Identifying the ecotourist market using the core criteria of ecotourism: Is there a true ecotourist that seeks nature, learning and sustainability?

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ecotourism, ecotourist market, motivations, nature-based, learning, sustainability

Abstract
Ecotourism can be defined by three core criteria: nature-based, learning and sustainability. Research aimed at identifying the ecotourist market has concentrated on motivations and activity related to the first two criteria. Although some research has considered ecological values, there is little evidence whether sustainability also has a role in ecotourist decision-making. This research aims to identify ecotourists based on the motivational and activity elements and then assess the pro-environment attitudes of those so identified as a measure of their support for sustainability, thus identifying the market by the three core criteria of ecotourism. A survey was undertaken of 243 visitors to Lamington National Park, Queensland, Australia, prior to commencement of their visit. Results indicated that even on motivational and activity grounds the number of ecotourists was low but was even lower when their environmental attitudes were considered. Omitting the sustainability criterion from earlier studies may have resulted in an over-estimation of the size of the ecotourism market. This may account for a recent focus away from a distinct ecotourism segment and diversification of many ecotourism products. Other motivations may be just as important and tourists may not be concerned whether the ecotourism experience conforms to the three criteria of ecotourism.
Introduction

Ecotourism emerged as a specific sector of the tourism industry in the late twentieth century. Evidence suggests that this occurred as a result of a paradigm shift in western society from the dominant western environmental paradigm to a more environmentally concerned ‘green’ paradigm, and this was both demand and supply driven (Weaver, 2008). On the demand side, evidence emerged of a growing number of people possessing core values associated with the green paradigm and adopting environmentally friendly behaviour and consumption patterns (Ray & Anderson, 2000). These ‘green consumers’ represented a large market of people who, it was believed, also wanted their tourism product to be environmentally friendly and sustainable, and ecotourism could provide that product. On the supply side, a growing number of tourism operators adopted green practices and established ecotourism ventures designed to meet this increasing demand with their emphasis on nature, education about the environment, and sustainability.

During the 1990s ecotourism became a buzzword and ecotourism products proliferated. Governments initiated separate ecotourism plans and ecotourism organisations were established both in Australia and overseas. In more recent times, ecotourism seems to have undergone somewhat of a downturn. In Australia, federal and state governments no longer produce separate ecotourism plans but have incorporated ecotourism as part of nature-based tourism into their general tourism strategies (e.g. Commonwealth Department of Resources, Energy and Tourism, 2009; South Australian Tourism Commission, 2009; Tourism New South Wales, 2002; Tourism Queensland, 2006). For instance, Tourism Queensland (2009) notes that implementation of the Queensland ecotourism plan 2003-2008 has been completed and that ecotourism is now integrated into Tourism Queensland’s core business. Many ecotourism businesses have diversified their products by offering other services such as health and beauty, conferences, weddings and events, wine and gourmet, and adventure activities, in an attempt to cater to a wider audience (e.g. Binna Burra Mountain Lodge and Campsite, 2007; Couran Cove Island Resort, 2009; O’Reilly’s Rainforest Retreat, Villas & Lost World Spa, 2009; Silky Oaks Lodge & Healing Waters Spa, n.d.). Perhaps the industry misjudged the ecotourist market and hence over-estimated the demand for ecotourism.

Ecotourism can be identified by three core criteria – it is nature-based, it provides learning experiences and it is ecologically sustainable (Beaumont, 1998; Blamey, 1995; Weaver, 2008). Criteria used to identify the ecotourist market have focused on motivations related to the nature and learning components and activity in the natural environment (e.g. Ballantine & Eagles, 1994; Juric, Cornwall & Mather, 2002; Kwan, Eagles & Gebhardt, 2008; Saleh & Karwacki, 1996; Wight, 1996). Some studies have considered ecological values of potential ecotourists or environmental attitudes or behavioural intentions of ecotourists that have been identified according to motivational elements (e.g. Blamey & Braithwaite, 1997; Kerstetter, Hou & Lin, 2004; Luo & Deng, 2008; Weaver, 2002; Zografos & Allcroft, 2007). However, as Sharpley (2006)
notes, little of this research has been undertaken in the actual ecotourism context. The bulk of research indicates that natural places are sought for the benefits of enjoyment and learning, but there is scant evidence whether concern for the environment or sustainability also has a role in ecotourist decision-making and hence in identifying the ecotourist market. Indeed, some writers suggest that ecotourists are no more concerned about sustainability or the environmental credentials of their ecotourism product than mainstream tourists (Sharpley, 2006; Wheeller, 2005).

The aim of this research is to identify ecotourists based on the motivational elements and involvement in nature activities as outlined above, and to then measure the pro-environment attitudes of those so identified, as a way of identifying ecotourists on the basis of the three core criteria of ecotourism: nature-based, education or learning, and sustainability.

**Identifying ecotourists by motivations and nature experiences**

Early research to identify the ecotourist market focussed on the motivations of participants of known commercial ecotours. Eagles (1992) was one of the earliest researchers to try to differentiate ecotourists from mainstream tourists. Comparing three studies of Canadian ecotourists on international tours with a survey of mainstream Canadian tourists, Eagles (1992) found significant differences between the two groups. Ecotourists’ primary motivations were visiting tropical forests, wilderness or undisturbed nature, and learning about nature. By contrast, mainstream tourists were motivated by warm climates, being with family and friends, and familiarity.

Based on these conclusions, Ballantine and Eagles (1994) formulated a model for distinguishing ecotourists from other tourists on the basis of two motivational criteria – an ‘attraction travel’ motivation to visit wilderness or undisturbed natural areas and a ‘social travel’ motivation of learning about nature. The ecotourist studies also found that ecotourists desired intense and lengthy levels of contact with nature, leading them to add a time dimension of at least one-third of the tourist’s vacation participating in firsthand nature experiences. Using this model, Ballantine and Eagles (1994) undertook a survey of 120 Canadian tourists who visited Kenya to take part in safaris and nature tours. Their results confirmed the earlier findings, with 84 per cent meeting all three criteria.

Kusler (1991) suggested that independent ecotourists comprised the largest number of ecotourists but were less visible statistically than those on organised ecotours. They were generally domestic tourists with families who camped or sought low cost accommodation. Accordingly, basing an ecotourist segmentation model on the motivations of commercial ecotourist groups might exclude this large segment. Saleh and Karwacki (1996) undertook research of independent ecotourists visiting a Canadian national park. A factor analysis of the important motivations of visitors indicated that their major travel motivations were to view a
natural setting and to learn more about the environment, which accorded with those of commercial ecotourists.

A study of United Kingdom ecotourists by Diamantis (1998 cited in Wight 2001) found that seeing the natural environment was the most important motivation for ‘frequent ecotourists’, with experiencing local cultures and lifestyles, travelling to wild places, and studying natural habitats also being important for at least 70 per cent of those tourists. The group described as ‘occasional ecotourists’ rated experiencing a new and different lifestyle as the most important motivation followed by exploring the area and being educated, increasing knowledge, and meeting new people. It is interesting to note that visiting an undisturbed natural environment was sixth on their list of important motivations but that education and increasing knowledge were rated second and third by this apparently less experienced group.

Wight’s (1996) study of North American ecotourists found a range of motivations but the most important were seeing the natural environment, engaging in outdoor activities and viewing wildlife. Other early studies in Australia of participants in both guided forest tours and independent state forest visits found that seeing the natural environment or nature appreciation were the top motivations but that learning about the environment was generally rated less highly (Blamey, 1995; Forestry Tasmania, 1994).

More recently, Kwan et al. (2008) analysed the motivations of ecotourists staying in ecolodges in Belize at three different price levels – budget, mid-price and upscale. Motivations were divided into two categories of attraction motivations and social motivations based on the Ballantine and Eagles (1994) model. The top motivations for all three groups in each motivation category were similar to earlier findings, with ‘tropical forests’ and ‘wilderness or undisturbed nature’ rating the highest attraction motivations and ‘learn and explore nature’ the highest social motivation.

Whilst it is apparent that the core ecotourism criterion of visiting a natural environment features highly in the motivations of all ‘ecotourists’ in these studies, it is less clear that the second criterion of learning about the natural environment is a primary motivation of ecotourists. As noted by Sharpley (2006), the motivations identified tend to relate to pull factors of the destinations (attraction motivations) with some focus on personal benefits sought by participants (social motivations). The third criterion of sustainability (or environmental concern) does not feature at all in the list of motivations. However, this may relate more to the questions asked in the various surveys rather than lack of concern on the part of the participants.

Juric et al. (2002) developed the Ecotourism Interest (EI) scale, which they suggested was useful for predicting if tourists will choose ‘eco-friendly activities’ (p. 259). The scale was based on the motivational elements of the Ballantine and Eagles (1994) model and included eight items which
respondents were asked to rate for importance when going on vacation. Results of the study indicated that the scale was predictive of participation in ‘eco-friendly activities’ such as walking in the bush, overnight tramping or trekking, and whale watching, and was not related to non-ecotourism activities such as wine tasting, gambling, and shopping. However, again it tells us little about the participants’ concern with sustainability of the activity or environmental issues.

**Environmental concern or values of ecotourists**

There has been a long-held view that tourists with motivations based on the first two criteria of ecotourism, as identified above, have values of care and concern for the environment which are linked to the sustainability criterion of ecotourism. To date, only a few researchers have analysed environmental attitudes or values as a means of identifying the ecotourist market. Blamey and Braithwaite (1997) adopted a ‘social values segmentation’ approach using a large sample of the general Australian public. In the survey instrument, ‘postmaterialism’ was used as a measure of ‘green’ values on the basis that individuals with postmaterialist values are more likely to favour environmental protection and adopt pro-environmental behaviour. Potential ecotourists were identified by an affirmative response to a question that asked if they would like to spend part of their next holiday increasing their understanding and appreciation of nature. The results indicated that the majority of respondents identified as potential ecotourists did not hold strong green values, with less than 20 per cent identified as postmaterialists.

Weaver (2002) surveyed former patrons of two rainforest ecolodges in Queensland, Australia. He used a number of Likert-scaled statements as a basis for a cluster analysis of the respondents. He identified 7.5 per cent of his sample as ‘hard-core ecotourists’ on the basis of their higher mean scores on a variety of items including those related to the nature-based and learning criteria of ecotourism. They also scored higher on sustainability statements such as wishing to enhance visited sites, supporting local economies, donating money for conservation and picking up litter, and on a number of socio-environmental values statements. These results indicated that only 7.5 per cent of respondents could be considered ‘true’ ecotourists in terms of the three core criteria of ecotourism.

By contrast, Zografos and Allcroft (2007) found a large percentage of ‘potential ecotourists’ in Scotland were ecocentric (or pro-environment) in their views. In this study potential ecotourists were not identified according to the usual motivational criteria of visiting natural areas and learning about nature but instead according to their predisposition to engage in an ecotourism experience defined as ‘responsible travel to natural areas that conserves the environment and sustains the wellbeing of local people’ (Zografos & Allcroft, 2007, p. 50). Using the New Ecological Paradigm (NEP) values scale, potential ecotourists were segmented into four groups, two ecocentric and two anthropocentric. Not surprisingly, results indicated that nearly 80 per cent of potential ecotourists identified on this basis held ecocentric views.
A Chinese study of nature-based tourists also revealed a positive correlation between ecotourism motivations and environmental attitudes based on the NEP scale (Luo & Deng, 2008). In this study, the NEP scale was factor analysed to reveal three factors labelled as ‘humans over nature’, ‘limits to growth’ and ‘ecocrisis’. The results indicated that nature-based tourists with ecotourist motivations of being close to nature and learning about nature scored higher on the limits to growth and ecocrisis factors, demonstrating a propensity to stronger pro-environment attitudes. Kerstetter et al.’s (2004) study of Taiwanese visitors to a wetland area found a similar relationship. They identified 40 per cent of visitors as ecotourists based on a clustering of factors related to education, nature and health motivations. When behavioural intentions were analysed, ecotourists were more likely than other tourists to purchase local products, maintain local environmental quality, help others learn about the wetlands, and join the local conservation association. On this basis, they concluded that 40 per cent of visitors to this natural setting ‘ascribe to the tenets of ecotourism’ (p. 497).

Whilst a number of studies have analysed both nature-based and learning motivations to identify ecotourists and then measured respondents’ attitudes or behavioural intentions towards various environmental premises, none have specifically determined the percentage of tourists that conform to the three core criteria of ecotourism using a numerical scale for the attitudinal element. This may have resulted in an over-estimation of the size of the ecotourist market. This research seeks to address this omission.

Method
This research was conducted in Lamington National Park in Queensland, Australia. A total of 243 visitors were surveyed at the commencement of their visit. The survey included commercial visitors staying at the two ecolodges in the park or visiting the park for a day by coach and independent visitors travelling by their own vehicle for a camping excursion or day visit. Convenience sampling was used on the basis that only visitors in the study area at the time were approached, but various methods were adopted to minimise sampling bias and ensure a certain amount of randomness as recommended by Veal (2005). For example, with independent day visitors, the researcher approached each vehicle that arrived after completion of the previous questionnaire. Guests staying at the ecolodges were approached on a ‘one-per-room’ basis on the day of arrival. A response rate of 72 per cent indicated that non-response or self-selection bias was minimal.

The aim was to identify ecotourists with regard to the first two criteria of ecotourism, nature-based and learning, using the Ballantine and Eagles (1994) model as a basis, and in addition to determine their environmental attitudes as a surrogate measure of their support for the third criterion, sustainability. Respondents completed a self-administered questionnaire which
included questions relating to their motivations for the visit, natural area involvement, and environmental attitudes.

A list of seven attraction motivations and seven social motivations, based broadly on the Ballantine and Eagles (1994) survey but linked more specifically to the area being visited, was included. The list of motivations differed slightly according to the different visitor types: commercial or independent, day or overnight. Respondents were asked to tick as many of these motivations as applied to their present visit. Four of these motivations, which were common to all questionnaires, were used as a basis for identifying the respondents as ecotourists as per the Ballantine and Eagles (1994) model. However, for this study the model was modified slightly to fit more realistically with the area and experiences of the groups that were surveyed, as set out in Table 1. As the area was not a wilderness area, three attraction motivations were used to indicate respondents’ desire to visit a ‘relatively undisturbed’ natural area. To determine their levels of natural area involvement, respondents were asked to indicate the proportion of their vacation that would be spent visiting natural areas, or if they were on a day visit to estimate the number of times per year they visited natural areas.

Table 1  Criteria used to identify ecotourists compared to Ballantine and Eagles (1994) model

<table>
<thead>
<tr>
<th>Ballantine and Eagles (1994) criteria</th>
<th>Criteria used in this study</th>
</tr>
</thead>
<tbody>
<tr>
<td>•  A primary social motivation of learning about nature</td>
<td>•  The social motivation ‘to learn about nature’</td>
</tr>
<tr>
<td>•  A primary attraction motivation of visiting wilderness/undisturbed areas</td>
<td>•  The attraction motivations ‘to visit a natural area’, ‘to visit a [natural] World Heritage area’ or ‘to visit a national park’</td>
</tr>
<tr>
<td>•  At least one-third of vacation participating in firsthand nature experiences</td>
<td>•  One-third or more of vacation spent visiting natural areas or, if not on vacation, visits natural areas more than 10 times per year</td>
</tr>
</tbody>
</table>

As it was considered that there may be different levels of compliance with the ecotourist motivations and natural area visitation as described in Table 1, an ecotourist classification was formulated as shown in Table 2. On this basis, only those classified as ‘complete ecotourists’ could be considered true ecotourists according to the first two core criteria of ecotourism – nature-based and learning.
Table 2   Ecotourist classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not an ecotourist</td>
<td>Respondent did not tick the ecotourist social motivation or any of the ecotourist attraction motivations</td>
</tr>
<tr>
<td>Peripheral ecotourist</td>
<td>Respondent ticked one of the ecotourist social or attraction motivations</td>
</tr>
<tr>
<td>Strong ecotourist</td>
<td>Respondent ticked the ecotourist social motivation and either ticked one of the ecotourist attraction motivations or spent one-third or more of vacation visiting natural areas or, if not on vacation, visits natural areas more than 10 times per year</td>
</tr>
<tr>
<td>Complete ecotourist</td>
<td>Respondent ticked the ecotourist social motivation, at least one of the ecotourist attraction motivations, and spent one-third or more of vacation visiting natural areas or, if not on vacation, visits natural areas more than 10 times per year</td>
</tr>
</tbody>
</table>

Environmental attitudes were measured using a scale based on the Ecological Social Paradigm (ESP) developed by Olsen, Lodwick and Dunlap (1992). The ESP scale was designed to overcome the limitations of earlier paradigm scales and includes four indicators of ecological beliefs drawn from the New Environmental Paradigm (NEP) scale of Dunlap and Van Liere (1978) and four indicators of ecological values drawn from the Alternative Environmental Paradigm of Cotgrove (1982). The emphasis is on human relationships with the total ecosystem rather than on specific environmental concerns. The original ESP scale contains eight sets of opposing statements and for each set respondents are asked to indicate where their own personal belief or value lies on a five-point Likert scale between the two statements. In this study, the scale was reduced to eight single statements, four pro-ESP and four anti-ESP, with each category comprising two belief statements and two value statements, as set out in Table 3. Respondents were asked to indicate their level of agreement with each statement on a five-point scale from strongly agree to strongly disagree. Overall scores were calculated and categorised as non ESP holder, weak ESP holder, moderate ESP holder, or strong ESP holder. On this basis, respondents categorised as strong ESP holders were considered to have strong pro-environment attitudes.
Table 3  Ecological Social Paradigm (ESP) statements used in this study

<table>
<thead>
<tr>
<th>Pro-ESP statements</th>
<th>Anti-ESP statements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beliefs</strong></td>
<td><strong>Beliefs</strong></td>
</tr>
<tr>
<td>The earth is like a spaceship, with limited room and resources.</td>
<td>People must learn to control nature in order to survive.</td>
</tr>
<tr>
<td>Modern industrial countries are very seriously disturbing the balance of nature.</td>
<td>Because we are human, we are exempt from the laws of nature that apply to other species.</td>
</tr>
<tr>
<td><strong>Values</strong></td>
<td><strong>Values</strong></td>
</tr>
<tr>
<td>Nature should be preserved for its own sake.</td>
<td>The environment should be changed to meet people’s needs.</td>
</tr>
<tr>
<td>Environmental protection should be given priority over economic growth.</td>
<td>Natural resources should be used primarily for the benefit of the present generation.</td>
</tr>
</tbody>
</table>

Source: Adapted from Olsen, Lodwick & Dunlap (1992).

Results
Results set out in Table 4 indicate that only 15.6 per cent of respondents could be classified as complete or true ecotourists. Indeed, one-third of visitors were considered not to be ecotourists at all. In other words, they were visiting the area for other than ecotourist motivations of seeing or learning about nature and did not accord with the time dimension regarding natural area involvement. Another 40 per cent were classified as peripheral ecotourists and therefore had only one of the motivations associated with the nature or learning criteria of ecotourism.

Table 4  Ecotourist classification of respondents

<table>
<thead>
<tr>
<th>Ecotourist classification</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not an ecotourist</td>
<td>81</td>
<td>33.3</td>
</tr>
<tr>
<td>Peripheral ecotourist</td>
<td>105</td>
<td>43.2</td>
</tr>
<tr>
<td>Strong ecotourist</td>
<td>19</td>
<td>7.8</td>
</tr>
<tr>
<td>Complete ecotourist</td>
<td>38</td>
<td>15.6</td>
</tr>
<tr>
<td>Total</td>
<td>243</td>
<td>99.9</td>
</tr>
</tbody>
</table>

Note: Percentages do not add to 100 due to rounding.
As illustrated in Table 5, 36.8 per cent of complete ecotourists had strong pro-environment attitudes as measured on the modified ESP scale. This means that only 14 respondents or 5.8 per cent of the sample had motivations or attitudes that complied with the three core criteria of ecotourism: nature-based, learning and sustainability. It is also interesting to note that no significant differences were found among the different ecotourist classification groups in terms of pro-environment attitudes.

Table 5  Pro-environment attitudes by ecotourist classification

<table>
<thead>
<tr>
<th>Ecotourist classification</th>
<th>Pro-environment attitudes (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non/weak ESP holder(^a)</td>
</tr>
<tr>
<td>Not an ecotourist</td>
<td>30.9</td>
</tr>
<tr>
<td>Peripheral ecotourist</td>
<td>23.8</td>
</tr>
<tr>
<td>Strong ecotourist</td>
<td>36.8</td>
</tr>
<tr>
<td>Complete ecotourist</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Chi-square = 8.886, df = 6, p = 0.1801

\(^a\) As few respondents scored in the non ESP holder category, this category was combined with the weak ESP holder category.

Discussion

All of the respondents in this research could be considered ecotourists on the basis that they were taking part in an activity that included the three core criteria of ecotourism. The setting was a national park and hence was considered a natural setting; all visitors had access to environmental education or interpretation provided either by the national park management authority or the commercial operators; and both the park and the operators were attempting to achieve ‘sustainability best practice’ in their operations (Weaver, 2008, p. 16). However, when the participants were differentiated according to their motivations and level of involvement based on the nature-based and learning criteria of ecotourism as per earlier ecotourist segmentation studies, just under 16 per cent of visitors were considered ecotourists. When they were further differentiated according to their environmental attitudes as a measure of their concern about the sustainability criterion of ecotourism, less than 6 per cent could be considered true ecotourists. This is a much lower percentage of true ecotourists than identified by Blamey and Braithwaite (1997), Zografos and Allcroft (2007) and Kerstetter et al. (2004), and can perhaps be explained by the different methods of identifying ecotourists and measuring ecological values that were used by these studies. For example, Zografos and Allcroft (2007)
found that nearly 80 per cent of ‘potential ecotourists’ held pro-environment views or values, but this result is not surprising when identification of potential ecotourists for their study was based on the sustainability criterion of ecotourism rather than on the nature and learning criteria. The results of the present study are similar to Weaver’s (2002) finding, which identified only 7.5 per cent as hard-core or true ecotourists based on a number of motivational variables related to the three core criteria of ecotourism.

It could therefore be concluded that identification of the ecotourist market in the past, which concentrated on the first two criteria of ecotourism, resulted in an inflated estimate of the size of this market segment. In addition, in this study there was very little difference in pro-environment attitudes between those who were actually not considered to be ecotourists at all, those who had some ecotourist motivations and those who were considered complete ecotourists according to motivational and activity elements. This lends support to both Wheeller’s (2005) and Sharples’ (2006) views that ecotourists are no more concerned about environmental and sustainability issues than mainstream tourists.

These findings may account for the apparent downturn in the popularity of pure ecotourism products and the recent focus of governments on nature-based tourism in their general tourism planning documents rather than producing specific ecotourism plans. As Sharples (2006) noted, there has been little evidence in existing research that the growth of ecotourism was demand-led and this research tends to confirm that conclusion. Whilst a number of accredited and highly reputable ecotourism products still exist, and many tourists are motivated by seeing and learning about nature, the demand for products that focus on issues of sustainability in their environmental design and management may be relatively low. These highly accredited ecotourism products tend to be at the upper end of the price scale and, accordingly, when visitors have the choice of nature and learning experiences at a lower cost they are more inclined to make their holiday decisions on this basis rather than choosing a recognised sustainable product at a higher cost. To keep their higher spending clientele, such operations have had to diversify to cater to the luxury end of the market that requires additional services such as health and beauty, weddings and events, wine and gourmet, and adventure activities.

**Conclusion**

This research has identified ecotourists based on their motivations and activities according to the nature-based and learning criteria of ecotourism but has then gone on to measure the pro-environment attitudes of those identified as a measure of their support for the sustainability criterion. Even on motivational and activity grounds, the number of ecotourists was found to be low but the number was even lower when their ‘green’ credentials were taken into consideration. The results tend to confirm Sharples’ (2006, p. 19) view that trying to identify people as ecotourists is difficult and that the term ‘is becoming increasingly meaningless’. The results may also help explain the decrease in focus on a distinct ecotourism segment and the
diversification of many ecotourism products into ancillary services and activities. In addition, other motivations may be just as dominant as the motivations that have traditionally been linked to the ecotourism criteria and therefore whether the ecotourism product or experience conforms to the three core criteria is not relevant to the tourist.
References


