topic generally not treated completely in a college physics textbook. Also of special biologic interest is the chapter on fluid dynamics in rigid and elastic vessels; it includes a good set of problems on the circulation of the blood.

This book should be valuable in a physics course for premedical students and biology majors. It also should be useful to physiologists and others who wish to review basic medical physics. However, in the usual biophysics or physiology course it would be limited to supplemental use. The price seems excessive and may reflect the publishers' fears as to the book's general applicability.

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BASIC NATURAL HISTORY: A PROCEDURAL APPROACH, by William B. Nutting. 1972. Macmillan Co., New York. 386 p. $6.50 (softback).

Nutting's textbook–workbook deals with astronomy, botany, geology, meteorology, and zoology. The author's intention is "to provide some organized guidance through the mass of detail of natural things and events so that a person may work out his own perspective on the world of nature." He approves discovery on one's own, but unfortunately the discovery aspect does not make itself clear in the book.

Phyla and class listings and "presentational constructs" are presented to aid the student. The constructs, designed to summarize a major "parameter," such as botany, are so busy with detail that few students would benefit from them. The phylogenetic listings are unnecessary in a science-exploring course.

In the bird lab Nutting suggests that the student identify 15 to 20 birds by paying attention to fieldmarks. Less than 20 pages later he suggests the student should calculate bird densities, using field data he has collected. The concept of open-endedness is fine, but the reality and validity are questionable: what is the probability that a beginner would identify the species correctly?

A lot of pages in the book are unnecessary: only three sentences appear on p. 206, only a title on p. 207, nothing on p. 208, a blank species-list on p. 84, and so on. On p. 255 the author wisely recommends learning about bird nests by taking one apart; the remaining two thirds of the page is a blank numbered list.

The book does cover the five parameters of field natural history and may be considered by the beginning teacher, but the experienced teacher will probably find it of little value.

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