

Book Reviews

All unsigned reviews are by the Editor

Human Biology

PHYSIOLOGY OF MAN, 3rd Ed., Langley and Cheraskin, 658 pp., \$8.50, Reinhold Publishing Corporation, New York, 1965.

The latest edition of this highly successful book, with a different publisher, was in 1958, and there are some changes. Primarily, the nervous system has been placed near the beginning.

The special charm of this book is in its style of writing which is not popular nor textbookish. It is in a happy compromise state which results in quite a bit of information packed into the pages but all told in an interesting style. The authors also are obviously teachers for they knew what to emphasize, for what to use analogies, etc.

In short, this is an excellent human physiology text, up to date, informative, and well-written.

THE HUMAN ORGANISM David F. Horrobin, 208 pp., \$4.95, Basic Books, Inc., Publishers, New York, 1966.

That the *Human Organism* belongs in every book collection and library at the junior-senior high school level is an inescapable conclusion. This fine little book, with its inexpensive and unpretentious format, is filled with lucid and lively expositions of certain fundamental physiological mechanisms and phenomena. In particular, there are perspicacious accounts of certain basic physicochemical considerations such as osmosis, surface-volume relations, acids-bases-buffer, pH, molarity, concentration, etc., which are couched in laymen's language, and which are accurate enough and adequate enough even though very much simplified. Some readers would say the explanations were oversimplified and the phraseology condescending, but then the book is not for them; it is for the nonphysiologist, the general biology student, or the general reader with an interest in the science of living things. In fact, one might observe that many a college biology student, and many a teacher of biology would do well to be able to think in such terms, and to present such elegantly simplified and patent discussions of pH, pK, buffers, and enzyme interactions.

The major "systems" covered are the circulatory, the respiratory, and the excretory. This, of course, means the volume is not a physiology or biology textbook; rather, the author concerns himself with a limited amount of subject matter and does a good job of keeping it simple,

brief, and readable. The final chapter is somewhat novel and worth buying the book for. Titled "Some Tough Situations," it includes the physiology of man and some selected animals in the extremes of environment, namely desiccating deserts, the arctic cold, the depths of the sea, the tops of mountains, and outer space. A typical example is the account of how the camel is physiologically adapted for desert survival.

The dust jacket synopsis says that there is a companion volume, *The Communications Systems of the Body*, by the same author. Incidentally, the author has the credentials for writing about the topics included—which sounds like an inane statement, but isn't. Some popular series of books, unlike this Science and Discovery series, have questionable authenticity. In conclusion, then, *The Human Organism*, although misnamed, is such a creditable effort, when viewed with the right perspective, that I would be willing to include its companion work in these generally approbatory remarks.

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TEXTBOOK OF PHYSIOLOGY, 15th Ed., Tuttle and Schottelius, 562 pp., \$7.75, The C. V. Mosby Company, St. Louis, 1965.

The evidence of a fifteenth edition is a witness to the success of this text. It has been thoroughly revised, updated, and new illustrations added. Truly a human physiology text, anatomy has been largely reduced except for appropriate illustrative material. There are no chapter-end materials, but there is an extensive glossary.

The updating has been chiefly centered around cellular metabolism, cell ultrastructure, and the chemistry of nutrition. The authors confess to a dogmatic approach but believe it to be essential in an elementary course.

GENERAL AND COMPARATIVE PHYSIOLOGY William S. Hoar, 815 pp., \$13.95, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1966.

This book is an attempt to synthesize the major trends in the physiological adaptations of animals. This difficult task is admirably accomplished in some chapters such as the one dealing with the gaseous environment, where the principles and problems of aerobic existence are discussed in historical perspective. This chapter and many others ends abruptly, however, with little or no concluding comment or overview, a glaring omission in a book dealing with unifying principles and trends.