

*Introduction to Ecological Biochemistry*

by J. B. Harborne

Academic Press; London, New York, San Francisco, 1977

xiv + 243 pages. £7.00; \$13.65

Biochemical ecology (chemical ecology or phytochemical ecology) was born of an awareness by ecologists that chemical compounds do play a significant rôle in the complex interaction between living organisms, and the ability of chemists, using modern analytical techniques, to identify such compounds. The possibility that this knowledge might be applied in the control of insect pests and microbial diseases in crops, and also in the conservation of natural communities, has contributed to the rapid advances made in this field in the past decade and to the establishment of biochemical ecology as a new interdisciplinary subject.

This timely review of major developments in the field is based on a course given by the author to undergraduates in the biological sciences but is aimed at a wide readership. It covers the biochemical aspects of the adaptation of plants to their environment, their response to attack by micro-organisms, plant pollination, insect and mammalian pheromones, hormonal interaction between plants and animals, the effect of plant toxins on animals and the interaction between

higher plants. Secondary plant compounds already implicated in these interactions include terpenes, alkaloids, cyanogenic glycosides, glucosinolates, flavonoids, non-protein amino acids, cardiac glycosides, steroids, phenols and quinones. The elegant and varied biosynthetic capabilities of living organisms and the undoubted antiquity of the finely balanced chemical interactions between them contrast sharply with the recent arrival of man on the evolutionary scene and his clumsy attempts to influence his environment by chemical means.

The great merit of this review is that the reader is left as much intrigued by what clearly remains to be discovered as by the fascinating results of completed work. Nonetheless it remains a work crammed with well-presented hard facts in an infinitely readable form and will be read with profit by workers with varied scientific backgrounds, a tribute to the literary and editorial skills of the author.

L. Fellows

*Cell Biology: A molecular approach (second edition)*

by Robert D. Dyson

Allyn and Bacon; Boston, London, Sydney, Toronto, 1978

xviii + 616 pages. £7.95

There seems to be a small forest of books titled 'Cell Biology' and as a consequence intending readers may all too easily fail to see the particular tree which could provide the timber that would best furnish their minds. The first edition of this book, published only 4 years ago, provided a tree clearly of greater

stature than any other since the forest was first planted. Nevertheless this tree like nearly all others in the wood has grown lop-sided.

Cell biology is still a discipline youthful enough for everyone to be a little uncertain of its limits. I feel that it has two important branches: first, the struc-