and will be a useful addition to technical libraries. Certainly anyone faced with the prospect of searching the patent literature on nitrogen oxides removal will be extremely grateful for its publication.

The book is indexed under inventor, company and U.S. patent number but the detailed table of contents is rather inadequate as a subject index for a book containing so much information. The small print size makes reading large sections of the book tiring but the standard of reproduction and binding is generally good.

C.J. JONES
S. WARING

Ecological Aspects of Used-Water Treatment, Vol. 1: The organisms and their ecology, edited by C.R. Curds and H.A. Hawkes, Academic Press, London, £ 12.50.

This volume presents a series of accounts concerning the general biology and ecology of the plant and animal life inhabiting various waste water biological treatment systems.

A great need is served in collating an extensive amount of material from very diverse sources. Few people can be familiar with all the groups considered in this volume which offers both a specialised and a comprehensive coverage of the organisms encountered.

In Chapter 1, the role of aerobic bacteria is discussed. Ecological methods are considered, pointing out the difficulties of drawing firm conclusions particularly from cultural studies. The ecology of the various aerobic sewage treatment processes is considered but it is disappointing to find very little consideration given to the effects of toxic industrial wastes on the bacterial population.

Chapter 2 on anaerobic bacteria distinguishes between the stages of polymer hydrolysis, acid formation, and methane production. Names of the species involved are scattered throughout the text and not drawn into a table. Again, as in Chapter 1, there is scant reference to any effects of industrial wastes on the organisms in anaerobic digestion.

Chapter 3 considers the role of fungi and their occurrence in the various sewage treatment processes. Cultivation methods and physiological studies are included together with comprehensive notes on named species. Detergent effects on fungal growth rates are recorded together with the effects of acid plating wastes in a percolating filter.

The 4th chapter on Algae and Bryophytes draws mainly on data obtained from habitats other than waste water treatment systems. A considerable