

of surveyed sections, in addition to topographical features, and, in the case of the County series, often accurately show the boundaries of vegetation in early European times. Furthermore, in the absence of a complete coverage in the Topographical series (N.Z.M.S. No. 1), the Cadastral series provides the only adequate set of base maps. Apart from the topographical sketches, all the manuscript maps used in this project record the bush and swamp against a background of section boundaries at the time of the survey. The limiting lines of these sections thus provide the means by which the vegetation boundaries can be accurately transferred from the manuscript plans. The one inch to one mile maps of vegetation recorded on the Cadastral map series are not intended, however, to be a final depository. Both the County and Survey District series are being allowed to run out of stock, and it is not intended to reprint them. Instead, a new Cadastral map series (N.Z.M.S. No. 177) is being prepared, each sheet to coincide with the Topographical series (N.Z.M.S. No. 1). As this new series appears, the bush and swamp areas will be transferred to them, so that eventually a permanent depository will be available. In the meantime, the record of vegetation transferred to the Cadastral maps of the old County series is retained as an accurate record of the early vegetation in the Geography Department, University of Otago, Dunedin.

THE NATURE OF THE MAP SOURCES

Some 300 manuscript maps, filed by survey districts, are involved for coastal Otago. These fall into three types. The earliest maps are those compiled under the direction of C. H. Kettle as New Zealand Company surveyor during the years 1846–1847, and cover the greater part of the area within the original Otago Block: the Dunedin, Taieri, Tokomairiro and Clutha districts. Most of these are at a scale of twenty chains to one inch. The second group consists of topographical sketch maps or plans, one for almost every survey district, at a uniform scale of forty chains to one inch. Most of these were compiled between 1859 and 1861. The third group comprises the detailed survey plans for each block within each survey district, at a uniform scale of ten chains to one inch. Dates of compilation vary considerably from one district to another, and also within districts, but most were drawn during the decade 1860–1870.

With one or two exceptions among the ten chain to one inch series, the amount of vegetation data recorded on these manuscript maps is consistent throughout coastal Otago. In general, the recorded types are bush and swamp. There is reference to scrub in the Waitahuna Survey District, and in the Otokia S.D., but apart from this none of the maps gives any descriptive notes on the composition of the vegetation types. However, in order to validate the distribution of bush and swamp recorded on Figs. 1 and 2, it is necessary to comment at some length on the basic map sources, since each of the series mentioned above serves, in effect, as a check on the accuracy of the other.

In order to comment on the sources, coastal Otago has been divided into convenient areas (Fig. 3). For each area, the basic maps are listed, so that anyone interested in a particular district or region may readily find reference to the appropriate maps. With only a few exceptions, all the manuscript maps have both a scale and date of compilation recorded on them, and where a date is not evident, an approximation may be made from the rest of the series.

Area I: Waitaki

The record of vegetation distribution in this area is available from the Survey District block plans, and from the topographical sketches. Blocks 1–14, *Survey Office Plans* 1039–43, 1046–51, 1055–56, 1059–60, and 1063, dated, blocks 1–8 1865–1868, blocks 9–13 1872–1880, and block 14 (1890), cover the Marewhenua S.D. Swamp is indicated on many of the block plans, but small patches of bush