Book reviews

An Introduction to Marine Ecology

As a university teacher, I am often asked to recommend a single marine ecology and/or biology text to students. The problem is that, in most cases, no one book covers the great variety of topics, which together make up your specific undergraduate course in marine ecology and/or biology. When recommending textbooks, there is often a compromise decision to make between the depth and breadth of the coverage. Since it was first published in 1982, however, I have had no hesitation of recommending ‘An Introduction to Marine Ecology’ as a foundation text for marine biology students. It is an authoritative introduction to the marine environment, written by two eminent marine ecologists with great ability to distil the often complex results presented in scientific papers into a lively and readily understood undergraduate text. The coverage of topics, and the geographical range of examples, is comprehensive and impressive. The majority of subjects that form the core of most courses in marine ecology are covered, certainly in sufficient detail to stimulate interest and further reading. As a result of its early success, it was revised in 1988 and is now a well-established undergraduate textbook. It is very pleasing to see that the authors have not rested on their laurels in this 1999 ‘revision’ but have aimed to produce a new book ‘inheriting parental characteristics while offering the freshness of a new generation’. To achieve this end, the two original authors have enlisted the help of three specialists to enhance the coverage of fisheries (John Field), ecosystem functioning (Dan Baird), and human interference and conservation (Michael Kaiser). A new size and format (double-column text) have improved greatly the use of space, making this edition much more attractive than the earlier editions. The inclusion of several new figures (and the removal of some poor line drawings from the earlier editions), improvement of the quality and number of half-tone photographs and the use of colour plates, for the first time, further enhance this new edition. Indeed, all the drawings, with one or two rare exceptions, have been redrawn to a much higher standard than in the earlier editions. This is also more effective use of the half-tone photographs in this new text which, together with a better quality of paper, gives much improved definition to these photographs. The general structure of the book remains the same with identical chapter headings as found in the other editions. The material however has been updated and enhanced by the three new contributors. Thus, the following topics are included: The nature and global distribution of marine organisms, habitats and productivi-
Phycology

The third edition of this well-known text enters an increasingly crowded marketplace of books which provide a more or less detailed account of the algae from a primarily taxonomic and morphological perspective. Thus, in addition to the second edition of Bold and Wynne (1985), there is the more recent very detailed account of van den Hoek et al. (1995) from the same publisher as the present volume.

This third edition of Lee’s text follows the format of the earlier editions. There is an introductory chapter (Part I) followed by chapters devoted to the prokaryotic algae (Part II) and the evolution of the chloroplast and one chapter each for the Chlorophyta and the Rhodophyta, i.e. the algae with no enveloping membranes other than the two ‘normal’ plastid envelope membranes, and which are thus presumed to have arisen directly by endosymbiosis of a cyanobacterial cell (Part III). The rest of the book deals with algae whose plastids are derived from secondary endosymbioses of green or red algal cells with phylogenetically diverse phagotrophs. Part IV has chapters on the algae with a single membrane of chloroplast endoplasmic reticulum (Euglenophyta, Dinophyta), while Part V has 11 chapters on the algae with two chloroplast endoplasmic reticulum membranes. This includes a chapter each on the Cryptophyta and Prymnesiophyta (now, typification notwithstanding, frequently referred to once more as the Haptophyta), and...