

TERRESTRIAL LIFE OF ANTARCTICA. BY S. W. GREENE, J. L. GRESSITT, D. KOOB, G. A. LLANO, E. D. RUDOLPH, R. SINGER, W. C. STEERE, AND F. C. UGOLINI. *Antarctic Map Folio Series Number 5. New York: American Geographical Society, 1967. 11 x 17 inches, 24 pages of text and figures, + 11 double sized plates. \$7.50.*

The information which has accrued since the inauguration of the International Geophysical Year program in the Antarctic in 1957 must surely exceed all that had been available up until that time. The summarizing of such a large volume of data, culled from reports in many languages, has been performed in perhaps the most succinct manner possible in this series of folios by the American Geographical Society.

The maps, arranged on double sheets, form the substance of the folios, but the text and figures have in each case been prepared with great care to be as informative as possible. Folio 2, which deals with the physical characteristics of the Antarctic ice sheet, is the best example in the series, and permits specialist and non-specialist alike to gain a thorough background knowledge of the subject.

Folio 5 deals with the terrestrial biota which is found all year round on the antarctic continent and the more southern islands of the Scotia Arc. The 3 classes of living organisms whose distribution is described are the Cryptogamia (the all-important mosses and lichens, and the fungi, algae, and hepatics), the Arachnida, and the Insecta. The 2 species of flowering plants, confined to the northwestern coasts of the Antarctic Peninsula, are also included. This primary biota is the most diminutive continental flora and fauna in existence, for even arctic and alpine life zones do not contain such a scarcity of indigenous forms.

Biogeographical principles are well discussed and a most interesting section is devoted to ancient fossil floras, from the psilophytes of lower Devonian age (Horlick Formation) through the coal beds of Permian age in the Ohio Range to the scanty but important angiosperms of the Tertiary floras from Hope Bay and McMurdo Sound. The so-called Gondwana deposits of the Permian, which contain abundant remains of *Glossopteris* and related species, are persuasive evidence of a migration of ancient continents or of the pole itself.

Zoogeographical relationships are unfortunately difficult to establish owing to some taxonomic uncertainties, great endemicity of species, and a fragmentary and rare fossil

record, but at least the lines of future work in this field have been pointed out. Researchers could ask for little more.

A. W. Mansfield

CO-OPERATIVES: NOTES FOR A BASIC INFORMATION COURSE. BY ALEXANDERS SPRUDZS. *Ottawa: Canadian Research Centre for Anthropology, St. Paul University, 1966. 6 x 9 inches, 60 pages. \$1.00.*

It hardly seems worth noting that another handbook on co-operatives has recently been published. Last night, for example, I received such a handbook from the Cambridge District Co-operative Society (which has been in business for 100 years) instructing me as a new member in the principles of co-operatives, and informing me of the operations of this particular society and of opportunities for maximizing the benefits of membership. A comparative reading of the two handbooks, however, was instructive. The message is identical, but it is obvious that one is directed to middle class English workers and the other to Canadian Eskimos. It is this difference which makes the handbook by Sprudz worthy of special note in this publication.

Glancing over the table of contents and skimming the text gives the impression of a comprehensive how-to-do-it manual complete with sample forms and meeting agenda. A more careful reading of the text reveals that the author has done much more than this. The language is simple and the manner in which it is used reflects the thought patterns of Eskimos, without being childish or a pidgin-English parody. The discussion recognizes that our commonplaces are unusual or unknown to the Eskimo, and the patient explanation of these commonplaces can be refreshing to those of us for whom they have ceased to have meaning.

This publication is announced as the first in a new series of "Handbooks for Developing Peoples." As indicated in the subtitle, it is based on the notes for a Co-operative Information Course for Eskimos held at Churchill, Manitoba, in February 1966. It can be read with great benefit as an attempt to communicate with what the introduction calls "traditional peoples in transition" via the English language and the printed word.

George W. Rogers