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ASPECTS OF VISITATION TO EGMONT NATIONAL PARK

A Thesis
Presented to Massey University
in Fulfilment of the Requirements for the Degree of
Master of Philosophy in Ecology/Zoology

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ABSTRACT

The need to protect New Zealand's natural resources in a sustainable way is introduced in a setting of growth in tourism and environmentalism and the paradox they present. Management information needs were identified and a questionnaire was developed and completed by 326 visitors to Egmont National Park between July 1993 and April 1994.

Visitor demographics, motivations and activities were found to be very similar to previous studies. Exceptions are generally explained by the unique characteristics of Egmont National Park.

Most concern expressed by visitors to Egmont National Park was over human impact on the natural environment, followed by visitor safety and the provision of weather information. Visitors displayed few other concerns. Services and facilities were considered generally good. A minimal amount of development is seen as desirable, but the areas that need to be further developed are guided tours by park staff, educational facilities (nature trails), visitor safety and signs marking tracks and their condition and walking times. More information on the ecology of the area and Maori history, culture and legend was also desired.

Conservation and recreation were considered important uses of New Zealand's national parks. Low impact "green" uses were viewed as desirable while exploitative or development uses were seen as undesirable. Visitors had a more favourable perception of guided tours run by the Department of Conservation than guided tours run by commercial groups.

Local Taranaki residents, non-local New Zealand residents and overseas residents displayed unique sets of trip characteristics, though few attitudinal differences were found. There were also differences in visitor characteristics at the three road-ends surveyed and at the parks huts. These differing sets of characteristics lead to a discussion on market segmentation as a management tool.

Major recommendations to improve visitor experience and management in Egmont National Park are:

- Maintain the pristine environment;

- Enhance the network of tracks and huts around which the recreational functions are based;
- Update and improve the provision of information, including; visitor centres, the audio visual displays, the availability of up-to-date safety and weather information and the systems of signs marking walks and tramps and their condition and times;
- Provide up-to-date information for visitors of the damage being done to the park by pests and humans and the efforts being made to remedy this damage.
- Develop self-guided and informative nature trails at the North Egmont and/or Dawson Falls road-ends; and
- Examine the provision of guided tours in the park.

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CHAPTER 1. INTRODUCTION

1.1 TOURISM AND ENVIRONMENTALISM

Tourism and environmentalism, "how will these two great trends interact -and interact here in New Zealand. Are we looking at war or an alliance, or just perhaps an uneasy truce with localised skirmishes?" These were the words spoken by New Zealand's Executive Director of the Ministry of Tourism, Neil Plimmer, at the Fourth Walding Memorial Lecture held at Massey University in September 1992 (1992a: 1). In his lecture titled "Marketing and Managing Environmental Tourism in New Zealand" Plimmer suggested tourism and environmentalism are two of the strongest and most enduring trends on our planet today, and stressed the importance of the outcome of their interaction for New Zealand's future.

Chapter one of this study examines the trends of tourism and environmentalism, how they interact and the management paradox they create. This is followed by an examination of management practices used in heritage areas such as national parks and the information needs required so that they be effectively implimented. With the scene set, the aims of this study are introduced and previous studies in New Zealand are reviewed.

1.2 TOURISM

In 1988 S.L.J. Smith, commenting on the definition of tourism, remarked that "practitioners must learn to accept the myriad of definitions and to understand and respect the reasons for those differences" (cited in Hall 1991: 5). There are a broad range of tourism definitions available in the literature, the comment above introduces the idea that this range of definitions varies as the needs of definitions varies.

Through this diversity of definition there is a pattern of common elements that define tourism. Hall (1991) identifies common elements that definitions of tourism share:

- tourism is the temporary, short term travel of non-residents, along transit routes to and from a destination;
- it may have a wide variety of impacts on the destination, the transit route and the source point of tourists;
- it may influence the character of the tourist; and
- it is primarily for leisure or recreation, although business is also important.

One example of a definition of a domestic tourist is that used in statistics prepared by the A.G.B. McNair research organisation for governmental agencies in Australia and New Zealand (in Leiper 1990: 11):

A (domestic) tourist is a person who has travelled away from their normal residence to visit some other place(s) at least forty kilometres distant, within their home country, for a period of at least one night and not more than three months.

This definition demonstrates the main problem with the definitions found with respect to this study. The survey site of this study is surrounded by a large population of people that are suspected to be heavy users of the area. As a result many local residents visiting the study area for recreational purposes would not be included in the survey. Therefore, for the needs of this study the definition created in 1987 by the Australian Government Committee Inquiry into Tourism is used (cited in Hall 1991: 7). A tourist is defined as either:

- a person who undertakes travel, for any reason, involving a stay away from his or her usual place of residence for at least one night; or
- a person who undertakes a pleasure trip involving a stay away from home for at least four hours during daylight, and involving a round distance of at least 50km; however, for trips to national parks, state and forest reserves, museums, historical parks, animal parks or other man made attractions, the distance limitation does not apply.

This definition was chosen for this study over any New Zealand definition of tourist found primarily for the last condition, that the distance limitation does not apply for attractions such as national parks and state and forest reserves.

Global Trends in Tourism

Tourism, the world's biggest industry, generates \$US2.5 trillion a year. Tourism at a world wide level is predicted by the World Trade Organisation (WTO) to grow at between 3% and 4.4% per year through to the year 2005. The WTO is predicting an even faster growth rate of 6.8% per annum for the East Asia/Pacific region (NZTB 1993a).

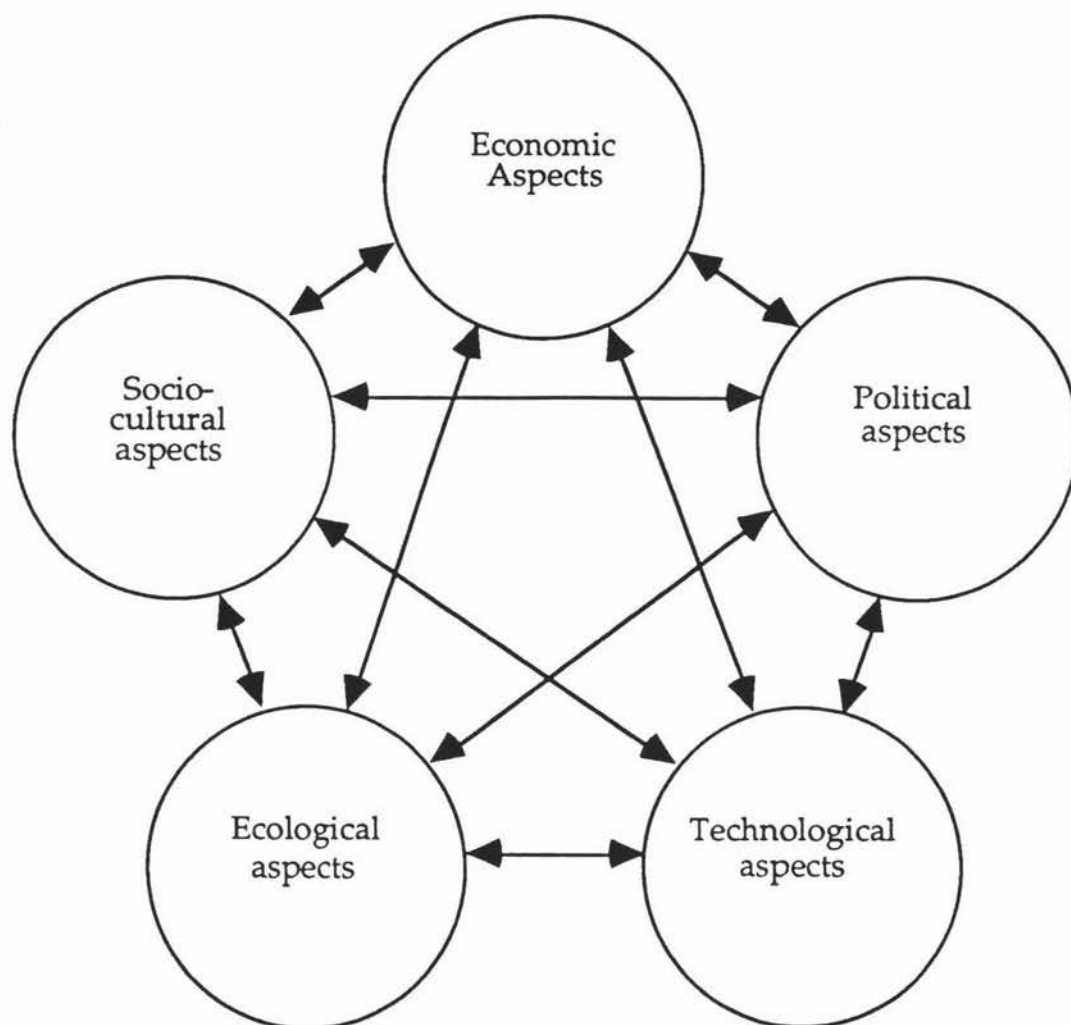
In order to explain this growth rate, the contributing elements to the tourist market can be examined. Figure 1 shows the interaction of critical variables contributing to future trends in tourism and recreation (Schwaninger 1984). Economic aspects identified included the amount of leisure time, disposable income, energy costs and other supply and demand factors. Sociocultural factors include a shift away from mass to individual tourism, increased focus on self determined travel, serious attempts to understand foreign cultures and an increased sensitivity to quality of life in general. Ecological aspects are based around increased concern and appreciation for the natural environment. Technological aspects take into consideration improved transport and information systems, while political aspects are focused around the influence of public institutions on the leisure and tourist market.

Lickorish (1987) also identified specific trends occurring in the tourism industry:

- travel is habit-forming;
- the world is on the move;
- the number of repeat travellers grows faster than total movement;
- travel is increasing its position in consumer priorities;
- the frequency of visits is increasing;
- repeat travellers are more sophisticated and more independent in their arrangements; and
- travel is becoming more resilient to recession and to price changes, including exchange rates, but more influenced by value for money.

Figure 1.

The Interaction of Critical Variables Contributing to the Scenario of Future Trends in Leisure and Tourism



Amended from Schwaninger 1984

In addition, Lickorish (1987) identified several other trends in world travel. Sociodemographic changes favour increased demand for leisure and travel, these being an ageing but richer, more active population with a rising proportion of single adults, later marriages, childless couples, and a substantial number of two income families. Also fashion is increasingly important, bringing about changes in travel patterns that are faster and larger in scale. Other general factors identified by Martin and Mason (1993) include increased leisure time, the rise of the middle aged, the influence of new technology and, more recently, the rise of the newly industrialising countries.

The East Asia/Pacific tourist region, in which New Zealand is situated, has experienced the largest annual rate of increase of arrivals of tourists from abroad between 1980 and 1991, at a rate of 8.97%. This is compared to 4.30% for the Americas, 7.25% for Africa and 3.53% for Europe. This equates to a 15.23% average annual increase in international tourism receipts for the same period (World Tourism Organisation 1993). This high growth rate is also reflected in international trends in market share. Table 1 shows the East Asia/Pacific regions increasing proportion of the market share since 1950, rising from 0.7% to 12.2% in 1992 (WTO 1993).

Table 1.

International Tourist Arrivals - Trends in Regional Market Share 1950 - 1992

Region	1950	1992	Change
Americas (%)	29.6	21.5	-8.1
Europe (%)	66.6	60.5	-6.1
East Asia/Pacific (%)	0.7	12.2	+11.5
Africa (%)	2.1	3.6	+1.5
Middle East (%)	0.8	1.5	+0.7
South Asia (%)	0.2	0.7	+0.5

Source: WTO

The New Zealand Growth Experience

Tourism, including expenditure within New Zealand and airfares, is the country's largest foreign exchange earner. In 1992 the New Zealand Tourism Board (NZTB) estimated that local and overseas visitors spend \$17 million a day in New Zealand. Spending within New Zealand by overseas visitors has increased from \$1.7 billion in 1990/91 to \$2.1 billion in 1992/93, equating to an increase of 23.5% in two years (NZTB 1994).

Tourism in New Zealand has been increasing at an average rate of 8% per annum through the 1980's. For the year ended June 1992 visitor numbers from Japan were up 22%, Germany up 29%, Asia 32% and Taiwan 94%. The NZTB believe this growth rate can be increased thorough the 1990's. The goal set by the NZTB is for three million visitors annually to New Zealand by the

year 2000, this would generate \$5.7 billion a year in foreign exchange earnings and nearly double the numbers of jobs associated with tourism to 270,000.

The NZTB expect New Zealand's tourism growth to come from four major international markets, notably in the northern hemisphere. The Tourism Board has identified the following global trends which should be addressed:

- interest in the environment;
- an increase in free independent travel, a move away from package or group tours, requiring flexibility and a range of travel options;
- short-break holidays;
- a world wide increase in long haul travel;
- the highly sophisticated marketing techniques used by competing destinations; and
- the demand for cultural experiences, with visitors wanting to interact with local people and customs.

(Home and Building 1993)

An increasing range of niche market activity has been a trend in New Zealand, this has been reflected in the growth of 'alternative ' tourism. The term alternative tourism has been used to describe a whole range of holiday types, such as educational holidays, business training courses, fast sport 'adrenalin' holidays, ecotourism and a variety of other more specialised markets. Growth in independent travel has also become a significant trend over the last decade. These free independent travellers have a broader spatial spread than traditional tourists to New Zealand and have moved away from the Auckland, Rotorua, Christchurch, Queenstown tourist trunk route to spread into areas such as the Coromandel and West Coast.

1.3 ENVIRONMENTALISM

The Rise of Awareness

The state of the environment has become a global concern over the past few decades. Threats such as desertification, the ozone layer, the greenhouse effect, deforestation, pollution, overcrowding, loss of genetic diversity and

resource limitations are all issues that have promoted awareness and concern on a broad scale. This has been reflected in educational programs, media coverage and the proliferation of "green" organisations all dedicated to increasing the awareness of environmental problems.

Realisation of the environment as a limiting factor for humans was recognised nearly 200 years ago by Thomas Malthus, with his limits to growth theory in 1798. A more recent landmark publication in this area was Rachel Carson's *Silent Spring*, which in 1962 introduced concern of human impact on the environment to the wider public. These publications and the issues they introduced have prompted a questioning of the basic Darwinian, neo-classic economic view of world order, including that of resource utilisation governed by market forces, international world order and the basic aims of society. This relationship between man and nature is "epitomised in the Christian beliefs that the earth should be peopled, cultivated and conquered" (Mieczkowski 1990: 258). This has led to an error in society, summed up by Stewart (1987: 11):

Our habitual failure to take continuing account of our global environmental context in economic and social decision-making processes generates and sustains a fundamental error of logic in our depiction of our situation and its possibilities. With effort, this error is correctable.

The development of environmental thinking has taken place over the short time period of the last twenty-five years and, among Canadians, has been characterised as five evolutionary phases (Seaborn 1980; D'Amore & Assoc. 1984). The phases as identified are:

- (1) The increased concerns about pollution, which leads to public demands for measures aimed at pollution abatement.
- (2) A focus on resource use and emphasis on resource conservation measures.
- (3) The recognition that our ability to live on this planet depends on our learning to live in harmony with the natural environment.
- (4) Recognition of the linkages among environment, development, lifestyles and societal values.
- (5) Understanding the need to address a number of questions: the philosophical question of what kind of society do we want; the social justice question of what is our responsibility to our neighbours in the Global Village; the behavioural question of how do we translate

philosophy and beliefs into knowledge, attitudes and behaviour; and the political question of how to adequately inform leadership with the necessary knowledge and courage to make appropriate decisions.

Characteristics of these phases have also been displayed in New Zealand. There has been a strengthening in laws relating to pollution and a proliferation of recycling centres. Common activities in New Zealand schools include beautification of school grounds, and sometimes of the surrounding community, by children planting shrubs and trees. At a national level New Zealanders are proud of its anti-nuclear stance and its clean green international image. More recently, New Zealand introduced the Resource Management Act (1991) which has introduced such environmental values identified in the five evolutionary phases identified by Seaborn (1980) and D'Amore & Assoc. (1984) into legislation and has gained international recognition for its approach to environmental management. The concept of sustainability is embodied centrally as the purpose of the Resource Management Act (1991).

Our Common Future and the Concept of Sustainability

Our Common Future, commonly referred to as the Brundtland Report, was a far reaching publication that addressed environmental and associated developmental problems on a global scale. It was produced by the World Commission on Environment and Development in 1986 and placed environmental and associated issues on the world political agenda. Our Common Future introduced environmental issues as an important, if not eventually overriding factor, that would shape the future of the world. It presented a way of looking at environmental problems that questioned many previous conceptions of how the world should function (World Commission on Environment and Development 1987: 7):

We have in the past been concerned about the impact of economic growth on the environment. We are now forced to concern ourselves with the impacts of ecological stress - degradation of soils, water regimes, atmosphere, and forests - upon our economic prospects.

The report promoted the wider concept of sustainable development. The Commission viewed sustainable development as a process of change in

which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional changes are made consistent with future as well as present needs. It identified three main interrelated goals as essential for sustainable development. They are to ensure that all of societies needs are met, to ensure that all members of society have their needs met and to ensure that all development is sustainable over time in social, economic and environmental terms.

These principles have been reflected more recently in the United Nations conference on Environment and Development held in Rio in 1992. Agenda 21 addresses the pressing problems of today and also aims at preparing the world for the challenges of the next century. It reflects a global consensus and [political commitment at the highest level] on development and environment cooperation (United Nations 1992).

Environmentalism has a far reaching effect on all levels of society, from birth control being high on the world political agenda to individuals planting trees in an effort to maintain or improve the planet we live on. This new found recognition of, and dependence on, the environment was brought about by the increasing realisation of the resource limitations of our planet and is being recognised by society in legislation such as New Zealand's Resource Management Act.

The introduction of the Resource Management Act (1991) in New Zealand began a new era in environmental management. It was a world first in that it integrated all of New Zealand's major resource laws and aligned them with the goal of sustainable development. The Act promotes sustainable management involving three interrelated factors: resource use, ecological systems and environmental quality. Among other things it promotes a shift to renewable resources, giving regard to future generations, recognition of intrinsic values and protecting the life support capacity of air, water, soil and biological systems.

The impact of environmental thinking and the concept of sustainability has also been noted by New Zealand's tourist industry. "The concept of sustainability as the driving philosophy of development and resource management is one that is increasingly recognised throughout the world" (New Zealand Ministry of Tourism 1992: 3).

1.4 TOURISM AND ENVIRONMENTALISM, THEIR INTERACTION

Why the Increase in Visitation to Natural Areas?

Given the environmental and tourism trends already introduced, when considering why people are increasingly visiting natural protected areas Brown (1974: 22) explains:

...parks become models of environmental quality, samplers where quality in life both ecological and social senses can be experienced. They are the existing contrasts to prevailing environmental unwisdom- unwisdom that is destroying not only the "natural world," but also part of it most important to us, humanity itself.

As exemplars of quality environment and life.....[parks] provide the larger society a standard to strive for - not just in special places, but also in the ordinary places where people live their daily lives.

Brown's view is supported by Mannel and Iso-Ahola (1987). When examining the psychological nature of leisure and tourism experience they suggest that one of the psychological benefits is the escape from routine and stressful environments. There are also additional reasons why people have been increasingly visiting protected natural areas. As well as the growth in outdoor recreational and adventure pursuits, for example hunting, climbing and rafting, there are those relating to the general increase in concern of the protection of cultural and natural heritage.

Hall and McArthur (1993) identify several reasons as to why concerns over heritage protection have emerged:

- (1) A rapidly changing society has meant that people have sought to retain heritage sites as a link with the past and therefore build a sense of continuity in their lives.
- (2) Heritage enables us to define who we are by forging individual, community and national identities.
- (3) Heritage may have scientific and conservation significance and be representative of certain natural and cultural environments.
- (4) Heritage has assumed economic importance as people increasingly want to visit heritage sites and experienced what has been preserved.

These concerns and motivational factors highlight many of the personal rewards for visitors to natural protected areas. However, the increase in environmental tourism has not been on the demand side alone. In recent years there has been a dramatic increase in programs promoted by conservation organisations. Several reasons for this growth have been put forward:

- (i) the desire of conservation organisations to educate members about the areas and species they are interested in protecting;
- (ii) the growing levels of environmental concern in western society and the need to build greater public awareness of threats to environmentally sensitive areas;
- (iii) the need of conservation organisations to gain sources of income for their activities;
- (iv) the desire of organisations to find alternative sources of economic development for natural areas threatened by consumptive resource use;
- (v) the growth of special interest and alternative tourism; and
- (vi) the use of volunteers to conduct scientific research.

(Springett *et al* 1991)

With wide spread environmental concern, and given the growth rate of visitation to natural areas, a new market niche has developed. This new type of alternative tourism seeks not only to fulfil the needs of the tourist, but also to address the needs of all those concerned in a sustainable way.

Ecotourism

As with virtually all other industries, tourism cannot avoid the growing worldwide trend of recognising the need to be environmentally sensitive. The environment, and environmental consciousness, are now important marketing components.

(Ministry of Tourism 1992: 8)

Nature bred tourism is not new. Residents of London have been travelling to the English Lake District on a regular basis for 250 years to enjoy the natural beauty, hiking, fishing and scenic wonders. Similarly, certain regions of the United States such as Bar Harbour, Maine and Niagara Falls in New York have attracted tourists interested in their natural values for decades.

But, the more recent phenomena of relatively large scale travel by tourists to remote regions of the world, such as Africa, South America and Asia to experience these values is new (Kusler, 1991).

Many definitions of ecotourism, or "green tourism", have been put forward over the past few years. Boo (1991: 518) gives a simple definition as:

Ecotourism is nature based tourism that contributes to conservation. These contributions include: (1) increasing revenues for parks and reserves, (2) creating employment opportunities for people that live near parks and (3) reserves, and providing environmental education for visitors.

Ecotourism, as viewed by Valentine (1993), is restricted to that kind of tourism which is:

- based on relatively undisturbed natural areas;
- non-damaging, non-degrading, ecologically sustainable;
- a direct contributor to the continued protection and management of the natural areas used; and
- subject to an adequate and appropriate management regime.

It must be noted that the definition of ecotourism suggested by Boo (1991) and the observations made by Valentine (1993) do not conflict with the definition of tourism introduced earlier. This is important for the purposes of this study in that it allows local residents who visit the study area to be considered ecotourists.

D'Amore (1992: 258) suggests that "the impressive growth of ecotourism (ie. nature-based tourism and tourism wilderness areas) is one indicator of how the growth in an environmental ethic has affected tourism." Recently this growth has been proven as key feature of both domestic and international tourism in Australia, with Davis and Weiler (1992) identifying the close connection of tourism with the natural environment.

Nature Based Tourism in New Zealand

As noted above, concern and interest in the environment are becoming increasingly important to tourists when choosing a destination. Given the importance of tourism to its economy, New Zealand has pursued an active international marketing plan to promote itself as a tourist destination. An example is the 1990 overseas marketing plan formulated by the New Zealand Tourist and Publicity Department, it was focused around a natural heritage theme and backed with a major television series, *Moa's Ark*, produced in conjunction with the New Zealand Natural Heritage Foundation and fronted by David Bellamy. Its aim was to give a major boost to ecotourism and heritage tourism in New Zealand (NZTP 1989a).

Although ecotourism's relative importance, compared to "conventional" or mass tourism, is still low, in some countries ecotourism is attaining a great relevance (Ceballos-Lascurian 1991). This is particularly true of New Zealand, where its green image and natural beauty have become its best known and most appealing factors. An example of the use of this international image is displayed by plate 1. This advertisement appeared in "Sierra" a North American conservation and travel magazine (Sierra 1992), here, the image of a remote "green" travel experience has been chosen by Mount Cook Line to promote travel to New Zealand.

Attractions such as National Parks, Rotorua's geothermal activity, the Milford Track and whale watching at Kaikoura have all contributed to New Zealand's international image as a 'green' destination. For example, the average visitor to New Zealand goes to 1.6 different parks during their stay in New Zealand and the average German visitor, one of New Zealand's fastest growing market sources, visits close to five parks (Winter 1993). The maintenance and enhancement of this "green" image is critical to the long term future of the tourism industry in New Zealand.

Ecotourism is increasingly attractive to governments (countries) for a number of reasons. Motivations differ with some countries interested almost entirely in the economic benefits while others are concerned with

Plate 1.

An Example of New Zealand's International Marketing Efforts and Promotion of its "Green" Image.

**New Zealand's
Milford Track**

The most walk to the world

For Your Information, Call
(800) 468-2665

New Zealand. The things that shouldn't be forgotten.

MOUNT COOK LINE

resource conservation and environmental protection aspects. Specific reasons identified by Kusler (1991) include:

- Ecotourism can produce a major influx of foreign (and domestic) currency to an area, region or country.
- Ecotourism may in some instances be based primarily upon existing infrastructure, hotels, etc. and require little new capital expenditure.
- Ecotourism may occur at locations which would simply not attract other types of tourism and may thereby supplement other types of tourism.
- Ecotourism is labour intensive and can bring local employment to a broad range of individuals.
- Ecotourism can help protect the natural and cultural values of an area, often causing less social impacts than mass tourism.

Of particular importance to New Zealand are the industrialised countries with high urban concentrations. This is highlighted by the fact that 90% of the world tourist supply comes from members of the Organisation for Economic Cooperation and Development (Lickorish 1987). Our National Parks and undeveloped areas, unpolluted air and water and distinctive plant and animal life, have been identified by New Zealand's tourist industry as attractions that will become increasingly desirable to visitors from industrial and industrialising countries (New Zealand Tourist and Publicity Department 1984). Farrell and Runyan (1991: 26) highlight the importance of maintaining such natural attractions for countries such as New Zealand:

The pertinence of resource-based tourism will likely expand in the future as urban concentrations become greater and environmental quality at many existing visitor destinations becomes increasingly degraded. Obviously those locations which succeed in enhancing, or at the very least maintaining, their relative environmental quality will enjoy increasing competitive advantages.

Ecotourism is becoming an increasingly important market niche in the New Zealand tourism industry. Its growth has occurred rapidly and has often taken place in areas that have experienced little tourism pressure in the past. If ecotourism growth is to be continued in New Zealand it must be carefully managed, not only in areas such as marketing and accommodation, but also the sustainable management of the heritage site itself. Unfortunately, a paradox exists.

1.5 THE PARADOX

Tourism is rapidly becoming the world's largest industry and we should be aware of the consequences of half-a-billion people travelling internationally every year. The possible adverse impact of these visitors upon the environment and culture is enormous.

(Wenkam 1991: 816)

Risk to the natural environment by increasing visitor numbers is of concern to not only conservationists and heritage managers, but also, increasingly, to the tourism industry. The paradox that faces heritage managers has been defined by Hall and McArthur (1993: 2) as "How do we allow people to visit and experience heritage without the heritage becoming so degraded that it loses its attraction?"

Tourism, including tourism in the natural environment, has been characterised by the marketing of resources without recognition of the impact visitation can have on the heritage site. Resources have also been managed without acknowledging the impact of protection policies on tourism operators and their clientele and this has resulted in a failure to consider adequately the long-term impact on the physical, social and economic environment and visitor experiences (Moore and Carter 1993). A pattern of unsustainable use of many of the world's tourist destinations has been created.

Tourism and Sustainability

The long-term future of the New Zealand tourism industry is closely linked to sustainable management of the environmental qualities that make this country a unique tourist destination.

(Plimmer 1992b: 1)

The natural link between tourism and the environment provides an obvious self-interest for tourism to protect its environment. As a result tourism has much to gain by adopting the sustainability ethic. The recent proliferation of environmental tourism policies in Australia by both

industry organisations and government, and the special focus accredited tourism in the Commonwealth Ecologically Sustainable Development working groups reflects this growing awareness.

The concept of sustainability has also been acknowledged by New Zealand's Department of Conservation, Te Papa Atawhi. Its mission is to conserve the natural and historic heritage of New Zealand for the benefit of present and future New Zealanders.

There is no immediate major environmental threat to New Zealand's tourism industry, but over time this may change. If environmental damage occurs, the product loses its attraction and tourism earnings are weakened, and an important force for sustaining and developing the community and environment is lost.

It is in the interest of all sectors - the visitor, the attraction, the host community, the nation and the industry to develop a mutually beneficial, positive relationship (Ministry of Tourism 1992). This relationship includes:

- bringing satisfaction and enrichment to visitors;
- strengthening a respect for New Zealand's natural areas and historic places;
- promoting greater cultural appreciation and understanding;
- supporting the maintenance and improvement of New Zealand's environment and heritage and ensuring its preservation for future generations;
- generating jobs and wealth, diversifying regional economies, widening economic opportunities and stimulating appropriate investment; and
- improving the quality of community life by widening choice, supporting local services and infrastructure, and bringing social contact.

If this mutually beneficial relationship between the visitor, the attraction, the host community, the nation and the industry is to be achieved a number of challenges must be faced. These include; recognition of environmental sensitivity, funding for environmental protection and maintenance, awareness of cultural and environmental sensitivity, recognition of corporate environmental responsibility and addressing the opportunities presented by adventure, special interests and ecotourism (Ministry of

Tourism 1992). The New Zealand Tourist Industry Federation and the Pacific Asia Travel Association have both introduced codes of practice to focus the tourist industry on sustainability.

The changes in the societal context of tourism implied by these challenges must be incorporated into the management systems of natural protected areas. Figure 2 is a model developed by Memon and Selsky (1994) that shows the impact societal context has on the management of a biophysical resource. Given the biophysical aspects of the resource system the type of management undertaken for a resource is dependent on the national culture, economic system and political system prevalent in society at that particular place and time. These societal contexts give rise to the institutional arrangements, including the resource users, values or attitudes, the economic and political context and the level of technology. This leads to patterns of use and management which create outcomes that can effect the quality of life of society and so can be used as feedback and a means of evaluation. As its goal, this model has the concept of sustainability as the desirable state of resource use that society should be trying to achieve.

For tourism, sustainability means achieving growth in a manner that does not deplete the resource, cheat the visitor, or exploit the local population. It means New Zealand's natural and physical resource should be used but not depleted, and any build-up of negative effects and irreversible damage should be prevented.

(Plimmer 1992b: 1)

Management Practices

It is time to move away from the past approach of seeking to protect the physical environment by excluding or minimising visitors, towards managing people and their effects on the environment better.

(Ministry of Tourism 1992: 6)

In New Zealand most methods for the management of protected natural areas have traditionally been focused around the resource. Methods used to manage visitors to protected natural areas include restriction of access (this can be the only possible option in some cases); hardening, such as the construction of paths/tracks; and the use of vicarious methods, for example

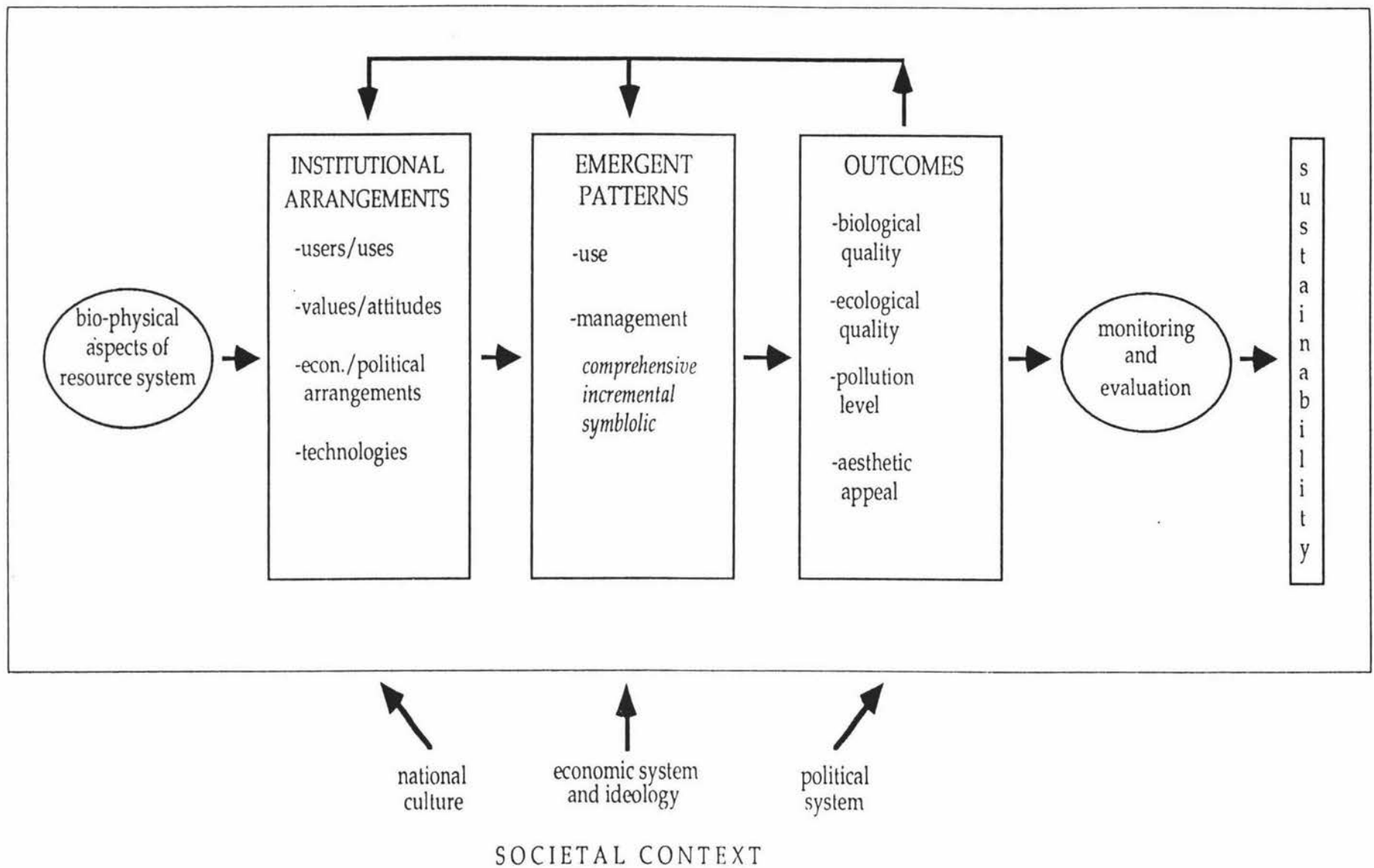


Figure 2. Dynamic Behavioural Model of a Complex Common Property Resource (Memon and Selsky, 1994)

books and films. Problems arising from hardening methods include encouraging visitors to keep to paths and detracting from the visitor experience caused by the presence of the paths themselves. Though vicarious methods can display the area they can not always convey the feeling and appreciation to the same extent as a personal experience. However, future advances in the field of virtual reality, a computer generated environment, may be able to provide such sensory stimulation and interaction as to provide a high quality 'genuine' experience.

Additional methods finding increased use in recent years are focused around interpretation and education. The generally accepted definition of interpretation is that of Tilden (1977: 9):

An educational activity which aims to reveal meaning and relationships through the use of original objects, by first hand experience and by illustrative media, rather than simply to communicate factual information.

The use of appropriate interpretation to increase visitor satisfaction of the heritage experience can also be used as a powerful tool in the management of the heritage site. "By providing high quality experiences which satisfy expectations, motivations and needs of the visitor we can modify, encourage and develop behaviours which will ensure the maintenance of the heritage resource" (Hall and McArthur: 1993: 13).

Generally, in New Zealand, a combination of some, or all, of these management methods has been used to manage visitors to our natural heritage sites. However, research is needed to increase the effectiveness of management techniques in response to the projected increase in visitor numbers.

Changing the Viewpoint

Probably one of the greatest flaws in wilderness area management where there is visitation by ecotourists, is that we try to manage the environment and the wildlife in lieu of managing the people.

(Ashton 1991: 94)

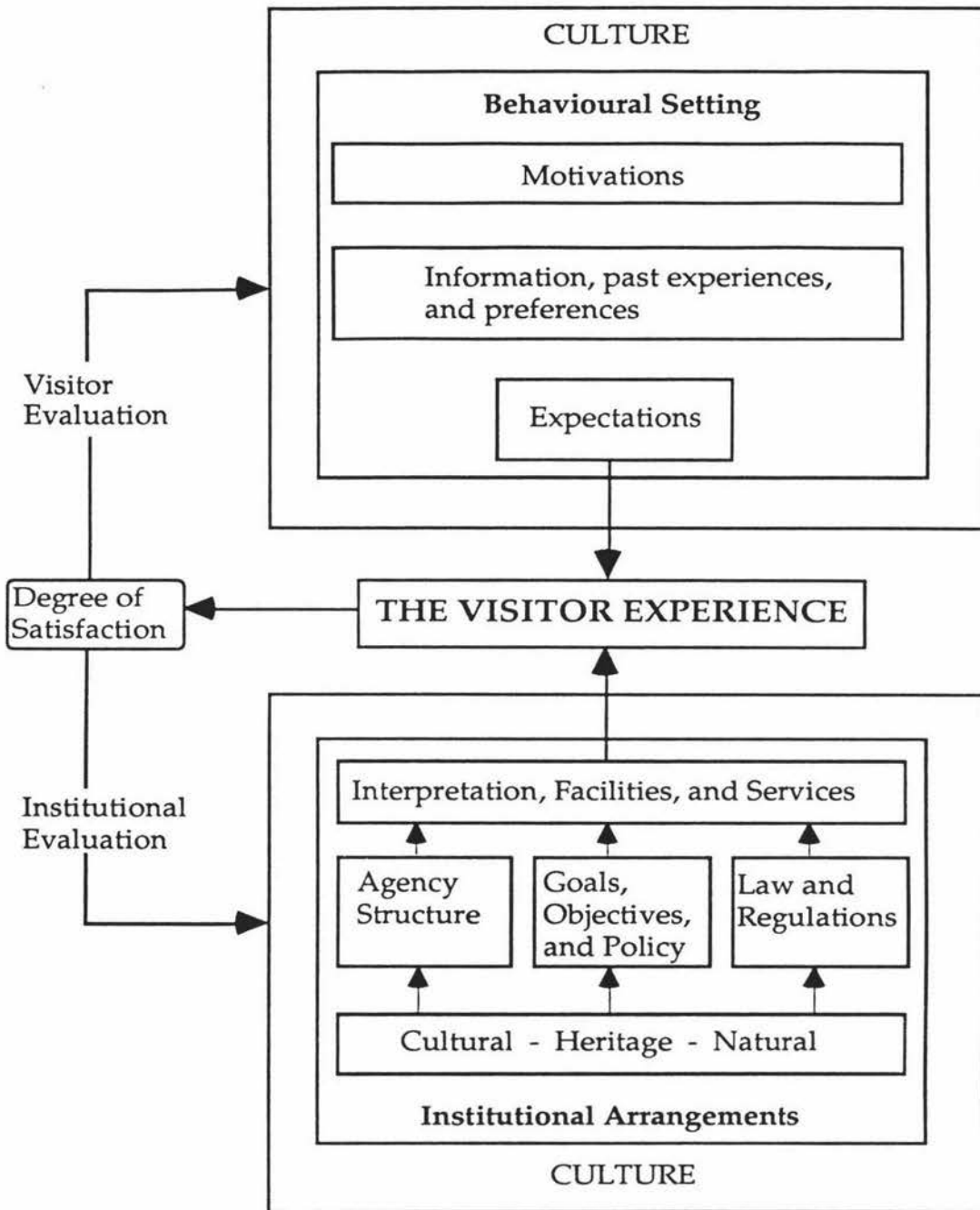
In New Zealand research that has focused on minimising the effects of interaction between humans and the natural environment has, in the past, generally taken the form of examining the negative effects of visitors from the point of view of the heritage site concerned. For example, examining changes in bird populations, or measuring vegetation transects to assess environmental damage. The findings from such research often suggest some management of visitation to the area. Though the quality of the visitor experience is often taken into account when designing management methods, it is all too rare that research of visitor characteristics, including attitudes and behaviour, is undertaken and used to address the paradox by taking into account the visitor's point of view. "Traditional heritage management practices focused on the resource and neglected the visitor experience. However, the increasing significance of heritage in our society means that the fundamental role that visitors play in supporting heritage conservation can no longer be ignored" (Hall and McArthur 1993: 16).

The development of a management plan must not only look at minimising environmental impacts by way of ecological research, but also include a study of the visitor it intends to manage. This will not only assist conservation of the area, but also promote a positive visitor experience, including interpretation, that will encourage greater public support for the preservation of the area and the managerial organisation involved.

Figure 3 shows a model of the heritage visitor management system (Hall & McArthur 1993). It shows factors that have an influence on the visitor experience. It is this visitor experience that we need to manage, to inform and educate about the heritage site and to promote appropriate understanding and behaviour so that the heritage site may be used in a sustainable way. Some level of knowledge of visitor motivation, satisfaction, expectations and past experiences and preferences are important components in the formulation of a management plans, including appropriate interpretation, services and facilities.

Figure 3.

Model of the Heritage Visitor Management System



Hall and McArthur, 1993

1.6 INTERIM SUMMARY

So far tourism and environmentalism have been examined and shown as major global trends, with phenomenal growth rates over the past few decades. Tourists, both international and domestic, view New Zealand as a 'green' destination and as such are using our protected natural areas to fulfil some function in their life. Tourists also have an important function in the conservation of natural protected areas. As suggested by Plimmer (1992a), the particular importance of tourism and environmentalism to New Zealand has been established, along with the idea that the interaction of these two trends and the resulting paradox must be carefully managed.

Given the management paradox of how to allow people to visit and experience heritage attractions while preserving the very attraction they come to see, improved visitor management techniques were identified as an under-utilised but important tool to address this paradox. Central to the use of such visitor management techniques a knowledge of visitors, including their values and attitudes, was identified as an important component when formulating visitor management plans.

These values held by visitors, and society at large, were placed in management system models developed by Memon and Selsky (1994) and Hall and McArthur (1993). Both of these models stress the importance of visitors, and societies, values and attitudes in the decision making process. In the case of Hall and McArthur's (figure 3) model the degree of satisfaction from the visitors experience is used for both institutional and visitor evaluation. While, in Memon and Selsky's (figure 2) dynamic behavioural model of a complex common property resource, use and users (ie. visitors) and values and attitudes are also seen as two important components of the institutional arrangements that influence the emergent patterns of use and management.

In the context of Hall and McArthur's model of the heritage visitor management system this thesis aims to examine aspects of the visitor experience, such as motivation and satisfaction, and to use the findings of the study to make recommendations with regard to the heritage visitor management system of Egmont National Park. The findings can be used to

identify those areas that are currently considered satisfactory and those areas in need of improvement. Furthermore, with the examination of visitor attitudes towards areas, such as park use and development, institutional arrangements, including the goals, objectives and policies, can be evaluated and adjusted where appropriate.

Given the identified need for continuing public support for such protected natural areas and the function of users/use stressed by Memon and Selsky (1994) in their model, decision making bodies, such as the Department of Conservation, must take these values and attitudes held by the public into account when formulating future management plans.

New Zealand is unique and it is time to highlight its spectacular past to take advantage of the increasing interest in natural heritage tourism and learning as a part of tourism. The attractiveness of the natural resource must be enhanced through improved access, facilities and interpretation

(NZTPD 1989b: 2)

1.7 ASPECTS OF VISITATION TO EGMONT NATIONAL PARK

As established, ecotourism is becoming an increasingly important market niche in the New Zealand tourism industry. Its growth has occurred rapidly and has often taken place in areas that have experienced little tourism pressure in the past. Being off New Zealand's main tourist trunk route, this is suspected to be true of Egmont National Park, which is the focus of this study. If ecotourism growth, including domestic ecotourism, is to be continued in New Zealand it must be carefully managed, not only in areas such as marketing and accommodation, but also the sustainable management of the heritage site itself. If this is to occur visitor research must be undertaken.

Egmont National Park, which is one of twelve national parks in New Zealand, was identified as a protected natural area where little visitor research has been previously undertaken. That research which has been completed has been primarily limited to road and track counters and informal observations by Department of Conservation staff. A survey was carried out

on one Easter weekend at one location in the early 1980s, and this is the only such survey research included in the current management plans of Egmont National Park.

This study has been undertaken in Egmont National Park with the aim of providing baseline visitor information for the management of Egmont National Park - including visitor demographics and trip characteristics. Additionally this study also aims to examine:

- information sources, their influences and the provision of information inside the park;
- aspects of visitor motivation and satisfaction;
- concerns felt by visitors during their trip to the park;
- visitor rating of park services and facilities;
- visitor attitude towards development in Egmont Nation Park; and
- attitudes towards the use of New Zealand's national parks.

It is also an aim of this study to extrapolate findings to New Zealand's system of natural protected areas as a whole. It is hoped that this and other such research will lead to better knowledge of visitation to such areas, and in so doing promote sustainable use of the resource while increasing visitor satisfaction through an improved system of services and facilities, including interpretation.

Findings of this study will be used to make management recommendations to the Department of Conservation.

1.8 PREVIOUS STUDIES IN NEW ZEALAND

There is a broad expanse of tourism and recreation literature in New Zealand, focused at national, regional and other more specific levels. It covers broad ranges of topics as diverse as hotel occupancy, mountain biking and museum visitation. The specific area of interest that is of relevance to this study is that of visitation to New Zealand's natural areas.

The New Zealand studies focused on this area have usually been undertaken in national parks and in the majority of cases have been completed by university students or the managers of the particular natural protected area.

Booth (1986) classified such studies into five broad subject areas (after Rea 1984):

- (i) description of use within the national park (estimates of visitor numbers and perhaps some demographics and behavioural information), for example Hellebrekkers (1982);
- (ii) management oriented studies to provide information for problems of use conflict within the park, for example Beamish (1977), Palmer (1979) and Law (1980);
- (iii) sociological, for example Devlin (1976), Simmons (1980) and Booth (1986);
- (iv) economic and /or political, for example Ryan (1974), Pearce (1982) and Clough and Miester (1989); and
- (v) historical, for example Grey (1971) and Pearce (1972).

Booth (1986) notes that these subdivisions should not be viewed as mutually exclusive. Each study may incorporate several approaches dependent on the nature of the problem and aims of the study.

There have been few studies in New Zealand that have examined aspects of park visitation such as motivation and perceptions. The three most notable have been Devlin (1976), Simmons (1980) and Booth (1986). Booth investigated a sample of Christchurch residents and their views of the national park system, specifically, knowledge and awareness of national parks and attitudes and opinions towards them. Devlin (1976) examined the characteristics, motivation and impact of summertime visitors to Tongariro National Park. Simmons (1980) completed a similar study, surveying summertime visitors to Arthur's Pass National Park and examining their characteristics, motivations, perception and impact. These three studies touched upon here are covered in more detail in later sections and used as a basis for comparison and discussion.

Two other studies that have touched on this area were Gilmour (1982) and Snadden (1969). Gilmour (1982) found that recreation and preservation were approximately equal in perceived importance, and dominant. Snadden (1969) noted differences in perception with activity. His sample of Mount Cook trampers and mountaineers considered that recreation was the primary use of the park, while campers, motel and hotel guests considered preservation to be the highest priority.

1.9 ENSUING CHAPTERS

The following chapter presents an environmental history of Egmont National Park and introduces the study location and the patterns of park use and associated management leading to the present day. Chapter three describes the research methodology used for the study and is followed by a presentation of survey results in chapter four. The final chapter summarises the results and discusses their significance in the context of the trends that were identified in the opening chapter. Recommendations to the Department of Conservation are then derived from the findings of the survey. The study concludes with a final discussion and summary.

CHAPTER 2. EGMONT NATIONAL PARK - AN OVERVIEW

2.1 INTRODUCTION

Widening the scope of historical narrative has frequently resulted in more complex interpretation of the past and should point the way to better heritage management. Parks continue to be a major focus of heritage management but have been a relatively quite backwater in traditional historical narrative. The relatively new field of environmental history, however, can place them within the larger context of interaction between nature and culture.

(Mark 1994: 51)

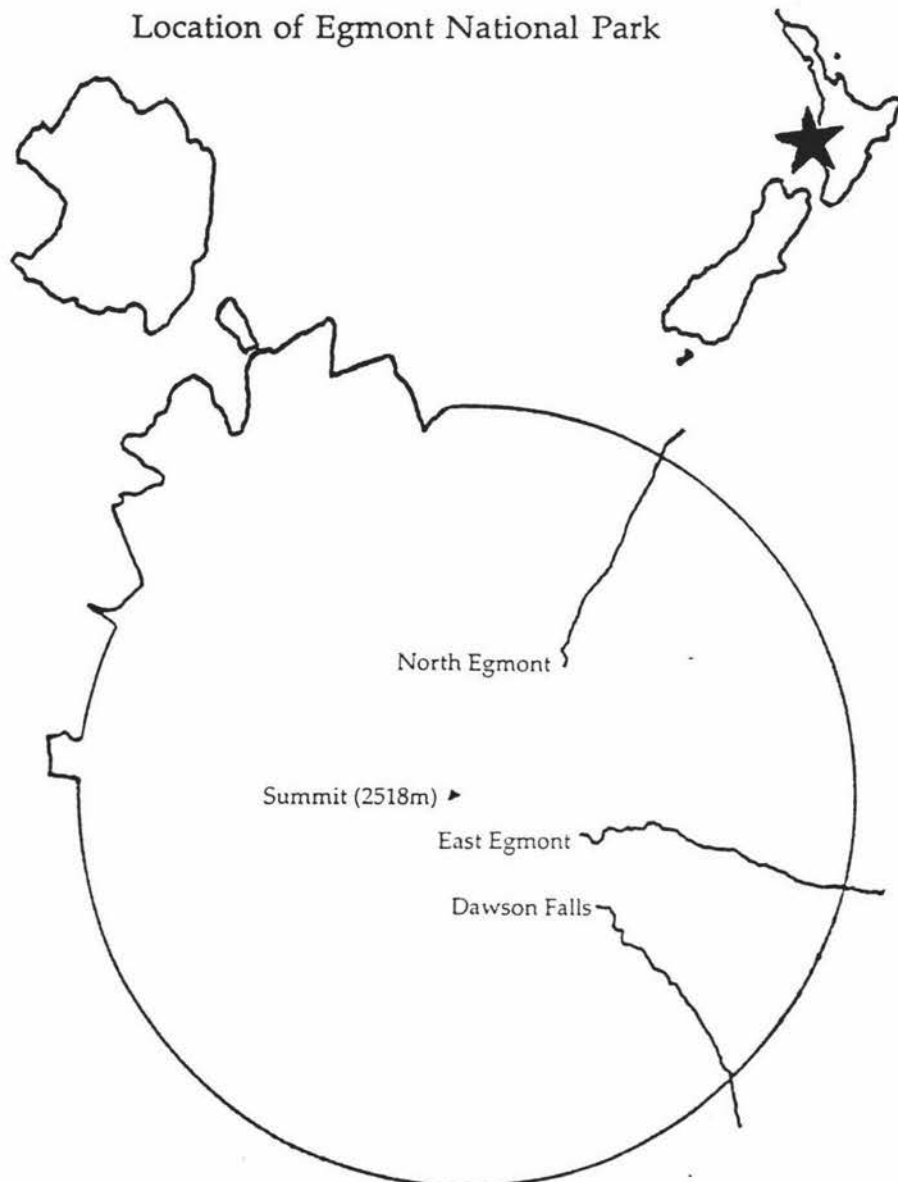
Mark introduces the broad intention of an environmental history, that is to widen the scope of environmental and park history beyond traditional archival records and to examine the wider relationship between humans and the heritage site. This relationship is particularly important for this study as visitors attitudes towards park use and development are being examined along with any concerns they may have had during their visit to Egmont National Park. When examining current attitudes towards Egmont National Park, by way of the survey undertaken, an environmental history may not only assist understanding of the findings but also allow an insight as to how these attitudes have changed over time.

Chapter two begins with an overview of the geology, flora and fauna of Egmont National Park. A brief overview of the Maori relationship with the park area is then followed by a look at the early European history of the park area. Then, beginning with the Egmont National Park Act, 1900, legislation relating to the management of Egmont National Park is used to overview the changing uses of the park area to the present day and explore the changing attitudes towards its use and function. This is followed by an examination of the current management regime of the park and, finally, a chapter summary is presented.

2.2 GEOLOGY, FLORA AND FAUNA

Egmont National Park is situated in the middle of the Taranaki ring plain on the west coast of the North Island of New Zealand (figure 4). Its most dominant feature is Mt. Egmont/Taranaki, it is a classic shaped dome and at 2518 metres is the second highest mountain in the North Island. The park is 33,530 ha in size and includes the Pouakai and Kaitake Ranges. There are three major roads entering the park; North Egmont, East Egmont (or The Plateau) and Dawson Falls. North Egmont has the premier facilities in Egmont National Park with its visitor centre, while Dawson Falls has a display centre. Both the North Egmont and Dawson Falls road-ends have networks of short walks. East Egmont is the highest road-end in Egmont National Park and has the lowest level of facilities. It is also the entry point for the privately run Manganui skifield.

Figure 4.



The Pouakai and Kaitake Ranges, Mt. Taranaki/Egmont (plate 2) and the Sugar Loaves, situated near New Plymouth, make up a volcanic chain that started with the formation of the Sugar Loaves 1.75 million years ago. Mt. Taranaki/Egmont started formation between 50,000 and 70,000 years ago, its last known eruption was in 1755. Presently there is no volcanic activity in the park.

Plate 2.

Mt. Egmont/Taranaki



The weather in Egmont National Park is subject to very rapid and, often, extreme changes. Because of this it is well respected and treated with caution by the peoples of Taranaki and other frequent users of the park. The mountain has seen many tragedies and even more search and rescue operations. Taranaki people have regularly expressed concern for the safety of visitors on the mountain in the local media, particularly overseas visitors and their safety in the park.

Egmont National Park has an interesting variety of flora and fauna. On the lower slopes vegetation consists of the larger trees such as kamahi (*Weinmannia racemosa*), rimu (*Dacrydium cupressinum*), rata (*Metrosideros robusta*) and smaller trees such as mahoe (*Meliccytus*

ramiflorus), pate (*Schefflera digitata*) and fuchsia (*Fuchsia excorticata*) and an under growth of smaller shrubs, lianas and ferns. Higher up the forest gives way to hardier trees such as totara (*Podocarpus totara*) and five finger (*Pseudopanax arboreus*). Above this leatherwood (*Brachyglottis rotundifolia*) begins to dominate and eventually gives way to the characteristic Egmont red tussock (*Chionochloa rubra*), herb fields and mosses. Higher still, approaching the summit, little lives apart from lichens, mosses and a few herbs.

The native fauna is dominated by birds, including fantails (*Rhipidura fuliginosa*), tuis (*Prosthemadera novaeseelandiae*), silvereyes (*Zosterops lateralis*) and native pigeons (*Hemiphaga novaeseelandiae*). Egmont National Park also has an interesting variety of insects inhabiting its forests and scrub, including the vegetable caterpillar, formed when a species of caterpillar that feeds below ground is destroyed by a fungus that is growing in its body.

Egmont National Park has problems with two species of introduced animals, these being goats (*Capra hircus*) and possums (*Trichosaurus vulpecula*). Goats and the damage they cause have been largely brought under control, though Department of Conservation hunters are still used and organised hunts take place in the park. Of more concern, and of special relevance at the time of writing, is the large possum population and the damage they cause by defoliating the vegetation. Hunting and trapping has been used in the past in attempts to bring this species under control. Currently the Department of Conservation is carrying out a controversial aerial dropping of 1080 poison in an attempt to bring the possum numbers down to reasonable levels.

2.3 MAORI LEGEND AND RELATIONSHIP WITH EGMONT NATIONAL PARK

Maori relationship with Egmont National Park is centred on Mt. Taranaki. Legend says that Taranaki once resided near Tongariro, in the place where Rotoaira now is. Pihanga, a graceful bush clad mountain overlooking Lake Taupo, was Tongariro's wife. Taranaki fell in love with Pihanga, so forming

a love triangle. Tongariro discovered this and ordered Taranaki to depart, enforcing this with a kick so powerful that Taranaki was driven away towards the west. Taranaki took flight and the path he followed is what is now known as Manga-nui-o-te-ao, a tributary to the Wanganui river. Taranaki opened up its course to the Wanganui river and followed it down scouring out the Wanganui river valley. Taranaki moved towards its present site from the Wanganui river leaving as a trail several groups of rocks said to have been dropped in his flight. Along the way westward he rested at the Ngaere Swamp, which was formed by his great weight as he rested. It was dusk when he arrived at the south east end of the Pouakai Ranges, which had been in their present position long before Taranaki arrived. They persuaded him to rest and stay the night. While Taranaki slept he was bound fast by a spur thrown out by the ranges. On waking in the morning he found himself prisoner and has remained in his present location ever since (adapted from Scanlan 1961).

Mt. Taranaki is the most sacred object to Taranaki Maori, the second most being a female stone of great mana, Toka-a-Rauhoto, which acted as a pilot or guide to Taranaki. There are other legends and associated land forms about Taranaki that add to the strength and mystique of the Maori relationship with the mountain. When mist or cloud cover Taranaki's summit or head, he is said to be mourning his lost love Pihanga, which on a clear day may be seen from the top of the mountain. The eruption of Tongariro's subsidiary volcano of Ngauruhoe with smoke and thunder is said to be the enduring anger of the indignant husband (Scanlan 1961).

For the tangata whenua the slopes of Mt. Taranaki/Egmont remain a sacred place. Its upper levels, particularly on the coastal side, are tapu, as its caves and crevices are the burial places of their tupuna. Some tribes also believed there is a taniwha on Taranaki's upper slopes. Tribal battles have also taken place on the mountain, some as recent as European arrival in which raiding tribes with muskets took a dreadful toll on the local Maori at Maru, a retreat high on the south western slopes of the mountain.

Today the slopes of Mt. Taranaki/Egmont in Egmont National Park remain a sacred place for Maori. There is a strong relationship and respect for the mountain felt by Maori, particularly the tribes of Taranaki.

2.4 EARLY EUROPEAN HISTORY OF THE PARK AREA

It was 1642 when Europeans first made recorded contact with New Zealand. Abel Tasman spent only 23 days on the New Zealand coast, in which time he rounded and mapped what was later to be known as Cape Egmont, but failed to see Mt. Taranaki/Egmont due to the common occurrence of low cloud.

One hundred and twenty seven years later Lieutenant James Cook sailing the Endeavour, made the first European landfall at Poverty Bay in 1769. On the tenth of January 1770, while sailing around and mapping the Islands of New Zealand, Mt. Taranaki/Egmont was sighted. Three days later Cook gave it the name of Egmont in honour of the Earl Of Egmont, First Lord of the Admiralty. Currently both names are in use, with the official name being Mt. Taranaki/Egmont.

European settlement soon followed and progressed throughout the 1800s. The Mountain evoked similar feelings of awe and respect in European travellers/adventurers at the time. William Barrett, in his book "Two Visits to New Zealand", paid this tribute in 1834:

In the far distance, but for its stupendous altitude, which has been estimated at 14,000 feet, brought apparently within an hours reach of us, Mt. Egmont reared itself in all its stateliness and pride, snow-capped and veiled in mist, seeming to hold mysterious converse with a congregation of clouds.... A more striking or magnificent object I have never beheld, and find it difficult to conceive, unless indeed it be its former self, lighted up by the fire that is now slumbering or extinct within its bosom....

The beauty of the mountain and economic considerations, in the form of protection of the water catchment area, led to the first formal protection of the park area. European settlement in New Zealand usually took the form of clearing of native bush by "slash and burn" to make way for productive pasture land. However, strong public feelings in Taranaki led to the creation of a protected six mile radius from the summit of the mountain. This was made official in 1881 when the Government set aside the "forest reserve" of Mt. Egmont for the "growth and preservation of timber". The same anxiety and opinion saw the saving of 6,000 acres of additional forest that included

the Kaitake Ranges. The creation and protection of these reserves were assisted by the many "Save the Mountain" and "Hands off Egmont" campaigns organised by the local residents.

Not only did Mt. Egmont provide an identity for the peoples of the region but the Park's climatic influence was also recognised as very important to Taranaki's rural based economy. This was recognised early on and appeared in the first annual report of the Egmont National Park Board in 1902:

In making such a large reservation..... it was recognised as a national matter to endeavour to keep climatic conditions equable..... the trees and scrub all round the mountain for more than two-thirds of the area of the reserve preserve the moisture, equalise evaporation, whilst the winter snows are carried off gradually during the warmer part of the year.

The turn of the century ushered in a major change in administration. The Egmont National Park Act passed both Houses of Parliament on 20 October 1900, and so brought about the creation of New Zealand's second National Park. This new act was welcomed with comments such as "After many delays and disappointments the conservation for all time of Mt. Egmont and the adjoining ranges has become an accomplished fact" (The New Plymouth Scenery and Preservation Society in Scanlan 1961).

The peoples of Taranaki see the mountain as a strong bond between themselves and the land. It is by far the most imposing physical feature in the region and gives identity and a sense of continuity to those that live in its shadow. When writing of the people of Taranaki in 1881, Grey commented "Taranaki, that somnolent settlement at the foot of Mt. Egmont more remarkable for Devonshire cream and curious family relationships than for enterprise." But in the New Zealand Times in 1900, commenting on the Egmont National Park Bill, "There is perhaps no organisation in the colony more energetic in doing everything within its power to preserve portions of native bush from wanton destruction than the Taranaki Preservation Society."

2.5 THE USE OF EGMONT NATIONAL PARK

Along with the economic factors and those considerations relating to the beauty of Mt. Egmont and Taranaki peoples identity with the park area, the park area was also used from a very early stage for recreation/adventure purposes.

Early Europeans viewed the mountain as a challenge. It was first climbed by Ernst Dieffenbach who reached the summit on 23 December 1839. It was climbed repeatedly in the late 1800s and explored and surveyed on all sides. Through out this period and the early 1900's many names arose that have become synonymous with the mountain. Names such as Francis Bell, Thomas Dawson, F. Wilkie, Harry Peters, T & L Humphries, Fanny Fantham and the Curtis family can still be recognised by the prominent features on the mountain named after them.

This growth in the recreation function of Egmont National Park was recorded in the Taranaki Herald, which on March 27th 1880 reported: "many parties have started for the mountain, totalling fifty or sixty, including some ladies." By the turn of the century tourism to the area was already well established. With the advent of better roads leading into the park and, later, the more common occurrence of motor cars, visitor numbers soon increased.

Aside from recreational purposes the area of the now Egmont National Park was put to a variety of other uses over the years. Late last century interest and earlier this century interest was expressed in the park area for mining purposes. Most notably mining for gold was undertaken at a reasonable scale in the Kaitake ranges. Fossil fuel exploration took place on the western side of the mountain and a track wide enough for vehicles was put some distance into the park starting from the top of Ihaia road. While on the Eastern side of the park a railway track was laid going up the mountain and used to bring rock down to a crusher situated just within the park boundary. The introduction of possums into New Zealand in an attempt to establish a fur industry saw the banning of hunting of these animals within the park until they became established. During the hard years of the wars illegal grazing of cattle and sheep took place within the park boundaries.

These uses, most of which took place earlier this century, emphasise the changing attitudes towards the use of Egmont National Park. Although the beauty of the park areas was a consideration that led to its establishment around the turn of the century there still existed an attitude that even though it was protected it was still a resource that could be used for financial gain. These attitudes towards park use can be traced through the legislation that set out the functions of the park.

2.6 EARLY MANAGEMENT OF EGMONT NATIONAL PARK

The Egmont National Park Act, 1900

The Act that brought about the creation of Egmont National Park was passed in 1900 and created the Egmont National Park Board as the controlling body. The Egmont National Park Act, 1900, did not provide any general purpose for the park, but rather set out its uses by way of creating a list of matters for which penalties could be imposed. Every person was liable to a twenty pound fine, in addition to costs for the damage done, who did any of the following things upon or within the park boundaries:

- (1) Lights and fire; or
- (2) Wilfully breaks or injures any fence, building, or erection;
or
- (3) Wilfully breaks, cuts, injures, or remove any or any part of any wood, tree, shrub, fern, plant, stone, mineral, furniture, utensil, tool. or thing of any kind; or
- (4) Wilfully digs, cuts, or injures the sod; or
- (5) Shoots at any bird or animal with any gun or other instrument; or
- (6) Wilfully takes, destroys, or injures any bird or animal, or the nest or egg of any bird.

Additionally, the Board had the right to lease land (under two acres) for residential purposes or accommodation-houses and, with the appropriate approval, by-laws could be made by the board under "The Public Domains Act, 1881."

The Egmont National Park Act, 1900, provided protection for the natural environment of the park but options were left open for additional uses if required.

The Egmont National Park Act, 1924

The revamped 1924 Act was very similar to the Act of 1900, additions included the approval of the Governor-general in Council first being obtained before any person was allowed to fell any trees or timber growing in the park. Offences within the park were the same as set out in the 1900 Act, though the fine was increased to fifty pounds.

Egmont National Park Act, 1924, gave the Egmont National Park Board all of the powers of the Public Reserves and Domains Act, 1908, and additionally such powers (as approved by the Governor-General) to make by laws-for:

- (a) Excluding the public from any specified part or parts of the park:
- (b) Prescribing the conditions on which any persons shall have access to, or be excluded from, the park or any part thereof, and making charges for admission of persons to the park or any part thereof, and for the admission of horses and vehicles to the park:

Although these laws set out a good degree of protection for the parks natural environment the Board (with approval from the Governor-General) was also give the power to grant special licences to remove stone, gravel and similar substances from the park and to construct roads or tramways to assist in this purpose. The Egmont National Park Board was also allowed to provide accommodation for tourists within the park and could develop infrastructure associated with this, including electric-power works, roads and tracks. The board could also gain the right to utilise water for the generation of electric power or for the provision of high-pressure water for the development or use of the park as a tourist resort.

Even though a reasonable level of environment protection was present in the Egmont National Park Act, 1924, there was still an attitude that the park area could be used for economic gain in the form of metal extraction and as a

tourist resort. Also the process was in place for timber to be cut if desirable. In many respects the Egmont National Park Act, 1924, gave natural environment of the park less protection than the original Act of 1900 and it also gave the board the power to exclude people from any part of the park, or the whole park itself. In this respect the attitude towards the park appears to be one of protecting it in principle but also that it should be treated as an economic resource by allowing certain commercial activities.

The Public Reserves, Domains, and National Parks Act, 1928, sought to clarify the laws pertaining to such areas. Part III contained the general provisions relating to national parks. However, the special Acts relating to particular national parks, including the Egmont National Park Act, 1924, were not included in the reprint. The next Act relating to the management of Egmont National Park was introduced in 1952.

The National Parks Act, 1952

The National Parks Act, 1952, was an Act to consolidate and amend the law relating to national parks in New Zealand. Its general purpose was that parks were to be maintained in a natural state and that the public were to have right of entry:

It is hereby declared that the provisions of this Act shall have the effect for the purpose of preserving in perpetuity as national parks, for the benefit and enjoyment of the public, areas of New Zealand that contain scenery of such distinctive quality or natural features so beautiful or unique that their preservation is in the national interest.

It was further declared that, having regard to this first general purpose, national parks:

- shall be preserved as far as possible in their natural state;
- except where deemed appropriate native plants and animals shall as far as possible be preserved while introduced plants and animals shall be exterminated as far as possible;
- their value as soil, water and forest conservation areas shall be maintained; and

-public may have freedom of entry to enjoy national parks, providing they do not cause detrimental effects to the plants and animals and welfare in general of the park.

The powers and functions of the National parks boards were also reviewed. Interestingly, sections 23, 24 and 25 related specifically to Egmont National Park, dealing with the Egmont local committees. Egmont was the only park with special provisions, and the subject of the provisions can be viewed as an indicator of the continuing close relationship the people of Taranaki have with their mountain.

The National Parks Act, 1952, provided a lot more protection for Egmont National Park than the previous Acts and also gave the public the right of entry, a right that is now enshrined in the psyche of many New Zealanders.

2.7 CURRENT MANAGEMENT OF EGMONT NATIONAL PARK

Egmont National Park is now administered under the National Parks Act, 1980, and managed by New Zealand's Department of Conservation. The Department of Conservation was established by the Conservation Act, 1987, following the restructuring of the Department of Lands and Survey, the New Zealand Forest Service and the New Zealand Wildlife Service and the dispersal of their functions. To gain a feeling for the intended role and functions of national parks in New Zealand an overview of the aims of the two acts follow. This is followed by a brief overview on the Department of Conservation Wanganui Conservancy Draft Conservation Management Strategy and the Egmont National Park Management Plan.

The National Parks Act, 1980

The main principles of the National Parks Act, 1980, are in Part 1, sections 4 and 5 of the Act. Section 4, subsection (1) states that parks are to be maintained in natural state and that the public have right of entry:

It is hereby declared that the provisions of this Act shall have the effect for the purpose of preserving in perpetuity as national parks, for their intrinsic worth and for the benefit, use, and enjoyment of the public, areas of New Zealand that contain scenery of such distinctive quality, ecological systems, or natural features so beautiful, unique, or scientifically important that their preservation is in the national interest.

The National Parks Act, 1980, has a very similar general purpose to the Act of 1952, but with several important additions, first, it recognised parks as having intrinsic worth. For "the benefit and enjoyment of the public" expanded to "for the benefit, use, and enjoyment of the public." The concept ecological systems was also added along with the idea that such areas may be scientifically important, and, added to the following section of the Act, sites and objects of archaeological and historical interest are, as far as possible, to be preserved.

The Conservation Act, 1987

In 1987 the Conservation Act was enacted in New Zealand. Its function was to establish the Department of Conservation so that it may administer the Conservation Act. The functions of the Department of Conservation, summarised, are to:

- manage for conservation purposes all land and other natural and historic resources held under the Act and additionally other such resources as agreed to by the owner of the land and the Minister;
- advocate the conservation of natural and historic resources;
- promote the benefits of natural and historic resources, including sub-antarctic and antarctic land, for present and future generations (including international co-operation);
- foster use of natural and historic resources for recreation and allow their use for tourism providing it is not inconsistent with its conservation;
- advise the Minister of Conservation on any matters relating to any of these functions or to conservation generally; and
- carry out every other function conferred on it by any other enactment, for example the National Parks Act, 1980, the Reserves Act, 1977, and the Wildlife Act, 1953.

The Conservation Act, 1987, also established the New Zealand Conservation Authority and Regional Conservation Boards, which provide for public input and an oversight of the Department of Conservation's activities. They participate in statutory hearings and have planning and policy roles as well as the power to advocate for conservation generally.

Wanganui Conservancy Conservation Management Strategy and the Egmont National Park Management Plan

At the time of writing both the Wanganui Conservancy Conservation Management Strategy and the Egmont National Park Management Plan are in varying stages of review and change. The aims of both these documents are to provide strategies more specific to Egmont National Park to carry out the aims of the National Parks Act 1980 and Conservation Act, 1987.

The Conservation Management Strategy sets out both broad and specific intentions for the Department of Conservation's Wanganui Conservancy, in which Egmont National Park is situated. Currently the draft is in the process of being finalised before being released for public comment and will set parameters for the review of the Egmont National Park Management Plan. The Egmont National Park Management Plan is due for review by the Department of Conservation and the Taranaki/Wanganui Conservation Board in 1995. The Egmont National Park Management Plan for park use upholds the principles of the National Parks Act, 1980, and the Conservation Act, 1987.

2.8 CHAPTER SUMMARY

Chapter two began with an overview of the geology, flora and fauna of Egmont National Park. A brief overview of the Maori relationship with the park area was then followed by a look at the early European history of the park area. Legislation was used to examine the changing use and attitudes towards Egmont National Park. In the wake of the original conception of the park, for both commercial and preservationist means, the Egmont National Park Act, 1900, provided a fairly high level of protection of the park area with few provisions for commercial development. The 1924 Act allowed a lot more commercial activities to be undertaken in the park and considered the park to be a commercial resource and in many respects it was a backwards step in the protection of the park environment. The National Parks Act, 1952, provided more comprehensive protection of the park environment and gave the public the right of freedom of access. The National Parks Act, 1980, additionally recognised the parks intrinsic values and introduced such concepts as ecosystems, thereby providing more comprehensive protection. This was followed by an examination of the current management regime of the park.

CHAPTER 3. RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter three introduces the research methodology used for the visitor survey of Egmont National Park. The rationale behind the sampling technique is explained with respect to the conditions of Egmont National Park and the aims of the study. Calculations for the location and timing of survey collection are presented. The pre-testing of the questionnaire and difficulties involved with data collection are also discussed. The methods used to analyse the data are introduced and the reliability of the data is examined.

3.2 DESIGN AND DEVELOPMENT OF RESEARCH INSTRUMENTS

Questionnaire Development

Initial research design began in February of 1993 with an examination of research on related topics completed in New Zealand and overseas. This investigation, and discussions with Department of Conservation staff led to a self-administered questionnaire format being chosen as the most appropriate strategy for measuring attitudes of visitors to Egmont National Park.

A self-administered questionnaire was chosen for its simplicity as a data collection method once designed. For this study it also addresses three other areas of concern, these being:

- (1) Study locations - it was found that some study locations were not suitable for interviewer administered questionnaires, being exposed to the elements and providing an uncomfortable, if not impossible, environment for respondents trying to complete the questionnaire.
- (2) Reasons of confidentiality - when confidentiality is stressed and the respondents have some privacy, socially desirable responses should

be lower when subjects are filling in the questionnaire themselves, when compared to interviewer-administered questionnaires. This was considered particularly important with the questions relating to park use and development, as the presence of an interviewer associated with the Department of Conservation or the Massey University Department of Ecology may have encouraged responses perceived favourable with those organisations, rather than responses reflecting attitudes held by the individual.

- (3) Length of the questionnaire - the questionnaire in its final format often took respondents over 20 minutes to complete and during the pilot testing it was found that respondents were either in a rush to reach their destination within the park or in hurry to return home. Because of this it became apparent that interviewer-administered surveys of such length were not well received when given within the park. It was considered that this would have a negative effect on the quality of the data, as respondents in their hurry to finish the questionnaire gave less consideration to the questions.

With self-administered questionnaires it is essential that the questions are presented in such a way to encourage the accurate completion of the whole questionnaire. They must also meet the requirements of those involved in the study, namely visitors to Egmont National Park. To address this, format and language were given particular consideration as it was desirable to make the questionnaire as short and as easy to use as possible while obtaining the greatest amount of information. In response to this requirement the majority of questions were constructed in closed question format, where the respondent ticks a box to answer. Closed questions are also useful for ease of coding and data analysis. The reading ability of the target population was also taken into account in the questionnaire design, as this ranged from those with university degrees to others that may have lesser reading skills.

To identify studies that could include possible questions for the project a literature search was conducted that included use of the CD-ROM's; CAB, ABI/INFORM and PSYCH LIT and the Massey University Library and associated facilities. Department of Conservation questionnaire guidelines were also a major consideration in the questionnaire design and where possible the standardised questions used by the Department were incorporated. This was particularly important as one of the project aims of

the survey was that it could be easily incorporated by the Department of Conservation into its national data base as well as providing a base line for future studies in Egmont National Park. Department of Conservation staff also provided valuable advice and input into the questionnaire development.

When identified, suitable attitudinal questions were converted to statements that answered would induce a response on a four or five point scale, similar to Likert scales. Likert (1932) demonstrated that such scales can achieve the same validity as more time consuming methods. Scale anchors included: strongly agree, agree, neutral, disagree and strongly disagree. Other four or five point scales were used for appropriate questions, these are shown in the sample questionnaire in appendix two.

Provision was made for additional comments the respondent wished to make. These open ended questions provide a valuable source of information that elicit responses unstructured by the questionnaire designer.

A covering letter (appendix three) was stapled to the front of each questionnaire, introducing the survey, its broad aims and asking respondents if they wished to receive a copy of the results. The covering letter was printed on Massey University Department of Ecology letterhead, this was to add credibility to the survey and to distance the Department of Conservation from some of the questions asked.

Pre-testing of the Questionnaire

When designing measuring instruments, it is necessary to test the instruments to see how well they perform their task. The questionnaire and administering methods need to be tested to see if they meet the information needs of the study while still being presented in such a way as to be easily used by the target population. Specific attention needs to be paid to the attitude scales, making sure they are reliable and valid. These requirements were tested by the use of a pilot study.

The questionnaire was trialed at the North Egmont visitor centre and at Holly Hut over Easter Weekend 1993. A copy of the trial questionnaire is included in appendix one. Thirty nine questionnaires were completed in the trial survey, with most questions being generally well received. In the trials the questionnaire took respondents between ten and fifteen minutes to complete.

After the trial it was decided that the focus of the survey should be shifted in a direction that placed more emphasis on gathering information on concerns felt by visitors to Egmont National Park, their rating of services and facilities and visitor attitudes towards park use and development. The questionnaire was adapted to gather more information relating to this new focus, while still providing the base line information desired by the Department of Conservation. The questions relating to the round the mountain track were also changed, to be of a more general nature. Several ambiguous questions were appropriately corrected and the format was also improved. A copy of the final questionnaire is included in appendix two.

The final questionnaire was only half a page longer than that used in the pilot study, but the increase in the number of attitudinal questions led to an unexpected doubling of the time taken by respondents to complete the questionnaire, often taking 20-25 minutes.

3.3 APPROVAL TO UNDERTAKE SURVEY

The undertaking of a survey in National Parks requires approval of the Department of Statistics. In 1989 the Department of Conservation obtained a waiver in cases relating to visitor surveys. This right to waiver was used and written permission from the Department of Conservation, Wanganui Conservancy, to carry out the survey in Egmont National Park was obtained. The letter of approval from the Department of Conservation is included in appendix four.

3.4 SAMPLING TECHNIQUES

Stratified sampling procedures were used, as selecting individuals randomly would be inappropriate due to the costs and time involved in collecting data. The survey excluded non-English speakers and was aimed at people over fifteen years old. The survey was administered in two parts: the three major road-ends; Dawson Falls, East Egmont and North Egmont, and the park huts, with an emphasis on Holly Hut. The emphasis for survey collection at the park huts was placed on Holly Hut as it is at the intersection of several walks of varying length and terrain. Department of Conservation staff consider Holly Hut to have the best cross-section of visitors to park huts in Egmont National Park. A possible bias could exist here, as "hard-core" trampers may avoid the relatively high numbers of people who frequent places in the park such as Holly Hut.

The survey took place from the first of July 1993 through to Easter, in April 1994. May and June are low use periods and were not surveyed. Surveying occurred on a monthly basis and questionnaires were to be administered approximately 70% at weekends and 30% weekdays, though this turned out to be closer to 80% at weekends. It is also possible that this has created another bias, as visitors place of residence may change proportionally given the time of the year or the day of the week. This could not be examined due to restrictions imposed by the size of the sample.

The initial aim was to administer 520 questionnaires, 400 at the three major road-ends and 120 at Park Huts. The number to be administered at each location each month was based on road counter and hut pass data collected by the Department of Conservation over the previous three years. These were the best data available and considered to be a reasonable reflection of the proportion of visitors to each road-end each month, and the monthly level of use of park huts.

The number of questionnaires to be administered at each road-end was calculated by starting with the figure of 400 questionnaires to be administered at the road-ends and then using road counter data from the last three years to produce a table of the average number of visitors each month at each road-end. This was then converted to a percentage figure for each road-end and the 400 questionnaires were distributed accordingly (table 2).

Table 2.

Data Collection Calculations For Visitors to the Three Major Road-Ends in
Egmont National Park

Number of Visitors				
	Dawson Falls	East Egmont	North Egmont	TOTAL
July	6880	10810	3997	21687
August	5618	12577	3367	21561
September	5435	17117	5262	27813
October	15193	16020	6137	37350
November	9875	11181	5302	26358
December	10702	6300	4297	21299
January	9723	5772	6525	22020
February	8713	11707	7475	27895
March	7280	10436	5987	23632
April	7472	7437	5619	20528
Monthly average	8682	10936	5397	25014
TOTAL	86818	109357	53967	250143
% of total	34.71%	43.72%	21.57%	100.00%
Number of questionnaires	139	175	86	400

Once the number of questionnaires to be collected at each road-end was calculated the number to be collected each month was then needed. For each road-end an average number of visitors over the last three years for each month was calculated and then converted to a percentage figure. The number of questionnaires to be collected each month was then calculated as a proportion of the number of questionnaires to be collected at that road-end. These calculations are displayed in tables 3, 4 and 5.

Table 3.

Calculations of Surveys to be Collected Each Month at North Egmont

Number of Visitors						
	1990	1991	1992	Average	Percent	Number of Quest.
July	3755	3971	4264	3997	7.41%	6
August	3510	3032	3558	3367	6.24%	5
September	4548	3476	7761	5262	9.75%	8
October	5164	2800	10446	6137	11.37%	10
November	3480	7715	4712	5302	9.83%	8
December	9576	1288	2026	4297	7.96%	7
January	7124	6876	5574	6525	12.09%	10
February	5752	10020	6654	7475	13.85%	12
March	5304	5548	7110	5987	11.09%	10
April	4380	5342	7136	5619	10.41%	9
TOTAL	52593	50068	59241	53967	100.00%	86

Table 4.

Calculations of Surveys to be Collected Each Month at East Egmont

Number of Visitors						
	1990	1991	1992	Average	Percent	Number of Quest.
July	11783	6452	14194	10810	9.88%	17
August	11515	9451	16765	12577	11.50%	20
September	11417	6612	33321	17117	15.65%	27
October	22713	4890	20458	16020	14.65%	26
November	6971	10862	15709	11181	10.22%	18
December	6607	6253	6059	6300	5.76%	10
January	8319	2345	6653	5772	5.28%	9
February	11669	6456	16995	11707	10.70%	19
March	16500	5133	9676	10436	9.54%	17
April	1711	5787	14813	7437	6.80%	12
TOTAL	109205	64223	154643	109357	100.00%	175

Table 5.

Calculations of Surveys to be Collected Each Month at Dawson Falls

Number of Visitors						
	1990	1991	1992	Average	Percent	Number of Quest.
July	8121	8040	4480	6880	7.92%	11
August	9370	4143	3340	5618	6.47%	9
September	11238	1015	4052	5435	6.26%	9
October	24464	1480	19635	15193	17.50%	24
November	11456	5428	12740	9875	11.37%	16
December	22392	2394	7319	10702	12.33%	17
January	11011	13500	4658	9723	11.20%	16
February	8883	8816	8440	8713	10.04%	14
March	8734	3411	9479	7208	8.30%	12
April	6660	7319	8437	7472	8.61%	12
TOTAL	122329	55546	82580	86818	100.00%	139

A similar method was used for calculating the number of questionnaires to be collected each month at the park huts. The number of tickets collected at the huts over the past two seasons was used as the basis for calculations. Even though it is strongly suspected there is a high non-compliance rate with the use of hut passes it was assumed that these are a reasonable reflection of proportional levels of park hut use over the year. Once again monthly averages were calculated and converted into percentage figures and the 120 questionnaires to be collected at the park huts were distributed proportional to this (table 6).

Table 6.

Planned Number of Surveys to be Collected Each Month at the Park Huts

Number of Visitors					
	1991-92	1992-93	Average	Percent	Number of Quest.
July	190	267	229	4.89%	6
August	122	53	88	1.87%	2
September	185	147	166	3.55%	4
October	409	266	338	7.23%	9
November	370	358	364	7.79%	9
December	818	612	715	15.31%	18
January	1059	1114	1087	23.27%	28
February	723	552	638	13.65%	16
March	598	559	579	12.39%	15
April	655	283	469	10.04%	12
TOTAL	5129		4670	100.00%	120

This method of data collection did not allow a monthly comparison at any one site or monthly comparisons between road-ends or huts, as an overly large number of samples would be needed to make the findings statistically significant. Road-end sampling took place at North Egmont, Dawson Falls and East Egmont, shown on the map in figure 4. Hut sampling took place at Holly, Waingongoro, Maketawa and Waiaua Gorge huts.

Initially, it was intended to collect all 520 questionnaires. However, owing to the unexpected amount of time it took visitors to complete the questionnaire, after the changes were made to the trial survey, and other difficulties experienced, this did not prove feasible. Even though there was a deviation from the number of questionnaires intended to be collected, as shown in tables 2, 3, 4, 5 and 6, the calculations still provided a guide for questionnaire collection by showing the seasonal and spatial patterns of use of the study locations.

The difficulties in administering the questionnaire came about primarily due to the unexpected amount of time it took the subjects to answer the additional attitudinal questions, often around 20 to 30 minutes, as most respondents put a lot of consideration into what they considered important questions.

Data collection at North Egmont (plate 3) and Dawson Falls (plate 4) took place at the Department of Conservation Visitor Centre and Display Centre, respectively. This was supplemented by additional questionnaire distribution at high use times such as tramping club open climbs. At East Egmont (plate 5), with the absence of facilities and shelter and the length of time it takes to complete the questionnaire, getting visitors to fill out the questionnaire on location proved unreasonable. In response to this, questionnaires with stamped and self addressed envelopes were provided and visitors were invited to take these home to complete. Owing to the nature of the questions, completion of the questionnaire by the respondent away from the park was not expected to bias the data.

Plate 3.

The North Egmont Road-End



Plate 4.

The Dawson Falls Road-End



Plate 5.

The East Egmont Road-End



The increased time required by visitors to complete the questionnaire sometimes discouraged Department of Conservation staff at North Egmont and, in particular, Dawson Falls from putting an appropriate amount of effort into the survey. Staff felt they were imposing too much upon the time of the visitor asking him/her to complete a questionnaire of this length. This was addressed in the later months of the survey period by provision of the option for the visitor to take the questionnaire home to complete, with a stamped and self-addressed envelope, and by the author carrying out more data collection personally.

Most visitors showed a great deal of interest in the questionnaire once they became aware of the nature of the questions, and put a lot of thought into completing them. This was particularly apparent in the overnight stayers in the huts, with some visitors going to great lengths in supplying written comments. The high level of interest was also reflected by 53.7% of respondents making additional comments where invited. The number of questionnaires finally collected was 326.

3.5 DATA ANALYSIS

The data were coded using the coding guide, as shown in appendix five, and entered into a computer using an ASCII (DOS text) file. The data were coded in such a way that the Department of Conservation could extract further information from the survey at a later date if necessary. A systems file for the program Statistical Package for Social Scientists (SPSS) was created and the analysis proceeded on the Massey University Computer network. T-tests (t), one-way analysis of variance (F) and cross tabulations using chi square (χ^2) were used to test relationships in the data. A significance level of $p < .05$ was used for all tests.

3.6 RELIABILITY

Using the SPSS program, code ranges were specified so that abnormal range values would be identified immediately and corrected. Once the data were coded data screening was carried out. Data screening was conducted using the SPSS frequencies and regression commands. Histograms of all variables

were drawn along with summary statistics which included means, medians, standard deviations, kurtosis and skewness values. These were checked for normality, missing data and outliers, although range specification rules should have eliminated univariate outliers. Scatter plots were also drawn to check for linearity and homoscedasticity.

Data screening also involved a residual analysis of the data to check the assumptions applied to the multivariate data. Standardised residual and Mahalanobis distance outliers were calculated and the standardised residual histogram and normal probability plot were then examined, which revealed no significant multivariate outliers. The standardised residuals are displayed in figure 5.

It was concluded that the data were reliable.

Figure 5

Standardised Residuals

N	Exp	N	(* = 1 Cases, . = Normal Curve)
0	.08	out	
0	.15	3.00	
0	.39	2.67	
0	.90	2.33	.
0	1.84	2.00	.
1	3.38	1.67	*.
5	5.54	1.33	****.*
4	8.15	1.00	****.
11	10.73	.67	*****.*
15	12.65	.33	*****.**
23	13.37	.00	*****.*****
20	12.65	-.33	*****.*****
12	10.73	-.67	*****.**
7	8.15	-1.00	*****.
3	5.54	-1.33	***.
0	3.38	-1.67	.
0	1.84	-2.00	.
0	.90	-2.33	.
0	.39	-2.67	
0	.15	-3.00	
0	.08	out	

3.7 CHAPTER SUMMARY

Given the characteristics of the study locations, a stratified sampling procedure was chosen for the visitor survey of Egmont National Park. A questionnaire was designed and permission was gained to undertake the survey. Pre-testing of the questionnaire was carried out and appropriate modifications were made. The sampling took place at the three major road-ends and the park huts and number of surveys to be collected at each study location over time was calculated from previous visitor use patterns. Difficulties in data collection were then identified and discussed. The method of data analysis was explained and the data were examined and concluded to be reliable.

CHAPTER 4. SURVEY RESULTS AND DISCUSSION

4.1 INTRODUCTION

Chapter four is divided into two sections. Section one presents the results of the visitor survey carried out in Egmont National Park. Section two summarises these results and provides further discussion. It was decided to combine all the samples and treat these as the basis for the analysis.

Section one begins with an examination of the response rate to the questionnaire with respect to the study locations and how the questionnaires were collected over time. Visitor demographics and their trip characteristics are then displayed. Questions relating to the provision of, and demand for, information in Egmont National Park follow. The groups of questions relating to concerns, services, facilities and development are then presented and developed into scales. The scales, once constructed, are used to explore relationships with other variables measured by this study. The questions relating to park use are displayed and correlations with other variables are examined. Visitors place of residence, the survey points and club membership are used as independent variables to examine possible patterns of park use. Section one concludes with the results of the questions relating to the around-the-mountain track and the general comments made by visitors.

In section two a summary of demographic and trip characteristics are displayed in table format and is followed by summaries and discussions on the provision of information, visitor concerns, their rating of services and facilities and visitor attitudes towards the development and use of national parks. Implications of correlations found in this study are then discussed and specific areas examined include the provision of safety and weather information and guided tours in Egmont National Park. The results of the survey are related back to the trends of international tourism and ecotourism identified in the introduction. Market segmentation is then introduced as a possible future management tool.

This is followed by chapter five, which presents recommendations for the management of Egmont National Park and concludes with a final discussion and summary.

SECTION ONE

4.2 RESPONSE TO QUESTIONNAIRE

Three hundred and twenty six questionnaires were collected and used for the final analysis. Less than 20 questionnaires were only partially completed. Of the four survey areas, 73 questionnaires were collected at park huts, 86 at North Egmont, 97 at East Egmont and 70 at Dawson Falls. This is presented in figure 6 as a percentage of the total sample. The road-end sample was collected in close proportion to that planned, apart from the North Egmont sample, where an additional 16 questionnaires were collected on the open climb to the summit of Mt. Taranaki/Egmont in February of 1994.

Examining the data collection from a time perspective, the collection showed a steady increase from winter to the summer months in accordance with patterns of visitation to the park and planned survey methods. The gaps in the data collection were discussed in the survey methods section. Data collection over the ten month survey period are shown in figure 7.

Figure 6.

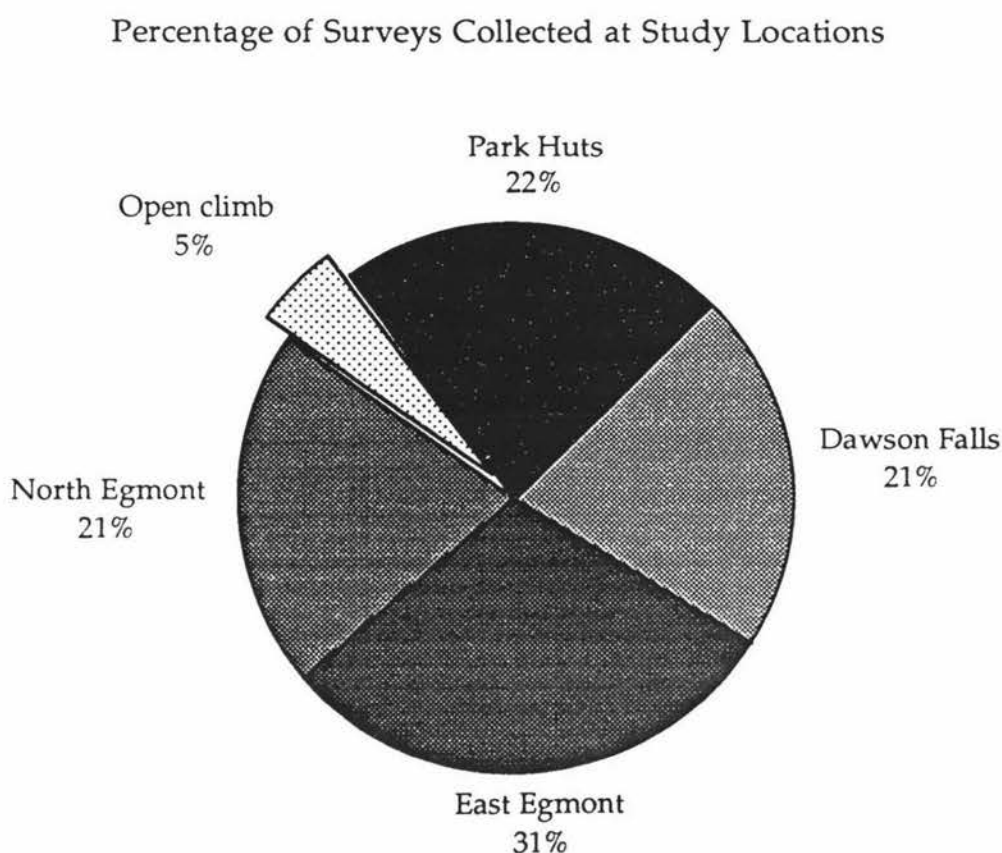
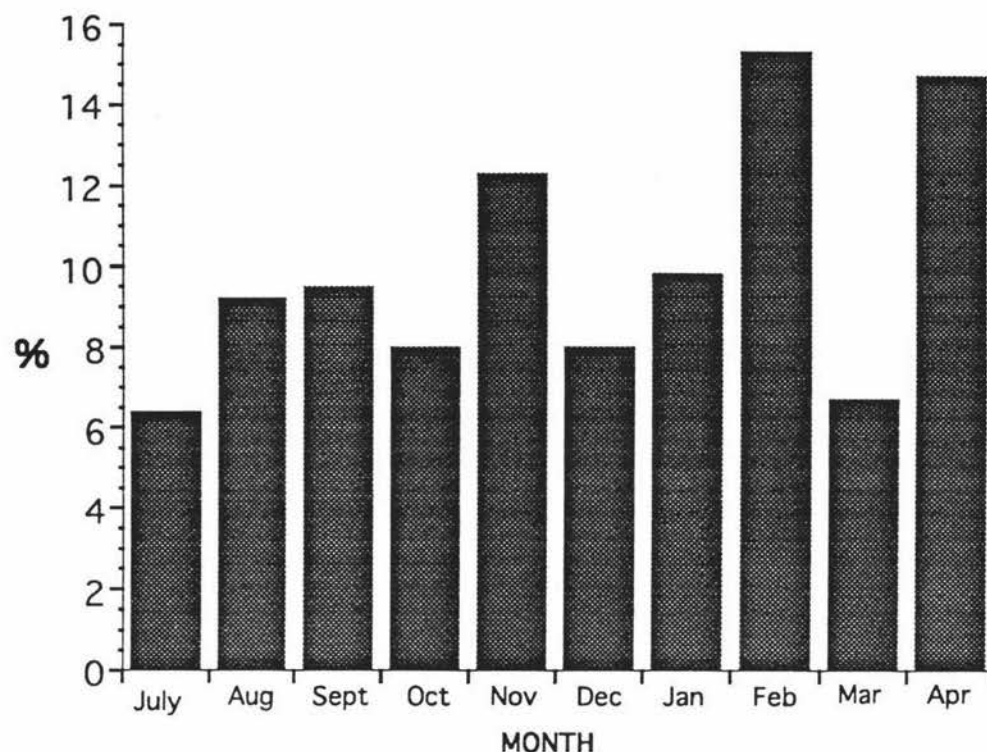


Figure 7.

Surveys Collected Shown as a Percentage of the Ten Month Survey Period



4.3 DEMOGRAPHIC CHARACTERISTICS

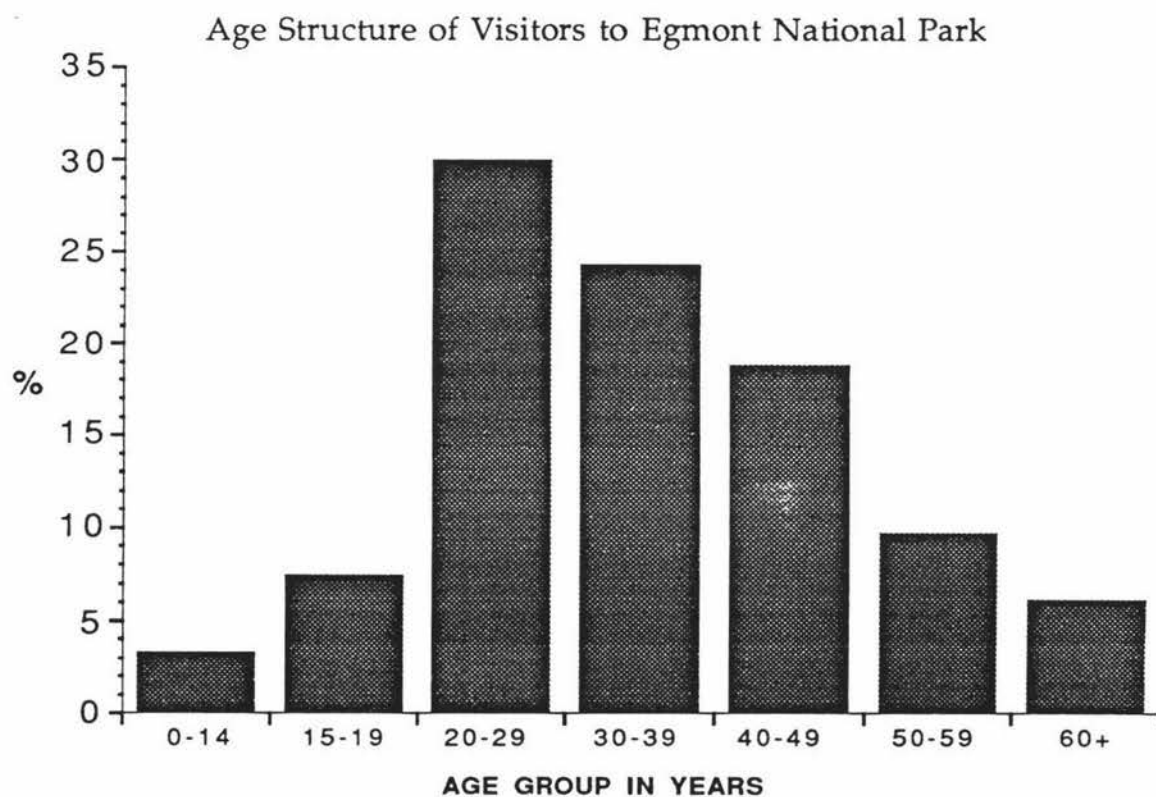
Age

The largest age group were visitors aged 20-29 (figure 8), comprising 30% of visitors to Egmont National Park. The next largest age groups were 30-39 year-olds with 24.4% of visitors, and 40-49 year-olds at 18.9%. Those visitors aged 50 and over made up 16% of visitors. Children aged 14 and less, though not planned to be surveyed, comprised 3.3% of respondents, it is recognised this does not reflect the proportion of children who visit Egmont National Park. Visitors aged between 15 and 19 comprised only 7.1% of respondents, though this is a more significant group than indicated as this age group is only half the span in years than the other age groups.

The age structure of respondents was similar to park visitors in Booth's (1986) findings, though in this study fewer visitors were in the 60+ age group. Surveys by Simmons (1980) and Devlin (1976) also found age structures of park users comparable to this study. All three of the previous studies found

the age structure of the sample to be significantly younger than that of the general population. The sample in this study also found visitors to be younger than that of the general population as reported by the Department of Statistics in the 1991 census (1994). This pattern of use by the younger and more active age groups possibly reflects the importance of tramping as a recreational activity in the Park and the high physical demands of many of the tracks. The apparent lack of visitors in the older age groups may also be due to this strong recreational function. The younger age group, 20-39, also made up the majority of hut users.

Figure 8.

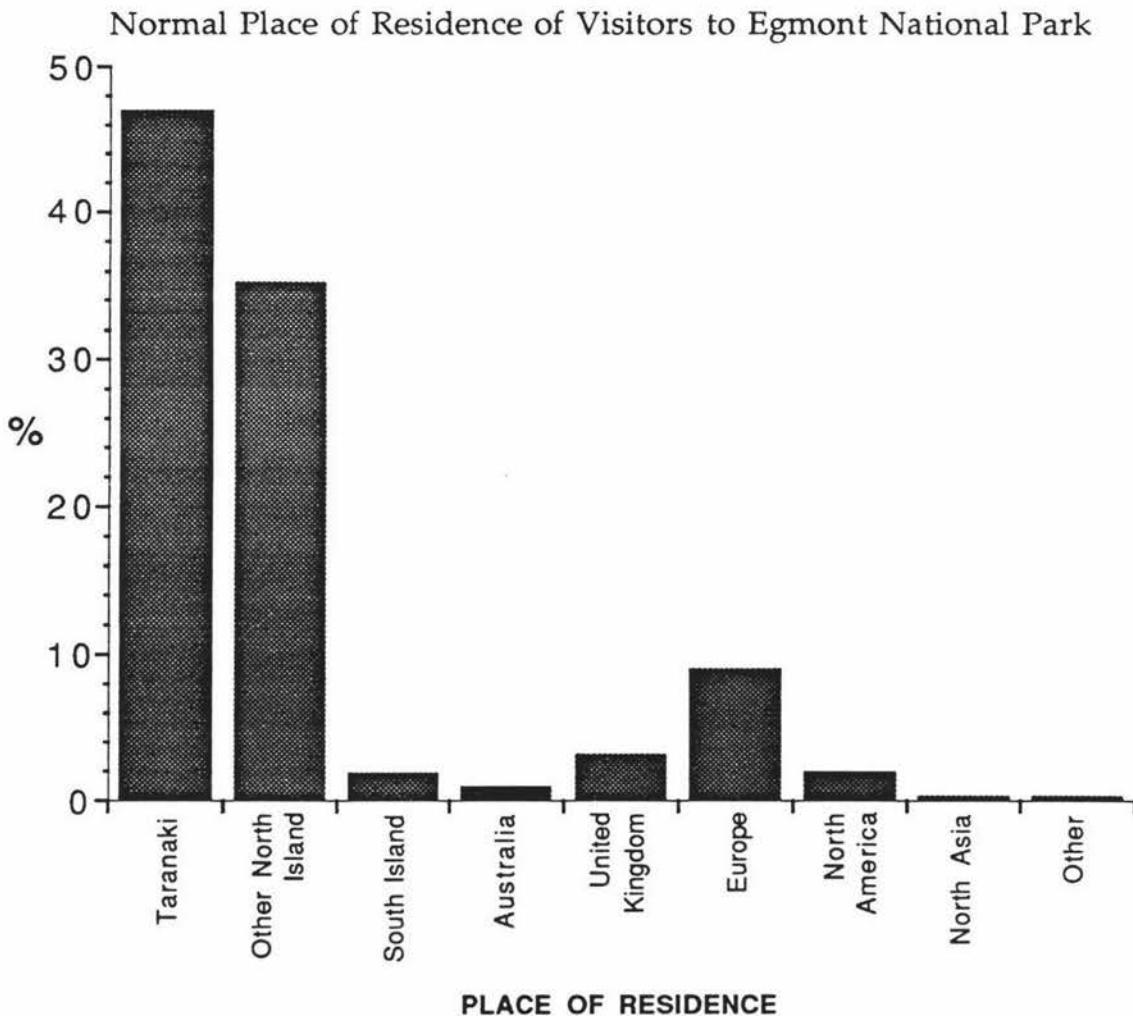


Place of Residence

Taranaki residents were the largest user group by place of residence, composing 47.1% of all visitors to the park, primarily due to their proximity to the park and its easy access. Visitors from other parts of the North Island made up the next largest user group at 35.3%. Only 1.9% of visitors were from the South Island and are combined in the remainder of the analysis as part of New Zealand visitors originating from outside of Taranaki. Several comments on surveys and personal discussion revealed that a strong part of

the attraction for many New Zealanders, particularly those from outside of Taranaki, was the lack of overseas visitors in Egmont National Park and the comradery shared with other New Zealanders. Overseas visitors comprised 15.7% of the visitors surveyed, which may be less than the actual number of overseas visitors due to language problems and therefore an inability or reluctance to answer the questionnaire. The largest group of overseas were Europeans with 9%, the majority of which were Germans. The United Kingdom and North America comprised 3.2% and 1.9% of all visitors respectively. Very few Australians, only 1%, completed the questionnaire. These results are displayed in figure 9.

Figure 9.

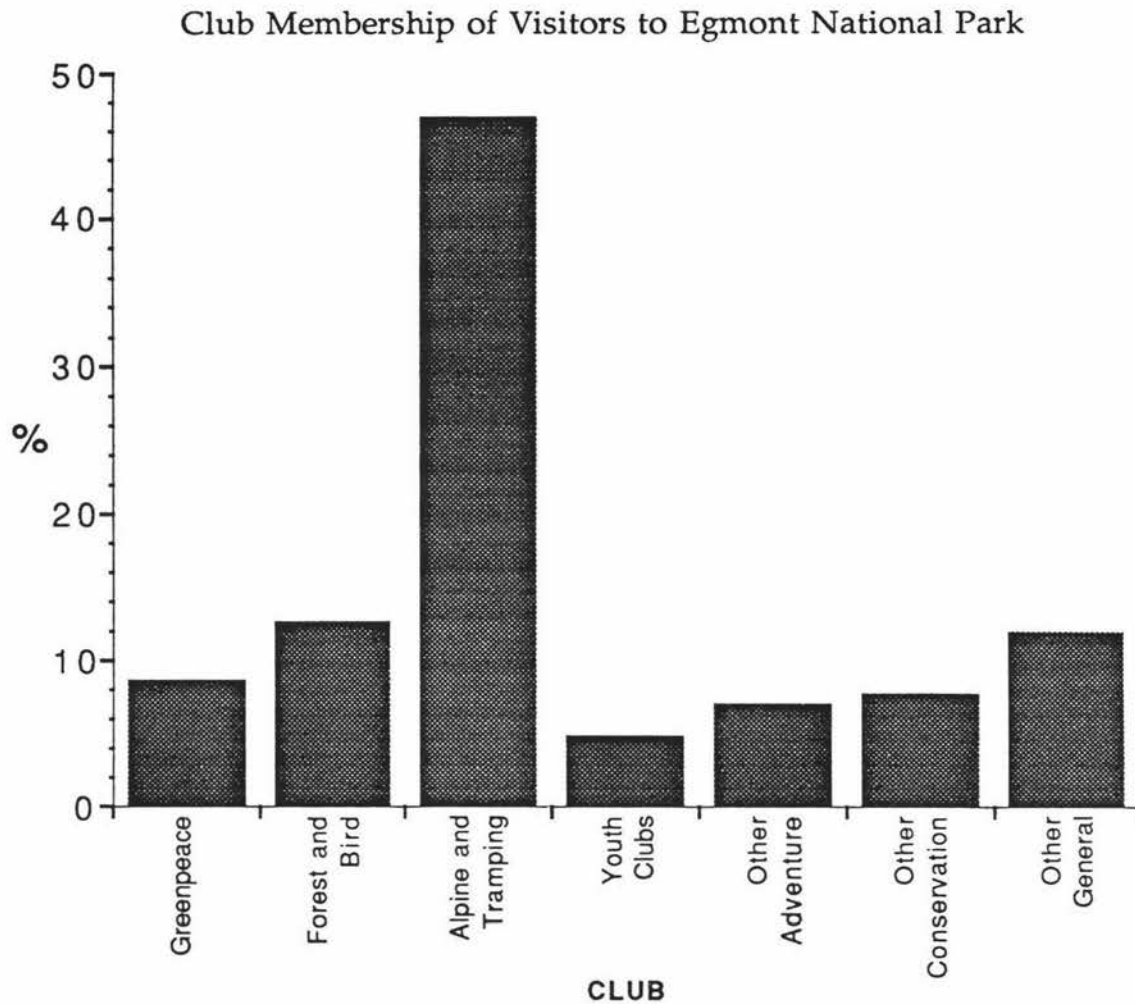


The studies by Devlin (1976) and Simmons (1980) found ratios of overseas visitors of 22.1% and 25.1% respectively in their samples, and also, more significantly, Devlin found 80% of overseas visitors to be Australian, with Simmons finding similar results. Although tourist trends have changed since these studies Australians are still a significant tourist generating region for New Zealand. Devlin found more South Islanders visiting Tongariro National Park than was found in Egmont National Park (5.4%). A survey of visitors to Taranaki in 1983 found that only 6.8% of visitors to Taranaki were from overseas, a marked contrast to the close to 30% of visitors to Egmont National Park from outside of Taranaki being foreigners (NZTB 1989). The pattern of visitation by tourists, in particular overseas tourists, could be accounted for by their varying travel routes through New Zealand.

Club Membership

Of visitors to Egmont National Park, 42.5% were members of some form of outdoor or conservation club or group (figure 10). These were predominantly outdoor recreational clubs making up 54.1% of club membership, they included alpine, tramping and other adventure clubs. Of the conservation oriented clubs Forest and Bird was the most popular, with 12.6% of the club members, followed by Greenpeace 8.7% and then "other" clubs, which includes groups such as the Maruia Society. Youth clubs consisted primarily of groups such as Cubs and Scouts. No similar questions in any studies were found. The dominance of outdoor recreation clubs suggests the importance of Egmont National Park as a recreational area. A degree of sample bias may have been present, as Holly Hut, where hut sampling was emphasised, may be a particularly popular destination for outdoor adventure and youth clubs.

Figure 10.



Level of Education

It is strongly suspected that the sample contains a disproportionately large number of visitors with university education, possibly as a result of it being more likely that higher educated people will complete the questionnaire. As such the relationship of education to other variables in further analysis has only been explored where deemed appropriate and then with caution. Of the visitors surveyed 43.8% had education at a tertiary level and 18.5% had a vocational or trade qualification (figure 11). Of visitors with secondary qualifications, 11.5% had School Certificate, 8.9% had University Entrance and 6.1% had Higher School Certificate. Only 10% of respondents reported they had no qualifications, this would include those who were of an age below that to gain such qualifications.

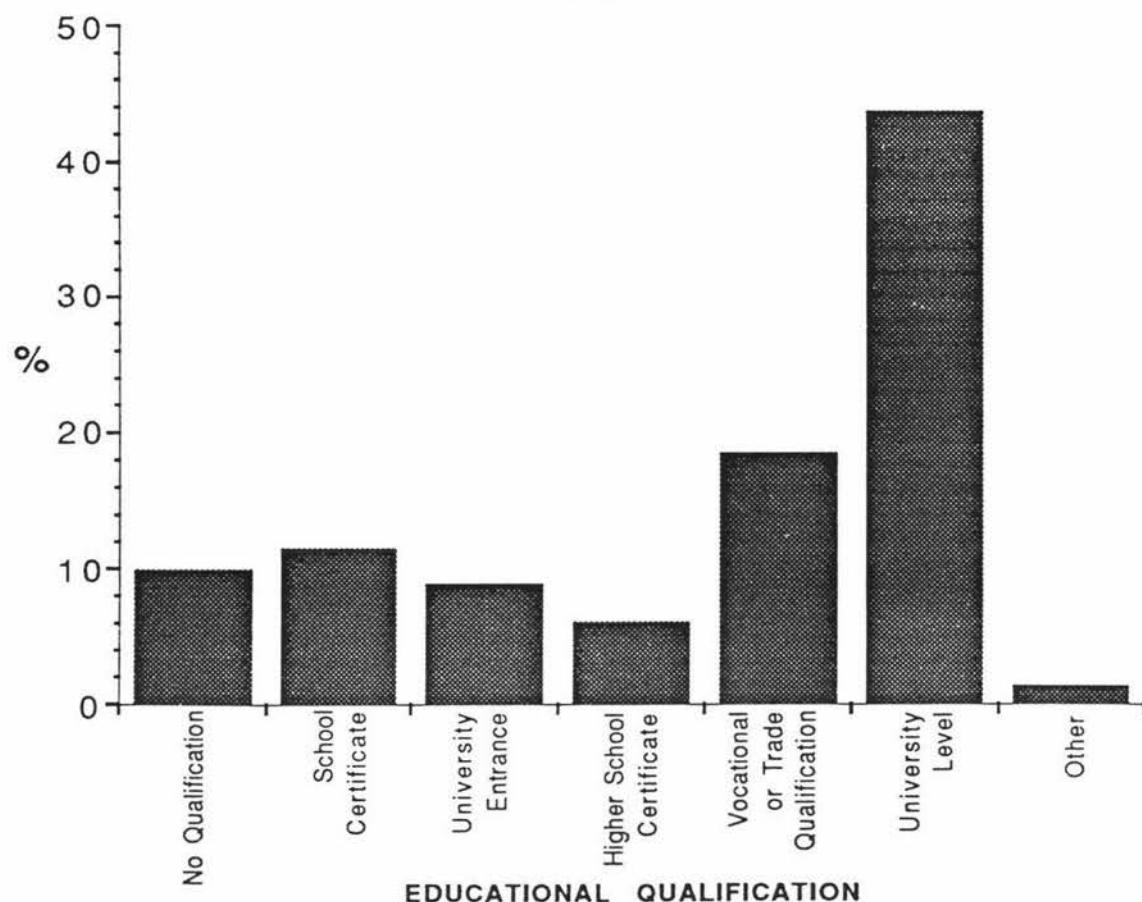
The high level of university education was also a feature of the surveys by Devlin (1976) and Simmons (1980), which reported 38% and 46.1% of visitors

as being tertiary educated respectively. This is obviously in strong contrast to the general population of New Zealand where, in the 1991 Census, 36.8% of New Zealanders had a tertiary qualification, of which 21.8% were completed at a university (Department of Statistics, 1994). Booth's 1986 study sampled a group of Christchurch residents, as opposed to park users, and although it was found that university educated people are more likely to visit national parks, it is not at the higher levels suggested in this study and those completed by Devlin and Simmons.

Possible explanations for the higher level of visitation by people with higher levels of education could include higher educated people being more active in outdoor clubs (or university clubs being more active), a higher level of awareness of leisure opportunities in national parks among higher educated people or it may be a function of higher levels of income and leisure time or some combination of all these explanations. However, this does not deny the fact that people with higher levels of education are more likely to visit the park.

Figure 11.

Highest Educational Qualification Achieved by Visitors to Egmont National Park

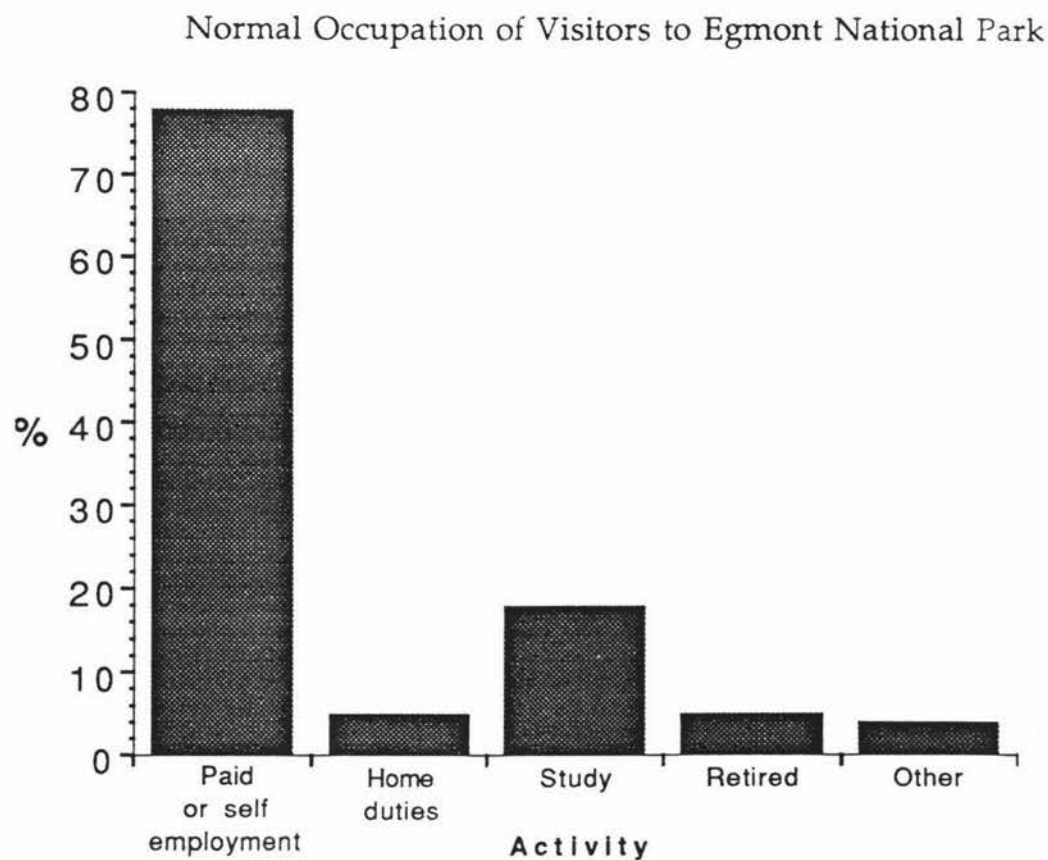


Normal Occupation of Visitors

The normal occupation of 68.3% of respondents was paid or self employment, 26.3% of which were in managerial or professional type positions and 17% reported they were in other type positions. Only 5.1% replied that home duties were their normal occupation, a further 5.1% said they were retired and 16.7% of respondents said they were studying. Only 4.5% reported they did other activities, including volunteer work (figure 12).

There is a strong relationship between education level and occupation, which is reflected in this study with such a high proportion of visitors being in "professional" type employment. Similar findings were again reported by Devlin (1976), Simmons (1980) and Booth (1986) who all found high numbers of visitors in "professional" occupations. They also significant numbers of visitors engaged in study.

Figure 12.



Ethnicity

As appears to be the case with questions of this type, there were a number of respondents who didn't like to answer the question relating to their ethnic origins and so they either left the question blank or replied in an "illegible" manner. Of those who did respond there were few visitors of Maori origin, only 0.7%. This apparent low rate of visitation by people with Maori origin may be due to the sacred nature of Mt. Taranaki/Egmont to the Maori or perhaps to the characteristics of the social and recreational activities undertaken by Maori people. Many overseas visitors also didn't answer the question on ethnicity, and those overseas visitors that did answer generally came under the classification of "other", which consisted of 18.9% of respondents to the question. New Zealand European/Pakeha made up 80.5% of respondents. No similar studies were found to compare results with.

Gender

The male to female visitor ratio was 57.1% to 42.9%. Again, this study had similar findings to those of Devlin (1976), Simmons (1980) and Booth (1986), whose studies all found the ratio of male to female visitors to be close to 60% to 40%. Although it does seem plausible that park visitation is dominated by males to some extent, it could merely be that males are more likely to complete the questionnaire than females if the questionnaire is given to a group of visitors to complete.

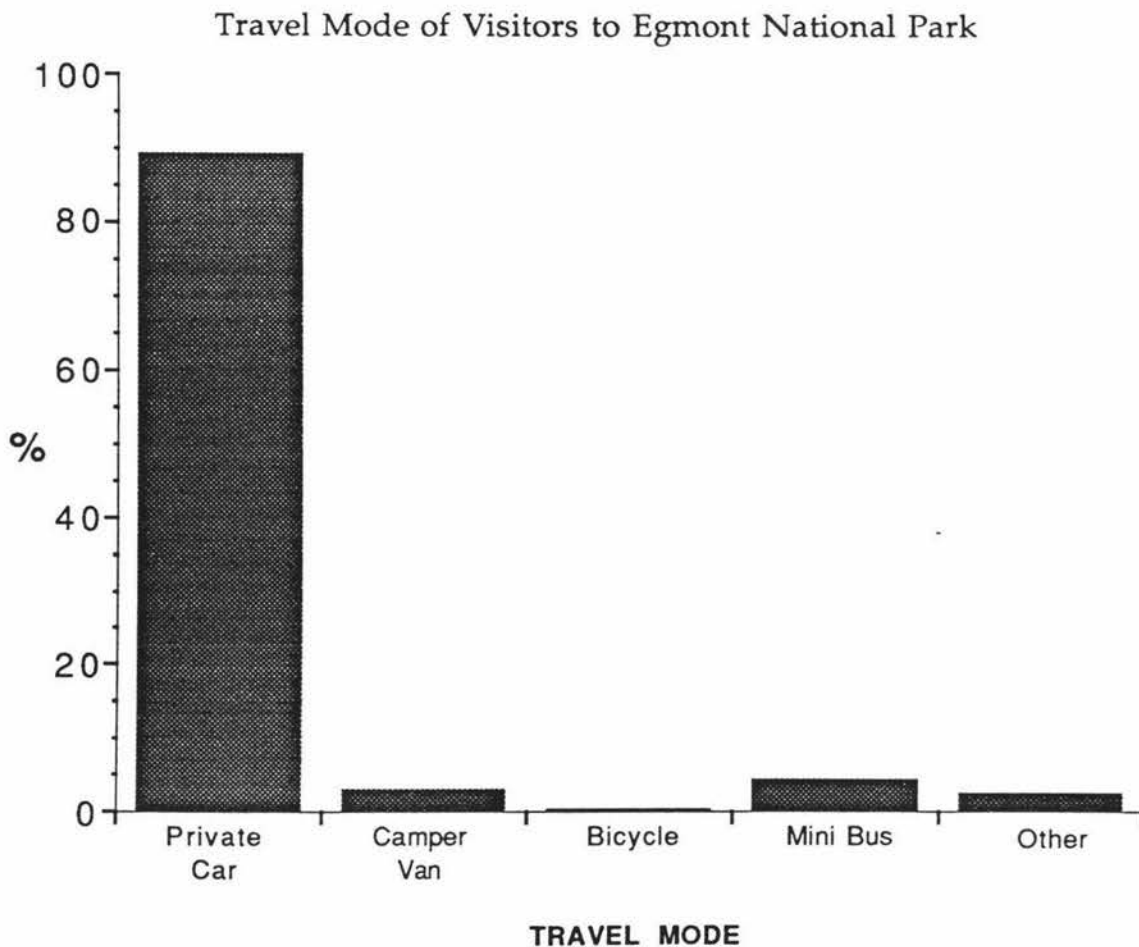
4.4 TRIP CHARACTERISTICS

Mode of Travel

Visiting Egmont National Park by private car was the most popular means of travel, with 89.3% using this mode (figure 13). This may be a reflection of Egmont National Park being off the usual tourist trunk route and associated infrastructure. Mini bus and campervans combined were the means of travel for 7.5% of visitors.

Tourism Taranaki found a very similar pattern in the mode of travel of visitors to Taranaki as displayed in this study. Simmons (1980) also found private cars to be the most important mode of travel at 72.9% in Arthur's Pass National Park, though rail was significant at 12.3% in his study, it is not applicable here.

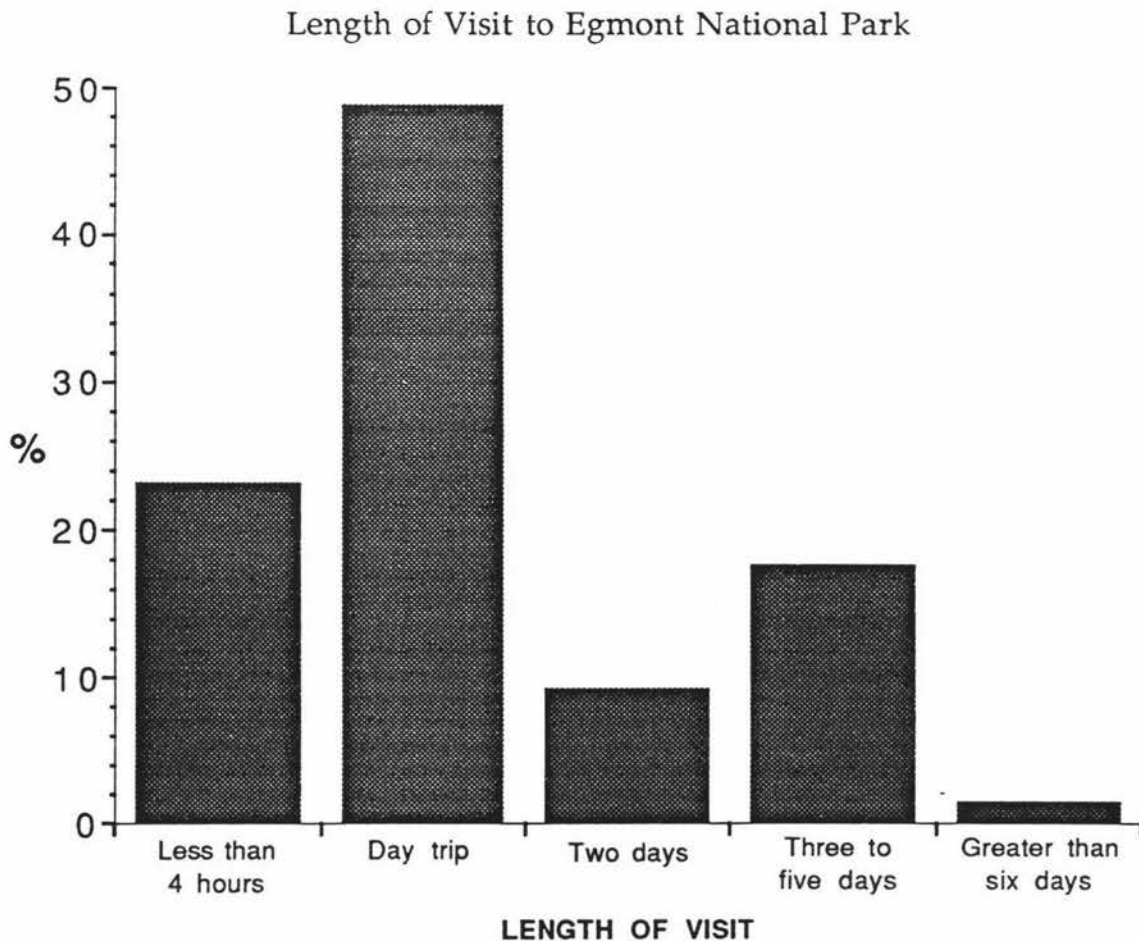
Figure 13.



Length of Visit to Egmont National Park

The length of visit to Egmont National Park was most often a day trip, making up 48.9% of all trips (figure 14), 23.2% of visits were four hours or less. These shorter term visits are likely due to the nearly 50% of visitors originating from Taranaki and making short term, perhaps spur of the moment, visits to the park. Only 9.3% spending two days in the park, visits of 3-5 days in length were more popular, with 17.7% spending this long in Egmont National Park. Only 1% of visitors spent six days or more in Egmont National Park. No questions on length of stay in parks were found in the studies by Devlin (1976), Simmons (1980) and Booth (1986).

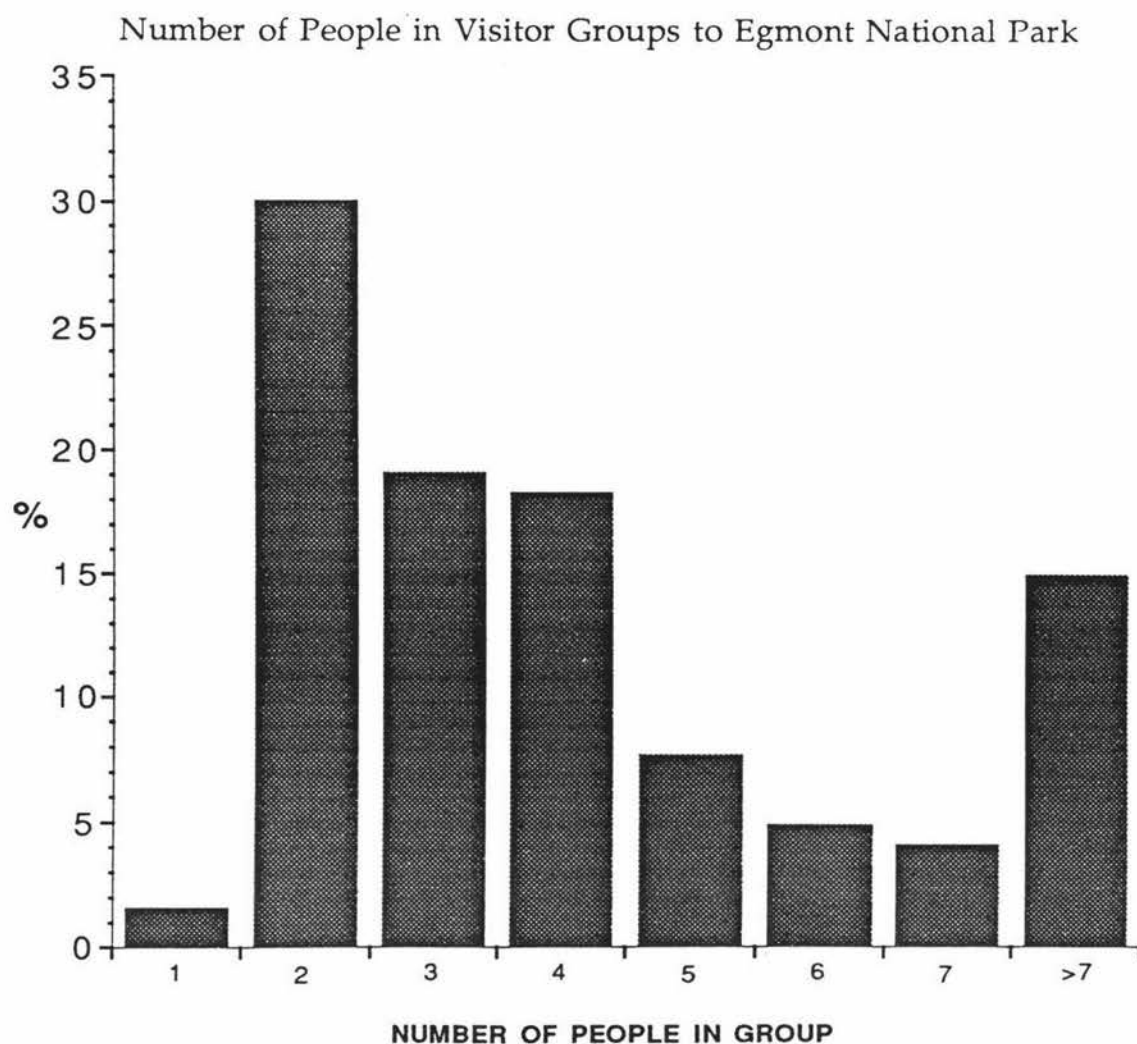
Figure 14.



Group Size

Most visitors to Egmont National Park were visiting in pairs, making up 30.1% of the groups (figure 15). The next most common group sizes were three to four people, with 19.1% and 18.3% respectively. The larger groups, those with greater than seven people, made up 15% of visitors, though this was probably high owing to the data collection on the day of the open climb. Group sizes of five, six and seven comprised 7.7%, 4.9% and 4.1% of visitors respectively. Visitors who responded that they were travelling alone were not common with only 0.8% responding in this way. There was some confusion in the answering of this question, as in the question on group composition 9% responded that they were visiting by themselves, this is more likely to be close to the actual figure. It is also likely that some lone visitors were not captured in the sample, as they may enter by other road-ends and do not stay in huts. The group sizes are very similar to Simmon's (1980) study, that also shows a clear preference for smaller group sizes.

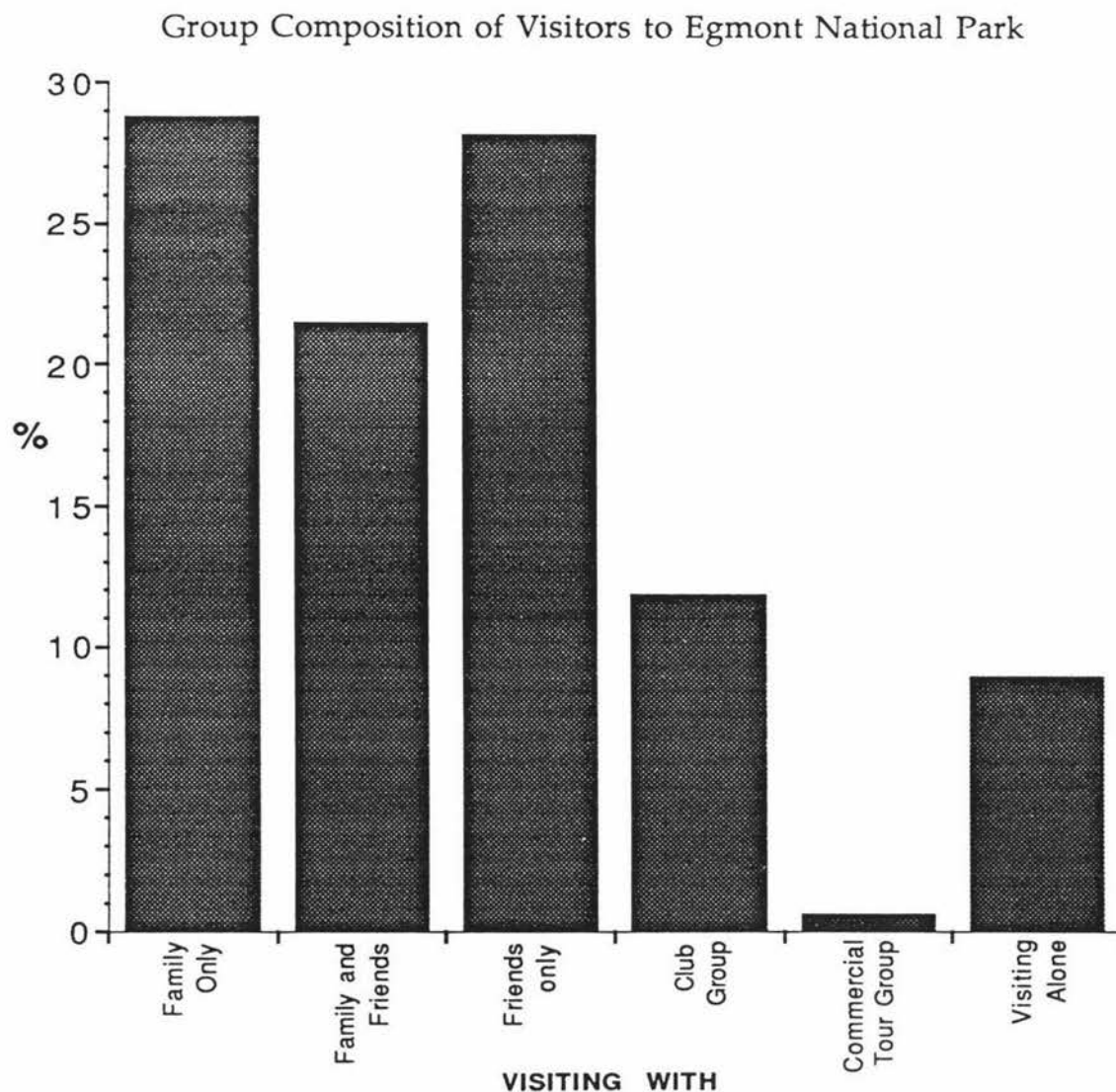
Figure 15.



Group Composition

Most of the groups of people visiting Egmont National Park consisted of family and/or friends (figure 16). Of these 28.8% were in groups consisting of family only, 28.2% in groups of friends only and 21.5% in groups made up of family and friends. Groups of clubs members consisted 11.9% of respondents and commercial and tour groups made up less than 0.6%. People visiting alone made up 9% of respondents. Simmons (1980) study differed from these results only in that fewer respondents were visiting with family and friends together, however this is probably due to the differing question format.

Figure 16.

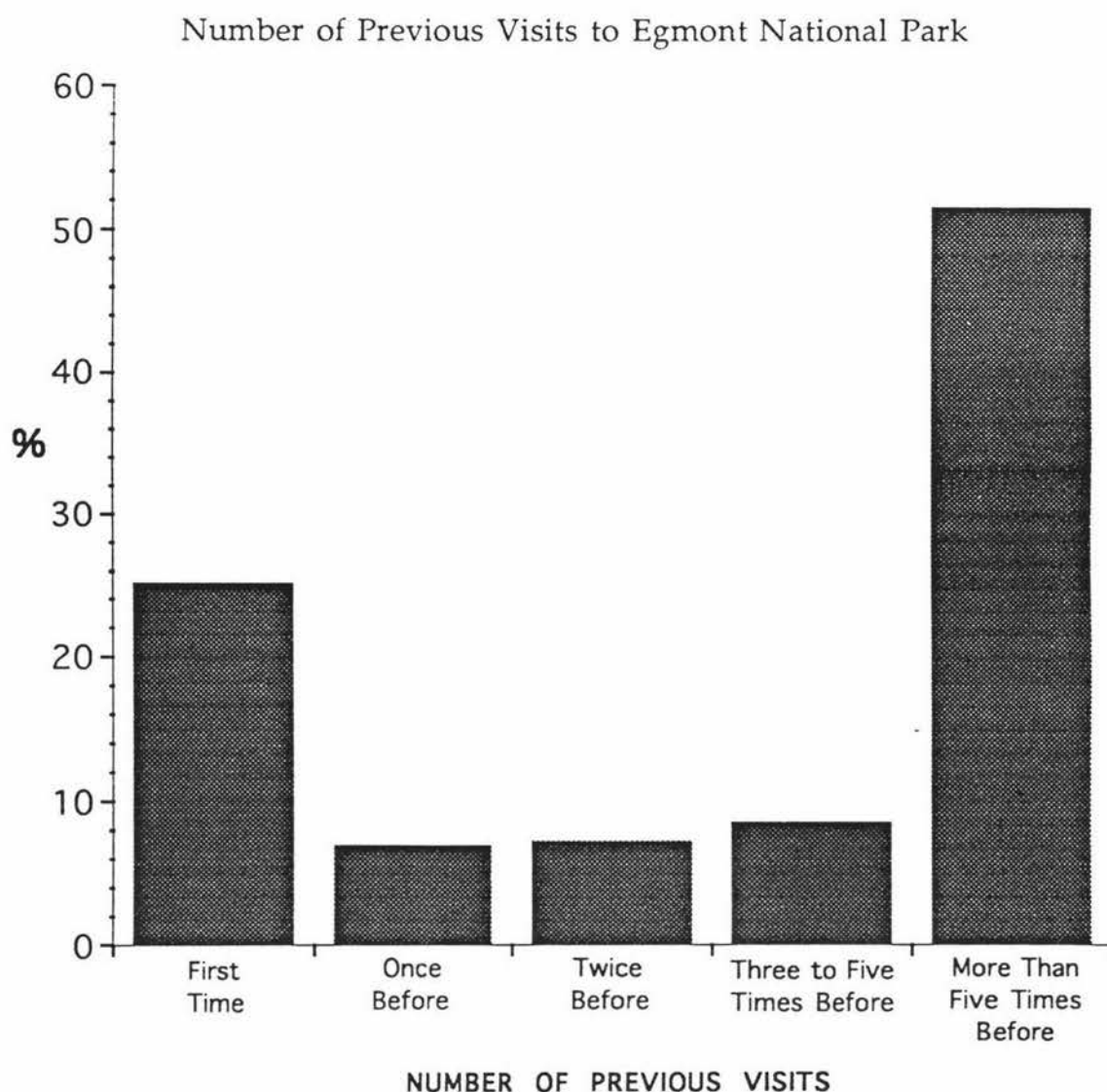


Number of Previous Visits to Egmont National Park

For 25.2% of visitors to Egmont National Park it was their first visit, while 51.6% of visitors had been to the park more than five times before (figure 17). The remaining 23.2% had been 1-5 times before. The number of previous visits was also largely dependent on place of residence, which is examined in later sections.

Simmons (1980) reported 83% of his sample visiting other parks previously, though the number of times is not specified. Booth's (1986) study does not include park users from outside of Christchurch, as it is a general population survey, and is therefore unable to be compared.

Figure 17.

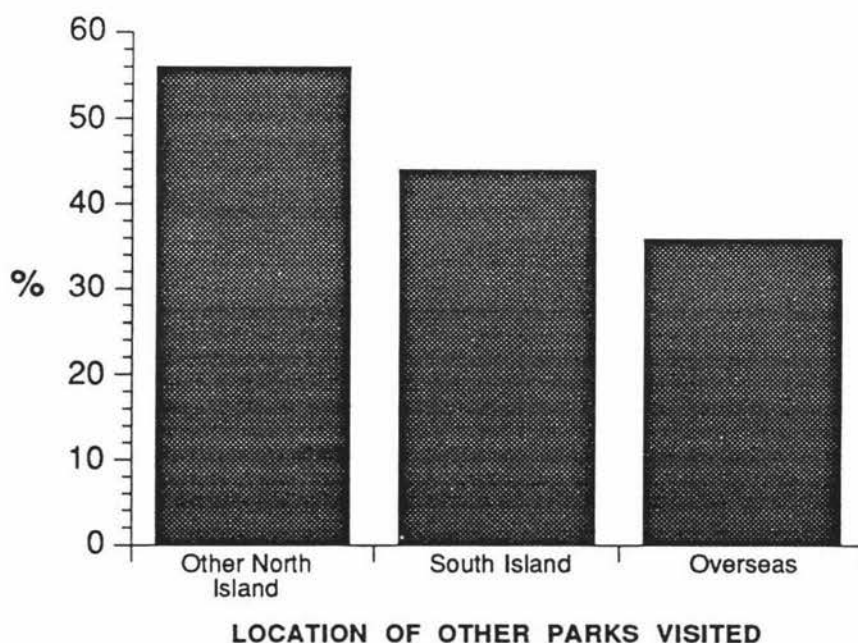


Visitation to Other Natural Protected Areas

Visitors were asked if they had visited other protected natural areas and, if so, where were these located. Of the 88.3% of respondents who reported visiting other protected natural areas 56.1% reported visiting other areas in the North Island of New Zealand, 43.6% in the South Island and 35.9% had visited other natural protected areas overseas, this data is displayed in figure 18. Many of the visitors, in particular overseas visitors, gave extensive lists of parks visited in New Zealand and around the world. This high level of visitation to other protected natural areas can be seen as an indication of the high number of visitors who make a practise of visiting areas such as Egmont National Park.

Figure 18.

Location of Other Protected Natural Areas Visited by Respondents

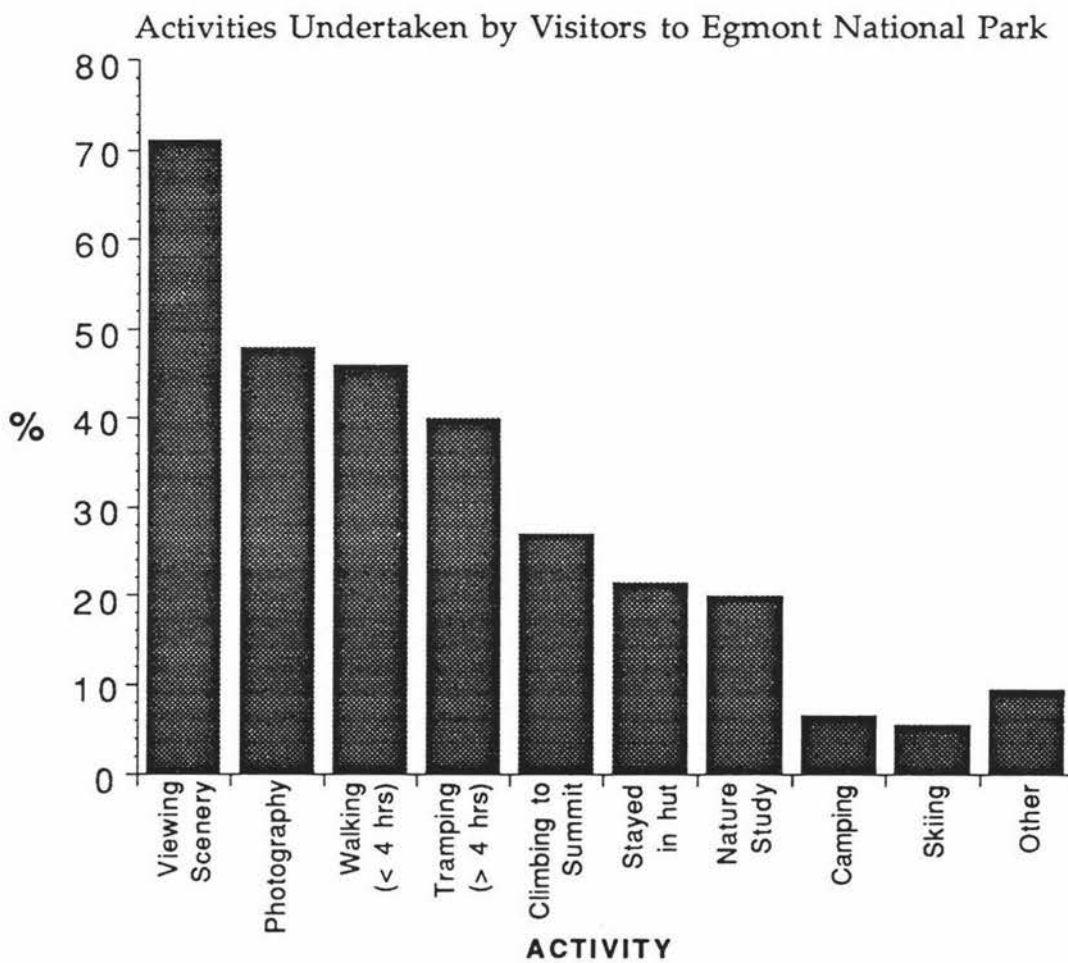


Activities of Visitors

Figure 19 shows the activities that respondents undertook during their visit to Egmont National Park. This question was asked in a multi-response format. The percentages express the proportion of respondents who engaged in each activity. The greatest response was 71.5%, which was reported for viewing scenery. Following this 48.2% of respondents took photographs and walking and tramping were the next most popular activities at 46.6% and

40.2% respectively. Climbing to the summit was an activity of 27% of respondents, though this is most likely abnormally high due to the surveying on the day of the open climb to the summit organised by local alpine clubs. Staying overnight in huts and nature study were activities of 21.5% and 19.6% of visitors respectively, while camping was an activity of 6.4% of visitors and skiing 5.5%. Only 9.5% of respondents reported doing other activities in Egmont National Park. Similar to Booth's 1980 study visitors to parks primarily viewed the scenery, walked and tramped.

Figure 19.



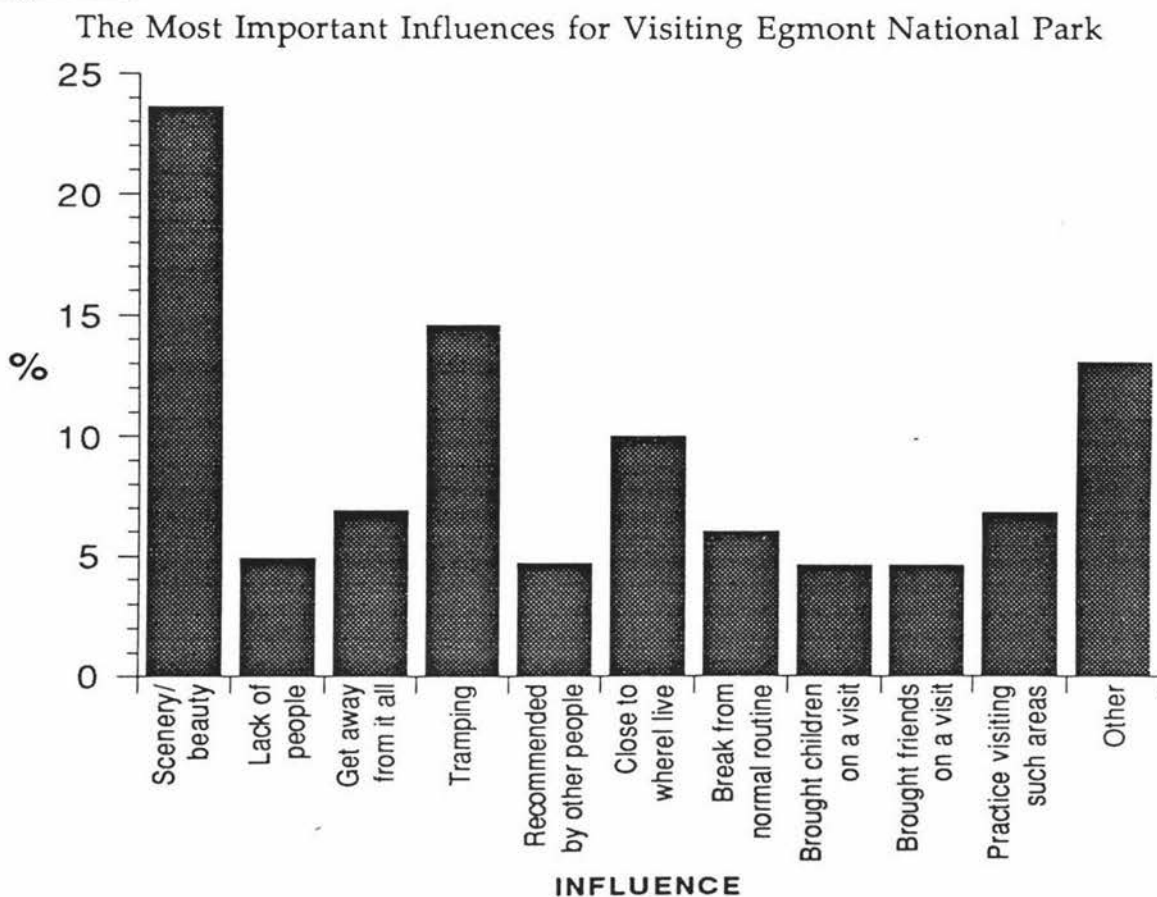
4.5 VISITOR MOTIVATIONS

Visitors were given a list of motivations for visiting Egmont National Park and asked to identify the three most important influences in their decision to visit the park (figure 20). The most common influence for visiting Egmont National Park was the beauty of natural features and scenery at 23.6%. Tramping was the next most common influence at 14.6% and living close to

the park followed at 10%. Getting away from it all was an important influence for 6.9% of respondents closely followed by 6.8% of visitors who replied that they make a practise of visiting conservation areas, national parks and reserves. A break from the normal routine influenced 6% of respondents. Lack of people, recommendations by other people and bringing friends or children on a visit were influences considered important by approximately 5% of respondents. "Other" influences were important to 13.1% of respondents.

Booth (1986), Simmons (1980) and Devlin (1976) all examined motivation in their studies. Booth failed to reach any substantial conclusions regarding visitor motivations, however Simmons found accessibility and scenic and aesthetic values to be the most important factors influencing the visitor Arthur's Pass National Park. Hut users in Devlin's study considered the beauty of the natural surroundings as the greatest motivation, with being away from the city, the physical challenge and simplicity of life in the park also being important. This relates closely to the motivations of beauty of natural features, tramping and getting away from it all as the major motivations in this study.

Figure 20.



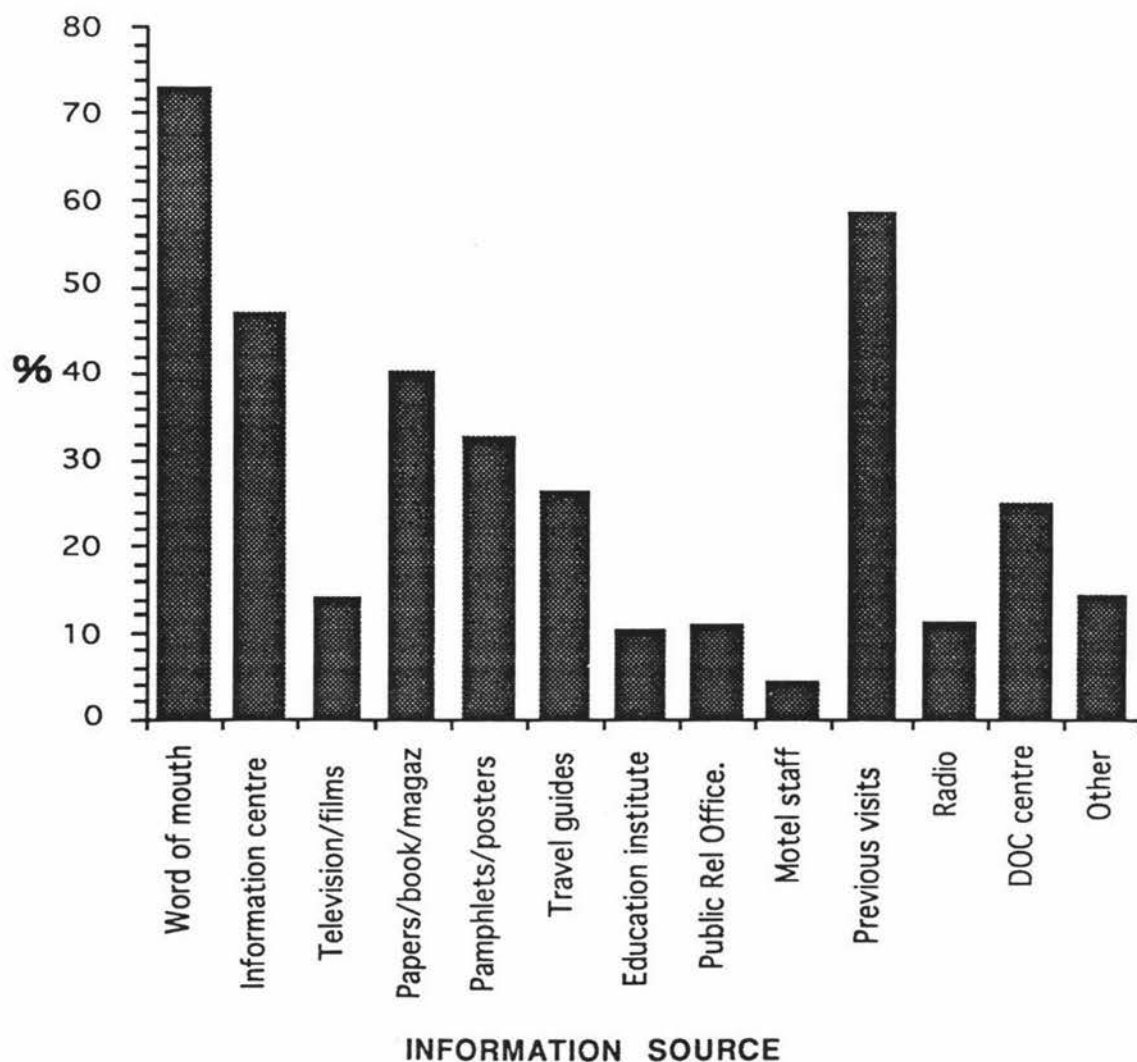
4.6 INFORMATION

Information Sources

Figure 21 shows the sources of information through which visitors have heard or seen about Egmont National Park. The most common source of information was word of mouth at 73%, followed by previous visits at 58% and information centres at 47%. Other common sources were papers, books and magazines, posters and pamphlets, travel guides and Department of Conservation visitor centres, all of which were sources of information for between 25% and 40% of respondents.

Figure 21.

Sources Through Which Visitors Have Seen or Heard Information About
Egmont National Park

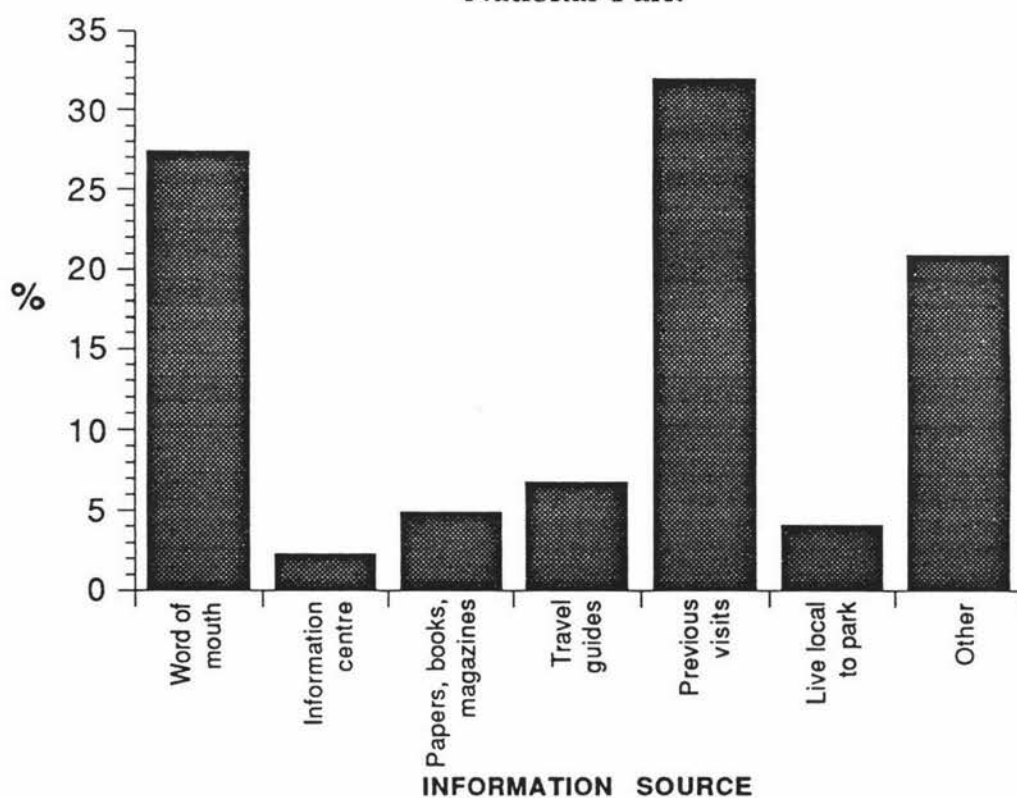


Most Influential Sources of Information

The most influential of these sources of information are presented in figure 22. Previous visits were considered the most influential information source in the decision to visit Egmont National Park by 32% of respondents. This was followed by word of mouth at 27.4% and living locally at 16.9%. Of lesser importance were travel guides at 6.7%, papers books and magazines at 4.6% and Department of Conservation visitor centres at 3.9%. Only 5.8% of respondents reported other information sources as being the most influential in their decision to visit Egmont National Park.

Figure 22.

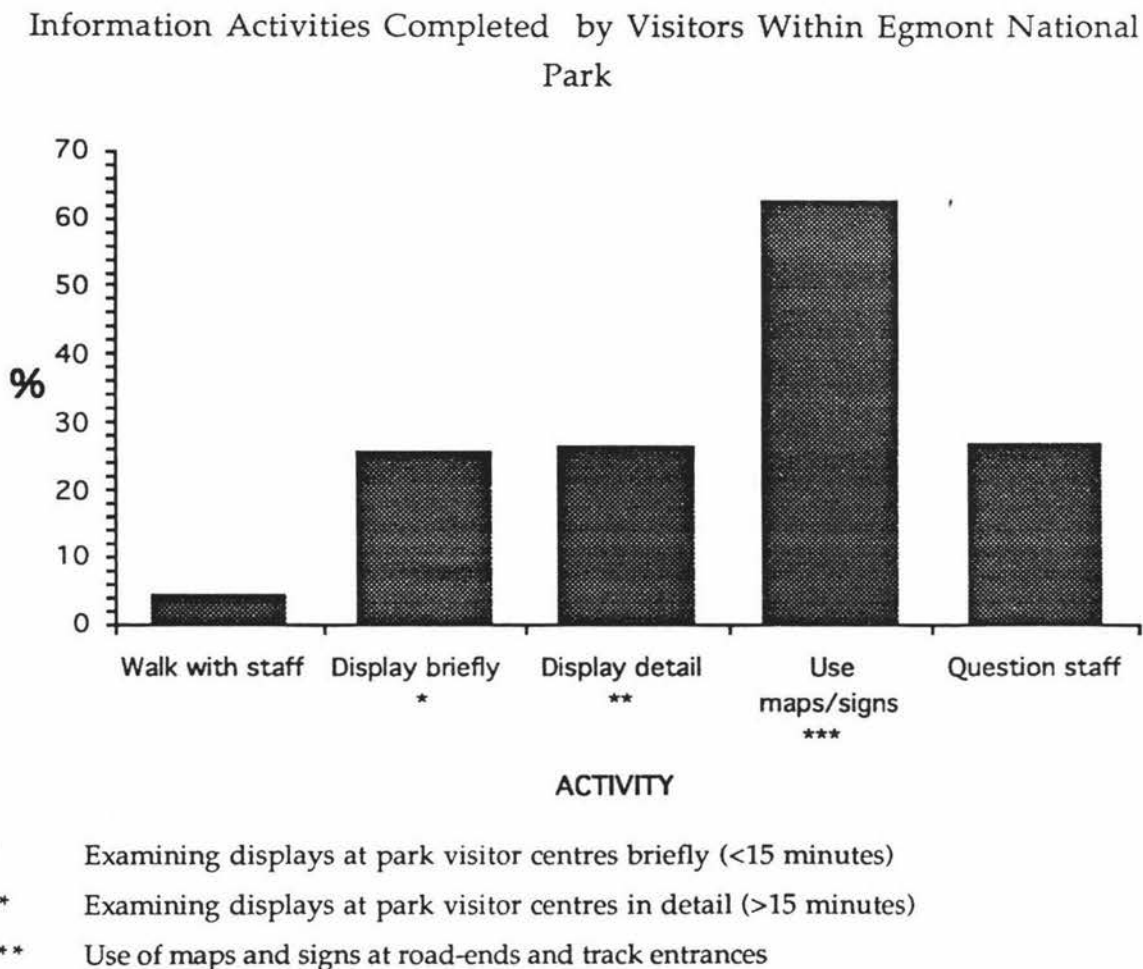
Most Influential Information Source for Visitor Decision to Visit Egmont National Park



Information Activities Within Egmont National Park

Sources of information for the visitor once they had entered the Egmont National Park were also examined. Results are presented in figure 23. The most commonly used source of information by visitors within the park were the signs and maps at the road-ends and track entrances, which were used by 62.6% of respondents. Questions to the park staff were asked by 26.7% of respondents, while only 4.3% went on walks with park staff. Displays at the park visitor centres were examined briefly by 25.5% of respondents and in detail by 26.4%, though this is biased by the lack of facilities at the East Egmont road-end. Therefore use of the visitor and display centres in Egmont National Park would be at a higher proportion as a percentage of visitors to the Dawson Falls and North Egmont road-ends than that indicated by this study.

Figure 23.



Amount of Information Offered Within Egmont National Park

The questions relating to the amount of information available in Egmont National Park are presented in a table format as they contain elements of both ordinal and categorical data (table 7).

Overall very few respondents said that they were not interested in any of the topics. The high rate of responses of "didn't find any" is due to the lack of facilities at the East Egmont sample site. Very few people considered there to be too much detail on any topic.

Over 60% of visitors considered the amount of information on park history and geology and land forms to be about right, only 15% would like to have seen more information. There was a wish for more detail on trees and other plants, birds and other animal life, weather forecasts/climate and visitor safety, with fifty percent of respondents considering the amount of information to be about right and thirty percent wanting more. Information on New Zealand's National Park system, the Department of Conservation and trips and activities were considered to be about right by 55% of visitors with 15-20% wanting more. Information on tracks and huts was considered to be similar to these, but with fewer visitors reporting that they couldn't find any. Maori history and legends and Maori culture were slightly different again with 40% considered the amount of information to be about right. Even though relatively high number of visitors were not interested in Maori history, legend and culture, there was still close to 25% of respondents wanting more information.

Additional Visitor Comments on Information in Egmont National Park.

After the questions on the amount of information the Department of Conservation offers in Egmont National Park, visitors were asked if there was any other information they would like to have seen, or if there were any other comments they would like to make about the provision of information in Egmont National Park.

Fifty seven of the 110 respondents to this question brought up the issue of signage in the park. The majority of comments were focused on the wish for more accurate walking times and the conditions of the tracks, in particular the shorter day and loop tracks around the road-ends. There was also a

strong call for more signage concerning safety and weather information and improved maps to be made available at the road-ends for visitor use.

Several visitors expressed difficulty in finding the correct road to the park and would have liked to have seen improved signage from the main road.

Twelve respondents would have liked to have seen more information on the ecology of the area, with suggestions of nature trails with tree markers and information on bird life. There was also interest shown in information on the human impact on the natural environment.

Table 7.

Percent Response to the Question "The Department of Conservation Offers Information About a Variety of Topics in Egmont National Park. As a Park Visitor What Did You Think of the Amount of Information on the Following Topics?"

	Not interested in topic (%)	Didn't find any (%)	Need more detail (%)	About right (%)	Too much detail (%)
Park history	5.1	15.8	14.7	63.2	1.1
Geology and land forms	4.1	13.8	14.6	66.0	1.5
Trees and other plants	2.2	14.1	31.1	51.5	1.1
Birds and other animal life	2.2	16.6	31.0	49.4	0.7
Maori history and legends	10.9	18.5	25.3	42.3	3.0
Maori culture	14.1	19.8	22.8	40.7	2.7
Weather forecasts/ climate	1.9	13.3	31.1	53.7	0.0
Tracks and huts	1.9	6.3	18.9	72.6	0.4
Trips and activities	2.7	13.3	22.7	61.0	0.4
NZ's national park system	3.3	20.4	20.8	54.6	0.7
The Department of Conservation	4.9	20.3	17.3	55.3	2.3
Visitor safety	1.5	10.7	29.3	57.8	0.7

Three respondents expressed concern over the evolutionist theory presented at the display and visitor centres as opposed to the theory of creation.

The remainder of responses included the need to fix and update the audio visuals at the display and visitor centres and overseas visitors wanting to know equipment needs for overnight stays in the park, asking questions such as "do we need cookers" and "is there water at the huts".

4.7 CONCERNS, SERVICES, FACILITIES AND DEVELOPMENT.

In this section the questions relating to concerns visitors express while visiting Egmont National Park, their ratings of the services and facilities and their attitudes towards development in the park are examined. This examination was completed using two methods, the examination of the individual questions followed by their use to construct scales. The creation of scales create an overall indicator of levels of concern felt by visitors, a general rating of services and facilities by visitors and an indicator of visitor attitude towards development in Egmont National Park. Rather than investigating all the correlations separately the scales are used to investigate correlations with visitor demographic and trip characteristics. This method saves literally hundreds of correlations to investigate and report, and also has the added advantage of making the findings simpler to understand and interpret and, therefore, a lot more useful.

In the design stage of the questionnaire the development of scales was not a consideration and in retrospect the questions that comprise the scales would have benefited from being at least seven or nine point. Having a larger range of options would have made the findings clearer and more useful, as five point scales can be considered to be of a categorical rather than ordinal nature.

After the individual questions that make up each scale are presented the scale is constructed and an overview is gained. Correlations with demographic and other characteristics of visitors are then explored.

The questions relating to attitudes towards park use were not created into a scale, as the individual questions are too different from each other to create a meaningful tool. A scale of the amount of information offered would also be meaningless as the answers to the questions on information are only partially ordinal and even dropping the answers of those either "not interested" or "who didn't find any" would only leave a three point continuum, which cannot be treated as ordinal data.

The scales were constructed by adding all the responses together for each scale and dividing this by the number of questions in that scale. Therefore creating a figure ranging between one and five for the concern scale and a

figure between one and four for the development and services and facilities scale for each individual.

A factor analysis was initially tried to construct the scales but this failed to converge after 24 iterations, even when an oblique rotation was used. Therefore to construct the scales and to test if the scales were reliable an interitem analysis was conducted. A standardised item alpha of greater than 0.7 was required to indicate reliability of the scales. The standardised item alpha's were 0.7691, 0.7624 and 0.8434 for the visitor concern, rating of services and facilities and level of development scales respectively, indicating strong associations of scale components and therefore meaningful scales.

Concerns Expressed by Visitors to Egmont National Park

Visitors were asked to respond to eight questions on a five point scale relating to specific concerns they may have in the park. The choices for answering were "A lot of concern" (rated as one on the scale), "Quite a bit of concern", "Some", "Little" and "None" (which rated as five on the scale).

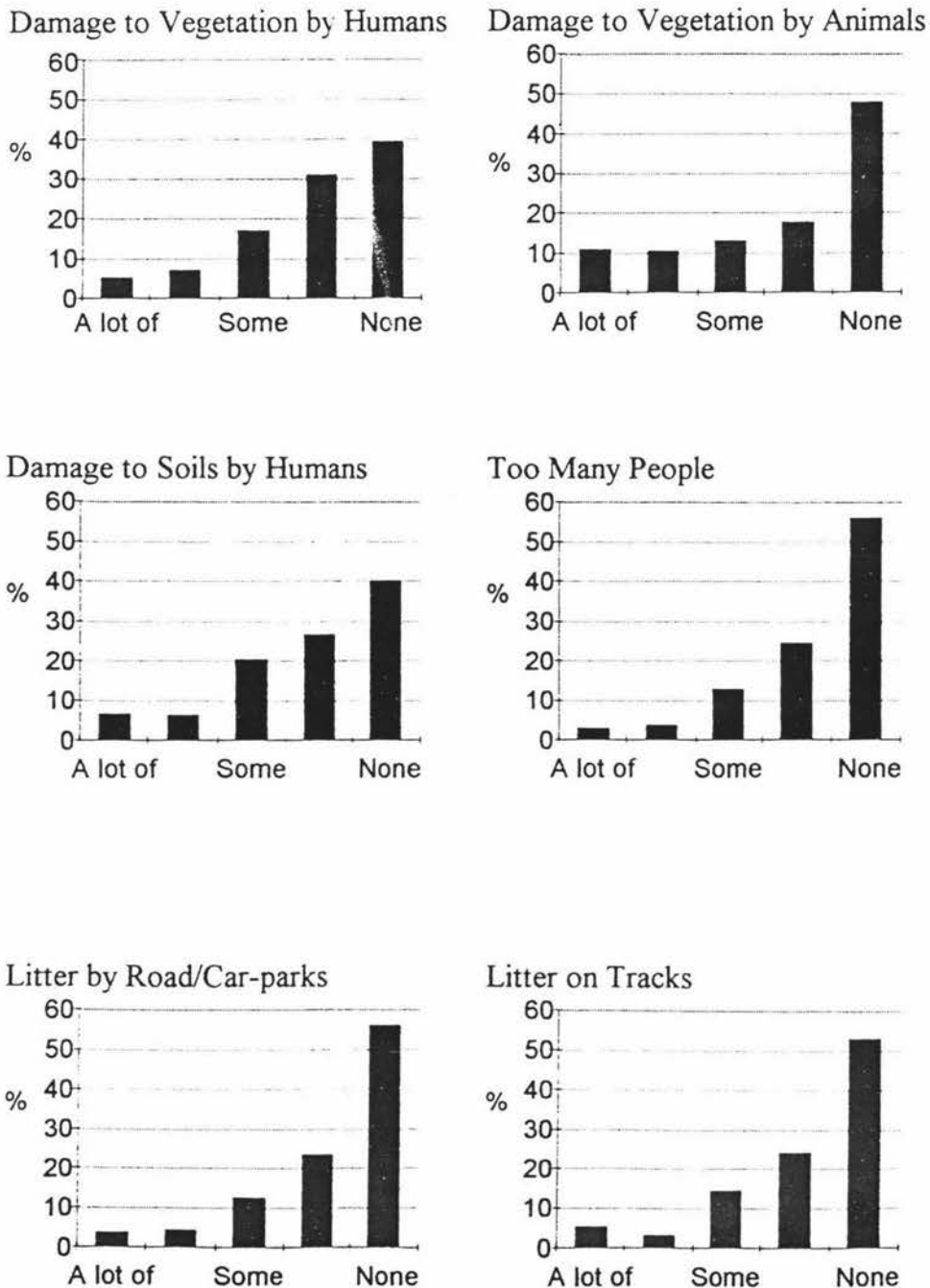
Figure 24 presents the individual questions and percentage of responses relating to concerns in Egmont National Park. The most concern expressed was over damage to vegetation by humans and damage to soils by humans. Damage to vegetation by animals had more visitors showing no concern, but also had the largest proportion of visitors expressing a lot of concern. The two questions relating to litter in Egmont National Park rated fairly evenly with the majority of visitors expressing little concern. Littering was also the greatest concern for visitors to Arthur's Pass National Park (Simmons 1980). Very little concern was shown over there being too many people in Egmont National Park. The majority of visitors also showed little concern over the availability of weather information, but along with this a reasonable proportion of visitors also showed either quite a bit of or a lot of concern. A similar response was received over signage in the park.

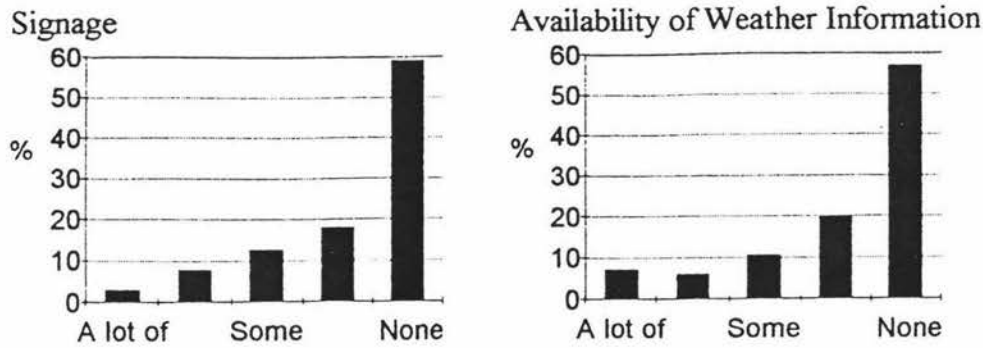
The "last settler" syndrome may apply to visitor levels of concern as many visitors have little or no knowledge of changes in the condition of the park over time. For example a first time visitor may have the perception of very

low levels of crowding and damage to vegetation by humans, whereas those who last visited the park 20 years previously may be very concerned over the number of people and damage to vegetation by humans. Therefore, the levels of concerns expressed by visitors should be viewed only as a reflection of visitor perception of Egmont National Park rather than an indicator of the condition the park is in.

Figure 24.

Responses Expressed as a Percentage to the Question "Did Any of the Following Cause You Concern During Your Visit to Egmont National Park?"



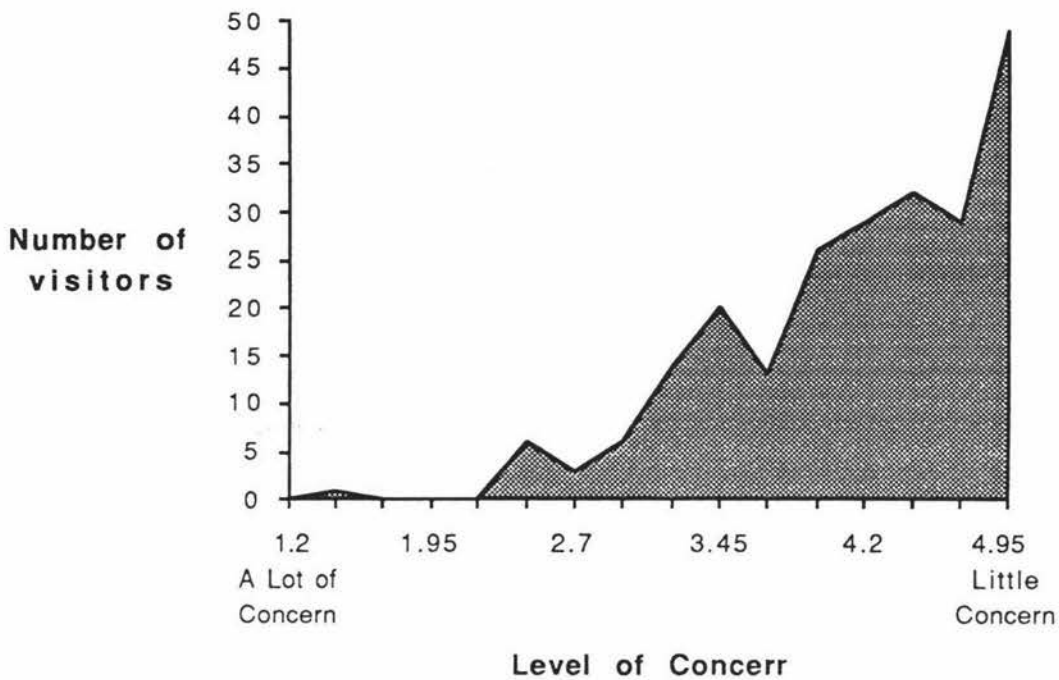


These eight questions were then created into a scale, giving an overall indicator of concern experienced by visitors to Egmont National Park. In the scale visitors scoring one were those expressing a lot of concern, while at the other end of the scale those visitors scoring five indicates no concern. The histogram for the concern scale (figure 25) shows a strong skewness to the right and a mean of 4.151, indicating an overall low level of concern experienced by people visiting Egmont National Park. Although this must be tempered by the fact that the scale does indicate that most people are showing some concern, even if just at a low level.

T-tests and one-way analysis of variance were conducted on the dependent variable concern scale to explore any interesting relationships. The following independent variables showed no significant differences; age, gender, number of previous visits, club membership, level of education, place of residence and whether a visitor has been to other natural protected areas. Two differences were found, in both cases the differences are not great in terms of the five point scale, but there is a significant difference. The first difference was that those spending a day trip or less in Egmont National Park showed less overall concern, with means of 4.2167 and 4.2630 on the five point scale, than those visitors spending three to five days in the park, who showed a mean of 3.8558 [$F(4, 217) = 2.620, p = 0.036$]. The second difference was at the survey points, with North Egmont and East Egmont visitors expressing less concern, with means of 4.2585 and 4.2923 respectively, than visitors to Dawson Falls, who showed a mean of 3.9784. Those staying in Huts also displayed more concern, with a mean of 4.0240, than visitors to East Egmont [$F(3, 227) = 3.105, p = 0.027$].

Figure 25.

Ratings on Concern Scale of Visitors to Egmont National Park



Mean	4.151	Std error	0.046	Std dev.	0.694
Variance	0.482	Kurtosis	0.310	Skewness	-0.783
Valid cases	228				

Visitor Rating of Services and Facilities in Egmont National Park

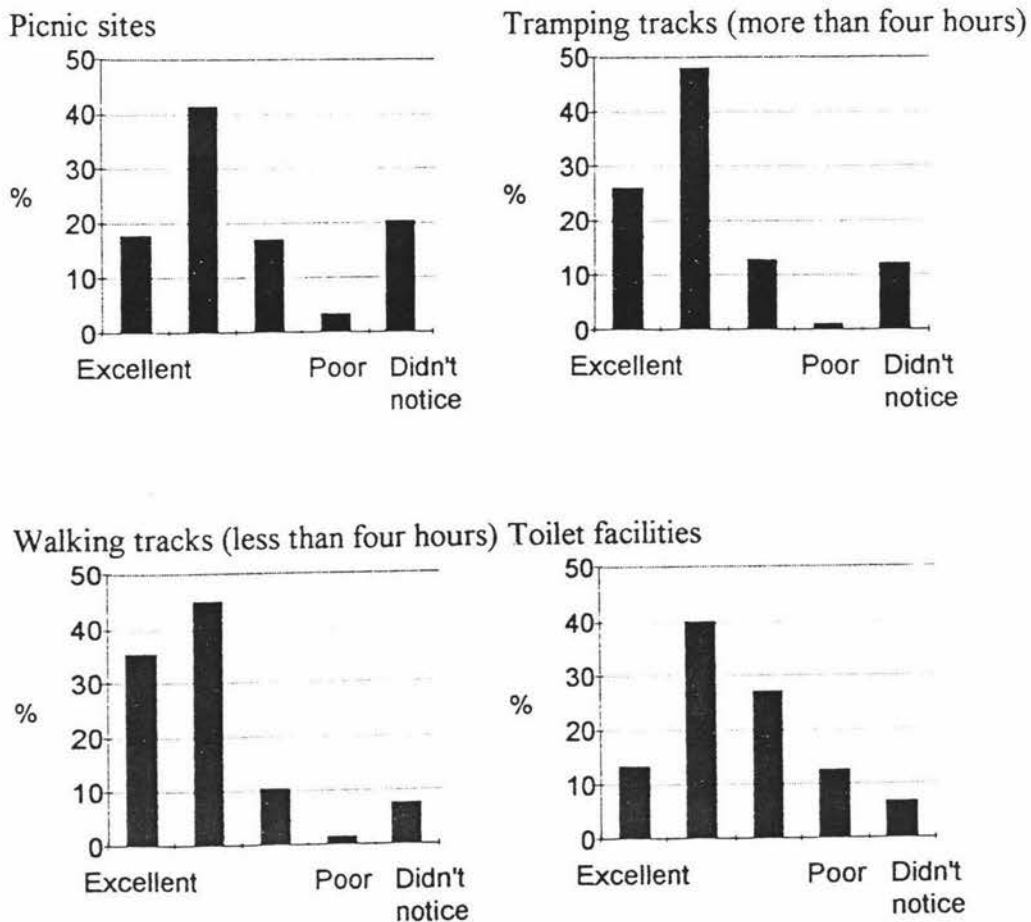
Visitors were asked to respond to nine questions on a five point scale on how they rated a variety of services and facilities in Egmont National Park. Figure 26 presents the individual questions and percentage of responses to these questions. The scale choices were "excellent" (rated as a one), "good", "average" and "poor" (rated as four). "Didn't notice" was the fifth scale choice and not used in the construction of the services and facilities scale.

Over 40% of respondents rated picnic sites as good, not quite 20% rated them as either excellent or average, while only 4% rated them poorly. Picnic sites were not noticed by over 20% of respondents. Tramping and walking tracks had very few visitors rating them poorly or average, with most visitors rating them as good or excellent, though the walking tracks were rated slightly better. Few visitors rated the toilet facilities as poor, though they did

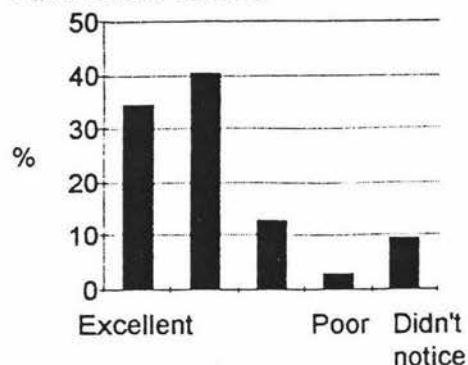
have the highest poor rating at 12%. However, most visitors did consider the toilet facilities as average or good, few considered the excellent. Park visitor centres rated very well with most visitors considering them excellent or good and very few rating them as average or poor. The park huts were similarly well rated, though a high number of respondents replied as didn't notice. Information such as signs and maps were rated as good by over 40% of visitors, fewer rated them excellent or average and there was also a relatively high number of visitors rating them poorly, at 8.5%. Education lodges and availability of park staff experienced the highest response of didn't notice. Education lodges were considered good by those who did notice, with just over 10% rating them as excellent or average, few visitors rated education lodges as poor. Availability of park staff was rated similarly to education lodges, though more visitors considered them average or poor.

Figure 26.

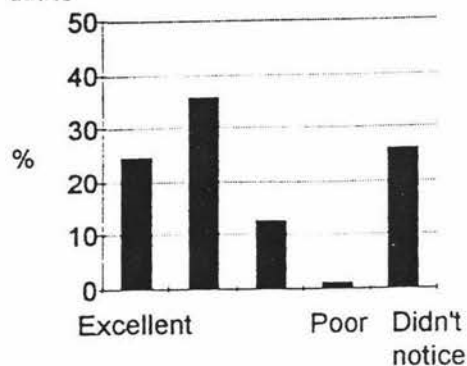
Responses Expressed as a Percentage to the Question "How Would You Rate the Following Services and Facilities in Egmont National Park?"



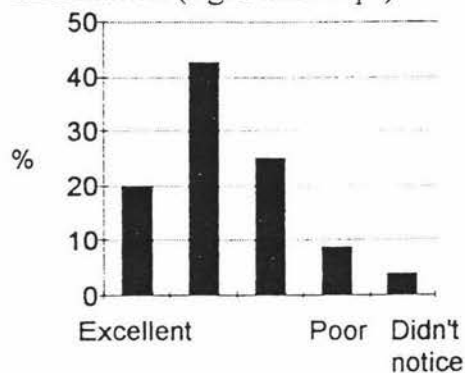
Park visitor centres



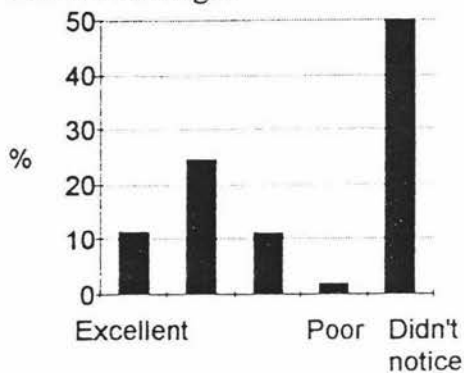
Huts



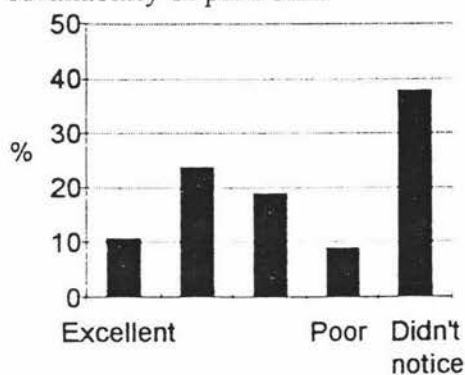
Information (signs and maps)



Education lodges



Availability of park staff

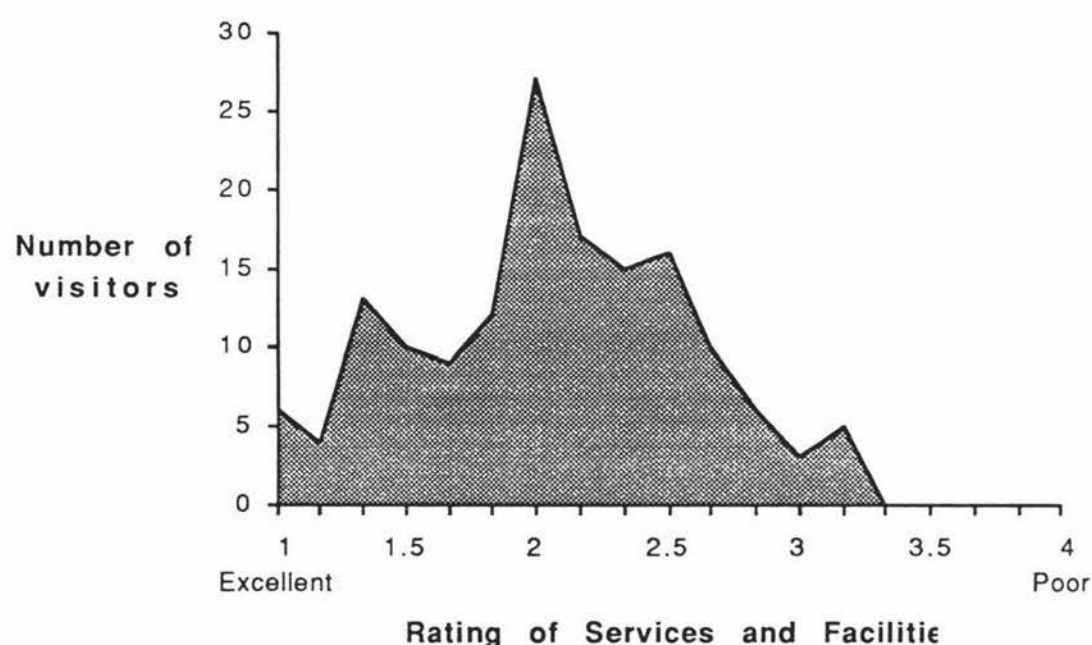


Only six of the nine variables were used in the creation of the services and facilities scale, these being picnic sites, tramping tracks, walking tracks, toilet facilities, park visitor centre and information such as signs and maps. Park huts, education lodges and availability of park staff were not included as too many cases would be dropped, therefore making most correlations insignificant. A score of one on the scale indicates an excellent rating of the services and facilities, while a score of four indicates a poor rating. The histogram of the services and facilities scale (figure 27) has close to normal skewness and flat distribution (low kurtosis), indicating in this case that

services and facilities were considered generally good, with a mean of 2.054. The only significant difference found was that overseas visitors rated the services and facilities best, with a mean of 1.99. Other New Zealand visitors from outside Taranaki rated the services and facilities the second best, with a mean of 2.10 while Taranaki visitors rated them the least best with a mean of 2.36 [$F(2, 151) = 3.34, p = 0.038$]. No significant differences were found with the following variables; length of stay in park, the survey point, club membership, visitation of other natural areas, education and gender.

Figure 27.

Rating on Services and Facilities Scale by Visitors to Egmont National Park



Rating of Services and Facilities					
Mean	2.054	Std error	0.043	Std dev.	0.529
Variance	0.280	Kurtosis	-0.522	Skewness	-0.034
Valid cases	153				

Amount of Development Desired by Visitors to Egmont National Park.

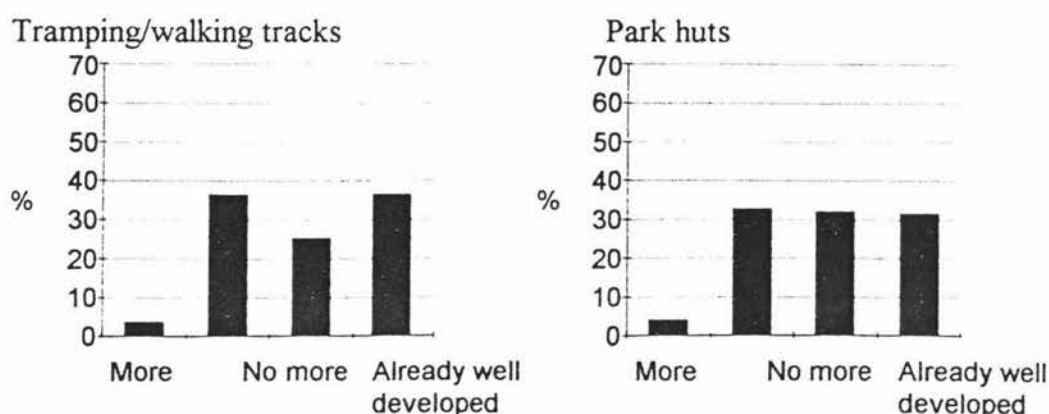
Visitors were asked to respond to twelve questions on a four point scale as to how much development they would like to see in Egmont National Park. Figure 28 presents the individual questions and percentage of responses to

these questions. The scale choices were "a lot more" (rated as a one), "some more", "no more" and "already well developed" (rated as four).

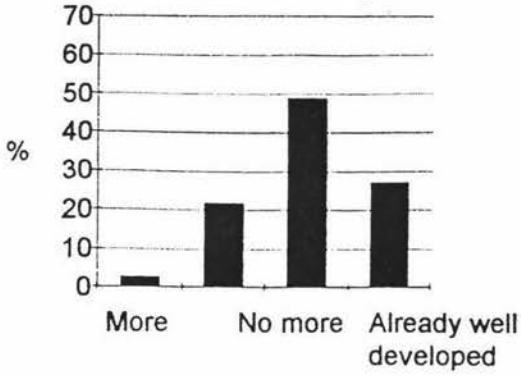
There were very few responses by visitors calling for a lot more development for any of the items listed, though ski fields, educational facilities and signs marking tracks all had around 10% of respondents wanting more development. Visitor safety had the highest demand for a lot more development at 14%. More development was generally rated at between 30 and 40% by respondents for most questions, exceptions being guided tours by commercial groups, ski fields and tourist accommodation, all considered less desirable at close to 20%, roading fared even worse at 13%. However, guided tours by park staff and educational facilities, such as nature trails, were considered more desirable for development at 57.4 and 50.1% respectively. No more development and already well developed as scale markers appeared confusing for many respondents, as they are very similar in their meaning. These were the most common responses for the majority of questions, with the major deviations being roading and ski field development being undesirable to the majority of respondents. Development of guided tours by commercial groups and tourist accommodation in the park were also considered undesirable. Very few respondents rated guided tours by park staff and educational facilities as undesirable areas for development.

Figure 28.

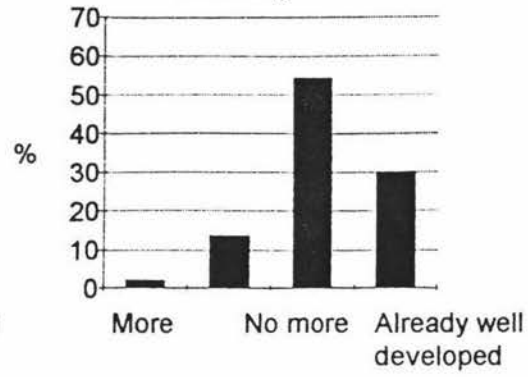
Responses Expressed as a Percentage to the Question Do You Think Egmont National Park Should Be Developed to a Greater Extent to Cater For Visitors? How Much Development Would You Like to See in the Following Areas?"



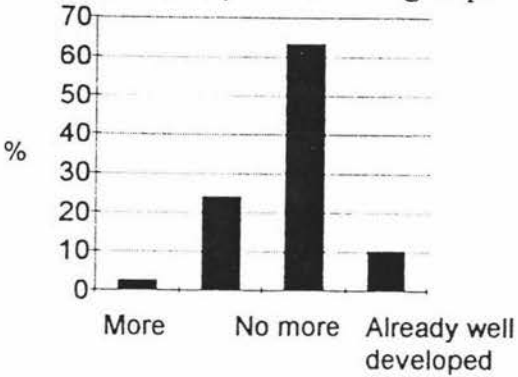
Tourist accommodation in park



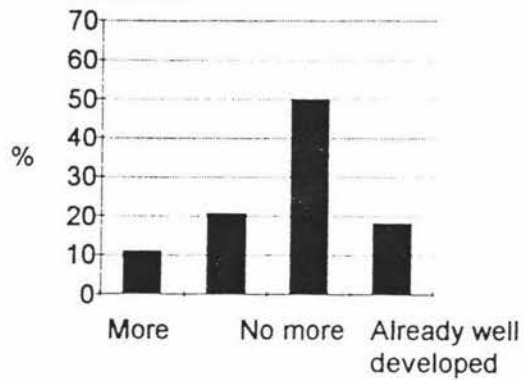
Roading



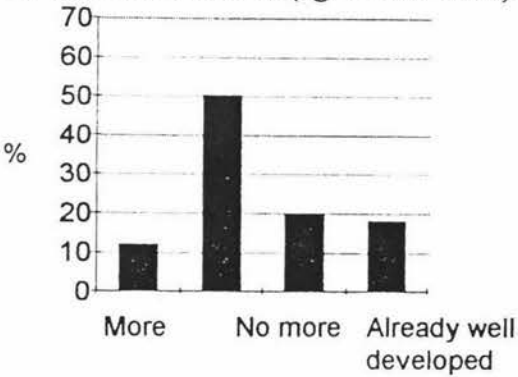
Guided tours - by commercial groups



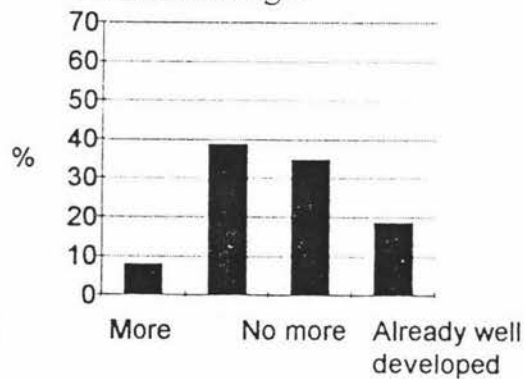
Skifields



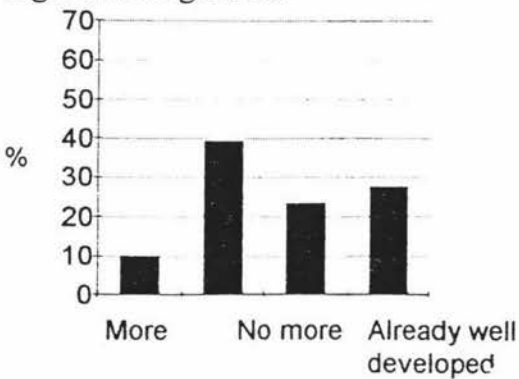
Educational facilities (eg. nature trails)



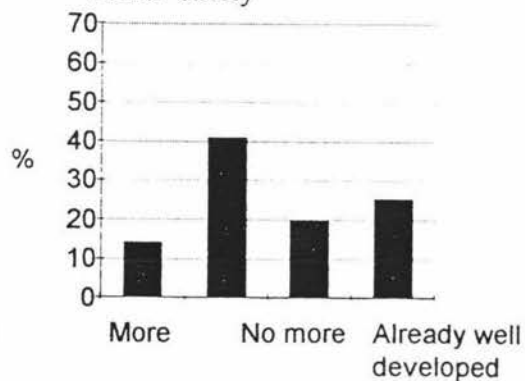
Education lodges



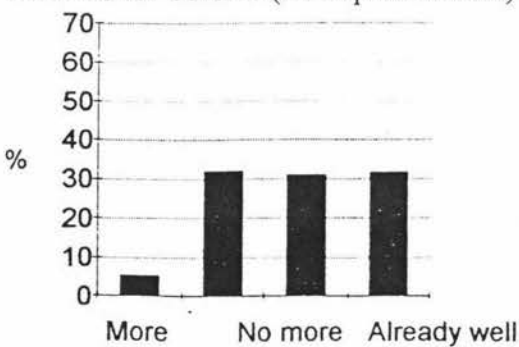
Signs marking tracks



Visitor safety



Park visitor centres (ie. improvements)



Guided tours - by park staff

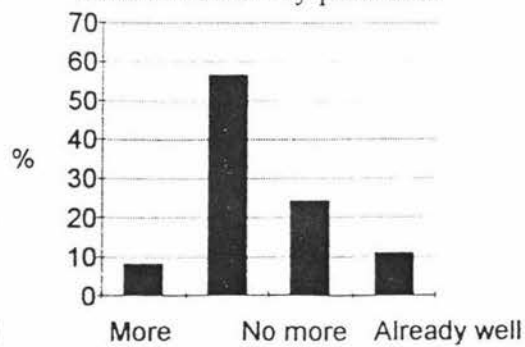
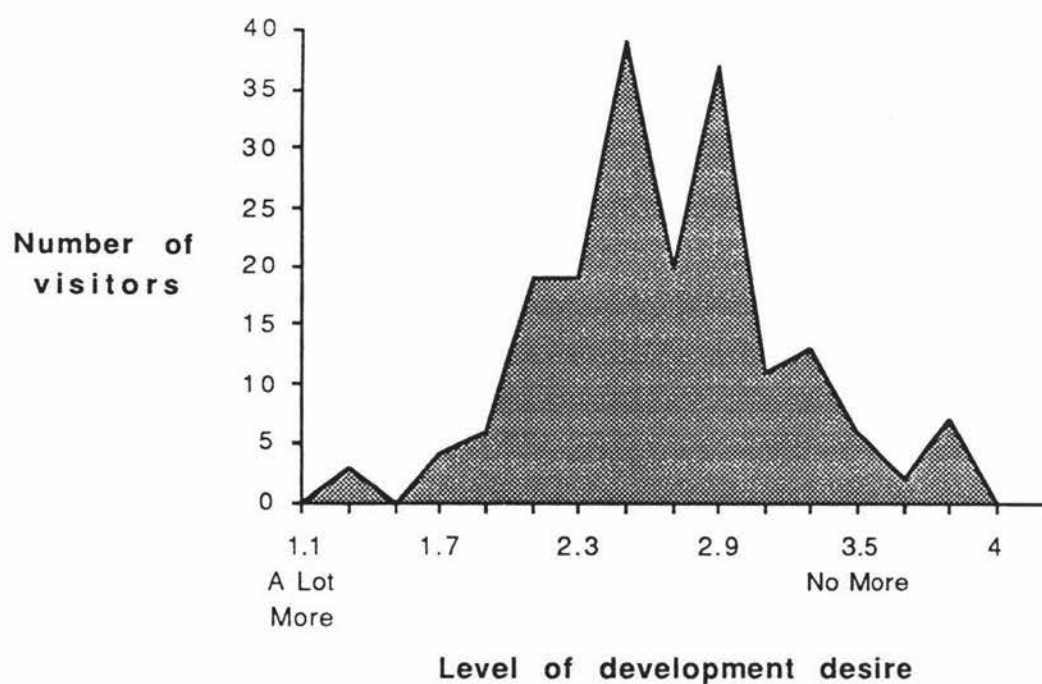


Figure 29 presents the scale showing attitudes towards development, with a score of one being for development and a score of three or less being distinctly anti development. The scale relating to development in Egmont National Park shows only a slight skew to the left from a normal curve, with a mean of 2.678. This indicates that overall visitors only want a minimal amount of development in the park. The only significant difference found was that overseas visitors, with a mean of 3.003, are less likely to want development than Taranaki visitors and New Zealand visitors from outside Taranaki, who had means of 2.625 and 2.647 respectively [$F(2, 183) = 6.0, p = 0.003$]. No significant difference was found with the following variables; length of visit, visit time, survey point, club membership, education, visitation to other natural areas and gender.

Figure 29.

Level of Development Scale Desired by Visitors to Egmont National Park



Level of development desire					
Mean	2.678	Std error	0.038	Std dev.	0.516
Variance	0.266	Kurtosis	0.289	Skewness	0.221
Valid cases	186				

4.8 ATTITUDES TOWARDS USE OF NEW ZEALAND'S NATIONAL PARKS

Sixteen questions were asked on whether visitors thought New Zealand's National Parks should be used for a variety of uses. The scale markers were "strongly agree", "agree", "neutral", "disagree" and "strongly disagree". For the statistical tests performed on the park use questions "strongly agree" is rated as one, "neutral" is rated as three and "strongly disagree" is rated as five. The questions relating to park use had a very high response rate, with over 290 responses in all cases, perhaps a reflection of the level of concern shown for New Zealand's national parks. The results are displayed in figure 30.

The relationships with age were difficult to be sure of as the group sizes being compared were quite small, which results in insignificant correlation's. The graphs show that many of the attitudes are heavily skewed, with little variance. Therefore some questions were only briefly investigated and, as suspected, there were few significant differences in attitudes when demographic factors were examined. The park use questions examined in depth were tourism, commercial uses, skiing, utilities, sport and guided tours by Department of Conservation staff and commercial groups. Any significant findings from the statistical tests are presented after each question.

The first question asked was whether New Zealand's National Parks should be used for conservation. This experienced the highest number of respondents strongly agreeing, with 71.4%, and 23% agreeing. Less than six percent of respondents were neutral or disagreed. Taranaki respondents, though still strongly agreeing for conservation, agreed to a lesser extent than other visitors, rating conservation as a use, with a mean of 1.212 as opposed to 1.423 [$F(2, 306) = 7.237, p = 0.001$].

Tramping, walking and education about nature all received similar responses, with 60-65% strongly agreeing and close to 30% agreeing. Less than 10% were neutral or disagreed. Those who strongly agreed with tramping and walking rated the services and facilities as better, with a mean of 1.941, than those who just agreed, who displayed a mean of 2.211 [$F(2, 152) = 5.328, p = 0.006$].

School trips and use for environmental research both received around 50% of visitors strongly agreeing and 40% agreeing. Once again less than 10% were neutral or disagreed.

The question showing the next highest level of agreement was guided tours by park staff, with 37.6% strongly agreeing and 44.2% agreeing. Only 14.4% were neutral and 4% showed disagreement. This resulted in a mean response of 1.831. This was examined with a t-test and found to be a statistically significant contrast when compared to guided tours by commercial groups, which had a mean of 3.157 [$t(289) = -17.84, p < 0.001$]. In response to the question over guided tours by commercial groups less than 9% strongly agreed, 22.9% agreed and 29.5% were neutral. 22.9% disagreed and 16.1% strongly disagreed. There was no difference found in how any groups of visitors viewed guided tours by the Department of Conservation (all with a mean around 1.8), but Taranaki residents, with a mean of 2.923, were on the agree side of scale for commercial groups while New Zealand residents from outside of Taranaki and overseas visitors rated on the disagree side, with means of 3.345 and 3.511 respectively [$F(2, 283) = 6.097, p = 0.003$].

Skiing and tourist development also had the majority of visitors agreeing they were appropriate uses in New Zealand's National Parks. The majority of respondents only just agreed to these two uses, with around 40%, 20% were neutral and a further 20% disagreed to some extent. The question on skiing was the only use where a significant difference in education was shown by a t-test. With non-university educated visitors viewing skiing slightly more favourable, with a mean of 2.054, than university educated visitors, with a mean of 2.312 [$t(304) = -2.01, p = 0.045$]. For skiing in relation to residence the means were all significantly different, with Taranaki viewing skiing the most favourably with a mean of 1.831, New Zealand residents from outside Taranaki in the middle with a mean of 2.226 and overseas visitors the least in favour with a mean of 3.236 [$F(2, 304) = 37.688, p < 0.001$]. Agreement of use of New Zealand's national parks for skiing also varied with the number of times a visitor had previously been to the park. With first time visitors, with a mean of 2.753, more anti skiing than other more regular visitors, displaying means 2.123 for 1-5 previous visits and 1.943 for greater than six visits previously [$F(2, 306) = 18.119, p < 0.001$]. Those who strongly agreed with skiing also showed significantly less concern, with a

mean of 4.462 on the concern scale, than those who were neutral or disagreed with skiing, who displayed means of less than 4.0 [$F(4, 225) = 6.158, p < 0.001$]. Those who agreed with skiing showed a mean of 2.516 on the level of development scale indicating they were more likely to want development than those neutral or not in favour of skiing in national parks, who showed means of 3.0 or more [$F(4, 183) = 6.333, p < 0.001$]. Those who consider tourism an appropriate use in National Parks showed less concern, with a mean of 4.254, than those who disagreed with tourism, who showed a mean of 3.924 [$F(4, 219) = 2.544, p = 0.041$]. Though it was a weak association, those in favour of use of New Zealand's National Parks for tourism also want more development [$F(4, 180) = 2.186, p = 0.072$].

Using New Zealand's National Parks for commercial uses (eg. film making), organised competitive sports (eg. triathlons), and utilities (eg. transmitters) all produced a relatively normal distribution of responses, with the most common responses being neutral. Commercial uses had a few more visitors agreeing than disagreeing, possibly due to many people qualifying their answers with "for nature films only". Both utilities and organised competitive sport had over 30% of visitors expressing some level of disagreement and only just over 20% of visitors showing agreement. Taranaki residents, with a mean of 2.851, saw more scope for commercial uses than overseas residents, with a mean of 3.319, while New Zealand visitors from outside Taranaki fell in the middle, with a mean of 2.973 [$F(2, 296) = 3.494, p = 0.032$]. Taranaki residents were fairly neutral, with a mean of 3.124, about the use of utilities such as television transmitters in national parks while overseas visitors, with a mean of 3.513 slightly disagreed [$F(2, 293) = 2.978, p = 0.052$]. Overseas visitors, with a mean of 3.712, disagreed with sport uses more strongly than New Zealanders, who only disagree slightly with means closer to 3.1 [$F(2, 297) = 5.934, p = 0.003$].

Recreational hunting showed a relatively even distribution of response across all categories. It is difficult to interpret the responses to this question as most of those who agreed with hunting qualified this with "as a possum control method only."

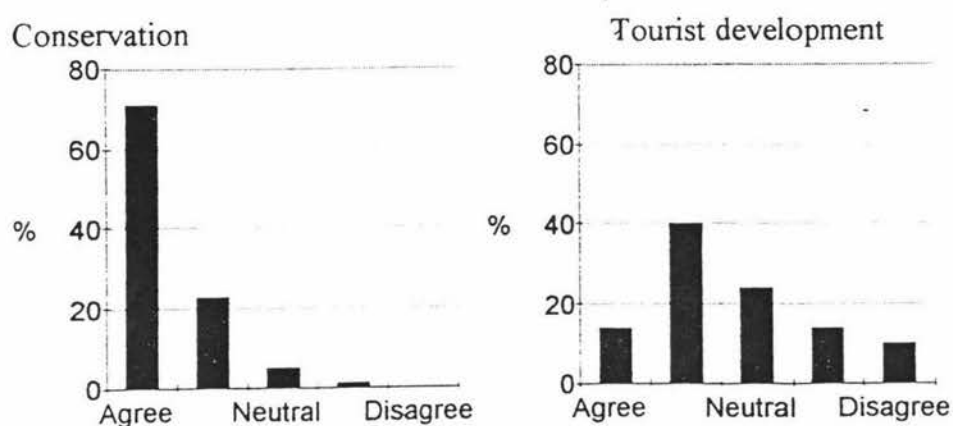
Both logging and mining exploration showed around 80% of visitors strongly disagreeing and 10% disagreeing. Very few respondents were neutral or agreed. Overseas visitors don't see mining [$F(2, 299) = 4.065,$

$p=0.018$] or logging [$F(2, 298) = 4.864, p=0.008$], with means of 4.423 and 4.315 respectively, in such a bad light as New Zealanders, with means close 4.7 for both. Visitors who had been to Egmont National Park greater than five times before, with a mean of 4.779, are less likely to want logging than first time visitors, who displayed a mean of 4.370 [$F(2, 300) = 6.088, p=0.003$].

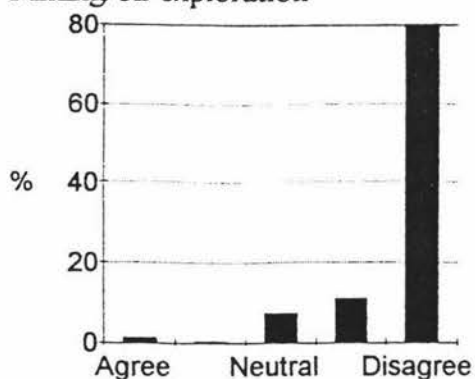
Booth (1986) and Gilmour (1982) both examined attitudes towards the use of New Zealand's National Parks. The comparison with Gilmour's findings is difficult due to the very different aims of his questions. However, it seems that recreation and preservation were perceived as equally important uses of national parks. Booth's (1986) study asked questions on park use in a way that is more comparable to this study, though Booth also focused on aspects of recreationist and preservationist type visitors. Similar to this study Booth found conservation/preservation to be perceived as the most appropriate use of national parks. Booth also asked a question specifically relating to whether parks should be used for public enjoyment/recreation, this was considered the next most important function of parks in her study. The closest questions to the function of public enjoyment/recreation in this study are attitudes towards tramping, walking and skiing, in this sense visitors in this study also consider recreation a very important use of national parks.

Figure 30.

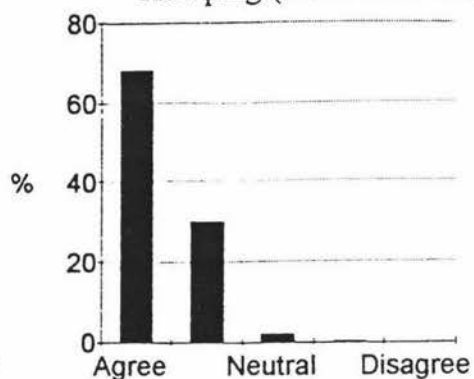
Visitor Responses to the Question "New Zealand's National Parks Should be Used for the Following ?"



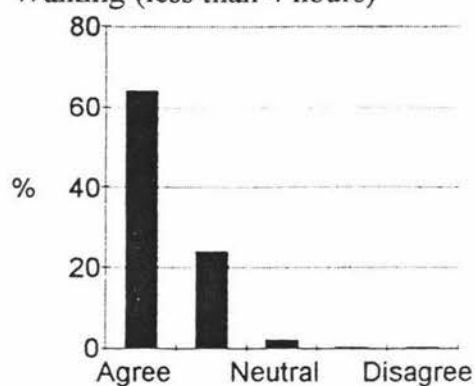
Mining/oil exploration



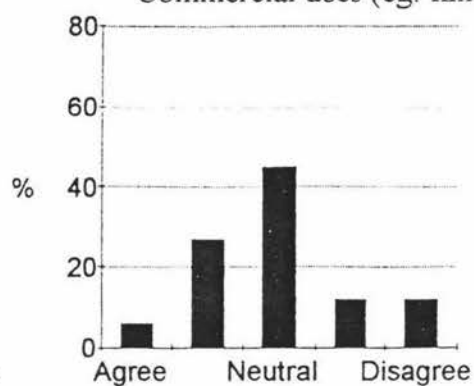
Tramping (more than 4 hours)



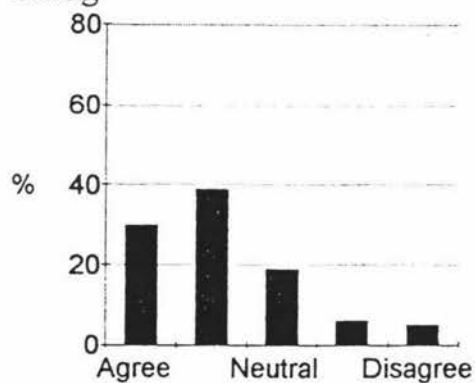
Walking (less than 4 hours)



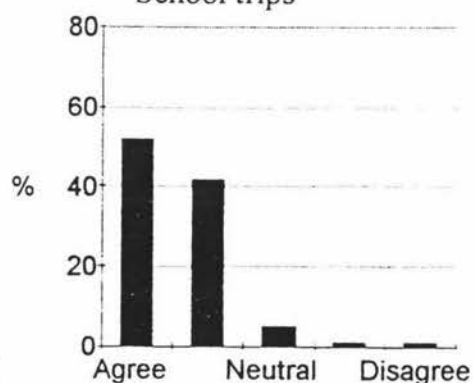
Commercial uses (eg. film making)



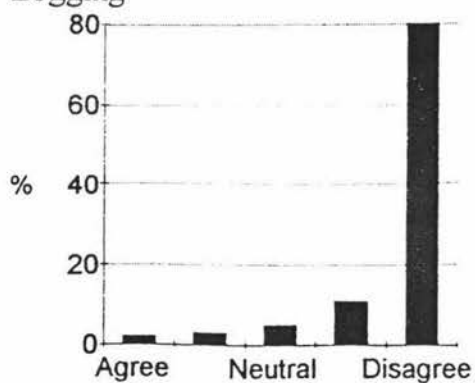
Skiing



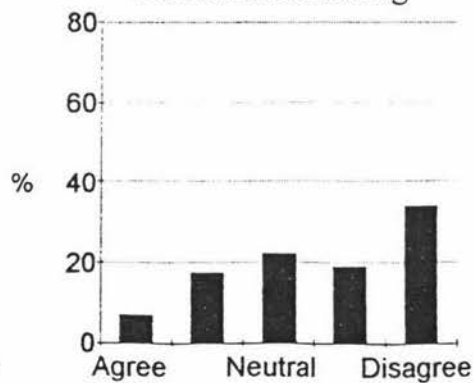
School trips



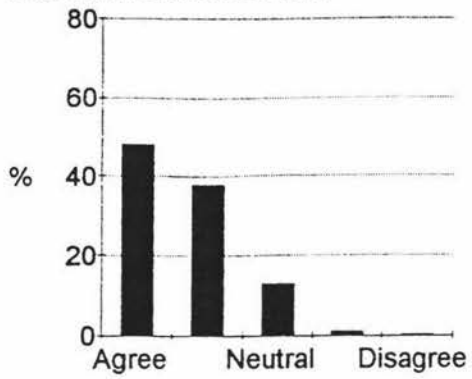
Logging



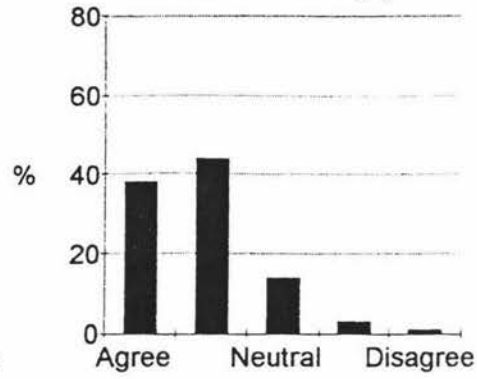
Recreational hunting



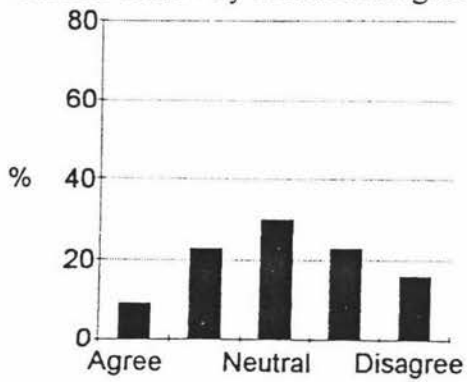
Environmental research



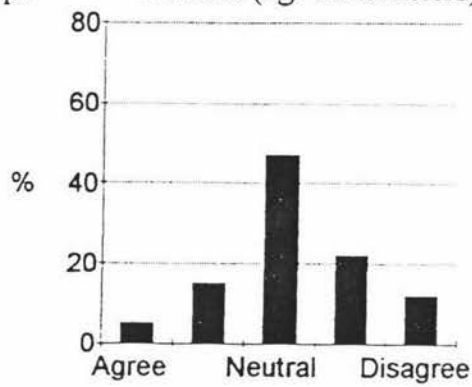
Guided tours - by park staff



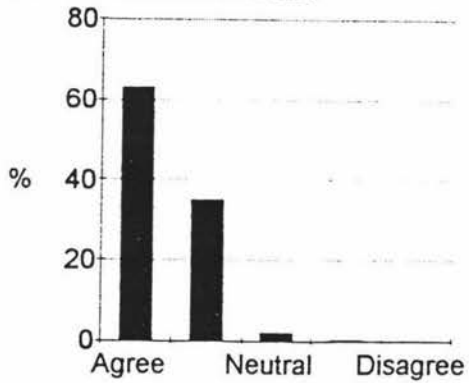
Guided tours - by commercial groups



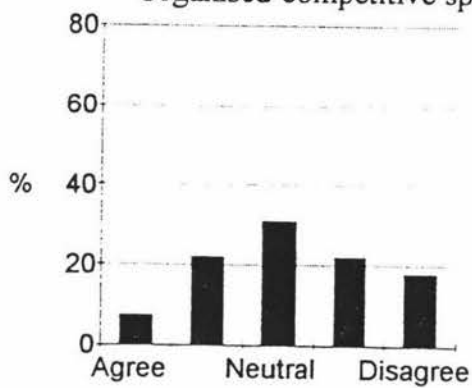
Utilities (eg. transmitters)



Education about nature



Organised competitive spor.



4.9 CHARACTERISTICS OF VISITORS AND THEIR PLACE OF RESIDENCE

For the purposes of this examination the place of residence of visitors have been split in to three groups; Taranaki, New Zealand visitors from outside of Taranaki and visitors from overseas. The three groups were also examined to see if there was any difference in likelihood of belong to clubs and to see if any of the three groups had a significantly different gender composition, in both cases this proved negative. Differences in group size were not statistically significant as the sample size was too small given the number of categories needed for the test. However, it appears that Taranaki and other New Zealanders primarily visited in groups of two, three or four people. With around 10% of those surveyed in groups of five or more. Around 50% of overseas visitors travelled as couples, with very few in larger groups. Differences in attitudes towards park use, development, level of concern, services and facilities and their relationship to the visitors place of residence were discussed earlier in the analysis.

Significant differences in relationships between where the visitors place of residence and the following were found:

- the length of visit to Egmont National Park (table 8);
- the survey point (table 9);
- number of previous visits to Egmont National Park (table 10);
- composition of group [$\chi^2(12, n=326) = 41.3, p < .001$];
- whether the visitor has had university education (table 11); and
- the most influential source of information for their visit to Egmont National Park [$\chi^2(26, n=256) = 96.3, p < .001$].

Characteristics of Visitors Originating From Taranaki

Visitors who come from Taranaki are most likely to either spend less than four hours or a day in Egmont National Park, accounting for over 90% of Taranaki visitors. Staying in huts is not common for Taranaki visitors (12.9%) reflecting the preference for day trips. Dawson Falls and North Egmont (biased by open climb) road-ends both receive over 20% of Taranaki visitors, while the East Egmont road-end is particularly popular receiving over 38%. The majority of Taranaki visitors have visited the park more

Table 8.

Length of Visit to Egmont National Park by Place of Residence (%)

Length of Visit					
	<4 hours	Day trip	2 Days	3-5 Days	6+ Days
Taranaki	30.8	60.1	4.9	2.1	2.1
New Zealand*	16.2	36.9	12.6	34.2	0.0
Overseas	16.3	40.8	14.3	28.6	0.0

[$\chi^2(8,n=303) = 62.3, p < .001$]

* Refers to New Zealand Visitors from outside Taranaki

Table 9.

Survey Point by Place of Residence (%)

Survey Point				
	Park Huts	North Egmont	East Egmont	Dawson Falls
Taranaki	12.9	27.9	38.1	21.1
New Zealand*	33.6	19.0	24.1	23.3
Overseas	14.3	42.9	22.4	20.4

[$\chi^2(6,n=312) = 27.5, p < .001$]

* Refers to New Zealand Visitors from outside Taranaki

Table 10.

Previous Visits to Egmont National Park by Place of Residence (%)

Number of Previous Visits			
	First visit	1-5 previous visits	> 5 previous visits
Taranaki	2.1	11.0	86.3
New Zealand*	29.2	44.2	26.5
Overseas	87.5	10.4	2.1

[$\chi^2(6,n=307) = 211.7, p < .001$]

* Refers to New Zealand Visitors from outside Taranaki

Table 11.

Level of Education of Visitors to Egmont National Park by Place of Residence (%)

	Level of Education	
	No university education	University educated
Taranaki	69.7	30.3
New Zealand*	44.3	55.7
Overseas	39.1	60.9

[$\chi^2(2, n=306)=22.6, p=>.001$]

* Refers to New Zealand Visitors from outside Taranaki

than five times before. Just over 30% of Taranaki visitors have had university education. The most influential sources of information for Taranaki residence was previous visits at 36.8%, word of mouth at 25.4% and 8.8% said it was because they lived locally.

Characteristics of New Zealand Visitors Originating From Outside of Taranaki

Seventy one percent of New Zealand visitors from outside Taranaki spend either a day trip in Egmont National Park or between three to five days in the park. Just over a third stay in huts, reflecting the thirty four percent visiting for three to five days, all the road ends show a similar level of use. It is most common (45%) that New Zealand visitors from outside of Taranaki have been to Egmont National Park between one and five times before, with just under thirty percent being first time visitors and twenty six and a half percent having visited more than five times before. Just over half have education at a university level. The most influential sources of information for New Zealand residents originating outside of Taranaki were word of mouth (31.45%), previous visits (35.9%) and papers, books and magazines (5.8%).

Characteristics of Visitors Originating From Overseas

Overseas visitors to Egmont National Park showed a similar pattern to New Zealand visitors from outside of Taranaki with regards to how long they spent in the park. The most common length of visit being forty percent on day trips and nearly twenty nine percent spending between three to five days in the park. The most common road-end visited was North Egmont with nearly forty three percent of overseas visitors and the other two major road-ends, East Egmont and Dawson Falls receiving around twenty percent each. Just over fourteen percent of overseas visitors stayed at huts. For nearly ninety percent of overseas visitors it was their first visit to Egmont National Park, with twelve and a half percent having made previous visits. Just over sixty percent were university educated. The most influential sources of information for overseas visitors were travel guides (38.5%), word of mouth (23.1%) and papers, books and magazines (5.1%). Travel guides were also an important sources of information for overseas visitors in a recently completed recreation survey on the Wanganui river (pers comm Steve Horman).

4.10 CHARACTERISTICS OF VISITORS AND THE SURVEY POINT

The park huts and North Egmont road-end had higher levels of first time visitors, with twenty nine and thirty percent respectively, than East Egmont and Dawson Falls, who both had rates of first time visitors closer to twenty percent (table 12). The huts attracted more visitors who had been one to five times before (30.8%), but the huts also attracted fewer visitors who have visited greater than five times. Around half of the visitors to North Egmont and Dawson Falls have visited greater than five times, while over 63% percent of respondents to East Egmont have visited more than five times. The high level of repeat visitation at East Egmont may be due to the influence of the skifield.

Dawson Falls and East Egmont were the most likely to be visited for less than four hours (38.6% and 29.8% respectively), but the most common length of stay at these road-ends was still day trips, 44.3% at Dawson falls and 53.2% at East Egmont (table 13). In contrast North Egmont only had 15.5% staying less than four hours, with 71.4% of visitors undertaking day trips. Trips two days

or longer were uncommon at road-ends. As expected the majority, 58.8%, of visitors to the park huts spent 3-5 days in Egmont National Park, with the remainder either spending a day trip or two days in the park.

Table 12.

Number of Previous Visits to Egmont National Park by Survey Point (%)

Number of Previous Visits			
	First visit	1-5 previous visits	>5 previous visits
Huts	29.2	30.8	38.5
North Egmont	34.9	18.6	46.5
East Egmont	16.8	20.0	63.2
Dawson Falls	20.6	25.0	54.4

$[X^2(9,n=214)=18.8, p=.027]$

Table 13.

Length of Visit to Egmont National Park by Survey Point (%)

Length of visit					
	<4 hours	Day trip	2 days	3-5 days	6+ days
Huts	6.3	17.5	17.5	58.7	0.0
North Egmont	15.5	71.4	8.3	4.8	0.0
East Egmont	29.8	53.2	7.4	7.4	2.1
Dawson Falls	38.6	44.3	5.7	10.0	1.4

$[X^2(12,n=211) =125.6, p=<.001]$

Differences in group size at the survey points was difficult to interpret as the sample size was too small given the number of categories needed for a significant test. However, it did show that many of the larger groups were surveyed at the huts. Two trends showed when survey point was compared to group composition. First, the huts are more likely to have club members than the road ends (24.7% of hut visitors) and, secondly, the North Egmont is

the most likely road-end to get visitors travelling alone, with over 53.6% of visitors doing so ($\chi^2(18, n=326) = 71.1, p < .001$). However, the general trend was visiting with family and/or friends at all survey points. The level of education did not vary at survey points. There was a very small difference in concern shown at the survey points, with those surveyed in the park huts and at the Dawson Falls road-end being more concerned as measured by the scale.

4.11 CHARACTERISTICS OF VISITORS AND CLUB MEMBERSHIP

Forty one point four percent of visitors to Egmont National Park belong to outdoor clubs, conservation groups or similar organisations. Club members are more likely (60.2%) to have visited the park more than five times, which is a significantly higher proportion than those who have visited less than five times (table 14). Club members are less likely to spend less than four hours in Egmont National Park than non club members, while they are a lot more likely to spend two days or more visiting the park (table 15). Whether a visitor has had a university level of education or not has no relationship to being a member of a club. Club members did not favour any survey point.

Table 14.

Number of Previous Visits to Egmont National Park by Club
Membership (%)

	Number of Previous Visits		
	First visit	1-5 previous visits	>5 previous visits
Non-club member	26.3	27.9	45.3
Club member	23.3	16.5	60.2

$[\chi^2(3, n=312) = 8.6, p = .035]$

Table 15.**Length of Visit to Egmont National Park by Club Membership (%)**

	Length of Visit				
	<4hrs	day trip	2 days	3-5	6+ days
Non-club member	32.0	46.1	6.7	15.2	0.0
Club member	11.5	53.4	12.2	20.6	2.3

[$\chi^2(4, n=309)=22.4, p=, .001$]

4.12 QUESTIONS RELATING TO THE ROUND-THE-MOUNTAIN TRACK

This was the most poorly completed question of the survey, only 10.9% or 33 respondents completed the round-the-mountain track questions. Due to the survey methods used this is not considered an indication of the proportion of visitors to Egmont National Park that complete the round-the-mountain track. Of those who did complete the questions, 81% reported that it lived up to their expectations and 42.9% thought the round-the-mountain track needed to be managed in some way. Most respondents did not qualify these answers with comments where invited so the meaning of these figures were not able to be interpreted.

The comments that were made were very similar to the general comments made by visitors, relating to the beauty of the park and their enjoyment. Some comments criticised the condition of the tracks, including the abundance of mud, and requested more information in the form of signs and maps.

4.13 GENERAL COMMENTS MADE BY RESPONDENTS

One hundred and thirty six of the visitors questioned took the opportunity to make additional comments were invited on the questionnaire. The majority of these comments praised the beauty of Egmont National Park and

commented on how much they enjoyed their visit. Often this was qualified with the wish for no more development, which was summed up by a comment made by one German visitor, "destroy not your nature like in European alps for visitor develop".

The other significant group of responses was over concern over the safety of visitors in Egmont National Park, particularly foreigners and their lack of awareness over the changeable weather conditions.

The remainder of comments included:

- praise for Department of Conservation Staff;
- concerns over possums and goats in Egmont National Park, and support for and against the 1080 poisoning program;
- the need for more rubbish bins, particularly at the plateau (East Egmont);
- charging only overseas visitors for the use of park huts, as New Zealand visitors have already paid for the use in their taxes;
- the wish for guided trips to the summit;
- general praise for the facilities;
- concern over dogs in the park;
- the wish for skifield development;
- carpark security at the plateau;
- concern over erosion; and
- concern over too many "foreigners" in the park.

CHAPTER 4. SURVEY RESULTS AND DISCUSSION

SECTION TWO

4.14 SUMMARY

Summary of Demographics, Trip Characteristics and Motivation

Table 16 displays the summary of demographics, trip characteristics and motivations. The results displayed very similar characteristics when compared to previous studies of national parks elsewhere in New Zealand and those deviations that did exist are generally explained by characteristics that are peculiar to the location of Egmont National Park.

Information

Most visitors had heard about the park through word of mouth, previous visits and information centres, though this varied with place of residence; travel guides, in particular, were important to overseas visitors. These were also the most important influences in the decision to visit the park. Once visitors were in the park the maps and signs at the start of tracks were a very important source of information, as were the visitor centre at North Egmont and the display centre at Dawson Falls.

Visitors were generally pleased with the amount of information provided in Egmont National Park. Areas that most need to be considered for development of information are improved track information (times and levels of difficulty) and visitor safety and weather information. There was a strong demand for more information on the ecology of Egmont National Park and for educational facilities such as nature trails. There was also visitor demand for improved information on Maori history, legend and culture.

Table 16.

Summary of Characteristics Displayed by Visitors to Egmont National Park

Age	They tend to be adults aged 20 - 40 years
Place of Residence	Nearly half of visitors are from Taranaki, 35% are New Zealand residents from outside Taranaki and the remaining 15% are visitors from overseas
Mode of Transport	Private cars heavily dominate as the mode of transport
Gender	There are slightly more male than female visitors
Employment	Visitors are more likely to be better educated and hold more "professional " employment than the general population
Ethnicity	Visitors were of predominantly European ethnicity
Length of Visit	Three-quarters of trips were a day or less in length, very few visitors stayed longer than six days
Group Size	Smaller group sizes (2-4) were favoured and these were composed primarily of family and/or friends
Previous Visits to Egmont National Park	Half the respondents had visited Egmont National Park more than five times before, a quarter one to five times before and for the remaining quarter it was their first visit
Previous Visits to Other Areas	Nearly 90% of respondents reported visiting other protected natural areas
Club Membership	Over 40% of visitors belonged to clubs, which tended to be alpine and adventure oriented, and are more likely to be regular visitors and are also more likely to spend more than two days visiting Egmont National Park
Activities Undertaken in Egmont National Park	The most common activities undertaken by visitors to Egmont National Park were viewing the scenery, taking photographs, walking and tramping
Motivations	The most important motivation for visiting the park was the beauty of natural features followed by tramping and walking, though living close to the park and its accessibility were also important influences

Concerns, Services, Facilities and Development

The most concern expressed by visitors to Egmont National Park was over human impact on the natural environment, followed by visitor safety and the provision of weather information. Visitors displayed few other concerns during their visit to Egmont National Park. The services and facilities were considered generally good by visitors, with the tramping and walking tracks and park visitor centres all rating very high. The toilet facilities and information such as signs and maps were rated the worst of the services and facilities. A minimal amount of development is seen as desirable by visitors, though the four areas that need to be considered for more development are guided tours by park staff, educational facilities such as nature trails, signs marking tracks and visitor safety.

Use of New Zealand's National Parks

Models, such as Memon and Selsky's (1994) dynamic behavioural model of a complex common property resource and Hall and McArthur's (1993) model of the heritage visitor management system, display the role of visitors attitudes towards park use in the formulation of management plans. Additionally both of these models also place institutional arrangements within a societal or cultural context. The relevance of this societal context for park use was displayed in the environmental history of Egmont National Park presented in chapter two. The changing use of the park over time was discussed and seen to reflect the changing attitudes of society towards nature. The use of the park has seen a move towards a stronger preservationist attitude, including legislative recognition of ecological and intrinsic values, and away from harmful commercial uses such as quarrying. Plans for the future use of New Zealand's national parks should pay consideration to values and attitudes held by visitors and society at large. Though this study examined only visitors attitudes towards park use, as opposed to attitudes of the general population of New Zealand, some valuable insights for management purposes can still be gained.

This study found both conservation and recreation to be considered important uses of New Zealand's National Parks. Education about nature and school trips were also seen as important functions of national parks. The uses considered most appropriate by visitors were generally uses that

have low impact on the environment and are of a more "green" nature. The more exploitative uses and those requiring significant development, such as the construction of more tourist accommodation and roading, were seen as undesirable. General comments made by visitors also indicated their unwillingness to accept new development.

Though this was not a longitudinal study and in no way constituted an in depth examination of attitudes towards nature by society, these attitudes did reflect attitudes towards the environment suggested by Seaborn (1980) and D'Amore & Assoc. (1984), which they characterised into five evolutionary phases. These included concern over pollution and an understanding of the importance of the natural environment for society and associated linkages. Also a focus on resource use and conservation was emphasised. This general awareness and care for matters relating to the environment, highlighted by Seaborn and D'Amore & Assoc., is interesting given the care that respondents were observed to particularly put into the questions relating to park use, suggesting they considered such issues to be especially important.

In the overview of Egmont National Park the Maori legend and relationship with the park was discussed followed by the early European history and the relationship to the park of the Taranaki people in general. As this study was a visitor survey only and there was very little visitation to the park by Maori people due to cultural and spiritual reasons, no insights into the relationship between Maori people and the park area were gained. However this lack of visitation can be interpreted as being at least in part due to the sacred nature of the mountain to Maori. Therefore, the low number of Maori visitors to the park could be an indicator of a continuing strong traditional spiritual link with Mt. Taranaki. The strong links of Taranaki people to the mountain were also a feature of the early European history with the park area. This link was displayed in the overview of Egmont National by the formal protection and creation of Egmont National Park for both its conservation and recreation functions. Beauty of the park area and the functions of preservation and recreation are still dominant features in the attitudes held by visitors originating from Taranaki.

Visitors Place of Residence and their Characteristics and Attitudes

It must be kept in mind in this part of the summary that nearly 50% of visitors to Egmont National Park are from Taranaki, 35% from other places in New Zealand and 15% from overseas.

In general, Taranaki visitors are short-term regular visitors, a day or less, who make use of all three major road-ends, and in particular East Egmont. Their most influential sources of information are other peoples' recommendations and previous visits and they tend to visit with family and/or friends. It is also more likely that they have not had education at a university level. They are also more likely than other New Zealanders and overseas visitors to be in favour of commercial activities in Egmont National Park including; skiing, tourism, films and utilities, however, this preference was not displayed in a strong manner. While Taranaki visitors rated the services and facilities above average they still rated them less favourably than other New Zealand and overseas visitors.

New Zealand visitors who reside outside of Taranaki are just as likely to visit any road-end, but are significantly different from Taranaki residents in that over one-third use park huts. This is reflected in the length of visit with over 30% staying between three and five days, though half are still day visitors. Nearly half of New Zealand visitors from outside Taranaki had visited Egmont National Park between one and five times before, the remainder were made up equally of first time and regular visitors. They are more likely than Taranaki visitors to have had university level education and are most likely to visit with family and/or friends. Like Taranaki residents, word of mouth and previous visits were the most influential sources of information in the decision to visit Egmont National Park, but papers, books and magazines were also important to nearly 10% of this group.

Overseas visitors were generally first time visitors spending between one and five days in Egmont National Park and tend to favour the North Egmont road-end. They were the largest group that had individuals visiting by themselves (20%), but the majority visited with family or friends, not both. Overseas visitors preferred to travel as couples and were also the most likely group to have had tertiary education. While word of mouth was still an important influential source of information in the decision to visit

Egmont National Park, travel guides were the most influential. They tended to feel the most strongly against development and commercial uses and rated the services and facilities the best of any group, though this may be due to the tendency of overseas visitors to visit the North Egmont road, which has the greater amount of facilities.

Characteristics and Attitudes at Survey Points

The park huts and North Egmont road-end had higher levels of first time visitors, around 30% respectively, than East Egmont and Dawson Falls, who both had rates of first time visitors closer to 20%. The huts attracted more people who had visited the park one to five times before (30.8%). The huts also attracted fewer visitors who have visited greater than five times.

Around half of the visitors to North Egmont and Dawson falls have visited greater than five times, while over 60% of respondents to East Egmont have visited more than five times, though this may be due to the influence of the skifield.

Dawson Falls and East Egmont were the most likely to be visited for less than four hours (39% and 30% respectively), but the most common length of stay at these road-ends was still day trips, 44% at Dawson falls and 53% at East Egmont. In contrast North Egmont only had 15.5% staying less than four hours, with 71.4% of visitors undertaking day trips. Trips two days or longer were uncommon at road-ends. At the park huts, as expected, the majority (59%) of visitors to the park huts spent 3-5 days in Egmont National Park, with the remainder either spending a day trip or two days in the park. Club members made up 25% of visitors to the huts in Egmont National Park

4.15 SAFETY AND WEATHER INFORMATION

Visitors showed concern over the changeable weather conditions on Mt. Egmont/Taranaki and the safety of visitors in Egmont National Park. New Zealand residents were particularly concerned that overseas visitors were unaware of the dangers of the mountain and expressed concern for their safety in the park. Visitors saw a need for the supply of more information to

address this problem and primarily voiced this in the comments section. The desire for improved weather information was also expressed in the questions relating to concerns in the park and visitor safety was seen as an area for development. In the questions on the amount of information offered in Egmont National Park more detail on visitor safety and information on weather forecasts and climate in the park were seen as two of the most important areas for more detailed information.

4.16 GUIDED TOURS IN NEW ZEALAND'S NATIONAL PARKS

Guided tours in national parks may become increasingly important if the demand for such tours, as expressed in this study, continues to rise and if such tours are used as a management tool to regulate the number of visitors, the time and places they visit and as an opportunity for advocacy. In the discussion document New Zealand Conservation Estate and International Visitors (1993b: 4) prepared by the New Zealand Tourism Board in conjunction with the Department of Conservation, one of the major findings was:

Though limited opportunities exist to increase revenue generated from independent overnight trampers, there may be greater opportunities for revenue generation from the guided tramp market. Guided trampers provide a far higher yield per tramper, create opportunities for further enhancing the revenue base for DOC via concessions etc and provide the opportunity for commercially sound tourist ventures.

The short walk interpretive/guided market would also appear to be highly marketable in many of our major generating markets.

There was a significant difference found between visitor perception of guided tours run by the Department of Conservation and guided tours run by commercial groups in national parks. In the question on what visitors think New Zealand's National Parks should be used for, guided tours by the Department of Conservation were perceived as a favourable use, scoring a mean of 1.831 (on a scale of 1-5, with one being strongly agree, three neutral and five strongly disagree), while guided tours by commercial groups were

not seen favourably and scored a mean of 3.167 [$t(289) = -17.84, p < 0.001$]. This difference was also apparent in the questions on development, with development of guided tours by park staff having a mean 2.373 (on a scale of 1-4 with one wanting a lot more development and four being already well developed) seen as significantly more favourable than guided tours by commercial groups which had a mean of 2.810 [$t(246) = -8.96, p < 0.001$]. Place of residence made no difference in the perceptions of who should conduct guided tours.

Possible explanations for the preference for guided tours led by the Department of Conservation could include visitors perceiving guided tours led by Department of Conservation staff as a more comprehensive or accurate source of information about the natural environment. Alternatively, visitors may perceive tours led by Department of Conservation staff as a more authentic experience, which is identified as an important characteristic of ecotourism.

This suggests that the Department of Conservation should either be running the guided tours themselves or, alternatively, developing the relationship between the Department of Conservation and concessionaires and emphasising this close relationship to visitors. This may include an element of training of the concessionaires by the Department of Conservation so that they may present the role of the Department of Conservation to visitors, where they themselves fit into the system and other elements of advocacy. Increasing this level of awareness may also include visual recognition of this association in the form of a badge or a similar device. It would be useful to explore the reasons behind these perceptions of the difference in tours run by commercial groups and the Department of Conservation before guided tours led by Department of Conservation staff or any concessionaire were developed.

In Egmont National Park there are currently two concessionaires, of which only one is operating at the time of this study. The Department of Conservation also runs a summer nature program in the park. Both of these services do not experience the high levels of use expected given the results of this study. This suggests that research is needed to determine the type of guided tour visitors would like to use. Though it must be noted, particularly in the case of Egmont National Park with its present low level of overseas visitation, that the type of tour demanded may vary from park to park.

4.17 ECOTOURISM

Characteristics of ecotourism identified in the introduction included the provision of environmental education for visitors, the desire for authentic experiences and that it be low impact and ecologically sustainable. Also in the introduction the question was asked "Why the increase in visitation to natural protected areas?" It was suggested that increased visitation came about through an increased interest in the environment and that to some visitors parks may be viewed as exemplars of quality of life. It was also suggested that they can be a form of escapism and a place for the growth in outdoor and recreation pursuits.

These characteristics and motivations relate closely to the most important influences visitors identified for visiting Egmont National Park in this study, where the beauty of natural features and scenery, tramping, walking and living close to the park were the most common influences for visiting the park. "Getting away from it all," "make a practise of visiting conservation areas, national parks and reserves" and "a break from the normal routine" were less common influences, but are indicators of escapism motivation and increased interest in the environment.

One of the characteristics of ecotourism identified was the provision and demand for environmental education for visitors. This study showed strong support for the use and development of parks for environmental education, including a strong demand for guided tours by the Department of Conservation.

In addition to the motivations for visiting Egmont National Park other characteristics of ecotourism were also displayed by the preferences for preservationist uses of New Zealand's national parks held by visitors, including the relatively high level of concern over human impact on the environment and the strong desire for no more development identified in this study. If such values held by visitors were subject to longitudinal research they may be indicative of how the environmental ethic has affected tourism.

This trend in ecotourism is also supported by the finding that nearly 90% of visitors had been to other protected natural areas before, indicating people are seeking out such environmental experiences. Of this high percentage of visitors that had been to other protected natural areas 35% had been to protected natural areas overseas.

4.18 INTERNATIONAL VISITORS TO EGMONT NATIONAL PARK

Ecotourism at an international level is a fast growing and important market niche. In the introduction ecotourism was identified as being of particular importance to New Zealand's future in international tourism. It was further suggested that New Zealand will become an increasingly attractive destination for visitors from industrial and industrialising countries with high urban concentrations. The tourist industry in New Zealand has recognised the international importance of industrialised countries with their high urban concentrations as tourist generating regions and is predicting that New Zealand's national parks, undeveloped areas, unpolluted water and air and distinctive flora and fauna will become increasingly attractive to visitors from such regions (New Zealand Tourist and Publicity Department 1984).

The importance of Egmont National Park to Taranaki as an attraction to overseas visitors is displayed by the fact that Tourism Taranaki found only 6.8% of visitors to Taranaki were from overseas (Tourism Taranaki 1993). In contrast this survey found close to 30% of visitors to Egmont National Park from outside of Taranaki were foreigners. This means that a high proportion of overseas visitors to Taranaki visit Egmont National Park. The importance of Egmont National Park as an ecotourism attraction for international visitors was also displayed in the motivations exhibited by visitors, the strong protectionist attitudes and the desire for authentic low impact experiences.

Owing to the location of Egmont National Park, being off New Zealand's main tourist trunk route, it does not currently experience the higher flows of visitors, in particular international visitors, experienced at many of the other national parks in New Zealand. As a result of this, there was a small sample

of overseas visitors in this study. Even though overseas visitors were not a large part of the sample in this study it is apparent that Egmont National Park is relatively untouched by many of the tourism market sources such as Australia, Japan and the rapidly growing Asian markets that were identified as being important tourist generating regions for New Zealand.

This lack of visitation by international visitors to Egmont National Park may be in part due to the lack of awareness and marketing of the park. Germans were the most common overseas visitors to Egmont National Park and reported their awareness of the park primarily through travel guides available in Germany. This is an indication that the low levels of visitation by overseas visitors to Egmont National Park is as much a function of the lack of awareness of park and its attractions as much as it is of the park's location off New Zealand's main tourist trunk route. So if an increase in visitation to Egmont National Park by international visitors is desired, whether it be to benefit Taranaki as a region or to take pressure off other parks in New Zealand, marketing will be an important component in the future of the park. If this happens there will be a need to plan for the increased visitation in order to both protect the environment and to maintain or improve the visitor experience.

4.19 INCORPORATING THE FINDINGS INTO THE MANAGEMENT PICTURE

In the discussion on tourism and environmentalism in the introduction, Hall and McArthur (1993) identified the management paradox of how to allow people to visit and experience heritage attractions while preserving the very attraction they come to see. In addition to traditional management methods, improved visitor management techniques, such as interpretation, were introduced as an under-utilised but important tool to address this paradox. Central to the use of such management techniques a knowledge of visitors, including their values and attitudes, was identified as an important component when formulating visitor management plans.

These values held by visitors, and society at large, were placed in management systems such as the models developed by Memon and Selsky

(1994) and Hall and McArthur's model (1993). Both of these models stress the importance of visitors, and societies, values and attitudes in the decision making process. In the case of Hall and McArthur's (figure 3) model the degree of satisfaction from the visitors experience is used for both institutional and visitor evaluation. While, in Memon and Selsky's (figure 2) dynamic behavioural model of a complex common property resource, use and users (ie. visitors) and values and attitudes are also seen as two important components of the institutional arrangements that influence the emergent patterns of use and management.

In addition to providing baseline visitor information for the management of Egmont National Park the aims of this study were to examine:

- information sources, their influences and the provision of information inside the park;
- aspects of visitor motivation and satisfaction;
- concerns felt by visitors during their trip to the park;
- visitor rating of park services and facilities;
- visitor attitude towards development in Egmont Nation Park; and
- attitudes towards the use of New Zealand's national parks.

These aims were chosen to assess the visitor experience and to gain an insight into the use and development of Egmont National Park. In the context of Hall and McArthur's model of the heritage visitor management system, this thesis examined aspects of the visitor experience and found visitors to hold strong values for environmental protection and education and against development in Egmont National Park. Services and facilities were generally well regarded by visitors, though a need for more information in some areas was identified. Aside from damage to the environment by humans and pests, few concerns were expressed by visitors. In accordance with Hall and McArthur's model these findings should be included in the assessment of the degree of visitor satisfaction. This leads to two outcomes, first, they are components of the evaluation the visitor makes of his/her visit to Egmont National Park. Secondly, the findings of the study can be used to make management recommendations with regard to the heritage visitor management system of Egmont National Park. The findings can be used to identify those areas that are currently considered satisfactory and those areas in need of improvement. Furthermore, with the examination of visitor attitudes towards areas, such as park use and

development, institutional arrangements, including the goals, objectives and policies, can also be evaluated and adjusted where appropriate.

The values and attitudes examined by this study have been used to make management recommendations to the Department of Conservation. Additionally they have been used to examine market segmentation as a possible future management tool for Egmont National Park.

4.20 PLANNING FOR THE FUTURE - MARKET SEGMENTATION IN EGMONT NATIONAL PARK

Crowding and damage to the natural environment by visitors are not currently major problems in Egmont National Park, but, this may soon change given the increased interest in the environment and predicted growth of tourism in New Zealand. The paradox, of allowing people to visit and experience heritage in New Zealand's national parks while maintaining them in such a way that the attraction is not lost, must be answered by appropriate management strategies. Cossens and Juric (1994: 254) have suggested market segmentation as a tool that would allow improved control and dispersal of visitors in the Conservation Estate and also increase visitor satisfaction:

While the identification of particular segments with their own special needs, and the development and the creation of "products or services" to meet those needs lays the foundation for market segmentation strategy, it is the communication with the potential user/consumer that will have a critical role in directing people to those different products and providing an element of control the manager may not have had before, and more importantly dispersal of people across a number of products (eg. tracks) reducing the possibility of social and physical carrying capacities being exceeded.

Though it may be considered that the social and physical carrying capacities of Egmont National Park are not currently under a lot of stress, in the future it may be very desirable to take advantage of market segmentation as a tool to

improve the visitor experience in Egmont National Park and to assist the sustainable management of the park resource.

A method of market segmentation suggested by this study would be to take advantage of the of the unique sets of characteristics displayed by the three geographically separated groups identified; Taranaki, New Zealand residents outside Taranaki and overseas visitors. Additionally, given that once visitors had entered the park different characteristics are already displayed at the road-ends, a strategy may be to develop and promote the different road-ends as places for the different types of visitors with services and facilities aimed at their special needs.

The North Egmont road-end could be developed as the place in Egmont National Park for overseas visitors and promoted as such in appropriate publications, including the travel guides that overseas visitors find so influential. The development of services and facilities could include:

- emphasis on the provision of services and facilities, including interpretation, aimed at ecotourists;
- multi-lingual information signs and nature trails;
- provision of activities to cater for day visitors;
- information on the longer tramps and facilities in the park huts aimed at the less informed overseas visitor intending to stay 3-5 days in the park; and
- multi-lingual displays in the visitor centre with an emphasis on Egmont National Parks distinctive ecology and Maori history and legend.

The Dawson Falls road-end could be developed and promoted for New Zealand visitors, though it may be of advantage for first time visitors to visit the facilities at the North Egmont road-end. Services and facilities at Dawson Falls could be of a lower quantity than North Egmont by way of the assumption that most regular visitors to Egmont National Park have some knowledge of the topics such as geological history. Important areas to stress may be information on walks and tramps and their condition and also interpretation of the ecology of Egmont National Park, including guided walks and nature trails.

Regular visitors from Taranaki will still most likely visit the road-end closest to where they live and, even then, will often not use the facilities available.

In doing so they would be a more difficult group to target once they were in the park, however they could still be targeted for management purposes by their residence in Taranaki. Visitation to the Plateau, at the top of the East Egmont road-end, which has the least facilities, may decline if knowledge and use of the facilities at Dawson Falls and North Egmont are promoted, so improving visitor satisfaction and providing enhanced management opportunities for visitation to Egmont National Park.

These market segments would, of course, overlap given the different levels of experience visitors have had in Egmont National Park, but such segmentation would lead to positive gains in visitor management and satisfaction. It is suggested that market segmentation may be a useful management tool if future needs require and worthy of further investigation and consideration.

CHAPTER FIVE. MANAGEMENT RECOMMENDATIONS AND FINAL SUMMARY

5.1 MANAGEMENT RECOMMENDATIONS

- (1) The visitor desire for no more development, their appreciation of the natural environment and strong feelings towards preservationist uses indicate a need to maintain the pristine environment of Egmont National Park that is the major attraction for visitors.
- (2) A strong demand for more information relating to the recreational functions of Egmont National Park was displayed by visitors. This include a strong concern for safety. Recommendations to address this information need should be provided in suitable foreign languages where appropriate. Recommendations are:
 - Improve the systems of signs marking walks and tramps and their condition and times in Egmont National Park;
 - Improve the network of tracks and huts around which the recreational functions of Egmont National Park are based, in particular the day tramps and shorter walks;
 - Improve the availability of up-to-date safety and weather information for visitors in the visitor and display centres, by the use of signs and on maps and other available information;
 - Provide maps of the short walks at road-ends, including information on safety and the condition and difficulty of the tracks; and
 - Improve information availability for visitors intending to stay overnight in Egmont National Park of the facilities at the park huts, such as the non-provision of cooking facilities and the quality and availability of water.

- (3) Education was seen as a very important function by visitors to Egmont National Park and a demand was displayed for further information on several topics. There was also concern expressed over the impact of humans and introduced species in the park. Recommendations are:
- Update the visitor centres, including the audio visual displays, and increase the focus on the ecology and the Maori history and legends associated with Egmont National Park;
 - Provide up-to-date information of the damage being done to the park by pests and humans and the efforts being made to remedy this damage; and
 - Develop self-guided and informative nature trails at the North Egmont and/or Dawson Falls road-ends. Owing to high levels of vandalism it may be desirable to use a publication such as a pamphlet as the major source of information rather than significant on-site interpretation.
- (4) A strong preference was displayed by visitors for guided tours run by the Department of Conservation as opposed to commercial groups. There is a need to either develop guided tours run by the Department of Conservation or, alternatively, provide training for concessionaires and increase the profile of the relationship between the Department of Conservation and the concessionaires. Investigate the level of fees that could be charged for such services so that they are self funding (or profitable).

The recommendations made by this study have begun to be addressed by the Department of Conservation during the course of this project. There have been advances in the provision of information achieved by the publication of a new booklet "Walks in the Egmont National Park" by the Department of Conservation. The new booklet provides a general overview of Egmont National Park and information on the walks and the tramps in the park, additionally it provides safety information in several languages. The system of signs marking the walks and tracks and their times is already under review. Track retention programs are also among ongoing projects in Egmont National Park.

5.2 FINAL SUMMARY

In the introduction tourism and environmentalism were identified as two trends that are going to have an important impact on the future of New Zealand (Plimmer, 1992). Literature was examined and characteristics of growth in tourism at global, Pacific and finally local, New Zealand, levels were identified. The growth in environmentalism was also introduced and linked to the desire for tourists to visit natural areas. It was further suggested that New Zealand's national parks may be particularly attractive to visitors from countries with high urban concentrations. It was finally concluded that New Zealand has a very marketable product as an ecotourism destination.

Given the management paradox of how to allow people to visit and experience heritage attractions while preserving the very attraction they come to see, improved visitor management techniques were identified as an under-utilised but important tool to address this paradox. Central to the use of such visitor management techniques a knowledge of visitors, including their values and attitudes, was identified as an important component when formulating visitor management plans. These values held by visitors, and society at large, were placed in management system models developed by Memon and Selsky (1994) and Hall and McArthur (1993). Both of these models stressed the importance of visitors, and societies, values and attitudes in the decision making process.

Many of the trends and relationships identified in the introduction to this study were displayed and supported by the results of this survey. Visitors displayed a strong environmental ethic in their concern over human impact on the park environment and their attitudes against development and for preservationist uses of the park. There was an strong appreciation of the natural environment of Egmont National Park with nearly all visitors considering natural beauty an important component of their visit. Other visitor motivations suggest that the park was being used to fulfil important functions in visitors lives, including recreation functions and as exemplars of quality of life.

Other trends in ecotourism were displayed, including the desire for a pristine wilderness experience. That tourism be educational is also important to ecotourists and this was displayed by; the demand for guided tours in Egmont National Park, the general desire for more information, the wish for development of educational functions in the park and that education was seen as an appropriate function of New Zealand's national parks.

Authenticity of experience is also important to ecotourists and this was displayed by the preference for guided tours to be run by the Department of Conservation as opposed to commercial groups. The suggested importance of ecotourism to New Zealand's future in the international tourist market place was supported by the results of this study.

The findings of this study, including visitor attitudes towards development and use of Egmont National Park, were used to make management recommendations that will be taken into consideration by the Department of Conservation. A demand for guided tours in Egmont National Park was displayed by visitors and this opportunity should be taken to gain public support while promoting a more desirable behavioural pattern of visitors. The wish for an educational experience by visitors should also be taken advantage of to promote desirable behaviour in national parks. Such attitudes displayed by visitors suggest that alternative management tools, including interpretation, would be an effective alternative to traditional methods such as fencing and restricting access, while having the added advantage of improving visitor satisfaction. Finally, in view of international tourism trends and the growth in visitation to protected natural areas, market segmentation was examined as a future management tool.

It is through improved knowledge gained from studies such as that completed here that the experience of visitors to New Zealand's natural areas can be improved while managing the heritage resources in a sustainable way.

REFERENCES

- Ashton, R. E. (1991). Defining the Ecotourist Based on Site Needs. in Jon A. Kusler (compiler), 1991. *Ecotourism and Resource Conservation.. Vol 2 - a collection of papers*. Wisconsin: Omnipress, 91-98.
- Beamish, S. F. (1977). The Routeburn Track: An Application of Environmental Impact Analysis. Unpublished M.A. Thesis, Department of Geography: University of Otago.
- Boo, L. (1991). Ecotourism: A Tool for Conservation. in Jon A. Kusler (compiler), 1991. *Ecotourism and Resource Conservation.. Vol 2 - a collection of papers*. Wisconsin: Omnipress, 517-519.
- Booth, K. L. 1987. The Public's View of National Parks. *New Zealand Geographer*, October 1987, 60-65.
- Brown, W. E. (1974). Islands of Hope. National Recreation and Parks Association, Arlington, Virginia. in Harper 1991 Interpretation in New Zealand's National Parks. Masters of Applied Science Thesis: Lincoln University.
- Carson, R. (1962). *Silent Spring*. London: Hamish Hamilton.
- Ceballos-Lascurian, H. (1991). Tourism, Ecotourism, and Protected Areas. in Jon A. Kusler (compiler), 1991. *Ecotourism and Resource Conservation.. Vol 2 - a collection of papers*. Wisconsin: Omnipress, 24-30.
- Clough, P. W. J. and Meister, A. D. (1989). *Benefit Assesment of Recreational Land: the Whakapapa Area, Tongariro National Park*. Palmerston North: Massey University.
- Cossens, J. and Juric, B. (1994). Market Segmentation: A Tool for Sustainable Tourism Development Within the Conservation Estate. in Selsky, J., Morgan, R. and Memon, A. (Eds) 1994. *Environmental and Resource Management in New Zealand*. Dunedin: University of Otago, 247-255.
- D'Amore, Louis. J. (1992). Promoting Sustainable Tourism - The Canadian Approach. *Tourism Management*,, vol. 13, number 3, 258-262.
- Davis, D. and Weiler, B. (1992). Kakadu National Park -Conflicts in a World Heritage Area. *Tourism Management*,, vol. 13, number 3, 313-320.
- Department of Conservation (1993). *Conservation Action - Department of Conservation Achievement and Plans*. Wellington: Department of Conservation.
- Department of Statistics (1994). *Population Overview - 1991 Cencus of Population and Dwellings*. Wellington: Statistics New Zealand.

- Devlin, P. J. (1976). *The Characteristics, Motivations and Impact of Summertime Visitors to Tongariro National Park*. Unpublished M.A. Thesis, Department of Sociology: University of Canterbury.
- Farrell, B. H. and Runyan, D. (1991). Ecology and Tourism. *Annals of Tourism Research*, Vol. 18, 26-40.
- Gilmour, C. M. L. (1982). *Recreation in Fiordland National Park: Interpretation, Access and Attitudes*. Unpublished B.A. (hons) dissertation, Department of Geography and Political Studies: University of Otago.
- Gray, G. C. (1971). *Arthur's Pass National Park: The Reflection of Cultural Demand on the Natural Landscape*. Unpublished M.A. Thesis, Department of Geography: University of Canterbury.
- Hall, C. M. (1991). *Introduction to Tourism in Australia: Implications Planning and Development*. South Melbourne: Longman Cheshire.
- Hall, C. M. and McArthur, S., (1993). *Heritage Management in New Zealand and Australia*. Auckland: Oxford University Press.
- Hellebrekkers, P. (1982). *Mount Cook National Park: A Summertime Facility Use Appraisal*. Unpublished Diploma in Parks and Recreation Dissertation. Lincoln College.
- Home and Building (1993). *Tourism Special - Three exciting Tourism Complexes*. *New Zealand Home and Building*, Feb/Mar 1993, 43-46.
- Kusler, J. A. (1991). *Ecotourism and Resource Conservation: Introduction to Issues*. in *Ecotourism and Resource Conservation.. Vol 2 - a collection of papers*, compiled by Jon A. Kusler. Wisconsin: Omnipress, 2-8.
- Law, E. (1980). *A Management Study in Temple Basin Skifield, Arthur's Pass National Park*. Unpublished M.Sc. Project, Centre for Resource Management, University of Lincoln and Canterbury College.
- Leiper, N. (1990). *Tourism Studies - an Interdisciplinary Perspective*. Palmerston North: Department of Management Systems, Business Studies Faculty, Massey University.
- Lickorish, L. (1987). *Tourism Trends to 2000 -Trends in Industrialised Countries*. *Tourism Management*, vol. 8, number 2, 92-95.
- Likert, R. (1932). *The Method of Constructing an Attitude Scale*. *Archives of Psychology*, 140. 44-53.
- Mannell, R. C. and Iso-Ahola, S. E. (1987). *Psychological Nature of Leisure and Tourism Experience*. *Annals of Tourism Research*, Vol. 14, 314-331.

- Mark, S. (1994). Writing Environmental and Park History. in Hall, C. M. and McArthur, S., 1993. *Heritage Management in New Zealand and Australia*. Auckland: Oxford University Press, 51-58.
- Martin, B. and Mason, S. (1993). The Future for Attractions. *Tourism Management*, February 1993, 34-40.
- Mathus, T. R. (1960). *On Population*. Edited and introduced by Gertrude Himmelfarb. New York: The Modern Library.
- Memon, P. and Selsky, J. (1994). An Institutional Analysis of Recent Environmental Reforms: A Harbour Case Study. in Selsky, J., Morgan, R. and Memon, A. (Eds) 1994. *Environmental and Resource Management in New Zealand*. Dunedin: University of Otago, 209-227.
- Mieczkowski, Z. (1990). *World Trends in Tourism and Recreation*. New York: Peter Lang Publishing Incorporated.
- Moore, S. and Carter, B. (1993). Ecotourism in the 21st Century. *Tourism Management*, vol. 14, number 2, 123-130.
- New Zealand Ministry of Tourism (1992) *Tourism Sustainability - A discussion paper*, December 1992. Ministry of Tourism: Issues Paper No. 2.
- New Zealand Tourism Board (1989). *The Taranaki Region Regional Tourism Profile*. Wellington: New Zealand Tourism Board.
- New Zealand Tourism Board (1993a). *Tourism in New Zealand: Strategy and Progress*. Wellington: New Zealand Tourism Board.
- New Zealand Tourism Board (1993b). *New Zealand Conservation Estate and International Visitors - Prepared by the New Zealand Tourism Board and The Department of Conservation*. Wellington: New Zealand Tourism Board.
- New Zealand Tourism Board (1994). *New Zealand Tourism News*. February 1994. Wellington: New Zealand Tourism Board.
- New Zealand Tourist and Publicity Department (1984). *Tourist Issues and Policies*. Wellington: NZTP.
- New Zealand Tourist and Publicity Department (1989a). *Tourism 2000 - New Zealand Grow For It*, Conference Proceedings, May 1989. Wellington: NZTP.
- New Zealand Tourist and Publicity Department (1989b). *Implications of Growth Series*, conference background paper No.11 - management of our natural resources. Wellington: NZTP.

- Palmer, J. D. (1979). *The Goat Pass Track: A Study of Park Management Within a Limited Area of Arthur's Pass National Park*. Unpublished Diploma in Natural Resources Dissertation: Lincoln College.
- Pearce, D. G. (1972). *Tourist Development at Mount Cook: Patterns and Processes Since 1884*. Unpublished M.A. Thesis, Department of Geography: University of Canterbury.
- Pearce, D. G. (1982). *Westland National Park Economic Impact Study*, Department of Geography, University of Canterbury, for Department of Lands and Survey.
- Plimmer, W. N. (1992a). *Marketing and Managing Environmental Tourism in New Zealand*. The Fourth Walding Memorial Lecture. Massey University Occasional Publication No. 12.
- Plimmer, W. N. (1992b). in *Tourism Sustainability - A discussion paper*, December 1992. *Ministry of Tourism: Issues Paper No. 2*. Wellington: Ministry of Tourism.
- Rea. (1984). *Visitor Usage Survey in New Zealand's national parks*, in Dingwall, P.R. (compiler) 1984, *People and Parks: Essays in the Development and Use of Protected Areas*. Wellington: Department of Lands and Survey, 33-40.
- Ryan, K. C. (1974). *Mount Cook National Park*. Unpublished M.A. Thesis, Department of Political Science: University of Canterbury.
- Scanlan, A. B. (1961). *Egmont , the Story of a Mountain*. Wellington: A.H. & A.W. Reed.
- Schwaninger, M. (1984). *Forecasting Leisure and Tourism - Scenario projections for 2000-2010*. *Tourism Management*, vol. 15, number 4, 250-257.
- Seaborn, 1980; D'Amore & Assoc., (1984). in Starrs, C. J. 1987, *Perceptions, paradigms and ethics: A perspective on the social context of environmental issues*. *Hydrobiologia*, 149, 31-135.
- Sierra, (1992). *The Magazine of the Sierra Club*, Jan/Feb 1992
- Simmons, D. G. (1980). *Summertime Visitors to Arthur's Pass National Park - Characteristics, Motivations, Perceptions, Impact*. Unpublished M.Appl.Sci. Thesis, Department of Horticulture. Landscape and Parks: Lincoln College.
- Smith, S. L. J. (1991). in Hall, C. M. 1991. *Introduction to Tourism in Australia: Implications Planning and Development*. South Melbourne: Longman Cheshire.

- Snadden, G. (1969). Unpublished paper to Worker's Education Association Conference, Wellington. Summarised in Catton, W.R. 1972. *The Use of Open Space in New Zealand*.
- Springett, B., Springett, D., Mitchell, I. and Hall, M. (1991). *The Development of an Educational Travel Program: the Case of the New Zealand Natural Heritage Foundation. Ecotourism: Incorporating the Global Classroom*. Editor Betty Weiler. Canberra: Bureau of Tourism Reserch, 258-264.
- Stewart, G.W. (1987). *The leading question: In Situ structures of thought?*
- Tilden, F. (1977). *Interpreting Our Heritage. 3rd Edition*. Chapel Hill: University of North Carolina Press.
- Tourism Taranaki (1993). *Taranaki Visitor Survey*. New Plymouth: Tourism Taranaki.
- United Nations Conference on Environment and Development (1992). *Agenda 21; Rio Declaration; Forest Principles*. New York: United Nations.
- Valentine, P. S. (1993). *Ecotourism and Nature Conservation - A Definition With Some Recent Developments in Micronesia. Tourism Management*, Vol. 14, Number 2, 107-115.
- Wenkam, R. (1991). *The Travel Industry and the Environment*. in Jon A. Kusler (compiler), 1991. *Ecotourism and Resource Conservation.. Vol 2 - a collection of papers*. Wisconsin: Omnipress, 816-819.
- Winter, P. (1993). *Good Environmental Practices - Examples from Tourism. New Zealand Tourist Industry Federation Business and Environment Conference, 5th August 1993*.
- World Commission on Environment and Development (1987). *Our Common Future*. New York: Oxford University Press.
- World Tourism Organisation (1993). *Year Book of Tourism Statistics*. Vol 1, 45 Ed, 1993.

APPENDIX ONE - TRAIL QUESTIONNAIRE

VISITOR SURVEY OF EGMONT NATIONAL PARK

Questionnaire number: 16
Date:

Survey point:
Weather:

This survey is being conducted to gather basic information about visitors and their experience in Egmont National Park. It will be used to make management decisions that will benefit all park visitors in the future. Please make comments in the spaces provided. Remember that what you say does count. (For each question please tick appropriate box/boxes)

(1) Did you do any of the following while you were in Egmont National Park?
(Tick as many boxes as applicable)

- | | |
|-------------------------------|-------------------------------------|
| -Camping | <input type="checkbox"/> |
| -Climbing | <input checked="" type="checkbox"/> |
| -Stayed overnight in hut | <input type="checkbox"/> |
| -Skiing | <input type="checkbox"/> |
| -Photography | <input type="checkbox"/> |
| -Picnicking | <input type="checkbox"/> |
| -Viewing Scenery | <input checked="" type="checkbox"/> |
| -Walking (less than 4 hours) | <input checked="" type="checkbox"/> |
| -Tramping (more than 4 hours) | <input type="checkbox"/> |
| -Nature study | <input type="checkbox"/> |
| -Other (please specify) _____ | |

(2) Through what sources, if any, have you heard or seen information about Egmont National Park? (Please tick the appropriate boxes)

- | | |
|--|-------------------------------------|
| -Word of mouth | <input checked="" type="checkbox"/> |
| -Information centre | <input checked="" type="checkbox"/> |
| -Television/films | <input type="checkbox"/> |
| -Newspaper/books/magazines | <input type="checkbox"/> |
| -Walkway pamphlets/posters | <input type="checkbox"/> |
| -School/university | <input type="checkbox"/> |
| -Public Relations Office | <input type="checkbox"/> |
| -Through motel or camping ground staff | <input type="checkbox"/> |
| -Previous visits | <input type="checkbox"/> |
| -Radio | <input type="checkbox"/> |
| -D.O.C. visitor centres/Ranger Station | <input type="checkbox"/> |
| -Other (please specify) _____ | |

(3) Which of the above was most influential in your decision to visit Egmont National Park?

word of mouth

(4) What influenced you to come to this area?(Tick three most important boxes)

- | | |
|---|-------------------------------------|
| -Beauty of natural features | <input checked="" type="checkbox"/> |
| -Lack of people | <input type="checkbox"/> |
| -"Get away from it all" | <input type="checkbox"/> |
| -Recreational activities | <input type="checkbox"/> |
| -Recommended by other people | <input checked="" type="checkbox"/> |
| -Advertising | <input type="checkbox"/> |
| -Close to where I live | <input type="checkbox"/> |
| -Part of a package tour | <input type="checkbox"/> |
| -Break from normal routine | <input type="checkbox"/> |
| -A follow up to previous visits | <input type="checkbox"/> |
| -Make a practice of visiting conservation and wilderness parks and reserves | <input type="checkbox"/> |
| -Brought children on a visit | <input type="checkbox"/> |
| -Brought friends on a visit | <input type="checkbox"/> |
| -Other (please specify) <u>Same with family</u> | <input type="checkbox"/> |

(5) How much concern did the following cause you during your visit to Egmont National Park?

- | | Major | A lot | Some | Little | None |
|--------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| -Damage to vegetation by humans | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Damage to vegetation by animals | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Damage to soils by humans | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Too many people | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| -Litter by road/car-parks | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Litter on tracks | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Adequacy of signage | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Availability of weather information | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Safety on the mountain | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Any other? (please specify) _____ | | | | | |

(6) How would you rate the following services and facilities provided for visitors to Egmont National Park? (Tick one box for each)

- | | Poor | Average | Good | Excellent | Didn't notice |
|---------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|
| -Picnicking | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Tramping (more than 4 hours) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Walking (less than 4 hours) | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Toilet facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Visitor centres | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| -Huts and lodges | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| -Information (signs and maps) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| -Educational facilities -adults | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| -children | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| -Availability of Park staff | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(7) New Zealand's National Parks should be used for the following;

	agree		neutral		disagree
-Preservation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Tourist development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-Mining/oil exploration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-Recreation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Education	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Logging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-Conservation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Any other? (please specify) _____					

(8) Were you able to gain sufficient information on the following topics during your visit to Egmont National Park?

	Yes	No	Not interested
-Park history	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Geology and land forms	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-Plants and trees	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Bird, insect and animal life	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-Maori history and legends	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Maori culture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Weather forecast/patterns	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-Tracks and huts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Trips and activities	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

(9) Was there any other information you would like to see?

About the EVOLUTIONS.

(10) How appropriate do you think the following human activities are in New Zealand's National Parks?

	Appropriate		Neutral		Not Appropriate	
-Tramping (more than 4 hours)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Walking (less than 4 hours)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Skiing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-University research	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Hunting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Guided tours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Picnicking	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-School trips	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Saving endangered species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(11) What other activities should be permitted in Egmont National Park?

(12) During your visit did you do any of the following;

- Go on walks with rangers
- Examine the displays in the information centres briefly
- Examine the displays in the information centres in detail
- Used the wooden maps and signs at the start of the tracks
- Ask questions of park staff
- None of the above

(13) Have you visited any National Parks or other protected natural areas overseas?

Yes No

What Country? (and park) New Zealand. Not certain of where

(14) Are there any other comments you would like to make about any positive or negative aspects of Egmont National Park?

The following are a series of demographic questions so we can find out about the type of people visiting the Egmont National Park and so get a better idea how we can cater for visitor needs in the future. We remind you that all answers are confidential.

(15) In which age group are you?

- 0-14
- 15 - 19
- 20 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 +

(16) Are you:

- male
- female

(17) Are you a member of any out door clubs, conservation groups or similar organisations?

Yes No

-If yes please list them _____

(18) What is your ethnic origin?

-Please specify Maori

(19) What is the highest level of education you have achieved?

- Primary school
- Secondary school
- Trade exams
- Tertiary institute
- Postgraduate
- Other (please specify) _____

(20) Where do you live?

- Local (within 1 hrs drive)
- Other New Zealand
- Overseas (state country) _____

(21) How did you travel to the park?

- By private car
- Motorcycle
- Campervan
- Bicycle
- Hitchhike
- Bus
- Other (please specify) _____

(22) How long are you spending in Egmont National Park?

- Less than 4 hours
- Day trip
- 2 days
- 3 - 5 days
- 6+ days

(23) With whom are you visiting the Egmont National Park?

- By yourself
- With family, or family and friends
- With friends
- With a club group
- With a commercial group

(24) If you are travelling as part of a party how many people in your group?

(25) How many times have you have visited Egmont National Park before this visit?

- Never, this is my first visit
- Once
- Twice
- Three to five times
- More than five times

(26) What was your point of entry to Egmont National Park for this trip?

- Dawson Falls
- East Egmont
- North Egmont
- Lucy's Gully
- Other road end (please specify) _____

(27) Did you complete the Round the Mountain Track during your visit to Egmont national Park?

Yes No

If yes;

(28) Did your trip live up to your expectations or anticipations?

Yes No

Why/why not? _____

(29) Do you think the Round the Mountain Track needs to be managed in some way to improve peoples enjoyment of the trip?

Yes No

Comments _____

THANK YOU FOR YOUR HELP. WE HOPE YOU ENJOYED YOUR VISIT TO EGMONT NATIONAL PARK.

APPENDIX TWO - QUESTIONNAIRE USED IN THE FINAL SURVEY

VISITOR SURVEY OF EGMONT NATIONAL PARK

Questionnaire number:
Date:

Survey point:
Weather:

This survey is being conducted to gather basic information about visitors and their experience in Egmont National Park. The findings may be used to make management decisions that will benefit all park visitors in the future. Please make comments in the spaces provided. Remember that what you say does count.

(1) During this visit to Egmont National Park did you do any of the following?
(Tick as many boxes as applicable)

- Camping
- Climbed to summit
- Stayed overnight in hut
- Skiing
- Photography
- Picnicking
- Viewing Scenery
- Walking (less than 4 hours)
- Tramping (more than 4 hours)
- Nature study (bird watching, botany)
- Other (please specify) _____

(2) Through what sources have you heard or seen information about Egmont National Park?

- Word of mouth
- Information centre
- Television/films
- Newspaper/books/magazines
- Pamphlets/posters
- Travel guides
- Educational institute (school, polytech, etc)
- Public Relations Office
- Through motel or camping ground staff
- Previous visits
- Radio
- D.O.C. visitor centres/Ranger Station
- Other (please specify) _____

(3) Which of the above was most influential in your decision to visit Egmont National Park?

(4) What influenced you to come to this area?(Tick up to 3 most important boxes)

- Beauty of natural features/scenery
- Lack of people
- "Get away from it all"
- Skiing
- Tramping
- Recommended by other people
- Advertising
- Close to where I live
- Part of a package tour
- Break from normal routine
- A follow up to previous visits
- Natural history (geology, native plants or animals)
- Brought children on a visit
- Brought friends on a visit
- Make a practice of visiting conservation areas,
national parks and reserves
- Other (please specify) _____

(5) Did any of the following cause you concern during your visit to Egmont National Park? (Tick one box for each)

- | | A lot of
concern | Quite a
bit of | Some | Little | None |
|--------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| -Damage to vegetation -by humans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -by animals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Damage to soils by humans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Too many people | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Litter by road/car-parks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Litter on tracks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Signage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Availability of weather information | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(6) How would you rate the following services and facilities provided for visitors to Egmont National Park?

- | | Excellent | Good | Average | Poor | Didn't
notice |
|------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| -Picnic sites | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Tramping tracks (more than 4 hrs) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Walking tracks (less than 4 hrs) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Toilet facilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Park visitor centres | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Huts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Education lodges | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Information (signs and maps) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| -Availability of Park staff | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(7) New Zealand's National Parks should be used for the following;

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
-Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Tourist development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Mining/oil exploration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Tramping (more than 4 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Walking (less than 4 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Commercial uses (eg. film making)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Skiing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-School trips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Logging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Recreational hunting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Environmental research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Guided tours -by park staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-by commercial groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Utilities (eg. transmitters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Education about nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Organised competitive sports (eg. triathalons)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(8) The Department of Conservation offers information about a variety of topics in Egmont National Park. As a park visitor what did you think of the amount of information on the following topics?

	Not interested in topic	Need more detail	About right	Too much detail	Didn't find any
-Park history	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Geology and land forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Trees and other plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Birds and other animal life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Maori history and legends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Maori culture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Weather forecasts/climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Tracks and huts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Trips and activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-New Zealand's National Park system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-The Department of Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Visitor safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(9) Was there any other information you would like to see or are there any other comments you would like to make about the provision of information in the park?

(10) Do you think Egmont National Park should be developed to a greater extent to cater for visitors? How much development would you like to see in the following areas?

	A lot more	Some more	No more	Already well developed
-Tramping/walking tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Park huts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Tourist accommodation in park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Rozing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Park visitor centres (ie. improvements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Guided tours -by park staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-by commercial groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Ski fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Educational facilities (eg. nature trails)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Education lodges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Signs marking tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Visitor safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(11) During your visit did you do any of the following;

- Go on walks with park staff
- Examine the displays in the park visitor centres -briefly (less than 15 min)
- in detail (over 15 min)
- Use the maps and signs at road ends and track entrances
- Ask questions of park staff
- None of the above

(12) Have you visited any other National Parks or protected natural areas in New Zealand and/or overseas?

Yes No

What Country? (and park names) _____

(13) Did you complete the Round the Mountain Track during your visit to Egmont National Park?

Yes No (if no please proceed to question 16)

(14) Did the Round the Mountain Track live up to your expectations/anticipations?

Yes No

Why/why not _____

(15) Do you think the Round the Mountain Track needs to be managed in some way to improve peoples enjoyment of the trip?

Yes No

Comments _____

(16) Are there any other comments you would like to make about any positive or negative aspects of Egmont National Park?

The following are a series of demographic questions so we can understand more about the type of people visiting Egmont National Park. From such information we can plan to better cater for visitor needs in the future. All answers are confidential.

(17) In which age group are you?

- 0-14
 15-19
 20-29
 30-39
 40-49
 50-59
 60+

(18) Where do you live?

- Taranaki
 -Other North Island
 -South Island
 -Overseas (state country) _____

(19) How did you travel to the park?

- By private car
 -Motorcycle
 -Campervan
 -Bicycle
 -Bus
 -Mini bus
 -Other (please specify) _____

(20) Are you:

- male
 -female

(21) Are you a member of any outdoor clubs, conservation groups or similar organisations?

Yes No

-If yes please list them _____

(22) What is the highest level of education you have achieved?

- No qualification
 -School Certificate or equivalent
 -University Entrance or equivalent
 -Higher school certificate or higher leaving certificate (7th form)
 -Vocational or trade qualification
 -University degree/diploma
 -Other (please specify) _____

(23) Which ethnic group do you belong to?

- NZ European/Pakeha
 -NZ Maori
 -Other (please describe) _____

(24) What activity normally takes up the **greatest** amount of your week? Please tick **one box only**

- Paid employment or self employment
(please specify occupation) _____
- Home duties
- Volunteer work
- Unemployed
- Study
- Retired
- Other (please specify) _____

(25) How long are you spending in Egmont National Park?

- Less than 4 hours
- Day trip
- 2 days
- 3 - 5 days
- 6+ days

(26) Are you visiting Egmont National Park with:

- Family only
- Family and friends
- Friends only
- A club group
- A commercial tour group
- By yourself

(27) If you are visiting Egmont National Park with other people, how many people are you visiting with? _____

(28) How many times have you visited Egmont National Park before this visit?

- Never, this is my first visit
- Once
- Twice
- Three to five times
- More than five times

(29) What was your point of entry to Egmont National Park for this trip?

- Dawson Falls
- East Egmont (the Plateau)
- North Egmont
- Lucy's Gully
- Other road end (please specify) _____

THANK YOU FOR YOUR HELP. WE HOPE YOU ENJOYED YOUR VISIT TO EGMONT NATIONAL PARK.

APPENDIX THREE - COVERING LETTER ATTACHED TO EACH QUESTIONNAIRE



**MASSEY
UNIVERSITY**

Private Bag 11222
Palmerston North
New Zealand
Telephone 0-6-356 9099
Facsimile 0-6-350 5623

FACULTY OF
SCIENCE

SCHOOL OF
BIOLOGICAL SCIENCES

DEPARTMENT OF
ECOLOGY

WELCOME TO EGMONT NATIONAL PARK

Dear Park Visitor,

My name is Ross Laurence. I am a post graduate student from the Department of Ecology at Massey University. As part of my Masters Degree I am conducting a park visitor survey in Egmont National Park with cooperation from the Department of Conservation. The aim is to find out more about the visitors to Egmont National Park and what they think and do. The survey asks questions on basic background information on visitors as well as some questions on values and attitudes park visitors hold.

Egmont National Park is one of twelve National Parks in New Zealand and has one of the highest visitor numbers each year. Management of New Zealand's National Parks is of concern to all visitors given their scenic beauty, natural heritage and importance to the tourist industry. One of the key tools available to park managers are visitor surveys. From such surveys managers can decide how best to improve the public's enjoyment of the park while still maintaining other park values.

Your responses to questions in the survey will be invaluable in the future management of Egmont National Park. Also they will provide useful insights into the management of other National Parks and heritage sites throughout New Zealand.

The survey forms are anonymous and confidential. If you have any queries relating to the survey, or are interested in the results, please contact me at the above address.

Please complete the questionnaire and send it to me using the prepaid envelope attached.

Thank you for your time and enjoy the rest of your visit to Egmont National Park.

Yours faithfully,

R.R. LAURENCE

APPENDIX FOUR - LETTER GIVING PERMISSION FROM THE
DEPARTMENT OF CONSERVATION TO UNDERTAKE
SURVEY IN EGMONT NATIONAL PARK



CONSERVATION

15 September 1993

Mr Ross Laurence
19 Kipling Street
PALMERSTON NORTH

Dear Mr Laurence

Permit to Conduct a Visitor Survey in Egmont National Park

Thank you for your letter dated 12 July 1993 and the details of your proposed visitor research in Egmont National Park.

Pursuant to Section 49(f) of the National Parks Act 1980, acting under a delegation from the Minister of Conservation, and in accordance with the provisions of the Egmont National Park Management Plan, I hereby give permission for you to conduct a visitor survey in Egmont National Park, as described, during the period 1 July 1993 to 30 June 1994.

Please liaise closely with the Field Centre Manager, Stratford during your time working in the Park. I am sure my staff will offer whatever assistance they can to assist your research.

A separate letter and proposed contract with Massey University covers the Department's financial contribution towards research costs and the outputs expected from the study.

I wish you every success with the study and look forward with interest to receiving your final report. I am sure your research work will be of great benefit to the future management of Egmont National Park.

Yours faithfully

Bill Carlin
Regional Conservator

APPENDIX FIVE - CODING MASTER FOR QUESTIONNAIRES

CODING MASTER

 VISITOR SURVEY OF EGMONT NATIONAL PARK

Questionnaire number:

Survey point:

Date:

Weather:

ID 1-3:
month 4-5:
Survey 6:

This survey is being conducted Month 01'July' 02'August' 03'September' 04'October' 05'November' experience in Egmont National Park 06'December' 07'January' 08'February' 09'March' 10'April' management decisions that will /Survpt 1'Huts' 2'North Egmont' 3'East Egmont' 4'Dawson Falls' comments in the spaces provide 5'Lucys Gully'

(1) During this visit to Egmont National Park did you do any of the following?

(Tick as many boxes as applicable)

- Camping 7
- Climbed to summit 8
- Stayed overnight in hut 9
- Skiing 10
- Photography 11
- Picnicking 12
- Viewing Scenery 13
- Walking (less than 4 hours) 14
- Tramping (more than 4 hours) 15
- Nature study (bird watching, botany) 16
- Other (please specify) _____ 17

(2) Through what sources have you heard or seen information about Egmont National Park?

- Word of mouth 18
- Information centre 19
- Television/films 20
- Newspaper/books/magazines 21
- Pamphlets/posters 22
- Travel guides 23
- Educational institute (school, polytech, etc) 24
- Public Relations Office 25
- Through motel or camping ground staff 26
- Previous visits 27
- Radio 28
- D.O.C. visitor centres/Ranger Station 29
- Other (please specify) _____

(3) Which of the above was most influential in your decision to visit Egmont National Park?

- Decision 30-37
- /Decision 01'Word of mouth' 02'Information centre'
 - 03'Television Films' 04'Papers Books Magazines'
 - 05'Pamphlets Posters' 06'Tavel guides' 07'Educational Institute'
 - 08'Public relations office' 09'Motel Camping ground'
 - 10'Previous visits' 11'Radio'
 - 12'DOC visitor centres or stations' 13'Live locally' 14'Other'
 - 88'Illegible' 99'No response'

(4) What influenced you to come to this area? (Tick up to 3 most important boxes)

- Beauty of natural features/scenery Inflow 35-39
- Lack of people Inflow 35-36
- "Get away from it all" Inflow 37-38
- Skiing
- Tramping
- Recommended by other people
- Advertising
- Close to where I live
- Part of a package tour
- Break from normal routine
- A follow up to previous visits
- Natural history (geology, native
- Brought children on a visit
- Brought friends on a visit
- Make a practice of visiting conservation areas, national parks and reserves
- Other (please specify) _____

(5) Did any of the following cause you concern during your visit to Egmont National Park? (Tick one box for each)

	A lot of concern	Quite a bit of concern	Some	Little	None
-Damage to vegetation -by humans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-by animals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Damage to soils by humans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Too many people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Litter by road/car-parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Litter on tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Signage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Availability of weather information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(6) How would you rate the following services and facilities provided for visitors to Egmont National Park?

	Excellent	Good	Average	Poor	Didn't notice
-Picnic sites	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Tramping tracks (more than 4 hrs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Walking tracks (less than 4 hrs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Toilet facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Park visitor centres	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Huts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Education lodges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Information (signs and maps)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-Availability of Park staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9 = NR

56

(7) New Zealand's National Parks should be used for the following;

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
-Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 56
-Tourist development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 57
-Mining/oil exploration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 58
-Tramping (more than 4 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 59
-Walking (less than 4 hours)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 60
-Commercial uses (eg. film making)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 61
-Skiing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 62
-School trips	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 63
-Logging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 64
-Recreational hunting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 65
-Environmental research	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 66
-Guided tours -by park staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 67
-by commercial groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 68
-Utilities (eg. transmitters)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 69
-Education about nature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 70
-Organised competitive sports (eg. triathalons)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 71

1 2 3 4 5

9 = NR

(8) The Department of Conservation offers information about a variety of topics in Egmont National Park. As a park visitor what did you think of the amount of information on the following topics?

	Not interested in topic	Need more detail	About right	Too much detail	Didn't find any
-Park history	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1
-Geology and land forms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 2
-Trees and other plants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 3
-Birds and other animal life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 4
-Maori history and legends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5
-Maori culture	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 6
-Weather forecasts/climate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 7
-Tracks and huts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 8
-Trips and activities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 9
-New Zealand's National Park system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 10
-The Department of Conservation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 11
-Visitor safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 12

(9) Was there any other information you would like to see or are there any other comments you would like to make about the provision of information in the park?

1 = comment
9 = NR.

13

(2/10)

(10) Do you think Egmont National Park should be developed to a greater extent to cater for visitors? How much development would you like to see in the following areas?

	A lot more	Some more	No more	Already well developed
-Tramping/walking tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 10
-Park huts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 15
-Tourist accommodation in park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 15
-Roading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 15
-Park visitor centres (ie. improvements)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 15
-Guided tours -by park staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 15
-by commercial groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 20
-Ski fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 21
-Educational facilities (eg. nature trails)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 22
-Education lodges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 23
-Signs marking tracks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 23
-Visitor safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 25

1 2 3 4

9 = NR.

(11) During your visit did you do any of the following;

- Go on walks with park staff 20
- Examine the displays in the park visitor centres -briefly (less than 15 min) 27
- in detail (over 15 min) 28
- Use the maps and signs at road ends and track entrances 29
- Ask questions of park staff 20
- None of the above 21

(12) Have you visited any other National Parks or protected natural areas in New Zealand and/or overseas?

Yes No

What Country? (and park names) _____

/Where thr 1'Other Nth Island' 2'Sth Island' 3'One overseas' 4'Two overseas' 5'>Two overseas' 8'Illegible' 9'No response'

NR = 0
Yes = 1
NR = 91

(13) Did you complete the Round the Mountain Track during your visit to Egmont National Park?

Yes No (if no please proceed to question 16)

NR = 0
Yes = 1
9 = NR

(14) Did the Round the Mountain Track live up to your expectations/anticipations?

Yes No

Why/why not _____ /Rmtwhytw 01'Weather good' 02'Weather bad' 03'Good scenery' 04'Mud' 05'Bad tracks' 06'Hut good' 07'Hut bad' 08'General praise' 09'General disappointment' 10'Other' 88'Illegible' 99'No response'

(15) Do you think the Round the Mountain Track needs to be managed in some way to improve peoples enjoyment of the trip?

Yes No

Comments _____ /Rmtcomon 1'To many people' 02'Need supervision' 03'Improve track' 04'Need guides' 05'Improve huts' 06'More information' 07'Improve signs' 08'General praise' 88'Illegible' 99'No response'

NR = 0
Yes = 1
9 = NR
03-04
05-06

09 - other

(16) Are there any other comments you would like to make about any positive or negative aspects of Egmont National Park?

47

No Comment = 0

Comment = 1

The following are a series of demographic questions so we can understand more about the type of people visiting Egmont National Park. From such information we can plan to better cater for visitor needs in the future. All answers are confidential.

48 (age)

(17) In which age group are you?

- 0-14 1
- 15-19 2
- 20-29 3
- 30-39 4
- 40-49 5
- 50-59 6
- 60+ 7

NR = 9

(18) Where do you live?

- Taranaki
- Other North Island
- South Island
- Overseas (state country) _____

//Live: 01'Taranaki' 02'Other Nth Island' 03'Sth Island' 04'Australia' 05'UK' 06'Europe' 07'Nth America' 08'Nth Asia' 09'Sth East Asia' 10'Other' 88'Illegible' 99'No response'

10 - 50

(19) How did you travel to the park?

- By private car 1
- Motorcycle 2
- Campervan 3
- Bicycle 4
- Bus 5
- Mini bus 6
- Other (please specify) 7

NR = 9

(20) Are you:

- male 1
- female 2

NR = 9

(21) Are you a member of any outdoor clubs, conservation groups or similar organisations?

Yes No

-If yes please list them

10 - Marnia South
 /Whatone 01'WWF' 02'Green peace' 03'Forest and Bird' 04'Alpine and Trampin' 05'Ski' 06'Youth' 07'Other adventure' 08'Other conservation' 09'Other general' 88'Illegible' 99'No response'

NR = 0
 yes = 1
 NR = 9

(22) What is the highest level of education you have achieved?

- No qualification 1
- School Certificate or equivalent 2
- University Entrance or equivalent 3
- Higher school certificate or higher leaving certificate (7th form) 4
- Vocational or trade qualification 5
- University degree/diploma 6
- Other (please specify) _____ 7

NR = 9

(23) Which ethnic group do you belong to?

- NZ European/Pakeha 1
- NZ Maori 2
- Other (please describe) _____ 3

NR = 9

61

