

# Book Reviews

## Behavior

### PROGRAMS OF THE BRAIN

by J.Z. Young. Oxford University Press (200 Madison Avenue, New York 10016). 325 p. \$14.95.

*Programs of the Brain* is an excellent, well-written and organized reference about the human brain and its influences on thoughts and actions. Recent and updated information and experiments on the brain are related to the fundamental problem of life and survival. The reference is quite comprehensive in its discussion of a wide range of human capacities and activities such as: living, growing, repairing and ageing, communicating, learning, remembering, forgetting, touching, feeling, seeing, loving, caring, fearing, hating, and fighting. The problem of the relations of the mind and body are dealt with by in-depth discussions of how the brain acts during such activities as creativity, worship, knowledge, and enjoyment. Thus the reference may be used by not only neuroscientists but also by sociologists, psychologists, and laypersons.

J.Z. Young has successfully attempted to cover a variety of many important topics with the hope that one may improve the way one thinks about oneself. By using the facts recently discovered about the brain, individuals who read this reference will be better able to develop ways of speaking and thinking that will help during their daily lives. Understanding the operations of the brain and how it functions to program actions develops a better comprehension of the results of one's own perception, actions, and varying needs.

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### CONTRASTS IN BEHAVIOR

by Ernest S. Reese and Frederick J. Lighter, eds. 1978. John Wiley and Sons (One Wiley Drive, Somerset, New Jersey 08873). 406 p. \$27.50.

The purpose of the series of papers comprising the text was "... to instill in the reader an appreciation of the insights that a broad comparative perspective can provide in his own area of research interest." In addition, the editors have four major themes in organizing the

book: (1) the authors of each chapter use their own research on aquatic organisms, primarily fish; (2) the writers draw comparisons between their own research and literary reviews of the terrestrial vertebrates; (3) they demonstrate that the comparative approach to behavior is highly significant; and (4) by making these comparisons, the editors hope to provide valuable insights into the science of animal behavior. The separate chapters cover some of the key topics of animal behavior including, display, predation, parental care, reproduction, communication, societies, and aggression to name a few.

The text is quite good in summarizing work on a particular topic and provides up-to-date ideas of what is being done in the field of aquatic biology. But I must confess that, on the whole, the book is rather weak in the realization of its purposes. I found excellent reviews of the researchers' own work and areas, but frequently noted a weak comparison, usually a brief mentioning, of related studies on the terrestrial vertebrates. It would have been very interesting to have included a few reviews by terrestrial behaviorists that dealt with aquatic topics. Thus, a different perspective could be gained. As one would expect in edited texts, the writing styles vary with each author.

The book may serve as a reference for the research biologist, the behaviorist, or the graduate student. There is a complete bibliography listed at the end of each chapter. As a biology teacher, I could incorporate into my classes the introductions provided on the various topics previously listed, but would have difficulty employing the attempted comparisons between aquatic and terrestrial vertebrates.

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## Botany

### ORCHIDS OF PAPUA NEW GUINEA: AN INTRODUCTION

by Andree Millar. 1978. University of Washington Press (Seattle, Washington 98105). 112 p., including 200 color illustrations. \$25.

The color illustrations of the flora of Papua New Guinea alone would make this book worth the reader's time. The

beautiful photography of Roy and Margaret Mackay gives one a very good description of several of the orchid genera and species. These illustrations are accompanied by information on habitat and flower structure. The information on the genera *Dendrobium* and *Bulbophyllum* of that area provides the orchidist with something new and more complete.

The book begins with an introduction to the ecology of Papua New Guinea. This is vital to an understanding of the wide variety of orchid flora. The swampy areas, the savannah, and the rain forest provide a wealth of habitat for orchid growth. This introduction is followed by illustrations and information on the specific orchid genera and species. Some notes on the cultivation of orchids by the author are given. Some interesting notes on the photography for this book are presented by Roy Mackay as a conclusion.

This book is not only valuable to the orchid enthusiast, ecologist, or botanist, but could also serve as a good supplement for the student of ecology or plant geography. It certainly would prove interesting reading to any teacher with these interests.

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## Cell and Molecular Biology

### BIOLOGICAL TECHNIQUES FROM ATOMS TO CELLS—CELL FUNCTIONS

by William H. Brown. 3rd ed., 1978. Educational Methods (500 North Dearborn Street, Chicago (60610). 280 p. Price not given.

This book is a laboratory manual for high school students in an introductory biology course emphasizing cellular biology. The manual is to be used as a workbook, that is, it is designed for recording answers in spaces provided.

Brown is an experienced high school biology teacher. This third edition contains many good labs and ideas that I feel are successful in covering basic concepts about the cell.

The manual is well organized and covers activities about collecting, recording, and interpreting data. Basic concepts such as the metric system and use of the microscope are well represented.