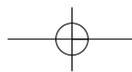
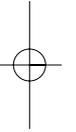
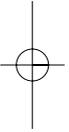




CHAPTER 7

# Ecotourism: pondering the paradoxes

James Higham and Michael Lück





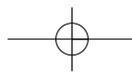
## Introduction

One of the most fundamental changes in human awareness over the last 50 years has been growing environmental consciousness and the realisation that humans are not free of environmental constraints (Dunlap, 1980; Hussey and Thompson, 2000). Ecotourism is one of the more prominent manifestations of this environmental awareness. It has long been argued that this growing environmental consciousness has had significant implications for tourism, and that ecotourism represents the vanguard of sustainable tourism. The counterview, however, is that ecotourism is a complex phenomenon that poses considerable challenges to the view that ecotourism approximates to sustainable tourism. The counterview sees ecotourism as little different to mass tourism (Wheeller, 2002), but that it takes place in environments that are arguably too precious to be exposed to the risks of tourism impact. This chapter explores some of the paradoxes of ecotourism, which pose considerable and as yet unresolved challenges to those who advocate for ecotourism.

## The development context

Modern tourism development dates to the 1960s and the introduction of the passenger jet aircraft. Initially in Europe the development of 'mass tourism' involved the large-scale production and sale of organised package tours, mostly from Northern and Western Europe to the Southern European countries of Spain, France, Greece and Italy (Bramwell, 2004). It was during this time that the United Nations strongly advocated tourism as a 'smokeless' industry of great economic development potential for both developed and developing countries. As a result of the enormous growth of the tourism industry, combined with rising environmental consciousness during the 1960s and 1970s (McCormick, 1992), concern arose for the detrimental impacts that millions of tourists began to have on natural and cultural environments. In the late 1980s and early 1990s it was argued that 'responsible' tourism was a viable alternative to the increasingly widespread concerns associated with the growth of popular mass tourism (Krippendorf, 1986; Butler, 1992). This was partly because 'the public had become "tired" of the crowds, weary of jetlag, and awakened to the evidence of pollution' (Eadington and Smith, 1992, p. 6) and other forms of mass tourism impact.

Fennell (1999, p. 9) notes that alternative tourism encompasses a 'whole range of tourism strategies (e.g. "appropriate",

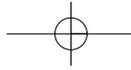


“eco”, “soft”, “responsible”, “people to people”, “controlled”, “small-scale”, “cottage”, and “green” tourism), all of which purport to offer a more benign alternative to conventional mass tourism’. In particular, the term ‘ecotourism’ found its way into the tourism vernacular during the 1980s and into increasingly wide use by industry, government and public bodies, conservationists, academics and tourists themselves. Initially ecotourism was seen to provide tourism experiences that were not detrimental to the natural and social environments of host regions (Cater and Goodall, 1992).

Over the past two to three decades a number of researchers and governmental bodies developed a plethora of definitions of ecotourism. Fennell (2001) and Diamantis (1999) investigated a number of definitions in terms of their content and in terms of trends and evolution of such definitions, respectively. Three of the main components of most definitions is that ecotourism takes place in natural, relatively undisturbed areas (Ceballos-Lascurain, 1987; Krippendorf, 1987a, b; Holmes, 1993; Valentine, 1993; Ballantine and Eagles, 1994; Eagles and Cascagnette, 1995; Weiler and Richins, 1995; Blamey, 1997; Fennell, 1999; Ross and Wall, 1999; Sirakaya *et al.*, 1999; Weaver, 2001), tries to minimise the negative impacts on the local communities and the natural environment (Mathieson and Wall, 1982; Pleumarom, 1993; Valentine, 1993; Orams, 1995; Gilbert, 1997; Lindberg and McKercher, 1997; Acott *et al.*, 1998; Honey, 1999; Fennell, 2003), and that it contributes to the conservation of those areas (Boo, 1990; Jones, 1992; Holmes, 1993; Valentine, 1993; Wight, 1993; Buckley, 1994; McArthur, 1997; Fennell, 1999; Honey, 1999; Ross and Wall, 1999). Despite these definitions, there are a number of challenges associated with ecotourism, not the least of which relate to the environmental contexts within which ecotourism takes place. In order to understand these challenges, it is important to understand a number of paradoxes inherent in the concept of ecotourism.

### The paradox of ecotourism impacts

The development of ecotourism destinations inevitably brings with it a number of associated impacts. Critics argue that ecotourism promotes development and thus the destruction of natural resources (McLaren, 2003). Due to the fact that ecotourists tend to discover new and undisturbed areas, ‘try to avoid the beaten track’ and ‘want to go to places where nobody else has set foot before them’ (Järviluoma, 1992, p. 118), effects on the natural environment are more severe than, for example, urban



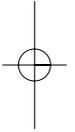
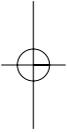
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## Critical Issues in Ecotourism: confronting the challenges

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tourist destinations. Paradoxically, therefore, whatever the intentions, ecotourism offers great potential to destroy the very resource based upon which it depends (Järviluoma, 1992; Gray, 1997; McLaren, 2003).

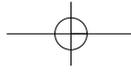
Weaver (2002) notes that the environmental impacts of ecotourism can be either deliberate or inadvertent. Deliberate costs are, for example, those costs that occur with the construction of an ecolodge. Even if sites are already developed to a certain extent, the construction of tourist facilities usually requires environmental modification, clear cuts and sealing of ground areas (Buckley, 2005). These impacts are usually foreseeable and seen as acceptable when kept small in scale and in limited areas (Weaver, 2002). Such deliberate impacts are often deemed to be more acceptable in less sensitive areas in order to divert possible negative impacts at adjacent sensitive areas. These sites are commonly referred to as 'sacrifice sites'. Of no less significance, inadvertent impacts include the disruption of wildlife behaviours, such a breeding behaviours and migration patterns, due to the development of tourist facilities and infrastructures and/or the mere presence of tourists at sensitive times or in critical ecological zones. It is inadvertent impacts that are particularly problematic to research and understand, but until these impacts are understood appropriate and sustainable tourism management will remain elusive (Lusseau and Higham, 2004).



### The paradox of tourism and conservation

The debate as to whether or not tourism and conservation can exist in a relationship of symbiosis has been lengthy and protracted. In his earliest speculations, Budowski (1976) suggested that the desirable relationship of symbiosis is in practice the exception rather than the rule. More commonly a relationship of conflict, or coexistence moving towards conflict, prevails between the interests of the tourism sector and conservation groups (Budowski, 1976). So it remains an open question as to whether or not these competing ambitions can be reconciled. A universal ecotourism paradox is apparent in this instance. Ecotourism typically (although not exclusively) takes place in environments that are fragile, finite and valued primarily for conservation. Tourism competes for the use of these environments with largely incompatible interests in natural science, biodiversity protection (or enhancement), the protection of wild animal populations (often rare or engendered wildlife species), the protection of native flora and freedom from human demands.





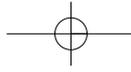
Under these circumstances, the impacts of ecotourism are brought to bear in environmental contexts where many would consider the stakes are highest.

So while there may exist potential for ecotourism to serve the symbiotic interests of tourism and conservation, in most cases doubt exists as to whether conservation interests are adequately or genuinely served through ecotourism development. Recent research that addresses interactions between tourists and dolphins bears out these concerns. In locations such as Doubtful Sound, New Zealand (Lusseau, 2003) and Shark Bay, Australia (Bejder, 2006), two of the most thoroughly researched populations of cetaceans in the world, evidence exists to suggest that tourist activities can have subtle impacts on animal populations that are barely possible to detect in the short or medium terms, yet likely to be biologically significant in the longer term. In the absence of scientific research and thorough insights into ecology of focal animal populations, the likelihood to a genuine relationship serving the mutual interests of tourism and conservation is difficult to foresee.

### The paradox of ecotourism in 'pristine' environments

The notion that ecotourism is supposed to operate in natural areas, away from developed areas (Boyd and Butler, 1996) poses a considerable paradox. Ecotourism businesses require a minimum level of infrastructure in order to actually operate. Ecotourism venues exist in 'degrees of naturalness' but the very existence of tourism infrastructure usually exists at the expense of 'pristine' naturalness (Higham and Lück, 2002). In favour of naturalness and at the exclusion of an anthropocentric view, Boyd *et al.* (1995) attempted to map ecotourism areas in Ontario, Canada, using a Geographical Information System' (GIS) method. The results showed that only a few areas were suitable for ecotourism, because most areas in Ontario are located within some distance to major roads or other human constructs. Higham and Lück (2002) argue that this shows the value of GIS as a research tool, but highlights the inadequacy of many ecotourism definitions. A minimum of infrastructure is necessary to allow for viable ecotourism operations. In these instances definitions of ecotourism overlook the basic operational requirements of any ecotourism business and the bare necessities required to accommodate and provide for visitors. Thus the search for 'pristine' environments (if such a thing exists at all) is doomed to be futile as the very presence of tourists, and the demands that they place on environments in terms of transport,





accommodation, service and entertainment, are brought to bear upon the environments in which they seek to achieve the ecotourism experience (Brown and Hall, 2000). By implication, the more successful an ecotourism destination, if success is measured in terms of visitor numbers, the more it threatens its own future sustainability.

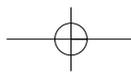
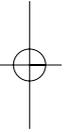
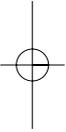
### The paradoxes inherent in ecotourism as a form of entertainment

McKercher (1993) argues that the fundamental aim of ecotourism operators is to entertain their visitors. This may require the manipulation and packaging of a 'saleable product' that will satisfy tour schedules, and in some instances the development of pseudo-events to guarantee the experience. This he describes as a '*necessary if somewhat distasteful aspect of the industry*' (McKercher, 1993, p. 12). Ultimately this packaging of experiences into pre-planned and highly structured itineraries leads to tiredness, fatigue, boredom, disinterest and a lack of appreciation on the part of visitors.

While Duffus and Dearden (1990) argue that specialist or expert visitors may have a genuine interest in the subject of their attention while on tour, they also suggest that those who follow, otherwise termed generalists or novices seek primarily to be entertained. In seeking to entertain, tour operators may readily succumb to providing the desired – as opposed to the most desirable – visitor experience. In many cases this leads to visitor experiences taking exclusive priority over concerns for the impacts associated with those experiences.

The investigation of Scarpaci *et al.* (2003) into tour operator compliance with regulations on swim-with-dolphins tours in Port Phillip Bay, Australia after the government had introduced new regulations provides an excellent case in point. According to their findings operators ignore a number of rules, which potentially harasses and ultimately harms the mammals. The work of Lusseau (2003) provides results that are little different, confirming that tour operators in Doubtful Sound commit at least one breach of permit regulations on two-thirds of all tours, and multiple breaches on half of all of those tours. Orams (2005) has directly addressed the all important question of whether or not tourists simply want to be entertained, and whether tourists who engage in the viewing of marine mammals in the wild ultimately just want to get as close as possible to the animals that they are able to view.

Thus a significant paradox emerges in that while ecotourism seeks to protect and conserve the animal populations that



attract the interests (however fleeting) of tourists, the onsite experience is often one that brings visitors themselves into inappropriate contact and harmful interaction with those animals in the immediate interest of a close look. Individual tourists rarely recognise (and even when they do, very rarely carefully consider) the cumulative impacts of such short-term, self-interested behaviour or the non-compliance of tour operators. Thus, while a single drop of water cannot be held accountable for a flood, so tourists are rarely able to look beyond their own immediate visitor experience to the cumulative impacts of all tourists who visit a site over an extended period of time. All of those who individually seek to get as close as they can to animals are not held accountable for the cumulative impacts of many such actions over time.

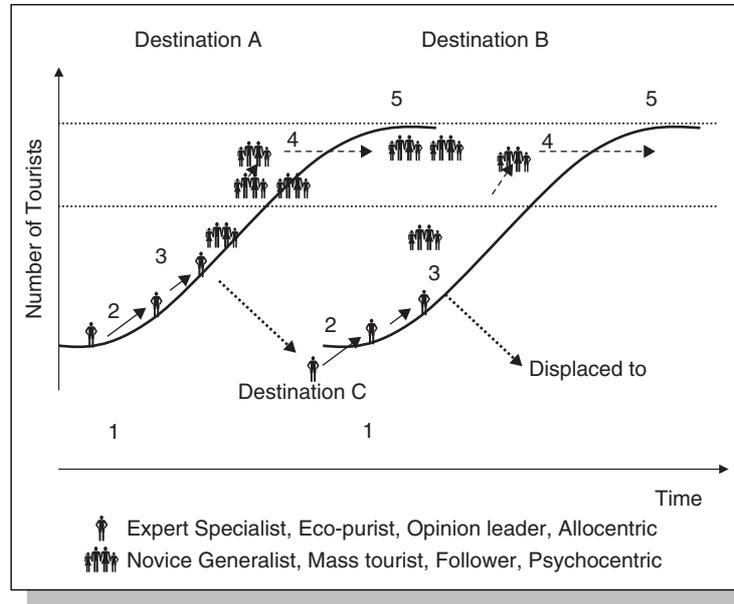
### The paradox of the ceaseless search for unspoilt places

Recreational succession, a concept first introduced by Stankey (1985), describes the cyclical patterns of that often accurately describe tourism and recreation in natural areas. Stankey argues that pristine natural areas are 'discovered' by relatively exploratory visitors, who use the site for recreational purposes. These people can be described as 'expert/specialist' on Bryan's (1977) continuum of leisure specialisation. They are outgoing and self-confident, inquisitive and show a considerable degree of adventure and curiosity (Goeldner and Ritchie, 2003). According to Bryan (1977, 1979) these visitors are low in numbers, but have high interest in and good knowledge about the particular area. They are motivated by genuine interest and have minimal negative impacts on the site. With growing interest in a given site and subsequent increasing use, a gradual deterioration of the natural qualities of the area takes place (Orams, 1999). High initial visitor satisfaction and 'word of mouth' result in an increase in interest and demand. Subsequent visitor types, however, are typically less experienced according to Bryan's typology, such that at a certain point the site is too developed and popular for the taste of earlier visitors. The dynamics of visitor arrivals conceptualised initially by Bryan (1977) and subsequently by Duffus and Dearden (1990) highlight the importance of understanding visitor preferences for recreation and tourist experiences, and how they decide that their values have been compromised to the point that they are displaced. This phenomenon, termed 'recreational succession', takes place in association with phases of visitor displacement which has significant implications for tourism management (Figure 7.1).



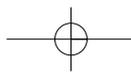
Critical Issues in Ecotourism: confronting the challenges

**Figure 7.1**  
 Recreational  
 succession and  
 displacement  
 (Source: Adapted  
 from Bryan, 1977;  
 Butler, 1980; Plog,  
 1991; Orams, 1999)



It is important to understand these concepts when assessing ecotourism and its impacts. The majority of ecotourism definitions include a nature-based, a socio-cultural component and – since the Earth Summit in Rio de Janeiro 1992 – a sustainable development component (Diamantis, 1999). In addition, ecotourism is mostly associated with small-scale tourism (Gilbert, 1997; Lück, 1998; Fennell, 2003). The concepts discussed above all contradict the sustainability of ecotourism though. According to these models alternative tourists ‘discover’ places, sites and destinations. With recreational succession new areas evolve through phases from discovery and exploration, through development to stagnation and decline.

The ultimate goal of ecotourism – sustainability – is thus compromised in many cases in the short-term interests of economic development and employment. Cater (1993) argues that prime ecotourism attractions and sites are subject to concentrated use by ecotourists, who put the natural environment under stress, with overuse resulting in ecological degradation. Belize and Costa Rica are prime examples of this course of development. Once hailed as textbook cases for ecotourism, they offered visitor experiences that catered predominantly to ‘ecotourists’. Both countries were relatively difficult to access from Europe. Tourists had to transfer in the United States, often with no same day connection which required a night in the United States. In the case of Belize the alternative option was to fly into Cancun/Mexico, and take a bus



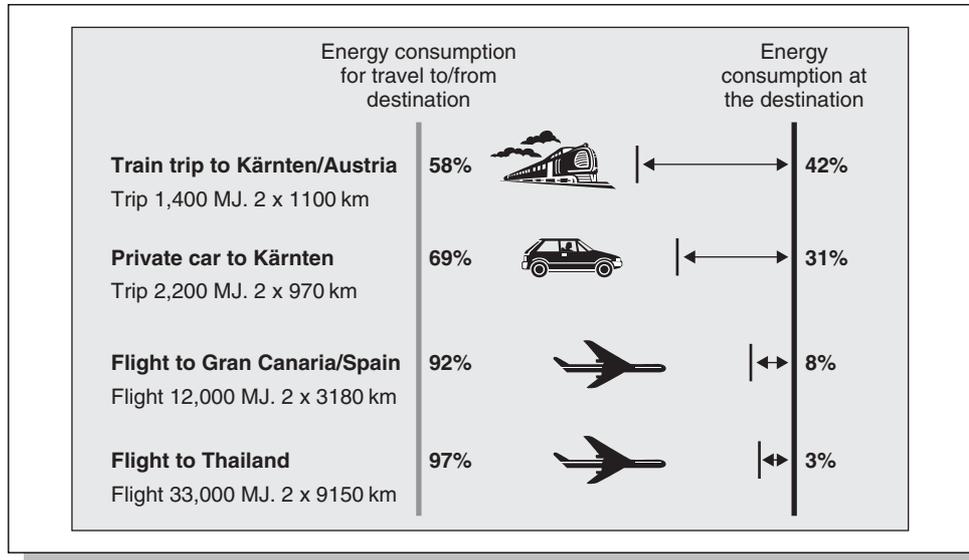
to Chetumal, and onto Belize City, which takes at least 8–9 h. This relative inaccessibility was acceptable only for a certain type of tourists. However, after a dramatic increase in the popularity of ecotourism, it did not take long until both countries were served by European charter airlines, either with short-stop or direct services (Lück, 2002). This is just one manifestation of the continual succession of ecotourism destinations as they rise and ultimately fall in popularity.

### The paradox of low-impact tourism and long-haul travel

An often neglected aspect of ecotourism arises from the fact that most research examines the costs and benefits from a macro- or destination perspective (see Becken and Schellhorn, this volume). The geographical settings of ecotourism destinations, and of ecotourist generating countries are important to consider. Thus, Flognfeldt (1997) divides the term ecotourism into 'destination eco-systems' and 'eco-route systems'. With the use of these terms, Flognfeldt clearly distinguishes between micro- or destination perspectives and macro- or whole trip perspectives. Cater (1993) notes that for various reasons, many Third World destinations are primary ecotourism destinations, while most ecotourists originate from more developed countries (MDCs). Thus, like any other tourist, in order to access their destinations of choice, most ecotourists travel by jet aircraft, most commonly on long-haul routes (Weaver, 2002; McLaren, 2003). Air travel is the least environmentally friendly form of travel, which contributes significantly to global warming. The ratios between energy consumption for travelling and the energy consumption for the stay at the destination are illustrated in Figure 7.2 (Gwinner, 2001). According to the World Wildlife Fund for Nature (McLaren, 2003, p. 92), air travel is likely to 'cause considerable environmental damage, and to have knock-out effects on the tourism industry itself'. Such environmental costs are in most cases not calculated or considered in parochial local accounts of ecotourism impacts. Weaver (2002) suggests that an extra-parochial approach would include actions from ecotour operators, for example, planting new vegetation in order to compensate for negative effects such as greenhouse gas emissions.

Airline companies are well aware of the negative environmental aspects of their day-to-day operations. With the knowledge of never being able to operate in an eco-friendly way, some attempt to support environmental projects or organisations, as suggested by Weaver (2002). Ansett Australia, for example, planted more than 500 trees at different points all over Australia as part of their environmental commitment associated

## Critical Issues in Ecotourism: confronting the challenges

**Figure 7.2**

Ratio of primary energy use between the journey and the stay at the destination (country of origin: Germany) (Source: After Gwinner, 2001, p. 170)

with the 2000 Olympic Games in Sydney (Mieling, 2001). LTU International Airways, Germany's second largest charter carrier, supported high-calibre research on the effects of air travel on the atmosphere. In addition, for a number of years on flights from Germany to the Maldives, LTU distributed 'eco-bags' and encouraged their passengers to collect all inorganic waste products during their stay, and return them to the check-in, where they were collected, sorted and flown back to Germany for recycling or disposal (Lück, 2001). Ironically both of these airlines have subsequently encountered serious financial problems. Ansett went into receivership in 2003, while LTU was taken over by a new owner and these environmental initiatives were discontinued.

### The paradox of transporting ecotourists to, at and between the sites of the visitor experience

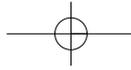
Westwood and Boyd (2005) reviewed ecotourism definitions and subsequently argue that scenic flights adheres to many of the key elements of most definitions. It takes place in untouched nature and offers an educational component (in-flight commentary), while at the same time minimising the impacts due to limited contact with the setting. Finally, they argue that 'scenic

flights are environmentally friendly as they discharge low levels of pollution, and create low levels noise pollution for wildlife and other tourists' (Westwood and Boyd, 2005, p. 51). According to the World Watch Institute (WWI), aircraft, particularly helicopters and fixed wing aeroplanes, '... are the most energy-intensive means of carrying people and cargo' (McLaren, 2003, p. 92). While the WWI certainly refers particularly to large jet aircraft, it can still be maintained that small aircraft consume more fuel than, for example, a minibus. This is even more striking when the overall consumption is seen on a per passenger basis. According to Westwood and Boyd (2005), among the most popular aircraft types (fixed wing) are the Cessna 172 (4 seats including pilot) and the Cessna 206 (6 seats including pilot). The fuel consumption of these two types and the fuel consumption of a standard minibus (Toyota Hiace, 14 seats) are presented in Table 7.1. It is difficult to directly compare an

**Table 7.1** Fuel consumption aircraft and minibus

	Seats (including pilot/driver)	Litres/hour	Litres/hour per passenger	Litres/100 km (longwheel/ super longwheel base)	Litres/ 100 kms per passenger
Cessna 172 Skyhawk	4	75% power: 30.28 65% power: 28.39	7.57 7.10		
Cessna 206 Stationair	6	75% power: 62.46 65% power: 54.13	10.41 9.02		
Toyota Hiace Petrol/Turbo Diesel	14			<i>Petrol</i> Manual: 11.6/12.4 Automatic: 11.6/12.6 <i>Turbo Diesel</i> Manual: 8.1/8.8 Automatic: 8.4/9.6	0.83/0.89 0.83/0.9 0.56/0.63 0.6/0.69

Sources: Plane & Pilot (2006) and Toyota Australia (2006).



## Critical Issues in Ecotourism: confronting the challenges

aircraft with a minibus, because one is measured by the hour and the other per 100 km.

However, it is clear that the fuel consumption is much higher per passenger for a small aircraft. In addition, Ford has recently developed the first medium-sized commercial vehicle in Europe (Ford Transit) equipped with belt-driven integrated starter generator (ISG) technology. This hybrid solution is expected to save another 15–25% of fuel during ‘real world usage’ (Ford, 2006).

Regarding noise pollution, Westwood and Boyd (2005) refer to a survey undertaken on three main hiking trails by the Department of Conservation (DOC), the Crown’s agency for the management of New Zealand’s conservation estate, in 1993. New Zealand’s most famous track, the Milford Track, was significantly impacted by aircraft noise due to large numbers of flights between Queenstown and Milford Sound. DOC’s survey revealed a ‘high overall proportion (69%) of people on the Milford Track found aircraft activity to be disturbing’ (Westwood and Boyd, 2005, p. 59). In a study on sperm whales in Kaikoura, New Zealand, Marrett (1992, in Constantine, 1999, p. 19) compared the noise levels of boats, helicopters and planes around whales. Marrett concluded that ‘at a distance of 75 m from a whale on the surface, helicopters and planes were noisier than boats’ (Constantine, 1999, p. 19).

### The paradox of the ultimate ecotourist

Perhaps the definitive paradox associated with this phenomenon is that the ultimate ecotourist is one who stays at home (or close to home). The variety of impacts associated with ecotourism, both in terms of access to distant destinations as well as on-site impacts, brings with it a number of challenges. It remains vague and questionable whether many so-called ecotour operators and eco-attractions can be regarded as ‘eco’. Surely many do comply with one or more ecotourism requirements, but ultimately harm the very environment that they operate in. Ecotourism, despite the rhetoric, contributes significantly to the degradation or destruction of the natural environment (Cater and Goodall, 1992).

One interesting variation is the notion of ecotourism taking place in urban environments. Dwyer and Edwards (2000) observe that as large cities continue to grow, city councils and local governments seek to meet the challenge of continually expanding cities in order to provide housing for growing urban populations on one hand, with the preservation of natural resources on the



other. As this trend continues considerable and increasingly valued natural areas are located in urban or urban fringe areas. Dwyer and Edwards (2000) note the recreation and tourism potential of such areas. Higham and Lück (2002) argue that urban ecotourism can combat many of the problems associated with ecotourism and urban development. Firstly, environmental impacts can be kept to a minimum. There is no need to travel to and penetrate remote, relatively untouched natural areas. Cities offer well-developed transport and service infrastructures for local residents and tourists alike. Ecotourism in urban settings can contribute to the restoration of natural areas and/or the use of obsolete industrial sites. Conservational values can be restored and enhance the quality of the city while providing unique ecotourism experiences. Such projects can create habitats for endangered species and support the reintroduction of regionally extinct species (Higham and Lück, 2002). Under these scenarios, the ultimate ecotourist may seek out nature-based experiences that can be achieved in the absence of fast, long-haul travel.

## Conclusions

Ecotourism is a travel phenomenon that is rife with contradictions and paradoxes. Given these paradoxes it is understandable that many critics of ecotourism harbour grave concerns for the high and perhaps unrealistic ideals associated with this form of tourism. The term 'ecotokenism' has been coined in acknowledgement of the general lack of critical consideration associated with ecotourism development. This chapter presents one viewpoint on a range of paradoxes that may be associated with ecotourism. Until these paradoxes are adequately acknowledged, critically considered and satisfactorily addressed, the chorus of critical commentary on ecotourism that had grown in recent years will not abate.

It was noted at the start of this chapter that one of the most fundamental changes in human awareness over the last 50 years has been growing environmental consciousness and the realisation that humans are not free of environmental constraints. Milbrath (1984) notes that those who hold values aligned with the 'new environmental paradigm' (NEP) are in the vanguard of social change in response to growing concerns for the global environment. Those who hold values that are aligned with the NEP, according to Milbrath (1984), are perhaps slowly but surely influencing those whose values conform with the dominant social paradigm (DSP) so as to redirect society in the interests of environmental sustainability. Growing concerns

associated with such global issues as peak oil and climate change appear to be adding pace to this redirection of society.

Perhaps the same scenario applies to ecotourism insofar as it will be the values of tourists themselves that will redirect ecotourism in the direction of sustainability. While many criticise ecotourism operators in terms of 'greenwashing' and 'ecotokenism', perhaps it is ultimately the values of visitors themselves that must change if ecotourism is ever to achieve its lofty ambitions. It is ultimately the visitor who chooses where they will travel, how they will travel there (and back) and how they will conduct themselves while on their travels (in all respects). It could be argued that only when tourists themselves begin to make the right decisions, and stand by those decisions as they relate to the paradoxes outlined in this chapter, will ecotourism finally have the potential to be a reality.

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