

tiful and varied anywhere. Its variety of landforms, wildlife and human activities form an integral part of both its history and its present. The threat from industrial development and marine pollution is now so severe that future generations may not be able to use the coast for recreation, or for food. The heritage will have been destroyed.

Greenpeace produced this book following a survey of the British coast carried out by its survey vessel, *Beluga*, during 1986. During a research voyage from London to Penzance via the Caledonian Canal, the substances being discharged and dumped in the coastal waters were assessed and quantified, particular attention being given to the possible effects of heavy metals and persistent organic compounds. The overall findings are summarised in some 13 pages towards the end of the book. Despite the lack of data or forecasts, this is a book to read.

The coastline is presented in 14 sections, each prefaced by a photograph of an outstanding scenic location and a contribution from well-known personalities including the Poet Laureate, Ted Hughes, John Fowles and Hammond Innes. All have a personal link with the coast and express their concern for the way in which it is changing. They provide a fine anthology of popular expressions of environmental concern. The main part of each section describes its features, history and problems, accompanied by a collection of colour photographs which emphasize the message of beauty and variety. Marginal notes and sketches pinpoint important or threatened species. Each section concludes with a one-page regional summary which provides a profile of physical, human and natural features and lists causes for concern. There are also five photo-essays on such themes as food from the sea and coastal pleasures. There is one small criticism. The final map on page 195 entitled "Britain's Coast Heritage" does not include the designated Heritage Coasts and the sites marked by small circles are not shown in the key. Greenpeace has produced an attractive coffee-table description of Britain's coastal heritage.

Readers, however casual, will be left in no doubt of the beauty and variety of the British coast. The message that it is threatened pervades each section. However, the extent and intensity of the stresses upon all organisms

which inhabit or depend upon the coastal waters is not put forcibly. The authors have a difficult task, for while the beauty of the coastal landscape and its wildlife is visible the problems of its aquatic ecosystems are not visible, apart from the most obvious sewage or industrial pollution. Many of the measures which have been adopted to clean up rivers or beaches have transferred the problem elsewhere.

In summary, this book confirmed my love of the British coast, but didn't leave me feeling as uncomfortable about the threats as perhaps it should.

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Biological Surveys of Estuaries and Coasts, edited by J. M. Baker and W. J. Wolff, 1987. Cambridge University Press, Cambridge. 449p. \$40.00 (hardcover), \$15.00 (paperback). ISBNs 0-521-32407-6 (hardcover), 0-52131191-8 (paperback).

Environmental Impact Assessments (EIAs) are becoming increasingly *de rigueur* throughout the world as developments encroach on ever-shrinking natural resources. This even applies in some countries where they are not yet required by law. Consultants contracted to perform EIAs in, or on the margins of marine and estuarine systems may easily find themselves in unfamiliar surroundings, uncertain of what techniques to use even if their theoretical background is adequate.

Biological Surveys of Estuaries and Coasts has been issued by the Estuarine and Brackish-Water Sciences Association to fill this gap, while also acting as a valuable sourcebook for students, and indeed anyone wishing to undertake surveys and studies in marine and estuarine environments. The coverage is comprehensive and includes chapters on planning, remote sensing, salt marshes, biota of intertidal and subtidal sediments, processing sediment macro-

fauna samples, meiofauna, intertidal and subtidal rock, bacteria and fungi, plankton, fish, birds, identification, and safety. It is the product of eighteen contributors, all but two from Britain.

The various authors have clearly made use of their personal experience as they meticulously point out limitations, mistakes and pitfalls that may beset the survey techniques. While this is a refreshing change from more glib and superficial accounts that make everything seem easy, the result unfortunately does not make for very inspiring reading.

The book is painstakingly comprehensive but confines itself largely to the British and European literature. This self-imposed geographical limitation was obviously necessary in order to keep the book to a manageable size, but as a result some useful techniques have been missed. Thus, the use of side-scan sonar for mapping nearshore topography is omitted. Also not mentioned is McLachlan's (1980) exposure-rating system for sandy beaches, which remains the only one of its kind. I was also disappointed not to find any discussion of survey methods for coastal sand dunes.

This, however, does not deny the value of this book, to be welcomed by environmental consultants, teachers and students alike. Perhaps of even greater importance is that it should be acquired and read by those government agencies who have to judge the value of Environmental Impact Assessments they have commissioned.

Reference

McLachlan, A. 1980. The definition of sandy beaches in relation to exposure: a simple rating system. *South African Journal of Science*. 76, 137-138.

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Impact of Sea-level Rise on Society, edited by Herman G. Wind, 1987. A. A. Balkema, Rotterdam, 191p. \$50.00 (£28.50), ISBN 90-6191-8767.

It is increasingly widely accepted that global sea level is rising, and that it will rise 0.5-2.0m

in the next 100 years. This volume, *Impact of Sea Level Rise on Society*, indicates that the principal impacts will be through the loss of land with accelerated coastal erosion, increased flooding and storm damage, and through salt water intrusion (up rivers) and seepage. It examines 3 alternatives: (i) prevent further sea-level rise (not possible in the short term), (ii) set up or upgrade coastal defences, or (iii) move people and property away from endangered areas.

The book is the outcome of an ISOS (impact of sea level rise on society) Workshop held at Delft in the Netherlands in 1986. It has 3 parts, (i) framework, a synthesis of contributions from workshop participants, (ii) outline of participants' contributions, and (iii) an addendum comprising each of the contributions in full. It brings together a wealth of information particularly from the Netherlands, a nation with a long tradition of 'battling the sea.' However, I found this layout unnecessarily repetitive.

The contributions with the widest application are a review of the causes and effects of sea-level rise by J. G. Titus, and a synopsis of the consequences of relative sea-level rise in the Mississippi Delta by J. W. Day. Both are useful accounts, though most of their material is readily available elsewhere in the sea-level literature. The majority of contributions concern the Netherlands. They range from socio-economic to ecological to engineering in perspective and in conjunction with the framework synthesis they give an insight into Dutch response to sea-level rise. I found the accounts of flood protection and water management particularly enlightening.

A major part of the book (more than 50 pages) is devoted to policy analysis. Policy analysis is a 'systematic process with which to identify, analyze and evaluate alternative options for solving a policy problem' (p. 22). A computational model (ISOS model) is proposed which will indicate to decision makers the relative merits of alternative management strategies. A scaled-down version of this model, applied to the Dutch coast, was run at the workshop and selected results are shown in the book. Different scenarios of sea-level change, economic/capital growth, population growth and social discount rate are input into the model, alternative protective measures can be costed in, and