scientists and 60% zoo directors, curators and veterinarians (a surprisingly low academic representation for a journal that is "first and foremost a scientific publication"). To date most of the contributors are also from North America but it is to be hoped more papers from other continents will appear in future issues.

The journal is, by definition, multidisciplinary and therein lies my main concern. The initial editorial welcomes papers on conservation, demographics, education, genetics, husbandry, physiology, medicine, reproduction, training and all empirical aspects of exhibition and management — all worthy pursuits but difficult to compile in a single journal. Many of the best scientific studies on 'Zoo animals' appear in specialist journals and I fear that unless the scope of the journal is reduced, this will continue to be the case. So far most articles have been of a reasonably high standard, but the journal certainly should leave out architecture, human psychology and demographics and stick to animals.

Zoo Biology is nevertheless an interesting new journal with wide appeal to all concerned with zoo activities and basic zoology. I hope it is successful but suggest that science, rather than zoo appeal will ultimately determine its future. □

J.K. Hodges is a Research Fellow at the Institute of Zoology, Regent's Park, London.

Maintaining the catch

D.H. Cushing

Fisheries Research.
Editor-in-Chief G.L. Kesteven.
Elsevier. 4/yr. Fl181, $69.60.

THE scope of *Fisheries Research* is broad; it is aimed at an international readership of fishery biologists, gear technologists, naval architects, economists, administrators and legislators. However, in the first four issues I found five out of 22 papers of distinct interest which is quite a high rate. The figures and tables are clearly presented and the first volume also contained 16 very useful book reviews.

The success of a journal partly depends on the editor and his referees. Dr Kesteven, the editor, has a long and broad experience of fisheries and has contributed editorials and two book reviews which I read with pleasure. The Editorial Advisory Board appears to have a broad coverage and each of the papers is succinct and clear which means that the referees have done their job.

In the field of fisheries there are many national journals, some merely of record and others of high standard such as *Fishery Bulletin* and the *Canadian Journal of Aquatic Sciences*. The *Journal du Conseil* is an international journal and this newcomer a welcome addition. There is a need for a journal on the problems of stock assessment because many new ideas have arisen in the structure of stock management as coastal states have now become responsible for fish stocks within an international scientific environment. There is also a need for a journal of fishery biology, a vehicle for papers on migration, population stabilization, growth and predation.

Unfortunately, I believe that the scope of *Fisheries Research* is too broad at present to cover all these areas successfully because the disciplines of engineers and economists are too far from those of fishery biology and of stock assessment. □

D.H. Cushing is a retired fisheries biologist interested in fisheries science and stock assessment.

Coral constructs

Maurice Yonge

Coral Reefs: Journal of the International Society for Reef Studies.
Co-ordinating editor D.R. Stoddart.
Springer-Verlag. 4/yr. DM128, $50.80.

DESPITE the obvious need for restraint in production of new scientific journals, this product of the International Society for Coral Reef Research and Springer-Verlag is fully justified. The study of coral reefs, so amazingly abundant in the Indo-West Pacific and in the Caribbean, has been almost completely separate from that of general oceanography. Indeed a comprehensive book on oceanography produced some years ago largely by members of staff of the Institute of Oceanographic Sciences contains no section dealing with reefs.

Relevant knowledge begins in the eighteenth century with the discovery that corals are not 'zoophytes' but undoubted animals and this was followed early in the next century with the significant revelation that reef-building corals, now termed hermatypes, are confined to shallow tropical seas. This restriction came later to be associated with the presence of symbiotic unicellular plants, the zooxanthellae which are absent in the ahermatypic corals of deep and cold waters.

Interest was sustained by expeditions, largely concerned with the origin of atolls. Darwin claimed they resulted from subsidence, before he even left South America and saw a reef whereas Murray claimed they arose by elevation, after studying bottom deposits during the *Challenger* expedition. But solution of this problem, attempted by boring on Funafuti atoll in the 1890s, was to be delayed until the atom bomb tests at Bikini and Eniwetok 50 years later with the underlying volcanic rock encountered 4,000 feet below. Darwin has been proved correct.