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**Field Biology and Ecology.** *Allen H. Benton and William E. Werner, Jr.* McGraw-Hill Book Co., New York. (2nd ed.) 1966. x+499 p., Illus. \$9.50.

The new edition has undergone substantial revision. Several serious deficiencies in the first edition have been amended with the addition of a chapter on energy flow, mineral cycling, and radiation ecology; a chapter on marine ecology; and a substantially revised consideration of biomes. Aesthetically, the book is much more appealing with a new format, type, and arrangement and size of photographs.

However, as in the first edition, many topics are treated inadequately and are impaired by inaccurate generalizations. Among many inaccuracies, a map of the biomes of North America shows that most of California is grassland (p. 103); oxygen is said to have a low concentration at high altitudes rather than low partial pressure (p. 105); subspecies are said to have morphological distinctness but not genetic distinctness (p. 54). In another case, the title of a photograph (p. 183) of a glacial boulder suggests that only lichens and mosses have been able to colonize the boulder in several thousand years without considering questions as: might the boulder have been buried for several thousand years, or might fire have destroyed the vegetation on the boulder several times? Soil moisture is said to be determined by weighing out 100 grams of soil, drying it in an oven, and reweighing it (p. 450). But there is no mention of the temperature one should use to dry it, or what to do with any included rocks. Some points are mentioned without any explanation, e.g.: isotherms (p. 102) and stochastic models (p. 312). Unfortunately, the glossary, a very useful tool for the student, has been eliminated from this edition.

Other aspects of the book are somewhat incongruous. One chapter is devoted to the choice and conduct of field problems, including the procedure to be followed in submitting papers for publication. This is clearly inappropriate for a text at this level. The appendix dealing with specific techniques of field biology is fraught with gross simplification and could be omitted. No mention is made of microclimatic difficulties.

On the whole, the book is deficient in numerous respects, particularly in its attention to details and the tendency to lapse into gross generalizations. It may be of value in an introductory course for students who have little or no training in biology and who do not intend to become biologists. Unfortunately, at present, no adequate general ecology text is available; among the current texts, this one presents the best balanced treatment. If a text must be used in an introductory course for biology majors and non-majors, then this text should be considered.

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