

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

by Katharine Dickinson and Alan Mark

Most 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 (Macenzie Ecological Region of seven districts); the other, the broad plateaux, tundra-like uplands and tussock grasslands of the subdued Old Man District, Central Otago Region.

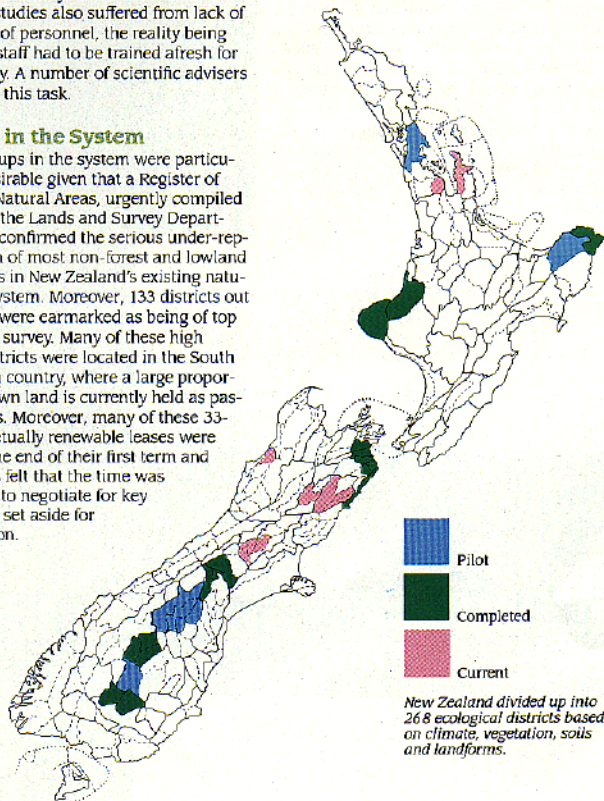
Being the first of their type, these pilot surveys had a demanding and unenviable task ahead of them and indeed approached the exercise in various ways. Sadly, largely because of the lack of permanent funding for the Programme, much of the experience and expertise gained as a result of these early surveys 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 33-year, 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 Hellyaby 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.



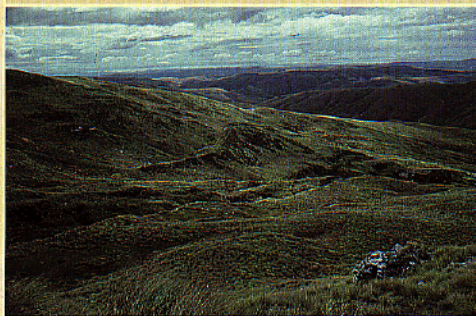
How Surveys Work

So, faced with an ecological district for PNAP survey, how is the job done? There are broadly four phases. Firstly, before rushing in, there is a lot of preparation to do. What information on natural values is already available for the district? Who might have first-hand knowledge relating to any of the natural values of the district? Is there any written material available? What is the air photo coverage like? Whose land or lease is where? These are all basic questions which have to be followed up at the start of any survey. The land occupiers on whose land access may be required, are all contacted by letter and then in person, in the extremely important initial public relations stage.

The second phase in PNAP surveys is that of field reconnaissance. Generally, the area of land to be surveyed is substantial (greater than 100,000 ha) and a broad idea of the range of natural values present within a district is needed. Once an overview can be obtained, decisions can be made as to which areas within a district deserve more detailed study. This must be related to the survey's aim of identifying the full range of natural values representative of the district. In many districts, unfortunately, there is no choice for some ecosystems — there may be only one small fragment left, or worse still, the habitat has gone forever.

The third phase is to document the natural values within particular study areas — this might be a wetland, or a catchment ranging from forest through tussock grassland to the alpine zone. Information is gathered to answer such questions as: What plant communities are present? What native species of plant and animal are found there? What condition is the habitat in? Has it been greatly modified? What landform features are present? Are there any special values that should be recorded — a rare plant or animal species, or an unusual landform?

Top. At 1430 metres above sea level in the upper Nevis Valley of southern Central Otago are found these spectacular string bogs. Rare outside the boreal zone of the arctic region (in countries such as Scandinavia and Canada), these string bogs of several hundred hectares are ranked as of international importance in a recent report on the Nokomai District. The photo was taken from 200 metres. Photo Alan Mark



Upper Jordan Creek below Mt Whitecomb (1566m) on the Umbrella Mountains was recommended for protection in the Umbrella PNA report because of its good representation and diversity of both landforms and vegetation plus the good condition of its plant cover. Photo: Katharine Dickinson



PNA surveyors in Coromandel Forest. (Left to right) Andy Garrick (team leader), Paula Broekhuizen and Gretchen Rasch. Photo: Chris Ward



Looking across Whanarua Bay, Motu Ecological District, East Cape. Here is one of the few opportunities to protect a continuity of ecosystems — from seacoast to interior hills and mountains. Photo: Chris Ward



Parahebe trifida, an alpine snowbank plant that was listed as "rare" by Dr David Given, was previously known from only a few sites on the Old Man Range, Garvie, Hector and Eyre Mountains. It was found to be abundant in both the Umerilla and Nokomai Ecological Districts and the PNA reports recommend its status be changed to "local". Photo: Alan Nixon

Using the answers to these questions, and others, the fourth phase of the Survey may be put into action: identification and documentation of Recommended Areas for Protection (RAPs). These are representative areas of the highest natural values remaining in the District(s). Selection of RAPs takes into account several criteria to assess the quality of the natural areas including: representativeness; naturalness; diversity; long-term viability; size and shape.

Public Relations a Necessity

Once these RAPs have been identified then the relevant local people should be informed of the results, at least those relating to their property, as soon as possible. Sadly, this is where the Programme has been allowed to falter. Whether by the hiatus created by Government's reorganisation of environmental administration, or a lack of understanding as to the necessity for public relations, a feeling of distrust has built up among many landowners. The situation is particularly frustrating given that there is in fact a great deal of common ground between land occupiers and scientists and certainly room for negotiation.

A PNA survey report is considered complete when it has received official endorsement from the scientific advisor(s) and is formally published. Up until early 1987 reports have been made available to the Protected Areas Scientific Advisory Committee (PASAC), which comprises nine senior scientists from various fields of expertise. Their role has been to assess a representative range of RAPs identified during a survey as well as ensuring an adequate and consistent standard. They also have provided a perceived independent and expert overview.

The role of PASAC is currently under review and it may soon cease to exist. As a single national overview body, even with only 29 surveys completed so far, PASAC has been severely overstretched. With the

Programme now into its fifth year, surveys completed are well behind the target of complete coverage of New Zealand within a decade. Lengthy delays in completion and publication of reports have been common which of course does nothing to foster public relations. The vital implementation phase, regrettably, has been limited by lack of both staff and commitment.

To be fair, the Programme has been severely compromised by the upheaval in the Government's environmental administration. The embryo Department of Conservation, in its first year, has expended considerable effort on decision and policy-making. In the meantime several survey reports completed during the reorganisation period have lain idle. However, action has extended to applying restrictions on certain potentially harmful activities on RAPs identified on Crown pastoral leasehold high country.

These restrictions relate to privileges under Crown jurisdiction and concern particularly burning, oversowing, fencing, tree-planting and any form of earth disturbance. They were adopted as policy by the now-defunct Land Settlement Board and were to apply

between the identification and implementation stages which, at the time, were envisaged to be of only a few months duration. The Department of Conservation has inherited this policy. Given the delays, in some cases over two years, inevitable frustration and disillusionment has resulted, particularly in the rural community. This has placed a severe strain on the Programme's credibility.

Cause for Optimism

As to the future, the creation of a Government conservation advocacy organisation and their apparently clear intention to pursue the PNA Programme, gives all of us some cause for optimism. Furthermore, the Programme was rated among the top environmental funding priorities in the manifestos of both major political parties in the 1987 General Election. We would like to think that this bodes well for its future. The Programme has also been fully supported by the New Zealand Ecological Society and the Royal Society of New Zealand.

The current survey effort by the Department of Conservation is commendable, being several times greater than in the pre-

vious two years. Unfortunately, a claimed lack of funding precludes either active or adequate pursuit of both survey and implementation phases. There is no funding facility for permanent staff, for either survey or implementation, which can consolidate experience gained from earlier work — knowledge continues to be lost as contract labour comes and goes. Obviously there needs to be a major effort in all phases of the exercise to convince the wider community of the efficiency and motives of the Programme and of Government's resolve in it.

The Programme has important long-term benefits for New Zealand and indeed its cost is small compared to the \$1.2 billion currently earned annually in overseas exchange from tourism. After all, tourism depends very largely on those natural resources which the Programme is designed to identify, and conserve. Let's hope the National Parks Centennial year is the time that all parties can come together to make this nationally important Programme effective, to dispel the distrust, and to safeguard for all time an adequate representation of what is distinctively characteristic of this country's natural values. ✚

Conservation Groups and the Public Champion Representative Reserves

While the formal PNA Programme has progressed in fits and starts, there have been significant gains in representative reserves outside of the PNA Programme. This has been chiefly through the efforts of the Royal Forest and Bird Protection Society coupled also with others such as NFAC, FMC and Acclimatisation Societies in the Joint Campaign on Native Forests and Public Lands Coalition.

Forest and Bird's objects are "to preserve New Zealand's native plants, native animals and natural landscapes". Since 1983, using the ecological regions and district maps as a framework and through extensive field survey work, Forest and Bird staff have successfully championed cases for representative reserves from Kaimaunau swamp in the far north to Masons Bay on Stewart Island. This work was vital as management plans were prepared for State forests and Crown lands by the Forest Service and Lands and Survey Working with the Society's local branches, our Head Office staff successfully put forward many representative reserve cases. These have been described in *Forest and Bird* journal articles and were the focus of many public campaigns. Protection of swamps, shrublands and forests at Spirits Bay, Karikari Peninsula, Ninety Mile Beach, Waipoua, Russell (Northland), Tongariro, Mamaku and Rangitaiki (Central N.I.), Waitere (Hawkes Bay), Aotuhia (Taranaki), Mana Island, Glazebrook (Marlborough) and pakihī swampland in Nelson and Westland are but a few of these areas which correct major deficiencies in our reserve network.

Through the Joint Campaign we have

also achieved major gains in getting the remaining state indigenous forest in the North Island protected with particularly significant gains at Whirinaki, Kaimai-Mamaku, the Northland kauri state forests and the 79,000 hectare Whanganui National Park.

In the South Island, ecological district characters were crucial in scientific cases for representative reserves put forward by Forest and Bird and NFAC staff for North Westland and the Buller. These culminated in a total of some 200,000 hectares of mainly lowland forest being protected in the 1986 Government-endorsed West Coast Accord signed between conservation and development interests. In exchange some 120,000 hectares of forest — of which more than half was heavily cut-over — was allocated to sustained-yield rimu and beech management.

The carve-up of Crown land between the Conservation Department and Forestry Corporation and Land Corporation in 1987 also provided a vital opportunity to gain representative reserves. The Public Lands Coalition, spearheaded by Forest and Bird, has managed to retrieve from allocation to the Corporations some 500,000 hectares of public land with important nature conservation values. This land will be allocated initially to the Conservation Department as stewardship land but much of it deserves specially protected status as ecological reserves.

Another major debate over the allocation of Crown land will continue throughout 1988 with major implications for our representative reserve network. This involves the 311,000 hectares of former state forest south of the

Cook River in South Westland. The new Conservation Department has backed this stand with a powerful submission arguing the outstanding natural values of the area and the National Parks and Reserves Authority has formally asked the Department to assess the entire area — Fiordland to Westland — for national park status.

Nearly a million hectares — 4 percent of New Zealand — has been added to the reserve system as a consequence of these efforts. More importantly it has not been more ice and rock. Rather it has been poorly represented shrublands, lowland forest, tussock and duneland. These major gains in achieving representative reserves through detailed research backed by major public campaigns stand in stark contrast to the difficulties experienced by the formal PNA Programme where reserve implementation has to date been disappointing. A strong partnership between scientists and the public is clearly essential if we are to help protect the best of what remains of our natural heritage by the year 2000 to serve the country's needs next century. ✚

**Dr Alan Mark, President
Dr Gerry McSweeney, Conservation
Director**

The Department of Conservation is planning to spend \$3.5 million on the PNA Programme in 1988-89. \$900,000 will be spent on survey, \$950,000 on implementation work (consultation, negotiation) and \$1.65 million on securing final protection — through purchase, lease or other compensation and to meet legal survey costs. We await with interest confirmation of these figures in the 1988 Budget.

* See note on 'Crown Land Carve-up'