None. Now, King's splendid book has met the need, without superficiality.

This book is recommended unreservedly as a textbook for courses of about one academic year, at roughly the first-year graduate level. It may be used to broaden the horizons of spectroscopists who have, by reason of training or availability of instruments, been confined to a single spectral region, or to acquaint theoretical quantum chemists with the bases for the numbers that they often must use. The intellectual and real prices of the book bring it within reach of these potential users.

As with many of the best texts, support by thorough discussion or lectures on difficult points will be desirable. Systems and methods are introduced in order of increasing complexity, and the topics are connected carefully, but often tersely. The second half of the chapter on group theory is an example of material for which such elaboration will be desirable.

The following are examples of the small number of confusing usages—the use (p. 196) of the term "O-branch" instead of "anti-Stokes lines" for a pure rotational Raman spectrum, and the implication (p. 401) that assignments of symmetry species to the excited electronic states of benzene are securely based on experiment rather than mainly on theory. These difficulties are slight, and among those noted none were more serious. In addition, none of the surprisingly few misprints noted could lead to misunderstanding.

Finally, the book is well produced, and it is a particular pleasure to find an accurate description on the publisher's dust jacket: "Dr. King writes with clarity and authority. His text is a distinguished contribution to a dynamic field."

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## **Botany**

The Life of Plants. E. J. H. Corner. World, Cleveland, Ohio, 1964. xiv + 315 pp. Illus. \$12.50.

Faced in biology with a bewildering proliferation of knowledge, much of it recondite detail, Corner has come, in this highly original, artfully written, beautifully and originally illustrated

book, to a solution of "how to write a small book about plants in toto." His The Life of Plants masterfully combines the macroscopic and microscopic into a well-balanced whole, the best work of its kind that I have seen. It is new in concept, new in approach, new in examples. Corner truthfully states in the introduction that "the books that deal with general botany have grown so tediously compendious . . . so thoroughly dull and dully thorough, that I have no hesitation in offering this survey, understandable, I hope, and therefore open to experiment, proveable and progressive."

The author, who is a Reader in taxonomy at the University of Cambridge, is a mycologist, and he has had a wealth of experience, chiefly in the tropics of both hemispheres, that has transcended his own specialty: He is one of the most versatile and wellrounded plant scientists of these times. This is reflected throughout his work indeed, primarily on account of it, the book lives and breathes.

Some botanists may not agree with all of his approaches and interpretations. They are there, however, as a challenge and stimulus-and this alone is valuable. The book is full of stimuli, many of them statements of such simple thoughts that they often have been forgotten because of their simplicity: "The comparison of a grass and a tree, of a meadow and a forest, is a sterile exercise, until it is remembered that a tree, as a seedling, is also a small plant"; "Growing up in botany means occupying more room"; "The extremes of fungus life are the slow massive growths with large spore output and the small quick growths with small spore output. . . .'

The book is arranged in 15 chapters ranging from such topics as "The ocean" through "The land plant" to "Beyond the forest." Speaking in his final chapter on human activity and machines, the author warns that "The botanist must hurry if he would take the opportunity that a few brief centuries of his science have revealed; for soon there will be rice-fields to every river-brink. The unmindful tree begot, indeed, the seed of its own destruction."

In an appendix, there are chosen references designed for further reading and study, in addition to a selected bibliography of 152 titles. An excellent glossary and index are provided. The line drawings are clear and pre-

cise, and the photographs, most of them by Corner himself, are superb; there are eight full-page color plates. The paper and printing are of highest quality, and I certainly feel that, at \$12.50, the book is not overpriced.

I would count the beginning student of botany fortunate who was taught from Corner's *The Life of Plants* by a teacher who could do it justice as a textbook. It may not, and probably will not, become a widely used text, but its influence will long be felt. For the teacher who uses it must be—to some extent, if not to the extreme that is true of Corner—entirely imbued with an unlimited feeling for and oneness with the Plant Kingdom as a dynamic part of life on earth. The title is, indeed, most meaningful: *The Life of Plants*.

RICHARD EVANS SCHULTES Botanical Museum, Harvard University

## The Rockefeller Awards

Adventures in Public Service: The Careers of Eight Honored Men in the United States Government. Delia Kuhn and Ferdinand Kuhn, Eds. Vanguard, New York, 1963. xiv + 272 pp. Illus. \$3.95.

In 1951, because of his concern with apparent deterioration in the morale and in the public image of employees of the U.S. Civil Service and the U.S. Foreign Service, John D. Rockefeller, III, was instrumental in the establishment at Princeton University of the program known as Rockefeller Public Service Awards. This original program was essentially a fellowship program, and under it, with funds of nearly a million dollars contributed by Rockefeller, from 1952 to 1960, 79 outstanding federal careerists were enabled to take sabbatical leave for advanced study or research at a university or in some comparable educational activity. The program was entirely successful: it gave widespread public recognition to the fact that the award winners were representative of the many highly competent and dedicated federal career workers, and it demonstrated the need and desire of many of these careerists for further education to increase their capabilities. Much of the purpose of the original program was accomplished with the Government Employees Training Act of