

thoughtful article, criticises such 'whole system' models, on the grounds that they tend to expand indefinitely as new research identifies further controlling or important ecosystem components. The second section is on 'Degradation of Land and Freshwater Ecosystems', both from a historical standpoint, using pollen analysis (E.W. Dimbleby), and using more recent examples. It makes somewhat depressing reading.

The meat of the volume lies in Section III, on the Restoration of Degraded Ecosystems. The importance of soil conservation and the restoration of soil fertility are stressed by several contributors, and there are four papers on problems, particularly of acidification, in fresh waters. Finally several writers consider the interface between ecology and planning.

Advances in science are now so rapid that individuals cannot keep pace, so that the day when one person could bring together a mass of information coherently seems to be passing. After reading much of these 500 pages I feel stimulated by many individual points, but I do not see any clear message emerging. The final discussion, again reported verbatim, is somewhat aphoristic and suggests that the participants may have shared my feeling. I turned to the final conclusions by M.W. Holdgate, hopefully, but found more a summary of the points already presented in the papers. This book is a useful source for much information on particular instances of ecosystem degradation and restoration, but it is not a definitive treatment.

ALASTAIR FITTER

The Terrestrial Ecology of Aldabra, edited by D.R. Stoddart and T.S. Westoll. Royal Society, £21 (incl. p&p).

The Ephemeral Islands: a Natural History of the Bahamas, by David G. Campbell. Macmillan, £5.

Aldabra was first a *cause célèbre* of island conservation in 1874 when Darwin and other eminent scientists petitioned the Governor of Mauritius (then in charge) to protect the giant tortoises. Over the next century the atoll did little more than occasionally ripple scientific consciences, until the British Government's plan in the middle 1960s to build an airfield catapulted the Royal Society into first a major biological expedition, and then, the airfield abandoned, into a long-term study of the island's ecology. This is the second book arising out of recent interest in the island, the other being Tony Beamish's popular account published in 1970, and there has been a wealth of scientific papers. Two major symposia have been held by the Royal Society, and this book, reprinted from the *Philosophical Transactions*, is the published proceedings of the second of these, held in March 1977. It is not, as implied by the title, a complete review of the island's ecology. Many of the papers are useful reviews of aspects of the climate, geology and biology, the tortoises coming off best, but there is no synthesis, and nothing, for instance, on lizards, bats, snails, or the few introduced animals (rats, cats, pigs) which affect the otherwise virgin ecosystem. For the general reader Beamish's is still the only useful book on the island, but Aldabra connoisseurs and other students of island ecology will certainly need to consult this substantial addition to an already bulging portfolio of publications on the atoll.

The Ephemeral Islands is a very different kind of book, written by a biologist and conservationist with 25 years experience in the Bahamas as an introduction to the wildlife, plant and animal, of these Caribbean islands. David Campbell deftly covers a lot of ground in a short, well-illustrated book, with enough detail to satisfy not only the Bahamian public and tourists, but also the enquiries of an island biologist exploring a new area, who will find the bibliography and index invaluable as well.

Campbell briefly laments the total loss of the Caribbean monk seal and describes what has survived. With so many islands most of the fauna have been able to hang on somewhere or other, though the endemic hutia is confined to a 1000-acre islet, certain lizards likewise, and the formerly widespread whistling ducks, parrots, pigeons and flamingos now have drastically reduced ranges. Unwise introductions, as usual, are

rife, and still coming in.

The most telling lesson in the book is the story of the unique ocean hole fish *Lucifuga apeliacotes*. This fish can only live in the lenses of fresh water perched on tidal upwellings of salt water in sink holes connected to the sea through eroded limestone. The ecological balance is so delicate that the very discovery of the fish sealed its death warrant. The action of scuba divers exploring the sink holes stirred up the water to such an extent that by 1977 the fish was extinct in all but one hole (with 70 fish), only nine years after it was first found.

A.S. CHEKE

Truelove Lowland, Devon Island, Canada: A High Arctic Ecosystem, edited by L.C. Bliss. University of Alberta Press, \$21 (incl. p&p).

This is a remarkable publication, for which its editor deserves unstinted praise. Under the banner of the International Biological Programme he planned and directed a set of 33 integrated research projects, to analyse the dynamics of a high arctic ecosystem. Dr Bliss is professor of botany at the University of Alberta and a lifelong arctic ecologist. He collected a team of young enthusiasts, largely graduate students and post-doctoral fellows, together with the enormous sum of \$1.4m. (from government, oil companies and other donors) that was needed to support them in the field from 1970 to 1974. Aided by a few senior people, he worked with every group, keeping them in mutual touch, helping them to achieve targets and finally get their work written up. The 37 papers and 8 appendices occupy 714 pages. Many present pioneer results that are too technical for easy reading, but all are lucidly synthesised at the end, especially by Bliss himself, D.W.W. Whitfield, J.K. Ryan and R.R. Riewe.

Truelove Lowland is a lush 44-sq-km oasis in the vast desert and semi-desert of the Canadian polar archipelago. It is on the north coast of Devon Island at 75½°N and is the main feeding ground of a herd of 250 muskoxen. Such enclaves form only one per cent of the country but they support virtually the whole of the terrestrial flora and fauna. In the Arctic today commercial development can happen suddenly almost anywhere, and that enormously increases the timeliness of what is, in effect, a circumpolar guide to conservation management.

V.C. WYNNE-EDWARDS

Seal Cull, by John Lister Kaye. Penguin, 95p.

Let the Seals Live, by Sue Flint. Thule Press, £5.95.

The grey seal controversy which erupted in October 1978 and has become one of the most important conservation issues of the decade deserved a comprehensive and impartial account. *Seal Cull* is neither. It omits entirely the report of the Council for Nature's Grey Seal Group, set up in the wake of the aborted seal kill – the book was compiled before this scientific evidence was available – and relies heavily on the opinions of the 'fisheries lobby' (which the Council for Nature Grey Seals Group found difficult to locate in any organised form despite thorough investigation). What should have been emphasised to counter-balance the often muddled and conflicting official government statements are the fundamental reasons for the decline in fish stocks, i.e. overfishing by man, *not* the effects of grey seals on remaining stocks. The Government could equally blame puffins and gulls for taking fish from the mouths of men. What the author and the bureaucrats fail to realise is that most people would rather pay slightly more for their fish while leaving the grey seals unscathed until more adequate research reveals their real effects, if any, on fisheries.

One of the remarkable aspects of the grey seal controversy was the public's overwhelming reaction against the proposed killing of 900 adult breeding females and their associated pups and 4000 moulted pups in Orkney and North Rona. Nowhere was feeling as high as in the Orkneys, where the local people formed a group called 'Selkie'