

Understanding Wildlife Tourism Markets

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Introduction

Understanding the nature of visitors is an important but little researched element of wildlife tourism. While there are many references to the size and growth of this market in the existing literature, very little is known about the actual demand for non-consumptive wildlife tourism and what characterises tourists who desire wildlife encounters during their holidays. This chapter begins by examining the role of market research in the planning, design and management of sustainable wildlife tourism. It then looks at what is known about the demand for wildlife tourism experiences before examining the factors that influence visitors' satisfaction and responses to management actions.

According to Hall and McArthur (1993) in the field of protected area management, which includes government agencies responsible for wildlife management, marketing is often seen as a negative term because it is associated with commercial interests and sales. Marketing is, however, about:

- Determining who the customers or stakeholders are;
- What their needs are;
- What expectations and motivations they have;
- What they currently do; and
- How they can be influenced or persuaded to act in ways that match the goals of the setting managers (Morrison, 1996).

Sustainable wildlife tourism requires an understanding of visitors so that programs can be designed to influence visitor behaviour and to support the enhancement of the quality of the experience for visitors thus supporting the financial viability of wildlife tourism operations.

Definitions of key terms

For this chapter the term 'markets for wildlife tourism' or simply 'markets' can be taken to refer to visitors. More specifically, the term 'visitor' will be used throughout this chapter to refer to the people who seek wildlife tourism experiences. Table 9.1 provides the standard World Tourism Organisation definitions of the related terms of visitor, tourist, traveller and excursionist. This chapter will use the term visitor as it includes both tourists and regional residents engaging in recreation, as this is the most inclusive term that covers most, if not all, of the people who participate in wildlife tourism. Finally, this chapter is focussed solely on non-consumptive wildlife tourism experiences and thus does not consider activities such as recreational fishing and hunting (see Chapter 4 for some information on these markets).

Table 9.1: Definitions of visitors, tourists and excursionists

<p>Tourism – the activities of persons travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, and other purposes.</p> <p>Traveller – any person on a trip between two or more locations.</p> <p>Visitor – any person travelling to a place other than of his/her usual environment for less than 12 consecutive months and whose main purpose of travel is not to work for pay in the place visited.</p> <p>Tourist – (overnight visitor) visitor staying at least one night in a collective or private accommodation in the place visited.</p> <p>Excursionist – (same day visitor) a visitor who does not spend the night in a collective or private accommodation in the place visited.</p> <p>In popular usage the label tourist is usually reserved for visitors who are some distance from their home and they are distinguished from people who live in the area. Thus people who are visiting natural environments close to their normal residence are usually seen as recreationists rather than tourists, even if they are staying overnight.</p>
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Source: McIntyre 1993

Why study wildlife tourism markets?

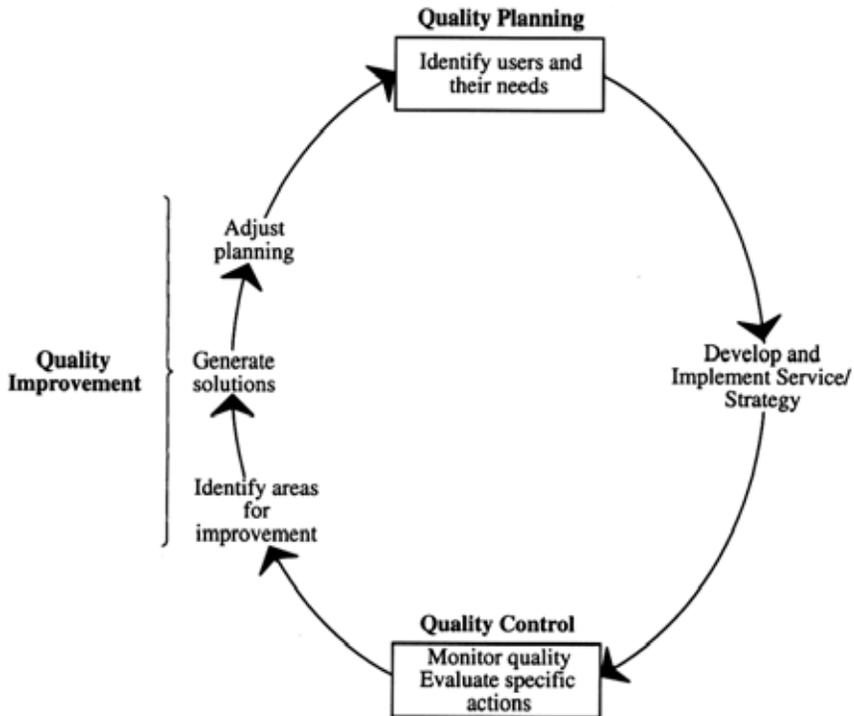
There is a number of different types of provider of wildlife tourism experiences including public, nature and wildlife conservation agencies, other government agencies, non-profit organisations and private tour companies and/or attraction operators. All these different providers have the goal of attracting appropriate visitors and providing quality experiences. For the private companies this is primarily a financial imperative. For the public agencies it can be driven by financial issues, such as the need to raise revenue through visitor fees, and also by the goals set out in their public service charter, which often include the provision of quality recreational and nature-based experiences and educational opportunities (Manfredo et al., 2002). This goal of providing quality visitor experiences is, however, balanced against the goals of public agencies to minimise or eliminate the negative impacts of wildlife tourism on the wildlife and their environments. Thus there are at least three main reasons for studying wildlife tourism markets. The first is to guide the planning of infrastructure and services. The second is to determine the nature of the visitor markets and the factors that contribute to satisfaction with wildlife tourism opportunities so as to provide quality experiences. The third is to understand visitor behaviour and how it can be influenced so as to effectively manage negative impacts of wildlife tourism and encourage positive outcomes such as greater conservation awareness and support.

Understanding quality in wildlife tourism experiences

Manfredo (2002) argues that a major principle for public-sector wildlife conservation managers is ‘to provide a range of quality recreation opportunities that meet the diverse demands of the public’ (p. 14). Quality is a theme that can be found running through much of the tourism and general management literature. Omachonu and Ross define total quality management (TQM) as ‘the integration of all functions and processes within an organization in order to achieve continuous improvement of the quality of goods and services’ (1994, p. 3). Three basic principles or features of TQM can be identified and are illustrated in Figure 9.1. The first is that quality is defined as ‘fitness for use’ as perceived by the users of the product or service. In other words quality can be measured by how well a service or product meets the needs and expectations of the users. Thus users are central to the process of management and an important aspect of management practice is having an understanding of the variety of

users for a particular product or service. The second basic principle is that TQM depends upon effective design and strategic planning (Saylor, 1992; Juran & Gryna 1993; Omachonu & Ross 1994). The third principle is the importance of measurement including both evaluation and ongoing monitoring of performance.

Figure 9.1: Processes and Components of TQM



Understanding how to manage visitors in wildlife tourism settings

Central to all management tools is the need to influence human behaviour and thought in some way. Yet despite this importance, research into human uses and perceptions of natural areas is only recently and often reluctantly being used in natural resource management decisions and planning. Cordell and colleagues (1999) suggested that there are four sets of features associated with human use of natural environments.

- **Interactions** — the activities that humans engage in that have direct and /or indirect impacts on the natural systems. In the case of wildlife tourism these are the actions that visitors take that have impacts on the wildlife and/or the environment in which they are viewed.
- **Demands** — the forces that generate the activities described above. An example of this feature of human use can be found in the issue of fish feeding on coral reef day trips. If evidence indicated that feeding fish to attract them to moorings or visited areas had detrimental effects on the fish, then an understanding of the forces that encourage this activity would be necessary. If the demand for the activity came from visitors who had no other way to view

fish then a solution might involve the development of alternative fish viewing opportunities.

- **Values** — defined as ‘significance, meaning, utility or priority attached by individuals or cultures to material or non material matters that form the basis of human thoughts, behaviours and cultures’ (Cordell et al., 1999, p.6). In the case of wildlife tourism, an understanding of the values that visitors attach to seeing wildlife is important in influencing conservation efforts and in setting prices and fees for wildlife viewing opportunities.
- **Perceptions** — what people believe or know. Perceptions are based in part on experience but also on culture, education and communication and in turn influence attitudes and behaviour. Understanding human perceptions can be important to the management of wildlife tourism in a number of ways. For example, interpretive programs designed to change attitudes towards less popular wildlife, or to discourage wildlife feeding, need to build upon what people already know about these phenomena.

Put more simply there is a number of different ways that humans can interact with natural environments. In order to manage those interactions it is important to understand the nature and extent of the interactions and the forces that drive and shape them. These forces include the values and perceptions of individual users and interactions within their social networks, groups and communities. When combined with a TQM approach it becomes clear that successful and sustainable management of wildlife tourist experiences needs to be guided by the following information on visitors:

- Level of demand for wildlife experiences
- Characteristics of desired wildlife experiences
- Characteristics of visitors that may influence behaviour and satisfaction
- Visitor satisfaction and /or perceived service quality
- Visitor responses to management actions.

Demand for wildlife tourism experiences

Understanding the level of visitor demand for wildlife tourism experiences is important for two main reasons. Firstly, private sector tourism managers use estimates of demand for particular types or aspects of tourist activities to guide the development of services and facilities. Secondly, managers of the protected areas where wildlife are usually found use estimates of demand to develop plans which may include the development of infrastructure and decisions about permitted activities and levels of use. For both these reasons it is important that estimates of demand be reasonably accurate.

If the available figures overestimate demand then managers may develop too many or inappropriate products. The resulting oversupply can result in severe competition between operators, which in turn can increase pressure on operators to find a competitive edge. If an operator responds to this competitive pressure by engaging in less desirable practices such as going closer to the wildlife or feeding wildlife to encourage their presence, then the inaccurate demand estimate can indirectly contribute to negative impacts. Overestimates of demand may also put unnecessary pressure on protected-area managers to redirect resources to increased infrastructure and facilities, reducing resources available for other aspects of management. Facilities

and infrastructure for visitors are often difficult to remove and an oversupply of these features can detract from the experience for some groups of visitors (Manfredo et al., 2002b).

Underestimates can also be problematic with managers having to respond in a reactive fashion to unanticipated pressures and crises. In addition to needing accurate estimates of the levels of demand for wildlife activities, both private and public sector managers need to understand the range of experiences sought and the different types of visitors involved. Without this understanding inappropriate products or services can be provided resulting in visitor dissatisfaction (Manfredo et al., 2002b).

Estimates of demand

Most discussions of non-consumptive wildlife tourism begin with the argument or assumption that this form of tourism is growing at a considerable rate or that there is increasing demand for such experiences from tourists (see Barnes, Burgess & Pearce, 1992; Amante-Helwey, 1996; Roe, Leader-Williams & Dalal-Clayton, 1997 for examples). A detailed analysis of these claims reveals some serious issues and gaps in the evidence provided to support them. Such statements are typically supported by examples that demonstrate high levels of current participation in particular activities, or growth in participation in a particular activity rather than direct evidence of growth in general. Davis and his colleagues (1997) provide a typical example with the claim that 'the demand for tourism activities based on interacting with wildlife has increased rapidly in recent years' (p. 261), supported by the statement that 'more than 600,000 people participate in whale and dolphin watching activities in Australia each year' (p. 262). It is also not uncommon to find support for statements about increasing demand for general wildlife activities based on statistics about recreational bird watching in the US (see Roe et al., 1997 for an example). Extrapolation to wildlife tourism in general from these situations is questionable (Boxall & McFarlane, 1993).

The use of the US Fish and Wildlife Service surveys is also particularly common (see Duffus & Dearden, 1990; Hammitt, Dulin & Wells, 1993; McFarlane, 1994). But the surveys referred to are usually from before 1990. While it is true that non-consumptive and non-residential wildlife recreation increased during the period from 1980 to 1990 (U.S. Fish and Wildlife Service 1991), the survey conducted in 1994/1995 indicated a decline during the period from 1990 to 1995 (U.S. Fish and Wildlife Service 1996). The 1996 report found a decrease of 17% in all forms of wildlife viewing and a decrease of 21% for non-residential wildlife viewing. The most recently available figures suggest an overall increase of 5% in wildlife viewing between 1996 and 2001, although the 2001 figure is still below the 1991 figure giving an overall decline in wildlife viewing for the decade 1991 to 2001 (U.S. Fish and Wildlife Service 2001).

Activity participation figures are also usually presented for only one point in time, often several years previous to the date of publication of the claim. Rarely are claims based on evidence of changes in participation over time. An exception to this is a recent article on whale watching showing an increase in both numbers of operators and participants across an extended time period (Woods-Ballard et al., 2003). It is also often assumed that these past growth rates will continue into the future. It is possible, however, that past growth reflects expanding opportunities or supply rather than increasing interest or demand from visitors. In this case, growth in participation reflects the take up of latent or existing demand. Once this existing demand is catered

for, the apparent growth may cease. In addition, growth in supply can result in a decline in demand for individual sites or operations. That is, a larger number of choices may mean that for any one operation there are fewer visitors. It is important to note that growth in any activity is not inevitable.

Another problem with using actual activity participation as a measure of demand or interest is that not all the tourists who participate in a wildlife tourism activity are motivated by the wildlife (Fredline & Faulkner, 2001; Fulton et al., 2002). That is, there is a tendency to assume that the wildlife is the central interest of all the participants. There are many different factors that can lead to participation in a tourist activity. For example, it is possible that a wildlife tourist activity is part of a larger tour program and that some participants are there only because they were interested in something else in the tour package. Further, some participants may also be there because they are accompanying others who are interested in the wildlife. Two other forms or motives for participation in tourist activities have also been identified. One is curiosity and novelty seeking and the other is a desire to experience as many of the tourist activities available at a destination as possible. Reid's (1996) study of whale-watchers in South Australia, for example, found that less than one third of the sample had travelled to the region to go whale watching, and only 37% engaged in the activity because of an interest in whales. One-tenth of the sample participated because they happened to be passing by and were curious, while another tenth were there because others had told them that it was an interesting experience. A further 12% were seeking a novel and different experience.

A final limitation of using an activity or product-based measure of tourist demand is that it misses those tourists who want or expect a wildlife tourism experience but who do not actually participate. Moscardo's (2000) analysis of visitors to the Whitsunday region of Queensland, for example, found that 22% of surveyed visitors who stated that 'opportunities to see wildlife/birds' was always important in their travel decisions did not, and were not going to, participate in any of the available wildlife tourism activities. Lack of participation can result from a number of factors including barriers such as cost, distance and time, poor information services, or perceptions that what is available is not appropriate.

Alternative approaches to estimating demand for wildlife tourism.

The major alternative approaches to measuring actual activity participation involve surveying or interviewing potential visitors before they arrive at a destination region, accessing actual visitors en route to the destination or sampling visitors from various locations within a destination (Fulton et al., 2002). The key feature of these approaches is to have a sample that is likely to include visitors who have not participated in the activities of interest. These surveys or interviews can involve questions about such factors as intended participation in wildlife activities, levels of interest in participating in such activities, or the importance of opportunities to participate in wildlife activities to their enjoyment and/or to their decision to travel to the destination region.

Table 9.2 contains a summary of evidence available on the importance of wildlife tourism opportunities in travel decision-making by major international travel markets. As can be seen, opportunities to see wildlife/birds is a very important factor in the decision making of these major international travel markets. These figures also indicate growth in the importance of wildlife tourism opportunities for the German

and Japanese markets. In a similar fashion Duda and Bissell (2002) report high levels of interest in wildlife viewing opportunities amongst the US residential population. Box 9.1 provides further information on levels of participation in wildlife viewing.

Results of studies conducted in Australia are consistent with these international patterns. A telephone survey of 600 domestic holiday travellers conducted for the QTTC (now Tourism Queensland) in 1996 found that 21% of the sample described ‘a place where I can get close to nature and see wildlife’ as essential in their choice of a holiday destination. Forty-two percent described this item as very appealing in a holiday destination. Another survey of 780 Australian households conducted for Tourism Queensland in 1998 (1999) found that the highest levels of interest were given to seeing animals in the wild from a list of 11 recreational activities. A survey of more than 2200 international and domestic visitors to the Whitsunday region of Queensland found that 34% of visitors rated ‘opportunities to see wildlife/birds I don’t normally see’ as very important in their choice of a holiday destination in general (Moscardo, 2000).

Table 9.2: Interest in wildlife tourism opportunities

Importance in selecting an international holiday destination in general	Country	1985/86	1995/96
Opportunities to see wildlife/birds I don’t normally see. (four-point scale from Not at all, through Not very and Often to Always Important)	Germany		
	Often important	29%	37%
	Always important	10%	38%
	Japan		
	Often important	14%	44%
	Always important	34%	25%
	United Kingdom		
	Often important	38%	38%
	Always important	32%	24%
	Netherlands (1993)		
Often important	NA	62%	
Always important	NA	36%	

Source: Moscardo, Woods & Greenwood, 2001, p. 19. Results are based on household surveys conducted in the country of origin and screened for long haul international pleasure travellers.

Box 9.1: Levels of participation in wildlife tourism activities

The authors of this chapter have been involved in a major research project aimed at understanding international markets for wildlife tourism activities. The project involves collecting surveys from visitors at a range of different types of wildlife-tourism setting or experience in a range of locations. To date the data set contains visitor profiles from nearly 5000 visitors to 15 different case study sites (three captive and 12 free-range) in Australia and New Zealand. The sample can be broken into the following geographic areas of usual residence:

- Australia (49%)
- UK/Ireland (14%)
- Other Europe (15%)
- USA/Canada (12%)
- Other Asia Pacific (10%)

The survey contains a number of questions but of particular interest here are the questions which ask about participation in a variety of wildlife activities in any location in the 12 months prior to the survey being conducted. The answers to these questions can be summarised as follows.

Number of visits in the last 12 months to a zoo, wildlife park or aquarium

Visitor Origin	None	One	Two or more
Australia	43%	23%	34%
UK/Ireland	31%	32%	37%
Other Europe	16%	21%	63%
Asia/Pacific	49%	23%	28%
USA/Canada	49%	24%	27%

In the last 12 months number of commercial wildlife-viewing tours taken

Visitor Origin	None	One	Two or more
Australia	68%	21%	11%
UK/Ireland	48%	28%	24%
Other Europe	52%	22%	26%
Asia/Pacific	59%	25%	16%
USA/Canada	50%	24%	26%

Number of visits in the last 12 months to places to specifically see wildlife (not on a tour)

Visitor Origin	None	One	Two or more
Australia	37%	28%	35%
UK/Ireland	33%	25%	42%
Other Europe	28%	27%	45%
Asia/Pacific	43%	25%	32%
USA/Canada	33%	24%	43%

Number of visits in the last 12 months to a place where wildlife might be seen (not on a tour)

Visitor Origin	None	One	Two or more
Australia	17%	26%	57%
UK/Ireland	18%	22%	60%
Other Europe	21%	19%	60%
Asia/Pacific	31%	23%	46%
USA/Canada	21%	23%	56%

As can be seen, overall there are very high levels of participation in a range of wildlife tourism activities, especially captive settings and environments where wildlife might be seen.

What types of wildlife experiences are sought?

The previous section has reviewed evidence on overall interest in seeing wildlife while on holidays and the importance of wildlife opportunities in travel decision-making. What this information does not provide is any understanding of the types of experience desired. For example, do visitors prefer to see wildlife in captive or natural settings? What level of facilities do they expect? What kind of interaction with wildlife are they seeking? These are important types of information for effective management (Lauber et al., 2002), and are explored further in Box 9.2.

Box 9.2: Desirable features in a wildlife tourist experience

A core objective of the research program described in Box 9.1 was to examine visitor preferences for different features of wildlife tourism experiences. Visitors were asked to rate the importance of different elements of a wildlife tourism experience. These 13 features were developed from an open-ended critical incidents approach in which people were asked to describe their best and worst wildlife tourism experiences.

The following is the overall ranking of these features from most to least important. Survey respondents were asked to choose the three most important factors for them as individuals from the list of thirteen. The percentages included in the list below indicated the proportion of the sample that included the feature in their set of three most important features.

- Seeing wildlife in their natural environment 67%
- Seeing wildlife behaving naturally 36%
- Rare and unique wildlife 33%
- Being able to get close to wildlife 29%
- Being in an untouched natural environment 26%
- A large variety of wildlife to see 25%
- A knowledgeable guide is available 19%
- Interesting information available about the wildlife 18%
- A large number of wildlife to see 13%
- Being in a pleasant environment 12%
- The wildlife are easy to see 10%
- Feeling safe 8%
- Being able to touch or handle wildlife 7%

Overall the tourists surveyed in this study wanted to be able to get close to rare and unique wildlife behaving naturally in a natural environment. It is worth noting that a 'natural' environment is not necessarily a pristine or untouched environment. Further, there were differences in the importance of these features for different sub-groups of the tourists. Tourists from the Asia/Pacific region, for example, were less interested in seeing wildlife in a natural environment (59% gave this feature as one of the three that were important to them) than tourists from other areas, and more interested in getting close (33%), touching and handling wildlife (12%), and feeling safe (13%). British tourists, on the other hand, were more interested in seeing wildlife in a natural environment (73%) and in having a knowledgeable guide (25%), but less interested in seeing a variety of wildlife (18%). Other Europeans preferred information to be available (23%) rather than having access to a guide (6%). These tourists were also less interested in a large number of wildlife (8%), but more interested in seeing wildlife in a natural environment (76%). North Americans had higher levels of interest in rare and unique wildlife (42%), and in having a knowledgeable guide (26%), but were less interested in getting close to the wildlife (23%) and in being in an untouched natural environment (20%).

Demand for wildlife tourism experiences in natural versus captive settings

In general there appears to be a belief amongst authors that tourists have a preference for seeing wildlife in natural environments (Fredline & Faulkner, 2001), although the

evidence to support this claim is not strong. Pearce and Wilson (1995), for example, report that the two most important features sought by the international visitors to New Zealand who participated in a wildlife viewing activity, were natural surroundings and close proximity to the wildlife. Ryan (1998) in a qualitative study of 50 visitors in the Northern Territory concluded that in general visitors had a preference for seeing crocodiles in their natural environment. This conclusion is consistent with the results of a similar study conducted by the Department of Tourism, Sport and Recreation, Tasmania (1996) in which all of the 177 tourists surveyed stated that they would prefer to see wildlife in its natural setting.

An interest in seeing wildlife in natural settings does not, however, appear to preclude an interest in visiting captive settings. In the Tasmanian study the majority of visitors (94%) also agreed that they enjoyed visiting wildlife parks. Fredline and Faulkner's (2001) study of international tourists to Australia also found that visitors stated a preference for seeing wildlife in natural surroundings, but the majority (51%) described their most enjoyable wildlife interaction experience as having occurred in a captive setting. It is possible that visitors do not interpret the phrase 'natural surroundings' in the way meant by researchers. One explanation for the inconsistencies found in survey results could be that visitors see 'naturalistic' enclosures in captive settings as 'natural surroundings'. This is an issue worthy of research attention.

Demand for environmentally responsible wildlife tourism experiences

Another commonly stated claim in the tourism literature is that tourists are becoming increasingly concerned with the environmental aspects of tour operations and seeking 'greener' tourism products (Hasek, 1994; Jefferson, 1995; International Hotels Environment Initiative, 2002). As with the claims about increasing demand for wildlife tourism, a critical examination of the available evidence suggests a more complex situation. Phillips (1999) reports that while increasing numbers of consumers express more concern over environmental issues and state that they would consider green products, typically they are not willing to pay more for these products. Wearing, Cynn, Ponting and McDonald (2002) provide a detailed review of this issue and also note that there is not a direct link between environmental concern and actual behaviour. They conclude that 'the relationship between environmental awareness, intention and behaviour is tenuous, particularly in the context of tourism' (p. 144).

Demand for particular species

One area that has received considerable attention is that of visitor behaviour in captive settings, particularly zoos. The major research focus of this work has been on factors associated with longer viewing times and visitor satisfaction and learning. The latter area is covered in Chapter 12 of this book. A set of findings of interest to the present discussion of markets is that related to differences in visitor preferences for different wildlife species. After a substantial review of the literature and additional research focussed on most liked and disliked animals, Woods (2000) provided a set of features that were associated with greater preference for, and interest in, particular types of wildlife. According to this review, in general:

- Larger animals are preferred over smaller ones,
- Animals perceived as intelligent are preferred,
- Colourful, graceful and soft/fluffy animals are attractive to humans,

- Animals which are considered to be dangerous to humans are generally disliked but some predators, particularly big cats and crocodiles, attract attention, and
- Animals perceived as similar in appearance or behaviour to humans are preferred.

In addition some animals appear to attract human attention because of their cultural associations or iconic status. Animals such as bears, eagles, wolves, turtles and whales are used as symbols in various cultures for concepts such as freedom, strength and intelligence.

Characteristics of wildlife tourism markets

In addition to more accurate estimates of levels of overall demand for wildlife viewing activities, it is necessary to measure and profile different market segments or types of visitor. Duffus and Dearden (1990), point out that ‘tourists cannot be considered an homogeneous population; even tourists that may primarily be motivated by the same stimulus, such as wildlife viewing’ (p. 222). Despite these calls in the academic literature there has been little in the way of research into even the most basic characteristics of visitors to specific wildlife activities or attractions. Table 9.3 summarises some of the findings from the available published research comparing wildlife and non-wildlife tourist markets. As can be seen, there are few consistent patterns and this confirms Duffus and Dearden’s (1990) argument that there are many different types of wildlife tourist.

Table 9.3: Some studies of differences between wildlife tourism markets and other tourists

Study	Major Results
Boxall & McFarlane, 1993 (Participants in a Christmas bird count, Canada)	Wildlife tourists were more likely: <ul style="list-style-type: none"> • To be older • To have higher levels of education
Pearce & Wilson, 1995 (International tourists to New Zealand)	Wildlife tourists were more likely: <ul style="list-style-type: none"> • To stay longer • To travel further • To spend more • To be younger • To have higher education levels and incomes • To be independent travellers
Moscardo, 2000 (Tourists to the Whitsundays, Australia)	Wildlife tourists were more likely: <ul style="list-style-type: none"> • To stay longer in the region • To be independent travellers
Fredline & Faulkner, 2001 (International visitors to Australia)	Wildlife tourists were more likely : <ul style="list-style-type: none"> • To be younger • To travel further • To stay longer • To be on a package tour
Moscardo et al., 2001 (Tourists to Tasmania, Australia)	Wildlife tourists were more likely: <ul style="list-style-type: none"> • To be female • To be younger, independent, longer stay • To use the internet for information

Level of specialisation

Many of the published studies that are available have been concerned with using specialisation as a core dimension for categorising and describing different visitors in wildlife situations. Duffus and Dearden (1990) were the first to adapt this concept from leisure activities in general to non-consumptive wildlife activities. They made a distinction between experts/specialists and novices/generalists. This basic distinction

has been used in a number of studies (see Manfredo & Larsen, 1993; McFarlane, 1994; Martin, 1997; Cole & Scott, 1999). In general more specialist wildlife watchers:

- Use a wider range of information sources
- Seek a wider range of species to view
- Are more interested in interpretation/education
- Are more interested in rare species
- Have higher levels of physical activity

Visitor responses to management strategies

In most cases strategies to manage the impacts of wildlife tourism activities on the natural environment or wildlife involve attempts to change or limit visitor behaviour, often through restricting access to the wildlife. The limited research evidence available suggests that when limitations are supported by appropriate interpretation, visitors will adhere to restrictions to their activities. Harris et al. (1995), for example, found that 49% of visitors to the Pusch Ridge Wilderness in Arizona were willing to have their recreational activities prohibited or restricted to protect the mountain sheep populations that live in that area. Frost and McCool (1988), in a study of visitors viewing the bald eagle migration in Glacier National Park, found that 90% of those visitors who were aware of various restrictions on their behaviour believed that the regulations were necessary. Fifty-six % further stated that the restrictions had no impact on their experience, with 32% stating that the restrictions enhanced their experience. In this case the restrictions included limited access to certain areas of the park, limits to numbers of visitors allowed into viewing areas and the requirement that visitors can only enter the viewing areas with a naturalist. Davis (1998) compared the enjoyment ratings of people swimming with whale sharks in Western Australia before and after changes to regulations that increased the distance between swimmers and the sharks. He found no change in overall satisfaction and a decrease in perceptions of crowding.

A number of negative impacts has been identified as resulting from visitors feeding wildlife (see Chapter 5). As a consequence many management agencies and managers of captive settings are restricting or prohibiting feeding. Often such actions are opposed by tour operators because of a belief that visitors expect and enjoy feeding and that the restrictions will severely impact upon visitor enjoyment. In many cases prohibition of feeding also results in greater difficulties for visitors accessing and seeing wildlife. There is, unfortunately, very little information available to inform this debate. Kreger and Mench (1995) have suggested that feeding results in movement and interaction, both factors that are sought by visitors, and that feeding may represent 'a way for the visitor to express a caring and nurturing interest in the animal' (1995, p. 147). Orams (2002) also suggests a number of potential visitor motivations for feeding wildlife including the opportunity to interact and get closer to the animal, companionship and a general concern for animal welfare. There is, however, little empirical information currently available on why visitors feed wildlife, what they hope to achieve and what might act as a substitution for this activity.

Visitor satisfaction with wildlife tourism experiences

A small but growing number of research studies has investigated satisfaction with wildlife tourism opportunities. In most cases overall satisfaction levels are high and some recurring themes have begun to emerge. Table 9.4 contains a summary of the

key findings of these studies with regard to the factors found to be significantly related to overall satisfaction and enjoyment. Factors found across several studies to be related to overall satisfaction include:

- The variety of animals seen;
- Particular features of the animals;
- Being able to get close to the wildlife;
- Seeing large, rare or new species;
- The natural setting itself; and
- Being able to learn about the wildlife or the setting.

Table 9.4: Summary of factors related to satisfaction with wildlife activities

<i>Study</i>	<i>Factors contributing to enjoyment/satisfaction in order of importance</i>
Leuschner et al., 1989 (Specialist) birdwatchers in Virginia	Seeing species not previously seen Seeing many different species Seeing rare or endangered species
Duffus & Dearden 1993 Whale-watching tours on Canada's Pacific Coast -Killer Whales	Seeing whales Getting close to whales Seeing displays of whale behaviour Seeing coastal scenery Having a naturalist/crewmember to answer questions Seeing other marine mammals
Hammit et al., 1993 Wildlife viewing in the Great Smoky Mountains National Park	Seeing many different kinds of wildlife Seeing black bears Seeing white-tailed deer Seeing a larger number of animals Being a first time visitor Using binoculars/telescopes to see wildlife Taking photographs If numbers seen matched expected numbers
Davis et al., 1997 Whale Shark Tours in Western Australia	Being close to nature Seeing large animals Seeing many different types of marine life Excitement Learning about the marine environment Adventure Underwater scenery Freedom Relaxation Being with friends
Johnston, 1998 Review of research in zoos	Naturalistic enclosures Size of animals Invisible barriers Proximity to the animals
Tourism Queensland, 1999 Whale watching in South East Queensland, Australia	Number of whales seen Being in a travel group other than a family Being a repeat visitor to the destination Being a domestic visitor On board commentaries Smaller boats
Foxlee, 1999 Whale-watching in Hervey Bay Australia	Numbers of whales seen Distance from whales Whale activity Information available about whales Information available about other marine life The style in which information was presented
Schanzel & McIntosh, 2000 Penguin-viewing in New Zealand. Note: The setting provides a series of covered trenches and camouflaged viewing hides, which allow visitors to move around within the penguin nesting area with minimal disturbance to the birds.	Natural habitat and behaviour Proximity to the penguins Educational opportunities Innovative/novel approach Fewer other people present Presence of infant penguins
Moscardo, Woods & Greenwood, 2001 Study of best and worst wildlife experiences	Being in a natural environment Getting close to animals Education/interpretation Seeing a variety of species Seeing live animals – only previously in books or on television

A model for understanding visitor satisfaction with wildlife-based experiences

Reynolds and Braithwaite (2001) offer the most sophisticated model to date to explain and predict tourist responses to wildlife tourism experiences. According to this model every wildlife-based tourist experience can be organised or measured using six key factors:

- Intensity or excitement of the experience
- Authenticity or naturalness of the experience
- Uniqueness of the experience
- Amount of visitor control over the experience
- Popularity of the species
- Species status in terms of being rare and/or endangered

According to this model, which is supported by some preliminary evidence reported in the same article, authentic or natural encounters which are seen by the visitors as unique, intense or exciting and which give the visitors a sense of control are likely to be seen as positive and rewarding experiences. In addition visitors should be more interested in rare and unusual animals.

These hypotheses are very similar to those that would be predicted from a 'mindfulness' perspective (see Chapter 12 for more details of this concept). The mindfulness concept comes from social psychology where it has been used to explain a large variety of everyday behaviours (Langer, 1989). Mindfulness theory proposes that in any given situation a person can be mindful or mindless. Mindfulness is a state of active cognitive or mental processing. Mindful people are paying attention to the information available in the environment around them, reacting to new information and learning. Mindless people, on the other hand, follow established routines or scripts for behaviour and pay minimal attention to the environment and new information.

Outcomes associated with Mindfulness include perceptions of personal control, excitement, learning and satisfaction. By way of contrast, mindless visitors are more likely to report boredom, a lack of control and interest in the experience and dissatisfaction. Mindful visitors are more likely to be satisfied and to pay greater attention to both the information that is provided to them and to their own behaviour. Mindful visitors should thus be more inclined to engage in minimal impact behaviours and pay greater attention to management strategies and interpretation. Clearly both public and private sector managers should be seeking ways to encourage mindful visitors.

So what then are the conditions that contribute to mindfulness? Features associated with active mental processing include:

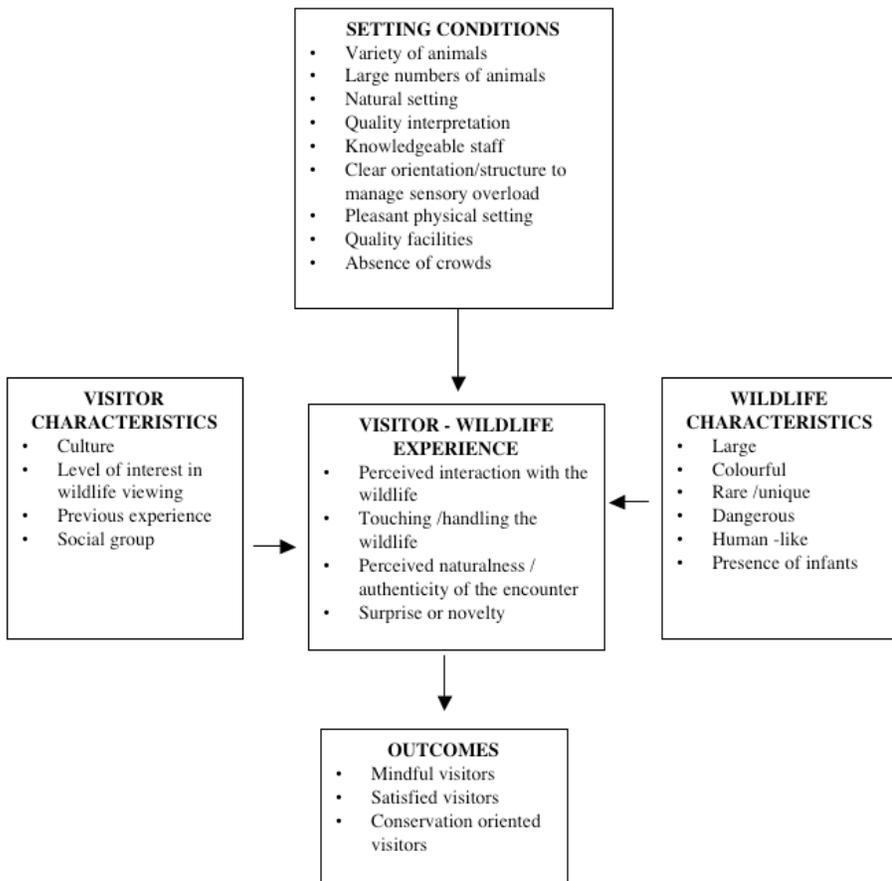
- Variety or change in an experience;
- Personal control or choice;
- Personal relevance and/or importance;
- Opportunities to interact with objects and people; and
- Multi-sensory experiences.

In addition to these features there is also a number of setting conditions that can hinder mindfulness and these include fatigue, disorientation, crowding, sensory overload and safety concerns. There are also features of the individuals that can

interact with the setting conditions to influence mindfulness. These include motivation or interest in the wildlife, previous experience with the activity, existing levels of knowledge about the activity and social group interaction. It should also be noted that mindfulness is a necessary, but not sufficient, condition for learning and satisfaction. For example, a visitor may be mindful but frustrated by the poor quality of the service or interpretation or interpretation provided.

Figure 9.2 takes the mindfulness concept and applies it to the wildlife tourism experience. The model incorporates predictions from a mindfulness approach with what is known about the features associated with visitor satisfaction from previous wildlife viewing research. The model thus serves as both a summary of the existing research and also begins to suggest predictions related to visitor behaviour and responses in wildlife tourism settings.

Figure 9.2: A mindfulness model of wildlife-based tourist experiences



Some management implications of the mindfulness model

A number of management principles can be derived from the mindfulness concept and model. The first of these is variety. It is important that wildlife tourism operators and managers do not rely solely on the passive viewing of wildlife and instead offer a

range of different styles of activity to support and enhance the wildlife-viewing experience.

A crocodile spotting tour in North Queensland provides an example of the ways in which variety can be incorporated into a small day tour. Firstly, while the tour is centrally concerned with crocodiles, the guide also seeks out other species so that in any one tour a number of different animals are seen. In addition the guide uses visitors to assist in setting up spotting equipment and in organising various components of the trip giving them a range of different levels of physical activity. The tour includes both time spent on the boat and time spent walking at a beach and through a mangrove area and it also provides opportunities to meet local residents and to engage in some fishing. Finally the commentary provided includes information about the crocodiles, historical aspects of the area and ecological information about the mangroves.

In this crocodile tour example a number of the activities included in the program provide opportunities for guests to actually participate in activities rather than simply passively view the wildlife. Participation is the second core mindfulness principle. Participation not only encourages guests to get physically and mentally active, it also gives guests some sense of control over what is happening. Control is the third principle for encouraging mindfulness. Another way to enhance participation and control is to help guests develop their wildlife spotting skills with briefings and introductory sessions. In those settings where many species are likely to be seen, control can also be enhanced by giving assistance to guests to make choices. Options include developing brochures or maps with suggested itineraries or routes and providing themed self-guided or guided tours that select a subgroup of species related to the theme.

The mindfulness model also provides some directions for dealing with management challenges. The issue of touching and handling wildlife, for example, is of concern in many wildlife tourism situations. Generally it raises many of the same problems and challenges as wildlife feeding. As with wildlife feeding, touching wildlife is clearly a very rewarding experience for many visitors (Moscardo et al., 2001). The mindfulness model predicts that visitors will respond favourably to opportunities to touch and handle wildlife because it involves a multi-sensory experience, it offers an intense interactive experience and it provides visitors with greater control over the interaction. These are all factors that have been found to be related to mindfulness. If this is undesirable then managers need to find ways to substitute for this experience and the mindfulness model suggests replacing it with other activities that offer visitors control, that are multi-sensory and that engage the visitors in interaction. A mindfulness approach offers a number of dimensions or principles for designing more structured and rewarding wildlife tourism experiences.

Future directions

The management of wildlife tourism requires management of both the wildlife and the tourists. The management of tourists requires information on a number of aspects of these tourists. Firstly it is important to understand levels of demand for different wildlife tourism activities. Judgements about the amount of infrastructure required to manage visitors at various sites, decisions about the number of staff required and awareness of possible pressures on the setting and the wildlife all require accurate measures of demand. Different visitors also have requirements or expectations for different types of management, so it is also necessary to understand levels of demand

for particular types of experience. Much of the existing data on wildlife tourism demand is fragmented and relies heavily on data collected for quite specific settings or species. Wildlife tourism managers in both the public and private sector would benefit from more coordinated, systematic measures of demand for particular types of wildlife experience. Such measures should include both attendance and participation rates but also more broadly based surveys so that latent demand is incorporated into management decisions.

This chapter has proposed a mindfulness model that suggests a number of factors that should encourage both increased satisfaction and minimal impact behaviours. This model is still in development and a number of limitations are apparent in the nature of the mindfulness model, which includes many variables without specific predictions. Clearly there is a need for a much wider range of studies into the human dimensions or market characteristics of wildlife tourism experiences to determine which factors, or combinations of factors, listed in this model are most closely related to positive outcomes.

Finally, it is important to further explore the extent and implications of the outcomes of wildlife tourist experiences. It has been claimed that wildlife experiences can encourage a positive attitude towards nature and enhance nature conservation attitudes and behaviours. To date, however, the evidence of this is limited. Ultimately the challenge for those responsible for wildlife tourism is to both demonstrate these benefits and enhance them. The challenge for wildlife tourism researchers is to better understand the factors that contribute to these outcomes.

References

- Amante-Helwey, V. 1996, Ecotourists' beliefs and knowledge about dolphins and the development of cetacean ecotourism, *Aquatic Mammals*, 22(2): 131-140.
- Barnes, J., Burgess, J., & Pearce, D. 1992, 'Wildlife tourism', in *Economics for the wilds*, eds. T.M. Swanson & E.B. Barbier, Earthscan Publications, London.
- Boxall, P.C., & McFarlane, B.L. 1993, Human dimensions of Christmas bird counts: Implications for nonconsumptive wildlife recreation programs, *Wildlife Society Bulletin*, 21(4): 390-396.
- Brake, L., & Williams, M. 1990, 'Managing visitor impacts: A conflict in perception', in *Managing conflict in parks and recreation*, Royal Australian Institute of Parks and Recreation, Canberra.
- Cole, J.S., & Scott, D. 1999, Segmenting participation in wildlife watching: A comparison of casual wildlife watchers and serious birders. *Human Dimensions of Wildlife*, 4(4): 44-61.
- Cordell, H.K., Hoover, A.P., Super, G.R., & Manning, C.H. 1999, 'Adding human dimensions to ecosystem-based management of natural resources', in *Integrating social sciences with ecosystem management*, eds. H.K. Cordell & J.C. Bergstrom, Sagamore, Champaign, Illinois.
- Davis, D. 1998, Whale shark tourism in Ningaloo Marine Park, Australia, *Anthrozoos*, 11(1): 5-11.
- Davis, D., Birtles, A., Valentine, P., Cuthill, M., & Banks, S. 1997, Whale sharks in Ningaloo Marine Park. *Tourism Management*, 18(5): 259-271.
- Decker, D.J., & Chase, L.C. 1997, Human dimensions of living with wildlife: A management challenge for the 21st century, *Wildlife Society Bulletin*, 25(4): 788-795.
- Department of Tourism, Sport and Recreation, Tasmania 1996, *Wildlife Watching in Tasmania Itinerary Planning*, Department of Tourism, Sport and Recreation, Tasmania, Hobart.
- Duda, M.D., & Bissell, S.J. 2002, 'Marketing wildlife-viewing experiences', in *Wildlife viewing: A management handbook*, ed. M.J. Manfredi, Oregon State University Press, Corvallis, Oregon.
- Duffus, D.A., & Dearden, P. 1990, Non-consumptive wildlife-oriented recreation: A conceptual framework, *Biological Conservation*, 53: 213-231.
- Duffus, D.A., & Dearden, P. 1993, Recreational use, valuation, and management of Killer Whales (*Orcinus orca*) on Canada's Pacific coast, *Environmental Conservation*, 20(2): 149-156.
- Foxlee, J. 1999, Whales and interpretive tales: A study examining visitors' needs and preferences for interpretation on whale watching tours in Hervey Bay. Unpublished Honours thesis, School of Tropical Environmental Studies and Geography at James Cook University, Townsville.
- Fredline, E., & Faulkner, B. 2001, *International market analysis of wildlife tourism*. Wildlife Tourism Research Report Series: No .22, CRC for Sustainable Tourism, Gold Coast.

- Frost, J.E., & McCool, S.F. 1988, Can visitor regulations enhance recreational experiences? *Environmental Management*, 12 (1): 5-9.
- Fulton, D.C., Whittaker, D., & Manfredi, M.J. 2002, 'A planning framework for experience-based wildlife-viewing management', in *Wildlife viewing: A management handbook*, ed. M.J. Manfredi, Oregon State University Press, Corvallis, Oregon.
- Hall, C.M., & McArthur, S. 1993, 'Heritage management', in *Heritage management in New Zealand and Australia*, eds. C.M. Hall & S. McArthur, Oxford University Press, Auckland.
- Hammitt, W.E., Dulin, J.N., & Wells, G.R. 1993, Determinants of quality wildlife viewing in the Great Smoky Mountains National Park, *Wildlife Society Bulletin*, 21(1): 21-30.
- Harris, L.K., Krausman, P.R., and Shaw, W.W. 1995, Human attitudes and mountain sheep in a wilderness setting, *Wildlife Society Bulletin*, 23(1): 66-72.
- Hasek, G. 1994, Tourism's green machine, *Hotel & Motel Management*, 209(17): 25-27.
- International Hotels Environment Initiative 2002, *Hotels care: Community actions and responsibility for the environment*, IHEI, Aldershot, England.
- Jefferson, A. 1995, Prospects for tourism- a practitioner's view, *Tourism Management*, 16(2): 101-105.
- Johnston, R.J. 1998, Estimating demand for wildlife viewing in zoological parks: An exhibit-specific, time allocation approach, *Human Dimensions of Wildlife*, 3(1): 16-33.
- Juran, J.M., & Gryna, F.M. 1993, *Quality planning and analysis*, McGraw-Hill, New York.
- Kreger, M.D., & Mench, J.A. 1995, Visitor-animal interactions at the zoo, *Anthrozoos*, 8 (3): 143-158.
- Langer, E. 1989, *Mindfulness*, Addison-Wesley, Reading MA.
- Lauber, T.B., Chase, L.C., & Decker, D.J. 2002, 'Informing the planning process through citizen participation', in *Wildlife viewing: A management handbook*, ed. M.J. Manfredi, Oregon State University Press, Corvallis, Oregon.
- Leuschner, W.A., Ritchie, V.P., & Stauffer, D.F. 1989, Opinions on wildlife: responses of resource managers and wildlife users in the Southeastern United States, *Wildlife Society Bulletin*, 17: 24-29.
- Machlis, G.E. 1989, 'Managing parks as human ecosystems', in *Public places and spaces*, eds. I. Altman & E.H. Zube, Plenum Press, New York.
- Manfredi, M.J. 2002, 'Planning and managing for wildlife-viewing recreation', in *Wildlife viewing: A management handbook*, ed. M.J. Manfredi, Oregon State University Press, Corvallis, Oregon.
- Manfredi, M.J., Pierce, C.L., Vaske, J.J., & Whittaker, D. 2002a, 'An experience-based approach to planning and management for wildlife-viewing recreation', in *Wildlife viewing: A management handbook*, ed. M.J. Manfredi, Oregon State University Press, Corvallis, Oregon.
- Manfredi, M.J., Pierce, C.L., & Teel, T.L. 2002b 'Participation in wildlife viewing in North America', in *Wildlife viewing: A management handbook*, ed. M.J. Manfredi, Oregon State University Press, Corvallis, Oregon.
- Manfredi, M.J., & Larson, R.A. 1993, Managing wildlife viewing recreation experiences: An application in Colorado, *Wildlife Society Bulletin*, 21: 226-236.
- Martin, S. 1997, Specialization and differences in setting preferences among wildlife viewers, *Human Dimensions of Wildlife*, 2(1): 1-18.
- McFarlane, B.L. 1994, Specialization and motivations of birdwatchers, *Wildlife Society Bulletin*, 22: 361-370.
- McIntyre, G. 1993, *Sustainable tourism development*, World Tourism Organization, Madrid.
- Morrison, A.M. 1996, *Hospitality and Travel Marketing*, 2nd edn, Delmar, New York.
- Moscardo, G. 1996, Mindful visitors: heritage and tourism, *Annals of Tourism Research*, 23(2): 376-397.
- Moscardo, G. 1999, *Making Visitors Mindful*, Sagamore Publishing, Champaign, Illinois.
- Moscardo, G. 2000, Understanding wildlife tourism market segments: An Australian marine study, *Human Dimensions of Wildlife*, 5(2): 36-53.
- Moscardo, G., Woods, B., & Greenwood, T. 2001, *Understanding Visitor Perspectives on Wildlife Tourism*, Wildlife Tourism Research Report Series: No. 2, CRC for Sustainable Tourism, Gold Coast.
- Omachonu, U.K., & Ross, J.E. 1994, *Principles of total quality*, St. Lucie Press, Delray Beach, Florida.
- Orams, M.B. 2002, Feeding wildlife as a tourism attraction: A review of issue and impacts, *Tourism Management*, 23: 281-295.
- Pearce, D.G., & Wilson, P.M. 1995, Wildlife-viewing tourists in New Zealand, *Journal of Travel Research*, 34(2): 19-26.
- Phillips, L.E. 1999, *Green attitude*, *American Demographics*, 21(4): 46-47.
- Queensland Tourist and Travel Corporation 1996, *Report on Far North Queensland Phase 2: Quantitative Phase*, QTTC, Brisbane.
- Reid, E. 1996, *Whale Watchers of the Head of the Bight: 1995 Visitor Profile and Implications for Management*, Occasional Paper No. 11, Mawson Graduate Centre for Environmental Studies, University of Adelaide.
- Reynolds, P.C., & Braithwaite, D. 2001, Towards a conceptual framework for wildlife tourism, *Tourism Management*, 22: 31-42.

- Roes, D., Leader-Williams, N., & Dalal-Clayton, B. 1997, *Take only photographs, leave only footprints: The environmental impacts of wildlife tourism*. IIED Wildlife and Development Series, No. 10.
- Ryan, C. 1998, Saltwater crocodiles as tourist attractions, *Journal of Sustainable Tourism*, 6(4): 339-342.
- Saylor, J.H. 1992, *TQM Field Manual*. McGraw-Hill, New York.
- 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.
- Tourism Queensland 1999, *1998 Whale Watching Survey: Research Findings*, [Online] Available at: <http://www.tq.com.au/qep/research/whalrsch/index/htm>
- U.S. Fish and Wildlife Service 1991, *1991 National Survey of Fishing Hunting and Wildlife Associated Recreation*, US Government Printing Office, Washington, D.C.
- U.S. Fish and Wildlife Service 1996, *1996 National Survey of Fishing Hunting and Wildlife Associated Recreation*, US Government Printing Office, Washington, D.C.
- U.S. Fish and Wildlife Service 2001, *2001 National Survey of Fishing Hunting and Wildlife Associated Recreation*, US Government Printing Office, Washington, D.C.
- Wearing, S., Cynn, S., Ponting, J., & McDonald, M. 2002, Converting environmental concern into ecotourism purchases, *Journal of Ecotourism*, 1 (2 & 3): 133-148.
- Woods, B. 2000, Beauty and the beast: preferences for animals in Australia, *Journal of Tourism Studies*, 11(2): 25-35.
- Woods-Ballard, A.J., Parsons, E.C.M., Hughes, A.J., Velander, K.A., Ladle, R.J., & Warburton, C.A. 2003, The sustainability of whale-watching in Scotland, *Journal of Sustainable Tourism*, 11(1): 40-55.