



A synthesis and gap analysis of research on visitors to public conservation areas in Australia 1995–2010

Brent Lovelock, Arianne C. Reis and Andrea Farminer



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A synthesis and gap analysis of research on visitors to public conservation areas in Australia 1995–2010

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Executive summary

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). To help achieve this goal, DOC commissioned research to investigate and review the literature on outdoor recreation and tourism (nature-based, eco- and heritage tourism), focussing on visitor demand for and participation at public conservation areas, and the segmentation of those visitors, for both New Zealand and Australia. This report provides a synthesis of the information gathered in the Australian research bibliography, outlines the key trends and issues relating to visitation to conservation areas in Australia and identifies the key gaps in knowledge.

Due to its diverse landscape and large area, Australia presents quite a different environment from New Zealand in terms of the demand for nature-based activities in protected areas. Although the market for these activities is constantly changing, Australia seems to have a more resilient nature-based tourism industry. Visitation to natural areas appears to be on the increase, with few locations experiencing a decline in visitation. Residents are highly aware of parks and are increasingly undertaking day visits to enjoy those areas.

A significant difference between the New Zealand and the Australian literature is that the former has tended to concentrate on particular activities, such as tramping, whereas the latter has been more general in nature, identifying broader trends. Still, it is clear that water-based activities are extremely popular in protected areas, as well as birdwatching and other wildlife viewing. Visitation is dominated by well-educated, male, high-income earners. Domestic visitors tend to visit parks and conservation areas that are less well known, with other family members, whereas international tourists visit mostly iconic ecotourism and/or wildlife tourism destinations.

Various approaches to visitor segmentation have been used in nature-based tourism and recreation research in Australia. The choice of approach (e.g. segmentation by activity, motivation or geographic origin) is related to the destination, the services provided and the opportunities available in the area as well as the different markets previously identified. Segmentation by travel or visit motivation is the most popular form of visitor segmentation in Australia. The beauty and naturalness of protected areas, the desire to take a break from 'real' life, the desire to relax and rejuvenate, and the unique opportunities provided by parks for outdoor recreational activities are the common motivations for visitors to New Zealand and Australian protected areas. The Australian literature, however, more often highlighted that families use the opportunity to provide their children with a natural learning experience when visiting protected areas, compared to the New Zealand literature.

Keywords: visitor demand, participation, segmentation, public conservation area, research bibliography, Australia.

© Copyright December 2011, Department of Conservation. This paper may be cited as:

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. 18p.

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 research 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 demand for outdoor recreation and tourism in public conservation areas in New Zealand.

1.1 The research bibliography

A comprehensive bibliography (1995–2010) of Australian research literature relating to visitors to public conservation areas in Australia was completed by the Centre for Recreation Research in August 2010 (from this point, referred to as the ‘Bibliography’).

1.1.1 Relationship of this report to the bibliography

This report provides a synthesis of the information from the Australian visitor literature presented in the Bibliography. It identifies key trends and issues from the data and analyses the information gaps that require further research to improve DOC’s understanding of visitor demand, both currently and in the future.

This report should therefore be read in association with the following three reports:

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.; 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.

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.

1.2 Report approach

The approach taken in this report is to present the synthesis of the research covered in the Bibliography under three main themes: visitor demand, visitor participation and visitor segmentation.

Visitor demand—how much of Australia’s network of protected areas is being used, what types of outdoor recreation activities and locations visitors to those areas desire, and what kinds of facilities, services and information they require.

Visitor participation—how and why visitors to protected areas participate in outdoor recreation, what kinds of activities they take part in, and how their participation is gauged in terms of their motivations, expectations, satisfactions and perceptions.

Visitor segmentation—how and why visitors are separated into different categories, and how visitors are grouped by their motivations, activities, characteristics, demographics (e.g. age, gender, income, education) and market share.

Each theme is discussed in two parts: a discussion of the types of research identified, and a synthesis of the main research findings and the primary pieces of research. Then, the key trends and issues identified in the Bibliography are discussed, and the gaps in knowledge outlined. A brief comparison with issues identified in the New Zealand literature is also presented in order to highlight the relevance of the Australian literature to the New Zealand context.

This report synthesises data from many research reports rather than referring to specific documents. However, the Appendix contains a selection of research publications from the Bibliography that we consider may be useful and representative. These are listed under the three main headings (see above) and cited by their Bibliography index number (e.g. no. 22).

Preparation of the research synthesis and gap analysis has been undertaken in light of the *Review of Visitor Research* report prepared by Kay Booth for DOC in 2006 (Booth 2006). That report introduced an updated Visitor Research Framework ('VRF'), the aim of which was to provide a 'common language for managers and researchers'. The VRF identified seven types of visitor information 'commonly required by managers'. Unfortunately, it was not possible to align our approach strictly with the VRF owing to overlaps between information types, and because not all types of visitor information were addressed in this study. Notwithstanding, our analysis aligns with information types 1 (Visit numbers), 2 (Visit and visitor characteristics), 3 (The visitor experience (from motivation to satisfaction)) and 6 (Recreation resource demand and supply).

1.3 Additional research information

Within this research project, several national tourism and recreation data sources are referred to that do not appear as entries in the Bibliography. In particular, the International Visitor Survey (IVS) and National Visitor Survey (NVS), both collated and published by Tourism Australia, are mentioned on a number of occasions as sources of national visitor research data. They have not been included in the Bibliography on the grounds that their content was more general than the specific visitor research themes set out in the DOC project brief. Also, they both require manipulation of the data to produce relevant results.

2. Contents of the bibliography

The Bibliography that forms the basis for this report contains 343 separate entries for Australian literature on visitor demand for and participation at public protected areas and similar recreation and tourism locations, and segmentation of those visitors. Owing to the short timeframe allowed for this project and the high volume of literature produced in and about Australia on these selected topics, we have employed a more selective approach in the literature search.

2.1. Publication types

Most of the relevant information is in the form of industry and academic reports and unpublished reports produced by or for protected areas agencies (Figs 1 & 2). These reports, particularly unpublished ones, are not necessarily peer-reviewed and some of them, therefore, may not present the most accurate or extensive information on particular issues of relevance.

Doctorate, masters and honours theses have not been extensively searched, in part because access to research theses is commonly restricted to on-site viewing. Also, it is likely that any relevant information arising from such studies is also available as published journal articles, reports or conference papers. Searches for conference papers were restricted to those that had a clear focus on the themes and were Australia based. The conferences of the Council for Australian University Tourism and Hospitality Education (CAUTHE) were specifically searched because of their high profile and relevance, and because participants present peer-reviewed papers.

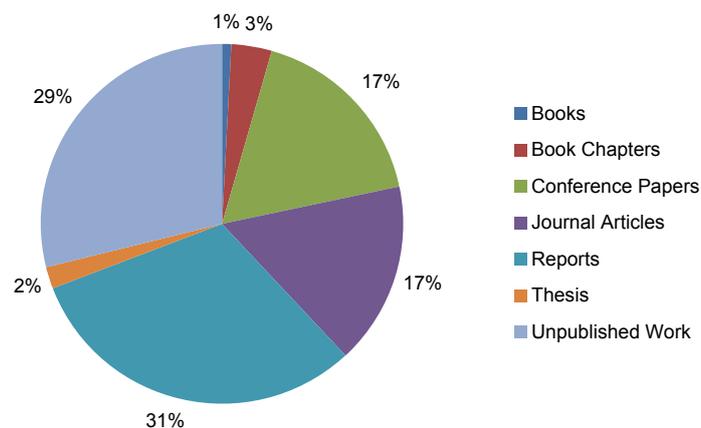


Figure 1. The different types of publications presented in the Australian literature review (percentage of total publications).

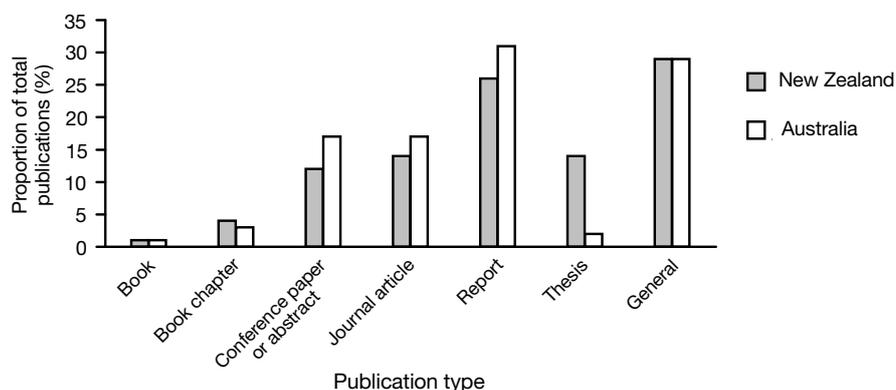


Figure 2. Types of publications presented in the Australian and the New Zealand literature reviews.

2.2. Origin of reports

The Cooperative Research Centres (CRCs) play a crucial role in the production and dissemination of visitor-related research, being involved in 44% of publications listed in the Bibliography (the figure for universities is 3%, and that for other government agencies is 53%). The Sustainable Tourism CRC, the Rainforest CRC, the Reef CRC and the Desert Knowledge CRC are particularly active in funding and disseminating research findings on visitor usage of protected areas in Australia.

There was a marked peak in visitor research in the early 2000s, and since 2005, there has been steady growth in research effort in this area (Fig. 3). The increase in 2002 was due to a series of projects undertaken by the Reef CRC and the Rainforest CRC that were finalised that year, as well as active involvement of Tourism Queensland in collecting and reporting visitor data. In recent years, research has been mainly driven by a number of protected area agencies funding or undertaking visitor monitoring projects.

Geographically, Queensland has been the main focus of most visitor research conducted in Australia (Fig. 4). Queensland is considered the major nature-based destination in the country, with its iconic protected areas, including the Great Barrier Reef Marine Park and the Wet Tropics World Heritage Area. However, a significant percentage of the research on visitors to protected areas conducted in Australia has been general in nature, dealing with national issues and/or concerns common to all states.

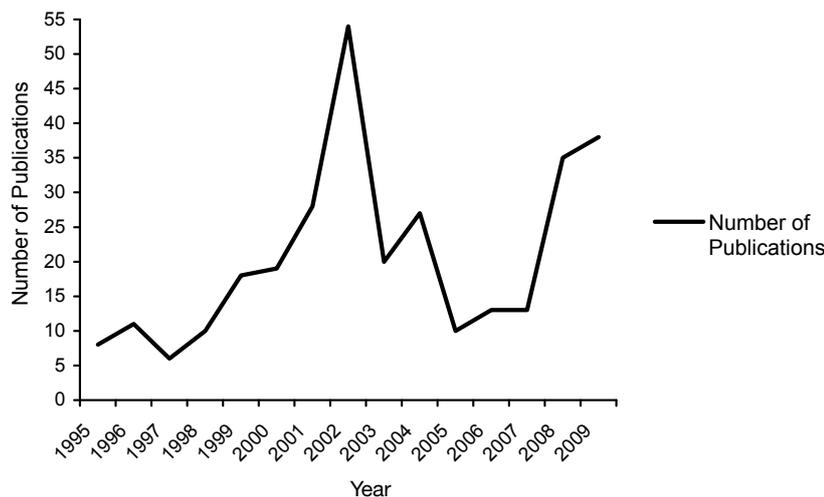


Figure 3. Number of Australian visitor publications by year (including unpublished reports).

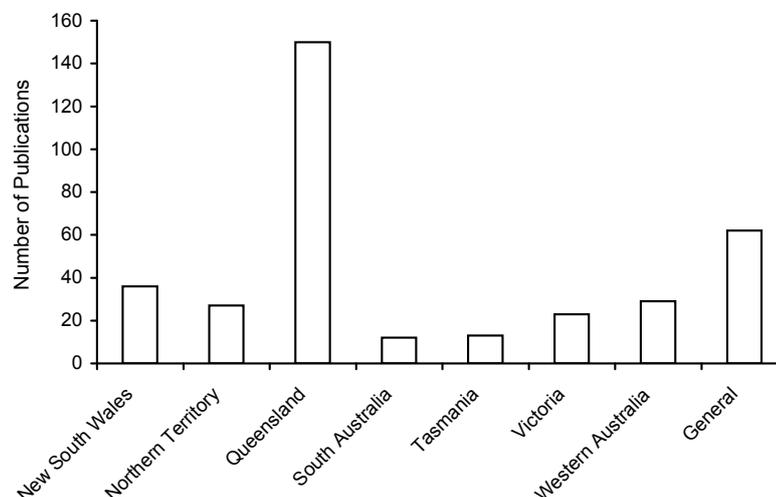


Figure 4. Location of Australian visitor research.

One-third of the Australian literature was focused on national parks or World Heritage Areas, with the remainder being, again, more general in scope. Examples of research not focused on national parks and World Heritage Areas are studies considering general wildlife tourism, urban and metropolitan parks, ecotourism in other protected areas, desert tourism and heritage tourism. Only a small amount of research addressed historic sites within protected natural areas (less than 4% of the total). This was concentrated mainly on Aboriginal sites and Aboriginal tourism. In accordance with this project's brief, we have not included general Aboriginal tourism research in this document or the Bibliography unless it had a specific focus on visitor demand for, participation at and the segmentation of visitors to (Aboriginal) sites in protected areas.

Motivations for visiting protected areas was the most common topic addressed¹ by documents in the Bibliography, followed closely by visitor monitoring issues and visitor satisfaction (Fig. 5). Twenty percent of all studies listed in the Bibliography provided some sort of visitor segmentation and more than half of all studies provided significant visitor profile information. Visitor demand was, however, almost completely neglected in this literature, being only 3% of all Australian publications (and 0.84% of all New Zealand ones). In comparison, segmentation studies were 20% of all Australian publications (and 6% of New Zealand ones).

The most commonly addressed topic in the studies listed in the Bibliography was general trends in visitation to protected areas, closely followed by economic impacts of visitation (Fig. 6). This pattern highlights the point previously made about the significant presence of general studies in the Australian literature. Constraints to participation, visitor expenditure and accessibility were also mentioned in several studies.

Wildlife viewing was by far the most common visitor activity discussed in the Australian literature (Fig. 7). Other specific activities, such as hunting, diving or kayaking, do not seem to feature strongly as a main area of research (with the exception of fishing, which has been an important focus of research). Rather, they are acknowledged as a preferred activity or as motivation for participation (e.g. in many studies of the Great Barrier Reef Marine Park, diving and snorkelling are consistently mentioned). Visits to the Australian Alps and ecotourism activities in general have been prominent subjects in visitor research.

¹ It is important to note that 'topics addressed' are not necessarily the main focus of the research listed.

Figure 5. Topics of Australian visitor studies, in order of increasing presence in the literature overall.

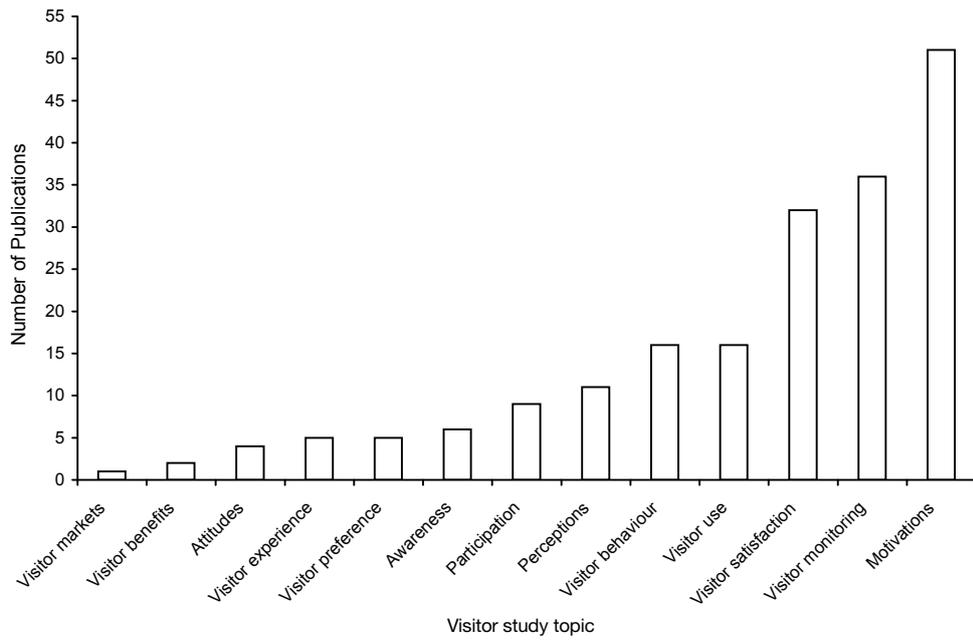


Figure 6. Issues raised in Australian visitor studies.

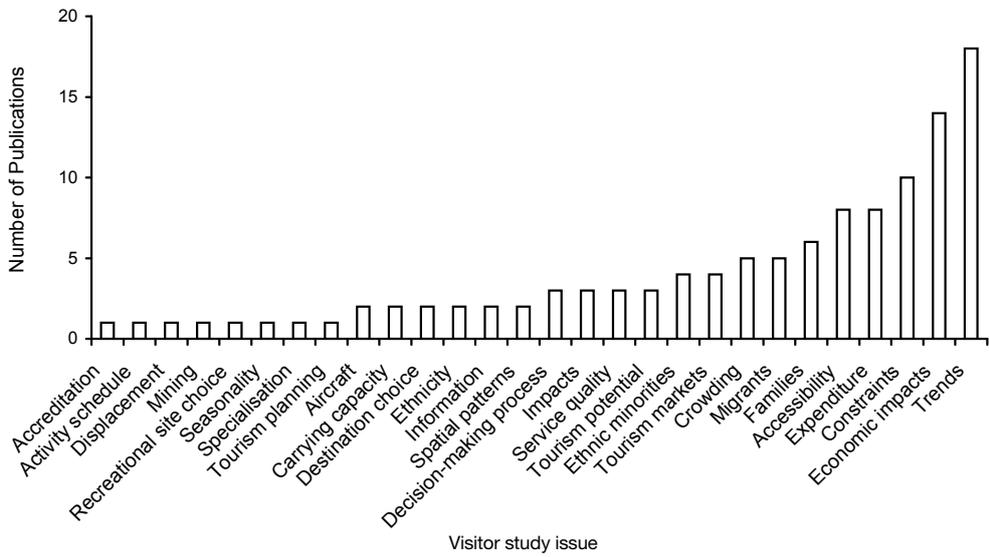
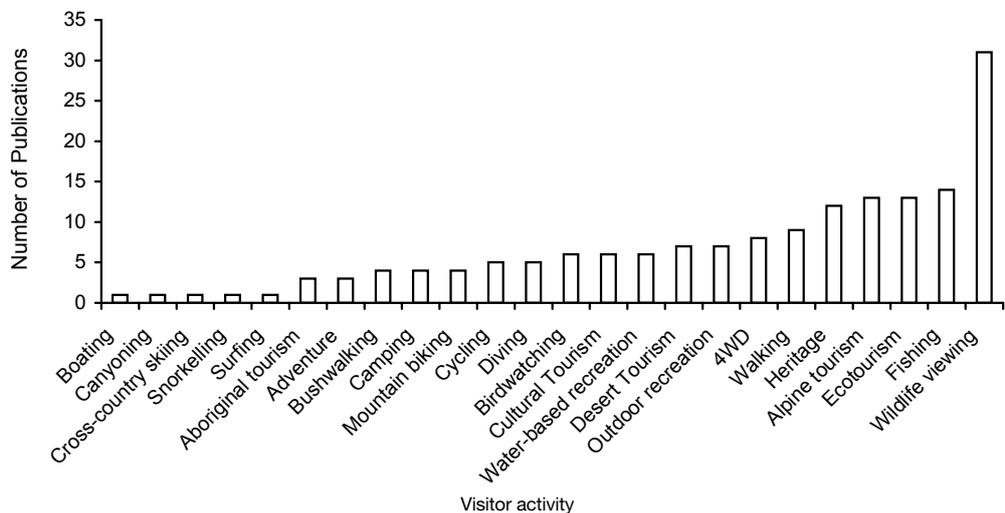


Figure 7. Visitor activities discussed in Australian visitor studies.



3. Visitor demand

3.1 Research type and themes

A limited range of research specifically on visitor demand has been undertaken in Australia since 1995. Only 19 studies were identified that address visitor demand in detail, representing just 5% of all studies listed in the Bibliography. However, there was a high proportion of studies that addressed 'visitor needs' and, therefore, covered some aspects of visitor demand, such as visitor requirements and expectations when visiting a natural area.

Australian protected area agencies and universities undertook a limited number of projects in which residents and non-visitors were questioned about their reasons for not visiting parks and conservation areas, and what would attract them to these sites. These studies provide clear information about the major barriers to participation and so are important resources for protected area managers. Specifically, the findings from this type of research are valuable for the development of new products, services, facilities or infrastructure that could attract more visitors to protected areas.

3.2 Research synthesis

Owing to its diverse landscape and large area, Australia presents quite a different environment from New Zealand in terms of the demand for nature-based activities in parks and other protected areas. Although it is true that the market for these activities is constantly changing, Australia seems to have a resilient nature-based tourism industry. Visitation to natural areas, particularly terrestrial and marine parks and the country's vast desert areas, appears to be on the increase, with only a few locations experiencing a decline in visitation. Another finding from research presented in the Bibliography is that residents were highly aware of parks and conservation areas and were increasingly undertaking day visits to enjoy the natural values of these areas.

Although there was a high awareness of parks and conservation areas, and although visitor numbers were high, residents (particularly non-visitors) were unaware of the recreation opportunities within these areas. This deficiency seemingly stems from lack of appropriate information being readily available to community members (an issue also raised by visitor studies in New Zealand). Lack of time and money, and issues with accessibility, were also considered important barriers for participation. In regards to accessibility, studies showed that Australian residents perceived national parks as being located far away, a potential limiting factor for their attractiveness as destinations. What is interesting to note from this finding is that in Australia, contrary to in New Zealand, many national parks are often located within easy reach of major centres and tend to cover smaller areas. Still, residents' comments indicated that they were perceived as remote, a perception that clearly influences participation.

Not surprisingly, the less well-known destinations were visited mostly by locals, but domestic visitors were still the predominant market for most of the high-profile parks and conservation areas, the main exception being the Great Barrier Reef Marine Park in Queensland. New South Wales and Victoria, closely followed by Queensland, were the principal sources for domestic visitors to protected areas in Australia.

Although research indicates that an increase in visitation to natural areas has been constant in the past 15 years, demand for captive wildlife attractions is in decline. Wildlife encounters and interactions were considered an added bonus to most visitors' experiences in nature-based tourism rather than the major attraction of a destination. However, some review studies have indicated that wildlife tourism in general is still an under-researched area.

Another area that has received virtually no attention from academic and industry studies was demand for historic heritage within protected natural areas. Although, as mentioned above, there is a vast literature available on Aboriginal and cultural tourism, this is generally not related to visitation to protected areas and has not been explored in this literature scan and review. From that literature, it is apparent that there is strong demand from international visitors for cultural heritage tourism products in general, but domestic visitors show low interest in this type of tourism.

In summary, visitor demand studies indicate that there is a very diverse market for nature-based tourism in Australia, ranging from the local and domestic market to international tourists, and that visitation is affected by the level of promotion and by the status of the protected area (such as being accredited World Heritage status). Marketing studies have contributed to the literature on visitor demand, and strategies such as ‘demarketing’² have been explored to manipulate demand to certain destinations. Although visitor demand has not been extensively explored by the visitor studies in the Bibliography, much of the broad literature analysed in the Bibliography does contribute to our understanding of demand in some way.

4. Visitor participation

4.1 Research type and themes

Visitor participation is a very broad term, which has been interpreted as covering a range of different components, including visitor awareness, attitude, behaviour, expectations, motivations, experience, perceptions and satisfaction—as well as just simply visiting public protected areas. The literature scan for visitor participation reflects these differing components and almost all documents in the Australian Bibliography are directly related to them to some degree.

Many different methods have been used to generate the research data discussed here. Visitor surveys (both on-site and population-based) dominated, but other approaches such as interviews, focus groups and observation of visitors were also employed.

4.2 Research synthesis

In general, research has confirmed the patterns identified in the literature on profiles of nature-based visitors: visitors are frequently found to be predominantly well-educated, male and high-income earners. An exception to this is the ecotourism sector, for which studies consistently report the predominance of women visitors, with the exception of diving and snorkelling commercial operations in the Great Barrier Reef (where there seems to be equal numbers of male and female tourists). Backpackers are also considered a significant market for commercial and independent tourism experiences that are nature based, particularly at high-profile destinations such as the Great Barrier Reef and Kakadu National Park. At these destinations, backpackers tend to be international tourists, whereas domestic backpackers seem to be more attracted to lower-profile destinations.

While there is an absence of research specifically on families, several studies reported the importance of family-related experiences in visitor motivation, satisfaction and behaviour. Fishing in particular has been reported as a ‘family-oriented’ activity taking place in protected

² ‘Demarketing is that aspect of marketing that deals with discouraging customers in general or a certain class of customers in particular on either a temporary or permanent basis’ (Kem 2006: ii).

areas. Also, surveys indicate that families tend to visit local and regional parks rather than high-profile destinations. Similarly, a high percentage of visitors to local and regional parks visit these areas with other family members. The desire to provide an educational experience for children and the desire to spend quality time with family members have both been frequently noted as major motivations for nature-based tourism and recreation in these studies.

Migrants and minority ethnic groups do not feature strongly in the literature. However, the few relevant studies do highlight the importance of better understanding the diverse groups visiting protected areas, in order to enhance visitor experiences and to increase participation across different segments of society. In a similar way to family groups, minority ethnic groups seem to prefer local and regional parks rather than large national parks and high-profile nature-based destinations. Reasons for this preference are likely related to financial barriers to participation, and also to local familiarity, as natural areas close to residential neighbourhoods frequently serve as gathering places for migrant groups. These studies highlight culturally important aspects of the outdoors for different ethnic groups and, therefore, provide crucial information for park managers who wish to expand park visitation to minority groups.

A significant difference between the New Zealand and the Australian literature is that the former has tended to concentrate on particular activities, such as tramping, whereas the latter has been more general in nature. Although activities are included in Australian visitor surveys, research has tended not to focus on the activity or the activity-specific user. However, it is clear that water-based activities are generally extremely popular in protected areas, as well as birdwatching and other wildlife viewing. Four-wheel-driving has also featured as a significant activity undertaken by visitors to natural areas in the desert regions of Australia, whereas general driving for pleasure (regardless of vehicle type) has been noted as a significant activity undertaken by visitors to other protected areas.

As noted above, historic buildings and other heritage sites have not been addressed by many visitor studies. Protected area agencies, in general, have not included heritage visitation as a main topic of research interest in their research strategies. More importantly, historic buildings and heritage sites have not been significantly mentioned by visitors as a motivation for visitation or as a part of a preferred activity while visiting protected areas. More research in this field is needed to clarify the role that historic buildings and other heritage sites play in visitation to protected natural areas.

Domestic participation in nature-based tourism and recreation seems to be increasing, particularly day visits to front-country destinations. Domestic visitors in Australia dominate at lower-profile destinations and although local visitors represent an important share of visitation to most protected areas, interstate visitation is frequently greater than intrastate.

The motivations to visit, and experiences of visitors at, public conservation areas are key aspects of visitors' participation and were addressed in a large number of studies. These range from the desire to visit different types of natural areas (e.g. marine parks, desert, tropical forests) to the desire to participate in ecotourism, water-based activities and regional parks. Motivations of visitors to protected areas have remained stable in Australia over the past 15 years. Findings from site-specific and from more general visitor surveys across a range of protected areas in Australia demonstrated that visitors (both international and domestic) go to protected areas for a diverse range of reasons:

- Their scenic beauty and naturalness
- The desire to have some time out from regular life
- To escape stresses and obligations
- To visit Aboriginal sites and/or communities
- To relax, refresh and rejuvenate in the fresh air
- The unique opportunities they provide for specific recreational activities (e.g. bushwalking, fishing, diving, snorkelling)

- The educational opportunities they provide, particularly for children
- The opportunity to encounter and interact with wildlife in natural settings
- The opportunity to explore parts of the country that would otherwise be difficult to access
- The opportunity to develop social bonds with family and friends

5. Visitor segmentation

5.1 Research type and themes

Visitor segmentation is a term often used in marketing, and refers to separating visitors into different categories. Visitors may be grouped by their motivations, activities, characteristics, demographics (e.g. age, ethnicity, income) or simply by market share. A significant number of studies specifically on the segmentation of visitors to protected areas have been undertaken in Australia since 1995. The literature scan identified almost 70 specific pieces of research, as well as a considerable number of more general studies that had a visitor segmentation focus. Moreover, almost all visitor surveys contained elements relevant to, or discussion of, visitor groups, profiles, characteristics and behaviour. Visitor demographics, which are often used as baseline data for many segmentation methods, were also found in most of the visitor surveys.

5.2 Research synthesis

The literature scan revealed that several different approaches have been used to segment visitors in Australia. The choice of approach (e.g. to segment by activity, motivation or geographic origin) is related to the destination, the services and the opportunities available in the area. At times, service providers and protected area agencies have directed their products to the 'wrong' market or were not sufficiently aware of their main market segments. This situation may lead to a failure in providing the experience that the dominant markets are looking for, losing a competitive advantage or failing to increase visitation. For this reason, visitor segmentation is considered an important tool in managing parks for tourism and recreation.

Segmentation by travel or visit motivation was probably the most common form of visitor segmentation in Australia. Examples of segments developed through such an approach include: the 'nature experience/appreciation' group; the 'relax and rejuvenate' group; the 'novelty seeker' group; the 'socialisers'; the 'explorers'; the 'wilderness adventurers'; the 'escapers'; and the 'just passing through' group.

Another common approach to segmenting visitors is by the type of activity undertaken, or the activity level. Such an approach may classify visitors from casual to highly specialised at a certain activity (e.g. birdwatching), or from low to high activity levels, such as visitors who may go to an area for picnicking compared to visitors who go alpine climbing. The level of commitment to a certain activity may also serve as a tool for market segmentation (e.g. 'general interest' compared with 'strongly motivated').

A common practice when visitors were segmented by activity was to combine visitor demographic characteristic(s) with activity. For instance, age can be combined with activity to identify the age group that is more likely to engage with bushwalking; or country of origin can be combined with activity to identify the activity North Americans are more likely to engage in when visiting national parks. Also, segmentation within activity groups was also evident. So, four-wheel-drive visitors, for example, might be segmented into 'the socialisers', 'the thrill seekers' and the 'activity-driven' groups.

Visitors' past experience with a particular location or tourism operator can also serve as a tool for market segmentation. Some studies clustered visitors into groups of 'first-timers' and 'repeat visitors'. Non-visitors are also commonly included in these segmentation exercises. Visitor attitudes (e.g. 'pleasure seekers', 'generalists', 'information seekers') and values (e.g. 'nature lovers', 'recreationists') are another means of segmenting markets.

The use of Global Positioning Systems (GPS) to monitor the movement patterns of visitors has been also used as a strategy to create segments of tourists by their spatial movements, that is, by where visitors go within parks and protected areas, how long they stay at each site, or where they go first and last, etc. This information was used to identify the type of experience sought by these visitors, thereby providing useful information for the development of services that attend to these visitors' demands and needs. Other spatial approaches have also been used (without GPS devices), such as identifying visitor types by where they focus their activity. This is similar to the segmentation approach used by DOC in New Zealand, which identifies some visitors, for example, as 'backcountry comfort seekers' and 'remoteness seekers'.

Findings from the different visitor segmentation studies indicate that the international market, particularly the Western tourist, is more likely to be interested in cultural experiences than the domestic visitor. The latter is more likely to look for opportunities to relax and spend quality time with friends and family. Also, domestic tourists were less likely to seek an encounter with wildlife while on tourism trips than were international visitors, and their wildlife encounters seemed to happen more often in wild environments (whereas the international visitor commonly encounters wildlife in captivity).

However, great diversity exists within the international market and it is difficult to generalise. For example, visitor studies indicate that Asian tourists to Australia are more likely to be travelling as part of a package tour than are other international visitors, and that they have shorter stays at a particular destination, make greater use of travel agents for finding information and have more limited travel patterns than other international visitors. However, the Asian market is also considered to be extremely varied, with substantial differences between groups of different origins. Furthermore, travel patterns and activities of this segment have also diversified over time. These findings suggest that care is needed when developing segmentations based on very broad classifications.

6. Key trends and issues in the research data

There has been a marked shift in the quantity, quality and cohesiveness of visitor research in Australia since 1995. With the establishment ANZECC (Australian and New Zealand Environment and Conservation Council) Best Practice Programme for National Parks and Protected Areas Management in 1994 and the development of the National Data Standards on Protected Areas Visitation in 1996 (ANZECC 1996), visitor monitoring practices became more consistent across parks, and monitoring became more regular (in frequency) and prioritised by park managers. The National Data Standards, although still not fully adopted by all states, territories or park agencies, create a best practice example for agencies and managers. According to some recent studies, agencies are still 'in the process of developing more systematic and comprehensive approaches to monitoring' visitors to protected areas. It is evident, however, that there has been an increase in the quantity and quality of research conducted or funded by park agencies since 1995. As expected, some agencies were more active than others, but it is clear that all agencies were responding to evidence that demonstrates that visitor research can enhance management effectiveness.

One of the significant differences between agencies found in this literature scan is that some were more pro-active in communicating their research findings to the general public. Queensland agencies, for instance, produced several reports, published and unpublished, that are available online or in libraries. Other agencies, states and territories, as confirmed after email and/or telephone communication, are conducting visitor research but keeping the information 'in house', making their findings inaccessible to other researchers (or less accessible owing to their 'grey literature' status).

Most research on visitor participation has used quantitative methods (e.g. questionnaires, visitor counters), while qualitative studies (such as those using interviews, focus groups) were mainly limited to the university and academic environment. The focus of most research, particularly that coming from park agencies, has been visitor use levels and patterns, visitor socio-demographic characteristics, levels of visitor satisfaction, and visitor motives, expectations and attitudes. According to some recent studies, other areas have not been properly addressed, yet are considered highly relevant, including: the aggregate number of visitors, or visits, state- or territory-wide, to protected areas; determinants of satisfaction and quality of experience; community attitudes, values and perceptions; the economic value of visitation; general visitor trends affecting protected areas; and visitor safety issues.

From the material examined and included in the Bibliography, some key trends in visitation to protected areas in Australia have been identified:

- Day visits to national parks and other protected areas seem to be increasing, whereas longer-stay visits are either stable or decreasing in number.
- Family groups are a significant visitor segment, particularly to local and regional protected areas. The main motivations for this segment are to spend quality time with other family members and to learn about the environment.
- Most visitors to national parks and other protected areas in Australia, particularly in less iconic destinations, are domestic visitors.
- Migrants and other minority groups are less represented in nature-based tourism and recreation in Australia, although only a few studies have been undertaken with the aim of understanding the reasons behind this lack of participation. The information that is available indicates that these groups are more likely to visit local and regional parks for day visits, instead of making longer visits to more remote locations.

- The demographic profile of visitors to natural areas has remained fairly stable for the past 15 years, with the exception of age and activity groups, which vary widely. Also, Asian peoples are increasingly participating in nature-based tourism and recreation.
- Scenic beauty, escape from stress and obligations, and the opportunity to spend some quality time with family and/or friends remain the main motivations for visiting parks and other conservation areas.

Also, this literature scan and review identified some important issues in visitation to protected areas in Australia:

- Although Australian residents are highly aware of national parks and other protected areas, there is a lack of awareness of the availability of recreation opportunities within these areas.
- Domestic visitors tend to avoid high-profile nature-based destinations owing to the perceived high cost associated with them and expected crowding.
- Domestic visitors are not well informed or as interested in heritage aspects of their nature-based tourism and recreation experiences as international tourists are. This situation may have led to a lack of attention to these experiences in visitor research and management (because of the importance of local visitors to protected areas).
- National parks are still perceived as remote and therefore their appeal as destinations, particularly for day visits, is affected.

7. Research gaps in current knowledge

Taking the above points and the wider scan of Australian literature into consideration, it is possible to identify several gaps in the type and focus of research associated with visitor demand for and participation at protected areas, and the segmentation of those visitors.

Studies that include qualitative methods (e.g. interviews, focus groups) for data collection are still relatively uncommon, particularly in-depth qualitative studies that address the specific needs of different user groups.

In general, studies of demand are rare and the available ones have focused on the general Australian resident population. Research focussing on specific demands from different markets is still rare.

No study was found in the literature scan that addressed the demand or participation of people with disabilities. Considering the ageing of the population in developed countries such as Australia and New Zealand, this group presents a potential growing market for tourism and recreation in general and more specifically for nature-based experiences.

Very few studies have explored the participation of migrants, ethnic minorities or the Aboriginal community in recreational and tourism experiences in protected areas.

Although families have been recognised as a significant market for nature-based experiences in recreation and tourism, no research has specifically looked at their participation patterns, needs and constraints.

The participation of Asian visitors in tourism in protected areas has been increasing but most studies treat this market as homogenous. More studies are necessary that better segment the different groups within the Asian market to better understand and cater for this significant segment of international tourists.

Most studies of Australian residents have indicated that domestic tourists tend to avoid some iconic nature-based destinations because of their cost and expected crowding, but very few studies have explored displacement issues in-depth.

The literature on visitors to Australian protected areas has a broad focus, so activity-specific (e.g. tramping, hunting) behaviour, needs and issues have not been extensively addressed.

Built heritage within protected areas has received little to no attention from park agencies, industry and academia in terms of research that specifically explores its importance and role in the visitor experience.

In general, protected area agencies have focused on broad visitor surveys that are location and time specific. More research is needed that assesses long-term trends (longitudinal studies), compares parks, and assesses regional or state-wide trends. More importantly, more in-depth studies are necessary to better interpret the results of general visitor surveys.

8. Comparisons with protected area visitor research in New Zealand

The context of protected area tourism and recreation in Australia differs markedly from the New Zealand environment. The political structure of the country, particularly as it relates to the management and establishment of parks and other conservation areas, its size and population, and the diverse physical environment, fauna and flora all contrast with those of New Zealand in significant ways. These differences are expressed in the type, focus and quantity of research produced in the two countries. However, important similarities were also identified.

In terms of visitor research, Australia and New Zealand have relied heavily on information presented in the form of reports produced for or funded by government bodies, particularly agencies responsible for protected areas. The focus of these reports, however, has been drastically different. In Australia, one-third of all research has focussed on general visitation trends and/or issues, while in New Zealand, this figure is only 18%, indicating a more site-specific focus possibly at the expense of identifying broader trends. Australia has also been more effective in producing research that addresses the segmentation of visitors to protected areas. Similarly, detailed information on visitor profiles is less common in the New Zealand literature, whereas it is present in most visitor studies in Australia. Although visitor needs were a common topic in the research of both countries, there has been an almost complete neglect of visitor demand, with the exception of a few significant studies in Australia. Further, an important difference between the Australian and the New Zealand literature on visitor demand is that there have been more Australian studies in which residents and non-visitors were questioned about their reasons for not visiting parks and conservation areas and what would attract them to these places. This is considered an important area of research as it can contribute to the understanding of the reasons for non-participation and inform management responses.

Wildlife viewing was the visitor activity most commonly discussed in the Australian literature, whereas tramping/walking was predominant in the New Zealand literature. What both countries have in common is that very little knowledge has been gained about visitation to historic sites within protected natural areas. In terms of issues, constraints to participation featured frequently in both countries' studies. The barriers most commonly identified in both literature scans were lack of time, high cost and difficulty of access. Australian residents are highly aware of parks and conservation areas and are increasingly undertaking day visits to these areas. The marked increase in day visitation to Australian protected areas, as opposed to longer travel patterns, brings to the fore the importance for New Zealand to be continually aware of the significance

of front-country opportunities. If the Australian trend is going to be expressed in any way in New Zealand, then there is a potential for these 'road end' experiences to become an even more popular type of visit to protected areas than what is already predicted.

In terms of sources of national-level tourism data, since 1996 the Australian IVS has consistently included questions that are specific to those visitors who undertake activities in parks and other conservation areas. This provides a more detailed profile of these visitors than is possible to extract from the New Zealand IVS. Such a lack of a national database in New Zealand prevents the development of a better understanding of the general trends in visitation to protected areas.

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Appendix 1

Key papers on which the main text is based

Unpublished papers and reports were purposely not included in this list as they are not easily accessible to the general reader. The focus, therefore, was on published journal articles and reports.

The number at the beginning of each entry refers to the index number in *A bibliography of research on visitors to public conservation areas in Australia 1995-2010* (2011), by B. Lovelock, A.C. Reis and A. Farminer, and published by Department of Conservation, Wellington.

Visitor demand

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