



A bibliography of research on visitors to public conservation areas in New Zealand 1995–2010

Brent Lovelock, Andrea Farminer and Arianne C. Reis



This report is available from the departmental website in pdf form. Titles are listed in our catalogue on the website, refer www.doc.govt.nz under *Publications*, then *Science & technical*.

© Copyright December 2011, New Zealand Department of Conservation

ISBN 978-0-478-14928-9 (web PDF)

This report was prepared for publication by the Publishing Team; editing and layout by Sue Hallas. Publication was approved by the General Manager, Research and Development Group, Department of Conservation, Wellington, New Zealand.

Published by Publishing Team, Department of Conservation, PO Box 10420, The Terrace, Wellington 6143, New Zealand.

In the interest of forest conservation, we support paperless electronic publishing.

CONTENTS

Abstract	1
<hr/>	
1. Introduction	2
<hr/>	
1.1 Scope	2
1.2 Outputs	2
1.3 Literature scan and annotation methodology	3
1.4 Limitations of the literature scan	4
1.5 Format	4
2. Bibliography	5
<hr/>	
3. Keyword index: themes	80
<hr/>	
4. Keyword index: places	83
<hr/>	

A bibliography of research on visitors to public conservation areas in New Zealand 1995–2010

Brent Lovelock, Andrea Farminer and Arianne C. Reis

Centre for Recreation Research, School of Business, University of Otago, PO Box 56,
Dunedin 9054, New Zealand
Email: recreation.research@otago.ac.nz

Abstract

Increasing the participation of New Zealanders and overseas visitors in recreation and tourism activities in public conservation areas is a priority task for the Department of Conservation (DOC). DOC has recognised that, as an organisation charged with the management of over one-third of New Zealand's land area, it needs to become more customer-focussed in its provision of recreation opportunities and visitor experiences. Maintaining and growing public participation in DOC-managed areas requires a broad understanding of the nature, interests, preferences and motivations of visitors, and an in-depth understanding of their recreation patterns, trends and constraints. To help to anticipate its future requirements, DOC commissioned a programme of research to review existing literature on tourism and recreation research, focussing on visitor demand for, participation at, and segmentation at public conservation areas, both in New Zealand and Australia. The programme has a specific focus on literature pertaining to outdoor recreation, nature-based tourism, ecotourism and heritage tourism. The current study undertook an intensive scan of a wide range of information sources including university libraries, academic journal databases and public websites to compile an annotated bibliography of New Zealand sources. The bibliography includes nearly 240 literature references, which are indexed alphabetically and accompanied by keywords, which are also searchable.

Keywords: bibliography, demand, Department of Conservation, DOC-managed areas, New Zealand, participation, recreation, segmentation, tourism, visitor research

© Copyright December 2011, Department of Conservation. This paper may be cited as:
Lovelock, B.; Farminer, A.; Reis, A.C. 2011: A bibliography of research on visitors to public conservation areas in New Zealand 1995–2010. Department of Conservation, Wellington. 85 p.

1. Introduction

The Department of Conservation (DOC) commissioned the Centre for Recreation Research, School of Business, University of Otago, to undertake a literature scan of recent research relating to visitors to public conservation areas. This report is one of four reports—two bibliographies and two related gap analysis and research synthesis reports—addressing visitor research in New Zealand and Australia. The gap analysis and research synthesis reports discuss the key trends, issues and research gaps relating to visitor demand for, participation at, and segmentation at public conservation areas in both countries.

The aim of the visitor research programme was to inform the work currently being undertaken by DOC in developing a Destination Management Framework (DMF) for its conservation areas, which will ensure that it becomes more customer-focussed in its provision of recreation opportunities and visitor experiences. With its knowledge base of this area brought up to date, DOC will be able to identify research priorities, which can be incorporated into a wider programme of future research and which, in conjunction with the DMF, will aid DOC in developing a better understanding of the market demand for outdoor recreation and tourism in public conservation areas in New Zealand.

1.1 Scope

The scope of the visitor research programme was defined in DOC's brief (April 2010) as follows:

- To undertake a comprehensive review of relevant literature, specifically in the areas of nature-based tourism, ecotourism, heritage tourism and outdoor recreation
- Literature should cover visitor demand, visitor participation and visitor segmentation (as it relates to public conservation areas only)
- Literature coverage should include only New Zealand and Australian publications
- Literature included may come from credible sources such as research houses, government, academia and any other tourism or recreation organisations
- Literature should not extend back further than 1995

1.2 Outputs

The DOC brief also specified the deliverables for the project, which were reports for New Zealand- and Australia-based literature scans, each comprising:

- A completed bibliography
- A synthesis of the literature identifying key trends and issues
- A gap analysis identifying where further research will enable DOC to better understand the demand for outdoor recreation and tourism in public conservation areas

The project was undertaken in June 2010. This report provides a completed bibliography of New Zealand research literature on visitors to public conservation areas, and should be read in association with the following three reports:

Lovelock, B.; Farminer, A.; Reis, A.C. 2011: A synthesis and gap analysis of research on visitors to public conservation areas in New Zealand 1995–2010. Department of Conservation, Wellington. 17 p.

Lovelock, B.; Reis, A.C.; Farminer, A. 2011: A bibliography of research on visitors to public conservation areas in Australia 1995–2010. Department of Conservation, Wellington. 112 p.

Lovelock, B.; Reis, A.C.; Farminer, A. 2011: A synthesis and gap analysis of research on visitors to public conservation areas in Australia 1995–2010. Department of Conservation, Wellington. 18 p.

1.3 Literature scan and annotation methodology

Sources for the literature scan were selected for their relevance to the project and if they fitted within the defined parameters of the brief (see Scope, section 1.1). The wide range of sources included:

- DOC publications website
- Ministry of Tourism research website
- Published bibliographies
- Academic journal searches
- Tourism databases
- University research centre publications
- Published (and unpublished) reference lists
- Conference proceedings
- Post-graduate theses databases
- University library catalogues
- 'Grey' literature supplied by DOC
- New Zealand Historic Places Trust publications website
- Google scholar

Searches were conducted on specific keywords and keyword combinations in an attempt to cover as broad a range of relevant literature as possible. These search threads included:

- New Zealand/visitors
- Visitor—demand/participation/segmentation
- Tourism—demand/participation/segmentation
- Conservation/estate/areas/national parks/DOC
- Recreation/outdoor/nature
- Natural areas/nature-based/wilderness
- Ecotourism/green tourism
- Heritage/cultural heritage

For example, a typical initial database search thread could be based on: New Zealand/visitor/ or New Zealand/conservation/ or New Zealand/recreation/tourism/heritage/. The resulting list was scanned and more detailed searches were then made on it for demand, participation, segmentation, recreation, etc. By interweaving search threads, a broader and hopefully more comprehensive capture of relevant literature sources was achieved in a relatively short period.

A considerable quantity of 'grey' (unpublished) report material held by DOC was supplied to the authors in hard copy and electronic copy. This included visitor-related reports canvassed from Auckland Regional Council; DOC also requested copies of similar reports from other agencies and organisations but no material was forthcoming.

Within the time constraints placed on the project, as many papers as possible were consulted to check their content for applicability and quality, and whether they substantially repeated work already identified and indexed. Once selected, each paper was then annotated to include the main purpose of the paper, and the study's basic methodology and key findings. Some papers were simply reviews of other work or were more methodology-based, so were annotated as deemed most appropriate. Some papers were not accessible because, for example, they were not available in the interloan library system, were unpublished and held privately (such as grey material), existed only as a conference abstract with no published paper, or existed only as a third-party reference that could not be obtained elsewhere). For these papers, available abstracts

were either annotated or re-used in full, or the entry was identified as 'Document not accessible' and no annotation was made. In a very few cases, an abstract was re-used in full as it provided the clearest summary possible of the content of the paper. Where abstracts have been either partially or completely re-used, they are identified as either 'Abstract edited' or 'Abstract used in full', respectively.

During the literature scan, it became apparent that often several papers had been generated from one key piece of research and it was decided that, rather than repeat almost identical annotations, the papers would simply be indexed and a reference made to the most relevant and detailed entry for further information. Such instances are identified as: 'Refer to entry no. ##' or 'Refer to entries numbered ##, ##'.

1.4 Limitations of the literature scan

The main limitation for the New Zealand literature scan was time, which resulted in some sources not being consulted as extensively as desired and some secondary sources not being consulted at all. The latter included local council websites, which may hold relevant visitor information and proceedings of wider conferences (e.g. international conferences where New Zealand-focussed papers were presented).

1.5 Format

The results of the literature search were entered into an Endnote® referencing and bibliographic database and then exported into a Microsoft Word document. Each paper was indexed separately, with a full reference and annotation (where possible) outlining the nature, aims, method(s) and key results presented in the paper (a 150-word limit was agreed with DOC). Additional information, such as library references, informal document references and miscellaneous comments, was also recorded in the Endnote database but not included in the final report. Most references include either the page range or number of pages of the entry, but where papers could not be sourced in their entirety and no information was available for this, the number of pages has been omitted.

Each entry has a series of keywords, which allows both for a basic identification of the scope of the entry (e.g. 'visitor survey', 'national park' and its general geographic location) and for the paper to be indexed by a keyword search.

The bibliographic report is organised in two ways: firstly, an alphabetical author list of annotated papers (which are also individually indexed); and secondly, a keyword list with indexed paper numbers only. The alphabetical and numerical indices run concurrently to aid ease of locating papers.

The papers listed in the bibliography can be accessed in several ways: online, through the New Zealand inter-library loan system, or directly from the institutions, publishers or authors.

2. Bibliography

A

1. **Alexander, S. 1997: Non-consumptive wildlife-oriented recreations: applying a conceptual framework to the royal albatross colony on Taiaroa Head. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 100 p.**

[The thesis examines the carrying capacity, in terms of visitor numbers, of wildlife destinations, and uses the royal albatross (*Diomedea epomophora*) colony on Taiaroa Head, Otago Peninsula as a case study. The thesis makes specific reference to whether visitors were specialised, and if so, how much. It also addresses how this changed over time and the effect changes in visitors has had on the focal species (royal albatross) and on the character of Taiaroa Head. The study surveyed 165 visitors to the albatross colony in March 1996 and compared them with data from research done in 1992. The comparison indicated that Taiaroa Head went from providing a small-scale, personalised visitor experience to being a large-scale international destination. This has resulted in the albatross colony needing to cater for increasingly diverse expectations held by visitors. The study concluded that Taiaroa Head's uniqueness was not enough on its own to ensure visitor satisfaction.]

Keywords: ecotourism, Otago Peninsula, Taiaroa Head, visitor satisfaction, visitor survey

2. **Angus, C. 2000: Recreational facilities and services: defining visitor needs and measuring visitor satisfaction. Report to the Department of Conservation. Cristine Angus Marketing Services, Wellington (unpublished). 56 p.**

[A report on a survey of visitors to public conservation lands. The survey ($n = 911$), which was undertaken through multiple-location, on-site and telephone questionnaires of visitors who had visited within the last 2 years, aimed to: define visitor needs; profile visitors to DOC huts, campsites and visitor centres; define visitor information requirements; and determine their level of satisfaction with the facilities provided. The survey also grouped visitors to the conservation estate based on how, and how much, they used DOC facilities. The key findings of the survey were that: most visitors were European/New Zealanders and only 1% identified themselves as of Māori descent; most visitors were seeking to experience nature, to relax or were seeking a challenging experience; and many of those surveyed thought that DOC had a public responsibility to provide huts, information and other facilities.]

Keywords: DOC-managed areas, visitor satisfaction, visitor segmentation, visitor survey

3. **Auckland Regional Council 2006: Through visitor's eyes: an approach to research on regional parks. Internal report. Auckland Regional Council, Auckland (unpublished). 5 p.**

[An informal report describing the issues Auckland Regional Council (ARC) has found with a purely visitor-survey approach to gathering user information for its regional parks. The report outlines ARC's expansion of its data-gathering methods by adding focus group interviews and 'mystery shoppers', and the improved information (as opposed to just 'data') they have produced. As a result, ARC was able to group its park users (and non-users) into five categories: tribals, intimates, respiters, socials and out-and-abouters. The motivation for using parks for the majority of users (96%) was to seek an 'escape' from life's daily pressures by seeking respite in a large, natural setting. The report observes that the different user groups responded to different information and motivational approaches, and so require different approaches in park management. The report concludes that while visitor surveys clearly have their role in data gathering, they are no substitute for engaging both park users and non-users in ongoing, often direct, dialogue.]

Keywords: Auckland, regional parks, visitor segmentation, visitor survey

4. Auckland Regional Council 2007: Auckland regional parks research strategy—research and monitoring programme 2007–2010. Internal Report. Auckland Regional Council, Auckland (unpublished). 12 p.

[An internal Auckland Regional Council report detailing the methods used prior to 2007 for collecting and assessing a wide range of park visitor data, with comments on the methods' productivity and perceived value. An online research strategy for the period 2007–2010 was developed, encompassing a three-pronged approach: an analysis of recreational activity and trends; asset monitoring; and visitor monitoring and feedback. The over-riding research strategy was identified as: 'To understand what the people of the region value about regional parks and their expectations for the future supply and management of the parks.' Strategic planning and implementation goals were identified, such as increasing public awareness of regional parks, alongside a range of key performance indicators that will be monitored both externally and internally and assessed to gauge the success of the research strategy.]

Keywords: Auckland, regional parks, research programme, strategy, visitor survey

B

5. Balcar, M.J.O.; Pearce, D. 1996: Heritage tourism on the West Coast of New Zealand. *Tourism Management* 17(3): 203–212.

[This study provides a systematic, empirical exploration of eight heritage sites on the West Coast of New Zealand, notably those associated with gold and coal mining. Data on each site were collected through a visitor survey, structured interviews, field visits and searching the literature. Sites were then compared in terms of their characteristics, development, management and patterns of visitor demand. The results highlighted the diversity that was to be found in terms of the first three sets of factors, with major differences occurring between community-managed sites and those managed by DOC. Few systematic differences were observed in the profiles of visitors to the eight sites. General sightseers, not enthusiasts or specialists, appeared to form the dominant market for heritage tourism on the West Coast.]

Keywords: heritage, mining, tourism, visitor survey, West Coast

6. Barr, H. 1997: Establishing a wilderness preservation system in New Zealand—a user's perspective. *International Journal of Wilderness* 3(2): 7–10.

[A short paper on the history and development of proposals for designated 'wilderness' areas in New Zealand led by the Federated Mountain Clubs of New Zealand. The author discussed the threats and pressures that arise from competing activities and interests (such as increased tourist and non-specialist tramper use, mining and industrial use, aerial over-flights, hunting, general increased visitor access and associated tracks, and Māori land rights) on the country's wilderness lands. As of 1997, three wilderness areas had been designated ('gazetted') and the author was optimistic of a further five being gazetted by 2000.]

Keywords: designation, DOC-managed areas, visitor needs, wilderness

7. Bassett, B. 1996: Tourism research bibliography 1994–1996. Ministry of Commerce, Wellington. 51 p.

[A bibliography of tourism research undertaken in New Zealand between 1994–1996; this volume is second in a series and follows on from the Tourism Research Bibliography 1985–mid-1994. The sources are laid out thematically under general headings such as 'Environment', 'Impacts', 'Tourism', but the bibliography does not address DOC-managed areas or nature-based tourism and recreation as a separate theme.]

Keywords: bibliography, recreation, research, tourism

8. Beauchamp, T.; Garrard, R.; Gordon, A.; Matthews, S.; Smith, C. 2007: Tauroa Point visitor survey. Internal Report. Department of Conservation, Wellington (unpublished). 23 p.

[A report on a visitor survey undertaken in 2007 of the 11.64 ha of public conservation land in the vicinity of Tauroa Point, Northland. The aim of the survey was to gather data on recreation and other uses of the land, safety concerns, and the conservation and interpretation needs of users. The survey method involved interviews with randomly sampled car drivers and visitors to the beach area (mainly), over a 2-week period just after the main Christmas–New Year holiday. Data were also recorded on weather, tide and general environmental conditions. The survey, which interviewed 136 visitors, found that the conservation land was mainly being used by local, Far North residents and a small number of wider New Zealand and international visitors, who collectively raised concerns primarily about the increasing ‘dangerous’ use of vehicles and rubbish in the area.]

Keywords: DOC-managed areas, Northland, Tauroa Point, visitor needs, visitor survey

9. Booth, K.L. 2006: Review of visitor research for the Department of Conservation. *DOC Research & Development Series 229*. Department of Conservation, Wellington. 46 p.

[This key report is based on a review and synthesis of existing outdoor recreation research in New Zealand undertaken for DOC and builds on Booth’s 1988 Visitor Research Framework typology. The report outlines seven categories of visitor information research: visit numbers, visit and visitor characteristics, visitor experience, visitor impacts, recreational benefits, resource demand and supply, and processes and techniques to manage recreation. The author undertook a review of existing research for each category and a gap analysis, and identified whether there was either sufficient or insufficient coverage and the nature of the gap. The report concludes that there are deficiencies of knowledge in all seven categories, with the greatest need for more research being the areas of recreation management processes and techniques, and visitor experience. The report demonstrated the clear need for a visitor research strategy based on: the lack of an existing prioritised strategy for visitor research; the need for DOC-led research involving a broad range of researchers; and the lack of standardisation in research methods, which has created serious challenges when comparing research results.]

Keywords: DOC-managed areas, recreation, recreation management, research, visitor characteristics

10. Booth, K.L. 2008: New Zealand’s natural environment: a review of visitor research. Pp. 1–11 in Clarkson, B.; Kurian, P.; Nachowitz, T.; Rennie, H. (Comps): *The next 50 years. Proceedings of Conserv-Vision Conference, 2–4 July 2007, University of Waikato, Hamilton, New Zealand.*

[This paper provides a summary and overview of the author’s previous work on visitor research for DOC (2006; see entry no. 9) and her work on the ‘Review and Synthesis of outdoor recreation in New Zealand’ (with MacKay, M. 2007. Report to the Ministry of Tourism, Wellington). It contains an overview of the visitor and natural-environment literature (of over 2000 publications) and identifies, for the body of work, its: scope and breadth; type of research reported; the methods used in the studies; and research providers and funders identified in the literature. The paper goes on to review the state of knowledge and research gaps identified from the earlier work and concludes by stating the need for the future coordination of visitor research, re-stating previous calls for a national-level outdoor recreation research strategy.]

Keywords: DOC-managed areas, recreation, recreation management, research, strategy, visitor management

11. Booth, K.L.; Espiner, S.R.; Higham, J.E.S. 2007: Fiordland (Te Moana o Atawhenua) Marine Area user study 2007. Report to MAF Biosecurity New Zealand, Department of Conservation, Environment Southland, Fiordland Marine Guardians, Ministry of the Environment and Ministry of Fisheries. Kay Booth and Associates, Christchurch (unpublished). 112 p.

[A detailed report on the design of a user-perception and activities monitor for the Fiordland Marine Area (FMA), and a review of it. The monitor was implemented to collect baseline user data to coincide with the introduction of the Fiordland (Te Moana o Atawhenua) Marine Management Act 2005, and to inform a review of the Act due in 2010. A two-phase approach was developed, comprising a questionnaire survey of commercial and recreational FMA users (802 users), and 39 key-informant interviews, all undertaken in early 2007. The study revealed that there were two main user groups (mainly international visitors and New Zealanders) of the FMA and that there was a multi-layered recreational fishing use. Use and of user-group perceptions varied geographically and with time. Having a nature-based experience was the dominant key motivation for users (except for commercial fishermen). Users' perceptions' regarding the quality of their experience in the FMA varied widely. Pollution and expanding tourism were perceived as the greatest threats by users.]

Keywords: Fiordland Marine Area, Fiordland National Park, marine, recreation, tourism, visitor satisfaction, visitor segmentation, visitor survey

12. Booth, K.L.; Leppens, J. 2002: Rakiura National Park: a benchmark study of tourism and the Stewart Island community prior to the creation of the national park. Report to the Department of Conservation Southland Conservancy. Department of Conservation, Invercargill (unpublished). 130 p.

[An extensive report on the nature and economics of the community and tourism industry of Stewart Island/Rakiura before its designation as a national park (Rakiura National Park). The study undertook a community telephone survey of 103 residents and a visitor-questionnaire survey of 500 visitors. The visitor survey was aimed at establishing the demographic of visitors to the island, and their characteristics, expenditure, perceptions of the island and awareness of national park status. The survey found that, in 2002, the island was visited by 32 000 visitors of which the majority (by a slight margin) were New Zealanders; this continued a trend from previous surveys, which showed a decrease in visits by New Zealanders and an increase by overseas visitors. Having a holiday and tramping were the primary reasons for visiting the island.]

Keywords: community, Rakiura National Park, Stewart Island/Rakiura, tourism, visitor profiles, visitor survey

13. Booth, K.L.; Mackay, M. 2007: Tourism and recreation in New Zealand's natural environment: a bibliography and research synthesis. Report to the Ministry of Tourism. Kay Booth and Associates, Wellington (unpublished). 90 p.

[An extensive report on the published literature on tourism and recreation in New Zealand's natural environment comprising three sections: Introduction and scope; Literature review and research synthesis; and Bibliography of research publications. The report includes papers on both commercial and non-commercial recreation and tourism activities undertaken in a variety of 'natural' environments including protected areas, the 'countryside', waterways and coastal area, mountains and natural landscape. The synthesis and analysis found that there is a need for: prioritisation; a staged research programme; a planning framework to guide and link research and management; a knowledge framework to organise and discuss research needs (based on the Visitor Research Framework presented in Booth 2006—see entry no. 9); and stronger communication between researchers and research users.]

Keywords: recreation, recreation management, research programme, strategy, tourism

14. Boyd, S.W.; Tham, W.L. 2004: **Experiencing tourism: urban heritage walking trails of Dunedin and Napier, New Zealand.** In Coles, T.; Hall, M. (Comps): **Tourism and leisure. Proceedings of the pre-congress meeting of the International Geographical Union Conference, 13–15 August 2004, Drymen, Loch Lomond, Scotland.** Available at: http://www.gltrg.org.uk/wp-content/uploads/2009/11/exeterdocs/Boyd_Tham.pdf (accessed 11 June 2010).

[This paper reports on research undertaken on urban heritage walking trails in Napier and Dunedin, New Zealand in the summer of 2004. The paper discusses trails within both cities, which vary in their form and focus: Napier has a formal walking trail that focusses on the city's Art Deco buildings, whereas Dunedin has an informal walking trail that focusses on the history and early architecture and businesses of Dunedin. The research was based on a questionnaire survey of visitors and walking trail participants; the Dunedin survey returned 207 responses and the Napier survey, 208 responses. Questions were asked on visitors' heritage awareness prior to visiting, and their views on the heritage trail itself. A matrix model is presented in the paper based on the degree of trail formalisation, using criteria of marked versus unmarked, and guided versus unguided, trails. The responses of visitors to each location were applied to the model. Implications of further trail development are also presented, these being based survey responses and on interviews with officials responsible for the management of the trails.]

[Refer to entry no. 209]

Keywords: Dunedin, heritage, Napier, trails, urban, visitor characteristics , visitor survey

C

15. **Captivate Ltd 2005: Regional park awareness, visitation and satisfaction. Auckland Regional Council, Auckland (unpublished). 33 p.**

[Report on a survey undertaken of public awareness, and use, of regional parks in the Auckland Regional Council area. Twelve-minute, computer-assisted telephone interviews were conducted with a random sample of 1000 people aged over 18 years in the Auckland Region in March 2005. Overall awareness of the region's parks was relatively high for the main regional parks. However, the understanding and awareness of the full range of parks in the Auckland Region was low. Half of people in the Auckland region visited a regional park in the year to March 2005 and satisfaction with that experience was high. Those visiting the park mainly visited to take time out and relax in the natural environment. On the whole, visitors and non-visitors ranked the overall management and provision of regional parks at 97% satisfaction. With improvement in the management of facilities, in particular the toilets, and the reduction of teenage drinking, loud music and cars, satisfaction could increase.]

Keywords: Auckland, recreation management, regional parks, visitor satisfaction, visitor survey

16. **Captivate Ltd 2007: Auckland Regional Council visitor survey 2006–2007. Auckland Regional Council, Auckland (unpublished). 50 p.**

[The Auckland regional parks were profiled in terms of the sector and class of their visitors, with 24 parks chosen to provide a representative sample of visitors. Self-completion cards were handed to visitors as they entered the gate to the park and were collected as they left the park; 6009 self-completion survey cards were handed out, with 3397 returned, giving a margin of error for a 50% figure of $\pm 1.39\%$. The survey sought to establish the demographic profile, visitation profile and level of satisfaction with park use of visitors to Auckland regional parks. The parks were visited mainly by European New Zealanders, used in larger numbers by those over 45 years of age, and used slightly more by females than males (in line with local demographics). The

survey also found that people were visiting in smaller groups (commonly of two) than previously recorded and that over 92% of visitors were satisfied with their visit.]

Keywords: Auckland, recreation management, regional parks, visitor satisfaction, visitor survey

17. Captivate Ltd 2008: Dogs on parks: attitude research. Auckland Regional Council, Auckland (unpublished). 15 p.

[The objective of the research was to get an understanding of the attitudes of four key groups towards dogs in Auckland Regional Council (ARC) regional parks. The four groups were: dog owners that walk/exercise their dog at a regional park; dog owners that don't walk/exercise their dog at a regional park; residents without dogs that use regional parks; and residents without dogs that don't use regional parks. In July 2008, 600 computer-assisted telephone interviews were undertaken. The sample was split into two main groups: general Auckland residents and those living in suburbs close to regional parks. In a comparison of those that lived near a regional park to those from the Auckland Region, a greater proportion of the former owned dogs and, as expected, those that lived near a regional park used it more. The survey also found that dog owners liked the regional parks because of the greater space they offered and a large number were concerned that dog walking might be banned from the parks.]

Keywords: Auckland, dogs, recreation management, regional parks, visitor attitudes, visitor survey

18. Captivate Ltd 2009: Ethnicity research. Auckland Regional Council, Auckland (unpublished). 113 p.

[The overall objective of the research was to provide an understanding of the attitudes of smaller ethnic groups in the region towards Auckland Regional Council parks, and to encourage more use of regional parks by these groups. An online survey was used; 1000 surveys were completed (by 250 New Zealand Europeans, 229 Asian peoples, 250 New Zealand Māori and 271 Pacific peoples). The survey found that, proportionally, New Zealand Māori and Pacific peoples are more likely to visit a park in the Auckland region, and Asian people are just as likely to visit a park as New Zealand Europeans. However, all Asian, New Zealand Māori and Pacific peoples were less likely to visit a regional park than were New Zealand Europeans. The main barrier stopping people that visited parks from visiting regional parks was a lack of knowledge about regional parks, particularly their locations and the activities available at them. Those that did not visit parks at all mainly considered that: they were too busy or had no time to visit regional parks; and that they didn't know much/anything about them, especially where they were or what to do at them.]

Keywords: Auckland, ethnic minorities, recreation management, regional parks, visitor awareness, visitor survey

19. Captivate Ltd 2009: Walking tracks research—regional summary. Auckland Regional Council, Auckland (unpublished). 26 p.

[The report details a visitor survey undertaken for Auckland Regional Council to provide an understanding of the current needs and attitudes of people using selected walking tracks in Auckland regional parks. Self-completion survey cards, with mainly closed questions, were designed for walkers to complete when they exited a track; a total of 543 surveys were collected between January and April 2009. The survey revealed that there is a high level of satisfaction with walking tracks in the Auckland Region, with 98% of people using the tracks being either satisfied or extremely satisfied with the track that they had walked; the satisfaction with man-made or support features of the walking tracks was lower. People mainly used a walking track for exercise, to relax/for leisure, to enjoy the natural environment and to be outdoors. The majority of people who walked the tracks found that track length and difficulty was as expected. Most people wanted a 'moderate track', while 32% wanted a 'hard track'.]

Keywords: Auckland, recreation, regional parks, tracks, visitor satisfaction, visitor survey

20. Captivate Ltd no date: Summary of on-park audits: Wenderholm, Shakespear, Long Bay, Cascade Kauri, Karamatura, Tapapakanga, Waharau. Auckland Regional Council, Auckland (unpublished). 2 p.

[A brief summary of on-park audits undertaken in specific Auckland regional parks. The audits found that there were overwhelmingly positive comments about the parks visited and, in particular, about the Auckland Regional Council for providing the parks. It was felt that there was a good range of environments and experiences provided for at the different parks. There were many surprises when people visited the parks and all respondents were unaware of the existence of all seven of the parks, particularly the Western and Southern parks. Most people stated that they would revisit the parks, but would choose which one to visit depending on the activities they wanted to undertake and how far the park was from home.]

Keywords: Auckland, regional parks, visitor awareness, visitor survey

21. Carr, A.M. 2001: 'Locating' culture: visitor experiences of significant landscapes. Pp. 40–46 in Getting to the heart of it. Proceedings of the Ninth Annual Interpretation Australia Association Conference, 3–7 September 2001, Alice Springs, Northern Territory, Australia.

[This paper explores the preliminary findings of research on visitor experiences at culturally significant landscapes in the South Island. The author observes that the interpretation of New Zealand's natural landscape has traditionally had a Eurocentric or scientific focus. The history, myths and legends that related Māori to their land were occasionally interpreted in terms of local iwi, but were generally neglected until the late 1980's. Exposure to such information while travelling, particularly to interpretative media originating from national park visitor centres, was found to be important as it provides a rich framework on which visitors can develop a 'sense of place'. The results of a survey of 250 visitors to Aoraki/Mount Cook National Park showed a diverse range of reasons for visiting the park, with alpine sightseeing being the main one. It also found that visitors had varied levels of knowledge about Māori culture and the significance of Aoraki/Mount Cook. Overall, the research indicated that visitors strongly desired more interpretative material presenting a Māori viewpoint of the natural world and its cultural significance.]

Keywords: Aoraki/Mount Cook National Park, heritage, interpretation, Māori, South Island, visitor awareness, visitor survey

22. Carr, A.M. 2004: Interpreting culture: visitors' experiences of cultural landscape in New Zealand. Unpublished PhD thesis, University of Otago, Dunedin. 367 p.

[This thesis examines visitors' awareness and experiences of the cultural values of natural areas of importance to Māori. Three South Island study sites were chosen: Aoraki/Mount Cook National Park, Fiordland National Park and Lake Pukaki. Visitors' experiences at each site were explored with interviews, observations of participants and a survey. The survey was administered between January and April 2000 to 716 visitors, yielding 472 valid returns. A comprehensive profile of visitors' demographics, and their social and environmental values, was developed from the survey data. It was concluded that a niche demand for the interpretation of Māori perspectives of natural areas could be further met with increased, targeted resources for visitor centres. It was also proposed that such interpretation could attract a Māori audience, increasing Māori visitation to national parks.]

Keywords: Aoraki/Mount Cook National Park, Fiordland National Park, interpretation, Lake Pukaki, Māori, research, South Island, visitor awareness, visitor survey

23. Carr, A.M. 2004: Mountain places, cultural spaces: the interpretation of culturally significant landscapes. *Journal of Sustainable Tourism* 12(5): 432–459.

[This paper reviews and discusses how and to what extent DOC was incorporating Māori perspectives of cultural landscapes into its national park interpretation schemes, using existing interpretation in Aoraki/Mount Cook National Park as a case study. It provides an overview of: the essential Māori-land relationship; the risk of social impacts of visitors to Māori sacred places; the use of heritage interpretation to communicate cross-cultural messages and representation; and the managerial issues surrounding the indigenous cultural values for Aoraki/Mount Cook. The research was based on a survey of 250 visitors, using both semi-structured interviews and self-completion questionnaires to ascertain the visitors' interest in, and awareness of, cultural themes at the National Park Visitor Centre. The study found that visitors were generally well educated, of European/New Zealand origin and were visiting the park for its scenic and/or alpine qualities. Nearly half of those surveyed were unaware of the Maori cultural significance of the area and nearly 30% responded that the visitor centre had raised their awareness of its significance. The paper concluded that, overall, there was scope for greater Māori cultural interpretation to help manage visitors' understanding and behaviour whilst on site.]

Keywords: Aoraki/Mount Cook National Park, heritage, interpretation, Māori, visitor awareness, visitor behaviour, visitor survey

24. Carr, A.M.; Higham, J.E.S. 2001: Ecotourism: a research bibliography. University of Otago, Dunedin. 76 p.

[This research bibliography of ecotourism provides a catalogue of papers and publications relating to the study and management of ecotourism and nature tourism activities in New Zealand. The bibliography also includes selected relevant publications from Australia, the Pacific and elsewhere where they inform the New Zealand perspective. The references cover subjects such as planning, management, development, values, education, interpretation, marketing and 'best practice' ecotourism, and were drawn from a wide range of sources including academic journals, other published bibliographies, texts and databases. The bibliography formed part of a 2-year research programme.]

Keywords: bibliography, ecotourism, heritage, nature-based recreation, recreation, research, tourism

25. Carr, A. M.; Lovelock, B.; Wright, R. 2006: Beyond national parks: conservation parks—the new destination for New Zealand outdoor families. P. 73 in *Beyond nature. Book of abstracts of the New Zealand Tourism and Hospitality Research Conference, 5–7 December 2006, University of Otago, Dunedin, New Zealand.*

[This paper presents the findings of a visitor survey conducted at the Ahuriri Conservation Park (ACP) from December 2005 until April 2006. The survey of 284 visitors focussed on family groups, a significant visitor segment in the park. Reasons for visiting the park were primarily to go tramping, to experience the scenery, solitude and to take children into the outdoors. About 80% of respondents were New Zealanders, mostly from the South Island, and most were new users of ACP. The survey found that there were few differences between visitors with children and those without in terms of their visiting preferences and profiles, apart from those with children: using 'word-of-mouth' sources to find out about the park; having 'outdoor recreation' for the children as their main motivation; tending to camp more; and partaking in mountain biking and picnicking slightly more. The paper ends by suggesting ways in which DOC can cater for this often-neglected visitor segment by encouraging family involvement in the development of facilities and information, thus enhancing participation and nurturing use of the New Zealand outdoors by children.]

Keywords: Ahuriri Conservation Park, families, recreation, visitor segmentation, visitor survey

26. Central Otago District Council 2009: Otago Central Rail Trail: user survey 2008/2009. Central Otago District Council, Alexandra (unpublished). 50 p.

[A report on the findings of a survey of 626 users of the Otago Central Rail Trail (OCRT), undertaken during the summer of 2008/09, to determine visitor characteristics, behaviour and level of satisfaction with the trail. The survey found that the OCRT was enjoyed by the large numbers of people who walk or bike it. The degree of enjoyment was not influenced by the time of the year, the direction of travel, the time spent on the trail, the age of the user or where the user came from. Just as important, the prior expectations of people doing the rail trail were met and exceeded. It also found that the typical trail user was a person aged over 50 years; slightly more likely to be a woman than a man; from Auckland, Canterbury or a non-Auckland location in the North Island; a first-time user of the trail; probably travelled the trail from the Clyde end; and was especially interested in the historic mining towns and sites. While it is advertised, the lack of available water was considered the worst part of the rail-trail experience. Despite many comments about the trail surface, these were not strong enough to be translated into a poor rating. A lack, and the low quality, of food outlets was also commented on, particularly the lack of healthy food options.]

Keywords: Otago, rail trail, tourism, visitor survey

27. Cessford, G. 1995: Canoeing and crowding on the Whanganui River. *Science & Research Series 97*. Department of Conservation, Wellington. 94 p.

[This report summarises the results of visitor research undertaken on the Whanganui River, over the summer of 1991/92. The objectives of the study were to ascertain levels and perceptions of user crowding and conflict, specifically focussing on canoeing (for which the Whanganui River is highly popular). The report describes the canoeists that used the river, including their motivations, satisfactions and perceptions of impacts and crowding. The research was based on a survey (in the form of a questionnaire; 331 responses were obtained) and data on visitor counts. The survey found that, with regard to impact and crowding perceptions, while levels of use and the experiences over the summer were acceptable to canoeists, their recreation experiences during Easter were more compromised, largely owing to increased visitation in general. The higher impact of canoeists and crowding experiences at Easter indicated that the 'recreational carrying capacity' of this trip experience was being exceeded at that time.]

Keywords: canoeing, crowding, rivers, visitor experience, visitor survey, Whanganui National Park, Whanganui River

28. Cessford, G. 1995: Conservation benefits of public visits to protected islands. *Science & Research Series 95*. Department of Conservation, Wellington. 57 p.

[A report on a DOC study of the conservation benefits that could occur if public access to sensitive conservation areas (such as conservation islands) was allowed. The assessment was carried out via a pre- and post-visit survey of visitors to two islands: Tiritiri Matangi Scientific Reserve (which has an extensive re-vegetation programme based on public involvement), and Little Barrier Island (Hauturu) Nature Reserve (a protected sanctuary for highly threatened species). Both islands lie to the northeast of Auckland. The study, based on a questionnaire survey of 281 visitors, found some differences in the characteristics of visitors to the two islands, which in turn created differences in the perceived conservation benefits to each island. The report concludes with the call for further research to understand these differences and their long-term conservation consequences.]

Keywords: Hauturu/Little Barrier Island, recreation management, Tiritiri Matangi, tourism, visitor behaviour, visitor survey, wildlife

29. Cessford, G. 1997: Canoeist satisfactions, impact perceptions, and attitudes toward management options on the Whanganui journey. *Science for Conservation* 90. Department of Conservation, Wellington. 49 p.

[A report of a survey of canoeists on the Whanganui River, Whanganui National Park undertaken during January–February 1994, as part of a wider study of users of Great Walks. On the whole, the 559 canoeists surveyed were highly positive about their visit, with little dissatisfaction expressed or need for urgent management action identified. Crowding was considered to be low, but the assessment of canoeists' perceptions of social and physical impact suggested that any future increase in use levels would lead to a decreased experience. Conflict would arise especially because of greater campsite congestion and more on-river encounters with other canoeists and motorboaters. Other results indicated that further improvements to visit quality would be best achieved through: addressing physical impact concerns associated with littering; improving campsite options; investigating and improving the condition of some landing sites; and improving water supplies.]

Keywords: canoeing, crowding, rivers, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, Whanganui National Park, Whanganui River

30. Cessford, G. 1997: Impacts of visitors on natural and historic resources of conservation significance: research and information needs. Part 2. *Science & Research Internal Report 157*. Department of Conservation, Wellington. 29 p.

[Abstract edited:]

This report draws together conclusions developed from a workshop on the impacts of visitors on natural and historic resources—specifically, conclusions about research in this area and what information is lacking. It proposes a framework by which future research and assessments of existing information may be better prioritised. The framework process is based on specifying key conservation values of a place, integrating information about what is found there now with baseline research results, and assessing where visitor use interacts with locations or distributions of conservation significance. The main objective is to identify any visitor hotspots where use may significantly compromise key environmental values, and to identify where more research and information assessment is required to assist in this process. The framework entails a long-term process, which requires strategic, incremental contributions of information through case studies and multi-disciplinary approaches.

Keywords: DOC-managed areas, heritage, recreation, research, strategy, visitor impacts

31. Cessford, G. 1997: Visitor satisfactions, impact perceptions and attitudes toward management options on the Rakiura Track. *Science for Conservation* 80. Department of Conservation, Wellington. 56 p.

[A report on a survey of walkers on the Rakiura Track (Stewart Island/Rakiura) undertaken during January and February 1994, as part of a wider study of users of Great Walks. The survey of 269 walkers was undertaken to ascertain the level of satisfaction with their visitor experience, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. However, levels of dissatisfaction with track standards varied, with some dissatisfaction relating to under-development of the track, and some to over-development. Visitors generally perceived crowding to be low, but the assessment of perceptions of social and physical impact suggested that visit experience problems would gradually emerge, particularly because of greater hut congestion. The report concluded that further improvements to visit quality would be best achieved through improving the use of space in huts.]

Keywords: crowding, Rakiura Track, Stewart Island/Rakiura, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

32. Cessford, G. 1997: Visitor satisfactions, impact perceptions and attitudes toward management options on the Tongariro Circuit Track. *Science for Conservation* 65. Department of Conservation, Wellington. 53 p.

[A report on a survey of walkers on the Tongariro Circuit Track, Tongariro National Park undertaken between 1993–1995, as part of a wider study of users of Great Walks. The survey of 1045 walkers was undertaken to ascertain the level of satisfaction with their visitor experience, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. However, a need for improved visitor information, especially for overseas visitors, was noted. Visitors generally perceived crowding to be low, but the assessment of social and physical impact perceptions suggested that visit experience problems would gradually emerge, particularly because of greater hut congestion—especially at peak periods such as Easter. The report concluded that visitors favoured information-based management options, such as providing additional information on track and peak-use times, to address these issues rather than more regulatory controls.]

Keywords: crowding, Tongariro Circuit Track, Tongariro National Park, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

33. Cessford, G. 1997: Visitor satisfactions, impact perceptions, and attitudes toward management options on the Kepler Track. *Science for Conservation* 70. Department of Conservation, Wellington. 50 p.

[A report on a survey of walkers on the Kepler Track, Fiordland National Park undertaken during 1993–1994, as part of a wider study of users of Great Walks. The survey of 454 walkers was undertaken to ascertain the level of satisfaction with their visitor experience, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. Visitors generally perceived crowding to be low and focussed on hut congestion in the main, but the assessment of social and physical impact perceptions suggested that visit experience problems would gradually emerge, particularly because of greater hut congestion at peak periods. Other survey results indicated that further improvements to visit quality would be best achieved through improving the use of space in huts, and the report concluded that visitors favoured information-based management options, such as providing additional information on track and peak-use times, to address these issues rather than regulatory controls or facility developments.]

Keywords: crowding, Fiordland National Park, Kepler Track, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

34. Cessford, G. 1998: Sea-kayaker satisfaction, impact perceptions, and attitudes toward management options in the Abel Tasman National Park. *Science for Conservation* 79. Department of Conservation, Wellington. 46 p.

[A report on a survey of sea kayakers in the Abel Tasman National Park undertaken in 1994, as part of a wider study of users of Great Walks. The survey of 210 sea kayakers was undertaken to ascertain the level of satisfaction with their visitor experience, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were positive, but that crowding was perceived of as high for this type of activity, and an assessment of the social and physical impacts of their experiences revealed issues of campsite congestion, conflict with motorboats, littering and uncertain water quality as the main perceived problems. The survey results indicated that further improvements to visit quality would be best achieved through information-based management options, such as providing additional information on peak-use times, to address the issues of littering, water quality and boating activities, along with possible future limits and controls on motorboat activities, although a need

for future research of the perceived conflicts between sea kayakers and motorboat users was also identified.]

Keywords: Abel Tasman National Park, crowding, sea kayaking, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey

35. Cessford, G. 1998: Visitor satisfaction, impact perceptions, and attitudes toward management options on the Travers-Sabine Circuit Track. *Science for Conservation* 91. Department of Conservation, Wellington. 49 p.

[A report on a survey ($n = 237$) of walkers on the Travers-Sabine Circuit Track, undertaken in January–February 1994, as part of a wider study of users of Great Walks. The survey was undertaken to ascertain the level of visitor satisfaction with their experiences, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. The survey found that visitors' crowding was generally perceived to be low. The assessment of social and physical impact perceptions suggested that problems with the visit experience could gradually emerge, particularly with future hut congestion, but that their rate of growth was sufficiently slow that there was likely to be time to address the issues through information-based management options, such as additional information on track and peak-use times. This was further supported by respondents' preference for information-based management rather than more regulatory controls.]

Keywords: crowding, Nelson Lakes National Park, Travers-Sabine Circuit Track, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

36. Cessford, G. 1998: Visitor satisfactions, impact perceptions, and attitudes toward management options on Abel Tasman Coastal Track. *Science for Conservation* 76. Department of Conservation, Wellington. 55 p.

[A report on a survey ($n = 657$) of walkers on the Abel Tasman Coastal Track undertaken in January–February 1994, as part of a wider study of users of Great Walks. The survey was undertaken to ascertain the level of visitor satisfaction with their experiences, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. Visitors perceived crowding to be high and focussed on encountering too many others on the track, seeing too many big groups and disturbance by motorboats. The assessment of social and physical impact perceptions suggested that future visit experience problems would emerge largely because of this perceived track and campsite crowding and from visitor perceptions of campsite littering, and poor water supplies and quality. The report concludes that visitors favoured information-based management options, such as additional information on track and peak-use times, to address these increasing issues of use rather than increased regulatory controls, although many preferred that motorboat access be controlled.]

Keywords: Abel Tasman Coastal Track, Abel Tasman National Park, crowding, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

37. Cessford, G. 1998: Visitor satisfactions, impact perceptions, and attitudes toward management options on the Heaphy Track. *Science for Conservation* 82. Department of Conservation, Wellington. 51 p.

[A report on a survey ($n = 334$) of walkers on the Heaphy Track, undertaken during January and April 1994, as part of a wider study of users of Great Walks. The survey was undertaken to ascertain the level of visitor satisfaction with their experiences, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. However, levels of dissatisfaction with track conditions varied,

with some dissatisfaction relating to over-development and consequent trampling, and some to littering on tracks and around huts. Visitors generally perceived crowding to be low, but the assessment of impact perceptions suggested that visit experience problems would gradually emerge, particularly because of greater hut congestion at peak times. The report concluded that further improvements to visit quality would be best achieved through improving the use of space in huts and using information-based management options, such as additional information on track and peak-use times, to address issues such as littering.]

Keywords: crowding, Heaphy Track, Kahurangi National Park, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

38. Cessford, G. 1998: Visitor satisfactions, impact perceptions, and attitudes toward management options on the Lake Waikaremoana Track. *Science for Conservation* 73. Department of Conservation, Wellington. 51 p.

[A report on a survey of walkers on the Lake Waikaremoana Track, undertaken in the summer of 1993/94, as part of a wider study of users of Great Walks. The survey of 349 walkers was undertaken to ascertain the level of satisfaction with their visitor experience, their dissatisfactions and potential management options to improve the visitor experience. The survey revealed that satisfaction levels were high, with little dissatisfaction expressed or any need for urgent management action identified. Visitors generally perceived crowding to be low. The assessment of impact perceptions suggested that visit experience problems could gradually emerge, particularly due to future hut congestion and motorboat access, but that their rate of growth was sufficiently low that there was likely to be time to address them through information-based management options, such as additional information on track and peak-use times, and improving the use of space in huts. This was further supported by respondents' preference for information-based management to address such issues rather than more regulatory controls.]

Keywords: crowding, Lake Waikaremoana Track, Te Urewera National Park, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

39. Cessford, G. 1998: Visitor satisfactions, impact perceptions, and attitudes toward management options on the Milford Track. *Science for Conservation* 87. Department of Conservation, Wellington. 45 p.

[A report on a survey of walkers ($n = 384$) on the Milford Track undertaken in January–February 1994, as part of a wider study of users of Great Walks. The survey was undertaken to ascertain the level of visitors' satisfaction with their experience, their dissatisfactions and potential management options to improve the visitor experience. The results indicated that satisfaction levels were positive; however, three key issues were identified as sources of concern: the accuracy of visitors' pre-visit expectations, crowding at huts and crowding on Mackinnon Pass. Impacts from aircraft noise were also identified by a large majority of visitors. The report suggested that compromises to the quality of visit experiences were still occurring, particularly because of hut congestion. The report concluded that further improvements to visit quality could be achieved through the improvement of hut space, minimising the track bottleneck at Mackinnon Pass and improving the accuracy of visitor expectations.]

Keywords: crowding, Fiordland National Park, Milford Track, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

40. Cessford, G. 1998: Visitor satisfactions, impact perceptions, and attitudes toward management options on the Routeburn Track. *Science for Conservation* 92. Department of Conservation, Wellington. 45 p.

[A report on a survey of walkers on the Routeburn Track, in Mount Aspiring and Fiordland National Parks undertaken during January–February 1994, as part of a wider study of users of Great Walks. The survey of 144 walkers was undertaken to ascertain the level of satisfaction with

their visitor experience, their dissatisfactions and potential management options to improve the visitor experience. The survey found that satisfaction levels were very high, particularly with facilities and services, and little need for urgent management actions was identified. However, visitors' perceptions of crowding and social and physical impacts, such as aircraft noise, littering and track trampling, indicated that visit experience problems would increase with future, increasing use, particularly difficulties due to hut congestion, which was especially associated with crowding. The report concluded that further improvements to visit quality would be best achieved through improving the management of huts and using information-based management options, such as additional information on track and peak-use times, to address issues but that some regulatory control (subsequently introduced as a booking system) was required to address the crowding issues.]

Keywords: crowding, Fiordland National Park, Mount Aspiring National Park, Routeburn Track, visitor attitudes, visitor impacts, visitor satisfaction, visitor survey, walkers

41. Cessford, G. 1999: Recreational noise issues and examples for protected areas in New Zealand. *Noise Control Engineering Journal* 47: 97–103.

[Abstract edited:]

This paper addresses issues of recreational noise impacts on visitors to conservation areas. It outlines some basic definitions of recreational noise, describes associated issues and presents a classification of sources of noise. Examples of recreational noise issues are presented from an extensive survey of visitors to popular New Zealand walking tracks, where some recreational noise impacts were found to occur at very high levels. The survey found that visitors demonstrated a varied range of tolerance for noise effects in the different examples assessed, but highlighted particular noise issues related to aircraft sightseeing flights, recreational motorboating and social noise in huts. A need for more active research and management of noise effects in New Zealand recreation settings was proposed.

Keywords: DOC-managed areas, noise, recreation, research, visitor survey

42. Cessford, G. 1999: Social impacts of visitors to conservation lands: part 1. Research and information needs. *Science & Research Internal Report 171*. Department of Conservation, Wellington. 38 p.

[The report summarises the main research and information needs that were identified at a workshop on the social impacts on the recreation experiences, and socio-cultural values, of both site visitors and interested non-visitors. The workshop was convened by DOC, in Wellington, 13–15 May 1998. The report findings provide the basis for developing an action plan for social impact research to address these needs, which are discussed under three main headings: understanding social impacts; identifying key social impacts; and future research and information needs. The report recommends that when overall research and information priorities are being considered, greatest priority should be assigned to work that assists the systematic definition of key social values at VAMS (Visitor Asset Management System) sites, and relating these to specific site management objectives. The proceedings of the workshop have been published in 'Social impacts of visitors to conservation lands: part 2. Workshop proceedings' (DOC's *Science & Research Internal Report 172*; next entry).]

Keywords: DOC-managed areas, recreation management, research programme, social impacts, visitor needs

43. Cessford, G. 1999: Social impacts of visitors to conservation lands: part 2. Workshop proceedings. *Science & Research Internal Report 172*. Department of Conservation, Wellington. 187 p.

[A report on a workshop convened by DOC, in Wellington, 13–15 May 1998 on the social impacts on the recreation experiences, and socio-cultural values, of both visitors and interested non-

visitors. The task of the workshop was to establish and define the information needed to develop an action plan for research on the social impacts of visitors on the recreation experiences of others. The workshop convened a forum of about 50 managers, operators and scientists, and undertook a comprehensive exploration of social impact issues and provided case study examples. From these discussions and presentations, suggestions and conclusions were made on research and information needs, and the research requirements for different management actions. This report documents those findings in full. The findings were summarised in a companion report, 'Social impacts of visitors to conservation lands: part 1. Research and information needs' (DOC's *Science & Research Internal Report 171*; previous entry).]

Keywords: DOC-managed areas, recreation management, research programme, social impacts, visitor needs

44. Cessford, G. 2003: Perception and reality of conflict: walkers and mountain bikes on the Queen Charlotte Track in New Zealand. *Journal for Nature Conservation 11*: 310–316.

[The paper discusses the issues surrounding the use of walking tracks by mountain bikers and the perceived, resulting impacts on walkers. It postulates that a variety of social and physical impacts are attributed to mountain biking, but many of these perceptions differ from the reality of on-site experiences. The paper provides a brief review of impact issues associated with mountain bikes and then discusses the results of a survey of 370 walkers on a multi-day natural track (the Queen Charlotte Track, Marlborough Sounds) where biking has been allowed on a trial basis. The survey found that walker opinions were surprisingly positive toward bikes and that these opinions were found to be more positive among those walkers who had actual encounters with bikes. By contrast, more negative opinions were found among those who had no such encounters or who were over 40 years of age. It concludes that such distinctions between perception of a conflict and the actual outcome from an experience have important implications for park managers responsible for providing a range of different recreation opportunities.]

Keywords: conflicts, mountain biking, Marlborough Sounds, Queen Charlotte Track, recreation management, social impacts, visitor survey, walkers

45. Cessford, G.; Abramovoci, M. no date: Sense of place literature review. Internal Report. Department of Conservation, Wellington (unpublished). 32 p.

[This DOC internal report provides an overview of the complex concept of 'sense of place', roughly identified as 'people's tendency to develop attachments to particular physical spaces' (or places) and reviews the relevant literature. The report suggests that the concept of sense of place can be used as a tool to provide conservation managers with an insight into the shared values of wilderness users and, therefore, has the potential to guide research and decision-making. The report also identifies a range of values attached to the concept of sense of place, namely emotional, cultural, spiritual and aesthetic values, along with models and methodologies for evaluating sense of place. The overall conclusion is that there is limited knowledge on site-specific sense of place. Also concluded was that research methodologies and frameworks have no common approach, and that there is a need for site-specific fieldwork to inform research planning on broader site typology.]

Keywords: DOC-managed areas, heritage, research, sense of place, wilderness

46. Cessford, G.; Burns, R. 2008: Monitoring visitor numbers in New Zealand national parks and protected areas: a literature review and development summary. *DOC Research & Development Series 293*. Department of Conservation, Wellington. 46 p.

[Abstract in full:]

This report outlines the main difficulties encountered when monitoring visitors, the range of visitor monitoring options available to park managers, and the features that park managers

would like in their visitor counting tools. Following this is an outline of progress in the development of visitor counting tools and systems by [DOC]... up to 2008, which includes an outline of the key lessons learned from this research. The identification of visitor behaviours is an essential component of visitor management in protected areas. The fundamental baseline information required in any visitor monitoring programme is the number of visitors, and how these are distributed in time and space. However, in the past, obtaining visitor counts in a reliable and cost-effective manner has proven to be more difficult than expected. This report does not contain any technical specifications for the counters developed, but provides a key reference resource for anyone involved in the general development and use of visitor counting systems.

Keywords: DOC-managed areas, national parks, recreation management, research, visitor counting

47. Cessford, G.; Dingwall, P.R. 1996: Tourism visitors and their experience at New Zealand Subantarctic Islands. *Science & Research Series 96*. Department of Conservation, Wellington. 66 p.

[A report on a survey ($n = 458$) of ship-borne tourist visitors to New Zealand's Subantarctic Island nature reserves undertaken during the 1992/93 and 1993/94 cruise seasons. The survey collected information on visitor characteristics, visit motivations and the levels of satisfaction with visit experience. The results of the survey, divided between visitors from large cruise ships and smaller vessels, found that visitors were largely from more affluent and older sectors of society, were often retired or from professional backgrounds, included a high proportion of women compared with participants in other outdoor recreation activities, and had a high degree of involvement in a conservation group or groups. The primary motivation for visiting the islands was to experience the unique setting and wildlife of the islands, and most visitors reported high levels of visitor satisfaction.]

Keywords: management, Subantarctic Islands, visitor experience, visitor satisfaction, visitor survey

48. Cessford, G.; Dingwall, P.R. 1997: Impacts of visitors on natural and historic resources of conservation significance: part 1. Workshop proceedings. *Science & Research Internal Report 156*. Department of Conservation, Wellington. 109 p.

[Abstract edited:]

This report provides an agenda, list of participants and a summary of the proceedings of a workshop on the impacts of visitors on natural and historic resources held in Wellington, 2-4 July 1996. The workshop aimed to provide the basis for developing an action plan for research addressing visitor impacts on the environment, and one outcome was a proposed framework in which the priorities for research and information assessment in this topic area may be better identified. The main objective was to identify any visitor hotspots where use may significantly compromise key environmental values, and to identify where more research and information assessment is required to assist in this process.

Keywords: DOC-managed areas, heritage, recreation, recreation management, research, strategy, visitor impacts

49. Cessford, G.; Maher, P. no date: Literature review: recreation specialisation. Internal Report. Department of Conservation, Wellington (unpublished). 38 p.

[The report addresses issues of social values in recreation for DOC-managed areas through an overview and discussion of the area of recreation specialisation. The paper reviews the key literature in the field of recreation specialisation research, covering topics such as: attitudes and behaviours; behaviour norms; activity involvement and commitment; experience attributes

and preferences; motivations; site preference and place attachment. The paper includes a range of conclusions and recommendations, including that recreational specialisation is both a behavioural and attitudinal concept requiring attention to these areas, and that high-end scale specialists are often more committed and passionate towards a particular ethic. This report may be useful for managers of natural resource and the authors recommend that future research should be both site specific and specialist specific, using multi-dimension indices to determine precisely the values of recreation specialists.]

Keywords: DOC-managed areas, recreation, recreation management, research, specialisation, visitor behaviour

50. Cessford, G.; Muhar, A. 2003: Monitoring options for visitor numbers in national parks and natural areas. *Journal for Nature Conservation* 11: 240–250.

[The paper provides a detailed overview of the range of visitor monitoring techniques available to natural resource managers, and discusses the positive and negative aspects of each. The need to identify the physical behaviours of visitors is seen as an essential component of managing visitor impact in protected areas, with visitor numbers being the fundamental baseline information required, and particularly how these are distributed in time and space across the protected areas. The paper makes a series of recommendations, including the need for monitoring systems designed around specifically defined management objectives and greater communication of, and planning for, programmes of visitor monitoring (ideally across national networks where possible). The aim is to enable managers to stay up to date with the many changes and advances in monitoring technology and to gain the greatest advantage for monitoring programmes. The paper also identifies the need for a best practice approach to sharing information in order to establish generic guidelines for park managers.]

Keywords: DOC-managed areas, monitoring, national parks, recreation management, research, visitor management

51. Colmar Brunton 2003: Demand for cultural tourism. Final research report to Tourism New Zealand. Colmar Brunton, Wellington (unpublished). 169 p.

[Abstract in full:]

Data are presented with reference to satisfaction ratings for a range of products that are defined as being 'cultural'. These include Māori-based activities, theatre performance, art galleries, museums, historic buildings, gardens, cuisine, wine tasting, farm shows and festivals. Various visitor motives are identified including energising needs, belonging needs, the need for tradition, need to learn, the need for exclusivity and the need for socialising. Based on these needs, various profiles of visitor are postulated.

Keywords: heritage, Māori, tourism, visitor demand, visitor needs, visitor profiles, visitor satisfaction, visitor segmentation, visitor survey

52. Coughlan, D. 1996: Conflict in the outdoors: mountain biking—a case study. Pp. 24–35 in Kearsley, G. (Comp.): Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.

[A paper reporting the results of a study of perceived conflicts between mountain bikers and walkers/trampers in the greater Dunedin area, undertaken during 1993–1994. The purpose of the study, which involved a questionnaire survey of 167 members of both the Otago Mountaineering and Tramping Club and the Dunedin Mountain Bike Club, was to ascertain the social issues that arose with the development of mountain bike riding and to examine the level of perceived and actual conflict between mountain bikers and other recreationists (primarily walkers/trampers). The survey found that the perceived level of conflict between the main two groups was

considerably higher than that of actual, reported conflicts, with 'neutral' interactions being much more common than anticipated conflicts. This paper concludes that the survey results reflect other similar perceptions of conflict where they have been measured.]

Keywords: conflicts, Dunedin, mountain biking, recreation, visitor survey, walkers

53. Coughlan, D. 1997: Constraints to backcountry use. Pp. 15–22 in Higham, J.; Kearsley, G. (Comps): Trails in the third millennium: trails, tourism and regional development. Proceedings of a Tourism Research Conference, 2–5 December 1997, Cromwell, New Zealand.

[A report of a study of the constraints to participation in outdoor recreation activities in the natural areas of New Zealand's back country. The study used the results of a related, nationwide public survey that returned 544 useable responses and the paper specifically focussed on demographic information and reported constraints to back-country use. The primary constraints to back-country use were: a lack of knowledge and/or information on recreation opportunities; issues with transportation and/or confidence; time pressure; costs; site conditions (e.g. overcrowding); and personal factors such as disabilities. Overall, 11% of the survey respondents indicated that they would like to start participating in a outdoor recreation activity in the back country but were constrained in some form.]

Keywords: back country, constraints, DOC-managed areas, recreation, recreation management, visitor survey

54. Coughlan, D.; Kearsley, G. 1996: Does participation affect perceptions of crowding? The case of the New Zealand backcountry. Pp. 36–42 in Kearsley, G. (Comp.): Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.

[A paper reporting the results of a nationwide study of back-country users during the 1995/96 tramping season, undertaken to gather data and examine trampers' perceptions of crowding, their motivations, displacement issues and their satisfaction levels with the back-country experience. The paper specifically examined the relationship between experience level and perceptions of crowding in back-country areas. A questionnaire survey of 970 back-country users found that the more experienced a user was, the more sensitive he/she was to perceptions of crowding, but that the more experienced trampers had developed coping strategies, such as finding alternative recreation sites, to lessen the impact of those perceptions. Inexperienced trampers were less sensitive to crowding but medium-level experienced trampers appeared to most sensitive, probably owing to a lack of coping strategies.]

Keywords: back country, crowding, DOC-managed areas, recreation management, tramping, visitor satisfaction, visitor survey

55. Cushen, S.J. 1996: User pays in New Zealand's national parks: the marriage of conservation and capitalism. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin, New Zealand. 62 p.

[A thesis addressing the potential of user charges to provide an alternative source of funding in lieu of increases in government appropriations to DOC-managed areas. The study discusses the effects of user charges on national park visitors in particular and their attitudes towards possible implementation of them. Data were gathered through a survey of 202 visitors to the Te Anau–Milford Sound region in Fiordland (Fiordland National Park) and to Mount Aspiring National Park in February 1996. National park visitors perceived issues within the parks regarding crowding and physical impacts associated with tourism; they demonstrated a preference for entry fees over user pays-type fees. Visitors in higher socio-economic groups demonstrated a greater

willingness to pay user charges. Finally, charges for using national parks was seen as a possible deterrent to their use but the survey responses were ultimately inconclusive.]

Keywords: Fiordland National Park, management, Milford Sound, Mount Aspiring National Park, Te Anau, tourism, user charges, visitor attitudes, visitor survey

D

56. Data Capture Basics Ltd 2009: Regional parks visits report 2008–09. Auckland Regional Council, Auckland (unpublished). 18 p.

[A report on the number of visits to Auckland regional parks between July 2008 and June 2009. The survey used vehicle-counting data and estimated visitor numbers for the survey period. The number of visits to regional parks had increased by 2.8% on the previous survey year, with approximately 5 million visits being made to the parks in the region. The report identifies basic trends in individual park visitation both from the previous year and over a 10-year period; the most significant trends being a steady increase in visitation across a large number of the parks, especially for the more recently created parks, while some of the older parks are showing a steady decline in visitor numbers. In general, the report notes that visitation growth has kept pace with regional population growth.]

Keywords: Auckland, regional parks, visitor counting

57. Dawson, J. 2003: Environmental values of consumptive and nonconsumptive marine tourists in the South Island of New Zealand. Unpublished Masters of Tourism thesis, University of Otago, Dunedin. 133 p.

[The thesis explores whether there are differences in environmental values between non-consumptive and consumptive marine tourists that use the South Island as a recreational setting, and whether these two groups should be considered as distinct and separate user groups based on assumed different values. The study was based on a postal and hand-delivered survey distributed to operators and visitors at selected South Island sea-kayaking and sea-fishing operations during the period 1 July–31 October 2002. The survey yielded 100 responses from sea kayakers and 97 responses from sea fishers. The visitor profiles revealed that the two activities attracted distinct and separate user groups. It then determined that non-consumptive, sea-kayaking tourists valued the environment more than consumptive sea-fishing tourists based on statistically significant relationships between the 'integrated values scale', demographics and more frequently with tourist typology.]

Keywords: fishing, marine, sea fishing, sea kayaking, South Island, visitor segmentation, visitor survey

58. Devlin, P.J.; Corbett, R.A.; Peebles, C.J. (Eds) 1995: Outdoor recreation in New Zealand: volume 1—a review and synthesis of the research literature. Department of Conservation and Lincoln University, Wellington. 259 p.

[A collection of edited chapters grouped around nine themes addressing outdoor recreation research in New Zealand. It was the first systematic attempt to describe and integrate New Zealand outdoor recreation research, and was aimed at students and managers. The book is the first of a two-volume series, the second volume being a bibliography that provides information on titles and key words of some 1718 New Zealand research documents. Each chapter of volume 1 describes, analyses and critiques research to date and then projects future research needs. This includes (among other themes) Māori participation in outdoor recreation; patterns of use; research methods; and managing outdoor recreation.]

Keywords: DOC-managed areas, heritage, Māori, recreation, recreation management, research, visitor needs, visitor participation

59. Devlin, P.J.; Espiner, S.; Hutchings, R.; Parkin, E. 1996: Department of Conservation visitor management information needs: scoping the state of knowledge. Report to the Department of Conservation. Department of Human and Leisure Sciences, Lincoln University, Lincoln (unpublished). 66 p.

[The report presents a summary of the relevant literature and reviews the state of knowledge of 13 key topics in need of research, as identified in DOC's 1996 Visitor Strategy. Three overarching themes are reviewed: minimising environmental impacts from visitors; maximising visitor satisfaction; and promoting conservation understanding. Within each of these themes, the report reviews several research needs, which include: developing standards and specifications for visitor facilities and services; assessing and monitoring visitor impacts; identifying conflicting visitor activities and demands; forecasting visitor types and numbers; and determining ways of increasing visitor understanding of conservation objectives.]

Keywords: DOC-managed areas, recreation management, research, tourism, visitor needs, visitor satisfaction

60. DOC (Department of Conservation) 1996: Department of Conservation historic heritage research strategy—working draft for 1997–1998 research planning. Internal Report. Department of Conservation, Wellington (unpublished).

[Document not accessible]

Keywords: heritage, research, strategy

61. DOC (Department of Conservation) 1996: Department of Conservation Visitor strategy. Department of Conservation, Wellington.

[This internal report addressed DOC's Visitor strategy to 2000 and beyond, and formed part of a wider strategic plan entitled 'Conservation 2000' (Atawhai Ruamano). The Visitor Strategy was prepared to guide and inform all the Department's planning and management that relates to visitor services. It was also intended, where relevant, to assist the implementation of conservation management strategies as well as management plans for national parks and other specific conservation areas. The Strategy identified five key goals: protection of intrinsic natural and historic values, fostering visits by the public, managing tourism concessions on protected land, informing and educating visitors, and managing risks and visitor safety. Each of these goals is presented with an overview of statutory requirements, an overview of research and issues, guiding principles and management practices.]

Keywords: DOC-managed areas, heritage, recreation management, visitor strategy

62. DOC (Department of Conservation) 2002: Identified visitor research needs. Internal Report. Department of Conservation, Wellington (unpublished). 1 p.

[Document not accessible]

Keywords: research programme, visitor needs

63. DOC (Department of Conservation) 2002: Summary of visitor-related research programme. Internal Report. Department of Conservation, Wellington (unpublished).

[Document not accessible]

Keywords: research programme, visitor needs

64. DOC (Department of Conservation) 2007: Comments of note from the 2005/06 recreation survey. Internal Report. Department of Conservation, Wellington, New Zealand (unpublished). 25 p.

[An internal DOC report highlighting the key comments made by visitors during the 2005/06 recreation survey conducted at 134 DOC-managed sites during the autumn and winter periods;

the survey returned 4222 questionnaire responses. The survey's objectives were to estimate visitor satisfaction with overall visit and with facilities and services provided, and to explore the effect of other people on visitor experience. The visitor comments were selected and included in the report on the basis of whether they: contained strongly negative criticism of DOC; expressed main points of appreciation; provided insight into what people valued about their visit; and provided insight into the diversity of views at a site.]

Keywords: DOC-managed areas, recreation, visitor satisfaction, visitor survey

65. DOC (Department of Conservation) 2008: Visitor monitoring report—Mahaanui area Motukarara Rail Trail. Internal Report. Department of Conservation, Wellington (unpublished). 41 p.

[A report of a visitor survey carried out on the Motukarara to Little River Rail Trail (near Christchurch) between December 2007 and May 2008 by DOC to assist in ongoing maintenance and an upgrade of the trail. The visitor survey (using a standardised questionnaire) returned 631 completed surveys and covered the entire length of the track, making it the most comprehensive survey undertaken on the trail to date. The results indicated that overall satisfaction with the trail experience was 99%; the level of crowding was perceived as average but was identified as requiring some management action. There was minimal visitor conflict reported, and good feedback on facilities but requests for increased interpretation and signage.]

Keywords: Little River Rail Trail, Motukarara, rail trail, visitor satisfaction, visitor survey

66. Doorne, S. 1996: Carrying capacity and the politics of perception. Pp. 43–58 in Kearsley, G. (Comp.): Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.

[A paper presenting the results of a study of visitors to the Waitomo Glowworm Caves, North Island, which examined aspects of visitor crowding and whether or not perceptions of crowding were eroding the quality of the experience and therefore the sustainability of the tourism 'product'. The paper also discusses the extent to which perceptions of crowding are culturally dependent.]

[Refer to entry no. 67]

Keywords: crowding, tourism, visitor experience, visitor survey, Waitomo Glowworm Caves

67. Doorne, S. 1999: Visitor experience at the Waitomo Glowworm Cave. *Science for Conservation* 95. Department of Conservation, Wellington. 43 p.

[A report presenting the results of a study of visitors to the Waitomo Glowworm Caves, North Island, which examined aspects of visitor experience and satisfaction, crowding and congestion, and whether perceptions of crowding were affecting the quality of the visitor experience. The study also examined the extent to which perceptions of crowding were culturally dependent. Between September and December 1996, over 3000 responses were collected to a self-completion questionnaire. The results of the survey showed that, in general, satisfaction levels with the cave tour experience were higher than was satisfaction with individual elements such as the number of groups in the cave and some facilities. Crowding was a problem during peak periods and required management action, and perceptions of crowding appeared to be culturally dependent, with visitors from New Zealand, the UK and Europe being particularly sensitive to crowding.]

Keywords: crowding, Māori, recreation management, tourism, visitor experience, visitor satisfaction, visitor survey, Waitomo Glowworm Caves

E

- 68. Ernst and Young Tourism and Leisure Consulting Group 1996: Analysis of visitor information/interpretation needs at Mount Cook village. Ernst and Young, Auckland. 84 p.**

[Abstract edited:]

A report of a survey of visitors to Mount Cook village, Aoraki/Mount Cook National Park. A total of 202 face-to-face interviews, with both open-ended and pre-coded questions, were conducted from 6 March to 10 April, 1996. Interviews were conducted in both English and Japanese. Some of the key findings included: an acute need for better signposting around the village—there was a need for more information about the walking tracks around the village and those that began in the village. Specifically, visitors required information about where the tracks began and the points of interest along the track. However, visitors did not want their experience of walking the track spoiled by the intrusion of large signs or information boards. Approximately one-third of visitors interviewed had not visited the visitor centre during their visit to the Mount Cook Village; the major reasons for not doing so were principally a lack of time, awareness and availability (how long the centre was open).

Keywords: Aoraki/Mount Cook National Park, interpretation, Mount Cook village, visitor behaviour, visitor needs, visitor survey

- 69. Espiner, S.R. 1995: Social dimensions of national park use: a case study of summertime visitation to Arthur's Pass National Park. Unpublished Master of Parks, Recreation and Tourism Management thesis, Lincoln University, Lincoln, New Zealand.**

[Abstract edited:]

A thesis that examined two visitation studies undertaken in Arthur's Pass National Park 15 years apart, which used a replicative format to compare and analyse the results from the two surveys. Despite some strong elements of stability, there were indications of considerable change in use patterns in the park, with and that park use undergoing a transition (initially shaped by wider social and economic pressures) manifested by the increasing use of the park for commercial purposes, intensification of use and increasing numbers of overseas visitors. The author discusses the results, challenges and implications of undertaking replicative surveys and makes further recommendations for increased visitor survey data.

[Refer to entry no. 70]

Keywords: Arthur's Pass National Park, research, visitor profiles, visitor survey

- 70. Espiner, S.R.; Simmons, D.G. 1998: A national park revisited: assessing change in recreational use of Arthur's Pass National Park. *New Zealand Geographer* 54(1): 37–45.**

[This paper documents the findings of a study that analysed the results of two visitation studies undertaken in Arthur's Pass National Park 15 years apart (in 1980 and 1995). The 1995 survey used a replicative format to enable comparisons with the survey results from the 1980 survey and obtained 374 questionnaire responses. Despite some clear consistencies between the surveys, there were indications of considerable change in use patterns in the park, with park use undergoing a transition (initially shaped by wider social and economic pressures), demonstrated by the increasing use of the park for commercial purposes, the intensification of use by visitors and the increasing numbers of overseas visitors. Indeed, the increase in the proportion of overseas visitors from just over 25% in 1980 to nearly 46% in 1995 showed a significant change in visitor origination. The survey also showed significant increases in the number of day visitors,

the use of private cars to access back-country areas, the education level of visitors and the diversification of recreation activities.]

Keywords: Arthur's Pass National Park, research, visitor profiles, visitor survey

F

71. Fairweather, J.R.; Maslin, C.; Simmons, D.G. 2005: Environmental values and response to ecolabels among international visitors to New Zealand. *Journal of Sustainable Tourism* 13(1): 82–98.

[The paper documents a study of the awareness of ecolabels (forms of environmental certification for businesses) among visitors to Christchurch. In 2002, 295 visitors to Christchurch were asked about their experience of, their awareness of, their perceived need for and their influence by ecolabels. Only one-fifth of visitors recalled any place with ecolabels, and only 13% had heard of a tourism ecolabel; however, 33% of visitors had some experience of ecolabels. The survey results were further analysed to find that 61% of respondents expressed biocentric (nature-centred) values, and 39% expressed ambivalent but not anthropocentric (human-centred) values towards nature. Biocentric visitors were conscious of the environment in which they travelled, believed that ecolabels were needed in New Zealand and indicated that they would choose accommodation with an ecolabel. The report concluded that the survey results indicated that many visitors will favourably receive ecolabel developments in New Zealand and suggested that the development and use ecolabels should be supported.]

Keywords: Christchurch, ecolabels, ecotourism, visitor survey

72. Fairweather, J.R.; Newton, B.; Swaffield, S.R.; Simmons, D.G. 2001: Visitors' and locals' experiences of Westland, New Zealand. *TRREC Report Series 23*. Lincoln University, Lincoln, New Zealand. 110 p.

[The objective of this study was to develop an understanding of visitors' and locals' experiences of the south Westland landscape and infrastructure, to inform a long-term programme of research addressing the social, economic and environmental effects of tourism in New Zealand. A total of 111 people made up a diverse, non-random sample with roughly equal proportions of men and women, and international and domestic visitors. The survey methodology used was 'Q Method'—specifically chosen photographs of landscapes and facilities are used to stimulate subjects' responses. Each subject sorted two sets of photographs into nine piles, ranging from those most liked to those most disliked, which the researchers then analysed. Comparison of results from this study to earlier research in Kaikoura and Rotorua showed similarities in factors, suggesting that among visitors and locals, there are some fundamental and relatively constant experiences of tourist settings, with experiences of 'pure nature' and 'nature and heritage' being fundamental to most subjects' responses. Overall, the results indicated that there is a strong consensus in core environmental preferences among overseas and domestic visitors and local residents.]

Keywords: heritage, landscape, research programme, tourism, visitor experience, visitor survey, Westland

73. Fairweather, J.R.; Swaffield, S.R. 2002: Visitors' and locals' experiences of Rotorua, New Zealand: an interpretative study using photographs of landscapes and Q method. *International Journal of Tourism Research* 4(4): 283–297.

[This paper reports on an interpretative study of locals' and visitors' experiences in Rotorua, New Zealand and shows how experiences vary among different groups.]

[Refer to entry no. 75]

Keywords: heritage, landscape, research programme, Rotorua, tourism, visitor experience, visitor survey

74. Fairweather, J.R.; Swaffield, S.R. 2003: Tourist experiences of landscape in New Zealand: themes from three case studies. *Tourism, Culture and Communication* 4(2): 57–70.

[This paper discusses the results of three surveys in Rotorua, Kaikoura and Westland of visitors' experiences of natural and modified landscapes in New Zealand and demonstrates how some landscape experiences are common across the three studies among both local and overseas visitors.]

[Refer to entries numbered 72, 75, 76]

Keywords: heritage, Kaikoura, landscape, research programme, Rotorua, tourism, visitor experience, visitor survey, Westland

75. Fairweather, J.R.; Swaffield, S.; Simmons, D.G. 1998: Understanding visitors' experience in Kaikoura using photographs of landscapes and Q method. *TRREC Report Series 5*. Lincoln University, Lincoln, New Zealand. 62 p.

[The objective of this study was to develop an understanding of visitors' and locals' experiences of the Kaikoura landscape, to inform a long-term programme of research addressing the social, economic and environmental effects of tourism in New Zealand. Thirty-eight visitors made up a diverse, non-random sample with roughly equal proportions of men and women, and international and domestic visitors. The survey methodology used was 'Q Method'—specifically chosen photographs of landscapes are used to stimulate subjects' responses, who sorted them into separate piles based on preference; these were then analysed. The results, which segmented the visitor sample into groups such as 'Euro-tourists', were consistent with results from similar studies on landscape perception that showed that 'naturalness' was an important component of preferred landscape experiences.]

Keywords: heritage, Kaikoura, landscape, research programme, tourism, visitor experience, visitor survey

76. Fairweather, J.R.; Swaffield, S.; Simmons, D.G. 2000: Understanding visitors' and locals' experiences of Rotorua using photographs of landscapes and Q method. *TRREC Report Series 13*. Lincoln University, Lincoln, New Zealand. 66 p.

[The objective of this study was to develop an understanding of visitors' and locals' experiences of the Rotorua landscape, to inform a long-term programme of research addressing the social, economic and environmental effects of tourism in New Zealand. Sixty-six visitors made up a diverse, non-random sample with roughly equal proportions of men and women, and international and domestic visitors. The survey methodology used was 'Q Method'—specifically chosen photographs of landscapes, features, attractions and activities are used to stimulate subjects' responses, who sorted them into separate piles based on preference; these were then analysed. The survey results showed that there were significant groupings of preferred experience that reflected both generic marketing of geothermal and Māori attractions, and the presence of distinctive preferences for new facilities and hydrological features prominent in Rotorua, highlighting continuity in the aesthetic values that underpin the area. Least preferred settings included exotic forestry and commercial signs.]

Keywords: heritage, landscape, research programme, Rotorua, tourism, visitor experience, visitor survey

77. Finnigan, S. 1999: Visitors' perceptions of the Rakiura Track and North West Circuit on Stewart Island: a comparative analysis. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin, New Zealand. 95 p.

[This thesis examines visitor perceptions of tramping tracks on Stewart Island/Rakiura by comparing visitor experiences on the Rakiura and North West Circuit Tracks. The primary

objectives of the study were to: determine visitors' perceptions of the two tracks and measure any differences; determine levels of visitor satisfaction; and identify where visitors obtained their track information. The study used a questionnaire survey of 111 track users, and was undertaken in January–February 1999. Most visitors evaluated their experience as living up to expectations, which resulted in a satisfying experience, with scenery providing the major source of satisfaction. Inaccuracy of visitor information, track hardening and the standard of hut facilities were considered to produce the most dissatisfaction. When comparing visitors' perceptions of the two tracks, the author suggested that visitors on the North West Circuit held more accurate expectations.]

Keywords: Great Walks, North West Circuit, Rakiura Track, recreation, Stewart Island/Rakiura, tramping, visitor perceptions, visitor survey

78. Fitt, H.; Horn, C.; Wilson, J. 2007: A profile of tourism in the Lake Waikaremoana region: independent visitation in rural New Zealand. *Landcare Research Science Series 33*. Manaaki Whenua Press, Lincoln, New Zealand. 117 p.

[This report provides the results of a survey of 191 visitors undertaken in January and February 2006 to Lake Waikaremoana, a remote area in Te Urewera National Park. Lake Waikaremoana has few established tourism services but significant tourist flows; visitation is dominated by domestic tourists and the surrounding population is predominantly of Māori ethnicity. The objectives of the survey were to provide a case study that might be used to enhance understanding of the wider demand for tourism in isolated rural areas, and to look at opportunities for the development of tourism and Māori tourism experiences in the Lake Waikaremoana region. The authors reported an extensive range of findings of which the key results were that: most visitors were from the North Island; the average age was 41–50 years; over 64% of visitors already knew of the area; the primary reason for visiting was to experience the lake, bush and nature; and the main activity was tramping or walking, followed by hunting or fishing.]

Keywords: Lake Waikaremoana, recreation, Te Urewera National Park, tourism, visitor profiles, visitor survey

79. Forer, P.; Simmons, D.G. 1998: Analysing and mapping tourist flows. *Transportant 28(1)*: 10–13.

[This paper discusses the progress of an ongoing research project to map tourist flows between destinations using a Geographic Information Systems (GIS) approach. The research took data from a number of national tourism statistics sources to form a picture of local tourism movement and demand. The overall aim of the project was to create a national (and international) database of visitor information that could be used to develop models and methods to improve tourism planning in New Zealand.]

Keywords: GIS, research, tourism, visitor demand, visitor flows

80. Fyfe, G. 2007: Visitor monitoring survey Egmont National Park: Lucy's Gully. Internal Report. Department of Conservation, Wellington (unpublished). 15 p.

[A report on a survey of visitors to Lucy's Gully in Egmont National Park. Mainly undertaken in 2006/07 by DOC, the survey's objective was to determine trends, usage patterns and demographics of visitors to the area. The survey collected a total of 211 responses, which included responses from the previous (2005/06) season. Most visitors were there for the first time that year and stayed for a relatively short period. Most arrived by car (85%); the main reasons for visiting were for walking and relaxation followed by tramping; the largest age group was 40–49 year olds and most visitors were local provincial visitors from the Taranaki region. The report concludes that Lucy's Gully has a 'unique' visitation pattern, being mainly used by local Taranaki people, and is largely under-used.]

Keywords: Egmont National Park, Lucy's Gully, visitor profiles, visitor survey

G

81. Galloway, S. 2008: New Zealand recreational river use study: specialization, motivation and site preference. School of Physical Education, University of Otago, Dunedin. 92 p.

[This report presents the findings of a survey of 1312 individuals who recreate on and around rivers in New Zealand. The aims of the survey (undertaken between October 2007 and March 2008) were to gather data on the extent of, and variation in, user specialisation in river recreation, to examine the relationship between experience levels, specialisation and motivation, and to investigate their effect on decisions to participate in river recreation activities. Respondents ranged in age from 12 years to 88 years, with an average age of 40 years, and nearly three-quarters of the respondents were male. Owing to the wide range of river-based activities and the relatively low number of responses for most activities, four groups were created to accommodate relatively similar activities: boating (non-motorised), fishing, boating (motorised) and shore-based. Complex and diverse relationships between activity and motivation existed across the range of specialisation levels for each activity group. As individuals became more specialised in their activity, the importance of particular motivations changed, and the pattern of relationships within each activity group was different from the others. Overall, the most important motivational values were enjoyment of nature, improving and/or maintaining physical fitness, learning, and achievement and/or stimulation.]

Keywords: motivations, recreation, rivers, site preference, specialisation, user survey

82. Galloway, S. 2010: Recreation specialization among New Zealand river recreation users: a multi-activity perspective on social worlds. Pp. 41–44 in Reis, A.; Jellum, C.; Lovelock, B.; Thompson, A. (Comps): Recreation values and natural areas. Proceedings of the Centre for Recreation Research Symposium 2010, 18–19 March, University of Otago, Dunedin, New Zealand.

[A paper presenting some of the results of a study that examined the influence of specialisation on motivations and site preferences among river-based white water kayakers, multisport racers and anglers.]

[Refer to entry no. 81]

Keywords: motivations, recreation, rivers, site preference, specialisation, user survey

83. Gidlow, B.; Cushman, G. 2008: Bringing men back in? Male recreational hunters, divers and fly-fishers and the creation of recreational space. *Annals of Leisure Research* 11(1/2): 57–76.

[This paper examines the extent to which men who engage in types of recreation or leisure activities usually typified as 'blokes' leisure (such as recreational hunting, diving and fishing) negotiate their 'recreational space' in consultation with significant others, notably their partners. The aim of the research was to gather information about whether, and how, such obligations constrain men in their recreation and was based upon 28 in-depth, tape-recorded interviews conducted in Sydney, Australia and Christchurch, New Zealand during 2006. The results of the study suggest that there are variations in men's attitudes to gaining recreational space in the context of work and family commitments. They suggest that most men who fly-fish, dive and/or hunt are conscious and respectful of their other commitments when planning and arranging their recreational breaks, negotiating their recreational absences with employers as necessary and also with their partners. They also seem able, however, to divorce themselves from close concern about those same commitments once they begin to undertake their particular activity.]

Keywords: Christchurch, constraints, diving, fishing, hunting, recreation, visitor participation

84. Greenaway, R. 2002: Measuring the significance of multi-use outdoor recreation resources: a comparative analysis of three sites in New Zealand. *Annals of Leisure Research* 5: 65–79.

[This paper reviews the findings of three visitor surveys undertaken on the Hurunui River (903 respondents), Waitaki River (398 respondents) and the Port Hills near Christchurch (397 respondents), during 2000–2002. The purpose of the study was to examine how useful visitor profiling was in identifying ‘average’ visitors to recreation sites and how effective it was in assessing resource significance. The study looked at the ‘visitor profiles’ of each survey site and the sites’ resources were compared using five indicators: loyalty, total loyalty, frequency, localness and alternatives. By assessing the strength of each indicator, a measure of the resources’ comparative significance could then be established. The author found that by creating an accessible image of the ‘average’ recreational visitor for a particular activity, visitor profiles proved useful in assisting assessments of significance.]

Keywords: Christchurch, recreation, recreation management, visitor profiles, visitor survey

85. Greenaway, R.; Cessford, G.; Leppens, J. 2007: An exploration of recreation displacement in New Zealand. *Annals of Leisure Research* 10: 146–166.

[This paper summarises an exploratory study into the scale and characteristics of recreation displacement of the general public in New Zealand, which was carried out via a national postal-questionnaire survey in 2004 ($n = 2271$). The paper notes that anecdotal accounts in New Zealand suggest that social impacts from increasing recreation use may affect recreation participation patterns in national parks and other natural areas, but that little research has been done on the topic. The survey found that clear expressions of recreation displacement were few relative to changes in participation based on other social variables such as lifestyle changes. Despite prompts, only 12.2% of those surveyed indicated that they changed the location of their recreation because of social impacts. This group was not notably distinct from the overall sample, apart from having slightly higher levels of tramping as the preferred activity. The study concluded that recreation displacement does not appear to be a generic issue in the New Zealand outdoors, and recommended that recreation managers should treat reported instances on an individual basis.]

Keywords: displacement, DOC-managed areas, recreation, recreation management, visitor survey

86. Greer, L. 2006: Visitors to Cape Reinga: site use and management implications. *DOC Research & Development Series 228*. Department of Conservation, Wellington. 24 p.

[A report on a survey of visitors to Cape Reinga, situated at the northern-most end of the North Island and an important cultural and spiritual site for both Māori and other New Zealanders. The purpose of the survey was to inform future development proposals for improved visitor management. The survey, undertaken in the summer of 2003/04, returned 1355 interview responses and revealed that international visitors made up approximately 59% of the peak summer visitors and that approximately half of all visitors were on a bus tour; domestic visitors were more likely to visit by car. Site usage appeared to differ little between New Zealanders and international visitors, and most visitors visited Cape Reinga for sightseeing. The results also showed that when the number of visitors at the Cape exceeds 150, up to 20% feel that parts of the site are crowded (average visitor numbers were 500–800 people/day during the survey period). The report concluded that future development and management must enable Cape Reinga to absorb the projected growth in visitor numbers and reduce perceived crowding, while retaining the cultural and landscape values of the site.]

Keywords: Cape Reinga, Māori, Northland, recreation, tourism, visitor survey

H

87. Hall, F. 2008: Nugget Point visitor survey 2007 report. Otago Conservancy, Department of Conservation, Dunedin. 46 p.

[This report details a visitor survey that was carried out at Nugget Point Scientific Reserve, Catlins in March 2007. The purpose of the survey was to gather visitors' opinions on the condition of facilities at the site, which were considered to be under growing pressure from increasing visitor numbers. A total of 264 questionnaires were completed on-site and the results indicate that, overall, visitors were very satisfied with their visit. Enjoying the scenery and wildlife were the main attractions, although the results also indicated that expectations regarding wildlife were at variance with visitors' experience. In addition, the existing facilities were not performing, with respondents providing many comments about the inadequacy of the car park, toilets and signage. Visitors liked the tracks and platform, but the results showed that the platform itself may become an area of congestion if visitor numbers increase. The viewing hide was also found to be under pressure from increasing use, especially during the busy part of the year.]

Keywords: Catlins, Nugget Point, visitor survey

88. Hansen, K.M. 2006: Different places for different faces: optimising the beneficial outcomes of Christchurch parks. Unpublished Masters of Parks, Recreation and Tourism Management thesis, Lincoln University, Lincoln. 173 p.

[Abstract edited:]

This study investigates community preferences for Christchurch parks using the beneficial outcomes approach. Outcomes desired by the community were identified, together with the park settings required to achieve them. Different attitudes and preferences of three socio-economic areas were compared. Information was gathered from a household survey of 600 residents from three diverse socio-economic areas of Christchurch selected by using the New Zealand Deprivation Index. The results showed that the overwhelming majority of Christchurch residents regularly used Christchurch parks for a diverse range of activities. Parks filled many different roles associated with the activity, and the aesthetic and environmental values ascribed to parks by the Christchurch community. The Christchurch community perceived and wanted a wide range of personal, social and cultural, environmental, and economic benefits from parks. The study concluded that a city-wide network approach to park provision was required to cater for the diverse range of experiences, settings and activities preferred by the Christchurch community and to optimise the beneficial outcomes of Christchurch parks.

Keywords: Christchurch, parks, visitor behaviour, visitor survey

89. Harbrow, M.; Mitchell, H. 2008: Hollyford track visitor survey 2007/08. Internal Report. Department of Conservation, Wellington (unpublished). 36 p.

[This report summarises the results of a visitor survey of 70 independent users of the Hollyford Track carried out at the Hollyford Road end in the 2007/08 summer season. The results showed that the Hollyford track was considered to be generally well managed, with most respondents enjoying their experience on the track. Natural values such as scenery, nature, flora and fauna were rated highly by users. Visitor flows were found to be complex; the track catered for a wide range of overnight tramping experiences for visitors who walked in from the road end and stayed 1-11 nights. Track users were predominantly male and under 40 years of age but with a higher proportion of New Zealanders than reported on similar high-use tracks. Negative impacts identified from the survey were considered to be from helicopters and planes, and concerns were raised about crowding at Martins Bay Hut.]

Keywords: Fiordland National Park, Hollyford Track, visitor survey

90. Harbrow, M.; Roughan, K.; Chesterfield, S. 2007: Curio Bay and Waipapa Point visitor surveys 2006/07. Southland Conservancy, Department of Conservation, Invercargill. 82 p.

[This report presents the findings of two visitor surveys carried out during the 2006/07 summer period at Curio Bay and Waipapa Point, Catlins. The aim of the surveys was to inform planned upgrade work at the sites. For each site, 205 questionnaire surveys were returned. Most respondents were from overseas, with most visitors in the 20–29-year-old age group; the majority were independent travellers in small numbers visiting the sites for the first time. Viewing wildlife was the most important reason for respondents choosing to visit Waipapa Point and was also one of the main reasons for visiting Curio Bay, but the fossil forest was the major attraction there. A gap was identified in the survey between visitors' expectations of seeing wildlife and their actual experience of this, but visitors rated their experiences highly overall. The report concludes with management recommendations for the two areas that include restricting future development in the areas to avoid impacts on the natural values there.]

Keywords: Catlins, Curio Bay, visitor survey, Waipapa Point, wildlife

91. Hawke, N.; Booth, K. 2001: Conflict between sea-kayakers and motorised watercraft users along the Abel Tasman National Park coastline, New Zealand. *TRREC Report Series 50*. Lincoln University, Christchurch. 68 p.

[The report details a study that aimed to understand the conflict issues for sea kayakers and users of motorised watercraft, and to examine the extent to which perceptions of water safety contributed to such conflict. The study, which surveyed 213 visitors to the park and involved 13 in-depth interviews, found that the two user groups differed in their demographic and socio-economic characteristics; sea kayakers being a mixture of overseas visitors and New Zealanders, whereas motorised-watercraft users were mostly New Zealanders. The survey identified two forms of conflict: an inter-group conflict between sea kayakers and motorised-watercraft users, and an intra-group conflict between the motorised-watercraft users. The main reason for the conflict was centred on perceptions of water safety, leading not only to a loss of enjoyment for some users, but the potential for people to suffer an injury or to die. The report concludes with a range of management recommendations, including a code of conduct and a coherent management regime for the park's foreshore.]

Keywords: Abel Tasman National Park, conflicts, marine, motorboats, recreation management, sea kayaking, visitor survey

92. Hawke, N.D. 2000: Problems in paradise? Conflict between sea-kayakers and motorised watercraft users along the Abel Tasman National Park coastline. Unpublished Masters of Parks, Recreation and Tourism Management thesis, Lincoln University, Lincoln. 222 p.

[A study that sought to understand the conflict issues for both groups involved and to examine the extent to which water safety contributed to such conflict.]

[Refer to entry no. 91]

Keywords: Abel Tasman National Park, conflicts, marine, motorboats, recreation management, sea kayaking, visitor survey

93. Herlihy, B. 1999: The impact of aircraft overflights on recreationists in Fiordland National Park. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 42 p.

[Abstract edited:]

This thesis presents the results of a survey focussed on monitoring the effects of aircraft activity (overflights) on recreationists in natural settings—specifically, in Fiordland National Park. Three-

hundred visitor surveys were delivered at three field sites: Milford Sound, the Kepler Track and the Milford Track. Questions concerning a range of indicators, such as the amount of aircraft seen and annoyance levels, were included in the survey. Respondents on the Milford Track were negatively affected by the level of aircraft they had encountered during their visit. At the same time, respondents on the Kepler Track and at Milford Sound were not negatively affected to any significant degree. The results suggested that there was a need for more in-depth analysis of the issue of impacts of aircraft overflights on recreationists on the Milford Track.

Keywords: aircraft, Fiordland National Park, Kepler Track, Milford Sound, Milford Track, national parks, visitor impacts, visitor satisfaction, visitor survey

94. Higham, E.C.; Kearsley, G.; Thyne, M.A. 1996: Crowding and encounter norms in New Zealand's DOC-managed areas. Pp. 120–131 in Kearsley, G. (Comp.): Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.

[A paper presenting some of the results of research examining the social carrying capacity of New Zealand's back-country tracks and how the increasing number of visitors are affecting trampers and their perceptions of crowding. The study surveyed 950 back-country track users during the 1995/96 tramping season, dividing them into user groups: this paper discusses the data relating to back-country comfort seekers, back-country adventurers and remoteness seekers. Although a proportion of all three groups experienced some level of crowding, generally, the social carrying capacity of the back-country tracks was not exceeded. Remoteness seekers proved to be the most sensitive to perceptions of crowding, which was thought to relate to their high expectations and preferences for low numbers of visitor encounters. The paper concluded that increased levels of crowding in the back-country estate were likely to be detrimental to the environment and the user experience.]

Keywords: back country, conflicts, crowding, recreation management, tramping, visitor satisfaction, visitor survey

95. Higham, J.E.S. 1995: The application of wilderness imagery to New Zealand's inbound tourism industry: an examination of wilderness perception imagery as a tool for environmental management. Pp. 322–324 in Lee, S.; Everett, A.; Gray, V. (Comps): Pan-Pacific Conference XII: A business, economic and technological exchange. Proceedings of the Pan-Pacific Business Association Conference, May 29–June 1 1995, Dunedin and Queenstown, New Zealand.

[A paper presenting some of the results of research that examined the wilderness perceptions of international tourists using back-country tracks in DOC-managed areas. The study, initially piloted on track users in 1992/93 in the Rees and Dart Valleys, Mount Aspiring National Park, was undertaken between November and April 1993/94 on a selection of tracks across the South Island and Stewart Island/Rakiura. The questionnaire survey yielded 336 responses and found that international tourists were the main users of the high-profile, high-grade tracks, such as the Routeburn, but that they became less frequent on the lesser-known tracks largely due to a limited awareness of tramping opportunities. The key motivation of international visitors was identified as to experience the beauty of nature, scenic beauty and to encounter wilderness. Visitors' wilderness perceptions varied considerably but a notable theme was 'to be distant from towns or cities' and that the track be of sufficient size to take several days to walk. The paper concluded that international visitors, although wanting a 'wilderness experience', expected a high degree of comfort and convenience and had expectations that were likely to be satisfied in semi-primitive recreational locations rather than pristine wilderness environments.]

Keywords: back country, recreation management, South Island, Stewart Island/Rakiura, tourism, tramping, visitor perceptions, wilderness

96. Higham, J.E.S. 1996: Sustainable wilderness tourism: motivations and wilderness perceptions held by international visitors to New Zealand's backcountry DOC-managed areas. Pp. 75–86 in Hall, M.; Jenkins, J.; Kearsley, G. (Eds): Tourism planning and policy in Australia and New Zealand. Irwin, Sydney.

[This book chapter examines the potential effects of the increase in enthusiasm for 'green tourism' and in numbers of international tourists to New Zealand's wilderness areas. It discusses the evidence for the increase in demand for visits to natural areas, particularly to areas managed by DOC, and the role of wilderness designation in protecting these areas. The perception of wilderness is then examined with reference to a 1993/94 survey of 336 international visitors that sought to establish the nature and extent of visitors' perceptions of 'wilderness' and their expectations and levels of satisfaction when visiting New Zealand. A wilderness purism scale was then used to measure the degrees of wilderness perceptions held by visitors, resulting in their categorisation from non-purist to strong purist. The chapter concluded that both the increase in international visitors and the growth of green tourism have important implications for the future management of DOC-managed areas in New Zealand. The use of visitor wilderness perception may be a useful tool in understanding and managing these future demands.]

Keywords: back country, DOC-managed areas, recreation management, South Island, tourism, tramping, visitor perceptions, wilderness

97. Higham, J.E.S. 1996: The wilderness experiences gained by international tourists at specific sites within New Zealand's DOC-managed areas: an examination of tourist satisfaction vis-a-vis motivations and expectations. Pp. 139–151 in Kearsley, G. (Comp.): Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.

[A paper presenting details of a study on the levels of satisfaction of visitors to New Zealand wilderness settings, which looked beyond simple expressions of satisfaction to identify specific qualities of experience that generated extremes of satisfaction and dissatisfaction at particular recreational settings. The study focussed on visitors' experience of walking tracks. In a questionnaire survey of 336 visitors during 1993/94, 41 tracks were cited with over 587 track visits noted. The greatest source of satisfaction identified by respondents was physical setting including natural beauty, scenery, mountain views, and beaches and/or coastlines. The tracks themselves provided satisfaction to users although differences in track difficulty created some dissatisfaction. Overall, the paper concluded that visitors' fell into two distinct groups based on their on-site expectations and/or motivations: those whose primary motivations were desire to experience outstanding natural beauty and scenery, and those whose secondary motivations were for physical challenge, social contact or solitude or facility development.]

Keywords: back country, recreation, tourism, tracks, tramping, visitor satisfaction, visitor survey, wilderness

98. Higham, J.E.S. 1996: Wilderness perceptions held by international visitors to New Zealand. Pp. 143–154 in Oppermann, M. (Comp.): Proceedings of the Pacific Rim Tourism 2000: issues, interrelationships, inhibitors, 3–6 November, Centre for Tourism Studies, Waiariki Polytechnic, Rotorua, New Zealand.

[Refer to entry no. 95]

Keywords: back country, recreation, tourism, tramping, visitor perceptions, visitor survey, wilderness

99. Higham, J.E.S. 1996: Wilderness perceptions of international visitors to New Zealand: the perceptual approach to the management of international tourists visiting wilderness areas within New Zealand's DOC-managed areas. Unpublished PhD thesis, University of Otago, Dunedin. 305 p.

[A thesis that addresses the issue of wilderness management for recreational activities by examining the perceptual approach to wilderness management. The increasing numbers of international visitors, from a diverse range of social, cultural and experiential backgrounds, were considered likely to bring a huge range of wilderness perceptions to the recreational setting. However, it was unlikely that such tourists would derive satisfactory wilderness experiences from the intensive use of a small number of back-country tracks, and concentrated patterns of recreational use may pose a threat to the social and physical carrying capacities of such fragile and finite wilderness settings. The research, based on a survey methodology initially piloted on track users in 1992/93 in the Rees and Dart Valleys, Mount Aspiring National Park, was undertaken between November and April 1993/94 on a selection of tracks across the South Island and Stewart Island/Rakiura and the survey yielded 336 responses. The author found that the perceptual approach had great relevance to the management of increasing numbers of international tourists by allowing more targeted and varied resource management at sites and the increased dispersal of users to relieve pressure on the back-country estate.]

Keywords: back country, recreation, tourism, tramping, visitor perceptions, visitor survey, wilderness

100. Higham, J.E.S. 2001: Perceptions of international visitors to New Zealand wilderness. Pp. 75–80 in Cessford, G. (Ed.): The state of wilderness in New Zealand. Department of Conservation, Wellington.

[This paper discusses a study of international tourists on 12 tracks of varying remoteness, facility development and intensity of use.]

[Refer to entries numbered 95 to 99]

Keywords: back country, recreation, tourism, tramping, visitor perceptions, visitor survey, wilderness

101. Higham, J.E.S.; Carr, A. M. 2002: Profiling tourists to ecotourism operations. *Annals of Tourism Research* 29(4): 1168–1171.

[This research note gives an overview and summarises progress of a 2-year research project funded by the New Zealand Foundation of Research, Science and Technology, which used a mixed-method approach to measure and analyse the environmental values held by people visiting ecotourism attractions in New Zealand.]

[Refer to entry no. 103]

Keywords: ecotourism, visitor profiles, visitor survey

102. Higham, J.E.S.; Carr, A.M. 2002: Ecotourism visitor experiences in Aotearoa/New Zealand: challenging the environmental values of visitors in pursuit of pro-environmental behaviour. *Journal of Sustainable Tourism* 10(4): 277–294.

[A paper reporting on research that examined experiences of ecotourists in Aotearoa/New Zealand and whether or not those experiences challenged visitors to consider environmental issues. The study, undertaken 1999–2001, looked at 12 study sites in three nationwide geographical clusters drawn from a comprehensive database of 479 eco- and/or nature-tourism operations. The qualitative research methods used at these sites included on-site observations of visitors and semi-structured interviews to critically assess the visitor experience. Five key aspects of the visitor experience emerged from the study: the non-specific focus of ecotourism visitor experiences; ecological interpretation; consideration of past, present and future human impacts

on the ecology; conservation advocacy; and ecotourists' awareness of environmental issues. The paper concludes that experiences of ecotourists may be an effective way through which their environmental values may be positively influenced.]

Keywords: ecotourism, visitor behaviour, visitor experience, visitor survey

103. Higham, J.E.S.; Carr, A.M.; Gale, S. 2001: Ecotourism in New Zealand: profiling visitors to New Zealand ecotourism operations. He Tauhokohoko Ngā Whakaaturanga a Ngā Manuhiri Ki Rawa Whenua o Aotearoa. *Research Paper 10*. University of Otago, Dunedin, New Zealand. 53 p.

[This report details a 2-year study designed to develop a clearer profile and understanding of visitors to ecotourism operations in New Zealand, and their ecotourism experiences. The report outlines the mixed-methods approach, which had two main research phases: the first phase (1999–2000) employed qualitative methods including participant observations and visitor interviews to provide insights into the ecotourism experience in New Zealand, and the second phase (2000–2001) involved the development and undertaking of a questionnaire survey that collected 967 responses from ecotourism visitors. The research identified that the ecotourism sector in New Zealand was in the early stages of development and visitor profiles revealed that most visitors to ecotourism operations originated from New Zealand, the UK, the USA, Germany and Australia and that they often visited several ecotourism destinations. In terms of environmental values, visitor profiles were found to be diverse (both experts and novices were present), and ecocentric (environment-centred) values featured prominently above anthropocentric (human-centred) values. Visitors reported a high level of satisfaction with the ecotourism operations that they had experienced.]

Keywords: ecotourism, visitor experience, visitor profiles, visitor satisfaction, visitor survey

104. Higham, J.E.S.; Kearsley, G.W.; Kliskey, A.D. 2001: Multiple wilderness recreation management: sustaining wilderness values—maximising wilderness experiences. Pp. 81–93 in Cessford, G. (Ed.): *The state of wilderness in New Zealand*. Department of Conservation, Wellington.

[This paper addressed the idea that wilderness is a concept that has both a physical and a perceptual meaning. The paper discusses a study based on the results of three earlier surveys (1991, 1995 and 1996) that examined the wilderness perceptions held by three distinct samples: New Zealand wilderness users (domestic users), New Zealand wilderness non-users (general public) and international visitors to New Zealand. Analyses of the 819 responses on back-country track use revealed striking similarities and differences in wilderness perceptions between the samples. The paper also outlined a methodology for mapping wilderness perception developed by Kliskey in 1992 and, using maps, discusses the extent of existing wilderness as perceived by the different groups within each of three study samples. The paper concluded that the findings served to emphasise that wilderness perceptions vary among individuals and this needs to be recognised by wilderness managers and reflected in the management of different environments to meet the wilderness interests and demands of different active and latent user groups.]

Keywords: back country, recreation management, visitor perceptions, visitor survey, wilderness

105. Hodge, J. 2000: Motivations, expectations and satisfaction levels of Routeburn and Dart Rees trampers: a comparative study. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 76 p.

[This thesis presents the results of a study that examined, ordered and compared the motivations, expectations and satisfaction levels of trampers on the Routeburn and Rees-Dart Tracks. The research was based on the concept that tourists' motivations and satisfaction levels were important management concerns as they assist travel decisions and consumption behaviour, and aid managers and operators to develop programmes to minimise conflicts and enhance

satisfaction. The study, using a questionnaire survey of 106 trampers, found that the respondents on both tracks shared a common motivation of scenic beauty, wilderness and recreational exercise but had different expectations with regard to their experience.]

Keywords: back country, Fiordland National Park, Mount Aspiring National Park, Rees-Dart Track, Routeburn Track, tramping, visitor satisfaction, visitor survey

106. Hunter, G. 2006: Resource-based, mass participation recreational and sporting events in the sustainable land use mix: a scoping report. Internal Report. Landcare Research, Lincoln (unpublished). 16 p.

[An internal report for Landcare Research reviewing opportunities and research needs associated with the role of mass-participation recreational events (e.g. multisport, mountain running and mountain biking) in the sustainable land use on rural conservation land. It also addresses the potential contribution of such events to the recreation and tourism spectrum in New Zealand. The author discusses a number of topics, including event participation, and provides some general statistics on participant numbers and demographics. The report concludes with a benefit-risk analysis of developing the events more widely and identifies research needs and opportunities, including: the need for more detailed and robust participation data (potential markets, profiles, motivations) and collaboration with other research funding bodies and DOC.]

Keywords: events, recreation, research, sport

J

107. Jellum, C.; Lovelock, B.; Lovelock, K.; Thompson, A. 2010: Changes in recreation participation after immigration to New Zealand: an analysis of constraints and barriers. Pp. 45–47 in Reis, A.; Jellum, C.; Lovelock, B.; Thompson, A. (Comps): Recreation values and natural areas. Proceedings of the Centre for Recreation Research Symposium 2010, 18–19 March, University of Otago, Dunedin, New Zealand.

[This paper examines the importance of leisure constraints to the recreation participation of immigrants to New Zealand, and analyses three post-immigration variables: length of time in New Zealand, ethnicity and country of birth.]

[Refer to entry no. 137]

Keywords: Auckland, constraints, immigration, recreation patterns, Wellington

108. Jellum, C.; Reis, A. 2008: Otago Central Rail Trail: economic impact and trends survey 2008. Otago Central Rail Trail Trust, Dunedin (unpublished). 31 p.

[A report on a survey undertaken in 2008 that assessed the economic impact and trends of the Otago Central Rail Trail (OCRT) on businesses in the areas adjacent to and most affected by the trail. It was based on a similar questionnaire survey undertaken in 2005. The 2008 survey used both online and hard-copy questionnaires; a total of 109 questionnaires were successfully completed and returned. With regard to visitor and/or user groups, respondents considered that there had been a change in user group profiles since the 2005 study. Rail trail users were aged, on average, 36–50 years old; mostly cycled the trail; were in groups of three or four; and primarily came from the North Island. The number of overseas visitors from Australia had substantially increased from 2005, when most of the international tourists were expected to be from Europe and specifically the UK. ‘word-of-mouth’, advertising on the OCRT website and related businesses were reported as the main means by which visitors came to contact service providers.]

Keywords: cycling, Otago, rail trail, visitor profiles, visitor survey

109. Johnson, J. 2004: Exploring authenticity at heritage tourism sites in New Zealand. Unpublished Masters of Tourism thesis, University of Otago, Dunedin. 195 p.

[A thesis examining the post-modern view of heritage 'authenticity' and tourists' experiences in relation to two industrial heritage sites, Shantytown and Ross Goldfields, in New Zealand's South Island. The research was based upon 74 in-depth, on-site interviews with visitors that sought to develop an understanding of visitors' perceptions of their heritage experience and to compare those perceptions to existing theoretical frameworks. The results indicated that tourists seemed to prefer 'contrived' or inauthentic heritage sites such as Shantytown and that the perception of authenticity was more important than historical reality in their heritage experiences. Moreover, the results supported that tourists were willing to accept what was less accurate rather than what was perceived to more likely match their own expectations. The study also found that 'contrived' sites deflected rather than encouraged the demand for 'real' or natural heritage experiences.]

Keywords: heritage, Ross Goldfields, Shantytown, South Island, tourism, visitor perceptions, visitor survey

110. Johnson, V.; Ward, J.; Hughey, K. 2001: Issues and indicators of acceptable change: a study of visitors' and stakeholders' concerns about three natural attractions in the Paparoa area, West Coast, South Island, New Zealand. TTREC Report Series 40. Lincoln University, Lincoln, New Zealand. 86 p.

[This report presents results from visitor surveys and stakeholder interviews at three natural attractions in the Paparoa National Park: Pancake Rocks(/Dolomite Point), Fox River Caves and the Westland black petrel colony. Interviews were based on the limits of acceptable change framework to identify potential indicators of change at the sites, and surveys gathered information on visitor experiences and sensitivity to impacts encountered there. The numbers of surveys returned for each site were: 329 for Pancake Rocks, 33 for Fox River Caves and none for the Westland black petrel colony, which was inaccessible during the survey period. Overall, visitors to the Pancake Rocks were very satisfied with their visit and were happy with the level of maintenance and new track features. Visitors to the Fox River Caves also had a positive experience, but the survey identified a lack of information and interpretation and the amount of visible visitor impacts as negative aspects of the visitor experience. The stakeholders interviewed for the Westland black petrel colony expressed concern about the direct impacts of visitors, on the birds from predators, disruption to their flight and farm animals.]

Keywords: Fox River Caves, limits of acceptable change, Pancake Rocks, Paparoa National Park, tourism, visitor satisfaction, visitor survey, Westland black petrel colony

111. Johnston, K.A. 1997: Leisure and nature: understanding the interpretation experiences of visitors at leisure in national parks. Internal Report. Department of Conservation, Wellington (unpublished).

[Abstract edited:]

This research examined: the effectiveness of four different types of interpretation media (brochures, displays, audiovisual and staff); how these media might connect the visitor with nature; and the relationship between interpretation, environmental education and leisure in lands managed for conservation. Qualitative and quantitative research methods were supported by unobtrusive observations to evaluate visitor perceptions of, experiences of and meanings given to interpretation media. The findings showed that media effectiveness was not solely determined by media type. Rather, it was a complex interplay of: the ability of media to attract and hold of visitors' attention, transfer information and activate cognitive, affected and experiential triggers; visitor learning styles; and the meaning each individual attaches to the media in relation to their leisure activities. The meanings that DOC has assigned to nature through its interpretation media were not necessarily those of the Department's visitors.

Keywords: interpretation, leisure, national parks, visitor awareness, visitor survey

112. Juric, B.; Cornwell, T.B.; Mather, D. 2002: Exploring the usefulness of an ecotourism interest scale. *Journal of Travel Research* 40(3): 259–269.

[A paper on an exploratory study with the objective of developing an ecotourism interest scale (EIS) and testing its value in predicting travellers' participation in selected tourist activities. A survey of 636 international visitors was undertaken at two popular New Zealand tourism centres (Rotorua and Queenstown). The study results indicated that the EIS was useful for identifying whether tourists would select ecofriendly activities; other factors, such as tourist age, gender and party composition, and organisation of travel, appeared to influence the choice of some activities, suggesting that EIS indicators should be supplemented by demographic measures and trip characteristics. Overall, the EIS appeared to offer a useful explanation of tourist participation in ecotourism activities and, more importantly, the EIS more consistently predicted behaviour than did other variables typically considered in ecotourism research.]

Keywords: ecotourism, Queenstown, Rotorua, visitor motivation, visitor participation, visitor survey

113. Juric, B.; Cossens, J.; Barton, R. 1996: Ecotourism: an examination of the motivations of ecotourism visitors to New Zealand. Pp. 207–222 in Kearsley, G. (Comp.): *Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.*

[This paper presents the results of a study of the characteristics and travel motivations of international visitors to ecotourism operations, that sought to determine whether these differed from those identified in similar, previous studies. The study was based on a questionnaire survey of 203 visitors to 12 ecotourism ventures spread across the North and South Islands of New Zealand and the results were compared with those from earlier studies. The key travel motivation for international tourists to ecotourism sites was to seek, learn about and experience nature and a unique outdoor environment. Other factors, such as seeking excitement, were found to be the least important. It was noted that the motivations of visitors from different countries differed, as did visitors' need and effort that they were willing to put in to get close to nature. Visitor characteristics corresponded with those found in other similar studies; however, a trend for increasing numbers of under-30-year-old, mainly student, visitors was noted as being significant for future development of the New Zealand ecotourism market.]

Keywords: ecotourism, motivations, North Island, South Island, visitor characteristics, visitor survey

K

114. Kearsley, G.W. 1997: Perceptions of social and physical impacts upon New Zealand's backcountry environments. Pp. 156–166 in Oppermann, M. (Ed.): *Pacific Rim tourism.* CABI International Publishing, Wallingford.

[Abstract edited:]

This book chapter discusses a questionnaire survey carried out in New Zealand on 950 backcountry users during the tramping season of 1995/96. The survey measured perceptions of crowding, motivations and degrees of satisfaction with the experiences, and examined the extent to which users experienced displacement and used coping strategies for it. The results revealed that although there was a high level of satisfaction with the experiences gained and

of satisfaction of the motivations for a back-country experience, it was clear that there were significant perceptions of crowding, environmental damage and noise pollution.

[Refer to entries numbered 116 & 119]

Keywords: back country, crowding, displacement, Great Walks, national parks, recreation management, visitor perceptions, visitor survey

115. Kearsley, G. 2000: Balancing tourism and wilderness qualities in New Zealand's native forests. Pp. 75–91 in Font, X.; Tribe, J. (Eds): Forest tourism and recreation: case studies in environmental management. CABI Publishing, Cambridge.

[This book chapter provides an historical review of forest preservation and discusses wilderness recreation in New Zealand. It also presents and discusses the results of a 1995/96 survey of 950 trampers on the Great Walks tracks of New Zealand that was undertaken to measure perceptions of crowding, motivations and degrees of satisfaction with the experiences, to gain some sense of the extent to which users experienced displacement and used coping strategies for it. It concludes that visitor-induced crowding on the more popular tracks was beginning to impact significantly on a large majority of existing domestic users, with some effects also being felt by visitors.]

[Refer to entry no. 116]

Keywords: back country, crowding, displacement, Great Walks, national parks, recreation management, visitor perceptions, visitor survey

116. Kearsley, G.W.; Coughlan, D.P.; Higham, J.E.S.; Higham, E.C.; Thyne, M.A. 1998: Impacts of tourist use on the New Zealand backcountry. *Research Paper 1*. Centre for Tourism, University of Otago, Dunedin. 68 p.

[The report on research carried out in New Zealand on 950 back-country users during the tramping season of 1995/96 to a measure perceptions of crowding, motivations and degrees of satisfaction with the experiences gained, and to gain some sense of the extent to which users experienced displacement and used coping strategies for it. Respondents were contacted throughout the whole of the country and in a wide range of environments, from the Great Walks such as the Routeburn, Abel Tasman Coastal and Kepler Tracks, to scarcely used wilderness routes. The results revealed that although there was a high level of satisfaction with the experiences gained and of satisfaction of the motivations for a back-country experience, it is clear that there were significant perceptions of crowding, environmental damage and noise pollution. Although the perceptions of domestic and international visitors appeared to be very similar, the fact that international visitors tended to be on the most popular tracks suggested that New Zealanders were, perhaps, more susceptible to crowding and their concentration in the more remote areas may be an indicator that displacement had occurred, and of which there was potential for more.]

Keywords: back country, crowding, displacement, Great Walks, national parks, recreation management, visitor perceptions, visitor survey

117. Kearsley, G.; Coughlan, D.; Ritchie, B.W. 1998: Images of New Zealand natural areas—an international and domestic perspective. *Research Paper 3*. University of Otago, Dunedin. 102 p.

[This report details a research project that used a multi-dimensional scaling (MDS) technique to create perceptual maps of selected natural area destinations in New Zealand, in an attempt to examine how and why tourists discriminate among places and choose to visit particular areas. The survey targeted two samples, domestic visitors and international tourists. Full details of the socio-demographics of the samples are included in the report and a total of 453 respondents were involved. Visitors saw some locations as unique, such as Mount Cook, and as having a clear identity. Other locations, such as the Coromandel or the Bay of Islands, although obviously

different places, appeared to have no particular distinguishing character for visitors; they were seen as offering an environment that could be found in other parts of the country and this was identified in both groups of respondents. The degree of perceived naturalness is an important indicator for managers, especially of DOC-managed areas. Matching the wilderness images of users and potential users with environments best suited to the experiences sought will allow better management of such sensitive resources. With this understanding of both domestic and international visitors' needs, motivations, and hence their perceptions of areas in New Zealand, such areas can be managed effectively.]

Keywords: DOC-managed areas, recreation management, research, visitor motivation, visitor perceptions, visitor survey

118. Kearsley, G.; Higham, J. 1997: Wilderness and backcountry motivations and satisfaction in New Zealand's natural areas and DOC managed areas. *Australian Journal of Leisure and Recreation* 8(1): 30–34.

[The author examined existing research on visitors' motivations and satisfactions with their experiences in the natural environment to ascertain the nature and extent of changes in patterns of motivation and satisfaction. Four key surveys undertaken between 1982 and 1996 of visitation and motivations to DOC-managed areas provided data relating especially to wilderness experiences. The authors found that, through comparing the results of earlier surveys, some broad conclusions could be reached on visitors' motivations and satisfactions, and that the basic pattern of motivation associated with wilderness and natural areas had remained remarkably stable considering both the time period covered and changes in visitor demographics among domestic and international visitors.]

Keywords: DOC-managed areas, national parks, recreation management, visitor motivation, visitor survey, wilderness

119. Kearsley, G.; Higham, J.; Coughlan, D.; Thyne, M. 1996: Perceptions of social and physical impacts upon New Zealand's back country environments. Pp. 379–399 in Kearsley, G. (Comp.): Towards a more sustainable tourism. Proceedings of Tourism Down Under II: a tourism research conference, 3–6 December 1996, University of Otago, Dunedin, New Zealand.

[This paper reports on a questionnaire survey carried out in New Zealand of 950 back-country users during the tramping season of 1995/96 to measure perceptions of crowding, motivations and degrees of satisfaction with the experiences gained, and to gain some sense of the extent to which users experienced displacement and used coping strategies for it. Respondents were contacted throughout the country and in a wide range of environments, including Great Walks such as the Routeburn, Abel Tasman Coastal and Kepler Tracks, as well as scarcely used wilderness routes. The focus of this paper was on an aggregate sample and comparisons between locals and visitors.]

[Refer to entry no. 116]

Keywords: back country, crowding, displacement, Great Walks, national parks, recreation management, visitor perceptions, visitor survey

120. Kearsley, G.; O'Neill, D. 1995: Crowding, satisfaction and displacement: the consequences of growing tourism use of southern New Zealand's DOC-managed areas. Pp. 56–58 in Lee, S.; Everett, A.; Gray, V. (Comps): Pan-Pacific Conference XII: a business, economic and technological exchange. Proceedings of the Pan-Pacific Business Association Conference, May 29–June 1 1995, Dunedin and Queenstown, New Zealand.

[A paper presenting some of the results of a study undertaken in 1992, the objective of which was to explore the links between visitor satisfaction, expectations and perceptions of crowding

at key nature-based tourism sites in New Zealand. The study also assessed of the social carrying capacity of four selected sites (Taiaroa Head, Milford Sound, Aoraki/Mount Cook, and Greenstone and Caples Valleys) using the results on visitors' perceptions of crowding. The study, based on a questionnaire survey of 1023 visitors, found that, mostly, people had encountered the number of visitors that they had expected to and, while the majority were content with the numbers seen, significant percentages would have preferred to have seen a few, or even a lot, less other visitors. This was especially noticeable at the alpine sites where a significant number of respondents stated explicitly that there were too many visitors. The paper noted that such crowding is often perceived at specific facilities, such as huts where people are naturally concentrated, rather than in general.]

Keywords: crowding, displacement, Greenstone & Caples, Milford Sound, Mount Cook, Taiaroa Head, visitor perceptions, visitor satisfaction, visitor survey

121. Kearsley, G.W.; Russell, S.; Croy, W.G.; Mitchell, R.D. 2001: Recreational and tourist use of New Zealand's accessible natural areas: activities, motivations and social impacts. *Research Paper 9*. Centre for Tourism, University of Otago, Dunedin. 43 p.

[A report on part of a research programme investigating the sustainability of tourism in New Zealand and the relationships between DOC-managed areas, tourism and domestic recreation (especially from the point of view of social and economic impacts), centred upon back-country use. The aim of this part of the programme was to measure perceptions of crowding, motivations and degrees of satisfaction with the experience, along with establishing the extent to which displacement occurred and what coping strategies were used by those who had felt significant user pressure. The report was based on a survey of 1312 front-country users across the country, who were supplied with questionnaires during 1999 and 2000. The report concludes that although previous studies have shown that there was a significant perception of crowding in some back-country locations, much larger numbers of recreationists and overseas visitors were using the front country. If crowding in the front country leads to significant displacement into the back country of current front-country users, then there would be potential for very severe social and physical impacts.]

Keywords: crowding, displacement, DOC-managed areas, front country, management, visitor experience, visitor impacts, visitor survey, wilderness

122. Kulczycki, C. 2002: Perceptions of the Otago Central Rail Trail. Unpublished Masters of Tourism thesis, University of Otago, Dunedin. 261 p.

[Abstract edited:]

This thesis identifies information about the users of the Otago Central Rail Trail. Four different surveys were conducted in order to obtain valid samples of trail users and their perceptions and expectations of the rail trail during the first year that the trail had been completely open for use. The first survey contributed to the research into the business perceptions of the rail trail and was conducted during the months of October 2000 and February 2001 and returned 102 responses. The three other surveys reviewed the trail users. The results of the research concurred with the those from the business community that the main type of activity on the rail trail was bicycling and most trail users travel with their friends, although families and couples are increasingly using the rail trail. There was little difference in the results supplied by the respondents between the different surveys in regard to many of the visitor motivations, levels of satisfaction and expected trail facilities. The main difference between the three trail-user groups was in terms of gender, age, marital status and education level.

Keywords: cycling, Otago, rail trail, visitor characteristics, visitor perceptions, visitor survey

L

123. Latu, T.M.; Everett, A.M. 2000: Review of satisfaction research and measurement approaches. *Science & Research Internal Report 183*. Department of Conservation, Wellington. 47 p.

[A report prepared for DOC that provided a 'state-of-knowledge' review of concepts associated with visitor satisfaction and methods of assessing it, thereby creating a baseline resource that was intended to inform the development of a comprehensive methodology for monitoring visitor satisfaction. The report provides a detailed summary of previous international research on visitor satisfaction concepts and measurement techniques, including those beyond the tourism industry, then specifically reviews visitor satisfaction in tourism and protected natural areas, including examples from New Zealand. Finally, the report summarises the main points and recommends which satisfaction assessments approaches are appropriate for specific information requirements of managers.]

Keywords: DOC-managed areas, management, research, visitor satisfaction

124. Lawson, R.; Merrett, T.; Williams, J. 1996: The social impacts of tourism: a review of the literature with special emphasis on New Zealand. Report to the Tourism Policy Group, Ministry of Commerce. Tourism Policy Group, Ministry of Commerce, Wellington. 48 p.

[A report reviewing the existing literature and research on the social impacts of tourism, gathered from a range of international sources, with a special emphasis on sources relating to New Zealand. The key findings of the report relating to tourism and the natural environment indicate that: tourism impacts are largely related to social impacts through the quality of the environment provided for both host communities and visitors; the extent of social impacts on the natural environment depends heavily on the management of the natural resources and visitors to DOC-managed areas; and that some types of tourism, such as ecotourism, have the potential to provide an economic justification for the conservation of many aspects of the environment.]

Keywords: ecotourism, international, research, social impacts, tourism

125. Leisure Matters 2003: Visitor group and track component assessment for the Department of Conservation. Report to the Department of Conservation. Leisure Matters, Christchurch (unpublished). 44 p.

[A report on a survey of users of different types of walking track to ascertain their opinions and perceptions of track standards as part of a wider DOC programme to develop a standard for tracks and outdoor visitor structures. The survey was aimed at three types of track users: short-stop travellers, day visitors and back-country comfort seekers. Sites were chosen with input from local DOC conservancy recreation staff: on 164 tracks throughout New Zealand, from Cape Reinga to Stewart Island/Rakiura, 1920 people were surveyed. The survey schedule was designed to represent a range of track types and standards. The report analyses how closely the predefined visitor groups matched the survey responses and then analyses what the visitor groups are at each site type. The survey results were wide ranging but the key conclusion was that while the results did not reflect a mirror image of the Visitor Strategy descriptors of Visitor Groups, this did not undermine DOC's overall approach to segmenting its visitor groups. By providing a range of sites, DOC gives visitors the opportunity to select how they satisfy their needs on any given day.]

Keywords: DOC-managed areas, national parks, tracks, visitor segmentation, visitor survey

126. Leisure Matters 2005: What visitors value about the Godley Head Walkway. Report to the Department of Conservation. Leisure Matters, Christchurch (unpublished). 10 p.

[A short report on the trialling of a visitor research method on the Godley Head Walkway in March 2005. The aim was to ascertain what visitors valued about DOC recreation sites, and 83 visitors to the walkway were surveyed by asking them a series of questions about what they had valued on their walk and requesting them to mark on a map where events or thoughts had occurred for them. Visitors were then asked to describe on a separate piece of paper what they had valued most. These comments were then coded and analysed. The visitors' 'experience' was the most common theme, with 'appreciation of views' being the natural feature that was commented on most. Encounters with other visitors ranked fairly low in the comments, and site interpretation and signage was generally commented on as being inadequate.]

Keywords: Christchurch, Godley Head Walkway, visitor experience, visitor survey

127. Leisure Matters 2005: What visitors value about the Heaphy Track between Kohaihai and Mackay hut. Report to the Department of Conservation. Leisure Matters, Christchurch (unpublished). 12 p.

[A short report on the trialling of a visitor research method on the Heaphy Track in April 2005. The aim was to ascertain what visitors valued about DOC recreation sites and 43 visitors to the Kohaihai and MacKay Huts section of the track were surveyed by asking them questions about what they had valued about their walk and then asking them to mark on a map where events or thoughts had occurred for them. They were then asked to describe on a separate piece of paper what they had valued most. These comments were then coded and analysed. Most comments were about the appreciation of natural features, followed by visitors' track experience then encounters with other visitors. Comments on information and facilities were generally considered to be positive, with some comments made on possible improvements.]

Keywords: Heaphy Track, visitor experience, visitor survey

128. Leisure Matters 2007: National recreation survey 2005/2006: defining visitor encounter thresholds. Department of Conservation, Wellington (unpublished). 46 p.

[A report of a visitor survey undertaken for DOC to assess issues of user density (crowding) on DOC tracks, and to identify the maximum number of people visitors find acceptable to encounter during recreation visits. The survey, carried out between December 2005 to June 2006, generated 3877 visitor responses and sought to address five areas of concern: the maximum acceptable level of visitor encounters; identification of sub-groups within the total survey sample; the level of crowding and social impacts; visitor satisfaction; and coping behaviours demonstrated by recreation users. The survey identified five sub-groups or visitor groups based on the duration and nature of their visits and found that in regard to 'maximum acceptable encounters', the average acceptable number varied according to each visitor group. Those visitors seeking a 'remote' wilderness experience tolerated the lowest number of visitor encounters. The report recommends that more site-type specific surveys be undertaken to look for greater convergence of views within particular visitor groups.]

Keywords: crowding, DOC-managed areas, national parks, recreation, tracks, visitor satisfaction, visitor segmentation, visitor survey

129. Leppens, J.; Cessford, G. undated: Identifying multiple social values at sites of conservation significance: a case-study of Kura Tawhiti. Internal Report. Department of Conservation, Wellington (unpublished). 76 p.

[A report on research on the social values associated with conservation sites using as a case study the culturally significant Kura Tawhiti Conservation Area in the Castle Hill Basin of the Southern Alps. The research involved a literature search and review of existing research

relating to conservation and social values and that also identified key stakeholder groups and individuals, who were then interviewed. The report provides an overview and discussion of various themes relating to types of values identified from the literature, including: landform and geology, landscape, historical and archaeological value, Māori and European heritage, vegetation and wildlife biodiversity, and recreation and tourism. The report concludes that Kura Tawhiti is a place of immense value but that to fully define its range of values would be a complex and time-consuming task. The authors recommend convening a working group and utilising interest groups, such as rock climbers, to help with conservation work at the site.]

Keywords: heritage, Kura Tawhiti, Māori, recreation management, research

130. Leppens, J.; Cessford, G. undated: Multiple values of visitors at Kura Tawhiti (Castle Hill), Canterbury, New Zealand. Internal Report. Department of Conservation, Wellington (unpublished). 58 p.

[A report on a case study and visitor survey of the Kura Tawhiti Conservation Area, Castle Hill, South Island, which sought to identify what visitors valued about the site and to provide managers with baseline data on visitors to the area. The survey involved a self-administered questionnaire and a specific rock climber survey in which these participants could be identified. The results revealed that there were more international than New Zealand visitors to the Conservation Area and the values identified were scenery, the natural peace and quiet of the site, and the undeveloped nature of Kura Tawhiti. Interestingly, visitors do not share the same value attributions as the stakeholders that had been interviewed as part of the wider case study.]

[Refer to entry no. 129]

Keywords: Canterbury, climbing, Kura Tawhiti, recreation management, research, visitor experience, visitor survey

131. Lovelock, B.A. 2003: International and domestic visitors' attitudes as constraints to hunting tourism in New Zealand. *Journal of Sport Tourism* 8(3): 197–203.

[This research note reports on an assessment of visitors' perceptions of and attitudes to sport hunting and how these may collectively act as a constraint upon hunting tourism. The study involved a survey of visitors to Rakiura National Park, Stewart Island/Rakiura during February 2003. Domestic (110) and international (160) visitors completed a personally administered questionnaire that addressed a range of ecological management issues. The issues of deer and hunting were quite divisive, with a roughly half of the visitors liking the idea of deer roaming native New Zealand forest and half wishing them exterminated (mainly due to the physical impacts of browsing deer). The survey also indicated that visitors to natural areas had a wide range of views and perceptions about deer and hunting issues and that there was generally a high level of awareness about the impacts of introduced animals on native forests. Finally, visitors showed the strongest support for sport hunting out of all of the deer control options offered in the survey.]

Keywords: constraints, deer, hunting, Rakiura National Park, Stewart Island/Rakiura, tourism, visitor attitudes, visitor survey

132. Lovelock, B.A. 2007: 'If that's a moose, I'd hate to see a rat!': visitors' perspectives on naturalness and the consequences for ecological integrity in peripheral natural areas of New Zealand. Pp. 124–140 in Muller, D.K.; Jansson, B. (Eds): *Tourism in peripheries: perspectives from the North and South*. CABI, Wallingford.

[This book chapter examines how tourists perceive New Zealand's natural ecosystems and pest species within those systems, and how those perceptions potentially affect both the country's '100% Pure' image and management of the pest species themselves. The book section is based on a survey of 270 international and domestic visitors to Rakiura National Park, Stewart Island/

Rakiura and discusses visitors' understanding of New Zealand's ecosystems and of pests such as deer and possum, and examines visitors' support for various pest-control methods including trapping, shooting, biological control and poisoning. It suggests that the growth in usage of back-country areas by both international and domestic visitors means that hunters and non-hunting visitors are increasingly coming into contact with one another, and that international visitors are increasingly being exposed to hunting and pest-control issues.]

Keywords: constraints, deer, hunting, Rakiura National Park, Stewart Island/Rakiura, tourism, visitor survey

133. Lovelock, B.A. 2010: Going bush—in my wheelchair: attitudes of persons with mobility-disabilities to enhanced motorised access in remote natural settings. P. 93 in Reis, A.; Jellum, C.; Lovelock, B.; Thompson, A. (Comps): Recreation values and natural areas. Proceedings of the Centre for Recreation Research Symposium 2010, 18–19 March, University of Otago, Dunedin, New Zealand.

[This paper examines the increasing number of people travelling with mobility-disabilities. It explores the extent to which those with mobility-disabilities desire enhanced access to natural areas and reports on the results of a postal survey of over 400 New Zealanders in the South Island during the autumn of 2007.]

[Refer to entry no. 134]

Keywords: accessibility, constraints, disability, South Island, visitor attitudes, visitor survey, wilderness

134. Lovelock, B.A. 2010: Trains, planes and wheelchairs in the bush: attitudes of people with mobility-disabilities to enhanced motorised access in remote natural settings. *Tourism Management* 31(3): 357–366.

[This paper addresses the increasing number of persons travelling with mobility-disabilities (which is forecast to increase substantially, particularly with the continued growth associated with aging populations). The study explores the extent to which those with mobility-disabilities desire enhanced access to natural areas and reports upon the results of a postal survey of over 400 New Zealanders in the South Island during the autumn of 2007. Some of those surveyed had mobility-disabilities and some were able bodied. The study compared their attitudes with respect to the development of various forms of motorised access to wilderness environments, including cars, jet boats and aeroplanes. The survey found significant differences between the two groups in terms of their desire for greater access and also in how they viewed the impacts of such developments.]

Keywords: accessibility, constraints, disability, South Island, visitor attitudes, visitor survey, wilderness

135. Lovelock, B.A.; Carr, A.M.; Sides, G.W. 2008: Ruataniwha Conservation Park: visitor study 2007. Centre for Recreation Research, University of Otago, Dunedin. 70 p.

[Refer to entry no. 136]

Keywords: Ruataniwha Conservation Park, visitor profiles, visitor satisfaction, visitor survey

136. Lovelock, B.A.; Carr, A.M.; Sides, G.W. 2008: Ahuriri and Ruataniwha Conservation Parks: visitor study 2006–2007. Centre for Recreation Research, University of Otago, Dunedin. 52 p.

[This report combines datasets from visitor surveys undertaken in Ahuriri Conservation Park in 2006 and Ruataniwha Conservation Park in 2007. Both parks, located within the Mackenzie Basin in the central South Island, were newly established, and the visitor studies will play an important role in profiling park users and informing park management (DOC) of visitor use of the area. Self-completion questionnaires were distributed in each park for a period of 3–4 months (over the

main summer holiday period) and a total of 524 valid responses were returned. Generally, visitors to the two parks were remarkably similar in terms of their profiles, motivations for visiting the park, the pattern and style of the visit, and overall levels of satisfaction. Most visitors were New Zealanders, mostly from the South Island and even more locally. The most common motivations for visiting the parks were to go tramping, to experience solitude, scenery, and to gain easy access to nature. To take children into the outdoors was another strong motivation. Overall visitor satisfaction was very high for both parks.]

Keywords: Ahuriri Conservation Park, Ruataniwha Conservation Park, visitor profiles, visitor satisfaction, visitor survey

137. Lovelock, B.; Lovelock, K.; Jellum, C.; Thompson, A. 2010: Recent immigrants' recreation experiences of outdoor nature-based settings in New Zealand. Report to Sport and Recreation New Zealand (SPARC). Centre for Recreation Research, University of Otago, Dunedin. 97 p.

[A report of a study that addresses recreational behaviours of immigrants and ethnic minorities in New Zealand, focussing on nature-based recreation. The first part of the study was based on a questionnaire survey of 433 respondents and compared recreational perceptions and behaviours of immigrants with those of New Zealand-born citizens (Auckland and Wellington). This was followed by in-depth interviews with selected immigrants and with recreation professionals involved in planning and/or providing resources and activities in natural areas. The survey data revealed statistically significant differences based on migrant status, ethnicity and country of birth. The key differences based upon migrant status included: frequency of participation; recreation group size; and recreation group composition. Significant differences were also found by migrant status for all barriers to recreation participation including the cost of equipment and transport, not having people to recreate with, distance from and lack of knowledge of recreation areas, and lack of experience. The interviews with immigrants revealed that those most likely to engage in outdoor, nature-based recreation are those that have had similar experiences in their countries of origin.]

Keywords: Auckland, constraints, ethnicity, immigration, nature-based recreation, participation, visitor survey, Wellington

138. Lovelock, B.; Lovelock, K.; Jellum, C.; Thompson, A. 2010: What recent migrants seek in New Zealand's great outdoors. Pp. 48–50 in Reis, A.; Jellum, C.; Lovelock, B.; Thompson, A. (Comps): Recreation values and natural areas. Proceedings of the Centre for Recreation Research Symposium 2010, 18–19 March, University of Otago, Dunedin, New Zealand.

[This paper examines the recreation practices of recent migrants to New Zealand, and documents their participation in nature-based, outdoor recreation.]

[Refer to entry no. 137]

Keywords: Auckland, constraints, immigration, participation, nature-based recreation, visitor survey, Wellington

139. Lovelock, B.A.; Robinson, K. 2005: Maximising economic returns from consumptive wildlife tourism in peripheral areas: white-tailed deer hunting on Stewart Island/Rakiura, New Zealand. Pp. 151–172 in Hall, M.; Boyd, S. (Eds): Nature-based tourism in peripheral areas: development or disaster? Channelview, Clevedon, UK.

[This book chapter discusses and examines the results of a survey undertaken in Rakiura National Park, Stewart Island/Rakiura between October 2001 and April 2002, which gathered data on hunter expenditure relating to trips to the island ($n = 53$). The aim of the survey was to collect baseline data on the economic value of tourism based on white-tailed deer hunting on the island, which would inform future development of the island's tourism economy. The chapter

discusses survey findings on hunters and hunting trip characteristics; expenditure relating to transport, equipment, food and beverage; and travelling companions (among other aspects). The authors concluded that although a considerable amount of money was spent by hunting parties on trips to the island, a large proportion of this was actually spent at the hunters' home base rather than on the island, and therefore it was these areas that received greater economic benefit.]

Keywords: deer, expenditure, hunting, Rakiura National Park, Stewart Island/Rakiura, tourism, visitor survey

140. Lovelock, K.; Lovelock, B.; Jellum, C.; Thompson, A. 2010: In search of balance, cultural difference and aesthetic sameness: recent Chinese immigrant experiences of outdoor nature-based settings in New Zealand. Pp. 51–53 in Reis, A.; Jellum, C.; Lovelock, B.; Thompson, A. (Comps): Recreation values and natural areas. Proceedings of the Centre for Recreation Research Symposium 2010, 18–19 March, University of Otago, Dunedin, New Zealand.

[This paper draws on the qualitative component of a mixed-method study that explored recent immigrants' recreation experiences of outdoor, nature-based settings in New Zealand. The paper draws on interviews conducted in Auckland and focusses on those participants who identified as Chinese.]

[Refer to entry no. 137]

Keywords: Chinese, culture, immigration, integration, outdoor recreation, visitor survey

141. Luck, M. 2003: Environmentalism and on-tour experiences of tourists on wildlife watch tours in New Zealand: a study of visitors watching and/or swimming with wild dolphins. Unpublished PhD thesis, University of Otago, Dunedin. 249 p.

[The study set out to develop a better understanding of participants on dolphin tours in New Zealand. In particular, their environmental values, attitudes and behaviour were examined, as were how those relate to visitors' experience on the tour. The study used three types of indicator scales to measure tourist experiences and was based on a survey of 733 visitors to three dolphin tour locations in Kaikoura, Akaroa and Paihia during 2000. The results indicated that tourists on dolphin tours generally had strongly-held environmental values and attitudes. Environmental behaviour was not equally strong though and visitor demographics appeared to have very little influence on either environmental consciousness or the on-tour experience. The scale used to measure preferred values, the new environmental paradigm scale (that measures environmental 'world view'), appeared a reliable and valid instrument but, in the specific research context, was of limited scope. A desire for more educational information on the tours by visitors was noted.]

Keywords: Akaroa, Kaikoura, marine, new environmental paradigm, Paihia, research, tourism, visitor attitudes, visitor experience, visitor survey, wildlife

M

142. MacLennan, P. 2000: Visitor information as a management tool: a review. *Science & Research Internal Report 180*. Department of Conservation, Wellington. 48 p.

[This report provides a comprehensive overview of the many information-based management tools and techniques. The report is divided into three sections that address: persuasive communication theory (conceptual approaches); information-based management tools and techniques; and the three key areas that such techniques are most effective in (visitor expectations, activity and site choice, and on-site behaviour). The author concluded that information tools and techniques could make a valuable contribution to the management of visitors in conservation areas and that this contribution could increase over time if relevant authorities were willing

to invest in ongoing research and evaluation to improve understanding on how to best utilise these tools. Finally, the report identified future research needs, which can be summarised as a requirement for DOC to undertake a comprehensive programme of research and evaluation, leading to a consistent, effective and efficient national approach to visitor management, and to ensure that this programme is developed and maintained over time.]

Keywords: DOC-managed areas, interpretation, recreation management, visitor management, visitor needs

143. Mayorga, J.J. 2006: Visitor satisfaction in the back country of New Zealand's Southland Conservancy: the impact of track conditions on the visitor experience. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 82 p.

[A thesis examining how much track conditions impact on the back-country visitor experience. The main objective of the research was to ascertain whether trampers on the notoriously muddy Dusky Track (Fiordland National Park) and North West and Southern Circuits (Rakiura National Park) perceived that track conditions were having a negative impact upon their tramping experience. The survey data were collected between March and April 2006 with the use of a semi-structured questionnaire. Eighty-three track users were interviewed 'before and after' the trip. Visitor satisfaction was not perceived as being reduced by poor track conditions and the author concluded that track conditions were assigned a relatively low level of importance in the overall tramping experience and that elements such as the 'nature' experience were considered much more important.]

Keywords: back country, Fiordland National Park, Rakiura National Park, Stewart Island/Rakiura, track conditions, tramping, visitor satisfaction, visitor survey

144. McIntosh, A.J. 2004: Tourists' appreciation of Maori culture in New Zealand. *Tourism Management* 25(1): 1-15.

[This paper discusses a study of the nature of demand for indigenous tourism with particular attention to the appreciation of indigenous culture gained by tourists. The study sought to: explore tourists' perceptions and expectations of Māori culture before and after their visit to New Zealand; examine the extent to which tourists visiting New Zealand were culturally motivated; and gain insight into the extent of cultural appreciation sought and gained by tourists. The study was based on semi-structured, face-to-face, in-depth interviews held with tourists of a range of nationalities and of different types arriving and departing through Christchurch International Airport, in May 2002. The survey yielded 24 short, arrival interviews and 46 more in-depth interviews with visitors. There was some evidence to support anecdotal conclusions about the similar demands that tourists have of their encounters with indigenous peoples. Five central dimensions of experience through which tourists came to appreciate the cultures of indigenous peoples were reported: gazing, lifestyle, authenticity, personal interaction and informal learning.]

Keywords: heritage, Māori, tourism, visitor experience, visitor survey

145. McIntosh, A.; Smith, A.; Ingram, T. 2000: Tourist experiences of Maori culture in Aotearoa/New Zealand. *Research Paper 8. Centre for Tourism, University of Otago, Dunedin. 13 p.*

[This report outlines the results of a study undertaken to explore tourists' experiences of Māori culture in New Zealand. The study, based on a survey of 1637 international tourists visiting three of New Zealand's most successful Māori tourist attractions (Whale Watch Kaikoura; Tamaki Tours, Rotorua and Te Papa, Wellington), aimed to identify the extent to which cultural enrichment was an important motivation for international tourists and to profile the range of tourists based on their motivations for visiting Māori attractions. The visitor segments were: cultural tourists; organised tour participants; cultural experientialists; once-in-a-lifetimers; family-fun lovers; and general sightseers. Most of the visitor segments were satisfied with their visit

and had experienced Māori culture to varying degrees. All six visitor segments were found to be distinct in terms of their reasons for visiting Māori attractions, their experiences of Māori culture, the cultural activities and attractions that each segment liked to visit and, to a lesser extent, their demographic and trip characteristics. The visitor segments were found to share a similar travel philosophy and placed similar importance on key personal values.]

Keywords: heritage, Māori, Kaikoura, Rotorua, Te Papa, tourism, visitor motivation, visitor segmentation, visitor survey, Wellington

146. McKay, H. 2006: Applying the Limits of acceptable change process to visitor impact management in New Zealand's natural areas. A Tourism Research Scholarships report to the Ministry of Tourism. Lincoln University, Lincoln (unpublished). 22 p.

[This report presents the findings of a study that investigated methods appropriate for applying the limits of acceptable change (LAC) planning framework to managing the impacts of visitors to New Zealand's natural areas. The LAC framework aims to support decisions about how much visitor-induced change (impact) in a natural area is acceptable. The key focus of the study was to consider how the public could be effectively included in the evaluative components of LAC-based decision-making, such as identifying area values, issues and concerns and setting acceptability standards for visitor impacts. The study was based on a survey of the Mingha-Deception track in Arthur's Pass National Park, and 14 interviews with track stakeholders were undertaken along with a questionnaire survey of 180 track users. The study found that the LAC process has the potential to be useful in the management of visitor impacts in New Zealand's natural areas as it provided a way of deciding what levels of visitor impact are acceptable.]

Keywords: Arthur's Pass National Park, limits of acceptable change, Mingha-Deception Track, recreation management, tramping, visitor impacts, visitor perceptions, visitor survey

147. McKay, H. 2006: Applying the Limits of acceptable change process to visitor impact management in New Zealand's natural areas. P. 58 in Beyond nature. Book of abstracts of the New Zealand Tourism and Hospitality Research Conference, 5-7 December 2006, Dunedin, New Zealand.

[Refer to entry no. 146]

Keywords: Arthur's Pass National Park, DOC-managed areas, limits of acceptable change, Mingha-Deception Track, recreation management, tramping, visitor impacts, visitor perceptions

148. Meyer, D.; Dewar, K. 1999: A new tool for investigating the effect of weather on visitor numbers. Pp. 145-155 in Smith, S.L.J. (Ed.): Tourism analysis. Longman Group, Harlow.

[This book chapter discusses the development of a method for understanding the relationship between weather and tourism. The method is illustrated through an investigation of the effect of rainfall on the daily visitor numbers for the Franz Josef Glacier visitor centre. The wider purpose of the study was to understand the effect of global warming and short-term rainfall patterns on tourism and tourist behaviour.]

Keywords: Franz Josef, research, tourism, weather, Westland Tai Poutini National Park

149. Mitchell, R.D. 1999: 'I hated Monday...': an investigation of the visitor experience at the Otago Settlers Museum. *Pacific Tourism Review* 3(2): 151-160.

[Abstract edited:]

This article presents the findings of a 'behavioural approach' study of the Otago Settlers Museum, Dunedin. It was based on the premise that heritage and nostalgia were becoming increasingly important as tourism products, and that nowhere was this more evident than in museums, which continue to grow in number and diversity. However, visitor studies have

tended to ignore the role of the visitor in defining their own experience. The study employed a qualitative methodology that used face-to-face interviews and direct observation. The study identified three main themes for the visitor experience: 'connection to self', 'education and learning' and 'mindful outcome', which highlighted that the visitor was undergoing a very personal, nostalgic experience that drew on his or her unique, past experiences.

Keywords: heritage, Dunedin, museum, Otago, visitor attraction, visitor survey

150. Mobius Research and Strategy Ltd 2003: Auckland Regional Council regional parks customer experience monitor 2002/2003. Auckland Regional Council, Auckland (unpublished). 34 p.

[A report on an assessment of satisfaction levels of visitors to Auckland's regional parks. The research used a mix of quantitative and qualitative research techniques: 1600 short, intercept interviews; 25 visitor regional parks photo visits (people were provided with a disposable camera and asked to photograph what was important about a regional park for them); and sessions with 10 focus groups of eight participants each. Overall satisfaction with the regional park network was 96% for 2002/03. The main reasons for any dissatisfaction related to: perceived crowding in some regional parks—primarily iconic sites and type-3 (managed) parks; accessibility in terms of distance to travel (note that this was primarily for type-1 ('remote') parks); difficulty in accessing information about specific parks, both before and during visits (this especially related to the suitability of areas for children); and security of vehicles at parking areas, particularly at track entrances.]

Keywords: Auckland, regional parks, visitor satisfaction, visitor survey

151. Moore, K. 1995: Understanding the individual recreationist: from motivation to satisfaction? Pp. 63–98 in Devlin, P.J.; Corbett, R.A.; Peebles, C.J. (Eds): Outdoor recreation in New Zealand. Department of Conservation and Lincoln University, Wellington and Lincoln.

[This chapter in the seminal *Outdoor recreation in New Zealand* addresses the issues surrounding recreation patterns and research on them. The chapter reviews work undertaken on outdoor recreation behaviours in New Zealand to 1995 and then discusses some interesting avenues of overseas research, concluding with recommendations for future research, which included: addressing the largely *ad hoc* research on motivations, expectations and satisfaction levels in New Zealand; addressing the lack of research on the behaviour of Māori recreationists; and undertaking more research on constraints to recreation (e.g. to women).]

Keywords: Māori, recreation, visitor behaviour, visitor satisfaction, visitor segmentation

152. Moore, K.; Fairweather, J.R.; Simmons, D.G. 2000: Visitors to Rotorua: characteristics, activities and decision-making. *TRREC Report Series 12*. Lincoln University, Lincoln. 79 p.

[This report presents results from two surveys of visitors to Rotorua, which investigated visitors' general characteristics and their decision-making processes. The first survey (Rotorua Visitors Questionnaire) examined 423 visitors' characteristics, and the second (Rotorua Visitor Flows and Decision-Making Questionnaire) investigated the decision-making patterns of 405 visitors. Visitors were predominantly domestic in origin, travelled as a family or as couples for the purpose of holiday or leisure, stayed for 1–3 days (two-thirds of visitors stayed overnight), used a variety of accommodation (but primarily motels), with almost two-thirds travelling by private car or van. For over half of the visitors to Rotorua, the most important natural attractions were those associated with the lakes. The forests—The Redwoods Whakarewarewa Forest, in particular—were also significant, but perhaps as secondary natural attractions. As would be expected, commercial

attractions were dominated by those associated with the area's thermal resources. The Luge and Gondola, however, were also significant attractions.]

Keywords: heritage, recreation, Rotorua, tourism, visitor behaviour, visitor characteristics, visitor survey

153. Moore, K.; Simmons, D.G.; Fairweather, J.R. 1998: Visitor decision-making, on-site spatial behaviours, cognitive maps and destination perceptions: a case study of Kaikoura. *TRREC Report Series 4*. Lincoln University, Lincoln. 68 p.

[This report presents results from a study of visitors to Kaikoura, which examined: their decisions to travel to New Zealand (for international visitors only) and to Kaikoura, their on-site behaviours, their cognitive maps and their perceptions and experiences of Kaikoura. Three related methods were used: a structured, questionnaire survey of a random sample of 232 visitors; qualitative and quantitative analyses of sketch maps of the Kaikoura area drawn by a sub-sample of 148 visitors, and qualitative analyses of unstructured interview notes derived from a different sub-sample of 46 visitors. The visitors to Kaikoura were attracted to the whales, seals and dolphins, and the most frequently visited places were the town's visitor information centre and the seal colony. The main themes from the qualitative analysis of interviews with visitors were that visitors valued the abundant marine life and Kaikoura as a nice coastal town in which to relax.]

Keywords: Kaikoura, recreation, tourism, visitor behaviour, visitor characteristics, visitor survey, wildlife

154. Moore, K.; Simmons, D.G.; Fairweather, J.R. 2001: Visitors to the West Coast: characteristics, attractions and decision-making. *TRREC Report Series 22*. Lincoln University, Lincoln. 81 p.

[This report presents results from a survey of visitors to the West Coast, which investigated visitors' general characteristics, the perceived attractions of the West Coast and their decision-making processes. Three survey methods were used to collect data and a combined total of 1232 responses from the three surveys formed the dataset for the report; a range of data collection sites were used for interviews and for the distribution of 'Diary' surveys. Most visitors to the West Coast were international in origin, travelled by private vehicle or hire vehicle, and were with partners or spouses or in family groups. Domestic visitors were older, on average, than international visitors. Almost half of all visitors had never been to the West Coast before yet nearly 70% of domestic visitors had been four or more times previously. Attractions of the West Coast were based predominantly on the natural environment. Visitors' importance ratings of specific attractions, scenic features and walks reinforced the importance of the natural and scenic features of the West Coast as attractions. Interestingly, accessible places and activities featured more than back-country and alpine regions.]

Keywords: recreation, tourism, visitor behaviour, visitor characteristics, visitor survey, West Coast

O

155. O'Neill, D. 1995: Socially sustainable tourism development: an investigation of crowding at four South Island tourist locations. Unpublished Masters of Commerce thesis, University of Otago, Dunedin. 275 p.

[This thesis investigates the social carrying capacity of four South Island natural tourist attractions (Aoraki/Mount Cook, Milford Sound, Greenstone and Caples Valleys, and Tairaroa Head). A standard questionnaire was developed and administered at the four sites during the summer of 1992. The results, based on data from 1023 visitors, indicated that, mostly, people encountered the number of visitors that they had expected to and, while the majority were

content with the numbers seen, significant percentages would have preferred to have seen a few, or even a lot less, other visitors. Overall, visitors' perceptions of crowding varied with three factors at all four sites: the number of other people that visitors had expected to see; the number of other people that visitors would have preferred to have seen; and whether or not visitors thought that there were too many other people present during their visit. The study concluded that recorded crowding levels at the four sites did not result in low satisfaction levels.]

Keywords: Aoraki/Mount Cook, crowding, Greenstone & Caples, Milford Sound, Taiaroa Head, visitor satisfaction, visitor survey

156. Olsen, N. 2002: Changes in the use of overnight facilities in the Tongariro Northern Circuit. Pp. 251–266 in Croy, W.G. (Comp.): Proceedings of the New Zealand Tourism and Hospitality Conference, 3–5 December 2002, Rotorua, New Zealand.

[The paper presents some of the results from a study of the use of overnight facilities in the Tongariro Northern Circuit track undertaken in the 2000/01 summer season. The data on use were compared with those from an earlier (1993/94) survey. The author discusses three main aspects of the study: who was using the facilities; where users travelled within the Circuit; and when the Circuit was in use. Two sources provided the study's data: a summer visitor survey of 1090 track users and morning mountain weather observations gathered over the entire summer season. Significant changes to both the user group and use patterns were identified and the author developed a model that could be used to predict visitor usage and flows at this and other sites in the future.]

Keywords: Tongariro Circuit Track, visitor flows, visitor survey, weather

P

157. Palmer, D. 1995: Visitor satisfaction: a methodology for determining the reasons for visitation and the influence of environmental factors on visitor satisfaction. Unpublished Master of Commerce thesis, University of Otago, Dunedin. 103 p.

[The purpose of the study was to develop a survey methodology that revealed: the reasons for visitation to particular heritage sites; the contribution of environmental factors to satisfaction/dissatisfaction; overall visitor satisfaction; and relevant visitor demographics. The driving themes of the methodology were economy, simplicity and transferability. Three sites were chosen for the study: Katiki Point Historic Reserve, Grave's Walkway and the Moeraki Boulders Reserve (all in or near Oamaru, South Island), with surveys conducted at each site during the shoulder season of 1994. A total of 195 survey questionnaires were returned. The study found that some form of environmental experience such as scenic beauty and natural features were sought by visitors to all sites. The greatest potential risk to visitor satisfaction was litter and vandalism and, at Katiki Point, access that was more challenging than expected.]

Keywords: heritage, Katiki Point, Oamaru, research, visitor satisfaction, visitor survey

158. Palmer, D. 1995: Visitor satisfaction: a report on a methodology used at Katiki Point Historic Reserve. Pp. 328–330 in Lee, S.; Everett, A.; Gray, V. (Comps): Pan-Pacific Conference XII: a business, economic and technological exchange. Proceedings of the Pan-Pacific Business Association Conference, May 29–June 1 1995, Dunedin and Queenstown, New Zealand.

[Brief outline of a research survey methodology using a questionnaire approach to ascertain visitor satisfaction levels in visitors to Katiki Point Historic Reserve, Oamaru.]

[Refer to entry no. 157]

Keywords: heritage, Katiki Point, Oamaru, research, visitor satisfaction, visitor survey

159. Pan, S.; Ryan, C. 2006: Determinants of outdoor tramping satisfaction—a Waikato example. P. 75 in Beyond nature. Book of abstracts of the New Zealand Tourism and Hospitality Research Conference, 5–7 December 2006, Dunedin, New Zealand.

[Refer to entry no. 160]

Keywords: Pirongia Forest Park, recreation, tourism, tramping, visitor motivation, visitor satisfaction, visitor survey

160. Pan, S.; Ryan, C. 2007: Mountain areas and visitor usage—motivations and determinants of satisfaction: the case of Pirongia Forest Park, New Zealand. *Journal of Sustainable Tourism* 15(3): 288–308.

[This paper reports on a study of visitor motivations and satisfaction at Pirongia Forest Park, New Zealand. The aims of the study were to: identify those factors that attracted visitors and motivated them to come to the park, segment visitors according to their motivations, and explore the relationship between motivations and satisfaction. The study was based on a questionnaire survey of 205 park visitors and was undertaken during the summer of 2002/03. Over 70% of respondents lived within 30 km of the park, over 50% has visited the park previously in the last 12 months and nearly 69% of visitors were classed as ‘day visitors’. Most visitors surveyed declared that they were either very or highly satisfied with their visit experience. The key motivations for park visitation were identified as to relax mentally and to experience calm and keep the body healthy.]

Keywords: Pirongia Forest Park, recreation, tourism, visitor motivation, visitor satisfaction, visitor survey

161. Parkin, D. 2006: Kapiti Island Nature Reserve 2005 visitation report. Internal Report. Department of Conservation, Wellington (unpublished). 23 p.

[The report outlines the results of DOC’s programme of visitor monitoring and management at the Kapiti Island Nature Reserve in 2005. The report found that: over 9000 people visited the island in 2005; weather conditions impeded visitation on nearly a third of available days; approximately 50% of total visitation occurred between December and March; the daily visitor limit was exceeded 28 times during the year. Overall, visitors reported that their visit was a positive experience. Management recommendations arising from the report include continuing existing measures to limit the accidental re-introduction of rodents to the island; revising the visitor questionnaire; improving the visitor permitting system to avoid the day limit being exceeded; and adopting some of the visitor suggestions for amenity improvements.]

Keywords: Kapiti Island Nature Reserve, nature-based recreation, visitor satisfaction, visitor survey, wildlife

162. Parkin, D. 2007: Tararua Forest Park alpine area: track marking, policy and visitor expectations—finding the right balance. Internal Report. Department of Conservation, Wellington (unpublished). 27 p.

[The report outlines the key criteria guiding the provision and management of tramping tracks on lands managed by DOC, and specifically the tracks and routes in Tararua Forest Park alpine area. This report also presents the results of a questionnaire survey of 175 visitors to the Tararua Forest Park. The purpose of the questionnaire survey was to collect data on track usage and determine, in the opinion of users, whether the tracks in the alpine area should be marked, and if so, the most preferred level of track marking. The survey was also undertaken to resolve differences in the management of the alpine area currently split between two offices. The main

finding of the survey was that most visitors believed that the tracks should be marked for safety reasons, seen as particularly useful in times of inclement weather.]

Keywords: recreation management, Tararua Forest Park, tracks, visitor expectations, visitor survey, wilderness

163. Parr, D. 2006: Angelus Hut and campsite visitor survey 2006 report. Internal Report. Department of Conservation, Wellington (unpublished). 55 p.

[A report on a survey of visitors to Angelus Hut and Campsite, Nelson Lakes National Park undertaken to ascertain: the current levels of crowding at the site; current management with particular regard to guided groups; and whether a booking system would be beneficial. An on-site visitor survey supplemented data from wardens' records and visitor intention forms; 264 questionnaires were returned. The survey indicated that visitors perceived there to be an overcrowding problem at the hut although the actual level of overcrowding was within DOC limits. Guided groups were found to add to the perceived crowding by hut users but detailed analysis did not support whether their actual presence made a difference to the overall perception of crowding. Several comments were made about hut design and fire exits and only 9% of respondents were in favour of a booking system for the hut. The report recommended reducing the number of bunk spaces from 30 to 26 and providing pack storage in the bunk area to avoid the blocking of emergency exits.]

Keywords: Angelus Hut, crowding, Nelson Lakes National Park, recreation management, visitor satisfaction, visitor survey

164. Parr, D. 2006: Molesworth road visitor survey 2006. Internal Report. Department of Conservation, Wellington (unpublished). 14 p.

[The report of a visitor survey undertaken at the Acheron Road of Molesworth Station to inform future plans for recreation activities along the access road. Three key information objectives were identified: activities desired by visitors; requirements for visitor facilities; and information needs. Data were also collected on visitor demographics, trip characteristics and satisfaction levels. An on-site survey method was used and 89 questionnaires were completed. The limited survey results reported a number of findings specific to the site.]

Keywords: Molesworth Station, visitor needs, visitor survey

165. Pearce, D.G.; Tan, R. 2004: Distribution channels for heritage and cultural tourism in New Zealand. *Asia Pacific Journal of Tourism Research* 9(3): 225–237.

[This paper examines the structure, functioning and management challenges of distribution channels for heritage and cultural tourism. The authors analysed the transcripts of in-depth interviews with the managers of 14 heritage and cultural tourism attractions in Wellington and Rotorua. The analysis identified a variety of different distribution channels used to reach international and domestic visitors and the group and independent segments within these markets. The factors accounting for differences in channel structure included: the breadth of product appeal, capacity issues and the level of commissionable products. Distribution channels for heritage and cultural tourism are complicated. Much of this complexity arises from the diverse nature of heritage and cultural tourism and the use of different channels to reach different market segments. Notable differences occurred between group and independent travellers.]

Keywords: distribution channels, heritage, Rotorua, tourism, visitor attraction, Wellington

166. Pearce, D.G.; Wilson, P.M. 1995: Wildlife-viewing tourists in New Zealand. *Journal of Travel Research* 34(2): 19–26.

[This paper presents the results of a study that aimed to profile wildlife-viewing tourists in New Zealand, establish how their characteristics differed from those of other international visitors

to the country and examine a range of visitor behavioural and attitudinal factors. The study was based upon two surveys: one generated from the statistical data collected by the New Zealand Tourist Board (the International Visitor Survey) and a 1993 survey of 474 visitors to 11 commercial wildlife viewing operations in the South Island. Those tourists who had engaged in some form of wildlife viewing constituted a potentially important segment of the international tourist traffic to New Zealand, having above-average total expenditure and lengths of stay and spreading the expenditure more widely throughout New Zealand. However, the authors concluded that the size and significance of these segments should not be overstated, as while small groups of specialist wildlife tourists do exist, the available evidence suggests that, for most people engaging in some form of wildlife-viewing tourism in New Zealand was but one activity among many.]

Keywords: ecotourism, South Island, tourism, visitor behaviour, visitor profiles, visitor segmentation, wildlife

167. Peebles, C. 1995: Outdoor recreation in New Zealand: Volume 2—a bibliography. Department of Conservation and Lincoln University, Wellington. 299 p.

[This is the second volume in a two-volume series addressing outdoor recreation research in New Zealand. Volume 1 is a collection of edited chapters grouped around nine themes addressing outdoor recreation research in New Zealand and was the first systematic attempt to describe and integrate New Zealand research on outdoor recreation. It was aimed at students and managers. Each chapter of Volume 1 describes, analyses and critiques research to date and then projects future research needs, which include Māori participation in outdoor recreation, patterns of use, research methods and managing outdoor recreation. The second volume is a bibliography that provides information on titles and key words of 1718 New Zealand research documents.]

Keywords: bibliography, DOC-managed areas, heritage, Māori, recreation management, research, visitor needs, visitor participation

168. Powell, J. 1998: Summer visitors to Matiu-Somes Island: characteristics, motivations, actions, opinions, impacts. Unpublished Master of Conservation Science thesis, Victoria University of Wellington, Wellington. 132 p.

[Document not accessible]

Keywords: Matiu-Somes Island, research, visitor survey

169. Price, M. 1998: Ecotourists in Dunedin—myth or reality?: a case study to determine if an ecotourist niche visits Dunedin. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 96 p.

[A report of a study of international and domestic visitors to Dunedin that was undertaken to determine visitors' profiles and motivations, their travel characteristics and whether they had long-term commitments to the environment, both on holiday and at home. The research was based on a questionnaire survey that was distributed at 10 randomly selected tourist sites, mostly between December 1997 and January 1998, and returned 254 responses. The respondents were generally well educated, were relatively affluent, travelled independently or in small groups, and stayed in mainly budget accommodation. The visitor profiles created from the survey data supported the results from previous studies of ecotourists. However, over half of the Dunedin visitors were under 40 years old, indicating an emergence of an increasingly young niche market. Visitors mainly came to Dunedin for its wildlife and heritage, and were motivated by learning about nature, culture and heritage. Many of them recycled paper and glass and preferentially purchased environmentally friendly products, suggesting that the respondents were relatively ecofriendly.]

Keywords: Dunedin, ecotourism, visitor characteristics, visitor profiles, visitor survey

170. Prince, T. 2004: Exploring the cultural construction of gender in active outdoor pursuits in New Zealand: a phenomenological perspective. *New Zealand Journal of Outdoor Education/Ko Tane Mahuta Pupuke* 1(3): 47–56.

[Abstract in full:]

Outdoor recreation and leisure research conducted in New Zealand suggests New Zealand females are still less involved in active outdoor pursuits than New Zealand males. However, the socio-economic and demographic characteristics of outdoor recreation participants that have been the main focus of leisure and recreation research to date do not explain the reasons why females are under-represented in active outdoor pursuits in this country. This paper proposes a more embodied experiential and humanistic treatment of women in outdoor recreation research to more adequately illustrate the complexities of women's involvement, or lack of, in active outdoor pursuits in New Zealand today.

Keywords: constraints, participation, outdoor recreation, research, women

171. Prospero, F.R. 2008: Park usage and perceived benefits for health and wellbeing: Belmont Regional Park, a case study. Unpublished Master of Health Sciences thesis, University of Otago, Wellington. 176 p.

[This project explores self-perceived benefits of visits to a large peri-urban 'green' area in a local setting using the Belmont Regional Park (3459 ha, Wellington) as a case study. The research aimed to profile park visitors, the activities undertaken at the park, the most valued features of the park and visitors' perceptions of the benefit, to the health and wellbeing, of using the park. Three complimentary approaches were used in the study: two on-site visitor surveys yielding 121 respondents, 12 in-depth interviews with key informants and a focus group session. The survey data provided a profile of park visitors and characteristics of their visits, while the interviews and focus group session contributed to an appreciation of different perspectives and values concerning the park. The park was found to be a very good setting for a holistic, well-being experience and therefore also a good setting for the promotion of healthy lifestyles. In addition, visits to the park were rich in social aspects (implicit in the data and qualitative information) even though this was not widely acknowledged.]

Keywords: regional parks, visitor benefits, visitor survey, Wellington

R

172. Reddiex, B.; Hill, C.; Wrightson, T. 2009: Recreation opportunities review in the Wellington Conservancy: Stage 1—qualitative research. Report to the Wellington Conservancy, Department of Conservation. Peter Glen Research, Lower Hutt (unpublished). 26 p.

[A report on research commissioned by DOC's Wellington Conservancy to identify the public's needs with regard to recreation in the parks and areas of public conservation land managed in the Conservancy. The objectives of the research were: to identify the type of active and passive activities people undertake, their requirements and facility desires; and to determine what members of the public perceive as the strengths and weaknesses of public conservation land with specific reference to recreational activity. An in-depth, qualitative review was undertaken, as was a full-scale, quantitative, telephone survey of 1000 people. The qualitative research reported here involved in-depth interviews with 44 residents of the two main user groups identified from earlier research. Users appeared reasonably satisfied with their current experience; potential users (or non-users) appeared to lack information on the experience that parks and reserves could

provide and to some extent had misperceptions of what the experience might be. The parks and reserves were used for a wide variety of activities and users noted that use needed to be balanced with other concerns such as conservation of the natural environment and cultural heritage, and providing an economic contribution.]

Keywords: parks, recreation, recreation management, visitor needs, visitor survey, Wellington Conservancy

173. Reddiex, B.; Hill, C.; Wrightson, T. 2009: Recreation opportunities review in the Wellington Conservancy: Stage 2—quantitative survey. Report to the Wellington Conservancy, Department of Conservation. Peter Glen Research, Lower Hutt (unpublished). 63 p.

[A report on research commissioned by DOC's Wellington Conservancy to identify the public's needs with regard to recreation in the parks and areas of public conservation land managed by the Wellington Conservancy. The objectives of the research were: to identify the type of active and passive activities people undertake, their requirements and facility desires; and to determine what members of the public perceive as the strengths and weaknesses of public conservation land with specific reference to recreational activity. The research used two approaches: an in-depth qualitative review and full-scale quantitative survey. The quantitative survey reported here involved a telephone survey of 1000 randomly selected people living across the greater Wellington region. Approximately 43% of residents had visited a DOC park or reserve in the region in the previous 12 months, undertaking a range of activities and generally achieving a high level of satisfaction. However, one-third of respondents had never visited a park or reserve and reported a lack of knowledge of what the facilities had to offer.]

Keywords: parks, recreation, recreation management, visitor needs, visitor survey, Wellington Conservancy

174. Reis, A.C. 2008: An empirical study of visitor conflicts in New Zealand Southland Conservancy: the case of hunters and trampers on Stewart Island. Centre for Recreation Research, University of Otago, Dunedin. 115 p.

[A report on research on visitor conflict between hunters and trampers on Stewart Island/Rakiura. The study, undertaken in summer 2006/07, involved questionnaire surveys of 83 trampers and 137 hunters, in-depth interviews and participant observation. Of the several reasons for conflicts between trampers and hunters that were identified, the main ones were: differences in the style of group behaviour; differences in hut behaviour and etiquette; differences in perceived group crowding (though largely intra-group and not hunting versus tramping groups); and some discomfort from trampers regarding firearms around huts, and general hunting ethics. However, the survey found that the degree to which such conflict actually occurred, and influenced visitors' experiences, was relatively small on the island.]

Keywords: conflicts, hunting, Rakiura National Park, recreation management, research, Stewart Island/Rakiura, tramping, visitor survey

175. Reis, A.C.; Higham, J.E.S. 2009: Recreation conflict and sport hunting: moving beyond goal interference towards social sustainability. *Journal of Sport Tourism* 14(2-3): 1-25.

[This paper critically explores the complexities of sport hunting and recreational conflict using quantitative and qualitative techniques implemented on Stewart Island/Rakiura, New Zealand.]

[Refer to entry no. 174]

Keywords: conflicts, hunting, Rakiura National Park, recreation management, research, Stewart Island/Rakiura, tramping, visitor survey

176. Reis, A.; Thompson, A.; Boyes, M.; Lovelock, B. 2010: 'Planting the seed': family preferences, experiences and benefits associated with outdoor recreation in Aotearoa/New Zealand. Report to Sport and Recreation New Zealand (SPARC). Centre for Recreation Research, University of Otago, Dunedin. 63 p.

[A report on a study that aimed to provide a better understanding of activity choices, experiences, benefits and constraints for family outdoor recreation in natural areas. The study was based on in-depth interviews with 25 families from Wellington, Dunedin and Twizel, which were conducted between late 2009 and early 2010. The study also analysed current Government initiatives intended to encourage family recreation in public natural areas. From the interviews, three major themes emerged: family life-stages, barriers to participation and cultural influences. The key findings were that health and fitness and family bonding were key motivations for outdoor recreation but that lifecycle changes were a factor in participation; time and energy and to some degree cost were identified as common constraints to participation; and socio-cultural differences between Pakeha, Māori and Pacific Islanders also created differences in recreation patterns.]

Keywords: constraints, Dunedin, families, outdoor recreation, participation, Twizel, visitor experience, visitor survey, Wellington

177. Research New Zealand 2007: Public and staff conservation values. Research New Zealand, Wellington (unpublished). 104 p.

[A detailed report of the results of a survey of both the general public (a telephone survey of 1501 people) and DOC staff (an internet survey of 1339 people) to establish: their respective conservation values in terms of the meaning of conservation and its benefits; their level of awareness of conservation issues and the Department's work; the relative importance of conservation; and people's attitudes toward the environment. The survey yielded many significant findings including: there were lower levels of general conservation awareness among 15-24 year olds, and Māori, Pacific and Asian peoples; most people were generally pro-environmental in attitude; and over 80% of the public responded that conservation was above average in importance. A feature of the report was the segmentation of the public respondents into six groups based upon their conservation attitudes and awareness: actively concerned, concerned, idealists, unaware, conservatives and pragmatists. The segmentation exercise was designed to assist DOC in strategically targeting sections of the public to further raise their awareness of conservation and promote pro-environmental attitudes.

Keywords: conservation, environment, new environmental paradigm, research, values, visitor segmentation, visitor survey

178. Rogers, K. 1995: The effects of aircraft overflights on visitors to the Mount Cook National Park. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 63 p.

[This thesis explores visitor experiences in Aoraki/Mount Cook National Park, particularly visitor expectations and perceptions of crowding, and whether or not visitors were disturbed by aircraft overflights during their visit to the park. The study was based on a questionnaire administered to visitors in the Blue Lake area of Mount Cook National Park (202 responses) and also to climbers at the park headquarters (80 responses) over 1 week in January 1995. The survey used 'control' and 'non-control' questions, with the former omitting specific questions about aircraft disturbance and the latter including them. The results of the survey indicated that the area was meeting the expectations of most visitors to the park and that experiences were mostly positive. Crowding was not found to be a general problem in the park, and only a segment of the sample considered aircraft overflights to be a disturbance. The thesis concludes with some recommendations for park management.]

Keywords: aircraft, Aoraki/Mount Cook National Park, crowding, visitor impacts, visitor satisfaction, visitor survey

179. Ross, J. 2005: Visitor counters in parks: a review of management practice for counter calibration. *Department of Conservation Technical Series 33*. Department of Conservation, Wellington. 34 p.

[The objective of this review was to identify effective methods for calibrating pedestrian- and vehicle-counting instruments in a countryside recreation environment. Over the years, DOC has used a variety of visitor counting methods with mixed results and this review was designed to inform the development of Standard Operating Procedures for counter calibration in future visitor monitoring. The report reviews the literature on counter calibration, as well as the practices used by other park and land-management organisations around the world. Some of the resulting recommendations include: the regular testing and calibration of counters before, during and after each calibration exercise; the central processing and storage of counter data; and that counter calibration should be compulsory to ensure accurate data gathering.]

Keywords: DOC-managed areas, monitoring, research, visitor counting, visitor survey

180. Ross, N. 1996: Otago Central Rail Trail: who's using it? Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 68 p.

[This thesis reports the results of a survey of visitors to the Otago Central Rail Trail before it was fully established, with the purpose of identifying the types of visitors, the activities they pursued and the reasons why they visited the trail. The questionnaire was completed by 47 visitors, most of whom were accompanied by a DOC guide. Respondents were mainly female, 50–69 years old, retired and living in the adjacent communities. Visitors were mainly walking the trail and mostly using the section between Middlemarch and Daisybank. The author concluded that additional information about the trail was needed, and that the provision of shades, shelters and toilets was considered critical for summer users.]

Keywords: Otago, rail trail, visitor attraction, visitor profiles, visitor survey

181. Rundle, S. 2008: 2005/06 recreation survey: analysis of visitor satisfaction. Internal Report. Department of Conservation, Wellington (unpublished). 74 p.

[A report on an extensive visitor survey undertaken by DOC in 2005/06 to assess the satisfaction levels of visitors to DOC-managed areas and record their perceptions of the Department itself. The survey used a questionnaire that was partly administered and partly self-selected and that covered a wide range of DOC sites, including remote back-country sites. The survey had a specific focus on satisfaction with facilities as a more meaningful measure of visitor satisfaction. A total of 3650 responses were collected, yielding a considerable range of results. The overriding conclusion was that the facilities themselves were a major influence on the level of overall satisfaction, with DOC needing to concentrate on providing a good array and standard of facilities across the conservation estate, including basic visitor facilities, interpretation and consistent fee structures. An additional important conclusion was that DOC needs to rethink its approach in terms of social impacts, in particular how these are identified and measured across the conservation estate, along with research into visitors' values about their expected and perceived experiences.]

Keywords: DOC-managed areas, recreation, visitor satisfaction, visitor survey

182. Rundle, S. 2009: Holdsworth Exit survey 2009. Internal Report. Department of Conservation, Wellington (unpublished). 19 p.

[A report on a DOC trial of a survey technique to assess visitor counts and information at Holdsworth campsite in the Tararua Forest Park, Wairarapa, for which no recent visitor data had been collected. The technique used an automated entry counter combined with an exit visitor survey to establish the average number of visitors, car occupancy and visitor activity at the site. The majority of visitors were local to the Wairarapa (few international visitors visited the site). Visitors were generally aged 35–64 years, and walking and tramping were the most popular

activities. The survey found that 20% of visitors did not walk out of the car park at Holdsworth and that 76% were day trippers, which was consistent with most visitors being local.]

Keywords: Holdsworth, Tararua Forest Park, visitor counting, visitor survey

183. Rundle, S. 2009: Outdoor recreation trends in New Zealand: implications for the Department of Conservation. Internal Report. Department of Conservation, Wellington (unpublished). 52 p.

[A report on the future role of DOC in increasing participation levels in outdoor and/or nature-based activity recreation and tourism in New Zealand for the decade ahead (as at 2009). The report is based on a review of the literature on participation in outdoor recreation and tourism on public conservation land, and was intended to inform strategy development. The report discusses a number of key themes: key drivers of participation; population factors; expressed demand for outdoor recreation and participation trends; and the implications for DOC. Other issues addressed included the implications of the claimed decline in visitor rates to public conservation land in the USA. The report concludes with three key recommendations for DOC: DOC should commit to one high-quality survey of participation in track-based recreation; it should make better use of existing information; and it needs to embrace change if participation rates of the domestic population are to be maintained, let alone increased.]

Keywords: DOC-managed areas, outdoor recreation, research, tourism, visitor demand, visitor participation

184. Rundle, S. 2009: Results of the 2008 Lake Waikaremoana Great Walk visitor survey. Internal Report. Department of Conservation, Wellington (unpublished). 51 p.

[A report on a survey of overnight visitors' experience on the Lake Waikaremoana Track during January–May 2008. The track is one of the Great Walks and the survey was conducted to obtain baseline data about visitor experience prior to the abolition of youth fees for Great Walks. A total of 216 survey responses were generated from visitors staying at one of the four huts on the track. Among the many results of the survey, it was found that: track maintenance levels were perceived to vary considerably across tracks and huts; water taxi operations required improvement in terms of their customer services; wardens were seen as a positive aspect; and improved information supply and on-site interpretation were called for.]

Keywords: Great Walks, Lake Waikaremoana Track, visitor satisfaction, visitor survey

185. Rundle, S. 2010: 2008 Pouakai Circuit visitor survey report. Internal Report. Department of Conservation, Wellington (unpublished). 38 p.

[A report on a survey of visitors to the Pouakai Circuit track adjacent to Egmont National Park, Taranaki. The survey's main objectives were to ascertain who was walking the Circuit, their itineraries, their enjoyment factor and their opinion of the track infrastructure. The survey was undertaken between December 2007 and April 2008, and 149 usable responses were returned. Visitors could be divided into two main groups: Taranaki locals who had used the track repeatedly over time and everyone else (with few overseas visitors). Changes made in the park were perceived in the main as improvements by long-term users. The Circuit is a low-use track compared to other popular walks and most people walking it were not from Taranaki, yet the majority not walking the Circuit were from Taranaki. The average trip experience scored 8 of out 10, and issues noted were incorrect trip signage and some infrastructure concerns.]

Keywords: Egmont National Park, Pouakai Circuit, tracks, visitor experience, visitor survey

186. Rundle, S. 2010: Results of Abel Tasman Coast Track overnight visitor survey 2008. Internal Report. Department of Conservation, Wellington (unpublished). 73 p.

[A report on a survey of overnight visitors' experiences on the southern Abel Tasman Coast Track during January–March 2008. The track is one of the Great Walks and the survey was

conducted to obtain baseline data about visitor experience prior to the abolition of youth fees for Great Walks. A total of 201 survey responses were generated from visitors staying at various huts on the track. Among the many results of the survey, it found that: 95% of respondents were independent walkers, of which 71% were tramping and 9% kayaking; nearly 60% of visitors were from overseas; and most respondents were young (median age: 30–33 years). There was generally a high level of satisfaction with facilities (individual grievances were noted) and, overall, the visitors experience rating (rather than satisfaction) scored an average of 8.4 out of 10.]

Keywords: Abel Tasman Coastal Track, Abel Tasman National Park, visitor experience, visitor survey

187. Ryan, C.; Cessford, G. 2002: Developing a visitor satisfaction monitoring methodology. Pp. 204–251 in Ecotourism wilderness and mountain tourism: issues, strategies and regional development. Proceedings of an international conference, 27–29 August 2002, Dunedin, New Zealand.

[A research paper on the issues associated with monitoring visitor satisfaction, firstly presenting a review of the literature on satisfaction modelling and then discussing methods used in DOC-managed areas. The paper concluded that visitor satisfaction was determined by a number of variables that include past experience, perceived crowding and levels of tolerance as well as the actual attributes of the place being visited. Based on the literature, satisfaction can be measured at two levels, the micro and the macro. Regarding satisfaction at the macro level, visitors may construct a holistic assessment of the whole of their visitor experience, and within this holistic measure, the perceived disadvantages of a less than satisfactory aspect of their visit may be either forgotten or deemed to be of lesser importance. Another aspect thought to be important was the number of encounters and the perceived effects of crowding.]

Keywords: DOC-managed areas, monitoring, research, visitor satisfaction

188. Ryan, C.; Cessford, G. 2003: Developing a visitor satisfaction monitoring methodology: quality gaps, crowding and some results. *Current Issues in Tourism* 6: 457–507.

[Refer to entry no. 187]

Keywords: DOC-managed areas, monitoring, research, visitor behaviour, visitor satisfaction

S

189. Schanzel, H. 1998: The effectiveness of environmental interpretation: understanding the values gained from wildlife viewing tourism experiences. *Environmental Perspectives* 21: 10–13.

[Refer to entry no. 190]

Keywords: ecotourism, visitor perceptions, visitor survey, wildlife

190. Schanzel, H.A. 1998: Wildlife viewing ecotourism on the Otago Peninsula: the experiences and benefits gained by penguin-watching visitors. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 72 p.

[This thesis presents the results of a study of the expectations, motivations, levels of satisfaction and experiences of visitors undertaking wildlife viewing on the Otago Peninsula. The study was based on in-depth interviews with 61 visitors and a questionnaire survey of 167 visitors to two wildlife-viewing destinations: Penguin Place and Wings of Kotuku. The study used an analysis method called ASEB (activities, settings, experiences, benefits) demi-grid analysis to provide a deeper understanding of the beneficial experiences of visitors to the locations. In this way,

insight could be gained (as expressed in the respondents' own words) into the fundamental experiential product being provided by these attractions. The results of the study indicated that visitors at both attractions had become more environmentally aware and had received mood benefits on-site that did not necessarily translate into environmental activism off-site. Other findings included the importance of 'contributing to conservation efforts', the desired 'simplicity and naturalness of the setting' and the preference of 'personal interpretation through an experienced guide'.]

Keywords: ecotourism, Otago Peninsula, visitor experience, visitor survey, wildlife

191. Schanzel, H.A.; McIntosh, A.J. 2000: An insight into the personal and emotive context of wildlife viewing at the Penguin Place, Otago Peninsula, New Zealand. *Journal of Sustainable Tourism* 8(1): 36–52.

[Refer to entry no. 190]

Keywords: ecotourism, Otago Peninsula, visitor experience, wildlife

192. Schmidt, H. 1997: Day walkers in Tongariro National Park: characteristics, motives, expectations, perceptions and satisfactions. Unpublished Master of Arts in Geography thesis, Victoria University, Wellington. 173 p.

[This thesis presents the results of a study that examined various aspects of visitors' experiences in Tongariro National Park. The study, based on a questionnaire survey of 773 day walkers using five different walking tracks in the national park during the summer of 1997, tested a model of factors that were thought to affect the behaviour of outdoor recreationists. Slightly over half of the survey respondents were New Zealanders followed by British, German and other overseas visitors, and levels of satisfaction with the walk experience were generally high. The most commonly cited motivations for the trip were for walking itself and to view the scenery, and different walking routes were chosen mainly based on practical considerations such as time available, difficulty and access.]

Keywords: Tongariro National Park, visitor behaviour, visitor satisfaction, visitor survey, walkers

193. Sharpe, A.G. 1999: Displacement of New Zealand trampers from the Great Walks track network, New Zealand. Unpublished Post-graduate Diploma thesis, Lincoln University, Lincoln. 69 p.

[This thesis presents the results of a study that investigated overcrowding and its effects on trampers on the Great Walks. The study, which used an interview sampling method of people based within the Christchurch area, specifically focussed on those who felt displaced from these tracks, their reasons why and how they were affected in terms of their coping strategies. The study found that displacement that was ascribed to crowding had occurred, particularly at huts but also, at certain times, on the tracks themselves (identified as 'hotspots'). The main coping strategy was choosing to walk the tracks at alternative times to the peak times. Walkers also attributed their displacement to the over-development of facilities on the tracks, hut fees and cultural differences between themselves (i.e. New Zealanders) and walkers or visitors from overseas.]

Keywords: crowding, displacement, Great Walks, national parks, tramping, visitor survey

194. Smith, A. 2000: The motivations and perceptions of tourists at three Māori tourism attractions in Aotearoa, New Zealand. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 70 p.

[This thesis presents the results of a study of the motivations and experiences of visitors to indigenous (Māori) tourist attractions in New Zealand. The study specifically looked at whether the key motivations of visitors to Māori tourist attractions were to experience or learn about Māori culture, what perceptions of Māori culture international tourists held before their visitor

experience, and whether any changes occurred in these perceptions as a result of the visit. The research was conducted at three major Māori tourism attractions in New Zealand (Te Papa Tongarewa, Wellington; Tamaki Māori Village, Rotorua; and Whale Watch Kaikoura). The study was based on 93 qualitative face-to-face interviews conducted with respondents both before and after their visit. Overall, there were several motivators encouraging tourists to visit Māori tourism attractions, but experiencing Māori culture itself was just one of these. The study also found that respondents had held a number of perception of Māori culture before their visit, but did not report any significant change in these perceptions as a result of their experience, although some deepening of appreciation was perceived.]

Keywords: heritage, Māori, Kaikoura, Rotorua, Te Papa, visitor attraction, visitor motivation, visitor survey, Wellington

195. Smith, C.R. 2007: Visitor monitoring report: Aoraki/Mount Cook National Park Hooker Valley Track. Internal Report. Department of Conservation, Wellington (unpublished). 37 p.

[A report of a visitor survey undertaken on the Hooker Valley Track in Aoraki/Mount Cook National Park over the period January–March 2007 to inform a planned upgrade of the track. The survey trialled a new method of visitor research using qualitative comments and a cognitive map to indicate where thoughts and/or events had occurred for visitors, who were asked to write these separately on paper. A total of 120 responses were coded and sorted into groups with common themes: natural features, visitor experiences, facilities and information. The survey found that, overall, the level of satisfaction was 99%; a crowding issue was perceived, but of only slight crowding; there was minimal visitor conflict; facilities and interpretation were generally good but more signage would be welcome; and mostly positive comments were made regarding views, scenery and alpine features.]

Keywords: Aoraki/Mount Cook National Park, Hooker Valley Track, visitor satisfaction, visitor survey

196. Sowman, P.; Pearce, D. 2000: Tourism, national parks and visitor management. Pp. 223–243 in Butler, R.W.; Boyd, S.W. (Eds): Tourism and national parks: issues and implications. John Wiley & Sons, Chichester.

[Abstract in full:]

This book chapter presents an integrated framework for the analysis of visitor management in national parks. Its application is illustrated through reference to two national parks (Paparoa and Westland Tai Poutini) in New Zealand. Structured interviews were conducted with 125 visitors to Westland, and 142 at Paparoa. In essence, visitor management is seen as the process by which visitors' use of a national park is structured by an intervening group of managers who determine, influence or organise the interaction between demand (the visitors) and supply (the national park).

Keywords: Paparoa National Park, visitor management, visitor survey, Westland Tai Poutini National Park

197. Squires, C. 2007: Mount Aspiring National Park alpine climber survey 2006–07. Internal Report. Department of Conservation, Wellington (unpublished). 47 p.

[A report on a survey undertaken to assess climbers' experiences during their visits to Mount Aspiring National Park. The survey was specifically designed to assess: their expectations and impacts relating to possible overcrowding, the social impacts of seeing and interacting with other climbers and the social impacts of helicopter access. The survey was targeted a broad range of climbers and 137 responses were returned. More than half of all climbers surveyed were from overseas, with the greatest proportion from Australia, while quite a relatively high percentage of New Zealand climbers were local. Over half of the visitors had used helicopter access on

their trip and only 13% of all respondents thought that helicopter use created a negative impact. Overcrowding at huts or while climbing, although perceived as high at times, was not considered to have a detrimental impact upon the visitor experience.]

Keywords: aircraft, climbing, crowding, Mount Aspiring National Park, social impacts, visitor satisfaction, visitor survey

198. Squires, C. 2008: Rob Roy Track visitor survey 2007/08. Internal Report. Department of Conservation, Wellington (unpublished). 51 p.

[A report of a visitor survey carried out on the Rob Roy Track in Mount Aspiring National Park during the 2007/08 summer. The main purpose of the survey was to gauge visitor opinion regarding current levels of track use and any associated impacts from other visitors. The survey also provided a snapshot of the demographics and characteristics of visitors to the area and 306 surveys were completed. Visitors to the track were of all ages, typically international visitors from a range of countries, travelling independently and walking in small groups (similar to past survey findings). The most liked and/or valued aspects of the visitor experience were the views, scenery, beauty, glacier, waterfalls and rivers. The level of perceived crowding on the track was considered by some to be higher than expected but was generally tolerated. Nearly half of visitors reported feeling slightly to moderately crowded at some point during their walk. Large groups, particularly over-sized commercial groups, appeared to have the greatest impact on this perception.]

Keywords: crowding, Mount Aspiring National Park, Rob Roy Track, social impacts, visitor satisfaction, visitor survey

199. Squires, C. 2008: Siberia Valley visitor survey 2007/08. Internal Report. Department of Conservation, Wellington (unpublished). 67 p.

[A report of a visitor survey carried out on the Siberia Valley in Mount Aspiring National Park during the 2007/08 summer. The main purpose of the survey was to gauge visitor opinion regarding current levels of aircraft activity in the valley. The survey also provides a snapshot of the demographics and characteristics of visitors to Siberia Valley and 199 surveys were completed. Visitor demographics were found to be similar to those of previous years; the number of visitors using aircraft to access or leave the valley had doubled since the 2004/05 visitor survey; visitors valued nature, scenery and natural peace and quiet the most of all from their experience; relatively low proportions (5%) reported aircraft to be the least liked aspect of their trip but did state that the behaviour of other visitors was the most annoying aspect.]

Keywords: aircraft, Mount Aspiring National Park, Siberia Valley, visitor impacts, visitor satisfaction, visitor survey

200. Squires, C.; Harbrow, M. 2008: Hollyford Track visitor survey 2006/07. Internal Report. Department of Conservation, Invercargill, New Zealand. 63 p.

[This report outlines the findings of a survey of 153 overnight visitors to the Hollyford Track in Fiordland National Park. The survey was carried out in early 2007 and was part of a wider programme to assess the effects of aircraft activity on visitors at key sites on the Milford Aerodrome flight path. Overall, 30% of respondents were annoyed by hearing or seeing helicopters during their visit, and 28% were annoyed by fixed-wing aircraft. Annoyance with both types of aircraft exceeded the 25% management threshold outlined in the Fiordland National Park Management Plan. Jet boats were also a significant source of annoyance. Both aircraft and jet boats were important modes of access for visitors. The track was enjoyed by respondents for its natural values such as peace and quiet and scenery. The facilities and services on the track were also generally rated highly. There was little crowding evident and interactions with other visitors were generally positive.]

Keywords: aircraft, Fiordland National Park, Hollyford Track, visitor impacts, visitor satisfaction, visitor survey

201. Stewart, E.J.; Hayward, B.M.; Devlin, P.J.; Kirby, V.G. 1998: The 'place' of interpretation: a new approach to the evaluation of interpretation. *Tourism Management* 19(3): 257–266.

[A paper presenting the results of a study that drew on 'sense of place' theory to develop an approach to evaluating the provision of interpretation at cultural sites. An initial literature review on sense of place theory informed the research methodology used to evaluate the interpretive services at Aoraki/Mount Cook National Park, New Zealand during 1995–96. The study was based on initial interviews with interpretation providers (mainly DOC) followed by 60 semi-structured interviews with park visitors and participant observations. The study found that visitors to the national park could be classified into four groups depending on their use of interpretation: seekers, stumblers, shadowers and shunners. The interpretation at Mount Cook was deemed effective in extending all but the shunners' understanding of the park as a special place. A number of other tangible and intangible factors were also identified as contributing to the development of visitors' appreciation of place. The case was made for a more theory-driven approach to the evaluation of interpretation.]

Keywords: Aoraki/Mount Cook National Park, interpretation, research, visitor perceptions, visitor segmentation, visitor survey

202. Sutton, P. 2007: Queen Charlotte Track user research 2004–2005. *Occasional Publication* 70. Nelson/Marlborough Conservancy, Department of Conservation, Nelson. 113 p.

[A report of a survey undertaken on the Queen Charlotte Track, over a 12-month period in 2004–2005. The main purpose of the survey was to profile track users and define factors that influenced track use levels and impacted on the user experience. A secondary purpose was to investigate other issues for consideration in the future management of the track. Surveys were delivered to 2068 track users who were approached both before and after their track experience. Survey responses indicated that track characteristics, combined with multi-use options, attracted a significant number of users who were comfort seekers and socially motivated. Users reported high levels of satisfaction and low perceptions of crowding, both of which indicated the potential for a higher carrying capacity. The uni-directional nature of most track use contributed to this result. The survey did identify some conflict between users (mainly between walkers and mountain bikers) but at only low levels. The provision of facilities was a key issue for users and other stakeholders.]

Keywords: conflicts, Queen Charlotte Track, Marlborough Sounds, mountain biking, visitor satisfaction, visitor survey, walkers

203. Sutton, S. 1998: Visitor perceptions of aircraft activity and crowding at Franz Josef and Fox Glaciers. *Science for Conservation* 94. Department of Conservation, Wellington. 27 p.

[This report discusses the impacts arising from visitor activities and specifically focusses on two aspects: the social impacts of aircraft activity (i.e. visitor annoyance) and the issue of visitor crowding. The study looked at two highly frequented tourist destinations: Franz Josef and Fox Glaciers on the west coast of the South Island. A questionnaire survey was used to explore visitor perceptions at the glacier sites, and 3282 valid responses were gathered during the summer of 1994/95, along with aircraft activity data during the survey. The survey results indicated that crowding occurred only during the periods of highest visitation in the main valleys. Annoyance at aircraft activity also occurred to a significant degree only when the number of aircraft using a glacier valley reached or exceeded 18 per hour. Visitors to the valley-sides, however, were much more sensitive to the numbers of other visitors and to air traffic.]

Keywords: aircraft, crowding, Fox Glacier, Franz Josef, social impacts, visitor satisfaction, visitor survey, Westland Tai Poutini National Park

204. Sutton, S. 2004: Outdoor recreation planning frameworks: an overview of best practices and comparison with Department of Conservation (New Zealand) planning processes. Pp. 407–423 in Smith, K.A.; Schott, C. (Comps): Tourism research: advances and applications. Proceedings of the New Zealand Tourism and Hospitality Research Conference, 8–10 December 2004, Victoria University, Wellington.

[Abstract edited:]

In this paper, drawing on reviews of planning frameworks used in Canada, the USA and Australia, DOC's strategic and operational planning is used as a case study in the application of best practice planning for recreation and tourism management. The author proposes that protected areas managed by DOC are vital for ensuring the protection of indigenous biodiversity and making associated natural and historic heritage available for current and future generations to enjoy. There are inherent conflicts in promoting public access to areas with these important values, including not only the protection of the resource base, but also sustaining a quality visitor experience. Understanding the resource and social conditions and monitoring for change is fundamental to good management. The comparison shows that the strengths of DOC's current processes are: describing outcomes through performance reporting (by topics), pursuing these outcomes as drivers of the organisation's business, involving stakeholders in planning processes, and a formalised facility management procedure and associated asset management system.

Keywords: DOC-managed areas, management, outdoor recreation, research

205. Sutton, S. 2010: Segmentation of visitors. Internal Report. Department of Conservation, Wellington (unpublished). 42 p.

[A draft of an internal DOC briefing document providing an overview of literature relating to nature-based visitor segmentation and market segmentation. The document references recreation motivations, DOC research on conservation values, DOC research on visitor characteristics and different segmentation approaches in nature-based tourism and recreation across New Zealand (DOC; Auckland Regional Council), Canada (Parks Canada) and Australia (ATC and Parks Victoria).]

Keywords: DOC-managed areas, research, visitor segmentation

206. Sutton, S.; Collerton, H. 2010: Tourist destinations on public conservation lands: on a road less travelled? Pp. 82–86 in Reis, A.; Jellum, C.; Lovelock, B.; Thompson, A. (Comps): Recreation values and natural areas. Proceedings of the Centre for Recreation Research Symposium 2010, 18–19 March, University of Otago, Dunedin, New Zealand.

[Abstract edited:]

DOC has been considering how to compare the many visitor destinations that it manages, in terms of the likelihood that people will choose to stop and explore specific places. GIS tools have been used to score all the road-accessible places that DOC manages to identify the 'potential market' for the opportunities provided there. The attractiveness of each place is also rated to reflect its 'pull' that will encourage people to travel and visit, or to stop while passing. The resulting 'gravity model' provides a useful starting point for comparing over 1000 different places for their likely contribution to providing recreation and tourism opportunities. Comparison with actual visitor numbers gives managers an opportunity to consider which places appear to have the potential to grow, which are performing as expected and which appear to be highly successful.

Keywords: accessibility, constraints, DOC-managed areas, GIS, tourism, travel distance

T

- 207. Tal, A. 2004: 'Naturally quiet': towards a new legislative strategy for regulating air space above national parks in New Zealand. *Otago Law Review* 10(4): 537–574.**

[A paper discussing the issue of aircraft overflights in DOC-managed areas and their impacts on park users and inhabitants from a largely legal perspective. The paper discusses the legal framework for the regulation of overflights in New Zealand and internationally, and DOC's policies on aircraft and overflights in national parks and other conservation lands.]

Keywords: aircraft, DOC-managed areas, regulations, visitor impacts

- 208. Tan, S.W.; Barnes, D.J.; Smith, R.W. 1997: Measuring performance through visitors' eyes: a case study—New Zealand Historic Places Trust. Pp. 322–340 in Bushell, R. (Comp): *Tourism research: building a better industry. Proceedings from the Australian Tourism and Hospitality Research Conference, 1997, Canberra.***

[Abstract in full:]

The tourist's experience of the service quality provided by tourist attractions plays a large part in how the tourist feels about the overall visit to New Zealand. The management of tourist attractions such as historic sites, houses and museums are now facing a challenge to meet the changing demands and an increasing number of visitors. The visitor survey presented in this paper represents a methodology that allows the New Zealand Historic Places Trust to establish and identify the customers, their needs and how satisfied they are with the services provided. This research is different from the traditional visitor survey, in that it shifts the focus from marketing information to the assessment of the performance of the institution or quality of service provided, as seen through the visitors' eyes.

Keywords: heritage, management, research, tourist attractions, visitor survey

- 209. Tham, W.L. 2005: Walking heritage trails in urban areas: the planning and development of trails that incorporate built heritage. Unpublished Masters of Tourism thesis, University of Otago, Dunedin. 223 p.**

[This thesis documents a study of urban heritage walking trails in two cities in New Zealand (Dunedin and Napier) carried out in the summer of 2004. The trails varied in their form and focus: Napier has formalised a walking trail around its Art Deco buildings, whereas Dunedin has an informal walking trail that focusses on the history, architecture and early businesses of Dunedin. The research was based on a questionnaire survey of visitors and walking trail participants; the Dunedin survey returned 207 responses and the Napier survey, 208 responses. The survey data provided an insight into the characteristics of heritage visitors in New Zealand. To provide a complete picture of the various stakeholders' views on the development of heritage trails, interviews with heritage managers in the two cities were also undertaken. This research highlights important issues that heritage trail developers should address, including place marketing, partnership with the city council and involvement of local residents in the identification of themes and participation in deciding the direction of tourism development.]

[Refer to entry no. 14]

Keywords: Dunedin, heritage, Napier, trails, urban, visitor characteristics, visitor survey

- 210. Thomas, D.R.; Butler, M. 2006: The exploration of barriers to participation in, and enjoyment of, outdoor recreation. University of Auckland, Auckland (unpublished).**

[Document not accessible; Refer to entry no. 211]

Keywords: constraints, management, recreation, visitor survey

211. Thomas, D.R.; Cessford, G. 2008: Outdoor recreation participation and constraints: a national scoping survey. Internal Report. Department of Conservation, Wellington (unpublished). 50 p.

[A report of a survey on participation, and particularly non-participation, in outdoor recreation in natural and scenic areas, national parks, reserves and other conservation lands. The aims of the study were to: identify the extent of non-participation, establish the extent of latent demand, explore what constrained non-participants and explore the relative importance of vehicle security as a constraint. A national, random telephone survey was undertaken and 1527 interviews completed. The survey reported that the overall levels of participation in outdoor recreation were high but that there was significant scope to increase participation from non-users; 54% reported they would like to start doing an outdoor activity and the most common constraints were: lack of time; weather conditions; cost; health problems; and family constraints.]

Keywords: constraints, DOC-managed areas, outdoor recreation, visitor participation, visitor survey

212. Thompson, A.; Lovelock, B.; Reis, A.; Jellum, C. 2008: Hakatere Conservation Park visitor study, 2007–2008. Centre for Recreation Research, University of Otago, Dunedin. 79 p.

[This report presents the findings of a visitor survey and interviews with local users of the Hakatere Conservation Park (HCP), Canterbury. The purpose of the study was to gain insights on and collect statistical data about recreational users' and visitors' experiences in the park. Self-completion questionnaires were distributed to visitors in the area through strategically located collection and drop-off points during December–May 2007/08. A total of 509 usable questionnaires were returned by post. The typical visitor to the HCP was 35–54 years old, a New Zealander, and worked in a professional or managerial position. Most respondents were South Islanders, with 78% originating from the Canterbury and North Otago regions. International respondents made up 18% of the sample, and were predominantly European in origin; however, many of these international visitors resided in New Zealand.]

Keywords: Canterbury, Hakatere Conservation Park, recreation, visitor behaviour, visitor experience, visitor survey

213. Thornley, L.; Waa, A. 2009: Increasing public engagement with historic heritage: a social marketing approach. *Science for Conservation* 294. Department of Conservation, Wellington. 57 p.

[A report on a project undertaken to help DOC to meet its goal of increasing the value of historic heritage among New Zealanders. The objectives of the project were to determine the suitability of social marketing as an approach to increase the value New Zealanders place on historic heritage and on the conservation of heritage, and to provide advice on goals and objectives for a social marketing intervention to improve how people value historic heritage. A literature review was undertaken, programme planning processes were applied, and key DOC staff were consulted through workshops. The literature review showed that limited research of relevance to New Zealand had been carried out and that there were indications that New Zealanders tended to lack engagement with historic heritage, despite viewing it as important. A two-tiered approach for delivering a social marketing intervention was recommended.]

Keywords: heritage, research, social marketing

214. Thyne, M.A. 2001: The importance of values research for nonprofit organisations: the motivation-based values of museum visitors. *International Journal of Nonprofit and Voluntary Sector Marketing* 6(2): 116–130.

[This paper examines the idea that research on museum visitors must move away from demographic segmentation and factual recall, and towards psychographic segmentation (the

division of visitors into groups based on lifestyle choices) and values. The paper discusses exploratory research undertaken at the Otago Museum, which looked at the motivation-based values of the museum patrons. The research was based on an interview survey of museum visitors. Visitors were approached randomly as they walked around the museum and asked to participate in a brief interview. In total, 18 interviews were carried out. Respondents were asked to discuss their reasons for coming to the museum, and specifically why these reasons were important to them. The most important finding in the study was the prevalence of socially oriented values (being with friends and family), whereas traditionally a museum visit has been linked to more individualistic values, such as education and knowledge. These findings have important implications for museum managers (and other non-profit organisations) in that they show the value of psychographic segmentation.]

Keywords: Dunedin, heritage, marketing, museum, Otago, visitor segmentation, visitor survey

215. Thyne, M.A.; McIntosh, A. 2004: Value-based motivations of visitors to living history attractions in New Zealand. P. 84 in Smith, A.; Schott, C. (Comps): Tourism research: advances and applications. Proceedings of the New Zealand Tourism and Hospitality Research Conference, 8–10 December 2004, Victoria University, Wellington, New Zealand.

[This paper explores the links between participating in heritage and the personal values sought by visitors to heritage attractions in New Zealand. The research was based on 53 in-depth, semi-structured interviews with visitors to two popular living history attractions in the South Island of New Zealand: Shantytown (Greymouth) and Ferrymead Heritage Park (Christchurch). The interviews were structured to identify visitors' values through their own words and expressions. The results of the research included quotes from the interview transcripts to help demonstrate, amongst other things, the complexity of personal 'consumption' of heritage. The paper raised issues important for product development and the marketing of living history attractions in New Zealand. It also argued that further attention needed to be directed at tourism research, specifically on experiential and values-based perspectives of tourists' experiences, to facilitate an understanding of the underlying reasons and values associated with, and gained from, consuming heritage tourism.]

Keywords: heritage, South Island, tourism, visitor experience, visitor motivation, visitor survey

216. Todd, S.; Lawson, R. 2001: Lifestyle segmentation and museum/gallery visiting behaviour. *International Journal of Nonprofit and Voluntary Sector Marketing* 6(3): 269–277.

[This paper discusses segmenting visitors by lifestyle to understand how museum and art gallery visits fit in with other aspects of the visitors' life. Research to 2001 had tended to focus on those who actually visited, but little had been done to enhance an understanding of non-visitors. The study data were taken from the 'New Zealand towards 2000' database. This contains information from 3773 New Zealanders' responses to a self-completion questionnaire that included questions on frequency of visits to art galleries and museums. The authors, who carried out a lifestyle analysis, identified seven segments of New Zealanders, with a significant relationship evident between lifestyle grouping and frequency of visits to museums and art galleries. For example, they found that a sizeable segment of the population was unlikely ever to visit a museum or gallery. The study suggests that visiting is not dependent on the actual exhibition or institution, but rather that such visits are incompatible with non-visitors' lifestyle. As each of these lifestyle segments also demonstrates significantly different media characteristics, there are important implications for the placement and tone of promotional messages.]

Keywords: art galleries, heritage, museum, visitor participation, visitor segmentation

217. Tourism Resource Consultants 2007: Visitor monitoring report: Cape Foulwind Walkway visitor survey (draft). Report to the Department of Conservation. Tourism Resource Consultants, Wellington (unpublished). 18 p.

[The report is based on a survey of visitors to the Cape Foulwind Walkway undertaken in February 2007 by Tourism Resource Consultants for DOC. Walkway use was found to be relatively complex, with three main types of visitors to the area: those using just one end of the walkway (the Lighthouse end); those walking the entire track; and those just viewing the seals at the Tauranga Bay end. This was the first collection of visitor data for the walkway (the Tauranga Bay end has been more extensively surveyed) and the report concluded that there was scope for enhancement of the visitor arrival area at the Lighthouse end of the walkway and increased use of this less-used end of the track.]

Keywords: Cape Foulwind Walkway, visitor satisfaction, visitor survey

218. Tourism Resource Consultants 2007: Visitor monitoring report: Franz Josef Glacier Valley survey of free independent travellers. Report to the Department of Conservation. Tourism Resource Consultants, Wellington (unpublished). 24 p.

[This report is based on a visitor experience survey undertaken in the Franz Josef Valley between January and February 2007 by Tourism Resource Consultants on behalf of DOC. The survey specifically elicited responses from free, independent travellers (largely non-guided visitors) to questions about: overall satisfaction; visitor crowding; conflicts between visitors and activities; visitor displacement; and satisfaction with interpretation services and facilities. Overall, the quality of the visitor experience meant that there was a high level (90%) of visitor satisfaction; dissatisfaction with visitor crowding had increased from the previous year's survey but there appeared to be minimal conflict within the visitor experience with types of activities undertaken. The greatest dislike was the lack of access to the glacier, which had come about through a natural change in the direction of the Waiho River the previous year.]

Keywords: Franz Josef, visitor satisfaction, visitor survey

219. Tourism Resource Consultants 2008: Wanganui Conservancy recreation strategy: background research and trend analysis. Report to the Department of Conservation. Tourism Resource Consultants, Wellington (unpublished). 79 p.

[This report presents the results of an analysis of recreation, tourism and population data for the Wanganui Conservancy, North Island. The aim of the analysis was to inform the Conservancy's recreation strategy and predict future trends and patterns in visitor activities and recreation demand. The report discusses the demand-driven visitor characteristics and trends in the Conservancy and identifies what DOC facilities and services are needed to meet future demand. The number of visitors using public conservation land in the Wanganui Conservancy exceeds 360 000 people a year, most using Egmont National Park. Visitor demand has been stable for a number of years, with little sign that it will vary dramatically in the future, and most of this demand is from domestic visitors. Commercial demand in the Conservancy had declined over the previous 4 years and, overall, the report suggested that there were opportunities for DOC to play a greater advocacy role in terms of recreation in the Conservancy.]

Keywords: North Island, recreation management, research, strategy, visitor characteristics, visitor demand, Wanganui Conservancy

U

- 220. UMR Research 2008: National park participation: estimation omnibus results [June 2008]. Report to the Department of Conservation, UMR Research, Wellington (unpublished). 11 p.**

[The results of a telephone survey undertaken on a random sample of the public ($n = 750$) in June 2008 to ascertain the level of visitation to DOC-managed areas over the previous 12 months. The survey's methodology had been developed from similar previous surveys undertaken by UMR in 2007 and earlier. Initially, 53% of respondents said that they had visited a DOC-managed area; however, the inclusion of questions on which sites they had visited allowed a more precise estimation of visitor participation, which was revised to almost 41% for the previous year. Of these respondents, 21% had visited a national park.]

Keywords: DOC-managed areas, national parks, visitor participation, visitor survey

V

- 221. Valentine, B. 2005: Too many people on the Hooker Valley Track, Aoraki/Mount Cook?: perception, reality and management. Unpublished Graduate Diploma thesis, University of Otago, Dunedin. 55 p.**

[This thesis presents the results of a study of crowding on the Hooker Valley Track, Aoraki/Mount Cook National Park. The results of the study's survey of 54 track walkers were compared with existing data, including that on perceptions of the track, and the impact of seasonality on the results was investigated. Approximately one-third of the surveyed visitors who walked on the Hooker Valley Track went as far as the Terminal Lake, at the end of the track. Most visitors were travelling with family and friends and none were on a tour, which meant that there were very few large visitor groups and consequently few complaints about group sizes. Most visitors had encountered about the number of people they had expected to or a few more or less, and the survey indicated that at this time of the year, crowding did not really spoil visitors' overall enjoyment of the track. Significantly, 30% of the respondents said that they had timed their visit (in winter) to avoid crowding at busier times.]

Keywords: Aoraki/Mount Cook National Park, crowding, Hooker Valley Track, visitor survey

- 222. Vervoort, L.; Olsen, N. 2005: Access to recreation opportunities in regional parks. Internal Report. Auckland Regional Council, Auckland (unpublished). 9 p.**

[This internal report reviews the key findings of an investigation into the recreation opportunities in Auckland regional parks and identifies three primary issues connected with the objective of improving accessibility to the parks for everyone: the reduction of barriers to the enjoyment of regional parks; the promotion of under-utilised or little-known aspects of the regional park network; and the improvement of park design to increase accessibility for people, especially people with limited mobility. The main findings of the research were that while regional parks did not meet or suit everyone's recreational needs, people consistently stated that they valued the parks' large natural settings for informal recreation and the opportunity to escape from the pressures of life. Barriers to non-participation included a general lack of knowledge about what regional parks offer. Moreover, the research identified that many people lacked confidence to partake in outdoor activities.]

Keywords: accessibility, Auckland, regional parks, visitor participation, visitor survey

223. Vervoort, L.; Olsen, N. 2005: Demographic and leisure trends in the Auckland region. Internal Report. Auckland Regional Council, Auckland (unpublished). 6 p.

[A report on some of the demographic and social trends in the Auckland region, that highlights some of their potential influences on recreation and leisure trends. The report is based largely on a study of recent and emerging trends in the demography of the Auckland regional population prepared by the Auckland Regional Council's (ARC's) Social and Economic team. The purpose of the study was to inform a number of programmes in which the ARC is involved, such as the Regional Open Space Strategy and the Regional Sports and Physical Activity Strategy, as well as the regular interaction between the ARC and other public and private park and recreation providers. The report concluded that there was growing evidence that, with an increasingly urbanised population, people lacked the knowledge and confidence to explore and enjoy the natural settings of the parks. ARC research also showed that people's level of knowledge of what recreational opportunities were available was low.]

Keywords: Auckland, regional parks, visitor participation, visitor survey

224. Vervoort, L.; Olsen, N. 2008: Park visitor behaviour and attitudes survey. Internal Report. Auckland Regional Council, Auckland (unpublished). 9 p.

[A report on a survey of 849 visitors to Auckland regional parks undertaken December 2007, which was aimed at furthering the Auckland Regional Council's understanding of: reasons for and barriers to visiting regional parks; attitudes towards events at regional parks; satisfaction levels with park facilities; attitudes towards farming operations in the parks; levels of awareness and use of park notice boards; and levels of awareness and attitudes to open sanctuaries in parks. Overall, respondents to the survey were very satisfied with their park experiences but many people were unaware of what regional parks had to offer. The survey showed the effectiveness of events as promotional tools and (especially) for engaging with under-represented groups such as the young and families. Information on parks is extremely important for most visitors. Nearly all respondents used the park notice boards and were reasonably satisfied with what was being provided. There is, however, a need to improve regular maintenance of notice boards, make information more current and relevant, especially on the condition and characteristics of the park tracks, and provide more information on the history, and flora and fauna, of the parks.]

Keywords: Auckland, regional parks, visitor attitudes, visitor participation, visitor survey

225. Vervoort, L.; Olsen, N.; Edmonds, N. 2004: Recreation trends research. Internal Report. Auckland Regional Council, Auckland (unpublished). 5 p.

[This report outlines the results of research undertaken for Auckland Regional Council (ARC), its implications for the management of ARC's regional parks and a programme for future research. It summarises several demographic and social trends and their implications for regional parks and looks at recent patterns of regional park use (based on visitor surveys). Among many conclusions, the authors found that the challenge for the managers of regional parks was to keep parks relevant to peoples' needs while staying true to the core role of the parks. That is, to keep meeting people's common expectations while recognising that the way recreational opportunities are delivered in the parks may need to change. This will inevitably mean greater involvement of ranger staff and the greater use of strategic partnerships with other public and private providers.]

Keywords: Auckland, regional parks, recreation, visitor participation, visitor survey

226. Viken, C. 2001: Information preferences and management needs among visitors at beaches in the Catlins. Unpublished Graduate Diploma thesis, University of Otago, Dunedin. 68 p.

[This thesis reports the findings from a survey of 63 visitors to the Catlins—an unspoilt, remote area on the southeastern coast of the South Island. The aim of the survey (undertaken in November 2000) was to examine the information needs of visitors to the area. Three beaches

were selected and information about people's information preferences and management needs was collected using a questionnaire. Just over half of the respondents believed that there was a need for increased visitor management in the area, mainly through the provision of additional rubbish bins, more site information and guidance on visitor behaviour in the relatively fragile area.]

Keywords: beaches, Catlins, interpretation, visitor needs, visitor survey

227. Visser, C.A. 1995: Displacement in a backcountry setting: a qualitative study. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 46 p.

[A thesis that explores the concept of displacement in a New Zealand back-country setting through interviews with two groups of trampers from Fiordland National Park: an on-site group and locals who were 'off site'. The results of the investigation showed that both groups of walkers used a variety of coping mechanisms to overcome the adverse effects of increasing visitor numbers, which included both cognitive and behavioural mechanisms. Importantly, a number of users expressed the view that they had been displaced, largely by the social impact of other people.]

Keywords: displacement, Fiordland National Park, visitor satisfaction, visitor survey

228. Visser, C. 2007: Fiordland National Park visitor centre survey 2007. Internal Report. Department of Conservation, Wellington (unpublished). 23 p.

[A report on a visitor survey undertaken to inform the development of a new Fiordland National Park visitor centre, in Te Anau. The author surveyed 392 visitors to the existing centre between March and May 2007 and the survey was designed to establish: the characteristics of visitor centre users; their motivation for visiting and method of finding out about the centre; satisfaction levels with facilities and services; how the centre compared to other visitor centres visited; and where improvement could be made. Respondents were generally very happy with their visitor experience and the centre staff were particularly important in this outcome. The average visitor was aged 20-39 years old, the largest group were New Zealanders, only 8% were travelling with children and the centre compared favourably with other visitor centres experienced.]

Keywords: Fiordland National Park, visitor survey

229. Visser, C.; Harbrow, M. 2007: Key Summit day visitor survey. Department of Conservation, Invercargill. 60 p.

[This report details the results of a survey of visitors to Key Summit on the Routeburn Track in Fiordland National Park carried out between January and March 2007. The 463 respondents were: mainly under the age of 40 years (52%); predominantly overseas visitors (with only 8% being New Zealanders); predominantly independent travellers travelling in groups of two; and were mostly (95%) first-time visitors. The visitor experience was generally positive and few negative comments/dislikes were expressed. The survey also found that crowding did not exceed the management threshold of 50%; other visitor activities (aircraft; commercial, guided groups; other visitor behaviours; large groups) did not adversely impact on the visitor experience to a great degree and levels of annoyance with aircraft were below the management threshold of 25% set in the Fiordland National Park Management Plan.]

Keywords: crowding, Fiordland National Park, Routeburn Track, visitor satisfaction, visitor survey

230. Visser, C.; Harbrow, M. 2009: Hollyford Track visitor survey 2008/2009. Internal Report. Department of Conservation, Wellington (unpublished). 61 p.

[A report on a repeat survey of visitors to the Hollyford Track, Fiordland National Park undertaken between January and April 2009. The survey, with 88 responses, was part of a wider programme to monitor the effects of aircraft on visitors to the national park. Visitors considered the track to be well managed and they had an enjoyable experience, with natural values such as scenery,

nature and flora and fauna being highly rated. There was a predominance of New Zealand visitors and most users were fairly experienced trampers. Annoyance with aircraft exceeded the 25% management threshold for the third year running, and deer recovery was specifically mentioned for the first time.]

Keywords: Fiordland National Park, Hollyford Track, visitor satisfaction, visitor survey

W

231. Walrond, C. 2001: Encounter levels—a study of backcountry river trout anglers in Nelson–Marlborough and Otago. Unpublished PhD thesis, University of Otago, Dunedin. 262 p.

[A social study of back-country anglers was carried out over the 1996/97 and 1997/98 fishing seasons on rivers in the Nelson–Marlborough region and Otago. The study focussed on anglers' feelings toward encountering other people during their fishing experience. The study was centred on a questionnaire survey of almost 900 anglers across the two regions and included an angling diary. Three distinct subgroups of anglers were identified and surveyed: residents; unguided non-residents and guided non-residents. The highest ranked sources of satisfaction on back-country rivers were peace and solitude, the natural environment and/or scenery, and spotting trout. The survey results indicated that anglers were very sensitive to encounters on back-country river fisheries largely owing to the changes of trout behaviour caused by earlier anglers fishing the water and disturbing trout. Low actual, expected, tolerable and preferable encounter rates were documented and these decreased with difficulty of access. This further suggested that anglers were very sensitive to visitor encounters and clearly indicated that anglers desired low-encounter angling experiences.]

Keywords: angling, crowding, Nelson, Marlborough, Otago, rivers, visitor experience, visitor survey

232. Walton, S.C. 1995: Perceptions of crowding on the Kepler Track and visitor management strategies. Unpublished Post-graduate Diploma thesis, University of Otago, Dunedin. 55 p.

[A thesis that examined crowding on the Kepler Track, Fiordland National Park, through a survey of 184 track users undertaken between December 1994 and January 1995. The aim of the study was to analyse crowding in recreational settings and how it was perceived. The survey results reflected previous research in that the perception of crowding was influenced by the way an individual expected and preferred the experience to be and that there was no evidence for a positive relationship between satisfaction and crowding, with the result that a track user could feel it was overcrowded and yet still report a positive level of overall satisfaction.]

Keywords: crowding, Fiordland National Park, Kepler Track, visitor satisfaction, visitor survey

233. Ward, M.; Aickin, J.; McElrea, A.; Olsen, N. 2009: Ethnic minorities' preferences and needs survey. Internal Report. Auckland City Council, Auckland (unpublished). 10 p.

[A report for Auckland Regional Council focussing on ethnic minorities, including New Zealand Māori, which are under-represented as visitors to regional parks; their level of satisfaction is lower than that for visitors as a whole, particularly when compared with that of New Zealand European visitors. The survey has shown that: minority ethnic groups are less likely to visit a regional park compared with other parks; lack of knowledge is the main barrier to ethnic minority groups visiting regional parks but increased awareness increases the likelihood of them visiting a regional park; ethnic minorities are less satisfied with a visit to a regional park,

however they value regional parks for many of the same reasons that the wider public does, such as their natural and undeveloped settings; ethnic minorities are prepared to travel some distance to a regional park provided they are certain about what they will be able to enjoy there. The main point of difference between the preferences of ethnic minorities and the wider public is that they seek more facilities, especially around group activities, food and food preparation.]

Keywords: Auckland, ethnic minorities, regional parks, visitor survey

234. Ward, M.; Aickin, J.; McElrea, A.; Olsen, N. 2009: Public satisfaction with regional parks and expectations of park tracks. Internal Report. Auckland Regional Council, Auckland (unpublished). 8 p.

[A report on recent surveys of public satisfaction with regional parks and of public expectations of and levels of satisfaction with tracks in Auckland regional parks. The level of satisfaction of regional parks visitors remains consistently high, at over 90%. According to the recent intercept survey, 98% of people were either satisfied or very satisfied with their recent visit to the parks. There are three areas that have shown a slight decline: satisfaction levels with the provision of regional parks; public awareness of the parks; and satisfaction levels of younger people, Pacific Island peoples and those of Asian ethnicities. Park visitors were very satisfied with the type and quality of the walking tracks in regional parks. There remains, however, a problem with the information available on and about the tracks. The authors recommended that a simple track coding system, as opposed to a classification system, be set up as part of the review of the Regional Parks Management Plan.]

Keywords: Auckland, regional parks, research, visitor survey

235. Warren, J.; Ashton, E. 2000: New Zealand historic and cultural heritage: an exploratory study of public perceptions and expectations. Centre for Research Evaluation and Social Assessment, Wellington. 42 p.

[Abstract edited:]

The aims of this exploratory research were to identify: the public's views of what makes up their historic and cultural heritage; how members of the public value historical and cultural heritage; their expectations of how heritage should be managed; and how much effort DOC should put into historic and cultural heritage work compared to its other work in conserving natural resources and promoting visitor services. The study used focus groups to gather information on these aims. In general, focus group participants had seldom previously discussed historic and cultural heritage with others or contemplated it themselves. As discussions developed, participants seemed to discover a passion for, and desire for the protection of, the things they identified as part of their heritage. People discussed their heritage in terms of both general and specific components. Almost all participants indicated that their heritage was a very important part of their lives. The components that make up participants' heritage were grouped under six categories: landmarks, values, symbols and icons, activities and events, knowledge and skills, and the environment.

Keywords: DOC-managed areas, heritage, research, visitor perceptions

236. Wells, A. 2009: Dingle Burn Valley visitor survey 2008/09. Department of Conservation, Wellington (unpublished). 33 p.

[A report of a visitor survey carried out in the Dingle Burn Valley, Hawea Conservation Park, over the 2008/09 summer. The main purpose of the survey was to obtain a snapshot of the demographics and characteristics of visitors to Dingle Burn Valley and to ascertain the perceptions, and social impacts, of aircraft activity in the valley. A total of 58 visitors were surveyed. Most visitors were from the South Island followed by those from the USA, who were mainly on guided fishing trips. The majority were part of independent groups and there was a

high degree of repeat visitation. Opinions on aircraft access were varied, with predominantly positive comments and it was concluded that direct social impact was not an issue in the valley at that time.]

Keywords: aircraft, Dingle Burn Valley, DOC-managed areas, Hawea Conservation Park, visitor satisfaction, visitor survey

237. Westerbeke, P.G. 1995: Department of Conservation visitor and information centres: understanding visitor satisfaction. Unpublished Master of Arts (Applied) in Social Science Research thesis, Victoria University, Wellington. 109 p.

[Abstract edited:]

A thesis that reported on levels of visitor satisfaction with DOC visitor and information centres. Visitor satisfaction was measured by the evaluation of three variables: what visitors thought overall of the centres, level of visitor satisfaction with individual service centres, and how well visitors thought that they were provided for by the centres. Research data were collected through the use of an interview-administered questionnaire. A sample of 20 visitor and information centres were used in the research, and 2803 questionnaires were completed. Overall, visitors were very satisfied with the visitor and information centres. However, there were differences in the levels of satisfaction between particular visitor groups and between visitors to particular types of centres. These differences can be accounted for in terms of visitor behaviour, and the different needs of certain visitor groups. In particular, the greater need for information expressed by overseas and under-40-year-old visitors was identified as contributing to the lower satisfaction levels of these groups.

Keywords: research, visitor centres, visitor satisfaction, visitor survey

238. Wray, K.; Booth, K.L. 2010: Attitudes towards commercial recreation on public conservation lands. *Science for Conservation* 301. Department of Conservation, Wellington. 62 p.

[This report reviews the 'state of knowledge' about the attitudes of visitors toward the provision of commercial recreation services on public conservation lands. The report was based on a literature review, the synthesis of preliminary findings from a doctoral research project and a focus-group workshop that provided a 'sounding board' for the study's findings and conclusions. The literature review concluded that little research had been undertaken to date on the social effects of commercial recreation. The preliminary results of the doctoral research were based on a survey of visitors to remote and wilderness areas of Fiordland National Park; 18 interviews had been completed at the time of this study. Overall, the study found that the topic of commercial recreation on public lands is multi-dimensional, attracts differing and sometimes opposing views, and is potentially controversial.]

Keywords: commercial recreation, DOC-managed areas, research, visitor attitudes, visitor survey

239. Wray, K.; Booth, K.; Espiner, S.; Harbrow, M.; Kazmierow, B. 2006: Characterising the New Zealand wilderness experience: a case study of Fiordland National Park. P. 71 in *Beyond nature. Book of abstracts of the New Zealand Tourism and Hospitality Research Conference, 5-7 December 2006, Dunedin, New Zealand.*

[Abstract edited:]

A paper on a study of the remote and/or wilderness visitor experience in Fiordland National Park. The two main objectives were to develop a method to monitor visitor use and experience of remote and wilderness areas, and to obtain in-depth information from visitors about their experiences, motivations, perceptions, expectations and levels of satisfaction. Visitors to remote areas of the park were asked to complete a daily journal of their trip, detailing information such as where they went, what they saw and what the experience meant to them. Over 70 trip diaries were completed by trampers, kayakers, climbers, hunters and anglers. The findings revealed

many common themes and ideas, despite the diversity of respondents and places visited. Important aspects of the experience included solitude, freedom, isolation from human activities, challenge, personal growth and a connection with nature. The dimensions of the Fiordland remote and/or wilderness experience are presented, along with a critical discussion of the methods used.

Keywords: Fiordland National Park, outdoor recreation, visitor experience, visitor survey

240. Wray, K.; Harbrow, M.; Kazmierow, B. 2005: Planning for visitor management at Mason Bay (Rakiura National Park, Stewart Island). *DOC Research & Development Series 222*. Department of Conservation, Wellington. 81 p.

[A report on research that aimed to obtain accurate baseline data on the use patterns and visitor impacts at Mason Bay, to explore management and stakeholder concerns, and to develop an appropriate monitoring strategy to inform the future management of the area. The project was based on a multi-phase approach that used the limits of acceptable change (LAC) framework. The approach included a two-stage focus group, made up of stakeholders; an on-site visitor survey; on-site observations; and participant observation. The results revealed that, at the time, most visitor impacts were social, and were likely to be due to the increasing diversity of visitor groups using the area. Social impacts included crowding, unrealistic visitor expectations, inappropriate visitor behaviour and conflict between visitor groups. The impacts were discussed in relation to stakeholder and manager views, and recommendations were made as a result. The paper concludes that the Mason Bay recreation experience must be regarded in a wider context, and that, under growing pressure from tourist activities and increased numbers, the Department must be clear about the recreation experience it wishes to provide.]

Keywords: limits of acceptable change, management, Rakiura National Park, research, Stewart Island/Rakiura, visitor impacts, visitor survey

3. Keyword index: themes

KEYWORD	INDEX NUMBER
Accessibility	133, 134, 206, 222
Aircraft	93, 178, 197, 199, 200, 203, 207, 236
Angling	231
Art galleries	216
Back country	53, 54, 94, 95, 96, 97, 98, 99, 100, 104, 105, 114, 115, 116, 119, 143
Beaches	226
Bibliography	7, 24, 167
Canoeing	27, 29
Chinese	140
Climbing	130, 197
Commercial recreation	238
Community	12
Conflicts	44, 52, 91, 92, 94, 174, 175, 202
Conservation	177
Constraints	53, 83, 107, 131, 132, 133, 134, 137, 138, 170, 176, 206, 210, 211
Crowding	27, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 54, 66, 67, 94, 114, 115, 116, 119, 120, 121, 128, 155, 163, 178, 193, 197, 198, 203, 221, 229, 231, 232
Culture	140
Cycling	108, 122
Deer	131, 132, 139
Designation	6
Disability	133, 134
Displacement	85, 114, 115, 116, 119, 120, 121, 193, 227
Distribution channels	165
Diving	83
DOC-managed areas	2, 6, 8, 9, 10, 30, 41, 42, 43, 45, 46, 48, 49, 50, 53, 54, 58, 59, 61, 64, 65, 85, 96, 117, 118, 121, 123, 125, 128, 142, 147, 167, 179, 181, 183, 187, 188, 204, 205, 206, 207, 211, 220, 235, 236, 238
Dogs	18
Ecolabel	71
Ecotourism	1, 24, 71, 101, 102, 103, 112, 113, 124, 166, 169, 189, 190, 191
Environment	177
Ethnicity	137
Ethnic minorities	18, 233
Events	106
Expenditure	139
Families	25, 176
Fishing	57, 83
Front country	121
GIS	79, 206
Great Walks	77, 114, 115, 116, 119, 184, 193
Heritage	5, 14, 21, 23, 24, 30, 45, 48, 51, 58, 60, 61, 72, 73, 74, 75, 76, 109, 129, 144, 145, 149, 152, 157, 158, 165, 167, 194, 208, 209, 213, 214, 215, 216, 235
Hunting	83, 131, 132, 139, 174, 175
Immigration	107, 137, 138, 140
Integration	140
International	124
Interpretation	21, 22, 23, 68, 111, 142, 201, 226
Landscape	72, 73, 74, 75, 76
Leisure	111
Limits of acceptable change	110, 146, 147, 240
Management	47, 55, 121, 123, 204, 208, 210, 240
Māori	21, 22, 23, 51, 58, 67, 86, 129, 144, 145, 151, 167, 194
Marine	11, 57, 91, 92, 141
Marketing	214
Mining	5

Continued on next page

KEYWORD	INDEX NUMBER
Monitoring	50, 179, 187, 188
Motivations	81, 82, 113
Motorboats	91, 92
Mountain biking	44, 52, 202
Museum	149, 214, 216
National parks	46, 50, 93, 111, 114, 115, 116, 118, 119, 125, 128, 193, 220
Nature-based recreation	24, 137, 138, 161
New environmental paradigm	141, 177
Noise	41
Outdoor recreation	140, 170, 176, 183, 204, 211, 239
Parks	88, 172, 173
Participation	137, 138, 170, 176
Rail trail	26, 65, 108, 122, 180
Recreation	7, 9, 10, 11, 13, 19, 24, 25, 30, 41, 48, 49, 52, 53, 58, 64, 77, 78, 81, 82, 83, 84, 85, 86, 97, 98, 99, 100, 106, 128, 151, 152, 153, 154, 159, 160, 172, 173, 181, 210, 212, 225
Recreation management	9, 10, 13, 15, 16, 17, 18, 28, 42, 43, 44, 46, 48, 49, 50, 53, 54, 58, 59, 61, 67, 84, 85, 91, 92, 94, 95, 96, 104, 114, 115, 116, 117, 118, 119, 129, 130, 142, 146, 147, 162, 163, 167, 172, 173, 174, 175, 219
Recreation patterns	107
Regional parks	3, 4, 15, 16, 17, 18, 19, 20, 56, 150, 171, 222, 223, 224, 225, 233, 234
Regulations	207
Research	7, 9, 10, 22, 24, 30, 41, 45, 46, 48, 49, 50, 58, 59, 60, 65, 69, 70, 79, 106, 117, 123, 124, 129, 130, 141, 148, 157, 158, 167, 168, 170, 174, 175, 177, 179, 183, 187, 188, 201, 204, 205, 208, 213, 219, 234, 235, 237, 238, 240
Research programme	4, 13, 42, 43, 60, 62, 63, 72, 73, 74, 75, 76
Rivers	27, 29, 81, 82, 231
Sea fishing	57
Sea kayaking	34, 57, 91, 92
Sense of place	45
Site preference	81, 82
Social impacts	42, 43, 44, 124, 197, 198, 203
Social marketing	213
Specialisation	49, 81, 82
Sport	106
Strategy	4, 10, 13, 30, 48, 60, 219
Tourism	5, 7, 11, 12, 13, 24, 26, 28, 51, 55, 59, 66, 67, 72, 73, 74, 75, 76, 78, 79, 86, 95, 96, 97, 98, 99, 100, 109, 110, 124, 131, 132, 139, 141, 144, 145, 148, 152, 153, 154, 159, 160, 165, 166, 183, 206, 215
Tourist attractions	208
Track conditions	143
Tracks	19, 97, 125, 128, 162, 185
Trails	14, 209
Tramping	54, 77, 94, 95, 96, 97, 98, 99, 100, 105, 143, 146, 147, 159, 174, 175, 193
Travel distance	206
Urban	14, 209
User charges	55
User survey	81, 82
Values	177
Visitor attitudes	17, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 55, 131, 133, 134, 141, 224, 238
Visitor attraction	149, 165, 180, 194
Visitor awareness	18, 20, 21, 22, 23, 111
Visitor behaviour	23, 28, 49, 68, 88, 102, 151, 152, 153, 154, 166, 188, 192, 212
Visitor benefits	171
Visitor characteristics	9, 14, 113, 122, 152, 153, 154, 169, 209, 219
Visitor centres	237

Continued on next page

KEYWORD	INDEX NUMBER
Visitor counting	46, 56, 179, 182
Visitor demand	51, 79, 183, 219
Visitor expectations	162
Visitor experience	27, 47, 66, 67, 72, 73, 74, 75, 76, 102, 103, 121, 126, 127, 130, 141, 144, 176, 185, 186, 190, 191, 212, 215, 231, 239
Visitor flows	79, 156
Visitor impacts	29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 48, 93, 121, 146, 147, 178, 199, 200, 207, 240
Visitor management	10, 50, 142, 196
Visitor motivation	112, 117, 118, 145, 159, 160, 194, 215
Visitor needs	6, 8, 42, 43, 51, 55, 58, 59, 60, 62, 63, 68, 142, 164, 167, 172, 173, 226
Visitor participation	58, 64, 83, 112, 167, 183, 211, 216, 220, 222, 223, 224, 225
Visitor perceptions	77, 95, 96, 98, 99, 100, 104, 114, 115, 116, 117, 119, 120, 122, 146, 147, 189, 201, 235
Visitor profiles	12, 51, 69, 70, 78, 80, 84, 101, 103, 108, 135, 136, 166, 169, 180
Visitor satisfaction	1, 2, 11, 15, 16, 19, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 47, 51, 54, 59, 64, 65, 67, 93, 94, 97, 103, 105, 110, 120, 123, 128, 135, 136, 143, 150, 151, 155, 157, 158, 159, 160, 161, 163, 178, 181, 184, 187, 188, 192, 195, 197, 198, 199, 200, 202, 203, 217, 218, 227, 229, 230, 232, 236, 237
Visitor segmentation	2, 3, 11, 25, 51, 57, 125, 128, 145, 151, 166, 177, 201, 205, 214, 216
Visitor strategy	59, 61
Visitor survey	1, 2, 3, 4, 5, 8, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 44, 47, 51, 52, 53, 54, 55, 57, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 80, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 97, 98, 99, 100, 101, 102, 103, 104, 105, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 125, 126, 127, 128, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 143, 144, 145, 146, 149, 150, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 168, 169, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 184, 185, 186, 189, 190, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 208, 209, 210, 211, 212, 214, 215, 217, 218, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 236, 237, 238, 239, 240
Walkers	31, 32, 33, 35, 36, 37, 38, 39, 40, 44, 52, 192, 202
Weather	148, 156
Wilderness	6, 45, 95, 96, 97, 98, 99, 100, 104, 118, 121, 133, 134, 162
Wildlife	28, 90, 141, 153, 161, 166, 189, 190, 191
Women	170

4. Keyword index: places

KEYWORD	INDEX NUMBER
Abel Tasman Coastal Track	36, 186
Abel Tasman National Park	34, 36, 91, 92, 186
Ahuriri Conservation Park	25, 136
Akaroa	141
Angelus Hut	163
Aoraki/Mount Cook	120, 155
Aoraki/Mount Cook National Park	21, 22, 23, 68, 178, 195, 201, 221
Arthur's Pass National Park	69, 70, 146, 147
Auckland	3, 4, 15, 16, 17, 18, 19, 20, 56, 107, 137, 138, 150, 222, 223, 224, 225, 233, 234
Canterbury	130, 212
Cape Foulwind Walkway	217
Cape Reinga	86
Catlins	87, 90, 226
Christchurch	71, 83, 84, 88, 126
Curio Bay	90
Dingle Burn Valley	236
Dunedin	14, 52, 149, 169, 176, 209, 214
Egmont National Park	80, 185
Fiordland Marine Area	11
Fiordland National Park	11, 22, 33, 39, 40, 55, 89, 93, 105, 143, 200, 227, 228, 229, 230, 232, 239
Fox Glacier	203
Fox River Caves	110
Franz Josef	148, 203, 218
Godley Head Walkway	126
Greenstone & Caples	120, 155
Hakatere Conservation Park	212
Hauturu/Little Barrier Island	28
Hawea Conservation Park	236
Heaphy Track	37, 127
Holdsworth	182
Hollyford Track	89, 200, 230
Hooker Valley Track	195, 221
Kahurangi National Park	37
Kaikoura	74, 75, 141, 145, 153, 194
Kapiti Island Nature Reserve	161
Katiki Point	157, 158
Kepler Track	33, 93, 232
Kura Tawhiti	129, 130
Lake Pukaki	22
Lake Waikaremoana	78
Lake Waikaremoana Track	38, 184
Little River Rail Trail	65
Lucy's Gully	80
Marlborough	231

Continued on next page

KEYWORD	INDEX NUMBER
Motukarara	65
Marlborough Sounds	44, 202
Matiu-Somes Island	168
Milford Sound	55, 93, 120, 155
Milford Track	39, 93
Mingha-Deception Track	146, 147
Molesworth Station	164
Mount Aspiring National Park	40, 55, 105, 197, 198, 199
Mount Cook village	68
Napier	14, 209
Nelson	231
Nelson Lakes National Park	35, 163
North Island	113, 219
North West Circuit	77
Northland	8, 86
Nugget Point	87
Oamaru	157, 158
Otago	26, 108, 122, 149, 180, 214, 231
Otago Peninsula	1, 190, 191
Paihia	141
Pancake Rocks	110
Paparoa National Park	110, 196
Pirongia Forest Park	159, 160
Pouakai Circuit	185
Queen Charlotte Track	44, 202
Queenstown	112
Rakiura National Park	12, 131, 132, 139, 143, 174, 175, 240
Rakiura Track	31, 77
Rees-Dart Track	105
Rob Roy Track	198
Ross Goldfields	109
Rotorua	73, 74, 76, 112, 145, 152, 165, 194
Routeburn Track	40, 105, 229
Ruataniwha Conservation Park	135, 136
Shantytown	109
Siberia Valley	199
South Island	21, 22, 57, 95, 96, 109, 113, 133, 134, 166, 215
Stewart Island/Rakiura	12, 31, 77, 95, 131, 132, 139, 143, 174, 175, 240
Subantarctic Islands	47
Taiaroa Head	1, 120, 155
Tararua Forest Park	162, 182
Tauroa Point	8
Te Anau	55
Te Papa	145, 194
Te Urewera National Park	38, 78
Tiritiri Matangi	28
Tongariro Circuit Track	32, 156
Tongariro National Park	32, 192
Travers-Sabine Circuit Track	35
Twizel	176
Waipapa Point	90

Continued on next page

KEYWORD	INDEX NUMBER
Waitomo Glowworm Caves	66, 67
Wanganui Conservancy	219
Wellington	107, 137, 138, 145, 165, 171, 176, 194
Wellington Conservancy	172, 173
West Coast	5, 154
Westland	72, 74
Westland black petrel colony	110
Westland Tai Poutini National Park	148, 196, 203
Whanganui National Park	27, 29
Whanganui River	27, 29
