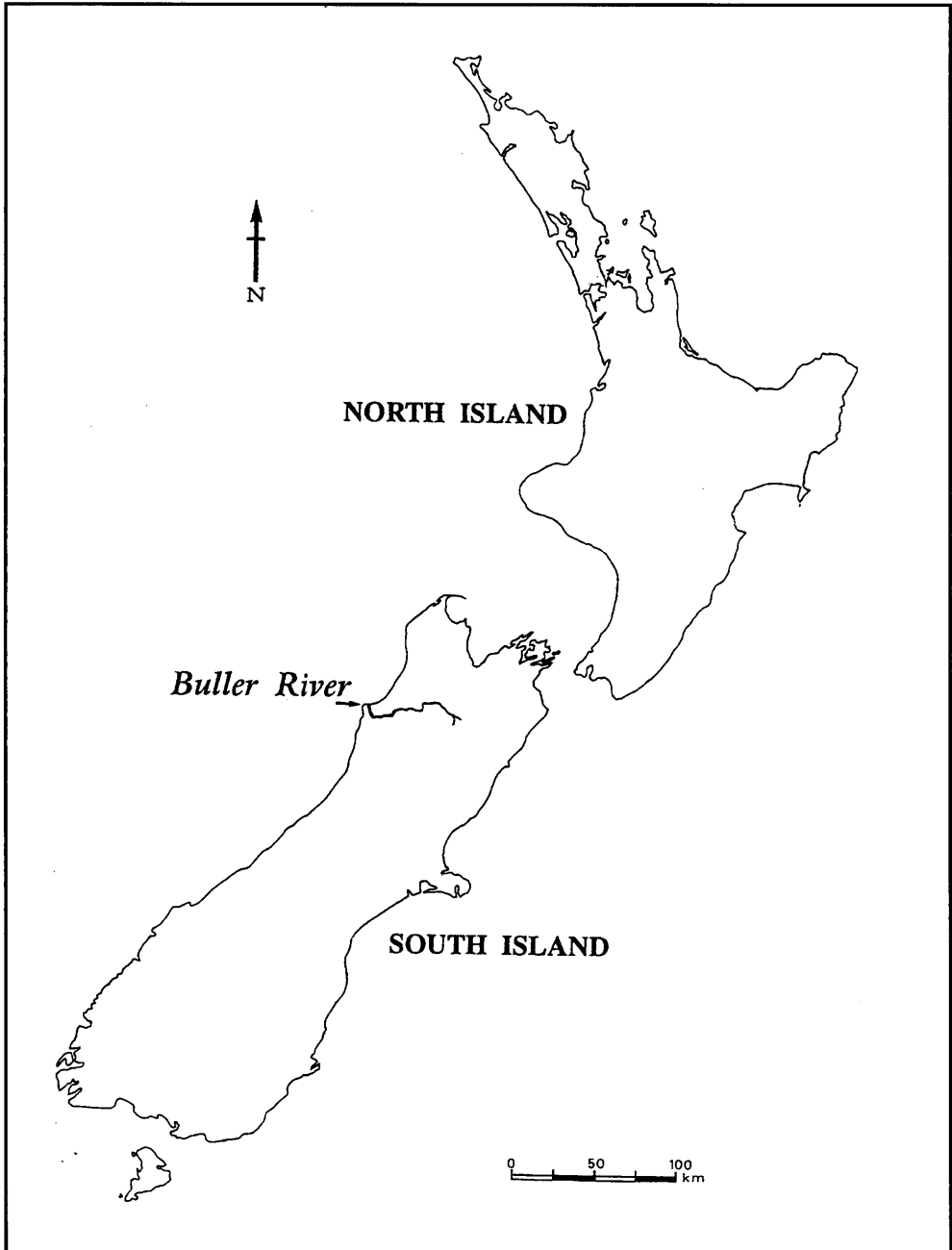


New Zealand

New Zealand-1: Buller River



Introduction

New Zealand lies in the Southwest Pacific Ocean, and consists of two main and a number of smaller islands, with a combined area of 271 000 km². The islands extend over 1 500 km between the latitudes range of 33° to 53°S, with a width of around 250 km. The highest mountains exceed 3 700 m in elevation, with short, steep rivers and high sediment loads. The climate is temperate, with a winter precipitation maximum in the north, and a summer-autumn maximum in the far south. The heaviest precipitation is estimated to exceed 15 000 mm in the Southern Alps, which are transverse to the rain-bearing westerly winds. The population of New Zealand is about 3.5 million, of whom over 80% reside in urban areas - nearly 1 million in the Auckland region alone. On the other hand, 51% of the land area is pasture and arable land, and 28% is forest.

The New Zealand river catalogued in this volume is the Buller River. It is located in the northern part of the South Island, and represents the lightly populated, predominantly forested landscape which approaches the natural conditions found by the first explorers when they arrived 1 000 years ago. The catchment faces west, and is regularly affected by heavy rainfall brought by the prevailing westerlies. Maximum annual precipitation is estimated to exceed 8 000 mm, but there are also rain shadow areas inland, where precipitation falls to 1 400 mm. The lower river is very flood prone, with the main consequences of flooding being on the transportation network and rivermouth port of Westport. Water resources are almost completely undeveloped.

Acknowledgements

This contribution has drawn heavily on material supplied by the West Coast Regional Council. It was prepared by Professor M.P. Mosley, Victoria University of Wellington.