

FOREWORD

Few people have yet come to appreciate that the polar regions, which comprise about one-seventh of the total land surface of the globe, must inevitably assume a far greater importance in world affairs than they hold to-day. The estimated population of the world in 1953 is more than 2000 millions, and this figure is mounting steadily at a rate of over 20 millions a year. The constantly increasing need for more food and raw materials, coupled with the desire for higher standards of living, necessitate a full appraisal of the potential resources of all the undeveloped regions of the world, and not least of those about the Poles.

The superficial area of the globe is some 197 million square miles, of which 56 millions are land and 141 millions water. Nearly 6 million square miles, or about one-tenth of the total land surface, are ice-covered: an even greater area—perhaps altogether one-sixth of the whole—is characterized by a permanently frozen sub-soil. The development of these frozen lands must be speeded so that they, too, may play their essential part in meeting the bounding wants of mankind. The exploitation of the fisheries of polar seas is in no way less important.

During the last 200 years emigrant Europeans have opened hundreds of thousands of square miles for development in many parts of the world. This period of easy and rapid expansion is now near its end, because most of the remaining undeveloped regions defy accepted techniques. A fresh approach and new techniques are required and must be sought urgently by specialists with the full support of governments. It is upon the efforts of engineers, scientists and explorers that, henceforth, all must depend. The problems they now must solve present a stimulus to research which should be in no way less challenging or adventurous than the earlier phases of geographical enterprise which they now follow.

The announcement on 20 March 1953 by the Australian Minister for External Affairs that the Commonwealth Government will shortly send an expedition to the antarctic mainland is most welcome news.

The frontispiece is a portrait of N. A. Mackintosh. His notable work as Director of Research of the Discovery Investigations is widely known. He joined the Discovery Investigations in 1924 and his work with J. F. G. Wheeler and others at the Marine Biological Laboratory at Grytviken in South Georgia laid the foundation for the succeeding two decades of pioneer research in whales and their conservation. He also contributed to what is known of the plankton and other oceanographical conditions in southern waters. In 1936 Mackintosh succeeded S. Kemp as Director of Research. Although the Discovery Investigations have now been merged with the new National Institute of Oceanography, Mackintosh's pre-eminence in whale biology is recognized

by his chairmanship of the Scientific Committee of the International Whaling Commission. The Scott Polar Research Institute has long been fortunate in having him as a member of its Committee of Management.

The Foreword in the *Polar Record* for January 1945 noted the appointment of Miss Elizabeth Rought as Assistant to the Director. Miss Rought is now leaving to marry after eight years of loyal service during a period of marked expansion in the work and importance of the Institute. Miss Rought was first appointed during the directorship of Professor F. Debenham, the founder of the Institute: she continued throughout the three years' period of office of the Rev. W. L. S. Fleming, and leaves now in the fourth year of the present directorship. Many will wish to thank her for her unflinching courtesy and helpfulness, but none more so than the three Directors to whom she has been Assistant. Miss Rought is succeeded by Miss June Blomfield of St Hugh's College, Oxford.

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