

The Geology of New Zealand does not provide an easy introduction to the region and it will undoubtedly be used mainly for reference. However, publication of the volumes is certainly a milestone for geological research in New Zealand. They will provide a firm foundation for future research and should also be of great value

to all geologists concerned with the south-west Pacific, indeed to all those whose special interest is Mesozoic and Cenozoic geology. The chapters dealing with the history of these relatively younger rock sequences indicate how much New Zealand has to offer in such studies.

In all, this is an outstanding work. It is a

tribute not only to the editors and authors, but also to the strength and enthusiasm of the New Zealand Geological Survey. □

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Chemistry of steroids and peptides

J. S. Morley

Steroids and Peptides: Selected Chemical Aspects for Biology, Biochemistry, and Medicine. By J.B. Dence. Pp. 418. (Wiley-Interscience: 1980.) £20.85, \$47.50.

THE commendable general purpose of the author is to present the background of steroid and peptide chemistry to research workers in biology, biochemistry and medicine. Of the various classes of naturally occurring compounds, steroids and peptides are arbitrarily chosen for discussion (future volumes may deal with carbohydrates, lipids and nucleotides). They are discussed separately in introductory chapters, and in chapters on synthesis and chemical properties.

The opening articles will be the most

useful in that they deal with matters (occurrence, structure, nomenclature, physical properties and physiologically active species) of general interest to workers in other disciplines. The introduction to steroids is particularly well written. Even a modest background in chemistry should suffice to understand the clear accounts of seemingly complex topics — conformation, configuration, sequence rules, IR and UV spectroscopy, Woodward-Fieser rules and chirality, for example. Peptides are treated less well, and one is left with the impression that the author's experience of the field is drawn mainly from reading; perhaps this explains the often strange choice of examples. Nevertheless, basic information is well presented, and there is a useful summary of nomenclature rules (blatantly violated in later parts of the book!)

The chapter on steroid synthesis contains useful summaries of biosynthesis and steroid conjugates, but that on peptide synthesis may mislead rather than inform. There is, for example, no mention of protecting groups for C-terminal carboxy, and commonly used techniques are inadequately covered because of over-emphasis on newer, as yet unproven

methodology. It is unfortunate that coupling methods are illustrated by reference to an unsatisfactory synthesis of the L,D,L-isomer of thyroliberin; the methods involved, in contrast to those used in a later synthesis, lead to a partly racemic product. If a reader ever "should find himself in a situation where he must synthesise a peptide" he would be well advised to refer to one of the many specialist reviews of peptide synthesis rather than to this chapter.

The discussion of chemical properties cover oxidation, reduction, substitution reactions, derivatization and microbial transformations (steroids), and modifications at the N- and C-terminus and side-chain groups (peptides).

Returning to the aim of the book, the author has, I believe, wrongly assessed the needs of non-chemical research workers. If he had devoted more space to the topics discussed in the introductory chapters, and omitted or curtailed coverage of chemical synthesis, his book could have been more strongly recommended. □

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Pennant would be proud

C. M. Yonge

British Crabs. By R.W. Ingle. Pp.222 (British Museum (Natural History)/Oxford University Press: 1980.) £16.

WHEN the decapod crustaceans learnt to tuck an increasingly reduced abdomen under a laterally expanding cephalothorax, the crabs had arrived. The well-enclosed gills permitted exploitation of intertidal and, in warmer lands, of terrestrial environments. The lateral scuttling movement proved ideal for seeking widely dispersed food and for insinuation within protective shelter.

Thomas Pennant separated these "crustaceous animals" from the insects where Linnaeus had placed them, and the fourth volume of his *British Zoology* (1777) contains figures of our commoner species. These include the male and female of the Long-clawed Crab, *Corystes cassivelaunus* (Pennant), here reproduced

to form a highly suitable frontispiece to a book representing the culmination of later studies initiated by William Elford Leach in his *Malacostraca Podophthalmata Britanniae* (1815-1820; completed by C. B. Sowerby in 1875).

Although less numerous here than in the tropics, there are 67 British crabs. Their long-needed modern description has now been admirably supplied in this authoritative book by Dr R. W. Ingle of the British Museum (Natural History). Initial accounts of early work on geographical and bathymetric distribution, and descriptions of external anatomy illustrated with accomplished line drawings, precede full systematic and descriptive information about all species. This is followed by 34 plates carrying double that number of extremely clear photographs. An exhaustive reference list completes a volume which will be welcomed by all marine biologists. It is a credit alike to author and to publisher, and a notable addition to works on carcinology. □

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