## What it has been, what it is and what it could be

by Katharine Dickinson and Alan Mark

ost members of the Society will be well aware of the land use conflicts which have occurred in New Zealand over recent years. Indeed, the public debate over the raising of Lake Manapouri in Fiordland National Park (now twenty five years ago) is often upheld as the turning point for conservation in this country. Then, a large proportion of responsible New Zealanders declared enough was enough. Environmental awareness has continued to increase since that time and over the last decade it has become very clear that many of this country's unique assemblages of plants, animals and landforms have little or no protection in our reserves system. If we think about it, our national parks and reserves are concentrated in the mountainous, generally rugged regions, where land use conflicts are at a minimum.

Small wonder then that the concern over the depletion of New Zealand's very special natural places was recognised in the early 1980s by the National Parks and Reserves Authority. A programme was needed to safeguard representative samples of New Zealand's full range of natural habitats samples of which would have a chance for survival not just for one generation but forever. Thus, the Protected Natural Areas Programme was conceived. Numerous people involved in the natural sciences divided New Zealand up into ecological regions, of which there are 85, and ecological districts, numbering 268. Districts are simply areas which have a consistent pattern of natural or physical characters — these may be based on such features as rock type, landform, climate, soils, vegetation, plants or animals or, as is often the case, a combination of these. Regions may be a single, very distinctive ecological district, or more commonly, a group of districts whose characters are generally similar.

This framework of districts and regions provided the geographic system on which to base the Programme. The great strength of the exercise was that a variety of groups were in support, from the conservation organisations to Federated Farmers. Indeed the Programme is seen as apolitical.

In 1983, the Programme rolled into action with the sudden provision of funding through a Government Special Employment Scheme. While it was marvellous to have financial support for an exercise that was considered so urgent, the initial stages were dogged by the rapidity which grassroots planning had to be done. Teams with 5-10 members were employed on short-term wages to complete surveys of particular districts. They were relatively inexperienced ecologists, recent graduates and senior students, working under the guidance of scientific advisors from DSIR and other institutions

The initial four studies were set up as pilot studies to test survey methods in a range of environments and also on a variety of land tenures. Thus it was that two North

Island districts were chosen in forest and coastal areas: Rodney District near Auckland with many small private holdings and fragmentary natural areas, and Motu District on the East Cape with large natural or semi-natural tracts of mostly Maori-owned forested land. In the South Island, the areas selected were the largely pastoral leasehold tussock grasslands and mountainlands, one in the steep erosion-prone greywacke mountains and intermontane basins of inland South Canterbury/North Otago (Mackenzie Ecological Region of seven districts); the other, the broad plateaux, tundra-like uplands and tussock grasslands of the subdued Old Man District, Central Otago

Being the first of their type, these pilot surveys had a demanding and unenviable task ahead of them and indeed approached the exercise in various ways. Sadly, largely because of the lack of permanent funding for the Programme, much of the experience and expertise gained as a result of these early surveys was lost as team members sought alternative employment. The Programme thus at a fairly early stage began to suffer from a lack of feedback into the system. Further surveys established after these four pilot studies also suffered from lack of continuity of personnel, the reality being that most staff had to be trained afresh for each survey. A number of scientific advisers were given this task.

## **Hiccups in the System**

These hiccups in the system were particularly undesirable given that a Register of Protected Natural Areas, urgently compiled in 1984 by the Lands and Survey Department, had confirmed the serious under-representation of most non-forest and lowland ecosystems in New Zealand's existing natural areas system. Moreover, 133 districts out of the 268 were earmarked as being of top priority for survey. Many of these high priority districts were located in the South Island high country, where a large proportion of Crown land is currently held as pastoral leases. Moreover, many of these 33year, perpetually renewable leases were reaching the end of their first term and it was thus felt that the time was opportune to negotiate for key areas to be set aside for conservation.

The initial four pilot surveys were followed by a further three in the North Island (Egmont Region; Pukeamaru District; North Taranaki District); and six in the South Island (Lindis, Pisa and Dunstan Districts; Arrowsmith, Hakatere and Two Thumbs Districts; Kaikoura Region; Wairau Region; Umbrella District; Nokomai District). With the exception of the last three South Island surveys (which involved one person with a half-time field assistant) all were conducted by teams of 4-9 people. Only the Umbrella survey has been funded outside the bureaucracy, being supported by the University Grants Committee and the Hellaby Indigenous Grasslands Research Trust.

In the 1987-88 summer, surveys were underway in the Hunua Ecological District, (Auckland ER), funded mainly by the Auckland Regional Authority; Colville and Thames Districts (Coromandel Region); Balaclava, Sedgemere and Dillon Districts (Molesworth and Clarence Regions); Coleridge, Craigieburn and Cass Districts (Puketeraki Region); and Ngakawau District (North Westland Region), funded by the Department of Conservation.

Pilot

Completed

Current

New Zealand divided up into 268 ecological districts based on climate, vegetation, soils and landforms.