

GLACIOLOGICAL RESEARCH ON THE NORTH ATLANTIC COASTS.

By HANS W:SON AHLMANN. Royal Geographical Society Research Series No. 1, London, 1948. 83 pp. Maps, diagrams, graphs, tables, index.

Professor Ahlmann points out in his introduction to "*Glaciological Research on the North Atlantic Coasts*", that it was impossible to standardize the publications of the various research teams which have carried out glaciological research under his guidance. It was because of this that he "decided to complete a critical and uniform summary of what I considered to be the most important results of our twenty-two years' labour in the hope that it might benefit future research". The present report is a critical study of the behaviour of glaciers: it contains the essence of the previous research papers. It is a search for a "closer understanding of glaciers and the laws governing their behaviour".

Professor Ahlmann deals with six areas that encircle the North Atlantic from Norway to Greenland, the number of sites being limited only by time, finance and other practical considerations. Care was given to the selection of areas which included Jotunheim, the largest alpine area in Norway; the Kårsa Glacier is the only glacier in Sweden that has been examined periodically since the beginning of the century; the ice sheets of North East Land, the typical valley glacier in West Spitsbergen, the Vatnajökull (Iceland) a glacier cap covering a mountainous area, and Clavering Island which has an arctic-continental climate. The physical phenomena associated with each glacier are treated separately under the

major chapter headings of Accumulation, Ablation, Firn and Glaciation Limits, Regime, Rate of Movement and Classification. Each chapter begins with a clear definition of the scientific term, to be followed by the methods employed in securing information and an analysis of the physical phenomena associated with each of the processes in the life of a glacier. Maps and graphs are excellently employed to illuminate the technical discussion. Chapter IX on "Variations of Glacier Margins and Volumes, and the Causes of such Variations" is likely to be of particular interest to the non-technical reader in search of information on the much-discussed topic of climate variation in the recent past. It is pointed out that "the glaciers in Iceland were far less extensive . . . [during] A.D. 870-1264 than they were at the beginning of the 1930's. The present recession of the glaciers has now proceeded so far that districts cultivated by the Free State (A.D. 870-1264) farmers are again exposed, after having underlain ice for six hundred years".

Professor Ahlmann ends the summary of his results by noting that "The investigations refer for the most part to regions round the northernmost part of the Atlantic . . . and it is not possible to decide on the extent to which these results can be applied outside the region investigated. The investigations are of such general value . . . that it may be considered desirable to extend them to other parts of the earth. . . . At the present rate of development in aviation it should not be difficult to establish and maintain stations on the ice areas".

W. A. BLACK.

NO PATHWAY HERE.

By JOHN H. MARSH. Hodder and Stoughton, London and Howard B. Timmins. Cape Town. 1948.

In January 1948 news began to leak into the world's press of the occupation of some small islands somewhere between South Africa and the Antarctic by South African naval forces. In the absence of more exact information, the writers necessarily used their imaginations as to

the whereabouts of the islands and the reasons for occupying them. *No Pathway Here* is an account of the undertaking, written by a journalist who travelled on one of the units of the expedition. It was published with remarkable speed, being off the press by May 1948, thus making available most of the details of the enterprise even while they were closely guarded secrets in some government files.

John H. Marsh has done a masterly job of describing the rush and bother that resulted when, shortly before Christmas 1947, H.M.S.S. *Transvaal* was ordered to sea on secret orders which, when later examined proved to require the occupation of Prince Edward Island and Marion Island. Before the vessel left, stores, buildings and personnel had been collected together hurriedly so that a permanent settlement could be established on the islands. Practically nothing was known about conditions on them, and as South Africa had not taken an active part in polar exploration, even the obtaining of suitable clothing and buildings was a major undertaking. It was found that the only chart available had been made by H.M.S. *Challenger* in 1873, under the command of Captain G. S. Nares. Students of polar history will note with interest that the work of Nares has come to the fore in 1948 both from the far south and the far north, reminding one of far-ranging exploration by the Royal Navy in the nineteenth century.

The main purpose of occupying the Prince Edward and Marion islands was to establish a weather station and to confirm the transfer of authority over them from the United Kingdom to South Africa. As the book describes so vividly, there were times when it looked as if any sort of a landing on the islands would be impossible, and even when the first party was put ashore, it seemed improbable that a permanent settlement could be achieved. There was a certain amount of musical comedy atmosphere about the undertaking since officials in South Africa were waiting anxiously for

news of the occupation of the islands while the H.M.S.S. *Transvaal* was tossing in violent seas, with waves of more than 25 feet and a wind of Beaufort scale 8. Eight days after leaving Cape Town a landing was finally made on Marion Island. Later, one landing was made on Prince Edward Island.

The terrain of the islands is high and rugged and there is much swamp, although grass exists and may be suitable for sheep raising. The fauna include King penguins, seals and sea lions, but insects appeared to be absent. The islands have long had the reputation of being "bleak, boisterous and foggy" and the experience of the South African expedition justified this description. There is every assurance that the staff of the meteorological station will face an interesting and stimulating time since violent changes in the weather appear usual.

The establishment of a first class meteorological station on Marion Island, in combination with the Australian stations on Heard and Macquarie Islands will help to close an important gap in our knowledge of ocean weather in the southern hemisphere. The Prince Edward Islands despite their difficult climate are not truly antarctic since they are in latitude 47° S, equivalent to that of Newfoundland in the northern hemisphere.

No Pathway Here is illustrated with many photographs taken by members of the expedition, including one showing its rather chilly personnel celebrating the annexation of the islands by drinking their Christmas champagne.

T.Ll.

TO THE ARCTIC.

The story of northern exploration from earliest times to the present. Jeannette Mirsky. Introduction by Vilhjalmur Stefansson. New York. Alfred A. Knopf. Toronto, The Ryerson Press. 1948. \$5.00.

To the Arctic! was first published in 1934 as *To the North!* but was withdrawn shortly after publication because of a threatened action for libel by the late Dr. Frederick A. Cook. The present

volume is a revision of the 1934 book, with material added to bring it down to the present day.

After a brief introductory discussion of arctic scenery and some of the reasons which have prompted men to explore the north, the author commences her long task by discussing the Greeks and Vikings. There follow accounts of pre-Columbian and post-Columbian attempts to reach Cathay, summaries of Dutch explorations in the Arctic and an