SOVIET STUDIES OF THE EURASIAN TUNDRA

THE LIVING TUNDRA. Chernov, J. I. 1985. Translated by D. Löve. Cambridge, Cambridge University Press. (Studies in Polar Research.) 213 p, illustrated, hard cover. ISBN 0 521 25393. £27.50.

This second volume in the Studies in Polar Research series is a translation by D. Löve of a work first published in Russian in 1980. It deals broadly with inter-relationships between plants and animals of the Eurasian Tundra and the physical components of their environment. The author is a distinguished Soviet entomologist whose studies in many of the world's major biomes enable him to set his favourite tundra ecosystem in its global context.

Early chapters emphasize that climate varies widely with latitude in the Russian northlands, resulting in a considerable diversity of environments and biotic communities. The Soviet approach to the recognition of vegetation zones within the Arctic is outlined, thus facilitating comparison with the contrasting systems employed in the West. The differences have their origin in part in climate, for, as Chernov emphasizes, the Eurasian tundra exists under relatively oceanic conditions and lacks the extensive areas of arid terrain so characteristic of the North American high Arctic. Conversely, we learn that humid areas, where low summer temperatures seem primarily responsible for restricting the plant cover to open, largely cryptogamic communities, are more extensive in the Soviet than in the American north.

Other chapters are devoted to snow cover and its influence on the biota, to biogeography (emphasizing the influence of historical factors on the current ranges of plant and animal species), and to adaptations of living organisms for the rigours of Arctic environments, the importance of pre-adaptation in the relatively youthful flora and fauna being stressed. These are followed by a lengthy but largely qualitative account of trophic relationships in tundra communities, and a discussion of man's past and potential impact on the sensitive polar ecosystem in which pleas for conservation in the face of expanding human activity bear eloquent testimony to the author's real affection for the Arctic fauna.

The book thus covers many facets of an immensely wide subject. It does so in a modest 213 pages and is inevitably not a work of great depth. However, it provides a valuable insight into Russian thinking on Arctic ecology and a useful bibliography of the more important literature. The book is in general attractively presented, except that several of the numerous black and white photographs are poorly reproduced, and some are frankly deplorable. *The Living Tundra* will form a useful introduction to forthcoming, more specialised works on terrestrial biology in the Studies in Polar Research series. (R. E. Longton, Department of Botany, Plant Science Laboratories, University of Reading, Whiteknights, Reading RG6 2AS.)

THE SOUTHERN OCEANS

THE ANTARCTIC CIRCUMPOLAR OCEAN. Deacon, G. 1984. Cambridge, Cambridge University Press. 180 p, illustrated, hard cover. ISBN 0–521–25410–8. £15.00.

Oceanography is a young enough science for some of the giants who laid its foundations to be still alive. The world lost one of the greatest and best loved of these in November last year when Sir George Deacon died. Leader of the Discovery Committee expeditions of the 1930s to the Southern Ocean, and founding Director of the National Institute of Oceanography after the War, Deacon is best remembered as the man who established the framework of our present understanding of Antarctic oceanography in his classic 1933