
This book is about adaptations—plant and animal. The author explains how they came about and what they're good for in anthropomorphic language not matched in the last half century of technical ecological writing in North America.

Where statements are not directly teleological, the mode of thought is often implied. To those disposed to this point of view, the book is a great repository of information, not all of it true.

The author states (p. 292): "In fact, the flower may be regarded as a signal to the insect that pollen or nectar may be found there." On page 304 he says that, "If two different organisms from different genetic stocks live in the same or similar environment they may develop characters that are more or less superficially similar . . . through divergence from former characters guided by natural selection toward a common objective, that of fitting the same environment." We learn that, "Both flowers and insects have developed adaptations to fit one another"—a truly remarkable concept. Also we are told that "an individual rat will either have to adjust itself to an unsuitable soil, move to a new place, or perish." These are common kinds of statements, beginning on the first page of the introduction where the author refers to the physical environment "which organisms encounter and which they must either avoid or mold to fit their organic needs."

This in view of the author's prefatory remark that, "If anyone reads into the work implications of anthropomorphism, Lamarckianism (in the sense of inheritance of acquired characters) or other unnatural implications, he will be placing interpretations on words not intended by the author . . . the reader has a duty to search for the author's meaning and not misconstrue his intentions."

In this case the reader will likely find his duty tedious and long lasting and the author's intentions quite obscured by anthropomorphic verbosity subsequent to the preface.

Of the 167 figures 42 are photographs, leaving much to be desired as illustrative material. Some of the "tree of life" charts are characterized by inadequate terminology. The bibliography contains over 450 titles.

**JOHN N. WOLFE.**


The tissue culturist and his work are frequently cloaked with a mysterious and sacrosanct aura. The cause? In controlling growth, perhaps he feels that he is assuming a small segment of the activities of the Creator. Of course, this is not an intentional attitude. This pleasant little volume, proceeding with the objective that "things are not to be made more complicated than necessary," has no occult elements. The author satisfactorily fulfills his three main objectives—(1) presentation of major techniques for cell culture of plant and animal materials; (2) to make available basic techniques for beginners with no background; and (3) to emphasize the concept of "cell culture" as opposed to "tissue culture" in so far as usual procedures involve cultivation of groups of cells from a "tissue" but not the tissue itself.

Dr. White is well equipped to author this concise volume. It should appeal to the embryonic tissue culturist for whom it was intended.

**CLAUDE-STARR WRIGHT AND MATTHEW C. DODD.**