Review of *Modern Biological Principles* by A.M. Winchester; Van Nostrand, 1965

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"Modern Biological Principles" is, as the name suggests, truly modern. This characteristic is one of the book's strongest attributes. An effort is made at least to introduce the reader to the biological advances which not only created new fields of study in the life sciences, but also modified the old concepts. Examples of the modern nature of this book are the chapters on the origin of life (presented in a rather unexciting manner but nevertheless present!), gene control of cell activity, energy conversion, and man and the biological communities of the future. However, clear distinction is not always made between hypothesis and theory in these areas. Great stress is laid on biology at the molecular and cellular level, but the chapters on molecular and cellular biology lead naturally into those concerning the organismal and community levels. In many cases, although new concepts such as Watson and Crick's genetic code theory are presented, the instructor is left the task of impressing students with the full scientific and historic significance of these ideas. But a modern biology teacher should, I think, always feel responsible for adequate performance of this task and "Modern Biological Principles" furnishes an excellent basis for discussions of the impact of Darwin, the atomic bomb, and Watson and Crick on biology.

Perhaps as important as the modern approach is the illustrative material of this book. The photographs are, in general, quite impressive and give the reader views of living organisms that enhance his understanding. The diagrams, however, are often not of such high educational quality. Certain diagrams, e.g., those depicting RNA function and the entry of foods into the energy releasing metabolic pathways, may not add significantly to a student's understanding of these phenomena.

In general, the book does not go deeply enough into biology to serve as a text in an upgraded introductory course for majors in the life sciences. "Modern Biological Principles" is, however, ideal for a beginning course for non-majors, and would be an outstanding book for advanced courses in biology at the high school level.

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