to be commended for an outstanding job of gathering strands of experimental data and fusing them into a meaningful sequence.

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PRIMATE STUDIES

A COMPLETE GUIDE TO MONKEYS, APES, AND OTHER PRIMATES

by Michael Kavanagh. 1984. The Viking Press (New York, N.Y.), 224 p. \$19.95 hardback.

Meet the red-faced, bald uakari of Brazil, and Borneo's proboscis monkey, which puts Mr. Durante to shame, the ghost-faced Doucs of Vietnam, and many more of our primate relatives.

In this handsome volume, illustrated with about 100 excellent and superbly-printed full-color photographs, is a description of the 51 genera of living primates in 14 families, the most ubiquitous of all animal orders.

Author Michael Kavanagh has just the right credentials. He is a biologist and psychologist with extensive field work in the forests of South America, Southeast Asia, and Africa. The text has a strong behavioral bias, which makes this volume far more interesting than a bland descriptive treatment. Not only are we given physical characteristics of the various genera, but their ecology and behavior—often elaborate and sometimes humorous from a human perspective—never dull. We learn that the hamadryas, baboons sacred to the ancient Egyptians, epitomize a male chauvanist society, the basic social unit being an adult male and his subordinated harem of females. A young adult male may start his harem by kidnapping one or more infant females and raising them to maturity.

The book includes brief but pithy sections on modern taxonomy, the evolutionary process, and the origin of primates. In the taxonomy appendix we are told that primatologists cannot agree on any single classification of the living primates. Especially, "the New World primates are greatly in need of taxonomic revision, partic-

ularly at the family level." The most complex nonhuman primates are chimpanzees with their male alliances and individualistic female loyalties. Only humans have more complex societies than chimpanzees. In a section on the influence of *Homo sapiens* on our primate relatives we find that "probably the oldest influence we exert on [them] is that of killing them for meat. . . . Where dense jungle patches still exist in the Malay peninsula and on Borneo, aboriginal tribes still gain essential protein from hunting wildlife with blowpipes. Monkeys and gibbons frequently end up in the pot."

The book contains a short glossary, bibliography, and index. The writing is light and breezy and is intended for popular appeal, which it achieves without compromising scientific integrity. High school and college students alike are bound to find this excellent volume instructional and captivating. The book has a brief introduction by Desmond Morris.

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