

the weather over the land, as well as by the water bathing the shore-line, but they may still be valuable indicators. Using the general biological picture, the author has drawn a line of delimitation showing the east coast of Greenland, from about Angmagssalik, down to Kap Farvel and up the west coast to Kap York, to be subarctic. The east coast of Baffin Island lies in the marine arctic, and also the territory west of a line extending from the western tip of Foxe Peninsula diagonally across Hudson Strait to the west side of Ungava Bay. Hudson Bay itself is marked by a large question-mark. This line, while it will not satisfy everyone, appears to be a logical one for many arctic marine biologists and oceanographers.

As a summary of present knowledge of the area including the Labrador Sea, Davis Strait, Baffin Bay, Hudson Strait, and Hudson Bay, 'Eastern Arctic waters' is an essential reference work for all oceanographers and marine biologists with arctic interests.

WILLIAM G. METCALF

NORTH OF 55°.

Edited by CLIFFORD WILSON. *Toronto: The Ryerson Press, 1954. 9 x 6 inches; 190 pages; illustrations; maps and folding map. \$5.00.*

Four times a year for almost two decades Clifford Wilson has produced the magazine of the North, *The Beaver*. Every issue has been filled with authoritative and entertaining articles, and the illustrations have been uniformly superb. Circulating far outside the still circumscribed group of northerners it has done much to attract attention to the rapidly growing significance of the north.

'North of 55°', a volume in the Ryerson Travel Books, is a symposium on the Canadian Arctic and Subarctic by sixteen authors, all of whom are recognized authorities. Although each member of the team has followed his own plan, the hand of the editor shows in the unity of the volume. Following a useful introduction by the editor, who attempts to escape being called a northern expert, there are chapters covering the land surface, ex-

ploration, climate, native peoples, mammals, fur trading, fishing, flowers and forests, birds, cultivation, geology and mining, travel in the old days and now, administration, more particularly by the R.C.M.P., and finally defence. This stark list of topics fails to reflect the variety of treatment offered—as for example in the chapter on travel a generation ago by P. H. Godsell, and in Andrew Croft's on modern transportation including various over-snow vehicles.

The Northland is changing fast and any author can be excused for not being quite up-to-date. Dr. J. L. Robinson wisely based his discussion of the climate on a series of temperature and precipitation maps. Unfortunately for his discussion, new data have appeared since his maps were prepared, (see 'Climatological atlas of Canada' by M. K. Thomas), and quite radical revisions must be made in some of the established distributions, and explanations based on them. This chapter also shows some discrepancy between text and maps, as for example when we read that Hudson Bay is, in summer, "a large body of cold water" which has a "major influence" on the climate of the area, only to find the 50°F isotherm for July apparently crossing it undeviatingly.

A double-page map designed to show the contrast between the drainage patterns of the Precambrian Shield and the Interior Lowlands is also unsatisfactory. It is evidently a reproduction of information plotted on to the 8-mile sheets at the Defence Research Board and most readers will find that it does not show the intended contrast clearly. A difference in drainage pattern exists, but the change does not take place at the edge of the Precambrian Shield. Perhaps by selecting part of the map only, with suitable orientation and labelling, the story would be told more clearly. The editor has included sufficient maps to help the reader not familiar with the area. There is, for example, a good "physiographic diagram" type of map, which must have required considerable detailed work by cartographer P. G. Downes.

Some other and unknown cartographer has served the editor less happily, in executing a folding map intended, probably, to show place names. The map has no scale, much of the print is extremely small, and there seems to be a lack of system in the names shown. Thus Mould Bay finds a place but not Arctic Bay; Alert is marked but not Pangnirtung, and there is a railroad to Lynn Lake, but not to Churchill. Goldfields survives but not Mayo, and the Eastern Arctic is nameless except for the most recent weather stations. The coast of Greenland, less Disko Ø, is a stylized bit of wriggly fretwork. The inclusion of this folding map, which pulls out for use during reading, is an excellent idea, but the execution is lamentable.

The thirty pages of well chosen photographs are technically magnificent. Well known photographers who have contributed prints include Richard Harrington, George Hunter, and R. N. Hourde. Better known in other ways, but also skilled photographers, are A. E. Porsild, J. W. Anderson and L. A. Learmonth. The photograph by Geo. White of H.M.S. *Alert* caught in the ice of Robeson Channel in August 1876, while returning from the polar sea, is excellent. It might well be hung in every air station of the far north to illustrate the conditions under which arctic pioneers worked. Many chapters contain references to the scientific contributions of early expeditions, so that the reader of 'North of 55°' does not get the impression that "opening up the North" has been a postwar undertaking.

Perhaps the most illuminating chapter is that by Dean Grant MacEwen, entitled "Food from the soil". It has often been thought that the abundant bare rock of the Northland would eventually, if only by the law of averages, produce minerals of economic worth. What, until recently, has been less apparent is that in some areas the soil too can bring its rewards. In spite of work done at Fort Vermilion as early as 1886, when there were no railroads north of Calgary, the possibility of producing fresh food for local use throughout the Mackenzie

valley is still not generally recognized. Perhaps attention could be called to it by some University granting an honorary degree in Agriculture to Mr. Browning who has made a living by horticulture near Fort Simpson for the past thirty years!

In concluding this review of an excellent book, which deserves to be read widely, special mention should be made of the drawings of wildlife by Clarence Tillenius and Terence M. Shortt. Northern residents unskilled in such matters will be specially appreciative of the interest they add to life 'North of 55°'.

TREVOR LLOYD

THE NAVIGATOR'S POCKET ALMANAC, 1955, FOR AIR AND SEA NAVIGATION AND ASTRONOMICAL SURVEYING.

By PAUL E. WYLIE. *The Institute of Navigation, University of California, 1954. 9½ x 6½ inches; 22 pages; tables and diagrams.*

There are many almanacs current for one year, and almost all of them are large and bulky. The 'Air almanac', for example, covers one year in three editions, each valid for a four-month period. Mr. Wylie's pocket almanac, while current for one year, is small, very compact and well laid out, but still contains the essential information in a readily available form.

'The navigator's pocket almanac' is mainly for use in calculating the Greenwich Hour Angle, the declination of the sun, Venus, Mars, Jupiter, Saturn, and Aries, and in determining the approximate times of sunset and sunrise. A table of Sidereal Hour Angles and Declinations for navigation stars is also included. The hour angle for 00 00 hours for each Greenwich date is tabulated, and "Hourly difference" values are listed for both hour angle and declination; thus several calculations are required to determine the local hour angle and declination of a body for any given time.

The pocket almanac appears to be very suitable for sea navigation and for use by most land parties. However, in